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**Unit-1**

**Characteristics of Transport System**

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**Structure:**

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**1.7 Summary**

**1.0 Objectives:**

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After reading this unit, you will be able to:

- Discuss the meaning, concept and definition of transportation;
  - Explain transport as a product in tourism;
  - Explain different elements of transportation;
  - Describe the characteristics of transportation; and
  - Explain various organizations in the transport sector in India.
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**1.1 Introduction:**

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Tourism involves people's movement; therefore, the relationship between transportation and tourism development is vital to tourism studies. Transportation is an essential component of tourism and its development. It can be said that the concept of travel came about with the invention of transportation facilities. The development of new, more efficient and speedier means of transportation and improved communication facilities have resulted in more travel by people, growth of trade and commerce and increased traffic volume. The movement of large numbers of people from one place to another, from one country to another, and across the continents has been possible only because of advance development in means of transportation, such as ships and luxury ocean liners, trains, motorised transport and aeroplanes. These have made one's world smaller in general, and now there is no place one cannot reach quickly and conveniently. Tourist travel is a manifestation of spatial interaction and implies a movement away from the place where people usually live and work. Both movement and communication are basic to the process of spatial interaction. Tourism activity is intimately dependent upon transportation and communication since distance and time greatly influence it. Transport, which makes travel possible, is an integral part of tourism (Robinson, H., 1976, p.94).

The most crucial function of transport relates to accessibility. It is one of the decisive factors determining the actual or potential importance of a geographical unit as a tourist destination. "Accessibility is a function of

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distance from centres of population, which constitute tourist markets, and of external transport and communication, which enables a destination to be reached." (Burkart and Medlik, 1974, p.44).

Adequate transportation infrastructure and access to generating markets are the most essential prerequisites for the development of any destination. A tourist resort's accessibility is an outcome of two factors: price (in absolute terms as well as in comparison with other competing resorts) and time (the actual or perceived time taken to travel from one's origination point to the destination).

In most cases, tourism has been developed in areas where extensive transportation networks were in place and potential for further development was available. The fact that in most destinations worldwide, the traveller can find adequate hospitality and leisure facilities close to terminals demonstrates this point. On the other hand, tourism demand has stimulated rapid development of transportation. Millions of tourists expect to be transported safely, quickly and comfortably to their destinations at a reasonable cost. The transportation industry has had to adjust to accommodate this increasing, sophisticated demand. In response, technology has allowed new forms of fleet to be produced rapidly; there have also been radical improvements in the quality of transport services for tourism in the last few decades. Air travel, in particular, has made medium and long-distant destinations accessible on both these counts, to an unimaginable extent. In doing so, it has substantially contributed to mass-market international tourism, with its consequent benefits and drawbacks for the receiving nations.

Public transport, while an integral sector of the tourism industry, must also provide services which are not dependent upon tourist demand. Road, rail and air services all owe their origin to the government's mail service and the carriage of freight - whether separate from or with passengers - provides a significant and sometimes crucial contribution to a carrier's revenue. It should also be recognized that many carriers provide commercial or social services due, to some extent, to tourism demand.

Road and rail carriers, for example, provide essential commuter services for workers travelling between their respective places of residence and their place of work. These carriers, including airlines as a remoter provide an essential social and economic service by linking outlying rural areas with centres of industry and commerce, thus ensuring a communication lifeline for residents. The extent to which carriers can or should be commercially oriented while simultaneously being required to provide a network of unprofitable social routes present a continuing problem for government transport policy.

Most forms of transport are highly capital-intensive. Building and maintaining tracks in the case of railways and regularly re-equipping airlines with new aircraft embodying the latest technological advances requires massive investment, generally available only to the largest corporations that may call for financial subsidies from the public sector. At the same time, the transport system offers excellent opportunities for economies of scale, where the unit price of each mode of transport can be dramatically reduced. There is a high element of fixed costs. For example, for an airline operating out of a particular airport is the same whether the airline operates flights four times a day or once a week. If these overheads are distributed over more flights, individual seat costs per flight will vary. The economies of scale are one of the causations. However, there comes a point where the growth of organizations can result in diseconomies of scale, which may offset many of the benefits resulting from the size. There is the inability of some leaner airlines to compete with major ones because major airlines, for reasons of prestige, are likely to opt for extensively furnished high-rent city-centre offices, imposing an added burden on overheads.

Apart from the role that transportation plays in destination development, it is also recognized as a vehicle in the socio-economic development of any nation. It is universally recognized that transport is crucial for sustained growth and modernization. The adequacy of this vital infrastructure is an

essential determinant for the success of a nation's efforts in diversifying its production base, expanding trade and linking resources and markets into an integrated economy. It is also necessary to connect villages with towns and market centres and bring together remote and developing regions closer to one another. Transport, therefore, forms an essential input for the overall development of any nation. An efficient transport system is a pre-requisite for sustained economic development. It is the critical infrastructural input for the growth process and a significant means of promoting national integration, which is more important for a large country like India. The transport system also plays an essential role in promoting the development of backward regions and integrating them with the mainstream economy by opening them to trade and investment. In a liberalized set-up, an efficient transport network is critical to increase productivity and enhance the economy's competitive efficiency in the world market.

Transport demand (freight and passenger) is linked to economic activity and development needs. It runs parallel to the growth of GDP. A higher rate of growth will lead to higher transport demand. However, as GDP growth results in economic activity dispersal, the demand for transport will go up further. The demand for transport services is also affected by the structural changes that are taking place in the Indian economy. As per Transport and Communications Bulletin for Asia and the Pacific (No. 73, 2003), the share of high-value, low-volume commodities has been increasing, which in turn demands more flexible modes of transport.

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### **1.2 Concept of Transportation - Meaning and Definition:**

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In its simplest form, transportation is the movement from one place to another. One of the most accepted definitions of transportation is 'the means to reach the destination and also the means of movement at the destination' (Burkart and Medlik, 1981, p.47). This broad definition allows us to distinguish between numerous transportation services. It also emphasizes the functional element of the transportation services:

passenger movement from point A to point B. As transport is viewed as part of leisure, the quality of the journey is at least as important as the act of movement itself. For some categories of visitors, the trip is seen as an attraction in its own right and, indeed, as part of the tourist experience. The views from a coach or the excitement of flying are both examples of the utility of travel.

If we interpret the tourist product, in its broadest sense, as everything that the visitor consumes at the destination and en route to the destination, transport provides some critical elements of the product. For example, as part of an all-inclusive tour, transport provides a valuable proportion of the total cost to the tour operator. Even for short-haul destinations, transport may represent up to 55 percent of the total cost, but the proportion may even exceed this for long-haul locations. Once the destination is accessed, independent visitors use taxis, domestic air, rail or ferries and possibly scheduled coach services, whereas both packaged and independent visitors may purchase local tours, which are often based on the coach. We can use visitor expenditure figures to illustrate the importance of transport as an element of the product – transport at the destination can represent as much as 15 per cent of the international visitor expenditure within most European countries and the USA.

Increasingly, there are instances of transport, both within and between countries, becoming an attractive tourist product in its own right. Examples include the following:

- **Railway products** - The Palace on Wheels (India), The Blue Train (South Africa), EURAIL (Europe), etc.
- **Air Products** - Short trips to Concorde, Nostalgic flights in Vintage Aircraft, etc.
- **Sea Product** - Cruising, particularly themed cruising such as Carnival Cruise Line products.

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**1.3 Transports as a Product and Its Functional Role:**

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For charter airlines and touring coaches, the transport element is no more than a component of the overall tourist product, and the marketing of such products is not usually the responsibility of the transport operators. Any specific service or product offered to customers represents a combination or 'bundle' of components available at a specified price. The main components in the transport bundle are service availability and convenience, reflecting routes, schedules and capacity; the design and performance of the vehicle; comfort; and any services offered in transit; passenger handling at terminals; and convenience of booking and ticketing arrangements. Therefore, by contrast, whatever links they form with other elements of the overall product, all transport operators have to compete for a share of the total passengers in the market with specific products based on their services and route networks.

Viewed from the customer's standpoint, transport products, such as airlines or sea ferries, owing to close attachment of services, tend to be remarkably different and various compared to the products offered. However, at the same time, due to characteristics of variability, the quality of services varies to a larger extent. It is difficult to standardize and evaluate, which leads to an obvious problem for marketing managers, and it is interesting to note the reasons for it. In a closely regulated transport environment, formal and informal agreements between governments, other regulatory bodies, and other transport operators produce virtual uniformity in the essential components of the formal product. In the case of international air transport, until the early 1970s, almost every aspect of the product, from price down to the smallest detail of in-flight services, was covered by agreements. The products were commonly offered in identical aircraft with the same cabin layouts. In a more liberated or deregulated climate, the same equipment, shared terminals, and price competition still produce virtual uniformity in the formal product. As a result, most airline advertising has tended to focus on corporate image and

the quality of service rather than on promoting specific products. Apart from apparent distinctions between first-class, business-class, and economy-class products, and with the limited but traditional approach to product formulation based on analysis of the supply components, it now appears rather sterile.

A more fertile approach to understanding transport products appears in the demand analysis. This customer segmentation approach works from the profiles, attitudes, and behaviour of the identified groups in the total market with which the transport operator is concerned. While the main components of supply remain the same as before, there is a differentiation in the formulation of transport products in customer-oriented product augmentation. From this standpoint, an operator's portfolio of products is best approached as a portfolio of customer segments. The operator's knowledge of the profile and needs of these segments is the logical basis for effective marketing strategy and tactics. Such knowledge requires a massive commitment to customer research. However, the same research also identifies links with either element of the tourist product, which can be exploited for marketing purposes.

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**1.3.1 Functional Role of Transport in the Overall Tourist Product:**

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Although transport is one of the five integral elements of travel and tourism products, modern transport is not usually a part of the motivation or attraction of a destination visit. Some exceptions exist, such as steam railways, the Orient Express, or cruise ships, although the latter are better viewed as moving hotels, floating hotels or resorts rather than as forms of transport. As Holloway described it, the transport element is only an 'enabling condition', that is to say, a functional element that is essential to the existence and growth of tourism but not a sufficient reason for travel. The role of transport in leisure travel was not always so functional. In the pioneering days of public and private transport, journeys of all kinds, especially those by air and sea, could be presented as exciting, glamorous, and romantic. The journey was an adventure and an essential part of travel

motivation. However, by the 1970s, except for first-time travellers by air and sea, the journey had lost most, if not all, of its earlier magic. Experienced travellers, especially those on business trips, increasingly see the journey element as a necessary but often unpleasant part of the overall trip. Journeys by public transport have to be paid for in terms of money, as well as the stress and strain of heavily congested access routes, queuing in crowded terminals, and increasing risk to personal safety. When using private transport, the strain of driving along congested trunk routes and of finding parking space at the destination has removed most of what was once the glamour of the open road. This changing attitude towards one element of the overall travel and tourism product is most evident among frequent business travellers. However, it has many implications for transport marketing, especially how product 'benefits' are presented to prospective customers. In particular, it encourages transport operators to move closer to destination interests, which provide the principal motivation for journeys.

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### **1.4 Elements of Transportation:**

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The elements of transportation vary for each transportation mode and vehicle, but generally, there are four essential elements in any transportation system. These are:

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#### **1.4.1 The Way:**

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The way is the medium of travel used by a transport mode. It may be purely artificial, such as roads and railways, or natural, such as air or water. Roads, railways and inland waterways restrict vehicle movement to a specific pattern, while air and sea allow flexibility. However, international regulations delineate both sea and air corridors and routes. Standard operating procedures are applied worldwide to limit the freedom of these ways. In considering transport modes, the availability of the way is crucial in the case of roads, railways and inland waterways, where substantial investment would be needed to provide them. In the

case of water and air, this is not an issue except for air traffic control procedures.

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**1.4.2 The Terminal:**

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The terminal represents the second essential element of a transport mode, giving users access to the way or acting as an interchange between different types of ways. The farthest point the transport system extends is the end of the line. The most straightforward terminal is parking for a private car, while the most complex one is an airport. Most terminals are becoming integrated transportation points as they can act as interchanges where travellers can transfer between vehicles to modes. Airports, for example, can be used as transfer points between two aircraft or other modes of travelling, such as the car or train. The design of terminals and the amenities they offer depend heavily upon the type of journey and transportation involved. Although we can observe a general trend towards developing integrated terminals that cater to all the travellers' potential needs, we need sophisticated points such as terminal coaches that can operate from roadside locations to cope with dynamic changes and transformations in the transport sector.

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**1.4.3 The Carrying Unit:**

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The carrying unit is the actual transportation media- the vehicle facilitating movement. Each 'way' demands a distinctive carrying unit- aircraft for the sky, ships for the sea, motor vehicles for roads and trains or trams for railways. The nature of carrying units is influenced by numerous factors, including travel demand, the technology available, and other elements of the mode, e.g., motive power. In the last few decades, developments have occurred in the carrying units, which are designed to achieve greater efficiency and consumer satisfaction. Flexibility is equally important-- vehicles increasingly need to be altered easily and quickly to accommodate changing tourism demands. Executive style coaches with on-board services are an example of such transformation.

**1.4.4 The Motive Power:**

Motive power is perhaps the critical element in transportation development. The natural power of horse-drawn carriages and sailing vessels provided the initial energy for transportation. The exploration of steam power provided the opportunity to introduce steamships and railways, while the internal combustion engine stimulated the development of road and air transportation. Finally, jet propulsion enabled air transportation to be competitively priced and gave aircraft speed and range. However, even today, many holiday activities, such as cycling, pony trekking, and sailing,, involve human-generated motive power as part of the recreational activity. Motive power is closely related to several issues, such as the capacity, type of the carrying unit, demand, desired speed and range of the vehicle, etc. As the operation costs have been modified, the engine has become more fuel-efficient and reliable to ensure safety.

**1.5 Organizations in the Transport Sector at the National Level:**

The organizations and institutions in the transport sector, their roles and functions, and relevant governing acts are given in their activities. Table 1.1

**Table 1.1  
Organizations in the Transport Sector at the National Level**

Organizations	Functions	Relevant acts
<b>Roads</b>		
Ministry of Road Transport and Highways	Development of road transport infrastructure and national highways and overall regulation of freight road transport in the country	Motor Vehicles Act 1988, Central Motor Vehicle Rules, 1989
National Highway Authority of India	Development and maintenance of National Highways in the country	National Highways Act, 1995
Roads Department of State Governments	Development and maintenance of State Highways in the country	VII Schedule of the Indian Constitution (Article 246), List II (State List), Item 13
<b>Ports, Shipping and Inland Water Transport</b>		

Ministry of Shipping	Coordination of various activities related to Ports, Shipping and Inland Water Transport	
National Shipping Board	Advisory Body to the Ministry	Merchant Shipping Act,1958
Director General, Shipping	Implementation of various provisions of the Merchant Shipping Act of 1958 and of various international conventions relating to safety and mandatory requirements under the International Maritime Organization	Merchant Shipping Act,1958
Port Trusts	Managing day-to-day activities of individual significant ports in the country	Central Ports Trust Act,1963
Inland Water Way Authority of India	Regulation and development of National Water Ways for Shipping and Navigation	Inland Waterways Authority of India Act, 1985
Transport Department, State Governments	Regulation and development of waterways other than National waterways for Shipping and Navigation	VII Schedule of the Indian Constitution (Article 246), List II (State List), Item 13
Tariff Authority for Major Ports	Independent regulation of tariff setting in Major Ports	Central Ports Trust Act,1963
<b><i>Civil aviation</i></b>		
Ministry of Civil Aviation	Planning and development of infrastructure for regulating air traffic. Responsible for Airport Authority of India, Director General of Civil Aviation and Bureau of Civil Aviation Security	Air Corporation Act, 1953
Airport Authority of India (AAI)	AAI provides infrastructure and facility for Air traffic. It is also responsible for maintaining domestic and international airports and civil enclaves at Defence Airports.	Airport Authority of India Act, 1995
Director General of Civil Aviation/Bureau of Civil Aviation Security	Perform regulatory functions.	
<b><i>Railways</i></b>		
Ministry of Railways	Planning and development of railway infrastructure.	Railway Act, 1989

**Source:** Transport and Communications Bulletin for Asia and the Pacific No. 73, 2003.

The allocation of responsibilities between the Central and State government agencies in this sector is based on the principle of federalism. Similar is the case in the urban transport sector. The management of the urban areas in India is essentially the responsibility of the state governments, even though the 74th Constitutional Amendment devolves urban transport development to local bodies. Urban transport as a subset of urban development is primarily the responsibility of the State Governments, though some agencies, such as the Indian Railways, play an essential role in urban transport planning work under the Central Government with no accountability to the State Governments.

Integrated transport policies that consider alternative approaches to meeting commercial and private mobility needs are:

- Integrating land-use and urban and rural transport planning, taking into account the need to protect ecosystems.
- Improving the efficiency of transportation and related sectors.
- Accelerating phasing-out of the use of leaded gasoline.
- Promoting voluntary guidelines for environmentally-friendly transport and action for reducing vehicle emissions.
- Fostering partnerships at the national level to strengthen transport infrastructure and develop innovative mass transport schemes.

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### **1.6 Characteristics of Transportation Services:**

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Transportation is necessary to move more people from one place to another. In doing so, however, transportation provides a service with some unique characteristics. The principal characteristics of service may be summarized as intangibility, inseparability and perishability variability.

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#### **1.6.1 Intangibility:**

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Unlike physical products, services cannot be seen, tasted, felt, heard or smelled before they are purchased. Before boarding an aircraft, airline passengers have only an airline ticket and the promise of safe delivery to their destination. To reduce service intangibility, buyers look for tangible

evidence, information and confidence about the service for which prospective customers use various informational tools, such as the internet, advertisements, global distribution systems etc.

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**1.6.2 Inseparability:**

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In transportation services, inseparability means that the act of production and consumption must be simultaneous. The performance of the service requires the active participation of the producer and the consumer together. Moreover, production and consumption also occur on the premises or in the equipment, i.e., aircraft or coaches, not in the consumer's home environment. This means that most staff involved in providing services or operations have some consumer contact and are seen by customers as an inseparable aspect of the service. The inseparability of production and consumption is thus a vital concept in services.

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**1.6.3 Perishability:**

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It is convenient to treat perishability as a separate characteristic of services, although it follows from the fact of inseparability that service production is typically fixed in time and space. This means that if service, capacity or products are not sold on a particular day, their potential revenue Service production,, therefore, is better understood as the capacity to produce, not a number of products. Capacity can be utilized only when customers are present on the producers' premises.

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**1.6.4 Variability:**

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Transport having a dominant role in services is highly variable. Their quality depends on who provides them and when and where they are provided. There are several causes of service variability. Services are produced and consumed simultaneously, which limits quality control. Fluctuating demands make it challenging to deliver consistent products during periods of peak demand. The high degree of contact between the service provider and passengers means that product consistency depends upon the service provider's skills and performance during the exchange.

The lack of communication and heterogeneity of passenger expectations is another source of variability.

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### **1.6.5 Seasonality and Demand Fluctuations:**

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Demand fluctuation between the year's seasons is characteristic of most tourism markets and destinations. Residents of northern Europe and northern states of the USA tend mostly to plan their main holiday of the year in the summer months of the year, i.e. June to August, because the winter months of December to March are generally cold and hours of daylight are short. In contrast, India as a destination has a peak season from September to March, owing to the best climatic conditions that support tourism activities. As a result, various airlines, railways, and cruises offer special packages during this season. Even during the off-season, to overcome the seasonality problem, the various tourism industry players offer special discount packages. Even during special events like Christmas and New Year, there are special offers from the transport providers in the industry.

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### **1.6.6 Interdependence of Tourism Products:**

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Most tourists make their travel purchase decisions by combining several services or products. A vacationer chooses attractions at a destination together with the products of accommodation, transport and other facilities such as catering. Therefore, the sale of tourist transport suppliers is influenced to some extent by marketing decisions made by tour operators and travel agents, hoteliers, and tourist boards, which together or separately promote a destination and its activities and facilities. For example, any tourist destination with unique tourist attractions and good infrastructure offers ample scope for tourist service providers such as local transport providers, hotels and other accommodation units, restaurants and catering establishments, etc.

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### **1.6.7 The Dominance of the External Environment:**

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The external environment surrounding any business dominates the producer's marketing decisions. Similarly, the marketing decisions of

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transport operators are influenced by their response to six specific external factors, over which they have only minimal control. These factors are below:

- Vehicle technology (major innovations)
- Information technology
- Regulatory environment
- Cost of fuel
- Economic growth or decline (national and international economy)
- Exchange rate fluctuations

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**1.6.8 Highly Capital Intensive and Economies of Scale:**

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Most forms of transport are highly capital-intensive. The cost of building and maintaining tracks in the case of railways and of regularly re-equipping airlines with new aircraft embodying the latest technological advances require massive investment available only to large corporations, and investors may seek financial subsidies from the government. At the same time, transport offers excellent opportunities for economies of scale, where unit prices can be dramatically reduced. There is a high element of fixed costs. For example, the fee charged by an airline operating out of a particular airport is the same whether it operates four flights a day or once a week. If these overheads are distributed over more flights, individual seat costs per flight will be reduced. The economies of scale are one of the causes. However, there comes a point when the growth of an organization can result in diseconomies of scale, which may offset many of the benefits resulting from the size. Some major airlines are unable to compete with leaner airlines. For prestige reasons, major airlines are likely to opt for extensively furnished high-rent city-centre offices, imposing an added burden on overheads.

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**1.6.9 Impact of National and International Regulations:**

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In transport as a product, the dominating influence of service determines its quality. Amenities provided to passengers travelling between two or more points, such as comfort, luxury, food and beverage service, etc.,

influence the quality of service. Passengers may also judge transportation based on other elements such as speed, frequency, points served, dependability, safety, etc.

For many destinations, transportation plays a vital role in developing a viable tourism industry in terms of transportation of tourists to, from and within destinations and transportation of goods (cargo) such as, food and supplies needed to support tourism operations. Without ample and convenient access between tourist's originating and intended destination, developing these locations would be nearly impossible.

There are different modes of transportation based on the the physical characteristics of the service offered and transportation carrier's operations. However, all the modes of transportation, viz. air, road, rail and water, are regulated similarly. Regulations can be economic or non-economic. Economic regulations focus on routes served, frequency and capacity of service provided and the fares or rates charged by carriers. Non-economic regulations, on the other hand, focus on aspects such as safety, certification of carrier, personnel and traffic control. Nearly all carriers have some form of domestic transportation regulations, with international transportation regulations being more complex.

Internationally, the degree of economic regulation varies by mode of transportation. International airlines have traditionally been heavily regulated for both economic and non-economic reasons. Cruise lines, however, have seen little in the way of economic regulations. However, varying safety regulations exist depending on where the ships are registered. The rail and road modes have also been regulated internationally when vehicles transit between nations. The significant reasons for these economic regulations and bilateral agreements were designed to protect the national flag carrier and limit competition from foreign airlines. Restrictions were placed on the fares, routes, rules and carriers in particular markets. Most nations also had strict restrictions on the merger between home carriers and foreign airlines. Additionally, the extent of foreign ownership allowed for a home airline has been limited.

As pressures of globalization on air services have increased, many countries have relaxed their economic regulations and allowed more competition. Approaches to these changes have varied from total immediate airline deregulation to liberalization in which the transition is made slower, as in the US and, Canada and the European Union. Open Sky agreements, which promote a free market approach to international air service agreements, have become more widespread worldwide. These changes have allowed international airlines to enter into strategic alliances with each other, provided that such cooperative agreements are legal and do not violate the nations' existing anti-merger and acquisition laws. One intended outcome of these alliances is to allow seamless service in which passengers can buy a single ticket, check their baggage once and fly across the world via several airlines. The member airlines coordinate their schedules to minimize passenger waiting time, increase load factor, and improve the economic viability of the service. Participating airlines also integrate frequent flying programmes and airport lounge privileges and may also combine elements such as aircraft maintenance, purchasing reservations and catering functions. The economic rationale for these alliances includes economies of scale, density and scope, declining unit cost and offering more competitive service. An example of the largest global alliance to date has been the Star Alliance, in which Air Canada, Lufthansa, Scandinavian Airline System, Thai International, United Airlines and Varig are members. This vast global network allows passenger and air cargo to reach almost any place in the world with the assurance of consistently high standards of service and safety. Therefore, as the demand for tourism grows, the transport sector will require a dynamic system to keep pace with the growing challenges of expanding the tourism industry with vast, diverse requirements.

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**1.7 Summary:**

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Tourism involves people's movement, and consequently, the relationship between transportation and tourism development is a vital aspect of

tourism studies. Transportation is one of the decisive factors determining the actual or potential importance of a geographical unit as a tourist destination. Adequate transportation infrastructure and access to generating markets are essential prerequisites for developing any destination. In most cases, tourism has been developed in areas where extensive transportation networks were in place and potential for further development was available. The fact that in most destinations worldwide, the traveller can find adequate hospitality and leisure facilities close to the terminals demonstrates this point.

On the other hand, tourism demand has stimulated rapid development of transportation. As millions of tourists expect to be transported safely, quickly and comfortably to their destinations at a reasonable cost, the transportation industry has had to adjust to accommodate this increased and sophisticated demand.

Transportation, in its simplest form, is the movement of freight and people from one place to another. One of the most accepted definitions of transportation is the means to reach the destination. Transportation as a product has a dominating role, and owing to the close link of service character with transportation, it has several unique characteristics. The principal characteristics of service products may be summarized as Intangibility, Inseparability, Variability and Perishability. Besides these, the external environment dominates transportation as a product.

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### **1.8 Answer to Check Your Progress:**

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1. Ministry of Shipping.
2. Major Ports Trust Act, 1963.
3. Inland Water Way Authority of India
4. Regulatory
5. Ministry of Railways.
6. 1988.
7. Way, terminal, carrying unit and motive power
8. Surface/ railway.

**1.9 Suggested Readings:**

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**1.10 Review Questions:**

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1. What is transportation? How is it related to tourism?
2. Explain the essential elements of transportation.
3. What are the various characteristics of transportation?
4. What are the factors that affect transportation?
5. Explain service characteristics of transport as a tourism product.

6. Explain the importance and significance of transportation in developing tourist destinations.

**Unit-2**

**Types and Modes of Tourist Transport**

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**Structure:**

**2.0 Objectives**

**2.1 Introduction**

**2.2 Modes of Travelling**

**2.2.1 Road Transport**

**2.2.2 Rail Transport**

**2.2.3 Air Transport**

**2.2.4 Water Transport**

**2.3 A Competitive Analysis**

**2.3.1 Road Transport**

**2.3.2 Railway Transport**

**2.3.3 Water Transport**

**2.3.4 Air Transport**

**2.4 Modern Transport Systems Used In Tourism**

**2.5 Factors Affecting Visitor's Choice of Mode of Transport**

**2.6 Summary**

**2.0 Objectives:**

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After reading this unit, you will be able to:

- Define the various modes of transport;
  - Discuss the various modes of transport;
  - Explain the transport systems used in tourism and
  - Discuss the factors affecting visitor's choice of various modes.
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**2.1 Introduction:**

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Transport is one of the five integral elements of the overall travel and tourism product. Transport and tourism development shows that they are closely interrelated and their evolution has occurred in several identifiable eras.

These "eras" have been separated into six groups by J.O.J. Lundgreen, namely, "the pre-industrial travel system, the early industrial era travel system, the mature railway system, the express travel system, the automobile-based travel system (individual travel diffusion) and the modern tourist travel system." A seventh era, the "post-mobility adjustment period", as a consequence of energy-related problems, was later added to it in the context of North America.

There was little travel system in the pre-industrial era, which was both arduous and dangerous. The road infrastructure was poor. Travel was primarily undertaken for trade, commerce and religion. The Middle Ages saw the emergence of the stagecoach, the wayside inn, a few common carriers and non-scheduled transportation services. Still, travel was limited to only a tiny proportion of the population. Rapid advances in transportation technology and the development of the railway and steamer services resulted in the availability of common carriers, scheduled transportation services and a consequent increase in travel.

However, it has to be understood that the development of transport systems by road, rail, inland water, sea or air has not usually been associated with travel for leisure purposes. Historically, transport design and development owe their impetus to the need to move goods and mail,

administer countries and empires, move armies and military equipment; and move people more efficiently in their day-to-day lives. Most transport systems are still primarily geared to business, administrative and military interests, but in the later part of the twentieth century, they extended their orientation towards leisure and recreational travel. The reasons for this shift reflect the operator's need to develop into new and growing markets for transport products and to utilize surplus capacity, both overall and at times of otherwise slack demand. Typically, this gave the scope for creating new products within various modes of transportation.

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**2.2 Modes of Travelling:**

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The most obvious way of analyzing transport is by mode, which denotes how transportation takes place. (Cooper, *Tourism Principles and System*, p.176). There are 4 significant modes of travelling:

- Road
- Rail
- Water
- Air

Some modes may be further distinguished by transport to the destination instead of at the destination.

To a substantial extent, the visitor's choice of mode of transport is related to the purpose of travel. Table 2.1 provides a structure for the consideration of these relationships that explains modes of transport and visitor type with examples of the product types:

**Table 2.1**

Visitor Type	Mode of Transportation						
	Road		Air		Sea Water		Railway
	Car	Coach	Scheduled	Charter	Ferry	Cruise	
Holiday inclusive tour (IT)	Car hire Fly-drive	Coach tour	Long-haul city break packages	Medium/short-haul packages	Ferry package	World cruise	Orient Express
Independent	Touring private car	Scheduled coach	Backpackers individual	Seat only to Villa Time-share	Private car	Runabout fare	
Business and Conference	Company car	Executive coach	Fully flexible fare		Hovercraft	TGV	
VFR	Private car	Scheduled service	Cheapest fare		Private car		Excursion fare
Other special and common interest, e.g. religion	Car hire and Private car	Coach charter	Cheap or flexible fare	Group travel			Group fare
Same day visitors(Excursion)	Private car	Scheduled excursion fare	Scheduled excursion fare	Special flights	Coach/car excursion	Local 1day cruise	Day excursion fare

**Source:** (Cooper, Fletcher, Gilbert, Wanhill, Tourism Principles and Practice, p.76)

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**2.2.1 Road Transport:**

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Road transport is dominated by motor car and coaches. Indeed, motor cars and coaches are almost the perfect tool for providing door-to-door flexibility, giving views of the landscape and a means of transporting recreational equipment. It even offers residential accommodation in the case of recreational vehicles (RVs) and caravans or trailer tents. Hire cars almost exclusively serve visitors, but it is difficult to estimate the proportion of total car miles on the roads of any one country, which are tourist and excursionist related. Coaches that are chartered are, by definition, almost exclusively for visitor purposes, but again scheduled services provide for commuters and shoppers as well as visitors. The advent of the automobiles in the 1920s seriously affected the railway as a mode of passenger transportation in many developed countries. But as a passenger travel mode, it gained significance only after the Second World War, when its ownership began to multiply rapidly in many developed countries. The motor car revolutionized the holiday and recreational

habits. It brought about a more random pattern of travel movements, opened up new destinations, and spurred the development of elaborate network, of new automobile-oriented facilities and services along highways and roads. Prior to its introduction, people could visit only those destinations which were connected by either trains or steamships. There were limited routing possibilities. The automobiles provided incomparably greater freedom of travel, choice of destinations and savings in the time of journey time. The automobile has become increasingly important in pursuit of leisure and tourism in the industrialized countries. It is the single, most predominant mode of travel in North America. Almost 90 percent pleasure/ personal or business trips are taken by car in Canada and America. It has led to the development of new types of accommodation in North America, such as the motel, the motor-hotel and the tourist court. Another important aspect of automobile travel in the U.S. is related to the development of recreation vehicles. About a dozen types of different recreation-vehicles models have been developed. It is estimated that 8 to 12 percent households in the United States and Canada own one or more of these recreation vehicles. The recreation vehicles are also available on rent for cross country trips to visitors. A corollary of automobile travel and the use of recreation vehicles in the U.S. has been the expansion of the camping phenomenon and increase in the number of camping sites. There were more than 14,000 public or private parks and commercial camp grounds containing about a million camp-sites in the United States in 1980. Interestingly, with the advent of 21st century this travel has crossed the boundaries of the United States and has spread throughout the world. Rental car is another aspect of automobile travel which has become a significant sector of the tourism industry. A large number of visitors hire a car for all or a part of their stay on arrival at airport terminals. The rental car is utilized by a high percentage of business travellers, but there is a good demand for it by pleasure travellers as well. The fly-drive offering rental cars are quite popular. Because of the use of

private motor car, the role of scheduled bus and motor coach, the third common carrier mode, has declined in tourism. The coach is now primarily used to provide regular scheduled inter-city passenger transportation services. In this field it provides charter and tour services. Buses usually attract lower income group of passengers comprising either the young or the old. While the use of the buses and coaches for tourism has declined, it is believed that nearly 80 per cent of all holiday makers use road transportation. It plays a dominant role in domestic tourism and in intra-regional tourism between neighboring countries within the same continent, e.g., countries of the EU or countries like India and Pakistan. The provision of good motorable roads, services and facilities is a prerequisite for the development of both domestic and international tourism. Improvement in road transport facilities stimulates tourism and has marked influence upon the expansion of tourism and the growth of tourist centres. Motor tourists, particularly those from abroad, according to some studies, spend more than non-motoring tourists and bring more benefits to the economy of the area visited by them. With an increase in road traffic and considering tourism requirements, there is a need for proper focus and attention in the overall planning of both tourism and roads. In Indian scenario, the road transport sector has expanded manifold in the first fifty years of planned development, both in terms of spread and capacity. The growth in road transport within the transport sector is borne out by its growing share in GDP. The share of road transport in GDP is presently 3.69%, which accounts for a major share of all transport modes which contribute 5.5% of GDP. Among the various travel options of road transport, the most preferred long distance transport option for the public are the buses. Most of the state road transport corporations have buses, which connect major cities and towns. There are a host of private bus operators who run regular schedule of buses for connections between major cities and towns. Most long distance buses are scheduled during the night. Long distance travel in buses is quite common for distances up to 500 km. In some cases there are connections for distances upto 1000 km (eg. Bangalore

to Mumbai or Delhi to Srinagar), with a travel time of 24 hours or even more. With the advent of better buses and better highways, road transport services have become fast and comfortable for travellers. India has a network of National Highways connecting all the major cities and State capitals. As of 2005, India had a total of 65,569 km of highways, of which 4,885 km were classified as expressways. Most highways are 2 laned, while in some better developed areas they may broaden to 4 lanes. Close to big cities, highways can even be 8 laned. All the highways are metalled. In most developed States the roads are smooth. However in less developed states and in sparsely populated areas, highways are riddled with potholes. Very few of India's highways are constructed of concrete, the most notable being the Mumbai-Pune Expressway. Highways form the economic backbone of the country. Highways have facilitated development along the route and many towns have sprung up along major highways. In recent years construction has commenced on a nationwide system of multi-lane highways, including the Golden Quadrilateral expressways which link the largest cities in India. Length: Total - 3,319,644 km; Paved - 1,517,077 km; Unpaved - 1,802,567 km (1999 est.) Motor Vehicle Population: There has been a staggering 100 fold increase in the population of motorized vehicles. However, the expansion in the road network has not been commensurate with this increase. While the motor vehicle population has grown from 0.3 Million in 1951 to over 30 million in 2004, the road network has expanded from 0.4 million km to 3.32 million km, only an 8 fold increase in terms of length during the same period. Table 2.2 depicts motor vehicle population after independence. A major reason for the increase is due to an increase in the individual income level of people. Apart from this, however, public transportation has not been given enough importance. The effect of this change on the tourism industry of India has been tremendous, especially in terms of hotel and catering industry in terms of way side motels, roadside cafes, restaurants, and transit hotels, to serve the travellers.

Table 2.2

Year	Number of Goods Vehicle (in thousands)	Number of Passenger Buses (in thousands)
1950- 1951	82	34
1997- 1998	2536	538
1998- 1999	2554	540 *
1999- 2000	2715	562 *
2000- 2001	2948	634 *
2001- 2002	3045	669 *
2002- 2003	3485	728 *

Source: [www.indiacore.com/roadways.html](http://www.indiacore.com/roadways.html)

### 2.2.2 Rail Transport:

The mode of transport and its use by visitors depend on various factors, such as history, government involvement, financing, topography and geography of destination, etc. Transportation network/ offers specific services to visitors as well as commuters. For example, in Europe inter-rail/car transportation and special tariffs for holiday runabouts are examples of transportation networks.

Railways provide examples of the specific development of business visitor products such as the TGV (Train de Grande Vitesse) in France. For rail, the main competition between modes is often based upon the time and distances, city centre, etc. Beyond a certain distance, some visitors see rail as being too cumbersome and tiring and it is then that notions of adventurism and sightseeing take over as the attractions of the rail mode. Regarding historical development in railway, it dates back to the 19th century, when the railway travel system was the major factor in stimulating holiday travel. In the later development phase, the railways began to expand the scope of their operations by running hotels and providing other travel-related services. The first conducted tour on the train was organized by Thomas Cook in England in 1841, when he arranged and excursion train for 510 people between Leicester and

Loughborough. Ten years later about 3 million Englishmen took the train to the Great Exhibition in London.

The railways also opened up the North American continent from its Atlantic to Pacific coast for vacationing in the last quarter of the 19th century. First class rail travel was introduced by an American, G.M.Pullman, who developed the Pullman Coach with luxury furnishings and dining facilities. It made long distance travel easier and comfortable. Similar developments also took place in Europe and Canada. The railways thus started playing an important role in the 19th century towards the development of holiday making and considerably impacted travel growth. The golden age of the railways in most developed countries lasted just 100 years, from 1830 to the 1930s. The development of motorized transport offered a severe challenge to the railways in the first quarter of the 20th century. The automobile began to gain more popularity as a mode of passenger transport, and the railways started to suffer a decline. The development of air transport led to a further decline in the use of trains for long-distance journeys. This became a characteristic feature of most Western Europe, North America, and Great Britain countries. For example, the U.S. railroads had accounted for approximately 77 percent of the nation's standard carrier passenger miles in 1929. This market had slid to about 7 percent in 1970.

Surveys of travellers by the National Railroad Passenger Corporation (AMTRACK) in the USA and Via Rail Canada show that the train's mode of transportation selection is based on four factors. These are cost/price, comfort, safety and ability to see the area through which the train is passing. Other factors indicated by the surveys are user cost, convenience, travel time and comfort. Passengers also favour train travel because of safety, the ability to get up and walk around, personal comfort, and the fact that they are able to arrive at the destination rested and relaxed. The negative factors generally associated with rail travel relate to inflexible departures, slow speed and lack of quality in food service. Rail journeys

on selected fast trains in many countries are still preferred for long-distance travel.

The population growth, urban expansion, growing congestion on the roads, traffic delays and, environmental problems, and increases in cost of fuel have created particular problems in the transport sector that have led to the return of rail travel. Robinson observed, "It is paradoxical that the very things which have seemed to forestall the doom of railways, especially motor transport, are offering it in fact possibilities of a new lease of life."

In recent years, several countries have made efforts to provide more comforts and amenities on the train by improving the speed, equipment and services. Supertrains have been introduced to win back passengers from airlines. The Advanced Passenger Train (APT) and Hover train in Great Britain, the Turbot trains and aero trains in France and Germany, the Bullet train in Japan are high-speed trains now operating in these countries. They travel faster than automobiles and cut down on the time it would take to drive between major cities. Further, significant railways offer concessions on rail travel to attract passengers.

**Rail Transport in India:** Indian Railways is one of the largest railway systems in the world. By carrying about 11 million passengers and over 1.20 million tonnes of freight per day, the rail system occupies a unique position in the socio-economic map of the country and is considered a means and a barometer of growth. Rail is one of the principal modes of transport for carrying long-haul bulk freight and passenger traffic. It also has an important role as the mass rapid transit mode in the suburban areas of large metropolitan cities. Trains run at an average speed of around 50-60 km/h, meaning it can take more than two days to get from one corner of the country to another. Rail operations throughout the country are run by the state-owned Indian Railways. The rail network traverses through the length and breadth of the country, covering a total length of around 63,000 km (39,000 miles). Out of this, 16,693 km of track and 12,617 km of double tracks have been electrified. Indian Railways uses three types of

gauges: Broad Gauge, Metre Gauge and Narrow Gauge. Broad gauge at 1.676 m is one of the most comprehensive gauges used worldwide. IR is in the process of converting all the metre gauge (14,406 km) into broad gauge. A narrow gauge (3,106 km of track) with a width of 0.610 m to 0.762 m is restricted to very few places.

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**2.2.3 Air Transport:**

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Air transport is by far the most effective mode of transport. Today, 12.5% of the tourists travel by plane. Air transport has revolutionized the geographical aspect of distances; the most remote areas can now be attained, and any journey around the world can be measured in terms of hours of travelling. With jet aircraft that can reach up to 1950 km/hrs, international tourism is no longer an adventure. Air travel is attractive because of its speed and range, and because it offers status to business visitors and saves valuable work time. Where geographical isolation exists, such as with island communities, air is the dominant and often the only reasonably fast means of travel. Air transport offers scheduled and chartered service categories and air taxis in some parts of the world. Chartered transport by air emerged in the 1950s in Europe and North America, transporting holiday visitors from the colder northern climates to the southern sunny destinations of the Mediterranean and Florida/ the Caribbean, respectively.

In the Indian scenario, India's booming economy has created a sizeable middle-class population that can now afford air travel. Five years back, air travel was a dream for the majority of the Indian population. But, rapid economic growth has made air travel more and more affordable in India. Air India, India's flag carrier, presently operates a fleet of 42 aircraft and plays a significant role in connecting India with the rest of the world. Several other foreign airlines connect Indian cities with other major cities across the globe.

Jet Airways, Indian (formerly Indian Airlines), Air Sahara and Alliance Air are the most popular brands in domestic air travel in order of their market

share. Of these, Jet, Indian and Sahara also operate some overseas routes. These airlines connect more than 80 cities across India. However, a large section of the country's air transport system remains untapped. The Indira Gandhi International Airport in Delhi is one of the busiest airports in Asia. More than 20 international airports are located within the Republic of India. These include Begumpet Airport, Hyderabad; Cochin International Airport Limited, Cochin; HAL Airport, Bangalore; Indira Gandhi International Airport, Delhi; Netaji Subhash Chandra Bose International Airport, Kolkata; Raja Sansi International Airport, Amritsar; Sardar Vallabhbhai Patel International Airport, Ahmedabad, Trivandrum International Airport, Trivandrum; Amausi International Airport, Lucknow. The Indira Gandhi International Airport and the Chhatrapati Shivaji International Airport handled more than half of the air traffic in South Asia. Besides these airports, several other domestic airports are located in India.

There are more than 334 (2002 est.) civilian airports in India - 238 with paved runways and 108 with unpaved runways.

Air India is India's national flag carrier with a network of passenger and cargo services worldwide. It is one of the two state-owned airlines in the country, the other being Indian (formerly Indian Airlines). Its main base is Chhatrapati Shivaji International Airport, Mumbai, with hubs at Indira Gandhi International Airport, New Delhi and Chennai International Airport. The airline connects 50 destinations worldwide, including 12 gateways in India. Air is the low-cost airline of Air India and operates from the southern cities of India to Gulf and South-East Asian destinations.

**Other private airlines in India are:**

- Air Sahara is an airline based in New Delhi. It is a privately owned airline operating scheduled services connecting all metropolitan centres in India.
- Jet Airways is a “regular” airline that offers average economy and business class seats. Jet Airways, along with Air Sahara, is the only airline that survived the dismal 1990s when many private airlines in

India were forced to close down. Jet Airways claims to have one of the youngest fleets in the world.

- Air India Express is a subsidiary of Air India.
- Alliance Air is a subsidiary of India.
- Air Deccan is based in Bangalore and is the first low-cost carrier in India.
- GoAir - The People's Airline is a low-cost carrier promoted by the Wadia Group.
- IndiGo Airlines is a new private domestic airline based in India.
- Kingfisher Airlines is a new airline based in Bangalore. It operates only on domestic routes. United Breweries Group owns the airline. The airline promises to suit air travellers' needs and provide reasonable airfares.
- SpiceJet is an airline based in New Delhi. Their marketing theme is "offering low 'everyday spicy fares' and great guest services to price-conscious travellers". They aim to compete with the Indian Railways passengers travelling in AC coaches.
- Jagson Airlines is based in Delhi and operates to and from central cities to popular tourist sites.

Today, Air transport has become an essential element in tourism development. Without it, present-day tourism and the dimensions it has achieved would have been unimaginable. It is also an essential factor in the economic growth of many countries. The present-day configuration of tourism is determined to a large extent by air transport and this relationship becomes more pronounced as time passes. The conditions under which commercial aviation develops and operates have a significant influence on the development of world tourism.

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#### **2.2.4 Water Transport:**

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We can broadly divide water-borne transport between short sea ferry transport and oceangoing cruises. There can be other water-based transport categories, such as inland waterway craft and small pleasure craft, but these assume less significance as a means of transport as they are

destination products. Cruising should also be considered a holiday product as much as a mode of transport. Ferry services, which include or exclude transportation of vehicles, can provide lifeline services to islands and focus on visitors who are typically packaged holidaymakers, independent or same-day visitors. Hydrofoil and hovercraft tend to be faster than conventional forms of ship technology, but in general (except for short sea commuting, such as between Hong Kong and Macau), business visitors tend to choose other modes of transport. Due to the vagaries of the sea, several visitors do not use this means of transport. Geographical factors tend to determine the provision of ferry transport, leaving some destinations heavily dependent upon such links.

**Ocean Liners and Cruising:** There are very few passenger shipping lines in the world today offering transport on a port-to-port basis. These services are almost extinct after their glorious period in the late forties and early fifties. Major shipping lines like P&O and Cunard discontinued their long established routes from the UK to the Far East or America, as air transport became cheaper than surface transport. Since the fifties, the passenger shipping industry steadily shifted its emphasis from line voyages to cruises for leisure cruising.

Now, cruises are mainly concentrated towards short sea journeys of about a week. Cruising has become a significant tourist industry. Big cruisers are like floating resorts where guests can enjoy luxury and entertainment while moving towards their multiple destinations. The international market for cruising was about 10 million tourists in 2000, more than doubling its market since 1990. The principal geographic locations of the main cruise lines are the Caribbean, the Mediterranean and South China/Pacific Ocean. Alaska and Northern Europe are also popular during the summer season. This industry is characterized by a high level of market concentration with a few companies, such as Carnival and Princess.

India and Indian Ocean do not figure anywhere in significant cruise itineraries. Occasionally, a luxury cruise ship on its round-the-world journey may touch an Indian port like Cochin, Madras or Bombay -

seldom for more than five days. Some of the cruise passengers take off to Delhi or Agra. Even recently, some cruise companies have started offering short excursions from Bombay. Moreover, a long cruising holiday can be based on a cruise ship in the Indian Ocean, say, Bombay, which takes the passengers to nearby Goa, Andaman, or Sri Lanka.

**Ferry Services:** The boom in automobile travel has led to short sea voyages within Europe to transport cars. From Great Britain alone, 4 million cars out of 10 million privately owned cars are transported annually to Europe for car-borne holidays. The ferry companies also cooperate with many coach operators who provide long-distance services by transporting their coaches. While the busiest season for ferries is June-August, the ferry companies have kept themselves well-utilized during the off-season by offering attractive off-season prices. With the availability of economic tariffs during the off-season, travellers now transship their cars to neighbouring countries even for 2-3 day holidays – a new trend.

**Hovercrafts and Hydrofoils:** Hovercrafts and Hydrofoils have provided another exciting opportunity for water transport. Propeller-induced pressures lift hovercraft and run over a cushion of air 6- 8 feet above the water. They can speed up to 125 Kilometers an hour. Hydrofoils lifted by foil action through the water can run even faster. Today, these are used extensively in Europe, making intra-European travel easy. Popular hydrofoil series exist between Copenhagen (Denmark) and Malmö (Sweden). Similar services also connect Naples and Capri in Italy, Spain and Morocco. In the USA, hydrofoil services operate between Miami and Port Landerdale and between several Hawaiian Islands. In Asia, these services operate every thirty minutes between Hong Kong and Macau.

**Inland Waterways:** Inland waterways – lakes, rivers and canals – are a source of excellent water-borne holidays in any country. It can take the form of day excursions and even longer cruises on the lakes or rivers. The lake steamer is a familiar sight and an important tourist attraction in areas like Scottish Lochs in the United Kingdom, the US-Canadian Great Lakes,

or the Swiss or South German Lakes. The great rivers of the world also provide attractive cruising services – some of which have been packaged for international travellers. Among these are paddle steamers on the Mississippi River, cruise along the Rhine, boats in China's Yangtse River, and on the Amazon River, which is even for ocean-going vessels.

India has an extensive network of inland waterways in the form of rivers, canals, backwaters and creeks. The total navigable length is 14,500 km, out of which about 5200 km of river length and 485 km of canal length can be used by mechanised crafts. Freight transportation by waterways is highly underutilised in India compared to other large countries like the USA, China and the European Union. The total cargo moved (in tonne kilometers) by the inland waterway was just 0.1% of the total inland traffic in India, compared to the 21% figure for the USA. Cargo transportation is organised and confined to a few waterways in Goa, West Bengal, Assam, and Kerala. Inland Waterways Authority of India (IWAI) is the statutory authority in charge of the waterways in India. It is responsible for building necessary infrastructure in these waterways, surveying economic feasibility of new projects and administration and regulation. The following waterways have been declared as National Waterways:

- **National Waterway 1** - Allahabad - Haldia stretch of the Ganga - Bhagirathi Hooghly river system (1620 km) in October 1986.
- **National Waterway 2** - Saidiya - Dhubri stretch of the Brahmaputra river system (891 km) in September 1988.
- **National Waterway 3** - Kollam - Kottapuram stretch of West Coast Canal (168 km) along with Champakara canal (14 km) and Udagamandal canal (23 km) in February 1993.

Unfortunately, India has not yet exploited its inland waterways for tourism purposes. Cruises on the Ganges, Brahmaputra or Hoogly rivers could be a profitable tourist attraction. Recently, an element of adventure travel has been introduced with White Water River rafting in a few Indian rivers.

**2.3 A Competitive Analysis:**

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It can be seen that modern passenger transportation is a very complex and competitive industry. This competitiveness exists between the various modes and vehicles of transportation, between different companies and even between countries.

There is a need to provide a competitive analysis of transportation modes, based on consumer behaviour variables. These variables have been identified as follows:

- Safety
- Price/ cost
- Time/ speed
- Distance
- Convenience
- Departure and arrival times
- Reliability
- Availability
- Frequency
- Flexibility of service quality
- Comfort/Luxury
- Incentives
- Ground services
- Terminal facilities and locations
- Status and prestige
- Enjoyment of trip

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**2.3.1 Road Transport:**

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Road transport has several attractions and advantages over other modes of transport for tourists:

- The control of the route and the stops en route
- The control of departure times
- The ability to carry baggage and equipment easily
- The ability to use the vehicle for accommodation

- Privacy
- Freedom to use the automobile once the destination is reached
- The low perceived out-of-pocket expenses.

Some nations utilize a car much more than others for recreation and tourism, depending on the transportation facility and climate. Trips by car account for 90% of the pleasure/ personal and business trips taken by U.S residents and for almost 83% of total passenger km in Europe. Further, more travellers in continental countries, such as Germany, Italy, Austria, Switzerland and France, tend to use motor cars for holidaying in the southern Mediterranean and at home. In India, car utilization for recreational use is comparatively less, but it is likely to increase in the coming days. The coach has traditionally been employed by groups for transfers from and to terminals. In addition, sightseeing trips and tours are normally conducted by coaches. This mode is handy for journeys at short and medium distances. It has traditionally attracted elderly and inexpensive markets, the lower occupational or social group and the over 50's market.

Public coaches operate regular scheduled services and may transfer passengers to remote areas where there is inadequate infrastructure for alternative transportation. Beyond a certain threshold distance, lack of comfort and the relatively slow speed compared to other modes must be traded against a cheaper and more attractive pricing structure.

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### **2.3.2 Railway Transport:**

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Trains are perceived to be safe and inexpensive, allowing movement within the carrying unit. They may also travel through beautiful scenery, which is a relatively 'green form of level'. The fact that Railway terminals are often in the centre of the destination is an asset in comparison with airports, which are often located 20-30 km away from the centre.

Not all trains are fast, and trains depend on the 'way' (track), which makes them inflexible in routing and overloads them with a very high fixed cost. Usually, this cost is borne by the public. Although train operators try to

emphasise the relaxation aspect of travel by train, they rarely offer high-quality services throughout the network of a country. The luxury and comfort are limited to between 200 and 500 kms between major cities, such as Rajdhani and Shatabadi Express trains in India.

The most important reasons for travelling by train are as follows:

- Safety.
- The ability to look out of the train and enjoy the scenery enroute.
- The ability to move around the coach.
- Arriving at the destination rested and relaxed.
- Personal comfort.
- Decongested routeways.

The traditional market for the train has been regarded as the independent holiday visitor, probably in visiting friends and relatives (VFR) category; trains may also attract a significant 'fair of line' market. Although in the U.S.A trains are considered a second-rate means of passenger transportation, in Western Europe trains hold a requirement market share of passenger traffic, primarily because of policies of protectionism and subsidy by the respective governments. However, introducing high-speed and inter-city services, such as the TGV in France, has improved the level of service and comfort offered. Many new trains have good sleeping, catering and entertainment facilities and can also carry automobiles.

In addition, there has been a tendency to change the image and function of trains toward an environmentally friendly, traditional, stylish, relaxed, reliable, and consumer-friendly transport. Consumers with entirely different lifestyles from the previous rail clientele have been identified; in Delhi, the new Metro Transport System is already offering substantial competition for other modes of transport in the future.

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### **2.3.3 Water Transport:**

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Ferries offer inexpensive, reliable and safe services to transport vehicles and merchandise on short sea crossings. Ferry transportation is the only option for remote and small islands with no airports. This situation can be

found in Greece, where there are only 15 airports to serve 95 inhabited islands. In this case, large ferries provide coastal shipping services, linking the mainland ports to the island and the islands with each other. Furthermore, some regional ferries undertake transportation between the islands, especially during the summer peak period.

However, in many cases, air can be a viable alternative to sea transportation between larger islands and the mainland. The main advantage of ferry operators compared to air transportation is price, combined with the fact that passengers can carry their vehicles and use them at their destination. Recent research on the Portsmouth - Cherbourg and Portsmouth- Le Havre routes identified that 80% of passengers were travelling in conjunction with the self-drive holiday, using their own vehicles. The popularity of motoring holidays and self-drive packages and the introduction of roll on, the roll of facilities, which enable the ports to handle a much greater volume of vehicles, indicate the increase in passenger demand for ferry services.

In Europe, the gradual liberalization of air transportation, the decrease in airfares, the construction of the Tunnel and the development of alternative modes of travel have forced the ferry companies to improve the luxury of their vessels, increase their cruising speed, install leisure facilities--casinos, swimming pools, sports and shopping-- and offer a more consumer-oriented service.

Modern vessels such as the wave-piercing catamaran, the hydrofoil and the hovercraft have recently been introduced on some routes. They aim mainly to offer a "passenger only" service with a shorter crossing time than the traditional ferry services. Their speed is three times that of a conventional ferry, and they can turn around quickly in ports and need minimum dock facilities. They, therefore, attract up-market tourists who appreciate the importance of their time and desire to reach the destination as soon as possible. However, these vessels are much more expensive than the ferries. They are vulnerable in rough seas and strong winds and are pretty noisy. As they offer coach-type accommodation, they are

uncomfortable for long-distance trips because they prevent free moments on the decks. Cruising is more a leisure product than a mode of sea transportation. In this case, the sea voyage, the entertainment and leisure facilities offered within the ship and excursions at ports are more critical trip elements than the places visited. The cruise ship is a destination itself. The decline in ocean liner shipping since the 1950's signified the development of the cruise industry as most shipping lines diversified into cruising. Increasingly, with the development of theme, particular interest or hobby-type cruises, the trip can be as short as one day or as long as several months. The typical cruise passenger used to be older, wealthy and predominantly North American. However, the cruise market now caters to all needs, ages, and purchasing abilities. Cruises are increasingly being offered as holiday products, combining the speed and efficiency of air transportation and the relaxing, romantic attributes of cruise ship.

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#### **2.3.4 Air Transport:**

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Travelling by air is probably the most important transportation innovation of the 20th century. It has enabled the transportation of passengers in the shortest time and has boosted the demand for long-haul trips. In fact, no part of the world now has more than 24 hours of flying time from any other part.

Air transport has managed in the last few decades to gain a very significant share of the transportation market, especially for movements over 500 kms. As new aircraft, such as the Boeing 747-400 series extend their range up to 15000 kms non-stop flights, there are plans to extend their capacity to 800 passengers.

Scheduled airlines offer a safe, convenient, reliable, frequent and relatively consumer-oriented product; airlines attract business travellers, who appreciate its speed and flexibility between the various flights, especially on popular routes, as well as the leisure passengers who enjoy the ability to arrive at the destination quickly and without spending time and money en route. Usually, ground services and terminal facilities are much more

advanced and sophisticated than any other mode of transportation, and therefore, the travelling experience is enhanced. The quality of services and the comforts offered on board have introduced new industry standards for the other modes of transportation. Finally, airlines offer a number of incentives for their loyal customers through various 'frequent flyer' programmes. However, air transportation is the most expensive mode, especially for short-haul routes, such as in Europe, where economic cruising speed cannot be achieved.

Promotional fares try to offer cheaper prices by minimizing the opportunities for alterations to the travel arrangements and by securing the passenger as early as possible. These fares include Advanced Purchase Excursion Fares (APEX); standby, and other forms of Instant Purchase Excursion Fares (IPEX) that were previously experimented with. Yield management enables airlines to alter their fares to achieve maximum yield by considering potential demand and supply factors, historical data, time lost before the flight, and current load factors. Thus, appropriate prices are being worked out for the current market environment to maximize the airline yield.

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### **2.4 Modern Transport Systems Used In Tourism:**

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The development of various forms of transport has resulted in a massive influence on tourist behaviours and on the types of products that travellers purchase.

Figure 2.3 summarizes the wide range of modern transport systems used in tourism, and most of the destinations are simultaneously influenced by several of these systems.

**Table 2.3**

<p><b>Air Transport</b></p>	<p><b>Long haul scheduled airlines</b> operate networks which carry most long-haul travellers, for all purposes, around the world and offer an extensive range of promotional fares for economy-class leisure travel.</p> <p><b>Medium/Short-haul scheduled airlines</b> operate networks which serve mostly business and non-leisure forms of travel.</p> <p><b>Charter Airlines</b> - long or short haul operate networks which serve mainly leisure travel. These are sometimes subsidiary companies of scheduled airlines, or part of tour operator groups; they dominate European short-haul air travel for holiday purposes.</p>
<p><b>Sea Transport</b></p>	<p><b>Ferries</b> operate scheduled networks on short sea routes, serving an extension of road network; carry passengers for all purposes; mainly roll-on, roll-off design to suit cars, coaches and trucks; have increasing links into inclusive tour business.</p> <p><b>Charter cruise ships</b> serve as floating resorts; important market in the USA, but smaller elsewhere.</p>
<p><b>Rail</b></p>	<p><b>Scheduled rail services</b> - tourism use is restricted mainly to scheduled inter-city services for all forms of travel, extensive range of promotional fares for leisure, links with conference and accommodation necessary for day excursions.</p>
<p><b>Bus and Coach</b></p>	<p><b>Scheduled Bus</b> tourism is restricted mainly to inter-city services, serving mainly non-business travel.</p> <p><b>Charter or private hire</b> includes coach tours and long-distance coach transport to resorts and are a significant element of inclusive tour holidays; coaches are also an important form of intra-resort travel for transfers and excursions.</p>
<p><b>Private transport</b></p>	<p><b>Private cars and car rental</b> are the dominant forms of travel in domestic tourism, leisure day visits and recreation, and in international travel in Continental Europe, car rental fulfils a substitute private transport role and has close links with other transport operators, tour operators and accommodation providers.</p>

Source: Middelton, Victor, T., C. Tourism Marketing, Heinman Publishing, p.241.

**2.5 Factors Affecting Visitor’s Choice of Mode of Transport:**

In general, the visitor’s choice of mode of transport is affected by the following:

- Distance and time factors

- Status and comfort
- Safety and utility
- Comparative price of services offered
- Geographical position and isolation
- Range of services offered
- Level of competition between services

The relative importance of these factors depends upon modal choice, which will vary from one visitor type to another. However, visitor types are no longer as homogeneous as previously assumed; some inclusive tour passengers will elect to travel business class by air rather than by charter. Increasingly, transport operators are attempting to identify segments of demand to which specific service categories will appeal. Coaches now offer degrees of comfort and service unheard of 15 years ago, while transport companies have become experts in organizing a range of transport products and varied itineraries for overseas tourists in our country.

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### **2.6 Summary:**

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The most obvious way of analyzing transport is by mode, which denotes how transport occurs. 4 major modes of transport include road, rail, water and air. Some of these modes may be further distinguished by transport and transport at the destination. To a substantial extent, the visitor's choice of mode of transport is related to the purpose of travel. The extent of provision of a mode of transport and the use of it by visitors depend on a variety of factors such as history, government involvement and financing, topography and geography. Today, transport network offers specific services to visitors as well as commuters rail, car transportation and special tariffs for holiday runabouts are examples of such networks.

Railways provide examples of the specific development of business visitor products such as the TGV (Train de Grande Vitesse) in France. For rail, the main competition between modes is often based upon the time and distances, city centre, compared to air. Beyond a certain distance, some

visitors see rail as being too cumbersome and tiring and it is then that notions of adventurism and sightseeing take over as the attractions of the rail mode.

Indian Railways is one of the largest railway systems in the world. By carrying about 11 million passengers and over 1.20 million tonnes of freight per day, the Indian rail system occupies a unique position in the socio-economic map of the country and is considered a means and a barometer of growth. Rail is one of the principal modes of transport for carrying long-haul bulk freight and passenger traffic.

Road transport is the most preferred long-distance transport option among the various surface travel options. In the Indian scenario, the road transport sector in our country has expanded manifold in the first fifty years of planned development, both in terms of spread and capacity.

Air transport is by far the most effective transport mode; today, 12.5% of tourists travel by plane. Air transport has revolutionized the geographical aspect of distances; the most remote areas can now be attained, and any journey around the world can be measured in terms of hours of travelling. India's booming economy has created a sizeable middle-class population that can now afford to travel by air. Five years back, air travel was only a dream for the majority of the Indian population.

Regarding sea transport, we can divide water-borne transport between short sea ferry transport and oceangoing cruises. Other categories include inland waterway craft and small pleasure craft, but these assume less significance as a means of transport as they are more destination-oriented products in their own right. Cruising should also be considered a holiday product as much as a mode of transport. Ferry services, which include or exclude transportation of vehicles, can provide lifeline services to islands as well as focus on visitors who are normally packaged holiday makers, independent or same-day visitors.

Transport being one of the five integral elements of the overall travel and tourism product, its development needs to be dynamic and closely

interrelated. The development of transport has to be in several identifiable areas, such as, distance and time factors, status and comfort, safety and utility, comparative price of services offered, geographical position and isolation, range of services offered and level of competition between services.

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## 2.7 Answer to Check Your Progress:

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1. Road, air, rail and water.
2. Recreation Vehicles
3. Railway Transport.
4. Train de Grande Vitesse
5. 1841.
6. Indian Railway System.
7. Broad Gauge, Metre Gauge and Narrow Gauge
8. Air India.
9. Low cost / No service airline.
10. Indira Gandhi International Airport, New Delhi and Chatrapati Shivaji International Airport, Mumbai.

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## 2.8 Suggested Readings:

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- [www.indiacore.com/roadways.html](http://www.indiacore.com/roadways.html)

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**2.9 Review Questions:**

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1. Discuss the various modes of travelling used in transport.
2. Make a competitive analysis of the various modes of transport.
3. Explain the modern transport systems used in tourism.
4. What are the various factors affecting visitor's choice of mode of transport

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**Unit-3**

**Landmarks in the Development of Transport Sector**

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**Structure:**

**3.0 Objectives**

**3.1 Introduction**

**3.2 Transport Sector in Early Periods**

**3.3 Transport and Budgetary Allocation**

**3.4 Road Transport**

**3.4.1 Road Network**

**3.4.2 Motor Vehicle Population**

**3.5 Indian Railways since Independence**

**3.5.1 Comfortable Travel in Indian Railway**

**3.5.2 Technological Innovations in Railway**

**3.5.3 Performance of Indian Railways**

**3.6 Water Transportation**

**3.6.1 Inland Water Transport**

**3.6.2 Coastal Shipping**

**3.6.3 Overseas Shipping**

**3.6.4 Major, Minor and Intermediate Ports**

**3.7 Civil Aviation Sector in India**

**3.7.1 Nationalisation and Liberalisation of Civil Aviation in India**

**3.7.2 Civil Aviation in India: Impact of External Conditions**

**3.7.3 Fact Sheet of Ministry of Civil Aviation**

**3.8 Summary**

**3.0 Objectives:**

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After reading this unit, you will be able to:

- Discuss the development of transport sector;
  - Explain the budgetary allocation to transport sector in post-independence era;
  - Discuss the development of various modes of transport sector in post-independence era;
  - Describe the government initiatives in development of transport sector.
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**3.1 Introduction:**

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Transport constitutes the crucial link by connecting the cities and villages of the country, transport infrastructure facilitates movement of men and material, helps trade and commerce, links industry and agriculture to markets and opens up backward regions. India has a large and extensive transportation system. The country has one of the world's largest railway and roadway network, transporting millions of people every year.

In this unit you will understand the landmarks in the development of transport sector, development of various modes of transport sector in post-independence era and the government initiatives in development of transport sector.

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**3.2 Transport Sector in Early Periods:**

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An efficient transport system is a pre-requisite for sustained economic development. It is not only the key infrastructural input for the growth process but it also plays a significant role in promoting national integration, which is particularly important in a large country like India. The transport system also plays an important role of promoting the development of backward regions and integrating them with the mainstream economy by opening them to trade and investment. In a liberalized set-up, an efficient transport network becomes all the more important in order to increase productivity and enhancing the competitive efficiency of the economy in the world market.

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In ancient times, people often covered long distances on foot. For instance, the Adi Sankara travelled all over India. Even today it is not uncommon for people in rural areas to commute several kilometers every day. Subsequently, bullock carts have been traditionally used for transport, especially in rural India. Traditionally, halanquins or "palkee" was one of the luxurious methods used by the rich and nobles for travelling purposes. The word "Palkee" came from the word 'Palanki'. The Portuguese called it "Palan Queem" and the Britishers "Palan Queen". In Sanskrit it is called a "Palkee". During the fifteenth century (during the reign of the Mughals) many Muslim families used it. The advent of the British saw significant improvements in the horse carriages which were used for transport. From the early part of the century the bicycle rickshaws also became popular and are still used in rural India.

The advent of the British saw trams being introduced in many cities, including Mumbai and Calcutta. They are still in use in Calcutta and provide a pollution-free means of transportation. The nationalised Calcutta Tram Company has introduced buses on certain routes in order to generate more revenue and reduce losses.

Local transportation is predominantly by road, with a small fraction (depending on the city) by trains. Most Indian cities are connected to surrounding towns by buses or trains. The vast national rail network also enables farmers to transport their farm and agriculture produce to larger towns, where they get better prices.

The use of buses, vans and mini-buses is very popular for all classes of society. Then came, auto rickshaw (auto or rickshaw or tempo in popular parlance) is a three wheeler vehicle for hire.

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### **3.3 Transport and Budgetary Allocation:**

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Transport has been given priority in policy framework, which ensures an adequate flow of resources to this sector. Table 3.1 explains the budget allocation for transport sector under various five year plans:

Table 2.1

Sector		Total Transport		Total Plan
First Plan	1951-56	434.00	22.14%	19968.00
Second Plan	1956-61	1,100.00	23.53%	4672.00
Third plan	1961-66	198.00	23.12%	857.50
Inter plan	1966-69	1032.00	15.58%	6625.40
Forth Plan	1969-74	2522.00	15.98%	15778.00
Fifth Plan	1974-79	5543.00	14.06%	39426.20
Sixth Plan	1980-85	13962.17	12.70%	109291.70
Seventh plan *	1985-1990	29457.03	16.43%	179277.00
Inter Plan	1990-92	18034.08	13.16%	137033.55
Eighth Plan	1992-97	56141.87	12.93%	434100.00
Ninth Plan	1997-2002	124188.00	14.20%	875000.00
Tenth plan	2002-2007	225977.00	14.8%	1526871.62

All figures in crores = 10 Million

\* Estimate

Source: Course material, MTM - 14, IGNOU and  
www.indiabudget.nic.in

Interestingly, in all the plans, transport sector has been allocated sufficient proportion of total budget outlay ranging from 12.70 percent (lowest in sixth five year plan) to a maximum of 23.53 percent in second five year plan. On an average 16.58 percent of total budget has been allocated to transport sector. But, transport being a key instrument in the overall socio-economic development, there is a need to give top priority to this sector to keep pace in accordance with growing challenge of expanding quality infrastructure and to meet the growing diverse needs of emerging markets.

### 3.4 Road Transport:

The road transport sector in India has expanded manifold in fifty years after independence, both in terms of spread and capacity. The growth in the importance of road transport within the transport sector is borne out by its growing share in GDP. The share of road transport in GDP is presently 3.69%, which accounts for a major share of all transport modes

which contribute 5.5% to GDP and handles more than 60 percent of the freight and more than 80 percent of the passenger traffic in India.

**3.4.1 Road Network:**

The total road length in India has increased significantly from 0.399 million kms as of March 31, 1951 to 3.38 million kms as of March 31, 2004 making Indian road network one of the largest road networks in the world. The surfaced road lengths have also increased from 0.157 million kms to around 1.604 million kms in the same period. Surface length constitutes 47.3% of total road length as of March 31, 2004, up from a level of 39.3% of the total road length as of March 31, 1951.

Infact, since independence there has been extensive expansion in road infrastructure, especially in terms of national highways, widening of lanes, major bridges, etc. Table 3.2 shows the expansions after independence.

**Table3.2**

Period	Total Length - National Highways* (km)	Widening to Two Lanes	Widening to Four Lanes	Strengthening of Pavement	Major Bridges
1947- 69	24,000	14,000 **	Nil	Nil	169
1969- 90	33,612	16,000	267	9,000	302
1990- 97	34,298	3,138	483	5371	51
1997- 02	58,112	1,955	797	3511	91
2002- 03	58,112	710	418	1109	14
2003- 04	65,569	671	799	1489	17
2004- 05	65,569	221	841	1087	1

\*Length at the end of the period

\*\*Includes a length of 6,000 km which were already two lanes at the time of declaration as national highways.

The entire network is classified into five distinct categories from the viewpoint of management and administration. The five categories are:

- National Highways (NH)
- State Highways (SH)
- Major District Roads (MDR)
- Other District Roads (ODR)

- Village Roads (VR)

Among the different categories of roads, National Highways constitute around 2%, State Highways 4% while 94 per cent of the entire network comprises ODR, MDR and VR. Out of these, PWD Roads are 21%, Urban Roads 7% and the rest of the road length in India is accounted for by the rural roads. While development and maintenance of National Highways is under the purview of the Centre, all other categories of roads come under the purview of the respective States/ UT Governments.

The National Highways (NHs) have a length of 65,569 km and run across the length and breadth of India facilitating medium and long distance inter-city passenger and freight traffic. Though they comprise only about 2 per cent of the road network, they carry about 40 per cent of the road based traffic. State Highways (SHs) and Major District Roads (MDRs) constitute the secondary system of road infrastructure of India. The State Highways provide linkages with the National Highways, district headquarters, important towns, tourist centres and minor ports and carry the traffic along major centres within the State. Their total length is about 137,711 km. Major District Roads run within the district, connecting areas of production with markets, rural areas to the district headquarters and to State Highways/ National Highways.

By acting as the link between the rural and urban areas, the State Highways and Major District Roads contribute significantly to the development of the rural economy and industrial growth of India. It is assessed that the secondary system carries about 40 per cent of the total road traffic and comprises about 20% of the total road length.

The last link in the chain is rural roads. The access to villages within a district or between different districts is provided by Other District Roads (ODRs) and Village Roads (VRs). These roads also meet the social needs of the villagers and are also a means for transportation of agriculture produce from the villages to nearby markets. Rural connectivity is a key component of rural development and contributes significantly in generating higher

agricultural incomes and productive employment opportunities besides promoting access to economic and social services. Studies show that rural roads have a significant impact on poverty reduction as well.

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### 3.4.2 Motor Vehicle Population:

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There has been a staggering 100-fold increase in the population of motorized vehicles. While the motor vehicle population has grown from 0.3 million in 1951 to over 30 million in 2004, the road network has expanded from 0.4 million km to 3.32 million km, 8 fold increase in terms of length during the same period. However, upgrading of roads by way of widening of carriage-ways, improved surface quality, strengthening/reconstruction of old/ weak bridges and culverts, etc. has also been carried out.

**Table 3.2**

	<b>Number of Goods Vehicle (in thousands)</b>	<b>Number of Passenger Buses (in thousands)</b>
1950- 1951	82	34
1997- 1998	2536	538
1998- 1999	2554	540 *
1999- 2000	2715	562 *
2000- 2001	2948	634 *
2001- 2002	3045	669 *
2002- 2003	3485	728 *

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### 3.5 Indian Railways since Independence:

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The railways were introduced in the country in 1853 by the British almost immediately after it appeared in England. From a modest beginning of 53 kms between Mumbai and Thane, the railways have made a long journey and emerged as the principal mode of transport in the country. After Independence, the railways of the country were totally integrated and brought under the unified management of the Railway Board. Today, the Indian Railways (IR) has a network spread over 63,000 route kms. and 7000

stations throughout the length and breadth of the country. It carries 12 million passengers and more than 1.2 million tons of freight daily.

These figures, however, mask the true significance of IR's role in the Indian economy which is crucially dependent on it for transport requirements of the core sectors, long-distance travel of the people from one corner of the country to another and suburban travel. IR also accounts for 8.5 per cent of the organized employment of the country either directly or indirectly.

In line with the massive growth of population and the pressure generated by economic growth, Indian Railways has had to deal with monetary demands in the face of declining resources to build adequate capacity. It has acquitted itself creditably. Transport output of both passenger and freight traffic in terms of net tonne/passenger kilometre has increased six-fold since Independence with only marginal addition to route kilometre and rolling stock. The Indian Railways has also been continuously upgrading its systems to work out appropriate technological and managerial solutions for the problems peculiar to our country.

If one has to list out all the achievements of the Indian Railways in terms of growth of physical output or improvements in efficiency indices, which are impressive by any reckoning, or its response to natural calamities as a national carrier and its role as an agent of socio-economic development, it will run into several pages. However some of the achievements stand out for their sheer impact in strengthening the nation and improving the lives of the citizens.

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### **3.5.1 Comfortable Travel in Indian Railway:**

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At the time of Independence passengers on the Indian Railways could avail of three classes in all the trains, namely, I class, II class and III class. The berths in the 2nd and 3rd classes consisted of wooden bunkers. There was no concept of advance reservation. If a passenger who travelled in the 50's and did not travel in the intervening period were to take a train ride today, will be amazed by the cumulative improvements brought about in this area. The concept of reservation for the first class and later for the

second class was introduced with no or little addition to the fares. During the '70s the third class was abolished altogether and the berths in the second class (including third class upgraded as second class) were cushioned. The Integral Coach Factory at Perambur (Tamilnadu) and the newly set up Rail Coach Factory at Kapurthala in Punjab significantly contributed to the redesigning of second class and sleeper coaches for better passenger comfort. These two coach factories also helped the Indian Railways introduce AC 2 tier/ AC 3 tiers and AC Chair Car on virtually all trains throughout the country to enable passengers to travel in air-conditioned comfort at an affordable cost. AC 2-tier was introduced as a replacement for 1st class because of its larger capacity and better comfort in terms of insulation from noise, heat and dust. However, since the fare for AC 2-tier was beyond the reach of many passengers, the Indian Railways introduced AC 3 tier, to bring air-conditioned travel within the reach of the masses. Similar considerations dictated the introduction of AC Chair Car.

The Indian Railways started introducing the prestigious Rajdhani and Shatabdi services during the '70s and '80s respectively, to match the best in the world. The Rajdhani connect various state capitals to Delhi while the Shatabdis provide superfast services between the major cities of the country. These trains have not only broken the speed barriers of 100 kmph by routinely attaining speeds of 130 kmph but they have also set up new standards in catering and onboard services.

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### **3.5.2 Technological Innovations in Railway:**

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The Indian Railways has always been in the forefront of development and utilization of appropriate technologies for rail transport in the country. They have an exclusive Research, Designs and Standards Organisation (RDSO) dealing with all aspects of technology relating to rail transport. Immediately after Independence the thrust was on building indigenous capabilities for meeting the requirements of locomotives, coaches and other rolling stock for meeting the ever-increasing needs of traffic. Starting

with the Chittaranjan Locomotive Works (CLW) at Chittaranjan and the Integral Coach Factory (ICF) at Perambur, today Indian Railways has the Rail Coach Factory at Kapurthala, the Diesel Locomotive Works (DLW) at Varanasi, the Wheel and Axle Plant at Bangalore, and the Diesel Component Works at Patiala, where the emphasis has been to absorb and assimilate the latest in rail transport technology to suit the unique Indian requirements. CLW, which had started with the manufacture of steam locos, has now totally switched over to the manufacture of state-of-the-art electric locomotives.

The Indian Railways was the first in the country to introduce computers in a big way in batch processing applications of pay roll, inventory control and accounting. Also, over and above the Passenger Reservation System and advanced Passenger Information Systems, they are in the process of developing an integrated Management Information System covering the entire network. A Long Range Decision Support System providing for scenario building and 'what-if' analysis for investment planning has also been developed and is being utilized for investment planning and decision making.

Modern signaling systems, using solid state interlocking auxiliary warning systems for enhancing and ensuring safety, heavier rails, concrete sleepers, elastic fastenings, long span bridges in pre-stressed concrete, improvements in overhead electric traction, use of information technology in all area of railway working, etc. are the other areas where Indian railways are utilizing modern technology to meet the combined needs of traffic and safety.

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### **3.5.3 Performance of Indian Railways:**

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Approximate gross earnings and freight loading position of Indian Railways (on originating basis) for the period from 1st April 2006 to 31st October 2006 is depicted in table 3.3.

Table-3.3

Category	Category Earnings (Rs. in crores)		Percentage Variation
	Previous year (2005-06)	Current financial year (2006-07)	
Passenger Earnings	8811.97	9843.38	11.70
Other coaching Earnings	674.01	934.74	38.68
Goods Earnings	19907.92	23079.24	15.93
Sundry Earnings	460.91	478.51	3.82
Total Earnings	29854.81	34335.87	15.01
No. of Passengers(in millions)	Previous year (2005-06)	Current financial year (2006-07)	Percentage Variation
	3391.52	3668.34	8.16
Loading (in million Tones)	366.92	403.33	9.92

Source: [www.indianrailways.gov.in](http://www.indianrailways.gov.in)

### 3.6 Water Transportation:

#### 3.6.1 Inland Water Transport:

Inland water transport includes natural modes as navigable rivers and artificial modes such as canals. The Inland waterways have played an important role in the Indian transport system since ancient times. However, in recent times the importance of this mode of transport has declined considerably with the expansion of road and rail transport. In addition, diversion of river water for irrigation has also reduced the importance of inland water transport. The decline is also due to deforestation of hill ranges leading to erosion, accumulation of silt in rivers and failure to modernize the fleet to suit local conditions. The transportation of goods in an organized form is confined to West Bengal, Assam, parts of North Eastern region and Goa.

Development of inland water transport commenced from the Second Five Year Plan and, up to the end of Fifth Plan, the total expenditure on this

sector was Rs. 34 crores. It was only in the Sixth Plan that this sector was given priority and specific schemes of inter-State and national importance for development of inland water transport were taken up. The Seventh Plan was an important landmark in the development of inland water transport. Subsequent plans witnessed the development of inland water transport in regions where it enjoys natural advantage, modernizations of vessels and country crafts to suit local conditions, and improvement in the productivity of assets. The Inland Waterway Authority has been set up which is a big step forward and should help in the accelerated development of inland water transport.

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### **3.6.2 Coastal Shipping:**

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Since independence there has been remarkable growth in terms of coastal shipping and coast-line. Today, India has a long coastline of 7,516.6 kms, a number of ports (11 major and 139 minor working ports) and a vast hinterland. Therefore, coastal shipping holds a great promise, more so because it is the most energy efficient and cheapest mode of transport for carriage of goods for the usage of both tourism and non-tourism purposes. However, despite this fact (and despite the fact that coastal shipping was reserved exclusively for Indian ships after Independence), there has been a sharp decline in coastal shipping operations. For instance, the number of ships fell from 97 in 1961 to only 56 in 1980 while Gross Registered Tonnage (GRT) fell from 3.1 lakhs to 2.5 lakhs over the same period. However, at the end of 1994 the fleet strength was 438 vessels of 6.3 million GRT. The main factors affecting the growth of coastal shipping adversely have been high transportation costs, port delays, poor turnaround time of coastal ships on account of over aged vessels, lack of mechanical handling, facilities etc. The coastal fleet is ageing fast; about 52 per cent of the tonnage is already overdue for replacement. Also, there is imbalance in coastal traffic movement as traffic is not equally available in both directions. This makes it necessary for coastal ships to sail in ballast at times on return journey. Moreover, slow handling of the cargo at port and

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undue port delays inflict heavy losses on shipping companies. It is estimated that at present 70 per cent of ship time is spent at ports and only 30 per cent on voyage.

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### **3.6.3 Overseas Shipping:**

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Because of the importance of overseas shipping in international trade, considerable attention has been paid to increase the shipping tonnage in the planning period. In the First Plan Rs. 18.7 crores were spent on shipping while the expenditure in Second Plan stood at Rs. 52.7 crores. An important step taken during the Second Plan was the establishment of a non-lapsing shipping development fund for grant of loans to shipping companies for acquisition of tonnage. The Third Plan made a provision of Rs. 55 crores for shipping, which rose to Rs. 135 crores in the Fourth Plan. The Sixth Plan envisaged the augmentation of shipping tonnage for meeting increased requirements of India's foreign trade and also to replace the over aged tonnage especially the coastal vehicles. Ninth and tenth plan had the broad objectives for development of shipping in terms of modernization of fleet on the basis of improved ship designed and fuel efficiency in engines, replacement of over aged fleet on a selective basis, fixation of fleet by acquisition of cellular container ships and specialized product carriers, addition to fleet on a selective basis, keeping in view the long-term objective of achieving- self-sufficiency in tanker fleet.

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### **3.6.4 Major, Minor and Intermediate Ports:**

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India's major ports are governed by the Indian Ports Act 1908 and the Major Port Trusts Act 1963. The former allows the state to declare any port as major port, define port limit, levy charges, etc., while the formation of Port trust Boards vests the administration with control and management of major ports. At the time of independence, India had five major Ports, viz. Mumbai, Calcutta, Vishakhapatnam, Chennai, and Cochin. The Marmugao Port, developed by the Portugues, joined the ranks of major ports in 1964 after the liberation of Goa in 1962. Paradeep, on the eastern coast, was declared a major port in 1966. Eight years later, New Mangalore

and Tuticorin were added to the list of major ports. The inclusion of Jawaharlal Nehru Port at Nhava Sheva on the western coast took the number of major ports to 11. After independence, development of major ports was taken up in a planned manner. Mechanization and modernization of cargo-handling facilities at Ports have been a thrust area in recent years, with emphasis on development of dedicated infrastructure. Deepening of ports to receive larger vessels has been another priority area. Vishakhapatnam and Chennai ports have already been deepened.

Minor and intermediate ports fall in the Concurrent list and their administration is the responsibility of the respective coastal states. Their number as well as their categorization into minor or intermediate Ports has varied from time to time, depending upon the volume of cargo and the number of passenger they handle. Today, there are approximately, a dozen of intermediate and 150 minor ports in India.

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### **3.7 Civil Aviation Sector in India:**

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Commercial aviation took off in India on February 18, 1911, when a French aviator, Henry Piquet set a world record by flying the world's first air mail from Allahabad to Naini. Soon afterwards, India achieved a place in the world air transport map, when the KLM service to Batavia (now Jakarta) stopped by at Karachi, Jodhpur, Allahabad and Calcutta (now Kolkata) en-route to its destination.

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#### **3.7.1 Nationalization and Liberalization of Civil Aviation in India:**

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After independence, Indian civil aviation witnessed rapid expansion. The availability of cheap, war-surplus Douglas-DC3 aircraft gave rise to many new airlines, opening up more routes across the country. However, the early 1950s saw an alarming slump in the financial conditions of many of the new airlines, ultimately prompting the Government of India to nationalize the air transport industry.

In 1953, the existing domestic airlines were amalgamated to form Indian Airlines, and Air India International was created to operate international

services. The regulations, as set out by the Air Corporation Act of 1953, effectively removed competition in the Indian domestic sector. The total monopoly of Indian Airlines in the domestic aviation sector remained unchallenged till the beginning of the 1990's.

Increased demand for domestic air travel resulted in the Government of India progressively relaxing the existing restrictions and allowing domestic airlines to operate scheduled services. The repeal of the Air Corporations Act in 1994 enabled a number of private airlines to start domestic services. Airlines like Jet Airways and Air Sahara, among others, subsequently established themselves as major players. The entry of private operators offering scheduled services resulted in a multi-fold increase in the choice of flights available to passengers. Many new destinations were also opened up. In 2003, Air Deccan commenced operations, positioning itself as a “no frills” operator.

International air links with India also witnessed major growth over the years. In addition to Air India, Indian Airlines began serving many overseas destinations from major Indian cities. India signed bilateral air services agreements with over 100 countries, while airlinks were already in place with more than fifty countries. In 2003, the government allowed private domestic airlines to operate services to SAARC nations through an open skies agreement. An open skies agreement with ASEAN countries was also established, allowing for a more liberal air services agreement.

With regard to airports, the Government of India established Airports Authority of India (AAI) on 1st April 1995 with an aim to accelerate the integrated development, expansion and modernization of the various facilities at the airports in the country. Currently, AAI manages 12 international, 93 domestic airports and 27 civil enclaves.

Today, the Indian Government has liberalised policies with regard to private participations in airports. Government regulations have been modified to enable greenfield international airports to be established and operated in public - private partnership. Restructuring of existing major

airports through joint ventures involving private participation has also been initiated.

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**3.7.2 Civil Aviation in India: Impact of External Conditions:**

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Since the dawn of Independence, civil aviation in India has made giant strides and today it is a major contributor to the growth of the national economy. Apart from providing connectivity in a large and diverse country like India and serving the transportation needs of people in a speedy, cost-effective and efficient manner, the aviation sector has also greatly facilitated the development of domestic and international tourism, business, commerce and trade. Air India and Indian Airlines are recognised as symbols of national pride both within and outside the country.

Of late, the aviation industry has been facing difficult times. Even before the September 11 terrorist attacks in the USA, the industry was facing the acute pressure of global recession. International passenger growth in the first and second quarters in 2001 was only 6.3 per cent and 2.6 per cent respectively as compared to 9 per cent increase in 2000. Similarly, the Indian market was growing only at the rate of 2.4 per cent in early 2001 as compared to 6 per cent in 2000. September 11 and the events following it have had a very adverse impact on the airline industry. There was a severe erosion of passenger confidence in respect of the safety and security of air travel. For the first time after the Gulf war, there was reduction in the passenger traffic on a year-to-year basis. The decrease in global passenger traffic was 4 per cent in 2001 over 2000.

Because of its geo-political situation India was all the more affected. India has been bearing the burnt of cross-border terrorism. The terrorist attack on Parliament made the situation worse for the airline and hotel industry in India. Many airlines closed their operations to India and some others reduced their services. The cut in total capacity was to the tune of about 17,000 seats per week.

In this scenario, regaining the confidence of passengers became the highest priority of the Government. The Government and its agencies responded to the situation in an exemplary manner. Several measures had already been introduced following the hijack of Indian Airlines aircraft from Kathmandu, which were further strengthened after the attack on Colombo airport. The Central Industrial Security Force was deployed at 45 airports in the country for their security. The presence of this professional and disciplined force had an immediate and positive effect on passenger confidence. Other major steps included deployment of sky marshals both in national and private domestic airlines, deployment of strike forces at all major airports and strengthening of cockpit doors in aircraft. The maintenance and safety audit regime were further improved and today our standards are among the best in the world. This has been confirmed through independent assessments by the Federal Aviation Administration (FAA). All these steps have resulted in renewing the confidence of passengers in the safety and security of air travel.

Despite the temporary setbacks, civil aviation in India has a great future. The International Civil Aviation Organisation (ICAO) has projected India as one of the fastest growing markets in the world, both in passenger and cargo traffic. The growth in our traffic is estimated at 7 per cent per year till 2015 which is higher than 5.6 per cent for Europe and 6.8 per cent for South East Asia.

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### **3.7.3 Fact Sheet on Ministry of Civil Aviation:**

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#### **Airports:**

- 450 airports/airstrips in the country (including those managed by Defence Services, State Governments and Private Parties)
- Airports Authority of India (AAI) manages 125 of them
- 11 International Airports and 77 Civil Domestic Airports
- 9 Custom Airports
- 28 Civil enclave at defence airfields

Table 3.4 show aircraft movement, passenger movements and cargo movements in the last four years.

**Table-3.4**

Year	Aircraft movements			Passenger movements (in million)			Cargo movements (in tones)		
	Int.	Dom.	Total	Int.	Dom.	Total	Int.	Dom.	Total
2001-02	107824	402108	<b>509932</b>	13.62	26.36	<b>39.98</b>	560226	294050	<b>854276</b>
2002-03	116442	444208	<b>560560</b>	14.82	28.90	<b>43.72</b>	646137	333222	<b>979359</b>
2003-04	132934	506042	<b>638976</b>	16.62	32.08	<b>48.70</b>	693173	375029	<b>1068202</b>
2004-05	158191	571827	<b>730018</b>	19.45	40.09	<b>59.54</b>	824876	465036	<b>1289912</b>

**Source:** Press Information Bureau, Government of India.

- 85% of total passenger traffic is handled by 10 airports
- 80% total revenue is generated by these 10 airports
- 11 airports are profitable
- Of these Delhi and Mumbai, the 2 major gateways, account for 49% of total passenger traffic and 33% of total revenue

**Airlines:**

At present there are twelve (12) scheduled airlines operating in the country viz.

- Air India Ltd.,
- Indian Airlines Ltd.,
- Airline Allied Services Ltd. (Alliance Air),
- Air India Charters Ltd.,
- Jet Airways (India) Pvt. Ltd.,
- Sahara Airlines Ltd.,
- Deccan Aviation Pvt. Ltd.,
- Kingfisher Airlines,
- Royal Airways Ltd (Spice Jet),
- Blue Dart Aviation Ltd. and
- Paramount Aviation Pvt. Ltd.
- Go Airlines
- Government has also granted “No Objection Certificate” to 2 more airlines to operate scheduled air transport services. These companies are likely to

commence air transport services after getting the "Operating permit" from Directorate General of Civil Aviation The companies are:-

- Inter Globe Aviation Pvt.Ltd.
- Indus Airways Pvt. Ltd.

**Air India:**

Air India has started flights to Shanghai and Los Angeles and also introduced terminator flights from Ahmedabad to London. Air India has identified need for non-stop operations to the USA and is tailoring its fleet acquisition accordingly. Services to the following 12 new destinations have been planned in a phased manner: San Francisco, Washington, Houston, Toronto, Manchester, Beijing, Seoul, Taipei, Sydney, Lagos, Mauritius and South Africa.

Pending the aircraft acquisition plans, Air India has embarked on a strategy of taking aircraft on dry lease to meet its capacity expansion requirements. Air India and Air India Express presently have a fleet of 21 and 3 aircraft respectively on dry lease. Apart from this, Air India and Air India Express have finalized the arrangements for the induction of the following aircraft on dry lease:

**(i)** 4 X B737-800s in February - April 2006 by Air India Express.

**(ii)** 1 B-777-200A in December 2005 by Air India.

In its meeting held on 13.10.2005, the Public Investment Board (PIB) has approved the proposal for acquisition of 50 aircraft by Air India and 18 aircraft by Air India Charters limited (AICL). Simultaneously, an Overseeing Committee has been constituted for supervising and guiding Air India in its negotiations with the aircraft manufacture (Boeing). The proposals shall be submitted for the consideration and approval of Cabinet Committee on Economic Affairs (CCEA) shortly.

Air India has operationalized "Air India Express", a new budget carrier under the banner of Air India Charters Limited (AICL), a wholly owned subsidiary of Air India, by inducting 14 B-737-800 aircraft on dry lease over a period of one year from March, 2005 to April, 2006. Flights to South East

Asia and Gulf (excluding Saudi Arabia) are being operated by this carrier at substantially reduced fares.

Air India is also planning to significantly expand its cargo operations in a phased manner over the next two years. For this purpose, Air India plans to dry lease one A310 dedicated freighter and one B747 dedicated freighter and convert two A310 aircraft into aircraft for freighter services. Through these measures Air India's revenues for cargo services are expected to increase from Rs.4000 crores to Rs.6000 crores in 2005-06.

The Board of Air India has in principle approved the initial Public Offering (IPOs) in order to strengthen AI's equity base subject to the approval of the Government. The above proposals are under examination of the Government.

**Indian Airlines:**

Indian Airlines has introduced a biweekly Guwahati - Bangkok flight from January 1, 2005. Besides, new services have been introduced on Delhi - Kabul, Delhi - Singapore, Delhi - Bangkok - Kuala Lumpur and Mumbai - Bangkok routes. A direct flight between Delhi - Singapore has also commenced.

Indian Airlines has an on-going programme of leasing aircraft to increase its capacity. Currently, 17 Airbus A-320 and four ATR-42 aircraft are on lease with the airline. In addition, the airline has proposals to lease aircraft as per details below: 12 wide-bodied aircraft for international operations; 6 ATR aircraft for short sector routes; and 5 Airbus A-319 aircraft to replace ageing B 737 aircraft. The proposal to acquire 43 Airbus aircraft consisting of 19 A-319, four A-320 and 20 A- 321 aircraft, all powered with CFM56B engines, has been approved by the Government in September 2005. The airline has been advised to proceed further and finalise the purchase agreement.

Indian Airlines is into the final stages of examining conversion of 5 B737s into freighter aircraft to use them on a hub and spoke concept with Nagpur as a hub to offer express /retail courier services.

Indian Airlines Ltd. proposes to acquire 43 Airbus aircraft during 2006-07 to 2010- 11 at an estimated cost of approx. Rs.10,000 crores. The Government has approved infusion of Rs.325 crores as equity in Indian Airlines Ltd. to be used as margin money for the said acquisition. Further in order to partially support the financing of this acquisition, Indian Airlines Board has, in principle, approved raising of resources by IPO.

The above proposals are presently under the examination of the Government.

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**Airport Management:**

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Government is upgrading and modernizing the airports of Airports Authority of India (AAI) at Delhi and Mumbai through restructuring process by adopting the Joint -Venture (JV) route. Towards this end, Government had invited Expression of Interest (EOI) by 04.06.2004 for acquiring 74% equity stake in the JVC. Ten entities lodged their EOIs and Nine Consortia were short listed for participation in the Request for Proposal stage. The Pre-Qualified Bidders (PQBs) were issued the Transaction Documents and Request for Proposal document on 01st April 2005. Finally, eight Consortia were issued the Transaction Documents on 30.08.2005. Out of eight, five and six consortia submitted their bids for Delhi and Mumbai airports, respectively, on the last date i.e. 14.09.2005. The bids are at evaluation stage. The Joint Venture Companies will be mandated to undertake capital expenditure of Rs.28 billion at Delhi and Rs. 26 billion at Mumbai in the first 5 years. The expenditure on development of Mumbai airport is expected to be Rs.59 billion for the period 2005 – 2019 whereas for Delhi airport, it is likely to be of the order of Rs.79 billion over the period 2005-2024.

The Airports Authority of India has taken up the expansion and modernization of Terminal IB at CSI Airport, Mumbai, which caters to domestic private airlines. The Phase I of this expansion process has been implemented, which involves expansion of building on city side by 3,000 sqm and modification to the existing building in an area of 5,200 sqm. The

overall expansion of the building, after the completion of the project will be 7000sqm on city side and modification of existing building in an area of 17,400 sqm. The users have appreciated the Phase I of Terminal Building. Based on the experience of Phase I, additional improvements in the nature of canopy in the city side, skylights for improvement of natural lighting, expansion of departure area, etc. costing Rs. 85.66 crores have also been taken up. The work is likely to be completed by December 2005 at a cost of Rs. 85.66 crores.

Greenfield airport project at Devanahalli near Bangalore is being implemented on a Build Own Operate and Transfer (BOOT) basis with Public-Private- Participation (PPP). Government of Karnataka (GoK) and Airports Authority of India (AAI) together hold 26% equity and the strategic joint venture partners hold the balance 74%. AAI's investment in the equity is capped at Rs. 0.50 billion. A consortium led by Siemens, Germany with Unique Zurich, Switzerland and Larsen and Toubro India Limited as other members have been chosen as the strategic Joint Venture Partners. The Shareholders Agreement, the Concession Agreement, the State Support Agreement and the Land lease Agreement have been executed. Government of Karnataka is extending Rs.3.50 billion as State support and is providing approximately 4,000 acres of land on concessional rate. The Communication Navigation Surveillance / Air Traffic Management Agreement (CNS - ATM) have already been signed. Operation and Maintenance Services Agreement, financing Agreements etc. have been signed. The approximate cost of the Project is Rs.14 billion. The target opening date of the airport is 33 months from the date of Financial Closure. The Financial Closure was achieved on 23rd June 2005 and the formal implementation of the Project commenced on 02nd July 2005. Thus, the project is expected be ready for operation in April 2008.

A similar Greenfield airport is being developed in Shamshabad, near Hyderabad on BOOT basis with Public Private Participation (PPP) by the Government of Andhra Pradesh. The approximate cost of the Project is

Rs.17.60 billion. A Special Purpose Vehicle under the name and style of Hyderabad International Airport Limited (HIAL) has been set up. AAI and Government of Andhra Pradesh together hold 26% equity with AAI's equity being capped at Rs. 50 crores. The balance 74% is held by the strategic partner, a consortium consisting of M/s GMR Enterprises and Malaysian Airports Holdings Berhard. The Concession Agreement, the Shareholder's Agreement, the State Support Agreement, the Land Lease Agreement and the CNS / ATM Agreement has already been executed. The target opening date of the airport is 36 months from the date of Financial Closure. The Financial Closure was achieved on 22nd August 2005.

Airports Authority of India (AAI) has proposed to modernize 35 tentatively selected non-metro airports to world-class standards in phases, with focus on airside and city side development and enhancement of non-aeronautical revenue. Indian Financial Consultants (IFCs) and Global Technical Advisors (GTAs) were appointed to conduct techno-economic feasibility study of 10 identified airports to evolve an appropriate model, based on viability of the project. Their reports have also been received and are under examination. Appointment of consultant for remaining airports is in process. The financing issues regarding these projects are being examined by the Task Force constituted by the Planning Commission.

**Air Traffic and Cargo Management:**

Airports Authority of India manages one of the biggest airspace in the world, which encompasses huge area of oceanic airspace in the Bay of Bengal and Arabian Sea area.

Total Airspace	:	6.0 Million Sq.Km (approx)
Land area	:	2.2 Million Sq.Km (approx)
Oceanic area	:	3.8 Million Sq.Km (approx)

The entire Airspace has been divided into 5 FIRs: Mumbai, Delhi, Kolkata, Chennai and Guwahati for better and efficient airspace management functions. The air traffic services are provided through eleven area control centers at Mumbai, Delhi, Kolkata, Chennai, Ahmedabad, Varanasi,

Nagpur, Trivandrum, Guwahati, Manglore and Hyderabad. Radar services are provided at all area control centers. Control towers are established for the control of aerodrome/approach traffic at all controlled aerodromes. Air traffic in India has registered a rapid growth in the recent past and is forecast to multiply further in the immediate future. The phenomenal rate of growth has resulted in air traffic congestion and delay at many airports and in the Indian airspace. To address the growing needs of upgrading the ATM system, the AAI proposes to take up the following: ATS Automation Upgradation of Ground Infrastructure, e.g. provision of parallel runways, rapid exit taxiways, connecting taxiways at all major airports, upgradation of CNS Facilities, Upgradation of Met Facilities.

AAI has established international cargo facilities at four domestic airports, namely, Nagpur, Guwahati, Lucknow and Coimbatore. As far as Indian Airlines is concerned, cargo revenue from April-December, 2004 has shown an increase of over 19.25% compared to the same period in the preceding year and Indian Airlines has introduced a new facility called Shipment Notification System to promote export cargo through which shipper will be informed about the status of his shipment ex-inland cargo stations via e-mail and SMS. As far as Air India is concerned, it has decided to operate dedicated freighters on key cargo routes, i.e. India/ Europe/ USA, India /Japan, India /Singapore and India /China. It has proposed to retrofit its older A310 aircraft and has sought to dry lease upto 3 AB310 freighters and 1 B747-400 freighter for providing bridge capacity in the interim.

There is a proposal from Government of Maharashtra to construct International Multi Model Passenger and Cargo Hub (MIHAN) at Nagpur. Ministry of Civil Aviation / Airports Authority of India are willing to transfer the Nagpur airport to Government of Maharashtra subject to finalization of modalities. On the advice of the Ministry of Civil Aviation, the Govt. of Maharashtra conducted a due diligence study of Airport infrastructure at Nagpur and submitted a report on October 26, 2004. The

report is under examination. Cabinet has approved international status to Nagpur Airport and has also approved re-naming it as Dr. Ambedkar International Airport. The Indian Air Force (IAF) is also implementing its GAJRAJ Project adjacent to the MIHAN Project. High-level meetings are taking place exchange equivalent land between Govt. of Maharashtra and Ministry of Defence to facilitate implementation of the MIHAN Project. Government of Maharashtra has already formed a Special Purpose Vehicle (SPV) in the name of Maharashtra Airport Development Company (MADC) for development of MIHAN.

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**Check Your Progress:**

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Answer the following question:

1. Major road network at national and state level is classified as - National Highways (NH) and\_\_\_\_\_.
2. In India, the share of transport in GDP is approx. equal to\_\_\_\_\_ and road transport is equal to\_\_\_\_\_.
3. In 2004, an approximate motor vehicle population in India was \_\_\_\_\_ million.
4. The railways were introduced in India in the year\_\_\_\_\_ between \_\_\_\_\_ and\_\_\_\_\_.
5. Commercial aviation took off in India on February 18, 1911, when a French aviator, Henry Piquet set a world record by flying the world's first air mail from\_\_\_\_\_ to\_\_\_\_\_.
6. ICAO and DGCA stands for\_\_\_\_\_
7. There is a proposal from Government of Maharashtra to construct International Multi Model Passenger and Cargo Hub at\_\_\_\_\_.

Check your answer with the one given at the end of the unit.

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**3.8 Summary:**

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Transport sector in India has expanded manifold in the fifty years after independence, both in terms of spread and capacity. The growth in the importance of transport sector is borne out by its growing share in GDP.

The share of transport in GDP is 5.5% and handles more than 60 percent of freight and more than 80 percent of passenger traffic in India.

The total road length in India has increased significantly from 0.399 million kms as of March 31, 1951 to 3.38 million kms as of March 31, 2004, making Indian road network one of the largest road networks in the world. The surfaced road lengths have also increased from 0.157 million kms to around 1.604 million kms in the same period.

There has been a staggering 100-fold increase in the population of motorized vehicles. However, the expansion in the road network has not been commensurate with this increase. The motor vehicle population has grown from 0.3 million in 1951 to over 30 million in 2004.

After Independence, the railways of the country were totally integrated and brought under the unified management of the Railway Board. Today, the Indian Railways (IR) has a network spread over 63,000 route kms. and 7,000 stations throughout the length and breadth of the country. It carries 12 million passengers and more than 1.2 million tonnes of freight daily, accounting roughly for 40 per cent of the freight and 2 % of the passenger traffic in the country.

Water transport too has seen remarkable growth since independence. Today, India has a long coastline of 7,516.6 kms, a number of ports (11 major and 139 minor working ports) and a vast hinterland. In terms of ports, now we have approximately 11 intermediate and 168 minor ports.

Since the dawn of Independence, civil aviation in India has made giant strides and today it is a major contributor to the growth of the national economy. The availability of cheap, war-surplus Douglas-DC3 aircraft gave rise to many new airlines, opening up more routes across the country. However, the early 1950s saw an alarming slump in the financial condition of many of the new airlines, ultimately prompting the Government of India to nationalise the air transport industry.

Apart from providing connectivity in a large and diverse country like India and serving the transportation needs of people in a speedy, cost-effective

and efficient manner, the aviation sector has also greatly facilitated the development of domestic and international tourism, business, commerce and trade.

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**3.9 Answers to Check Your Progress:**

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1. State Highways (SH)
2. 5.5 and 3.5.
3. 30 Million
4. 1853, Mumbai and Thane.
5. Allahabad to Naini.
6. International Civil Aviation Organisation and Directorate General of Civil Aviation.
7. Nagpur.

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**3.10 Suggested Readings:**

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**3.11 Review Questions:**

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1. “There has been a substantial growth in the air transport sector in India especially in the post-independence era”. Explain the statement.
2. Discuss the growth and development of surface transport sector (both rail and road) after post-independence era.
3. Highlight the planning perspective of Government of India towards transport sector in terms of Budget allocation.
4. Highlight the Government initiatives in the transport development in India.
5. Explain the possibilities of water transport in India.

**Unit-4**

**Tourist Transport System: Distribution and  
Operational Requirements**

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**Structure:**

**4.0 Objectives**

**4.1 Introduction**

**4.2 Tourist Transport Distribution System**

**4.2.1 Benefits of Distribution Channels or Intermediaries**

**4.2.2 Structure of Distribution Channels**

**4.2.3 Distribution Channel Function**

**4.2.4 Number of Channel Levels**

**4.3 Tourist Transport Operations: An Introduction**

**4.3.1 Operational Requirements**

**4.4 Summary**

**4.0 Objectives:**

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After reading this unit, you will be able to:

- Explain the tourist transport system;
  - Discuss the distribution system in transport sector;
  - Explain the benefits, structure and functions of distribution channels;
  - Describe the number of channels in tourism transport sector; and
  - Explain the operational requirements in tourism transport sector.
- 

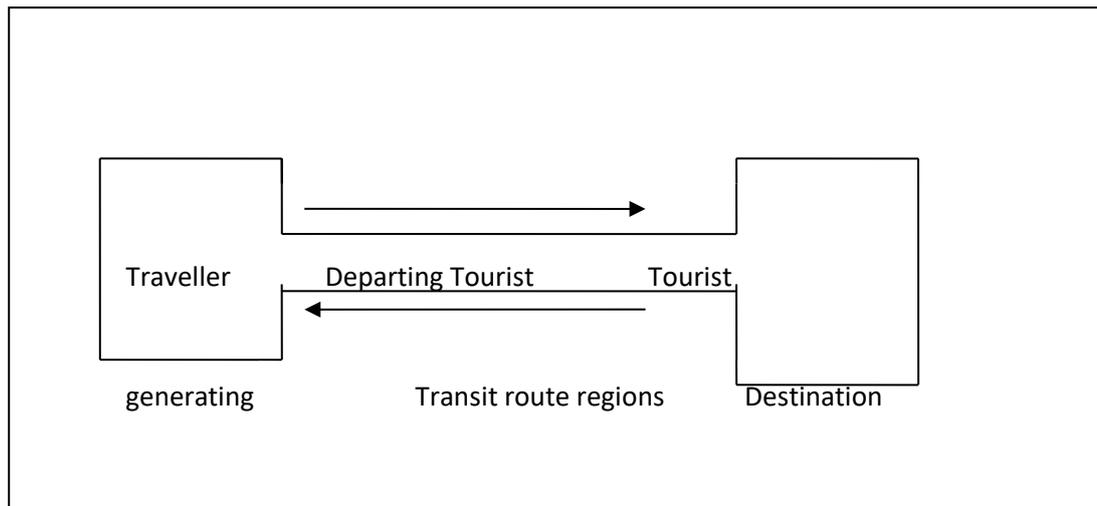
**4.1 Introduction:**

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Tourism transport as a product, in its widest sense, is everything that the visitor consumes not only at the destination but also en route to destination; transport provides some key elements of the tourism product. Infact, as per Leiper, transport makes an important link between three geographical elements of the model. These are traveller - geographic regions, transport destination regions and transit route regions. Travellers generating regions represents the generating markets for tourism and in a sense provide a 'push' to stimulate and motivate travel. It is here that tourist searches for information, makes bookings and departs for his destination. In many respects, a tourist destination region represents the 'sharp end' of tourism. At the destination, the full impact of the tourism is felt and planning and management strategies are implemented. The destination is also the reason for tourism. The pull to visit destination energizes the whole system and creates a demand for travel in generating region. It is therefore at the destination, where the most noticeable and dramatic consequences of the system occur. The travel route region represents not only the short period of the travellers to reach the destination, but also the intermediate places, which may be visited en route. There is always an interval in a trip when the traveller feels that they have left their home region but not yet arrived. .... [Where] they choose to visit (Leiper, 1990, p.22).

Basic transport system is reflected in the following figure:

Figure-4.1



Source: Leiper, N., Tourism System, 1990

#### 4.2 Tourist Transport Distribution System:

Most of tourism organizations have limited production units, especially in transport sector, such as taxi firms, independent travel agents and tour operators, destination management companies, where the choice of location is the most important business decision. There are a number of reasons for developing distribution or access system, but the overriding reason is to generate sales revenue in addition to what may be sustained solely by a good location. Whilst, to some extent, additional expenditure on advertising or other communication or alternatives to creating more point of sale, in practice there is usually a balance to be achieved between promotion and place. A massive demand generated by advertising could be lost, for example if convenient points of access were not available to turn demand in to sale. Sales promotion and merchandising, which take place at points of sale, are of course vital activities in travel and tourism marketing, and the possibilities and the requirements of such promotion reflect and influence the choice of distribution systems.

The factors which focus attention on supplementary points of sale are:

1. Growing size of business (production capacity).
2. Increasing number of units within a group or chain under one ownership is linked in marketing cooperatives.

3. Greater distance which customer travelled to reach a unit-- especially where international travel is involved.
4. The greater importance of drawing in first time rather than repeat visitor, in order to grow.
5. Growing competition for shares of market, for which there is excess capacity in a location.
6. The need to reduce dependence on day-to-day sales by selling capacity ahead of production, through a reservation system.

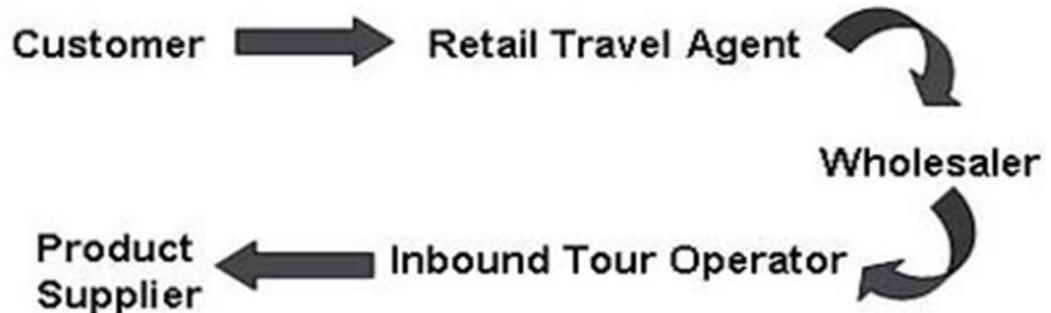
The concept of distribution channels is not limited to the distribution of physical goods. Infact, distribution is one of the four aspects of marketing. A distributor is the middleman between the manufacturer and retailer. After a product is manufactured, it is typically shipped (and typically sold) to a distributor. The distributor then sells the product to retailers or customers.

Producers of services... also face the problem of making their output available and accesible to target poppulaions' (Kotler, 1984). Kotler adopts Bucklin's (1966), defination of distributional channels as comprising ... " a set of institutions which performs all of the activities (functions) utilized to move a product and its title from production to consumption. Whilst Bucklin's defination is clearly based on phisical goods, which move from a place of production, it never the less contains key elements for an adequate defination for services.

A distributional channel is a set of independent organizations involved in the process of making a product or service available to the consumer or business users. Development of a distribution system starts with the selection of channel members. Once members have been selected, the focus shifts to managing the channels. Distribution networks in the hospitality industry consist of contractual agreements and organized alliances between independent organizations. Distribution system is traditionally used to move goods from the manufacturers to consumers. In the

hospitality and travel industry, distribution systems are used to move the customer to the product- the hotel, restaurant, cruise ship or airplane.

Figure 4.2



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#### 4.2.1 Benefits of Distribution Channels or Intermediaries:

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Travel intermediaries bestow a number of benefits on producers, consumers and the destination. These can be explained as follows:

- Producers are able to sell in bulk and so transfer risk to the tour operator, although wholesalers do attempt to cover themselves by including release clauses in agreements. These may vary from four or more weeks to seven days.
- Suppliers can reduce promotion costs by focusing on the travel trade rather than on consumer promotion, which is more expensive.
- By being able to purchase an inclusive tour the traveller can avoid search and transaction costs both in time and money.
- Consumers gain from the specialist knowledge of the tour operator and the fact that the uncertainties of the travel are minimized. For example, cruising and coach tours are attractive to senior citizens because the holiday starts the movement they board the ship or coach.
- The most significant gain for tourists is in lower prices, notably in the case of resorts dealing with large numbers of visitors. In such cases, wholesalers are able through their buying power to negotiate discounts of up to 60 per cent off the normal tariff.

- Destinations, especially in developing countries where budgets are limited, may benefit considerably from internationally marketing network of tour operators.

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**4.2.2 Structure of Distribution Channels:**

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Independent travellers put their own itinerary together. This they can do by purchasing the key components of transport directly from the suppliers, or from their own outlets or via the retail travel agent. It is common in domestic tourism for consumers to purchase their trip requirements directly, because they usually have good product knowledge and ready access to a telephone to make reservations.

It is difficult for airlines, bus and coach operators and shipping companies to have their own outlets in large cities, from which the public may purchase travel product directly. Airlines are particularly keen to secure their presence in the market by locating offices in capital cities. This serves both the trade and the public, where there is not only large number of business travellers but also many overseas holidaymakers traveling independently.

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**4.2.3 Distribution Channel Function:**

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Distribution channel moves goods from producers to consumers. It overcomes the major time, place and possession gaps that separate goods from those who would use them. Members of the marketing channel perform following key functions:

1. **Information:** Gathering and distributing marketing research and intelligence information about the marketing environment
2. **Promotion:** Developing and spreading persuasive communications about an offer
3. **Contact:** Finding and communicating with prospective buyers
4. **Matching:** Shaping and fitting the offer to the buyer's needs, including such activities as manufacturing, grading, assembling, and packaging
5. **Negotiation:** Agreeing on price and other terms of the offer so that ownership or possession can be transferred

6. **Physical distribution:** Transporting and storing goods
7. **Financing:** Acquiring and using funds to cover the cost of channel work
8. **Risk Taking:** Assuming financial risks such as the inability to sell inventory at full margin

The first five functions help to complete transactions, the last three to fulfil the completed transactions.

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#### 4.2.4 Number of Channel Levels:

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Distribution channels can be described as the number of channel levels in each layer that performs some work in bringing the product and its ownership closer to the final buyer. Because the producer and the final consumer both perform some work, they are part of every channel. We use the number of intermediary levels to show the length of a channel.

**Channel one** is called a direct marketing channel, which has no intermediary level. It consists of a manufacturer selling directly to consumers. For example in the hospitality sector a restaurateur may buy produce directly from the grower or an airline selling airline ticket directly to passengers.

**Channel two** contains one level. In consumer markets, this level is typically a retailer. Many of the agricultural products purchased by the hospitality industry come from cooperatives. In the United States, Sunkist, Walnuts, and Land '0' Lakes butter are all producer co-operatives. New Zealand Milk Products Company is also a cooperative and sells butter and cheese throughout Southeast Asia and Latin America. In transport sector, an airline many sale tickets through IATA agents to customers.

**Channel 3** contains two levels. In consumer markets, these are typically a wholesaler and a retailer. This type of channel is used by manufacturers. Airlines many sell tickets through GSAs and IATA agents.

**Channel 4** contains three levels. Airline selling tickets through GSAs, IATA agents and through internet. The producers sell to smaller firms that are not served by larger wholesalers. From the producer's point of view, a

greater number of intermediaries in the channel means less control and more complexity.

All the institutions in the channel are connected by several types of flows. These include the physical flow of products, the flow of ownership, payment flow, information flow, and promotion flow. These flows can make channels with only one or a few channels very complex.

Many specialized channels are available to hospitality and travel organizations. The following components of hospitality or travel distribution system: travel agents; tour wholesalers; specialists; internet and on-line reservations systems; global distribution systems are discussed below:

**Travel Agents:** Travel agencies are one of the most important organizations in the travel industry, playing a significant and crucial role in the entire process of developing and promoting travel sales. Travel agencies as IATA approved agencies have a key role in the process of distribution of airline products. Apart from IATA, TAAI is another association of travel agencies in India, having a dominant role in tourism distribution.

Paradoxically, the basic functions of travel agents have not changed significantly over the years. However, there have been additions in the functions performed by travel agencies. Apart from the basic function of distribution, travel agent packages and processes all components of the tourism product offered to the tourists. In this way, it converts a country's attractions, accessibilities, amenities into salable commodities. Thus the place of the travel agency is very prominent among the other types of intermediaries involved in tourism products and services. It is clear that travel vendors can sell products/services directly to the tourists or through one or more intermediaries. Whatever system they adopt, will facilitate travellers and create new market opportunities.

**Tour Operators:** Today, travellers are becoming more and more sophisticated, experienced and are willing to pay much higher for the services rendered by tour operators; as they realize that in the

long run, pre-planned and pre-arranged tours will not only save one third of their time en route, but will also give them more value for their money. Infact, tour operators have the responsibility of putting tour ingredients together and finally making the tour possible through a series of operations.

At its most fundamental, tour operating is a process of combining aircraft seats and beds in hotels (or other form of accommodation) in a manner which will make purchase price more attractive to potential holiday makers. As noted earlier, tour wholesalers achieve this through bulk buying which generates economies of scale that can be passed on to customers. The most essential link in this process is the tour operator's brochure, which introduces the holiday product to the customer. The brochure must include the following:

- Illustrations, which provide a visual description of the destination and the holiday.
- A written description of the package to help the customer match the type of product he is looking for.
- Departure plans, which give the specifications of the holiday for.
- Price different times of a season, duration of a stay and variety of departure points.

Large tour operators normally sell a wide portfolio of tours and therefore have a range of brochures. For instance, there will be separate brochures for summer holidays, winter holidays, ski holidays, long-haul travels, short breaks. Popular destinations may have tour operator's brochures dealing solely with holidays to that country or region. Research has shown that places to visit are often the first holiday decision made by some travellers. The brochures are designed to lure customers to buy and are often only information they have concerning the destination until they arrive there. However, it cannot be a comprehensive travel guide. The number of pages is limited by considerations of cost and other

reasons, and operators try to put as much detail about the package as they can in the space available. Clearly, this must be consistent with the brand image they are trying to convey, as they will each be competing for the customer's attention.

**Specialists: Tour Brokers, Motivational Houses:** Tour brokers sell motor coach tours, which are attractive to a variety of markets. Tours through Rajasthan to view the culture and heritage, trips to National Parks and sporting events, tours around Buddhist circuit, and regularly scheduled tours of the Golden triangle area are examples of popular trips in India. Some motor coach tours are seasonal, some are based on a single event and others are year round. For hotels on their routes, tours can provide an important source of income.

Motor coach tours are very important to museums and historical places, such as tour to Rajasthan forts, palaces. Historic restorations sites, heritage hotels, and destination cities usually participate in a coach tour offered in their markets. Sales persons representing them scrambles to make appointments with bus tour companies that serve these areas.

Business houses provide incentive travels to employees as a reward for their achievements. Companies often use incentive travel as a price for employees who achieve sales goals or for the sales team achieving the highest sales. The incentive trip is usually to resort areas in first-class or luxury properties. For resorts or up-market destination cities Business houses represent an effective distribution channel. Ways of reaching tour brokers and Business houses include trade magazines and trade associations, such as TAAI, IATO and ADTOI, etc.

**Internet and On-Line Softwares as Intermediaries in the Tourism Distribution Channel:** The Internet offers great opportunities for the tourism industry, but it has created some discord among the members of the tourism distribution channel. The threat faced Internet selling has

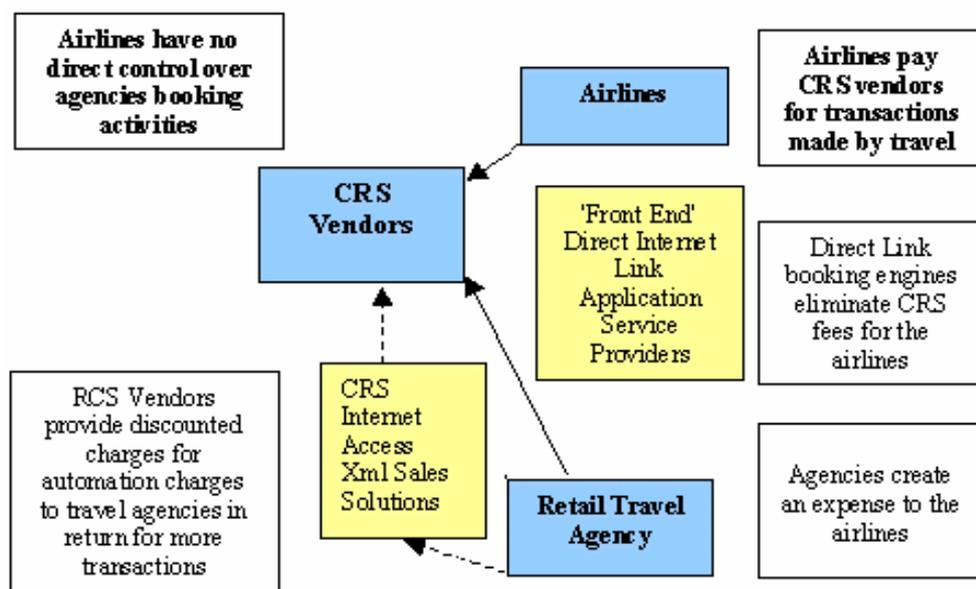
affected influenced both online and traditional travel agents, compelling them to increase the functionality of their websites and implementing e-commerce.

**CrS and Gds as Intermediary:** The travel services industry has traditionally used forms of these vehicles known as Computer Reservation Systems (CRS) which give access to the Global Distribution Network (GDS). It has been the practice to receive reservation information, fare quotes and other 'just in time' information via these networks. Computer Reservation Systems (CRS) are heavily used by the airline industry, which is now dependent on technology for seat inventory and fare distribution. But travel agents are the largest users of CRS services. Internet bookings have been increasing. However, they still account for a very small percentage of the total distribution mix. Due to the significant size of the distribution of tickets through CRS and the travel industry supply chain, there is concern over the dramatic increase in costs of CRS fees to the air carriers. This significant expense has prompted many air carriers to seek alternative e-commerce solutions.

The CRS permit on-line booking engines to front end onto their system, allowing both the travel supplier and consumer to access the airline inventory. The airlines pay CRS fees for this service. Using the internet and 'direct link' technology as a front end to the airline's own reservations system allows the airline to sell direct without paying CRS fees. Potential lost revenues are powerful motivators for the CRS to retrench themselves as the dominant player in the traditional delivery model of airline tickets while the air carriers are motivated to develop their own strategic plans to manage seat inventory and control CRS costs. This trend will continue as corporations such as the CRS and air carriers examine ways to reduce costs and increase efficiencies through Enterprise Resource Planning (ERP) systems that provide information on all aspects of their operations. The retail travel services industry is caught in the middle of this confrontation. There are various GDS's available in the market but the four most commonly used Global Distribution Systems (GDS) are - Amadeus,

Galileo, Sabre and Worldspan and have been referred to as the backbone of the modern travel distribution system (Bear Stearns, 2000) They have processed more than 1 billion air bookings each, and another 250 million for hotels, cruises and other non-air content, generating over US\$6 billion in revenues. Sabre and Amadeus own the largest civilian data-processing centres in the US and Europe respectively. The volume of global transactions through the GDS has risen 4% year-on-year to 343 million. Worldwide, the GDS reaches some 230,000 points of sale.

**Figure 4.3**  
**The CRS Vendors' Relationship to the Retail Travel Agent and the Airline**



Airlines are also utilizing high technology such as proprietary platforms and agnostic application service provider (ASP) technology, to redefine their strategic position in the industry. These platforms can web-enable thousands of non-GDS vendors at lower costs than CRS/GDS vendors, provide direct connectivity with a 24 x 7 booking engine and support contract terms and negotiated rate programs.

The impact of this technology is that it levels the playing field and provides equal online distribution opportunities to mid-size and smaller retail travel services industry and their vendors. Additionally, it offers sellers multiple trading formats not available on the GDS such as auctions, last-minute deals, and reverse-bidding auctions. It can be customized to

facilitate improved marketing strategies, performance and revenue reports. Importantly, it can empower the travel agent community with the tools to compete.

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**4.3 Tourist Transport Operations: An Introduction:**

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The essential characteristic of the production function is to bring together human resources, physical resources, financial resources technology to produce goods and services in order to satisfy the customer's needs. Therefore, operations refer to the way in which organization transforms its input into output, i.e., transforming resources in to goods or services.

In simple words, all productions or operations are purposeful activities of an organization. Each operation adds value to some entity through a variety of means. This may include a change in the form or state of inputs or value additions through locations or inspections. For example a taxi available at the exit point of an airport adds value to the service in comparison to a person travelling independently.

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**4.3.1 Operational Requirements:**

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There are various operational requirements for the smooth conduct of transport business. Such requirements depend upon a large number of factors, such as, type of business, location, type of product, legal framework, production process, existing market conditions, etc. But, in common, the various operational requirements can be summarized under the following heads:

- i) Vehicles**
- ii) Well-equipped office**
- iii) Trained manpower**
- iv) Parking garage**
- v) Maintenance facilities**
- vi) Communication facilities**
- vii) Selling network**
- viii) Capital requirements**

**Vehicles:** Vehicles are a prerequisite for movement of tourists from one place to another. These vehicles are available for customers with both air-conditioned as well as non-air conditioned facilities. Although, permit cost does not differ, but overall costing makes the difference, as passenger maintenance cost of air-conditioned vehicle is substantially high. Broadly, these vehicles can be of the following categories:

- 1) **Cars:** Different types of cars are used for tourist transportation. Like any other product, there are varied types of cars:
  - a) The budget category
  - b) Medium category
  - c) Up-market category

The budget category would consist of cars like Indica, Ambassador, Fiat Uno, Sienna, Maruti Omni, etc. The medium category consists of cars like Ford Icon, Esteem, Fiat Sienna, Cielo, etc. The Up-market category includes Mitsubishi Lancer, Honda City, Honda Accord, Hyundai Ascent and, of course, Mercedes Benz.

The decision to purchase a particular type of car would depend on the kind of market segment or customers. Following are the factors, which need to be considered while taking a decision about the type of car to be purchased:

- i) **Size of the car:** It is advisable that the passenger comfort with sufficient leg and baggage space should be there.
- ii) Exhaust Emission should meet the standard laid down by the government.
- iii) Maintenance Facilities should be available in the area/region where the car is generally to operate. Availability of spare part should be easy so that the vehicle can be attended to even at odd hours in case of any emergency breakdown.
- iv) **Fuel:** The type of fuel used in the car should be easily available.

2) **Buses:** Different types of buses available as option can be grouped on the basis of seating configuration as well as on the basis of quality of facilities.

a) Ordinary buses

b) Deluxe buses

By and large, budget tourists use ordinary types of buses, while deluxe buses are used by up-market tourists. While purchasing a bus the factors mentioned in case of cars is weighed. At times, there are different models available in the same make manufactured by the same manufacturer. In order to decide about the type of model, a market survey should be conducted in order to ascertain the factors of reliability, resale value and performance. Sometimes particular models suffer from an inherent defect due to defective design or machinery. Information about this could be ascertained from previous users of the models or trade journals and newspapers.

Normally, ordinary buses have a seating configuration of 2x3. The width of the bus is standardized both in respect of ordinary and deluxe buses. The difference lies only in the type of seats and its interior. The specification such as like total length and breadth, leg space, size of seat, internal height, overall height, etc., are governed by the central motor vehicle Rules and deviations from these rules will entail refusal of the certificate of fitness by transport departments.

A tourist transport operator must have an idea about categorization and layout of buses. A full size ordinary bus has seating configuration of 35 passenger one seat each for driver and conductor. Another type of bus is included in the category of Light Commercial Vehicle (LCV). In this category an ordinary bus consists of seating capacity of 24+2; and in case of deluxe buses, seating configuration of 18+2. Whatever may be the brand label, standard configuration, in each category of full size and light commercial vehicles remains the same.

It would be advisable to understand the technical terminology involved in purchase of buses. Some buses have front overhand and some do not. But,

as far as rear hangs way is concerned tour operators can give specifications for the body building of vehicles when buying the chassis while specifying body building one should know the technicalities involved with it, for example, on plain lands the rear hang way is not permitted to be more than 60% of wheel base, whereas in case of hills (more particularly in Garhwal) it is restricted up to 50% of wheel base. However, this restriction is not applicable in the hills of Himachal Pradesh.

**3) Jeeps:** In the business of tourist transport, jeeps are used for jungle safaris, desert safaris and, of course, mount in safaris. If the tourist transporter operates such safaris he may go in for investing and creating an infrastructure of jeeps.

Jeeps are of two types:

- a) Two wheel drive
- b) Four wheel drive

Four wheels drive jeeps an ideal for uneven and mountainous terrains.

**Parking Facility:** It is always better to have dedicated parking facilities instead of parking vehicles on the roadside and/ or blocking the passage of heighbours and pedestrians. It is not only a legal requirement specified in the permit issued by Transport Department, but it also adds to the safety and security of the vehicles. In case the operator has his own parking facilities, a lot of logistical problems are solved apart from keeping the vehicles safe and secure. These logistic problems arise while conducting the actual operations and can be experienced only practically. Depending upon the size of the parking space Public Address System may be installed for communication with the drivers are other operation staff. Parking management includes strategies that result in more efficient use of parking resources.

**Maintenance Facilities:** Maintenance of motor vehicles is the most intricate part of total operations. Any lapse on this account can result in severe discomfort and inconvenience to customers. Any breakdown due to poor maintenance not only results in to financial loss but can also result in

loosing clients permanently. Some of the precautions that are advisable for the proper maintenance of transport fleet are:

- In the present high-tech world no customer would expect a breakdown in the vehicle or poor maintenance thereof. Besides the mechanical maintenance, it is essential that the vehicles are aesthetically maintained in firm conditions. Experience shows that very few drivers are genuinely interested in the maintenance of vehicles. Also they do not have the right competencies in evaluating a defect in the vehicle. It has generally been seen that a driver may come back and report a fault in the wheel, but the actual defect would be in the gearbox, because in both the cases extra noise is noticed. Under such conditions the maintenance manager and supervisor need to be highly skilled and experienced so as not to depend only on the report of the driver; instead conduct an inspection themselves before embarking upon remedial action.
- In the present quality conscious automobile environment, it is always advisable to follow the manufacturer's schedule of maintenance. Today's theory is preventive maintenance and not post-defect maintenance. Preventive maintenance may initially sound to be expensive, but it will always be paying in the long run.
- Proper record should be kept for each vehicle in respect of its maintenance. The maintenance schedule as given by the manufacturer, should be fed in the computer. The software should be so designed that even at the time of booking and allocating the vehicle for any booking, the service due in respect of each vehicle should be reflected in the system, e.g., if a vehicle is to go to Kullu-Manali for 15 days and routine service is due in the next 500 kms., if not taken care of and sent for the booking, oil filter may get choked and vehicle will breakdown on the way.
- It is advisable that CEO/COO (Chief Executive/Operating Officer) should hold regular meetings with maintenance and booking staff in order to co-ordinate, supervise and implement various maintenance Issues.

**Communication Facilities:** Like in any other business, communication facilities in transportation are the vital link from all angles of the activity whether it is customer communication or communication with operational staff. Means of communication have to be fast and wide connectivity should be available. It is important that operational office should have multiple means of communication, such as adequate number of telephones, fax, and e-mail connectivity, etc. Operational staff must possess mobile phones or pagers. The most economical way of keeping in touch with the drivers is through pager system. One message in the pager at times, can resolve multiple and complex problems.

**Selling Network:** It is universal truth that selling is the most crucial part of any business. The three Ps of selling, i.e., Publicity, Public Relations and Personal Selling are equally applicable in the Transport business. Even the vehicles plying on roads can achieve the desired level of publicity. Coaches have a wider exposure and a greater publicity value in relation to cars. Therefore, the exterior of coaches should be having a uniform colour. Scheme, promptly displaying the company's monogram and company's name written in specific style.

**Capital Requirements:** Passenger transport industry is highly capital intensive. The value of the Capital Goods, viz., the vehicle, unlike other industrial capital goods and machinery, depreciate rapidly resulting in scrapping within a period of 6 to 7 years. The value of a new passenger vehicle is now around 9 to 10 lakhs. Given the high incidence of insurance premium, road and passenger tax levied by various states and staff emoluments. Maintenance cost and given the fact that most of the vehicles are under-utilised, the margin is under severe pressure. Added to these is the absence of mandatory requirement to order readjustment of passenger fare with reference to the increase or decrease in input cost. This deficiency is always exploited by the States for political considerations. As a result, operators postpone replacements and continue using vehicles, which guzzle precious fuel and pollute the atmosphere.

The Government has given such encouragements to car and two wheeler manufacturers that lines of cars and two wheelers clog the arteries, impeding movements of buses, which cater to the masses. Government seems to have put a premium on personal transportation rather than public transport. In order to start a tourist transport business, capital is required in various areas like. Setting up of an office either on ownership basis or on lease basis, Purchasing vehicles, Garage and maintenance workshop, Workshop equipment's, marketing and sales material and Working capital.

Investments made in real estate have always been believed to be sound investments. Setting up of an office in premises owned by the operator himself is always advisable, as not only it becomes a sound investment for times to come, but it also facilitates a permanent address. Therefore, to have an office on lease basis is comparatively disadvantageous. These decisions may vary depending upon the size of the operation and the operator's own financial standing. Loans are of course available from different financial institutions but, at the same time, substantial amount of margin money is required from the promoter.

Keeping the above in view it is always better to own the premises instead of leasing it. After identifying area the operator should look for a suitable premises based on planning and forecasting. While identifying the premises, the possibility of expansion should also be examined.

Ideally, the land cost of office and garage should not be more than 20% of the capital deployed for vehicles. Total project can be financial by a financial institution, private finance companies and banks. These days it is very convenient and easy to get the vehicles financed even to the extent of 95% of the cost of the vehicle. However, it is always recommended that the ideal financing parameter should be adopted, according to which 20% should be contributed on margin money by the entrepreneur and 80% financed by the finance company. The requirement of capital on account of margin money for an estimated cost for purchase of 20 vehicles (Rs.1.5

crores) shall be Rs.30 lakhs. In other words, Rs.30 lakhs plus another 53 lakhs on account of other expenses would be required.

**Funding Options Available for Passenger Transport Infrastructure Development in India:** Passenger Transport in India is treated as public utility service in view of its requirement of heavy initial capital investment and providing essential service to the common man. For generation of additional resources in any of the financial options, an effective institutional framework with a general commitment to implement it is needed. On similar lines, integrated transport planning is equally essential to plan and execute capital-intensive projects in transport operations. Development of coordinated transport plans and execution of resulting infrastructure projects is very necessary.

Private capital has to be attracted in such infrastructure projects encouraging the same in different optional schemes presently available, like BOOT (Build, Own, Operate and Transfer), BOT (Build, Operate and Transfer), etc. For this purpose necessary amendment, if required, in Industrial Policy Resolution and other legislations are needed in order to open the projects for private sector construction and operation. Railways Act may be amended to allow private enterprise to operate services on BOOT principle and to set the passenger fares on commercial lines without seeking prior approval of the Government. Various tax and fiscal benefits are also to be extended to projects under BOOT scheme. Necessary provisions in project cost should also be made in all projects of BOOT for adjusting the risk of devaluation of Indian Rupee in respect of borrowings in foreign currency.

For funding any new project for passenger transport and also for survival of the existing transport system, the important source is the fare box revenue. The passenger fare should be allowed to be regularly adjusted according to the increase in input costs from time to time. This fare box revenue has to be supplemented by commercial exploitation of railways and road transport wherever feasible, as stated earlier.

The scope for raising debt finance though limited should also be considered. These limitations arise due to lack of good track record of profitability, non-availability of marketable assets during the construction phase, and high starting risk due to uncertainty of attracting senior lenders like the World Bank, the Asian Development Bank (ADB), etc. For raising debt finance, the selection of debt instruments with appropriate tax exemptions in the Indian context is needed. The public can be approached to purchase debt instruments, such as, Deep Discount Bonds with substantial tax benefits.

Equity contribution from different sections for funding projects in railways and road passenger transports has to be tapped. This will come from the promoters, the governments, the contractors building the projects and supplying machinery, etc., property developers and the private investors like Banks and other Financial Institutions in India. In the tourism sector in India, Tourism Finance Corporation of India (TFCI) is playing a major role in financing tourism projects. Public issues for capital projects, when backed by Government can also attract good response from investors in India.

For any type of funding measures, full support and cooperation from the Central and the State Governments is essential. This support will be mainly in the form of timely clearance of the various procedures and formalities in the preparation of BOOT projects. Such projects have to be declared by the Government as of national importance and all possible concessions are to be provided for.

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### **Check Your Progress:**

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Answer the following question:

1. Give a few examples of distributional channels in tourist transport.
2. CRS and GDS stand for \_\_\_\_\_ and \_\_\_\_\_.
3. Give a few examples of CRS/GDS in tourist transport.
4. Mention 3 major operational requirements for tour operational business.

5. Name the major financial institution in tourism sector in India.
6. Give an example of on-line distribution in air transport.

Check your answer with the one given at the end of the unit.

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**4.4 Summary:**

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Most of the tourism organizations have limited production units, especially in transport sector, as a result there is a need for developing distribution or access system, but the overriding reason is to generate sales revenue additional to what may be sustained solely by a good location.

Distribution is one of the four aspects of marketing where a distributor is the middleman between the manufacturer and retailer. Therefore, we can call distributional channel as a set of independent organizations involved in the process of making a product or service available to the consumer or business users.

Distribution channel moves goods from producers to consumers. It overcomes the time, place, and possession gaps that separate goods and from those who would use them. Members of the marketing channel perform many functions, such as, *Information*, Promotion, finding and communicating with prospective buyers, matching - shaping and fitting the product to the buyer's needs, negotiations, physical distribution, financing, etc.

There are a number of Channels, such as, direct marketing channel, retailer, wholesaler etc. In tourism transport, major types of distribution channels are travel agents, tour operators and specialists, tour brokers, motivational houses, etc. A wide usage of Internet and on-line CRS and GDS are also being used as distributional channels, which has not only enhanced their distributional role but has also provided qualitative, timely and updated information.

Tourist transport operations bring together human resources, physical resources, financial resources and technology, etc. to produce goods and services in order to satisfy the customer's needs. Therefore, operations

refer to the way in which organization transforms input into output, i.e., transforming resources in to goods or services. Each operation adds value to some entity through a variety of means. This may include a change in the form of or state of inputs or value additions through locations or inspections. For example, a taxi available at the exit point of an airport adds value to the service in comparison to a person travelling independently.

There are various operational requirements for the smooth conduct of transport business. Though such requirements depend upon a large number of factors, such as, type of business, location, type of product, legal framework, production process, existing market conditions etc. But, in common practice various operational requirements are vehicles, well-equipped office, trained manpower, parking garage, maintenance facilities, communication facilities, and selling network, etc.

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**4.5 Answer to Check Your Progress:**

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1. Travel agents, Tour Operators, CRS/GDS.
2. Computer Reseravation System and Global Distribution System.
3. Amadeus, Galileo, Sabre, Abacus.
4. Office, Manpower, Capital Requirement.
5. TFCI (Tourism Finance Corporation of India)
6. E-ticketing.

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**4.6 Suggested Readings:**

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**4.7 Review Questions:**

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Highlight the major factors that explain the utility of distribution channels in transport sector.

- Discuss the structure of distribution channels in transport sector.
- Explain the functions performed by distributional channels in transport sector.
- Highlight the number of channel levels practiced in transport sector.
- Explain the role and function of Travel Agents and Tour Operators as intermediaries in transport business.
- Discuss the operational requirements in tourist transport business.

**Unit - 5**  
**Air Transport: Origin and Growth in International Context**

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**Structure:**

**5.0 Objectives**

**5.1 Introduction**

**5.2 Evolution and Growth of Air Transport**

**5.3 The Organization of Air Transport**

**5.3.1 Equipment Manufactures**

**5.3.2 Airports**

**5.3.3 Navigation and Air Traffic Control**

**5.3.4 Airlines**

**5.4 Air Transport: Regulation, Deregulation and Strategies**

**5.4.1 Hub and Spoke System**

**5.5 International Air Transport Organizations**

**5.5.1 IATA**

**5.5.2 ICAO**

**5.6 Air Transport in India: From Retrospect to Prospect**

**5.6.1 Evolution and Growth of Air Transport in India**

**5.6.2 Current Scenario**

**5.6.3 Future of Air Transport in India**

**5.7 Summary**

**5.0 Objectives:**

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After reading this unit, you will be able to:

- Discuss the evolution and growth of air transport in the world;
  - Describe the components of air transport;
  - Discuss the trends and strategies practiced by international airlines; and
  - Explain the evolution, growth and future prospects of air transport in India.
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**5.1 Introduction:**

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Air Transport, one of the predominant modes of transport in the world, has experienced incredible growth during the last fifty years. As per the latest statistics, in the parlance of tourism, more than forty percent of the international

travellers use air transport. An understanding of the evolution, growth, current scenario and the future prospects of transport are important for a tourism student. This unit is structured in a manner to throw some light into the history of air transport, recent trends, its future prospects in India as well as world; components of air transport; important organizations involved in regulating and controlling air transport in the world; and some common practices adopted by the airline sector.

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**5.2 Evolution and Growth of Air Transport:**

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Air transport has grown tremendously in a shorter span of time; the last fifty years have seen the transformation from its infancy to enormity. It was in 1903, when Wright Brothers experimented with the first flight of an aircraft at Kitty Hawk in North Carolina. This marked the first milestone in the history of travel as well as tourism. The modern tourism, to a great extent, depends on air transport. Time is important for all and people want to reach places in shortest span of time. Any issue associated with tourism certainly will affect international travel and, vice versa as well.

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Table 5.1

International Tourist Arrivals in 2004, by air (in million)		
Year	Total	Air
1990	437.8	169.4
1995	539.5	217.7
2000	686.7	289.8
2002	706.4	287.5
2003	693.2	286.2
2004 (With % of total)	763.9	330.0 (43.2%)

Source: WTO, 2005

The technological advancements that occurred during the World Wars really helped the growth of air transportation. From a long term perspective, world wars put a lot of impacts in air transport, though the war caused temporary disruption to the commercial air transportation. The following constitute the major impacts of world wars on air transportation (Gee, et.al., 1997).

- A large number of experienced pilots and technical personnel became available
- Increased awareness about air transport among various publics
- Improved maps and knowledge of foreign places
- Construction of large number of airfields in many parts of the world
- A large number of surplus aircrafts became available after the wars that could be utilized for passenger transportation
- Increased know how about aircraft technology
- The advent of jet engine and the use of it for passenger and freight transportation.

The first scheduled passenger flight debuted in Europe on August 25, 1919, with a route between London and Paris, and jet passenger service was inaugurated on May 2, 1952, with a flight between London and Johannesburg, South Africa (Cook, et. al., 2002). Pan American World Airways are the pioneers in the international air transport history. The development of jet engines marked another milestone in the history of air transport. It brought in tremendous improvement of speed and long route

flights by enabling flights to fly farther without refueling, enlarged seating capacity and improved comfort. Also, it resulted in improved economics of long distance air services and improved freight carrying capacity.

Jet aircrafts were introduced in 1950s, but wide-bodied aircrafts were used widely in commercial transportation from 1970s only. Examples of wide-bodied aircrafts are DC-10, Boeing 747 and Lockheed Tristar 1011. The airlines' quantum leap came with the introduction of the Boeing 727, the narrow-bodied jet that made nonstop transatlantic flights routine. When the jet age arrived, international travel became fast and soon became relatively inexpensive (Lundberg and Lundberg, 1993). 1980s have seen further improvements in air technology with the introduction of fuel-efficient aircrafts such as DC-9-80 and Boeing 757 and 767. By 1989, the market for airplanes was growing each year by one and one-fourth time the size of the total aircraft market in 1960. Introduction of Boeing 747-400 has dramatically shifted travel patterns, with increased seating capacity of 410. During 1990s, new aircrafts like MDII, Airbus A-340 and Boeing 777 were introduced.

It is estimated that the world airline sector carries more than 1.4 billion passengers per annum. Airlines, except a few companies, are currently showing strong growth in both traffic and profits due to passenger boom, lower distribution costs, and increased cooperation through alliances (Goeldner and Ritchie, 2003). According to an estimate, in the year 2000, US airlines launched over 24,600 flights per day and it employed over 6,79,967 people and recorded USD 129.5 billion in revenues.

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### **5.3 The Organization of Air Transport:**

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Air transport is a complex process the understanding of which requires an analysis under different headings. Civil aviation business is composed of a number of elements (Holloway, 1996) such as Equipment manufacturers, Airports, Air navigation and traffic control services, and Airlines.

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**5.3.1 Equipment Manufacturers:**


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Aircraft manufacturers produce aircrafts of various kinds. The world market is dominated by three manufacturers; Boeing, the largest provider; the Airbus, the second largest manufacturer; and Mc Donnell Douglas. Aircraft engines are manufactured quite separately, and again three companies dominate the market; Pratt and Whitney, Rolls Royce and General Electric. The aircraft market is effectively controlled by two US and one European companies. Some commonly used aircrafts, their flight range, equipment code and passenger capacity are furnished in table 5.2.

**Table 5.2**

Type of Aircrafts			
Type of Aircraft	Flight range (in miles)	Passenger Capacity	Equipment Code
Cessna 402	239	4-8	CAN
De Havilland Twin Otter	745	20	DHT
Boeing 727	2,400-3,000	70- 131	727
Mc Donnel- Douglass DC-9	2,200	90- 139	DC9
Lokheed L-1011 Tristar	5,998	246- 330	L10
Mc Donnel- Douglass DC-10	6,350	250- 380	D10
Airbus, A-300B	2,100	201 - 345	A3B
Boeing 747	5,500 - 6,500	430 - 452	747

**Source:** Foster, 1994

In the manufacture of small aircraft, British Aerospace is the major holder of market share, with aircrafts such as the 146 Regional Jet, the ATP (Advance Turbo-Prop) and the Jetstream. The smallest aircraft with seating capacity of 19 are mainly twin turboprops; while the largest aircraft can seat up to 50 or more; smaller aircrafts are in high demand, particularly to meet the requirements connected with feeder services.

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**5.3.2 Airports:**


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Basically an airport is a facility where aircrafts can take off and land. At the very minimum an airport consists of a runway, but other components are hangars and terminal buildings and apart from these, an airport may have a variety of facilities and infrastructure including fixed base operator services, air traffic facilities, etc. Ownership of airports may be in State hands, under the control of local authorities, or in private ownerships (Holloway, 1996). In India, majority of the airports are controlled by Airports Authority of India, a governmental agency. It was set up in 1995 by merging the International Airports Authority of India and the National Airports Authority. Currently, AAI manages 126 airports which includes 11 international, 89 domestic and 26 civilian enclaves at Defense airfields. In some cases, as in many German airports, local and state Governments share the responsibility. In Britain many regional airports are in the hands of local authority, while seven of the major international airports are owned and operated by BAA, a private corporation formed by denationalization of the former state runs British Airports Authority. Private participation is incorporated in India also, in developing and maintaining airports.

**Table 5.3**  
**World's Busiest Airports**

Sr. No	Airports	Total Passengers
1.	O'Hare, Chicago	59,963,137
2.	Dallas/Fort Worth	48,515,464
3.	Hartsfield, Atlanta	48,024,566
4.	Los Angels	45,810,221
5.	Heathrow, London	42,964,200
6.	Haneda, Tokyo	40,233,031
7.	San Francisco	31,059,820
8.	JFK, New York	29,786,657
9.	Frankfurt	28,912,145
10.	Stapleton, Denver	27,432,989

**Source:** (Lundberg and Lundberg, 1993)

The major airports in terms of passenger transports are given in table 5.3. In Europe, Heathrow and Gatwick of London are very busy airports. For continental Europe, Frankfurt, Germany, serves the most passengers as an international flight hub. Paris, Amsterdam, and Zurich also have large international airports serving all of Europe. In Japan, Tokyo and Osaka are the hubs for East Asia. In the US, the major international airports are in New York (Kennedy), Chicago (O'Hare), Atlanta (Harsfield), Los Angeles, San Francisco, Miami, and Dallas/Fort Worth. (Lundberg and Lundberg, 1993).

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### **5.3.3 Navigation and Air Traffic Control:**

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The technical services, which are provided on the ground to assist and control aircraft while in the air and in landing or taking off, have a key role in the operation of aviation services. Air Traffic Control (ATC) has the function of guiding air craft into and out of airports, giving pilots, in the form of continually updated automatic recordings, detailed information on ground conditions, flight directions, height of flight, climate details, runways in use, and the state of navigation aids.

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### **5.3.4 Airlines:**

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Airlines provide various types of air based transportation services. They are basically businesses that run regular/occasional services for carrying passengers and goods by air using aircrafts. Both private as well as state owned agencies run airlines. National carriers are the airlines operated under the governmental authorities, directly or indirectly. Majority of the airlines in the world are private owned. USA is the most important country in the case of air transportation, followed by European Countries. Some European airlines, such as SAS in Scandinavia, are partly State-owned, but in the UK, all airlines are now in the private sector, since British Airways was privatized in 1987 (Holloway, 1996). The table 5.4 lists the major international and domestic airlines of 1990s.

Airlines operate different types of services like scheduled, non-scheduled and air taxis. A brief account of each of them is following.

**Scheduled Services:**

Scheduled services operate on pre-defined routes, domestic or international, for which licenses have been granted by the government or other authorities concerned. Operations are based on a published schedule of flights. The airlines are required to operate on the basis of their published timetables, regardless of passenger load factors. The public airline is recognized as the national flag-carrier.

**Table-5.4**

<b>Top Ten Airlines in the World (of 1990s)</b>	
<b>International</b>	<b>Domestic</b>
British Airways	American Airlines
United Airlines	United Airlines
Lufthansa	Delta Airlines
Japan Airways	US Air
American Airlines	North West
Singapore Airlines	Continental
Air France	TWA
KLM	All Nippon Airways
North West	America West
Delta Airlines	Japan Airways

**Source:** International Air Transport Association (IATA)

**Charter services:**

Charter services represent the air service that does not operate on regular schedule. They are also called supplemental airlines and they provide non-scheduled airline services. The flights are chartered as fully paid in by a tour operator or other middlemen for a fixed charge. The responsibility of the airline is to operate the aircraft. Selling of seats and other responsibilities are vested with middlemen. Sometimes major airlines charter aircrafts to handle passenger overload. British Airways operates a charter service under the Caledonian brand, and in 1992 took over Dan-Air, a joint charter and scheduled service operator. Lufthansa operates charter subsidiary Condor (Holloway, 1996).

**Air Taxis:**

Air taxis, used particularly by business travellers, are privately chartered aircraft accommodating between four and 18 people. Air taxis have advantages like convenience and flexibility; routings can be tailor-made for passengers; and small airfields close to a company's office or factory can be used. In Britain alone there are around 350 airfields suitable for air taxis. A range of aircrafts used include from helicopters seating three to four people, up to Embraer Bandeirantes that are capable of carrying 18 passengers.

**Commuter Airlines:**

These are the airlines that operate on short routes mainly to connect airports in smaller towns/cities to larger or 'hub' airports. Commuter airlines usually enter into special partnership agreements with major airlines, called Code Share agreement. By this, smaller airlines can share the name and code of larger airlines.

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**5.4 Air Transport: Regulation, Deregulation and Strategies:**

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International air transportation requires complex negotiations and agreements among nations and carriers. Over flight privileges must be obtained for all countries that will be crossed as transitional flights. The enormous growth of aviation technology, especially since the development of the jet airliner after the Second World War, has made it necessary to have agreements, control and cooperation in the international air transport scenario for healthy progress of air transport.

Further, there were some technical reasons to be solved in the ever expanding air transport and burgeoning competition. A number of summits and conventions were held for evolving strategies and measures aiming at future. The Warsaw Convention held in 1929 first established common agreement on the extent of liability of the airlines in the event of death or injury of passengers, or loss of passenger baggage. Then at the Chicago Convention on Civil Aviation held in 1944, the government representatives decided to promote world air services and reached an

agreement on standard operating procedures for air services between countries. The convention set five 'freedoms of air' which are the privileges that are fundamental to air transport in the world. The privileges are as follows (Holloway, 1996):

- Flying across a country without landing.
- Off-loading passengers, mail or freight from an airline of the country from which those passengers, mail or freight originated.
- landing in a country for purposes other than the carriage of passengers or freight, e.g., in order to refuel;
- loading passengers, mail or freight on an airline of the country to which those passengers; mail or freight are destined; and
- loading passengers, mail or freight on an airline not belonging to the country to which those passengers, mail or freight are destined, and off-loading passengers, mail or freight from an airline not of the country from which these originated.

Two more important privileges were established later similar to the above, but concerned with movement of cargo. A number of strategies and measures were evolved during the last four decades to beat competition. The introduction of net inclusive tour basing fares for tour operators, variable pricing techniques such as Advance Purchase Excursion (APEX) tickets and stand-by fares, and more recently 'frequent flyer' programmes, in which passengers collect additional free miles based on the mileage they chalk up with a carrier, have all helped to stimulate demand and fill air craft seats.

"Open Sky Policy", which refers to unrestricted access by carriers into the sovereign air territory of a country, was an important policy change that happened in the western countries. It resulted in emergence of new airlines and in increased competition. Instead of a simple three-tier structure, which includes economy, coach, and first class, there are multiple prices and airlines change these prices hundreds of thousands of times each day

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to meet customer needs, maximize load factors, and increase revenues through their yield management systems (Cook, et.al., 2002).

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#### **5.4.1 Hub and Spoke System:**

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To overcome the increasing passenger pressures, and to increase flights to all cities without increasing fares, airlines have introduced "Hub and Spoke System". (Foster LD, 1994). Hub and Spoke system is an operational arrangement by airlines by which the passengers are transported to an intermediated point, called, 'hub', to board planes to their final destination. Here a hub and spoke refers to a bicycle wheel. Hub symbolically refers to a major city from where passenger can board in flights to various destinations. Each spoke represents one route from hub to one of the destinations. For example, if one wishes to travel from Bombay to Cape Town in South Africa in British Airways, it may not have direct flight (point-to-point) from Bombay to Cape City. In this case, the passenger will be boarded in an aircraft to London first and from there he can board another flight to Cape Town. From London, similar services will be offered to many destinations situated in different parts of the world. For making this successful, many airlines have entered into cooperative contracts, called 'inter-line agreements' that enables passengers to travel on a connection involving different carriers while paying a single point-to-point fare, called joint fare.

#### **Code sharing:**

Code sharing is another strategy followed by airlines world over. 'International airlines penetrate markets by using code-sharing agreements, a form of market sharing by which two or more airlines share a flight by using a single airline code, although segments of the flight are flown separately (Lundberg and Lundberg, 1993). Regional/commuter airlines on spoke routes typically operate on a code share basis. In a code share agreement, a regional/commuter airline will share the same two-letter identification code of a major airline in the computer reservation system and typically point its planes in the same color. British Airways

offers a flight from Seattle to London via Chicago, but United Airlines flies the Seattle to Chicago segment and only the final leg, Chicago to London, is flown by British Airways.

**Table 5.5  
Major Carriers and Hub Cities**

Carrier	Hub Cities
Air Canada	Montreal, Toronto, Vancouver
American Airlines	Dallas/Fort Worth, Chicago, San Juan, Nashville, Raleigh/Durham, Miami
America West	Phoenix, Las Vegas
British Airways	Heathrow (London), Gatwick
Continental Airlines	Houston, Denver, Newark
Delta Airlines	Atlanta, Dallas/Fort Worth, Salt Lake City, Los Angeles, Cincinnati
KLM	Amsterdam

**Source:** (Cook, et.al, 2002)

Yield management, a strategy followed by airline companies, requires allocating capacity to customers at the right price to maximize revenue or yield, enhance customer service, improve operating efficiency and increase profitability under the following conditions. Another practice followed by airline companies is mergers/alliances. The future holds more concentration as a wave of alliances has taken place and more are proposed. Alliances are taking place in all parts of the world. KLM and Southwest joined in 1992. United and Delta, American and US Airways and Continental and Northwest are some other airline pairs that were merged together. United has Star Alliance which included Lufthansa, Air Canada, Thai Airways, and SAS. More airlines were added to United Airlines recently. American and British airlines have a global alliance of a number of airlines including Qantas and Cathay Pacific.

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**Check Your Progress - I:**

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**Fill in the blanks:**

1. In India, majority of the airports are controlled by \_\_\_\_\_ a governmental agency.
2. The Chicogo convention on Civil Aviation held in \_\_\_\_\_.
3. IATA is a \_\_\_\_\_ organization and its membership consists of practically all \_\_\_\_\_.
4. International Civil Aviation Organisation (ICAO) is specialized agency of \_\_\_\_\_ was the first airline of India.

Check your answer with the one given at the end of the unit.

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**5.5 International Air Transport Organizations:**

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Air transportation is a complex process and the number of passengers being transported by airlines is on the steady increase. This has necessitated establishing agencies in the regional, national and international levels to assist, regulate and control smooth flow of air traffic. Here, we discuss about two most important organizations, which are involved in the international air transport.

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**5.5.1 IATA:**

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International Air Transport Association (IATA) is a world association of scheduled airlines through which they co-ordinate their efforts to serve their passengers, share their experiences and analyze their problems. It is a non-governmental organization and membership consists of practically all air carriers. IATA is a voluntary non-political industry association that serves as a forum for airlines to develop common programmes for the smooth running of the international air transport system. The principal function of IATA is to speed up the movement of persons from any point on the world air network to any other point by a combination of routes on the basis of a single ticket bought at a uniform price in one currency. The same applies to the movement of goods and cargo. It's main headquarters are situated in Montreal, Canada (controlling American Continent) and in

Geneva (covering Europe, the middle east and Africa). One regional office is located in Singapore, which controls operations in Asia and the pacific. IATA was founded in 1945 and as non-governmental organization, draws its legal existence from a special act of the Canadian Parliament, given royal assent in December 1945.

The aims of IATA are as follows:

- To promote safe, regular and economical air transport for the benefit of the peoples of the world, to foster air commerce and to study the problems connected therewith.
- To provide means for collaboration among air transport enterprises engaged directly or indirectly in international air transport service.
- To co-operate with International Civil Aviation Organization (ICAO) and other international organizations.

The IATA provides a wide range of services. Some important services are as follows.

- The global planning of international time tables for airline services.
- Maintain single formula for tickets and airway bills.
- The standardization of inter-company communication and reservation systems.
- The international co-ordination of telecommunication networks and computer systems.
- Provide training for travel agents and freight agents and undertake various educational programmes.
- Regulate legal questions of general concern and develop security measures.
- Examine and solve the problems raised by tourism and the flow of passengers and goods at airports and to establish procedures and technical norms.

The priority areas for the services may change from time to time since the issues in the international air transport vary. The best example of this is

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IATA's focus on the September 11 attacks and its aftermath. IATA wants the industry to fully and rapidly return to normal operating conditions.

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### **5.5.2 ICAO:**

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International Civil Aviation Organization (ICAO) is a specialized agency of United Nations, whose mandate is to ensure the safe, efficient and orderly evolution and growth of international civil aviation. With its headquarters located in Montreal, Canada, ICAO has seven regional offices throughout the world. Since its establishments in 1944, ICAO has grown to an organization with over 180 contracting states. Safe and orderly development of all aspects of international civil aeronautics is the ultimate aim of ICAO. It provides the forum whereby requirements and procedures in need of standardization may be introduced, studied and revolved.

For dealing with technical affairs and other important aspects of international civil aviation, a conference was organized in Chicago in 1944 (November 1 to December 7). Based on the discussions, a Provisional International Civil Aviation Organization (PICAO) started functioning from 6<sup>th</sup> of June 1945. International Civil Aviation Organization was founded in 1947 as a permanent body, as a specialized agency of the United Nations. ICAO is composed of states, generally members of the UNO.

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### **Check Your Progress-II:**

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#### **Fill in the blanks.**

1. Air Corporation Act was formulated and passed in\_\_\_\_\_
2. Jet airways and \_\_\_\_\_ two giants in the Indian domestic sector have merged.
3. The aircraft market is effectively controlled by two \_\_\_\_\_ and one \_\_\_\_\_ companies.
4. The Warsaw Convention held in\_\_\_\_\_
5. Indian Airlines took over Vayudoot in\_\_\_\_\_

Check your answer with the one given at the end of the unit.

The aims and objectives of ICAO are to develop the principles and techniques of international air navigation and foster the planning and development of international air transport, with a view to:-

- Ensure safe and orderly growth of international civil aviation worldwide.
- Encourage the art of aircraft design and operation for peaceful purposes.
- Encourage development of airways, airports and air navigation facilities.
- Meet the needs of people for safe, regular, efficient and economical air transport.
- Prevent economic waste caused by unreasonable competition.
- Ensure that the rights of contracting states are fully respected, avoid discrimination between these states and ensure that every state has a fair opportunity to operate international airlines.
- Promote safety of flights and the development of all aspects of international civil aeronautics.

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### **5.6 Air Transport in India: From Retrospect to Prospect:**

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In India, introduction of the liberalization and privatization policies influenced air transport sector in a significant manner. Around ten years back, air travel was a dream for the majority of the Indian population. But rapid economic growth and the changes in the air traffic scenario has made air travel more and more affordable to Indians. The number of airlines increased tremendously over the period. Airports are being expanded to accommodate more aircrafts. Air transportation faces a boom and low cost carriers are fast becoming primary airlines in the country. Jet Airways, Indian Airlines (Now Indian), Air Sahara (now Jet lite, after merger with Jet Airways) and Air Deccan are the most popular brands in domestic air travel in order of their market share. These airlines connect more than 80 cities across India. Of these, Jet, Indian and Sahara also operate overseas routes after the liberalization of Indian Aviation.

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**5.6.1 Evolution and Growth of Air Transport in India:**

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Although air transport was born in India on February 18, 1911 when Henri Piquet, flying a Humber bi-plane, carried mail from Allahabad to Naini. But the scheduled services in India began on October 15, 1932, when J.R.D. Tata, the father of India Civil Aviation and founder of Air India, took off from Drigh Road Airport, Karachi, in a tiny, light single-engine de Havilland Puss Moth on his flight to Bombay via Ahmedabad. In Bombay, Neville Vincent, a former RAF pilot who had come to India from Britain three years earlier on a barn-storming tour, during which he had surveyed a number of possible air routes, took over from J.R.D.Tata and flew the Puss Moth to Chennai (then Madras) via Bellary.

Tata Airlines was the first airline of India. It consisted of one Puss Moth, one Leopard Moth, one palm-thatched shed, one whole time pilot assisted by Tata and Vincent, one part-time engineer, two apprentice-mechanics and unlimited optimism. In 1933, the first full year of its operations, Tata Airlines flew 1,60,000 miles, carried 155 passengers and 10.71 tonnes of mail. In 1946, it was converted into a Public Company under the name of Air India. In the second half of 1940s, Air India planned to start international operations. For this an agreement was reached with the Government of India in 1947 for the formation of Air India International Limited to operate international services. Government of India, at the request of Air India, agreed to limit their capital participation to 49 per cent. Air India International inaugurated its international services on June 8, 1948, with a weekly flight from Mumbai to London via Cairo and Geneva with a Lockheed Constellation aircraft.

The early 1950s saw the financial condition of various airlines operating in India deteriorate to such an extent that the Government decided to increase and nationalize the air transport industry. Accordingly two autonomous Corporations were created on August 1, 1953. Air Corporation Act was formulated and passed in 1953. It is an important milestone in the history of Indian Civil Aviation. Indian Airlines was

formed with the merger of eight domestic airlines to operate domestic services, while Air India International operated overseas services. The word 'International' was dropped from Air India International in 1962.

Indian Airlines, which came into being with the enactment of the Air Corporations Act, was entrusted with the responsibility of providing air transportation within the country as well as to the neighbouring countries. Indian Airlines was given the task to assimilate various dimensions of the eight private airlines, which were nationalized to provide well-coordinated, adequate, safe, efficient and economical air services. The airlines began its operation on 1st August 1953. At the time of nationalization, Indian Airlines inherited a fleet of 99 aircrafts consisting of various types of aircraft which were gradually replaced by Viscount, F27 and HS748. Indian Airlines started operation of jet aircrafts from 1964 onwards, when the Caravelle aircraft was inducted into the fleet. Between 1970 and 1982 Indian Airlines started inducting first batch of wide-bodied Airbus A320 aircraft (19 aircrafts) in June, 1989. Latest acquisition in Indian Airlines' fleet, the Airbus A319, was inducted in December 2005. From a total of three stations served at the time of nationalisation, Air India's worldwide network today covers 44 destinations by operating services with its own aircraft and through code-shared flights.

The government-owned airlines dominated India's air transportation till the mid-1990s. Air India carried more than 2.2 million passengers in FY 1992. Indian Airlines was the major domestic carrier and also ran international flights to nearby countries. It carried 9.8 million passengers in FY 1989, when it had a load factor of more than 80 percent in its fifty-nine airplanes. Vayudoot, another public sector airline, was also a domestic carrier in the early 1990s. It provided feeder service between smaller cities. Indian Airlines took over Vayudoot in 1994. Another publicly owned company, Pawan Hans, runs helicopter service, mostly to offshore locations and other areas that cannot be served by fixed-wing aircraft. In addition to the Indian-owned airlines, many foreign airlines

provide international service. In 1995 forty-two airlines operated air services to, from, and through India.

1980s and '90s have seen significant changes in the air transport scenario in India. The policy of the nationalization gradually changed to privatization and liberalization. Globalization influenced Indian Economy. Privatization has penetrated into air transport sector as well. Some private airlines like, East West, Modiluft and NEPC started operations in the domestic sector. The privatization rate continued and the government shifted its policy similar to the 'Open Sky Policy'. The economic scenario and the share of the population, who are willing and able to fly, have grown tremendously. This created more demand for air transportation. In 1995, India's six private airlines accounted for more than 10 percent of domestic air traffic. The major private airlines were East West Airlines, Jagsons Airlines, NEPC, Continental Aviation, and Damania Airways.

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#### **5.6.2 Current Scenario:**

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India's vast unutilized air transport network has attracted several investments in the Indian air industry in the past few years. It was in the first half of this decade, particularly during 2004-05, that half a dozen "Low Cost" carriers started operations. Major new entrants include Air Deccan, Kingfisher, Paramount, Indigo, Spice jet, and Go Air. To meet India's rapidly increasing demand for air travel, airlines started to expand their fleet. Air India placed orders for more than 68 jets from Boeing. Indian Airlines placed orders for 43 jets from Airbus. Jet Airways, India's largest private carrier, has invested billions of dollars to increase its fleet. New entrants also increasing their fleet size. IndiGo Airlines placed orders for 100 Airbus, A 320s. Kingfisher Airline became the first Indian air carrier in 2005 to order Airbus 380 aircraft.

Today, Indian Airlines, together with its fully owned subsidiary Alliance Air, has a fleet of 70 aircraft (3 wide bodied airbus A300s, 47 fly-by-wire airbus A320s, 3 Airbus A319s, 11 Boeing 737s, 2 Dornier Do-228 and 4

ATR-42). During 1990s, India had 288 usable airports. Of these, 208 had permanent-surface runways.

Air India has also launched a new subsidiary airline - Air India Express, effective from April 29, 2005. Air India Express, with thirteen aircraft in its fleet, presently operates 57 flights per week from nine points in India-- Amritsar, Chennai, Delhi, Kochi, Kozhikode, Mangalore, Mumbai, Pune and Thiruvananthapuram to six destinations in the Gulf - Abu Dhabi, Dubai, Al Ain, Muscat, Salalah and Sharjah and to Singapore. Air India Express has ordered 181-seater 18 B737-800W aircraft. Jet Airways, Indian, Air Sahara (now with Jet Air) and Air Deccan are the most popular brands in domestic air travel in order of their market share. These airlines connect more than 80 cities across India. Of these, Jet, Indian and Sahara also operate overseas routes after the liberalisation of Indian Aviation.

In India, Ministry of Civil Aviation is the central agency responsible for the formulation of national policies and programmes for the development and regulation of Civil Aviation and for devising and implementing schemes for orderly growth and expansion of civil air transport. The policies and programmes of civil aviation in India have been playing an important role in the tourism development in India. The Ministry also oversees the provisions of airport facilities, air traffic services and carriage of passengers and goods by air. Directorate General of Civil Aviation, Bureau of Civil Aviation Security, Commission of Railway Safety, and Indira Gandhi Rashtriya Uran Academy, Air India Ltd, Indian Airlines Ltd, Pawan Hans Helicopters Ltd., and Airports Authority of India are the various establishments that are functioning under the ministry.

**Table 5.7**  
**Summary of Airport Statistics during 2004-05 (International)**

<b>Airport</b>	<b>Average No. of flights handled per day</b>	<b>Average No. of passengers handled per day</b>	<b>Average cargo handled per day in tonnes</b>
Bombay	120	16678	759
Delhi Airport	105	13530	659
Madras Airport	50	6561	403
Cochin Airport	29	2756	51
Calcutta	21	1746	84
Airport	20	2052	38
Hyderabad	19	2385	61
Airport	19	1858	172
Trivandrum	14	2055	24
Airport	10	1042	7
Bangalore			
Airport			
Calicut Airport			
Ahmedabad			
Airport			

**Source:** Official website of DGCA

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### **5.6.3 Future of Air Transport in India:**

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The air transport has grown in a tremendous manner over the last twenty five years. In the year 1980, Indian carriers (scheduled) handled 48,50,000 domestic passengers and 65,435 tonnes of cargo. But by 2004-05, the number of domestic passengers had gone up to 1,94,45,000 and cargo transportation grew to 3,25,456 tonnes. The number of total passengers (international and domestic) were 65,15,000 and 1,27,934 tonnes of cargo in 1980. Whereas, in 2004-05, Indian Carriers handled 2,47,71,000 passengers and 437,613 tonnes of cargo. The air transport sector is forecasted to continue its growth in the years to come. Extensive plans are in place to

construct more airports and to expand the existing ones. In spite of tremendous growth over the last several years, a large section of the country's airtransport potential still remains untapped.

Due to increasing competition, a number of strategies and measures are being adopted by the airline companies to remain competitive in the market. Recently a couple of airlines have taken initiative for mergers. Jet airways and Air Sahara, two giants in the Indian domestic sector have already merged. The official airlines of India are also in the process of being merged. Talks are in progress to merge Air India and Indian Airlines so as to compete globally. More private companies are waiting for their turn to enter the air market. Recent years have seen sudden growth of Low Cost Carriers. They are mainly targeting the upper class travellers of Railways in India. The future of Indian air transport seems very bright but still, there are miles to go.

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**5.7 Summary:**

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Air transport has grown from its infancy during 1950s to present enormity. The role and importance of air transport is on the increase and tourism depends, to a large extent, to air transport for its marvellous growth. This unit illustrates the evolution, growth and current scenario of century old air transportation sector world over and attempts to throw some light into the other aspects related to it. The major organizations involved in international air transportation, important means and measures air companies use to remain competitive and the different components of air transport are dealt with in this unit. The case of India is also illustrated with adequate statistics and examples.

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**5.8 Answer to Check Your Progress:**

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**Check Your Progress-I:**

1. Airport Authority of India
2. 1994
3. Non-governmental, air careers.
4. United Nations.

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**5. Tata Airlines****Check Your Progress-II:**

1. 1953
2. Air Sahara
3. US, European
4. 1929
5. 1994

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**5.9 Suggested Readings:**

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**5.10 Review Questions:**

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1. Discuss in detail about the evolution of Air Transport.
  2. Explain hub and spoke system and code sharing.
  3. When was air corporation act first introduced in India?
  4. Where the first experimental flight of the first aircraft by Wright Brothers took place?
  5. Which is the largest aircraft?
  6. Who was the father of Indian Civil Aviation?
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**5.11 Exercise:**

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- Identify various airlines, which are operating services to the city nearest to your place.
- Try to prepare the story of the merger of Air India and Indian Airlines from the reports that are being published by various daily newspapers.

**Unit -6**

**Surface Transportation: Growth and Development**

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**Structure:**

**6.0 Objectives**

**6.1 Introduction**

**6.2 Transportation**

**6.3 Road Transportation**

**6.3.1 Bus**

**6.3.2 Automobiles**

**6.3.3 Car Rentals**

**6.3.4 Taxi and Limousine Services**

**6.3.5 Recreation Vehicles**

**6.4 Road Transportation in India: An Overview**

**6.5 Rail Transport**

**6.5.1 Rail Transport in the World**

**6.6 Indian Railways**

**6.6.1 Palace on Wheels**

**6.6.2 The Deccan Odyssey**

**6.6.3 The Royal Orient**

**6.6.4 Fairy Queen**

**6.6.5 Tourism Promotion Schemes of Indian Railway**

**6.6.6 International Tourist Bureau**

**6.7 Summary**

**6.0 Objectives:**

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After reading this unit, you will be able to:

- Describe about the evolution and growth of road transport in the world;
  - Describe the evolution and growth of rail transport in India; and
  - Describe rail transportation in India and the various services offered by Indian Railways for the promotion of tourism.
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**6.1 Introduction:**

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Surface Transport, the most common and one of the major forms of transport in the world, has experienced considerable growth since the beginning of the last century. Through Rail transportation has not shown significant progress in the second half of the last century, it still acts as a major mode of transport. Road transportation that involves a wide variety of transport forms has recorded considerable progress over the last several years. An understanding of the evolution, growth, current scenario and the future prospects of both forms of the transport seems essential for a tourism student. This unit is structured in a manner to throw some light into the history of road and rail transport, recent trends and future prospects of road transport in India as well as abroad; types of road and rail transport; rail transport scenario in the world; and important tourism services of Indian Railways.

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**6.2 Transportation:**

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Tourism, over the years, has become one of the largest industries in the world, particularly in terms of employment as well as income generation. Amenities, accessibility and attractions are the most vital components of tourism (Goeldner and Ritchie, 2003). Accessibility involves transportation. Transport simply means to carry goods or people from one place to another and transportation refers to the means or system for the same. Generally, transportation is classified into air based, water based and land based, on the basis of the medium of transportation. Surface transportation involves anything that moves over land. Generally, surface

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transportation involves road and rail transportation. From the tourism point of view, it covers cars, coaches, buses, rental cars, taxi services, rail services, etc. (Gee, et.al., 1997). Here, we discuss in detail about surface transportation.

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### **6.3 Road Transportation:**

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Road Transportation is one of the most important forms of tourist transportation and during the last century, it has grown in a tremendous manner. Road transportation involves a wide variety of modes of transportation. Bus (including coaches), cars, rental cars, taxi services, etc. are the major road transportation modes. The advent of automobile in 1920s and the availability of motorcar revolutionized the holiday and recreational habits. The road transportation became primary mode of transport for travellers. (Sinha 1997). Road transportation is still one of the most attractive modes of transport and according to Cooper et.al., (2000) in the context of tourism, advantage of road transportation in comparison with railways and other forms of transport (2000) are:

- The control of departure times
- The ability to carry baggage and equipment easily
- The ability to use vehicle for accommodation
- The control of the route and the stops enroute
- Maximum privacy
- The low perceived out of pocket expenses
- The liberty to use the automobile once the destination is reached, etc.

Discussion on each mode of road transportation follows.

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#### **6.3.1 Bus:**

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Bus, a shortened version of 'omnibus' a Latin word meaning 'for everyone', is a large road vehicle, which can carry a number of persons, from around twenty to fifty or even more. Omnibus is the first organized public transport system introduced in France during 1800s. It is also claimed that a bus route was first operated in 1824 in UK, from Manchester

to Pendleton in Salford. The world's first motorized bus, a modified Benz truck was made in Germany in 1895.

Diversity is the feature of bus travel. Bus travel is used by all classes of people in the society, in urban, sub urban and rural areas. The most important advantage of buses is that it can reach more destinations than other modes of transport like, railways and air transportation. According to the American Bus Association, there are about 44,000 commercial motor coaches in use for charter, tour, scheduled services and others, carrying about 800 million passengers a year (Goeldner and Ritchie, 2003). In Spain, Bus transportation is important than rail transportation. In some countries bus transportation is more expensive than rail, for instance, in Great Britain, Ireland, Portugal and Greece (Cook, et. al., 2002). In Great Britain, Bus services have equal importance with other forms of transport. One popular bus service seen in Britain is airport shuttle service and even a combined train and bus service is also operated there. Tourist trail pass and other passes and a variety of tickets with flexible pricing and services are available in Britain. Euroline is a market leader, operating scheduled European coach services, connecting over 500 cities in and around 25 countries in Europe. Euroline offers comfortable services, all with reclining seats, picture windows and onboard toilet facilities.

A variety of buses are in use world over. The type of the buses usually varies according to the usage. Commuter Buses, Double Decker, School buses, Trolley buses, Motor Coaches, Tour coaches, Mini buses, Midi buses, Articulated Trams and Road trains are the different types of buses used for passenger services. It is important to know why many people prefer bus tours than other forms. According to Lundberg and Lundberg (1993), people choose bus tours due to a variety of reasons, including the following:

- Value for money
- Easy access
- Total experience, including social aspects

- Bus journey gives better inter personal relationships
- Continuous sight-seeing (One can see much more of the region where he is travelling through)
- Tourist can understand the cultural and social vibrancy more by using bus journey
- Convenience
- Comfortable group size

**Table 6.1**

<b>International Tourist Arrivals in 2004, by land (in million)</b>			
<b>Year</b>	<b>Total</b>	<b>Road</b>	<b>Rail</b>
1990	437.8	206.9	27.4
1995	639.5	260.9	25.7
2000	686.7	308.2	34.1
2002	706.4	328.3	34.8
2003	693.2	318.6	34.6
2004	763.9	338.6	36.6
(With % of total)		(44.3%)	(4.8%)

**Source:** WTO, 2006

Buses have some limitations like: time consuming (less speed), less moving space inside, tiring lack of sleeping facility, tiring journey, etc. Different types of bus services are offered as part of road transportation. According to Foster (1994), generally bus transportation is divided into four categories: Intercity bus service (interstate, regional), Coach Tours and Chartered coach tours, Airport transportation and General bus service (public and private bus services).

**I. Intercity Bus Services:**

Intercity bus service consists of regular scheduled coach service among various places and it accounts for billions of passenger miles worldwide. It provides vital links between domestic and international transportation system. Bus fares are based on the total mileage between board point and the off point. Though intercity bus service in the US has declined, motor coach usage in general is on the increase. In India, intercity service is still important.

**I. Regular/Route/Scheduled Bus Services:**

In India, route/scheduled services are one of the most common forms of transport, in all the nook and corner of the country. Generally, Indian scheduled bus transportation is relatively cheaper. Both private as well as public agencies operate scheduled services in India. Usually in the public sector, state road transport corporations, under the state governments are the major scheduled service operators. In private sector, there is no single service covering all the regions in India. Regional services are operated more by private agencies. In the US, the Trailways Transportation System, a federation of independently owned bus companies that market intercity services under the trailways name, cover a large portion of the US. Greyhound and Trailways are the two big companies operating bus services, of which Greyhound is the largest, which operates primarily scheduled services.

**II. Motor Coaches:**

Coaches are basically comfortable buses that are designed and equipped for intercity services, charter or excursion tours (Foster, 1994). They are used for regional or cross-country journeys. Younger generation is particularly attracted to coach travel (Holloway, 1994). Many regulations were introduced in Europe and the USA regarding coach travel and after a certain period, de-regulation happened due to some reasons. Such initiatives affected coach travel in different ways, but the coach travel is still in the growth path. Motor coach tours are also important land based transport. National Tour Association (NTA) is the cardinal agency in the USA and Canada, which represents and markets motor coach tours. There are round one thousand members in the NTA. The coaches are graded on the basis of different aspects like, leg room space, on board amenities like kitchen, toilets, air conditioning, cloak room, etc.

Coach tours are package tours in which motor coach transportation is an important component. The tours range is from hours to days. In India, mainly private concerns operate coach tours. Some public sector agencies

are also operating such coach tours. For instance, India Tourism Development Corporation (ITDC) and Kerala Tourism Development Corporation (KTDC) organize coach tours as well as charter services.

#### **IV. Charter Services:**

Tourists are the users of motor coaches. Charter coach tours are usually escorted, but there are independent motor coach tours also. Normally, it is arranged for private groups for a period ranging from a few hours to two or three days. In the US motor coach tours are becoming more popular and tour operators offer more package tours, including motor coaches (Goeldner and Ritchie, 2003). Bus Operators offer more services to cope up with the increasing competition. Wider seats, better outside view, latest audio/visual equipment's, etc. are some additional services offered to attract tourists by the coach operators. Also, the size of the buses has grown from 40 feet to as much as 45 feet in length, increasing the passenger capacity from 47 to 55. In India, inbound and domestic tours are operated using coaches. All the major attractions are accessible by roads and except a few destinations, coach tours are available to all destinations in India. Delhi, Jaipur and Agra, the golden triangle of India, are well connected by road transportation and coach tours are available in plenty in that route. As mentioned above, a few public sector agencies also operate charter services in India.

#### **V. Airport Transportation:**

Airports require large land area and it would be difficult to build airports in the heart of the cities. Major airports are located far away from cities. Hence, the need for airport transportation is very high. Airport bus transportation is the most cost effective form of transport. Now a day, it is a common service in major cities in the world, particularly in Europe and the USA. In India too airport bus services are offered in many major cities.

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#### **6.3.2 Automobiles:**

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In the parlance of tourism, automobile is an important mode of transportation and in the international context, automobile informally

represents cars and allied vehicles. The advent of cars offered a new freedom of movement, providing a huge increase in opportunities to take day excursion as well as longer trips. Accessibility to interior resorts improved. As per an estimate, in 2002, there were around 590 million cars in the world, of which 170 million are in the USA. Car ferry services flourished in Europe. Camping and Caravan holidays boomed. Many tourism destinations in the world still depend on private motor vehicles. Many Tour operators offer self-drive car packages. In the US, about 80% of personal trips are made by auto that include rented cars, trucks and RVs. Affordability, flexibility and convenience are the advantages of automobiles. (Goeldner and Ritchie, 2003)

Automobile owner can leave from his or her doorstep at any hour of the day or night and travel to a chosen destination. When two or three persons travel together, cost of travel will come down. The credit of the love affair with the automobile in North America goes to the pioneering genius of Henry Ford, who ushered the age of mass automobile travel with his famous model-T car. During the period between 1908 and 1923, 15 million Ford cars were sold. It has been forecasted that by 2010, car ownership would go up to 30 million. Automobiles are the travellers' choice particularly for short distances on relatively uncluttered roads. The factors why people chose automobile for tourism are listed below (Sinha, 1997):

- Control of the route and the stops enroute
- Control of departure times
- Ability of carry baggage and equipment easily
- Low out of pocket expenses of travelling with three or more persons
- Freedom to use vehicle once the destination is reached
- Driving itself is a recreational activity, which many are fond of
- Better sight-seeing while travelling, etc.

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### **6.3.3 Car Rentals:**

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Car rentals also have a considerable significance in American road travel and almost two third of car rental revenue is derived from air passengers.

Rental industry provides a critical link service for business and pleasure travellers worldwide. Business travellers constitute the largest segment using, over 70% of all vehicles (Goeldner and Ritchie, 2003). Rental car sector is growing in an amazing manner, and they are used for business as well as vacation purposes. Car rental companies have expanded services like valet delivery, parking services to avoid shuttle buses, offering on the board computerized navigation system, drop boxes for return of keys and rental forms and equipping service personnel with hand held computers to complete rental transaction on the point of return. (Cook, et.al., 2002). Large international companies with franchise operators and small, generally locally based independent companies, form two distinct categories of car rental sector (Holloway, 1994). Large corporations have additional advantages including contacts with airports and railway (with a desk at terminals); link with airlines and hotels to increase sales; CRS linkage and link with travel agencies and tour operators.

Rental cars are very popular in the countries where tourism is an important industry. Rental cars from one country can be used in other countries too. The major car rental companies in the US are Herzs, Avis, Budget, National, etc. Automobile manufacturing companies attract rental companies to purchase latest vehicles and offer various schemes, discounts, etc. CRS accessibility is available through major CRS agencies like Sabre, Galileo, etc. In India too, the practice of car rental has caught up.

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#### **6.3.4 Taxi and Limousine Services:**

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Taxis and Limousines play an important role in tourism. Taxicab is a public transport vehicle for single or small group of people and they are available for hire. The concept has been in existence from very early periods, using the then available vehicles. Taxi operation is subject to licensing and rate regulation by concerned authorities.

Limousine is a very expensive luxury car driven by chauffeur with passengers in the rear compartment. Limousine service has a unique niche market, competing with both taxis and coaches. It is usually long and is

seen either in black or white in colour. The specialty of such a car is that it will have a barricade between the driver and the passenger with a sliding glass between them so that the conversations can be kept private from the driver. Airlines and corporates often offer limousine services to their passengers or clients.

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**6.3.5 Recreation Vehicle:**

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Recreation Vehicle (RV) segment is a strong component in the land based transportation. Slide-out technology was introduced in RVs during 1990s and has later, advanced further. Slide outs are available with living rooms, dining rooms, bedrooms and kitchens. Motor homes, travel trailers, fifth wheel trailers and even fold camping trailers are some of the examples of slide outs.

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**6.4 Road Transportations in India: An Overview:**

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Road transport in India has a large and extensive transportation system. The country has one of the world's largest railway as well as road network, transporting millions of passengers annually. During the British rule, there was significant improvement in the horse carriages, which were used for transport in the early days. Bicycle rickshaws became popular in the early periods of the last century, which are still being used in many parts of India, particularly the rural areas. Manually pulled rickshaws were also in transportation and they were seen on roads of some major cities in India till recently. The British also introduced Trams in some cities in India during their reign. These are still being used in some parts of the country like, Kolkata. India has a well-developed network of roads and highways. Highways connect almost all the major cities and towns in all the states and union territories in India and they have an important role in the socio-economic system of the country, especially in transporting goods. Towns near highways have sprung up into prominence after the arrival of highways. Highways are seen in two lanes and up to eight laned in some city outskirts. India has 66,590 km of National highways.

India Motor Vehicles Act 1914 is the first enactment relating to motor vehicles in India. This was subsequently replaced by the Motor Vehicles act of 1939. There have been many amendments to the set since then to take into account the changes in the road transportation technology, pattern of passenger and freight movements, development of road network and particularly the improved techniques in the motor vehicles management.

Department of Road Transport and Highways is the apex body in India under the Central Government, which formulates and administers policies for road transport and national highways and also undertakes transport research with a view to increasing the mobility and efficiency of the road transport system in the country. The Departments' roads wing deals with development and maintenance of the national highways in the country and the transport wing deals with matters relating to road transport, which involves motor vehicles legislation, taxation, insurance, administration of road transport corporations act, promotion of transport cooperatives in the field of motor transport, evolving safety measures, etc.

### **I. Local transportation:**

In India, the most important mode of transportation is road based. Rail services are also predominant in the country and some times, road transportation acts as complimentary to rail transportation. The role of road and railways in the social life of the country is very important. For example, the vast national rail and road network enables farmers to transport their farm and agriculture produce to larger towns, where they get better prices. The bus transportation has an important role both in cities as well as villages. Both private and government agencies operate bus services and in certain routes these are operated by public agencies alone. More luxury services are now being offered, particularly by private operators. Shuttle services, limited stop services, intercity services, charter services, town-to-town services, express services, Volvo services, luxury coach with A/C as well as without A/C services, etc. are the various types of road services available in India. Luxury services are relatively costlier.

In village and remote areas, Vans or Mini buses are more prevalent. Auto Rickshaws, another common taxi service, are available for hire which carry two or three passengers. It is a three wheeler vehicle and a cheaper option for very small distances.

## **II. Cars:**

The car market in India has seen a remarkable expansion during the last fifteen years. Around twenty years back Indian roads were dominated by Ambassador Cars followed by the FIAT. These two were ideal for Indian road conditions too. But the arrival of Maruti Suzuki has changed the scenario dramatically and changes the liberalization policy adopted during the early 1990s have influenced the Indian car sector also. The cars became more popular, but cost did not go high especially due to the compact models available at affordable prices. Indian middle class once considered cars as luxury, but the developments in the car production during the above period made them a necessity. Many foreign car companies have entered into India and some of them have already gained market attention. For instance, the Korean Hyundai. The arrival of foreign companies gave a stiff competition to the Indian Car producers. This has resulted in availability of cheaper car versions, new and variety of models, international luxury, etc.

Utility vehicle are also in demand in India. Companies like Mahindra and Mahindra, Tata Motors, produce utility vehicles in India.

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### **Check Your Progress - I:**

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#### **Filling the blanks:**

- The world's first motorized bus (Benz truck) was made in \_\_\_\_\_ 1895.
- Delhi \_\_\_\_\_ and Agra is the golden triangle of India.
- In the US, about \_\_\_\_\_ of personal trips are made by \_\_\_\_\_ that include rental cars, trucks and recreation vehicles.

- Recreation Vehicle (RV) segment is a strong component in the \_\_\_\_\_ based transportation.
- First class railway service for passenger was introduced in \_\_\_\_\_ in September 17, 1825.

Check your answer with the one given at the end of the unit.

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### **6.5 Rail Transport:**

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Rail transport is the transportation of passengers and goods by means of vehicles which are designed to run along the railroads or railways. A train consists of several individual bogies linked together with an engine which pulls them. Rail transport is considered as a mass transportation mode and one of the most energy efficient carriages. They make highly efficient use of space since they travel on two parallel rails and carry hundreds of passengers together along with goods. Passenger Rail Transportation is a prominent component in travel anywhere in the world and it is the most important transportation mode especially in countries like India, South Korea, Japan, China, etc. In the US, though, it does not have as much importance and relevance as in other countries (Goeldner and Ritchie, 2003).

The earliest forms of railways were in use thousands of years ago. For instance, in 6<sup>th</sup> century BC, Diokos, a six kilometer railway that transported boats across the Corinth Isthmus in Greece. Trucks pushed by slaves ran in grooves in a limestone track over 1300 years ago. ([www.wikipedia.com](http://www.wikipedia.com)) the first horse drawn wagon ways appeared around 2000 years ago in Greece and some parts of Roman Empire. The first railways in Great Britain were built in the early 17<sup>th</sup> century mainly for transporting coal. In the late 18<sup>th</sup> century iron rails began to appear. In 1802, a railway station was opened in Surrey, arguably the first public railway station in Britain. Horse-drawn conveyances were pulled on tracks as early as 1807 on the Ostermouth Railway in Britain (Lundberg and Lundberg, 1993). In 1811 the first successful and practical railway locomotive was designed by Blucher, and an early railway locomotive was built in 1814 by George

Stephenson. Steam engine based trains were introduced by 1830s. Then onwards, rail transport has spread and expanded, not only in Britain but all over the world. First Class Railway service for passenger was introduced in Europe in September 17, 1825. The first commercial railroad was begun in 1826 in Massachusetts (USA).

Between 1830 and 1850, 12,000 miles of railways were built in England and other principal European countries. The first international rail service was offered between Strasburg (France) and Bern (Switzerland) in 1841. Long distance rail service was given a boost in the US when George Pullman developed Pullman Coach with sleeping facilities for overnight journeys. (Cook, et.al., 2002). Dining Cars and Food facilities were pioneered by Fred Harvey.

The passenger rail service became the most important transport mode and it continued till 1940s. The prominence of rail passenger transport was lost when automobile entered into transportation in the US. The advent and growth of air transport worsened the status of railways. The tourist traffic on railways started to fall from 1930. The period between 1830 and 1930 is considered as 'Great Age' of Rail Travel (Holloway, 1994). Inconvenience, lack of accessibility to reach interior destination, time consuming and continuous fare hike made railways unattractive. But the fuel crisis that took place during the early 1970s gave a sigh of relief to railways. Package tours on railways increased, but by mid-1980, the trend again reversed. High speed trains began to operate from 1960s onwards. The highest railway line was built in China in the year 2005-- the Qinzang railway through the Tanggula mountain pass.

Channel tunnel rail service was introduced for passenger as well as for freight movement by mid 1990s in Britain and shuttle services for passenger and cargo service began through it. It offered regular rail services from London to other parts of UK, Paris, Brussels, etc. In 1989, the community of European railways announced plans for a transcontinental high-speed rail networks, extending some 21,000 miles, to be in place by

2015. France is also in the midst of massive programme of railway expansion by which, they will be able to bring all the major cities within the reach of Paris by high speed trains travelling at 186 km per hour or more. Germany too is making plans to introduce more fast trains. The Netherlands, Belgium, Italy, Sweden and Denmark all have similar plans. Germany and Japan have developed Magnetic Levitation (MAGLEV) trains capable of speed over 300mph.

In spite of the emergence of many other forms of transport, with more speed, safety and comfort, railways still remain an important mode of transport. The following are the reasons why many people prefer train services instead of others (Cooper, et.al., 2000; Sinha 1997).

- Affordable cost
- Relatively higher safety
- The ability to move around the coach
- Personal comfort
- The ability to look out of the train and see enroute
- Arriving at the destination rested and relaxed
- Environment friendly form of transport
- Centrally located termini, and decongested routes
- More interaction with fellow passengers
- Better bathroom and other facilities
- Freedom to engage in simple recreational activities while travelling
- Pantry services
- More luxury for higher payment
- Speedier than a number of other forms of transport

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### **6.5.1 Rail Travel in the World:**

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#### **I. United States of America (USA):**

In the USA, automobile has overtaken rail transport in every sense and the developments and growth in air transportation too has contributed to a great extent in the declining importance of rail transport. The declining role of rail service caused the authorities to think about formulating

strategies and measures to revamp the rail transport system in the USA. As a remedial measure, in 1970, the US Congress created the national Railroad Passenger Corporation (NRPC) under the Rail Passenger Service Act. The original brand name of NRPC was Railpax, which was later changed to AMTRAK. It is structured and managed like other large businesses in the US. The controlling stock of AMTRAK is owned by the US government. It offers rail passenger transportation in the major intercity markets of the US, serving 45 states and 500 destinations on its 22,000 mile route system. Heavily subsidized by the government (as are most national rail systems), in 1989 AMTRAK covered about 72 percent of its operating expenses from fares charged, up from only 40 per cent in 1980 (Lundberg and Lundberg, 1993). It made many improvements, introduced some innovations like road railer, which is a hybrid between rail and highway trailers. They have been developed for possible use in carrying mail behind passenger trains. Rail phone was another facility introduced by which cellular telephone service was made available in many trains. More comfortable seating was provided, terminal improvements were done, and visual entertainments were introduced.

## **II. Europe:**

Railways in Great Britain are the oldest in the world and now it consists of around 16,536 km of standard gauge track, of which 4,928 km is electrified. In Britain, rail system was nationalized in 1948 to form the British Railways, later the British Rail, under the control of the British Transport Commission. The British Rail is divided into five regional authorities with separate areas of operation.

Germany has a network of 41,500 km, of which 20,140 km is electrified and the total track length is 80,250 km. Around 150 private railway companies operate a total of 14,500 powered rail vehicles: electric locomotives, electric multiple units, diesel locomotives and diesel multiple units. Germany has a fast, efficient rail service and is experimenting with magnetic levitation (MAGLEV) equipment. Germany has joined the rapid-train sweepstakes with the new German Rail Intercity Express. The trains reach speeds of up

to 165 mph and cut travel time by as much as 30 per cent. The first of these high-speed trains went into service in 1991 between Hamburg and Munich. Frankfurt has the second largest train station in Europe: 25 tracks bring 1640 trains in and out each day.

In Spain, railways have an important role. Spain's national rail system is being enhanced to the same rail gauge as in the rest of Europe. The system has been improved between Seville and Madrid, using French TGVs, and it has reduced the travel time by more than two hours as compared to the previous travel duration. In Sweden, the railway system spans over 13,000 km. The first railway in Sweden was constructed in 1855 and the major operator is the government owned SJAB. In Sweden, rail transport has been partially privatized, but the major operator; SJAB and the Green Cargo are fully state owned. First railroad for public transport was opened in 1849 using horse driven carriages. In those days railways played an important role, especially in the case of industries. The main railways were built during 1860 to 1930.

In Switzerland, the railroad network spans over 5,063 km which mainly includes standard gauge with a length of 3652 km and narrow gauge of 1,383km. Trans-Siberian Railway is a network of railways connecting Moscow and European Russia with the Russian Far East provinces, Mongolia, China and the Sea of Japan. Its main route runs from Moscow to Vladivostok via southern Siberia that was built during the period between 1891 and 1916.

High speed trains (around 180 mile per hour) are operated in France, Britain, Italy, Japan, Germany, Sweden, Korea, and Spain. Introduction of high speed rail service between London, Paris, France, etc. was an important milestone in the history of rail transport (Cook, et.al., 2002). Eurail pass was first introduced by Austria, Belgium, Denmark, France, West Germany, Italy, Luxembourg, Holland, Norway, Portugal, Spain, Sweden and Switzerland. Others followed. The Orient Express is the most famous luxurious or scenic trains in the world. This runs from London to

Istanbul in Turkey. The Blue Train, another classic train, travels between Cape Town and Johannesburg.

**The TGV and Eurostar:**

High-speed trains in France are known as Trains a Grande Velocita (TAV). In 1994, important TGV train was introduced, connecting London with Paris in three hours and London with Brussels in three hours and fifteen minutes through English-French Channel Tunnel.

EPS is a state owned British company which runs Eurostar in conjunction with French Railways and Belgium railways. Eurostar trains are moderately expensive and technologically advanced. They travel at a speed upto 300 km per hour.

**European International Rail Passes:**

By far the best known and most widely used international rail pass is Eurailpass, which can be used in 16 European countries including: Austria, Belgium, Denmark, France, Germany, Greece, Hungary, Ireland, Italy and Luxembourg. The Netherlands, Norway, Spain, Portugal, Sweden and Switzerland. Eurail Pass was a real stimulation in the development of rail transport in Europe. It is used as a marketing tool to attract international visitors. Unlimited travel throughout Western Europe, except Britain, for different time periods is allowed for the pass holders. Some countries in Europe introduced separate passes for attracting tourists to their countries, e.g., Britain Pass in Great Britain, Swiss Pass in Switzerland, and German rail pass in Germany.

**The Orient Express:**

Arguably, the fanciest and one of the most glamorous trains in history, the Orient Express, has been revived. The original Orient Express ran from Paris to Istanbul and was a favourite of royalty and the haut monde. There are really three Orient Expresses: the Nostalgic Orient Express that runs occasionally between Paris and Istanbul, the route of the original Orient Express; the Venice Simplon Orient Express that runs between Boulogne and Venice twice a week and between Paris and Venice three time a week;

and the English segment of the Venice Simplon Orient Express that runs from London to Folkstone.

**The Chunnel:**

The Eurotunnel, nicknamed “the Chunnel”, provides underwater rail service between France and England and it increased passenger traffic between Britain and the continent remarkably over the years. The Chunnel, a \$13.44 billion Anglo-French venture, has really three tunnels! In an emergency, passengers can be evacuated through cross-passages set at 400-yard intervals.

**III. Asia:**

Asia is one continent where rail transport is a very important mode of transport, particularly in South Korea, Japan, India, etc. South Korea has a good rail network and has introduced high speed trains as well. In Asia, Japan is much advanced in rail transportation. It introduced high speed bullet trains between Tokyo and Osaka much early. Japan’s Bullet trains, which began operations in 1964, pioneered super-fast rail service and arguably provide the best overall rail service in the world, in terms of frequency of trains and on-time performance.

**Check Your Progress-II:**

Fill in the blanks:

- \_\_\_\_\_Railways attained world heritage status from UNESCO.
- Fairy Queen is the oldest functioning \_\_\_\_\_ engine in the world.
- First electric train ran between Bombay VT and Kurla on \_\_\_\_\_
- The \_\_\_\_\_ and Indian Railways jointly runs the palace on wheels tour programme.
- The Deccan Odyssey is luxury train cruise which passes through \_\_\_\_\_

Check your answer with the one given at the end of the unit.

**6.6 Indian Railways:**

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It was the idea of Mr. George Clark, the Chief Engineer of the Bombay Government during 1830s and 40s, to connect Bombay to Thane using railways, which became the beginning of a giant transportation sector, Indian Railways, the largest rail network in Asia and the world's second largest under single management. The idea was converted into the first railway on Indian Sub-continent that ran over a stretch of 21 miles from Bombay to Thane. It was inaugurated on 16<sup>th</sup> April 1853, when 14 railway carriages carrying 400 guests left Bori Bunder in the presence of an exclaimed and curious crowd with loud applause. Tremendous developments have occurred in Rail transportation since then. Railways traverse through the length and breadth of the country covering 63,140 route kms. Being the prime movers in India, railways are more energy efficient mode of transport, suitable for movement of bulk commodities and for long distance travel. It carries over 13 million passengers and 1.2 million tonnes of freight every day. It operates around 12,000 trains daily and has nearly 8000 railway stations.

The first passenger train ran from Howrah station for Hooghly, a distance of 24 miles on 15<sup>th</sup> August 1854 and it marked the beginning of East Indian Railways, which was opened to public traffic, ushering the beginning of railway transport on the eastern side of the sub-continent. In the southern part of India, the first passenger train began its journey from Veyasarpany to Walajah Road (Arcot), a distance of 63 miles on 1<sup>st</sup> July 1856 by Madras Railway Company. In 1859, a rail line was laid from Allahabad to Kanpur. The first section was opened in 1875. From these small beginnings, the rail system in India has expanded swiftly and in a very short period of time. In 1880, Indian railways could span to a route mileage of 9000 miles.

Indian Railways have three types of railways: Broad gauge with a width of 1.676 mts, meter gauge of 1metre and narrow gauge with a width of 762/610 mm. Broad gauge category is with total 86,626 km track of which

16,001 route kilometers are electrified. In the meter gauge category, 18,529 track kilometers are there and in the narrow gauge, there are 3,651 track kilometers. The total track is of 1,08,706 kilometer length. Continuous innovative steps are being taken by Indian railways for bringing in more efficient administration and more efficient services to the passengers.

Indian Railways has been taking a lot of efforts to cope up with the changes and to offer better services to the masses. An overview of some of them is given here. For completing strategically important projects within a stipulated period of time, a non-budgetary investment initiative, National Rail Vikas Yojana, was launched for the development of the railways. The Indian Railways takes novel measures with the help of latest technology to ensure safety and security of the passengers. The manpower also has been improved for accomplishing this aim. A special Railway Safety Fund has been earmarked for it. Extensive field trials of Anti-Collision Devices (ACDs) have been established in certain areas. The financial position of railways is also steadily improving.

Indian Railways have a well-established Computer Based Reservation System and the Indian Railways Catering and Tourism Corporation (IRCTC) has launched on-line ticketing facility for the passengers. A new project for issuing monthly and quarterly season tickets through Automated Teller Machines has been started in some important cities in India. National Train Enquiry System has been set up in order to provide upgraded passenger information and enquiries. Information systems for the freight, Freight Operation Information System (FOIS) has been made available in around 250 locations throughout India and an intranet, Railnet, has been developed for easier communication and assistance for administration among different regional headquarters.

IR has improved private participation particularly for infrastructure development. Optical Fiber based communication system has been adopted for more efficient and improved telecommunication systems on India railways. India became the first developing country and the 5<sup>th</sup> country in the world to roll out the first indigenously built state-of-the-art

high horsepower three phase electric locomotive when the first such loco was flagged off from Chittaranjan Locomotive works recently. Indian railways have been earning/winning many recognitions and appreciations. For instance, Darjeeling Himalayan Railways attained World heritage Status from UNESCO and Fairy Queen, the oldest functioning steam engine in the world, found a place in the Guinness Book of World Records. As part of adhering to social obligations, IR offers many concessions and other benefits to all the weaker sections of the society, and the Senior Citizens.

Metro rail service is an important transport mode in metro cities in India. The first rapid transit system in India was introduced in India in 1867 and now it transports millions of passengers' every day. Delhi, Kolkata and Chennai are the other major cities in India where metro rail systems do have an important role. Similar systems are under construction in some other major cities like Bangalore, Hyderabad. First electric train ran between Bombay VT and Kurla on 3<sup>rd</sup> February 1925.

Indian Railways have been playing a vital role in the development of tourism in India, directly as well as indirectly. Indian Railways are one of the cheapest modes of transport available in India, which can be used for tourist transportation also. Apart from this, Indian Railways are directly involves in promoting tourism by introducing various schemes and luxury trains exclusively for tourists in collaboration with state tourism agencies. Illustrations of important luxury trains and schemes for tourists are following.

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#### **6.6.1 Palace-on-Wheels:**

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Palace-on-wheels is a palatial train, which gives royal experience, passes through the golden triangle of Indian tourism. It gives a delighting experience; the traveller feels like an erstwhile monarch, travelling in regal splendour. Fully-air conditioned, the train comprises of 14 deluxe saloons, equipped with class amenities to enhance the pleasure of travelling. The Rajasthan Tourism Development Corporation and Indian

Railways jointly run the palace-on-wheels tour programme. In the past 20 years of operations, palace-on-wheels has been rated as one of the best rail journeys in the world.

The passenger coaches were originally the personal railway coaches of the erstwhile rulers of princely states of Rajputana, Gujarat, the Nizam of Hyderabad and the viceroys of British India. They have rich and traditional interiors. A new meter gauge air-conditioned palace-on-wheels was introduced in 1984 and had 13 saloons, 2 restaurant-cum-kitchen car, one bar-cum-lounge and 4 service cars. Later, a new broad gauge palace-on-wheels was constructed and was put into operation since 1996. Now, it has 14 saloons, all are inter-connected, and the interiors of the saloons reflect the aesthetics of the former royal states of Rajasthan. Apart from accommodation, the train has many other facilities for a luxury journey like Bar, Lounge, CD/mp3 players, attached toilets, posh pantry, luggage collection, attendant, Newspapers, security, etc.

**Table 6.2**

<b>Palace on Wheels: Tour itinerary</b>	
<b>Days</b>	<b>Destination</b>
Day 1	Delhi Cantonment (departs)
Day 2	Jaiupr
Day 3	Jaisalmer
Day 4	Jodhpur
Day 4	Sawai Modhopur
Day 5	Chittaurgarh/Udaipur
Day 6	Bharathpur/Agra
Day 7	Delhi cantonment

The palace-on-wheels tour package consists of seven night/eight days covering the major tourist attractions in Rajasthan along with Agra. The journey starts from Delhi Cantonment Station (on every Wednesday at 1745hrs). During the peak season, the trip costs USD 395 in single occupancy and USD 295 in double occupancy.

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**6.6.2 The Deccan Odyssey:**


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The Deccan Odyssey is another luxury train cruise which passes through Maharashtra. The train consists of 13 fully air conditioned deluxe saloons, each a combination of 4 twin bedded chambers with channel music, intercom, CD/mp3 player, attached toilets, running hot and cold water, etc. The train provides facilities for physically challenged persons, luggage collections, attendant, meals, mineral water, newspapers, magazines, security, wine/Bar, etc. The week-long tour includes several exotic destinations covering the vast expanse of Maharashtra and a pinch of Goa-Mumbai, Ganpatipule, Ratnagiri, Sindhudurg, Goa, Pune, Aurangabad, Ajanta and Ellora. The Deccan Odyssey tour begins on Wednesday from Mumbai and the itinerary is as follows.

**Table 6.3**

<b>The Deccan Odyssey: Tour itinerary</b>	
<b>Days</b>	<b>Destination</b>
<b>Day 1</b> (Wednesday)	Mumbai
<b>Day 2</b> (Thursday)	Jaigadh, Ganapatipule, Ratnagiri
<b>Day 3</b> (Friday)	Sindhudurg, Tarkarli, Sawantwadi
<b>Day 4</b> (Saturday)	Goa
<b>Day 5</b> (Sunday)	Pune
<b>Day 6</b> (Monday)	Aurangabad
<b>Day 7</b> (Tuesday)	Ajanta and Nashik
<b>Day 8</b> (Wednesday)	Mumbai

**Source:** official website of Indian Railways/luxury trains

The tariff is almost similar to the palace-on-wheels and is available for US \$ 700 during peak season (October to March) and US \$ 550 during April. Indian passengers can pay in equivalent Rupee amount against US\$ at the exchange rate prevalent at the time of payment. Tariff is inclusive of travel, conducted sight-seeing, entrance fees, etc.

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**6.6.3 The Royal Orient:**

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Royal orient is a luxury train that cruises through some of India's most culturally fascinating states such as Gujarat, Rajasthan and Diu. Like palace-on-wheels and Deccan Odyssey, Royal Orient is also rated amongst the very wonderful train journeys in the world and it takes you into palaces and forts steeped in legends of heroism and chivalry, their palaces and imposing forts that give a special experience. The tour departs from Delhi and the itinerary includes. Delhi Cantonment (Departs), Chittaurgarh, Udaipur, Mehsana, Patan, Ahmedabad, Sasan Gir, Ahmedpur, Mandvi, Diu, Palitana, Ranakpur, Jaipur and Delhi.

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**6.6.4 The Fairy Queen:**

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'The Fairy Queen', which finds mention in the Guinness Book of world Records, is the oldest running steam locomotive in the world. It offers an idyllic weakened trip between Delhi and Alwar (Rajasthan). The trip includes picturesque town of Alwar in Rajasthan and the Sariska Tiger Reserve and it gives a once- in- a lifetime experience. The Fairy Queen is the oldest working broad-gauge steam locomotive in the world which was built in the year 1855 by the British firm for East India Railways. The train has only a first class (non-a/c) chair car coach having forty seats and a pantry car for on board catering. The tariff for round trip package is Rs. 10,000/- for each passenger (all inclusive except alcoholic drinks). Foreigners can pay equivalent amount in USD.

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**6.6.5 Tourism Promotion Schemes of Indian Railway:**

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**Indrail Pass:**

Apart from the luxury trains, Indian Railway is offering a railway pass scheme (indrail pass), as part of promotion of international tourism to India. To explore the splendor of multifaceted India, indrail pass provides excellent value and enhances the diagram of holidays from abroad. It enables a tourist to travel wherever he likes and whichever trains he likes within the validity period. A separate foreign tourist quota has been provided in all classes and almost all trains for the facility of the tourists.

Reservation facility is available against Indrail pass from any reservation office over Indian Railways, Railway system. The pass holder is not required to pay any reservation fee, super-fast charges or surcharge for the journey. Indrail passes can be purchased from India- tourist bureaus at major railway stations and certain recognized travel agents in Delhi, Madras, Mumbai a Calcutta and from abroad through General sales agents of Indian Airlines and Air India. These passes can only be purchased by foreign nationals and Non-Resident Indians on payment of US dollars, Pound Sterling and other convertible foreign currencies.

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**6.6.6 International Tourist Bureau:**

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Indian Railways have an International Tourist Bureau exclusively for assisting foreign tourists and NRIs regarding enquires, booking reservation, travel planning, etc. They issue reserved tickets to foreign tourists and NRIs holding valid passport against payment of US dollars, Pounds/ Sterling and in Rupees against encashment certificate. They also sell Indrail passes. The ITB offices are located at various important cities all over India.

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**6.7 Summary:**

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Surface transportation is the most important forms of transportation in the world. All other form of transport, in one way or other, are related to road transport. Many developments have occurred in road as well as rail transportation over the years. A wide range of services are involved in surface transportation. This unit illustrates the evolution, growth, current scenario and future prospects of surface transportation in India as well as in the world, its various modes, the relationship of surface transportation with tourism and various exclusive tourism services offered by surface transportation modes in India and abroad.

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**6.8 Answer to Check Your Progress:**

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**Check Your Progress-I:**

1. Germany

2. Jaipur
3. 80%, auto
4. land
5. Europe, September 17, 1825.

**Check Your Progress-II:**

1. Darjeeling Himalayan
2. Steam
3. 3<sup>rd</sup> February 1925.
4. Rajasthan Tourism Development Corporation
5. Maharashtra

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**6.9 Suggested Readings:**

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- Ullman E., 1980, Geography on Spatial Interaction, University of Washington Press.
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**6.10 Review Questions:**

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1. Discuss the advantages and disadvantages of bus and car transportation.
  2. What are the different forms of bus services?
  3. Give a brief account of road transportation in India.
  4. Give a brief account of rail transportation in the world.
  5. Expand the acronym AMTRAK.
  6. When was the first passenger rail inaugurated in India?
  7. Palace on Wheels tour departs on which day?
  8. Name some major car rental companies in the world.
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**6.11 Exercises:**

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- Identify the mode of road transportation available in the town near your place of residence and understand the relationship among various modes.
- Discuss the role of transportation in tourism in a destination nearest to your place.

**Unit-7**

**Water Transportation: Evolution, Growth and Prospects**

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**Structure:**

**7.0 Objectives**

**7.1 Introduction**

**7.2 Water Transportation**

**7.3 Modes of Water Transportation**

**7.3.1 The Ocean Liners**

**7.3.2 Cruises**

**7.3.3 Ferry Services**

**7.3.4 Submarines**

**7.3.5 Cargo Liners**

**7.3.6 Barges**

**7.3.7 Alternative Water Transportation**

**7.3.8 Internal Waterways**

**7.3.9 Mini Cruises**

**7.4 Coastal and Inland Waterways in India**

**7.4.1 History**

**7.4.2 Current Scenario and Future**

**7.5 Summary**

**7.0 Objectives:**

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After reading the unit, you will be able to:

- Describe various modes of water transport in detail;
  - Explain the cruise operations in the world; and
  - Describe the evolution growth and future of water transport in India.
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**7.1 Introduction:**

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Water transportation, one of the earliest forms of transport, still plays an important role in travel and tourism sector. Cruise Tourism is in vogue and it is poised for much expansion. Due to its increasing potential, it is essential to learn about water transportation for a beginner in tourism studies. This unit is designed to cover the crucial aspects of water transportation in India as well as abroad. This includes the nature and types of water transportation; categories of cruises; and evolution, growth and trends in water transportation in India.

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**7.2 Water Transportation:**

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Transport by water appears to have been in vogue from very early times. Reaching a destination by sailing has been an important method of transport since the first primitive boat was built (Holloway, 1996). Travel by water still offers many unique advantages, though air transport has the leading role in international transportation. Cruising in particular, is enjoying a popularity boom that has not been seen since the world wars. Cruises offer the advantage of total relaxation, and an all-inclusive price that allows the passenger to be carried from one destination to another in comfort and safety, and without the need constantly to pack and unpack. The number of international tourists who used water transportation modes in 2004 is furnished in **table 7.1**.

Table 7.1

<b>International Tourist Arrivals in 2004, by water (in million)</b>		
<b>Year</b>	<b>Total</b>	<b>Water</b>
1990	437.8	33.8
1995	539.5	43.6
2000	686.7	52.4
2002	706.4	53.1
2003	693.2	51.6
2004 (With % of total)	763.9	55.7 (7.3%)

Source: WTO, 2005

Different forms of water transport, in addition to cruises, have improved considerably during the last fifty years. Short-sea (ferry) vessels have achieved new standards of comfort on many routes. They attract tourists not just in order to travel from one point to another, but also to enjoy a 'mini-cruise' which provides food and entertainment that a few years ago was available only in luxury cruise liner. Technological developments have helped in reducing high operating costs. In the meantime new forms of water-borne transport have been developed, such as, hovercraft, jetfoil and the twin hulled catamaran ferry.

Water transport, one of the earliest forms of travel, is still an attractive transport mode in tourism, though the type and nature of travel has changed dramatically over the years. As with any other forms of transport, water transport services now are offering more comfort and luxury. Over the years, safety and speed have increased. Water transportation consists of a wide variety of carrying units/vessels. A brief account of the commonly used vessels is given below:

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### **7.3 Modes of Water Transport:**

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#### **7.3.1 The Ocean Liners:**

Line-voyage services are those offering passenger transport on a port-to-port basis. Until 1950, these shipping lines occupied a prime position in

international transportation. But the improvements in air transport, which enabled fares to be reduced, especially on popular routes across the Atlantic, to a point where it became cheaper to travel by air than by ship caused the decline in travel by ship. Most of the remaining passenger-carrying vessels operating around the world are built essentially to carry cargo. By 1957, air transport started to overtake sea transportation in Atlantic (Holloway, 1996). The Ships built for operating in the 1950s failed to meet the needs of the post-war market, and the vessels specifications and size made them inflexible and unsuitable for routes other than those for which they were built.

However, a number of ocean liners operate efficient services now. Cunard Line's transatlantic services, PandO's services to the Far East and Australia, Union-Castloe and British India Liggins' service to South and East Africa are some major route services, though their importance have decreased considerably.

### **7.3.2 Cruises:**

Cruise Tourism is a 'buzzword' in tourism sector now a days. Of all the segments of international travel, cruises, the most luxurious form of water transport, are the fastest growing. Cruise based holidays are in fashion among tourists in the modern world. Passenger Ships were forerunners of the present-day cruise ships. The cruise ship is not only important as a means of getting from one place to another, but also comprises the tourists' accommodation and the source of their meals and entertainment. The cruise market has been on the expansion and the nature of market is also changing. Now the cruise market caters for all types of needs, ages and purchasing abilities. Advances in marine technology and changes in demand have enabled recent cruise ships to be purpose built, in a variety of sizes. There are a number of famous identified cruise routes are there in the world. New and bigger cruise ships are being built, some of which sail to northern ports in summer and the Caribbean and Mediterranean during the winter (Lundberg and Lundberg, 1993). Large cruises on the average accommodate up to or even more than 1000 passengers, while

small vessels carry fewer than 100 passengers and are sometimes called mini-cruisers or ultra-yachts (Gee, et.al, 1997).

Florida State is an important region for cruise tourism. The port of Miami, known as the 'Capital of Cruise World' and the home to 21 cruise ships, is the largest and busiest cruise port in the world. Fort Lauderdale, Port Canaveral, Tampa, Los Angeles, etc. also serve as home ports for some cruise lines. New York City and Boston are also important embarkation points in relation to cruise tourism. The expansion in cruise sector causes addition of new fleet and new ports of call. The last two and half decade has seen tremendous expansion in the cruise sector and it has grown at an average annual growth rate of 8.4% (Goeldner and Ritchie, 2003). As per an estimate, the average length of a cruise was 6.5 days during 2000. The cruise sector is expected to grow and many new ships are scheduled to come online in the next few years.

Cruises mainly offer a resort type experience. In the US travel and tourism sector, cruise industry has an important role. Most of the cruises from there are for three, four or seven day's duration, though voyages of longer duration are also there. The trend in the 1980s and 1990s has been to build ships in the range of 50000 to 60000 tons, capacity, with some exceeding 70000 tons, and carrying in excess of 2000 passengers.

The major cruise destinations are Caribbean countries, Mediterranean area, Alaska, the Panama Canal and North European region. Caribbean has the largest share among them, attracting half of the cruise passengers worldwide. Caribbean cruises, enjoy year-round market demand, although the winter period, when the climate is more temperate than in summer, attracts the greatest market demand. Recent trends reveal that African destinations and some destinations in Asia are also emerging as popular cruise destinations. The transit of the Panama Canal still remains as one of the most famous attractions and the cruises through it either begin or end in San Francisco, Los Angeles or Ft. Lauderdale. An estimate reveals that more than hundred ships were introduced in North America since 1990. In cruise sector, as in the case of rest of the travel and tourism

sector, consolidation is taking place. Large cruise companies are acquiring some smaller companies and mergers as well as tie-ups are also taking place. Carnival, world's largest cruise company, recently acquired Cunard and Costa Cruise Lines. Royal Caribbean International (RCI), the second largest player also acquired Celebrity Cruises recently. Shorter, less expensive cruises continued to do well. Cutting prices and offering a variety of cruises-- rock 'n' roll cruises, chocolate cruises, and golf tours, in which passengers disembark at several different ports to play golf, appealed to special market segments are also in vogue.

Hotels and cruise ships can become partners, and some hotel companies have become cruise ship owners (Lundberg and Lundberg, 1993). Carnival, the largest cruise line operator, reports that 50 per cent of its passengers visiting the Bahamas also visit the Crystal Palace Resort in Nassau. Some of the newer ships cater to adventurous, ecological travellers who want to see first-hand the rain forests of Costa Rica, the valley of the Amazon or the ice fields of Greenland. The introduction of 'fly cruises', in which passengers are carried by the cruise company on chartered aircraft to a warm-water base port from which they can cruise directly, has contributed to the growth of the cruise sector.

Cruises offer a variety of services as part of the cruise tourism product. Accommodation facilities vary from sleeping rooms with berths, for as many as three or four persons to lavish bedrooms billed as staterooms. A variety of sport and games options such as tennis, jogging, aerobics, pumping iron or perfecting a golf swing are also offered on board by most cruise ships. Fully equipped gyms, health spas, and athletic counselors are also available in many cruises. Food is offered throughout the day in a variety of forms, from seven-course meals to theme event dinners. Cruises provide different entertainment options too, like full-scale musical productions, individual cabaret performances, discos, gambling, and so on.

There are a number of popular and recognized cruise routes in the world. Some of the major cruise routes (Holloway, 1996) are:

- The Caribbean, Bermuda and the Bahamas, including the coast of Central and South America
- The Mediterranean, divided between the Western and Eastern sectors
- The West Coast of North America including Mexico, the USA (including Alaska) and Canada
- The Pacific islands and Far East
- The Baltic Sea, Northern capitals and the North Cape
- West Africa and the Atlantic islands of the Canaries and Madeira
- Round the world

Cruises are classified according to the size, comfort level, services offered, etc. such as, Resort Cruises, Deluxe or Luxury Cruises, Adventure or Exotic Cruises. The features of each category of cruises are as follows.

**Resort Cruises:**

- Large vessels, which can accommodate 1000-2000 plus passengers
- Food and beverage are plentiful
- Warm climate places are usual destinations
- Markets are highly segmented
- Shipboard activities like entertainment, aerobics, and bingo are available
- Short itineraries: 3 to 7 days

**Deluxe or Luxury Cruises:**

- Capacities vary from 125 to 950 passengers
- High level of personal service is offered
- Cabins are usually suites
- Dining facilities are elegant and stylish
- 14 days or longer itineraries with some as long as a month.
- Entertainment consists of classical music, shows and educational lectures.

**Adventure or Exotic Cruises:**

Cruises are also classified into four categories: volume cruises, premium cruises, luxury cruises and specialty cruises (Foster, 1994). The volume cruises are mass market cruises and they account for approximately 60 percentage of all cruise revenues in the world. This includes short cruises of 2 to 5 days, standard length cruises of 7 days, and longer cruises of 9 to 14 days in duration of the trips. Premium cruises, on the other hand are upscale cruises and constitute the second largest category. The cruise duration varies from one week to months. Luxury cruises are famous for comfort and elegance and are expensive with long itineraries to exotic destinations. Specialty cruises, the last category, are cruises to special interest areas. For example, whale watching cruises, archeology related cruises, etc. The vessels for this category are usually specially equipped as per the type of cruising. Many forecasts reveal that cruise sector has a bright future. The growth in the industry shows impressive gains with lot of scope for future growth. High satisfaction levels among cruise passengers, which should create a high percentage of repeat cruisers, and potentially large foreign markets are the two major factors that contributed in the growth of cruise tourism. Incentive travel market is an important segment for cruise tourism.

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**7.3.3 Ferry Services:**

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The term 'ferry' is one which embraces a variety of forms of short-distance water-borne transport. The Ferries are the boats for transporting persons and automobiles across a comparatively smaller body of water. Ferry services are usually used by passenger in combination with some form of land transport, for example, coach, train or car, which carries them to the ferry ports from their places of origin and to their final destination after the sea cruising. There are plenty of famous ferry routes, including English Channel routes, North Sea routes, Irish sea routes, etc. Ferry companies have been developing new routes to tap regional markets and to offer

greater choice. Some of the major ferry routes are listed below (Holloway, 1996).

- Western Channel routes: services from Portsmouth, Southampton, Poole, Weymouth, Plymouth, etc.
- English Channel (short sea crossing) routes: services from Ramsgate, Dover, Folkestone, Newhaven, Brighton, etc.
- Irish Sea routes: services from Swansea, Pembroke, Fishguard, Holyhead, Liverpool, Stranraer, Cairnryan, the Isle of Man, etc.
- North Sea routes: services from North Shields, Hull, Felixstowe, Harwich, Sheerness, etc.

#### **I. Ferry Boats:**

Ferryboats, or ferry liners, found in many parts of the world, exist for transporting travellers on fresh and salt water. In India, these services are very famous, particularly in rural areas. Kerala is an example where regular ferry services are operated in lakes. In the United States, ferryboats have been used to cross Lake Michigan and for transport between Alaska and the state of Washington, as well as in other locations. Modern ferry boats permit travellers to combine the use of a motor vehicle with a trip over large stretches of water by carrying campers and trailers on the boat.

#### **II. River boats:**

River boat is a boat used on rivers or to ply on rivers. River boats, featuring staterooms, restaurants, and entertainment, provide a popular means of travel in many countries, including England, France and the former Yugoslavia. Similar services are operated in India in major rivers.

#### **III. Paddle wheelers:**

Paddle wheeler is basically a ship or a boat propelled by paddle wheels, driven by a steam engine. Though an old technology, Paddle wheelers have returned to some rivers in America. Paddle wheelers were in service from 1811 onwards in major rivers like, Mississippi, Missouri and Ohio.

#### **IV. Houseboats:**

Houseboat is a boat that has been designed or modified to be used primarily as human dwelling and cruising. Houseboats have become increasingly

popular in the United States. They can be rented, usually on a weekly basis. Indian backwaters are famous for houseboats. Houseboats of Kashmir are world famous, though the tourism has been in decline there due to terrorism. Kerala is another destination, where large houseboats are used. Based on houseboat cruises along network of rivers and lakes, a new kind of tourism called 'Backwater Tourism' is evolved in Kerala.

**V. Canoes:**

Canoes are long narrow and light boats, pointed at both ends, moved by a paddle. They are very popular, used in water touring, in speed competitions, and in white-water sport, or navigation through rapids in the boundary water areas between Minnesota and Canada, and in parts of Maine. Canoe rental firms also operate on rivers. In India canoes are used for transportation of goods as well as for short passenger trips.

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**7.3.4 Submarines:**

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Submarines are basically transport modes, which can be operated completely submerged in the water. They are also defined as vessels capable of operating under water for sustained periods. Submarines are the underwater equivalent of hot-air balloon rides. The speed is moderate, it goes neither very far nor very fast. Submarines offer an exciting new experience. Comfortable accommodation is now offered in submarines.

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**7.3.5 Cargo Liners:**

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Cargo liner is a sea liner that carries cargo. One of the most enduring, romantic ideas about ocean travel is traveling by cargo liner or freighter. The term cargo liner and freighter are used interchangeably. Many modern cargo liners were designed to accommodate a limited number of passengers, as well as freight.

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**7.3.6 Barges:**

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Barges are flat-bottomed boats used to transport goods on inland waterways or large, roomy boats elegantly furnished and decorated to carry passengers down rivers and canals. Barges are usually not powered, being pushed or towed by a tugboat instead. River barges move slowly

and usually carry from four to 25 passengers. Sail Cruising, Bareboat charters, yacht cruising, etc. are some other forms of water transport being used for tourism. Different modifications have been done to the traditional forms and extra services have been incorporated in such transport forms to make them attractive.

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### **7.3.6 Alternative water transportation:**

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#### **I. Hovercraft:**

It is a vehicle that is capable of moving over land or water while supported on a cushion of air made by jet engines. The hovercraft rides on a cushion of air just above the surface of water, and its ability to travel over land as well as water avoid the usual capital costs associated with dock facilities, as the craft can simply be beached on any convenient and obstacle free foreshore. It produces more sound and it cannot operate in rough weather.

#### **II. Hydrofoils:**

It is a boat equipped with a device which raises the hull out of the water when the boat is moving, enabling to travel fast and economically. Recent models have been powered by jet engines and are in operation in several parts of the world.

#### **III. Wave-Piercing Catamarans (WPC):**

Catamarans are sailing boats with two parallel hulls. WPCs are twin-hulled vessels large enough to accommodate cars, travelling at speeds up to 40 knots (comparable with Hovercrafts) and these have been operating on cross-channel services since 1991.

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### **7.3.8 Inland Waterways:**

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Lakes, Rivers and Canals constitute the inland waterways. These have great potential for recreation and tourism. Along the waterways, tourists travel at a leisurely pace on various types of boats. The major waterways of the world have long attracted tourists. The Nile River in Egypt has provided inland waterway cruising for many years. The Rhine, the Mississippi, the Danube, Yangtze and Li rivers, etc., also offer inland waterway tourism. Inland waterways, particularly lakes, rivers and canals,

provide exceptional opportunities for recreation and tourism, and in Britain the renovation of former canals, derelict lakes and similar water sites have added in recent years to the many opportunities for river and lake recreational travel. Waterways are often of international importance, either because they border or run through more than one country or because other nations wish to use them for trade. A number of these waterways have been internationalized. In India, inland navigation facilities had attracted people towards river valleys from very early periods.

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**7.3.9 Mini-Cruises:**

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Similar to Cruises, Mini cruises are also in trend. Generally, they are operated along the Pacific coast from Alaska to California and Atlantic coastal areas from marine to Caribbean. The common characteristics of travellers using mini cruises (Gee, et.al, 1997) are as follows:

- Many travel in non-family groups
- Passengers are predominantly older, married couples with fairly high incomes
- Many have previous cruise travel experience
- They are relatively high spenders on shore for hotels and food, which benefits other sectors of the travel industry.

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**Check Your Progress-I:**

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**Fill in the blanks:**

1. The port of Miami is known as the \_\_\_\_\_ and the home to 21 cruise ships.
2. \_\_\_\_\_ is an example where regular ferry services are operated in lakes.
3. Houseboats of \_\_\_\_\_ are world famous.
4. \_\_\_\_\_ are long narrow and light boats, pointed at both ends, moved by a paddle.

5. \_\_\_\_\_ is a vehicle that is capable of moving over land or water while supported on a cushion of air made by \_\_\_\_\_

Check your answer with the one given at the end of the unit.

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#### **7.4 Coastal and Inland Waterways in India:**

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##### **7.4.1 History:**

The people of India have demonstrated an astounding ingenuity for water transport (Deloche, 1994). India has a grand history of inland water and ocean transportation. Common people depended on water transportation greatly as it was one of the prime modes of transportation in India. Sea routes to India were very famous. The major developed countries had trade relationship with India and sea transportation was the main mode of transportation used for it. The voyage by Vascode Gama, who landed in Kappad near Calicut in Kerala in 1497, changed the history of India. It paved the way for the Europeans to create stronger trade relationships and others and finally, it led to conquering India and making it a colony of the British. The waterways of Indian subcontinent assumed and retained a position of utmost importance in India until the mid-nineteenth century. Since ancient times, the Indus played an important role and was the great circulatory axis in the North West region. The Satluj was used for plying different types of boats from the beginning of this century. The Ravi enabled the transport of harvests along its extremely winding channel. The Ganga has been, since the beginning of history, the grand route of the northern empire. With its natural yet more conducive conditions for inter communication between the sea and interior parts of the country, the Ganga had played an important role in the northern plains. It was adapted to an intense inland navigation and was an important mode of transport for servicing a large number of riparian towns. Eastern and western Jamuna canals were also used for water transport in some regions. Bengal's bipartite region of land and water formed a world famous inland navigation system. Water transportation was also dominant in delta

regions of the Ganga and the Brahmaputra. Mahanadi and some lower parts of Godavari were utilized for inland water navigation. Due to geographical features, the Krishna, the Narmada, the Tapti and the Kaveri were not famous for navigation.

For water transportation, Flats, Rafts, and Skin Boats were used in India. Different types of flat devices were used, which were made of wood, vegetable fiber and animal skin. Bamboo rafts were common in some regions in India. Earthen jars or large pots with narrow openings were used for water transport in some parts. Inflated skins were employed from very early periods; used singly, they served as swimming floats. In South India Coracles (basket boats) were employed. Transport was effectuated by means of basket boats on the Kaveri and its affluents. Large Basins of baked earth were used in eastern Bengal to move from one place to another, especially during floods. Dugouts or crafts hallowed out of tree trunks were used everywhere except in the Sindh.

In the Indo-Gangetic plane, timber was available in abundance and that helped the making of boats. Different types of boats were used in different regions. For example, Kashmiri Boats were entirely different from Punjabi Boats. Sails were also raised in boats for speedier movement.

In the case of coastal navigation, various types of crafts were used in eastern coast. Kettumaram is a long narrow raft of varying number of logs fastened together. Different types of such crafts instruments were used in the ocean transportation. Coasters were the most common vessels used in the coast of Coromandel and Srilankan region. Dugouts and planked crafts were in use in western coast along with coasters.

The invention of steam engine effected water transport a lot. In India too, steam engine fitted boats were introduced and speed and safety of water transport improved tremendously. Further, technological advancements caused the emergence of mechanized boats in the waterways of India.

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**7.4.2 Current scenario and future of water transport in India.**

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Inland Water Transport (IWT) is a fuel-efficient, environment friendly and economic mode of transport. India has an extensive network of rivers, lakes and canals that can provide an efficient network of inland transportation. India has 14,500 kms of navigable waterways and Inland Water Transport (IWT) plays a considerable role in the transport sector. The annual cargo movement by IWT in the year 2000 was about 1.5 billion tonne-km out of the total cargo market of 1,000 billion tonne-km, that is, a modest share of only 0.15 percent. The Government of India (GOI) established the Inland Waterways Authority of India (IWAI) as a statutory body in 1986 with the aim to develop, maintain and regulate the national waterways, and to advise the Central and the State Governments on matters relating to development of inland water transport. Government of India has taken a series of decisions recently to revitalize the inland water transport system, to improve its reliability and efficiency and to enable it to complement other modes of transportation, such as road and rail. The government's new policy is to create 'highways' on waterways and to maintain them with private sector participation and assistance from international aid agencies like the World Bank.

Three major waterways have been designated as National Waterways. These are:

- **National Waterway No.1 (NW-1):** Ganga-Bhagirathi-Hooghly river system from Allahabad to Haldia (1620 kms), declared as national waterway in 1986.
- **National Waterway No.2 (NW-2):** The Brahmaputra river from Sadiya to Dhubri (891 kms) – declared as national waterway in 1988.
- **National Waterway no. 3 (NW-3):** The West Coast Canal from Kollam to Kottapuram along with Champakara and Udhagamandal canals (205 kms) – declared as national waterway in 1993.

Three more waterways are also likely to be declared soon. These are:

- **Kakinada-Pondicherry** stretch of canals consisting of Kakinada canal, Eluru canal, Commamurcanal, Buckingham canal and Kaluvelly tank along with Bhadrachalam-Rajahmundry stretch of River Godavari and Wazirabad-Vijayawada stretch of River Krishna (1095 km) in the States of Andhra Pradesh and Tamil Nadu and Union Territory of Pondicherry.
- **Talcher-Dhamra** stretch of Brahmani-Kharsua-Dhamra river system along with Geondhali- Charbatia stretch of East Coast Canal, Charbatia-Dhamra stretch of Matai river and Mahanadi delta river system between Mangalgadi and Paradip (623 km) in the States of Orissa and West Bengal.
- **Karimganj-Lakhimpur** stretch of river Barak (152 km) in the State of Assam.

During the year 2005-06, the cargo movement on NW-1, 2 and 3 was 2.98 million tons (460 million ton-kms) and the cargo movement in waterways of Goa declined slightly but increased in Mumbai. In Marmugao Port the cargo movement was 36.27 million tons against 35.00 million tons in the previous year. Cargo movement in Mumbai Waterways (Dharamtar creek) during the period was 11.16 million tons (602.76 million ton-km) against 7.72 million tons (416 million ton-km) during 2004-05.

River inlets along the coast, especially near ports, and some canal systems as part of larger water resource development projects, also appear viable as part of IWT. The proposed river interlinking project in the country will open up further possibilities. IWT-based passenger movement is mainly by ferry across rivers, on short stretches along rivers, and tourism-based passenger traffic particularly in Goa, Kerala, Sunderbans, and northern regions (Rengaraj and Reghudas, 2007).

West Bengal, Kerala, and Goa have significant number of ferry services, Alapuzha, and to a smaller extent Kozhikode in Kerala, are centers of this activity, especially for houseboats. River cruises, scheduled and chartered, are also available. Transport of commodities like tea, jute, and spices in the

eastern sector, connected to the river port in Kolkata, was among the early commercial drivers of pre-independence India. Logistical convenience of river transport also exists in India. In the tidal river-canal system in Goa, the Mandovi-Zuari-Cumbarjua system moved some 30 million tons of iron ore in 2003-04.

Sea transportation in India has an inimitable history. Trade routes were established through sea from very early periods. Now sea transportation plays an important role in merchandise transport. Ports are the nerve centres of sea transport and the major ports in India are:

- Chennai
- Cochin
- Ennore
- Kolkata
- Kandla
- Marmugoa
- Mumbai (including Jawaharlal Nehru Port)
- New Mangalore
- Paradip
- Tuticorin
- Visakhapatnam

In the international scenario, India still has its importance and it continues to hold 17th rank among the world maritime nations in terms of GRT. During the period 2005-06, according to the Ministry of Shipping and Water Transport, the share of Indian Shipping in the carriage of general cargo is about 5.09%, Dry Bulk Cargo 7.06%, and Liquid Bulk Cargo 30.09%. However, the overall share of Indian Ships in the total overseas trade was around 16.09 %. The sailing vessel industry during the report period (2005-06) handled a considerable quantity of cargo, as mentioned below.

- Cargo exported: 1382775 Tonnes
- Cargo imported: 4089002 Tonnes

Government of India has started giving more attention to the cruise sector. As part of it, GOI aims to stimulate a growth in the shipping sector in India. A Committee was constituted by the Ministry in June, 2003 to review the rules and regulations applicable to cruise vessels and cruise passengers. The major objectives of the government are:

- To make India an attractive cruise tourism destination with state of art infrastructural and other facilities at various Ports in the country.
- To attract the right segment of foreign tourists to cruise shipping in India.
- To popularize cruise shipping with Indian tourists.
- To achieve a target of 6 lakh cruise passenger landings per year by the end of 2010.

Another Committee was set up to explore the potential of cruise tourism in India. Based on the report of the Committee, the steps taken are:

- Sabotage laws relaxed for 5 years.
- 50% concession on vessels related charges offered.
- A high powered steering Committee constituted, headed by the Hon'ble Minister of Shipping.

A meeting of the Steering Group set up for formulating policy on cruise shipping was held in 2004. Consequently, Working Groups have been formed to examine the following issues.

**Traffic and Capacity:** The major ports continued the trend of excess capacity as compared to the traffic handled.

**Performance:** The major performance indicators for the ports have improved during the year as the average turnaround time has improved from 3.48 days during 2003 to 3.38 days during 2004.

**Sethusamudram Ship Canal Project:** It envisages cutting of a ship channel to connect the Gulf of Mannar to Bay of Bengal through Palk Bay. This will save up to 366 nautical miles and up to 34 hours sailing time for ships moving between East and West Coasts of India.

**Private Sector Participation in Ports:** Efforts for attracting private sector participation in major ports continued during the year.

Redevelopment of Bulk Terminal into Container Terminal at Jawaharlal

**Nehru Port:** There are a number of light houses in India. The Directorate General of Lighthouses and Lightships provides service to enable the mariner to know his position with respect to a fixed point on the land with the help of Aids to Navigation (ATON) such as Lighthouses, Light Vessels, Buoys, Beacons, Differential Global Positioning System, Racon, Loran-C etc. The number of lighthouses in the country now is 168 as compared to 17 at the time of Independence in 1947.

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### Check Your Progress - II:

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#### Fill in the blanks:

1. \_\_\_\_\_ are the nerve centres of sea transport.
2. West Bengal \_\_\_\_\_ and \_\_\_\_\_ have significant number of ferry services.
3. \_\_\_\_\_ is a fuel efficient, environment friendly and economic mode of transport.
4. Cargo liner is a sea liner that carries \_\_\_\_\_
5. \_\_\_\_\_ is an important region for cruise tourism.

Check your answer with the one given at the end of the unit.

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### 7.5 Summary:

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Water transport was an important medium of transport in the yester. It still has a role and relevance on the socio-economic scenario world over. Cruise Tourism is a buzzword in tourism. Cruise sector is the fastest growing transport mode. This unit describes water transport and its various modes. India has a grand history of inland water and ocean transportation. In the past, a good share of the population depended on water transportation greatly as it was one of the prime modes of transportation in India. Though it has not grown much in India, still water transportation is playing an important role particularly in transportation of cargo. Authorities are also planning to promote cruise tourism in India.

An overview of history and growth of water transportation is also discussed in this unit.

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**7.6 Answers to Check Your Progress:**

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**Check Your Progress-I:**

1. "Capital of Cruise World"
2. Kerala
3. Kashmir
4. Canoes
5. Hovercraft

**Check Your Progress-II:**

1. Ports
2. Kerala, Goa
3. Inland Water Transport (IWT)
4. Cargo
5. Florida State

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**7.7 Suggested Readings:**

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### 7.8 Review Questions:

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1. Give a brief account of various modes of water transport.
2. How cruises are classified?
3. Which is the busiest cruise port in the world?
4. Which national waterway consists of Ganga-Bhagirathi and Hoogly river system?
5. Name major sea ports in India.
6. Discuss the evolution and growth of water transport in India.

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### 7.9 Exercise:

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Deduce the relationship of water transport with other forms of transport and develop a comprehensive framework for the promotion of transport in a city with water transport facilities.

**Unit-8**

**linkages and Inter-Relationship between different  
Modes of Transport**

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**Structure:**

**8.0 Objectives**

**8.1 Introduction**

**8.2 Transportation**

**8.3 Evolution and Growth of Transportation**

**8.3.1 Transport: A Geographical Perspective**

**8.3.2 The Elements of Transport**

**8.4 Various Modes of Transport**

**8.4.1 Land Transport**

**8.4.2 Air Transport**

**8.4.3 Water Transport**

**8.5 The Linkages among Various Modes of Transport**

**8.6 Tourism and Transport: The Interrelationship**

**8.7 Summary**

**8.0 Objectives:**

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After reading this unit, you will be able to:

- Describe the various modes of transport;
  - Discuss the linkages and interrelationships that exist among various modes of transport; and
  - Explain the relationship between tourism and transport.
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**8.1 Introduction:**

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An efficient transport system is a pre-requisite for sustained economic development. An efficient transport network becomes all the more important in order to increase productivity and to enhance the competitive efficiency of the economy in the world market. The role of transportation is very crucial and important for any country anywhere in the world and in the case of India it plays a significant role in promoting national integration, in addition to the usual role of transporting goods and passengers from one place to another. An integrated system of transport is very crucial for efficient transport operations. India is a vast country with varied physical features where a variety of modes of transport are in operation. Road, rail and water transportation in India, to a great extent, are interlinked and interdependent and they have an important role in the overall socio-economic scenario of the country. This unit discusses the various modes of transport and the linkages and interrelationships that exists between them. Also, it discusses the complex and vital interrelationship existing between tourism and different modes of transport.

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**8.2 Transportation:**

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Transportation is basically the act of transporting, i.e., the act of moving something from one location to another. Transport simply means to carry goods or people from one place to another. Transportation system is a facility consisting of the means and equipment necessary for the movement of passengers or goods. According to Page (1994), "transport

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results from a desire for mobility and travel, and the provision of different modes of transport aims to facilitate the efficient movement of goods and people". An efficient transport system is a pre-requisite for sustained economic development. It is not only the key infrastructure input for the growth process but it also plays a significant role in promoting national integration, which is particularly important in a large country like India. The transport system also plays the role of promoting the development of backward regions and integrating them with the mainstream economy, by opening them to trade and investment. Of the various modes of transport that connect cities and villages of the country, road transport constitutes the crucial link. Road infrastructure facilitates movement of men and material, helps trade and commerce, links industry and agriculture to markets, and opens up backward regions of India. In addition, the road system also provides connection for other modes of transport such as railways, airports, ports and inland waterway transport and complements the efforts of these modes in meeting the needs of transportation. Railways form the backbone of Indian economy. It is a transportation mode, used by all classes of Indian population. Various fare structures make it accessible for all communities. Air transportation, which was limited to a miniscule population in India, has broadened its scope and the recent trends show that Indian air transportation sector is facing a boom. The sector has grown tremendously over the last ten years. Though the growth rate is sluggish, water based transport is still an important role in Indian economy.

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### **8.3 Evolution and Growth of Transportation:**

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Travel was one of the earliest human activities and even in the ancient era, people used to travel using different modes of transport. History reveals that just like modern travellers, early travellers used both land and water transport. Mode of transportation evolved rapidly until the 19<sup>th</sup> and 20<sup>th</sup> centuries. By this time, Railways crisscrossed the continents of Europe and North America. The advent of automobile thereafter spread the benefits of tourism more widely and provided more and more people with the means

to travel individually or in private small groups. It could take tourists to more inland areas where air, water or rail could not reach. According to Lundgreen (in Sinha, 1997), the history of transportation can be divided into six distinguishable stages: pre-industrial travel systems; the early industrial era travel system; the mature railway system; the express travel system; the automobile based travel system; and modern tourist transport system. Here, the growth of transportation is discussed in seven stages.

**Pre-industrial era:**

In this stage, carriers were used to transport much before industrialization took place. Few common carriers were used for public transport. Travel and tourism was not an identified sector then, though many undertook some activities which could be considered as tourism activities. No regular scheduled services were there during this period. To a certain extent, travel was arduous and sometimes, it was dangerous too. This period can be termed to as an era of stage coach. Travel was expensive and only a few could take part in public/private carrier based ravel. Also, there were not enough to travel.

**Table-8.1  
Growth Stages of Transport during the 20<sup>th</sup> Century**

<b>Mode of transport</b>	<b>1930s</b>	<b>1940s to 1950s</b>	<b>1960s to 1970s</b>	<b>1980s to 1990s</b>
<b>Sea</b>	Cruises and Ocean Liners, Short sea ferry, Speed less than 40km/h	Competition from air transportation was limited, Speed did not increase	Air transport overtake sea on N.Atlantic, Hovercraft being developed	Fly cruise established, Advanced Ferries and Catamarans developed
<b>Air</b>	Civil aviation established, Air travel limited and expensive	Air travel still limited, Propeller technology, Basic terminals, Speed 400-480 km/h	Jet aircraft introduced, Cheaper fuel, 800-950 km/h, Charters took off	Jet-Wide bodied aircrafts, Boeing 747, Fuel efficient, Speed did not increase

<b>Rail</b>	Steam era, faster than cars	Rail transportation in its peak	Electrification in rail transport, Cuts in rail systems,	High speed trains in Europe, Business products offered
<b>Road</b>	Coaches developed, Speed of cars- 55km/h	Speed increased tremendously, 100km/h	Cars used for domestic tourism, Speed increased up to 115 km/h	Rise in car ownership, Speed limits in USA, Urban congestion, Improved coaches

**Source:** adapted from Cooper et.al., 2000.

**Early Industrial Society Travel System Era:**

Industrialization was an important landmark in the history of human being and it paved the way for incredible development of the world. In the early industrial period, rapid industrialization took place and, as in the case of other sectors, transport too experienced many developments to it. Advancements in transport technology took place and roads were improved for having better transport. Railway, canal and steamship based transport began in this era. More common carriers emerged and more scheduled services began. The overall development in the society caused more reasons and money for travelling.

**Mature Railway System Era:**

In this period railways started to have significant importance and role in the overall transport. Railways began to expand considerably. Also, railways started to market their products aggressively. It was in this period that first organized tour took place. Thomas Cook organized a trip using rail service from Leicester to Loughborough in 1841. This was the beginning of a new business sector, called tour operation. In this era more people could take part in travel.

**Express Travel System Era:**

Further advancements in technology influenced travel as well. The speed and safety of travel increased tremendously by incorporating latest and

advanced technology available then. Express services started by all modes of transport, particularly by the railways. Limited stop services were the specialty of this era.

**Automobile Based Travel System Era:**

The introduction of Model T car by Henry Ford in 1908 marked the most important milestones in the history of travel. By 1920 onwards the US witnessed a boom in privately owned automobile car ownership. Motorways, interstate highways were developed. 1920 to 1974 was the period when automobile based transportation grew with fastest pace. During the period from 1920 to 1945, automobile dominated over other forms of transport. Commercial transportation began and advanced during this era.

**Modern tourism travel system:**

During the period between 1945 and 1975, car ownership continued to grow and mass air transport entered into the scene after the Second World War. Introduction of jet engines in aircrafts was another milestone in the history of travel and aircrafts could now carry more passengers and cargo; the speed of air travel improved considerably. Wide-bodied jet aircrafts were commercially used from 1970 and mass tourism began.

**Post mobility adjustment era:**

The OPEC (Oil Producing and Exporting Countries) generated oil embargo posed threat to the automobile based transport and the impact of it was high in the USA. Hence, rail transport, which was struggling badly in got a boost and people started to get accustomed to the changed situation. Automobile, air transport and other sectors grew further after a few years.

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**8.3.1 Transport: A Geographical Perspective:**

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In geography, spatial differentiation is the term used to indicate spatial interaction between two places, such as supplying area and origin/demand area. From a general perspective, a supplying area consists of surplus of a commodity and the other area, the origin area, has a

demand for that commodity. According to Ullman (1980), three major reasons are responsible for spatial interaction and, therefore, transport development. They are 'complementarity', 'intervening opportunities' and 'transferability' or 'friction of distance' in spatial interaction.

**Complementarity:** In one place, e.g., in the case of tourism generating region, there exists the desire to travel and the other place has the ability to satisfy that desire. A transportation system will link these two and a 'complementarity' of demand and supply will produce interaction between these areas.

**Intervening opportunities:** Though complementarity exists in between origin and destination regions, intervening opportunities may be possible due to competing attractions. For example, even if Goa has good attractions to fulfill the desire of many, but some of them may visit Kovalam in Kerala due to some reasons, which can be referred to as intervening opportunities.

**Transferability or friction of distance:** This refers to the cost of overcoming the distance between those two places. If time, money and cost of reaching a destination are high, then even perfect complementarity and lack of intervening opportunities will not persuade movement to take place to that destination.

The above factors, as described by Ullman, reveal why interaction takes place between two places and if no interaction exist, it can usually be explained by referring to complementarity, intervening opportunities or transferability.

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### **8.3.2 The Elements of Transport:**

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According to Cooper et.al. (2000), as far as transport is concerned, there are four basic physical elements. They are 'The Way', 'The Terminal', 'The Carrying Unit' and the 'Motive Power'.

**The Way** indicates the medium of travel can either be purely 'artificial' like, roads and railways or 'natural' like water or air. Artificial way is costly and the cost is dependent upon some factors like, whether the user

shares the way with others or has sole use for a specialized way. Inland waterways, roads and railways etc. restrict movement of vehicles to a specific pattern.

**The Terminal** gives access to the way for the users and they can also act as interchanges, which travellers may use for transfer between modes. The terminal is the farthest point to which the transport system extends and the example of a simple terminal is parking space of a car whereas the complex one is an airport.

**The Carrying Unit:** Both natural and artificial forms of ways demand a distinctive form of carrying unit like rafts, ships, etc. This represents the actual transportation media, which is the vehicle that facilitates the movement. The nature of carrying units is influenced by other factors like motive power and the type of carrying units. The carrying units have changed/diversified in an unbelievable manner in the last century.

**The Motive Power** is the most important component of transportation. Motive power has advanced in a tremendous manner along with the technological developments. It combines the 'way' and the 'carrying unit' to determine the speed, range and capacity of transport mode.

What are the factors that influence people in choosing a particular mode of transport? This question has much importance in the transport sector.

The major reasons, as suggested by Sinha (1997), are:

- Availability and convenience of the carrier
- Frequency of transportation
- Cost/price for travel
- Comfort/luxury of the carrier
- Safety of the transportation mode
- Quality and variety of the service offered to the passengers
- Location for boarding and reaching a destination
- Departure and arrival times

**8.4 Various Modes of Transport:**

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On the basis of the medium in which the transportation activities take place, transportation can be classified into three categories: Land based, Air based and Water based. Each form has its own relevance and importance in the tourism sector.

**8.4.1 Land Transport:**

There are a variety of land based transport forms in the global tourism sector. The major forms are discussed below:

**I. Road Transport:**

Road Transportation is one of the most important forms of tourism transportation and in the last century it has grown in a tremendous manner. Road transportation involves a range of different forms of transport. Bus (including coaches), cars, rental cars, taxi services, etc. are the major road transportation modes. The advent of automobile in 1920s and the motor car has revolutionized the holiday and recreational habits. The road transportation became the primary mode of transport and it is still one of the most attractive and important modes.

**Bus:** Bus is basically large motor vehicles for public transport by road. It is claimed that a bus route was first operated in 1824 in UK, from Manchester to Pendleton in Salford. The world's first motorized bus, a modified Benz truck, was made in Germany in 1895. Commuter Buses, Double Decker buses, School buses, Trolley buses, Motor Coaches, Tour coaches, Mini buses, Midi buses, Parking lot trams, articulated trams and Road trains are the different types of buses in use. According to Lundberg and Lundberg (1993), people chose bus tours due to a variety of reasons including the following:

- Easy access and value for money
- Total experience, including social aspects
- Bus journey gives better inter personal relationships
- Continuous sightseeing (One can see much more of the region where he is travelling through)

- Tourist can understand the cultural and social vibrancy more by using bus journey
- Easy and quick to organize
- Comfortable group size
- Foster (1994) classifies bus transportation broadly into five groups:
- Intercity bus service (interstate, and regional as well)
- Coach tours
- Charter coach tours
- Airport transportation
- General bus service (public and private bus services)

**Table 8.2**

<p><b>Various Modes of Transport:</b></p> <ul style="list-style-type: none"> <li>• <b>Surface transport:</b> <ul style="list-style-type: none"> <li>Road transport                             <ul style="list-style-type: none"> <li>Bus</li> <li>Intercity</li> <li>Scheduled</li> <li>Coaches</li> <li>Charter services</li> <li>Airport services</li> <li>Automobile</li> <li>Car rental</li> <li>Taxi and limousine</li> <li>RVs</li> <li>Rail transport</li> </ul> </li> <li>• <b>Air Transport:</b> <ul style="list-style-type: none"> <li>Scheduled services</li> <li>Charter services</li> <li>Air taxis</li> <li>Commuter/feeder services</li> </ul> </li> </ul> </li> </ul>
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- **Water transportation:**

Ocean liners

Cruises

Mini cruises

Ferry services

Ferry boats

River boats

Paddle wheelers

House boats

Canoes

Submarines

Cargo liners

Barges

Hovercraft

Hydrofoil

Wave piercing catamarans

Inland waterways

**Intercity:** Intercity bus service consists of regular and scheduled coach service between cities and it accounts for billions of passenger miles worldwide. Intercity bus service provides vital link in domestic and international transportation system.

**Regular/Route/Scheduled Bus Services:** In India, route/scheduled services are one of the most common forms of bus transport. It operates in all the nook and corner of the country. Generally, Indian scheduled bus transportation is very cheap. Both private as well as public agencies operate scheduled bus services in India. Usually state road transport corporations/agencies, under the state governments are the major scheduled service operators in the public sector. In private sector, there is no single service covering all the regions in India.

**Motor Coaches:** Coaches are basically buses that are designed and equipped for intercity services, charter or excursion tours (Foster, 1994).

Coaches are comfortable buses and they are used for regional or cross country journeys. In India, mainly private concerns operate coach tours. Some public sector agencies also operate such coach tours, for instance, India Tourism Development Corporation (ITDC), Kerala Tourism Development Corporation (KTDC) etc.

**Charter Services:** Tourists are the users of motor coaches. Charter coach tours are escorted hosted. Sometimes, independent motor coach transportation is also available. Usually, it is arranged for private groups for a period ranging from a few hours to two to three days. Bus operators offer some extra services to cope up with the increasing competition. Wider seats, better outside view, latest audio/visual equipments, are some additional services offered to attract tourists by the bus and coach operators.

**Airport Services:** Airports require large area and it would be difficult to build airports in the heart of the cities. Accessing an airport usually needs the usage of other forms of transport. Majority of the airports in the world are at a distance from the main city centre.

## II. Automobile:

Automobile represents an important component of tourism transport. The advent of cars provided families, in particular, a new freedom of movement, with considerable opportunities to take day excursion as well as longer trips. Accessibility to interior resorts improved. Car ferry services flourished in Europe. Camping and Caravan holidays boomed. Many tourism destinations in the world still depend on private motor vehicles. Tour operators offered self-drive car packages. In the US, about 80% of personal trips are made by autos that include rental cars, trucks and RVs. Affordability, flexibility and convenience are the advantages of automobiles. (Goeldner and Ritchie, 2003).

**Car Rental:** Car rental has a considerable significance in Tourism and in America almost two third of car rental revenue being derived from air passengers. Rental industry provides a critical link service for business and pleasure travellers worldwide. Business travellers constitute the largest

segment-- over 70% of all vehicles (Goeldner and Ritchie, 2003). Rental car sector is growing in an amazing pace, and they are used for business as well as vacation purposes. In 2000, rental car industry grossed around 20 million USD. Car rental companies have diversified their services, such as including valet delivery, parking services to avoid shuttle buses, offering on the board computerized navigation system, drop in boxes for return of keys and documents, and equipping service personnel with hand held computers to complete rental transaction at the point of return (Cook, et.al., 2002).

**Taxi and Limousine Service:** Taxi and Limousine services play an important role in tourism. Taxicab is a public transport vehicle available for hire for single or small group of people. The concept has existed from very early days using the then available vehicles. Taxi service is basically intra-city in nature and it is a vital component of travel industry. Limousine is a very expensive luxury car driven by chauffeur. Limousine service acts as a unique market niche, competing with both taxis and coaches. It is usually longer in size and is seen either in black or white in colour.

**Recreation Vehicle (RV):** Recreation vehicle segment is a strong component land based transportation. Slide-out technology was introduced in RVs during 1990s and later it advanced further. Slide outs are available with living rooms, dining rooms, bedrooms and kitchen.

### **III. Rail Transport:**

Trains, a mass transportation medium, are perceived to be safe, inexpensive and offer the convenience of movement within the carrying unit. In the USA, Railways do not have much relevance, but the rest of the world relies much on railways. The technological developments have impacted rail transportation also, and it provides luxury, safety and speed and is more environments friendly. Independent/free tourists rely on railways more than others. Passenger Rail Transportation is a component in travel anywhere in the world and it is the most essential mode of transportation especially in countries like India, South Korea, Japan, China,

etc. In US however, it does not have as much importance and relevance as in other countries. (Goeldner and Ritchie, 2003).

Though many other forms of transport emerged with more speed, safety and comfort, railways still remain an essential mode of transport. According to Cooper et al. (2000), the reasons why people chose trains are: affordable cost; relatively higher safety; the ability to move around the coach; personal comfort; the ability to look out of the train and see enroute; arriving at the destination rested and relaxed; environment friendly form of transport; centrally located termini, decongested routes; more interaction with fellow passengers; better bathroom and other facilities; freedom to engage in simple recreational activities while travelling; pantry services; more luxury for higher payment; and speedier than a number of other forms of transport.

#### **8.4.2 Air Transport:**

The last fifty years have seen the transformation and growth of air transport from its infancy to enormity. Throughout the 20<sup>th</sup> century, there have been tremendous technological advancements in air transportation, which to have helped in making it a mass transportation mode. Equipment manufacturers, airports, air navigation, Air traffic Control and airlines are the fundamental components of airports (Holloway, 1996).

**Equipment Manufacturers:** Equipment manufacturers refer to the agencies that make aircrafts and the global market is dominated by three manufacturers. Boeing, which has built in excess of 7000 aircraft during its lifetime and holds by far the biggest share of the aircraft market; the Airbus Industries consortium of companies in Germany, France, Spain and Britain (British Aerospace), which is now the second largest manufacturer; and McDonnell Douglas. Aircraft engines are manufactured separately and here again three companies dominate the market; Pratt and Whitney, Rolls Royce and General Electric. As regards airframes, the market is effectively controlled by two US and one company's European.

**Airports:** Airports are airfields with facilities for passengers and goods, whereas airfields represent the area for the takeoff and landing of aircrafts.

Ownership of airports may be in the hands of State, under the control of local authorities, or in private ownerships. (Holloway, 1996). In some cases, as in many German airports, local and state Governments share the responsibility of local government and private enterprise. In Britain, many regional airports are in the hands of local authority, while seven major international airports are owned and operated by British Airports Authority.

The largest international traffic occurs at London's two airports, Heathrow and Gatwick. For continental Europe, Frankfurt in Germany serves the most passengers as an international flight hub. Paris, Amsterdam, and Zurich also have large international airports serving all of Europe. In Japan, Tokyo and Osaka are the hubs for East Asia. In the US, the major international airports are in New York (Kennedy), Chicago (O'Hare), Atlanta (Hartsfield), Los Angeles, San Francisco, Miami, and Dallas/Fort Worth. In India, airports in Mumbai, Delhi, Kolkata and Chennai are the major international airports in terms of passenger handling.

**Navigation and Air Traffic Control:** The technical services, which are provided on the ground or to assist and control aircraft while in the air and during landing or taking off, are not normally considered part of the tourism industry. However, their role is important in the operation of aviation services. Air Traffic Control (ATC) discharges the function of guiding aircraft into and out of airports, giving pilots (usually in the form of continually updated automatic recordings) detailed information on ground conditions, wind speed, cloud conditions, runways in use, and the state of navigation aids.

**Airlines:** Airlines are basically businesses that run regular/occasional services for carrying passengers as well as goods by air using aircrafts. Airlines are run by both private as well as state owned agencies. National carriers are operated under the governmental authorities, directly or indirectly. Majority of the airlines are privately owned. The USA is the most important country in the case of air transportation, followed by the

European Countries. Some European airlines, such as SAS in Scandinavia, are partly State-owned, but in the UK, all airlines are now in the private sector, since British Airways itself was privatized in 1987 (Holloway, 1996).

**Scheduled Services:** Scheduled services operate on defined routes, domestic or international, for which licenses have been granted by the government concerned. They operate on a published schedule of flights. The airlines are required to operate on the basis of their published timetables, regardless of passenger load factors (although flights and routes, which are not commercially viable throughout the year, may be operated during periods of high demand only).

**Table 8.3**

<b>Top Ten Airlines in the World ( as of 1990s)</b>	
<b>International</b>	<b>Domestic</b>
British Airways	American Airlines
United Airlines	United Airlines
Lufthansa	Delta Airlines
Japan Airways	US Air
American Airlines	North West
Singapore Airlines	Continental
Air France	TWA
KLM	All Nippon Airways
North West	America West
Delta Airlines	Japan Airways

**Source:** International Air Transport Association

**Charter services:** It represents the air service that does not operate on regular schedule. They are also called supplemental airlines and they provide non schedule airline services in which the flights are chartered as paid in fully by a tour operator. They are not permitted to operate regular scheduled services.

**Air Taxis:** Air taxis are privately chartered aircraft accommodating between four and 18 people, and are used particularly by business

travellers. They offer the advantages of convenience and flexibility; routings can be tailor-made for passengers.

**Commuter Airlines:** These are the airlines operated on short routes, mainly between smaller and larger cities as well as 'hubs', to enable passengers connect to cities within major airports. Many commuter airlines have entered into special partnership agreements with major airlines and this agreement is called Code Share agreement. This enables smaller airlines to share the name and code of larger airlines.

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### **8.4.3 Water Transport:**

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Transport by water borne vessels of all kinds continues to play an important role in this industry. Reaching a destination by sailing has been an important method of transport since the first primitive boat was built. Different modes of water based transportation in practice are discussed below.

**Ocean Liners:** Line-voyage services are those offering passenger transport on a port-to-port basis. Until 1950, this shipping line occupied a prime position in international transportation. But the advances in air transport caused the decline in travel by ship. Most of the remaining passenger-carrying vessels operating around the world are built essentially to carry cargo.

**Cruises:** Cruise based holidays are in fashion among tourists in the modern world. The cruise ship is not only important as a means of getting from one place to another, but it also comprises tourist's accommodation, their meals and entertainment. Ocean going cruise ships are possibly the most luxurious form of transport. Changes in demand and advances in marine technology have enabled recent cruise ships to be purpose built in a variety of sizes. Cruise Cruising is more of a leisure product than a mode of transportation. The cruise market has been on the expansion and the nature of market is also changing; the cruise market now caters to all types of needs, ages and purchasing abilities.

Cruise lines have been expanding for the last several years. They have been adding new fleet and new ports-of-call (Mac Intosh and Ritchie, 2003). Cruises mostly serve as a resort experience rather than point to point transportation.

**Ferry Services:** The term 'ferry' is one which embraces a variety of forms of short-distance water-borne transport. Ferries are the boats for transporting persons and automobiles across a comparatively small body of water. Ferry services are usually used by passenger in combination with some form of land transport, for example, coach, train or car, which carries them to the ferry ports from their places of origin and to their final destination. Some of the famous ferry routes are: English Channel routes, North Sea routes, Irish Sea routes, etc. Ferry boats, House boats, Canoes, etc, are some of the carrying units that are considered as ferry services.

**Alternatives in Water Transportation:**

**Hovercraft:**

It is a vehicle that is capable of moving over land or water while supported on a cushion of air made by jet engines. The hovercraft rides on a cushion of air just above the surface of water, and its ability to travel over land as well as water avoid the usual capital costs associated with dock facilities; the craft can simply be beached on any convenient and obstacle free foreshore. It produces more sound and it can not operate in rough weather.

**Hydrofoils:** It is a boat equipped with a device which raises the hull out of the water when the boat is moving, enabling it to travel fast and economically. Recent models are powered by jet engines and are in operation in some parts of the world.

**Wave-Piercing Catamarans (WPC):** Catamarans are sailing boats with two parallel hulls. WPCs are twin-hulled vessels large enough to accommodate cars, travelling at speeds up to 40 knots (comparable with Hovercrafts) and these have been operating on cross-channel services since 1991.

**Inland water way:** Lakes, rivers and canals constitute the inland water ways. These provide exceptional opportunities for recreation and tourism. Along the waterways, tourists travel at a leisurely pace on various types of boats. The major waterways of the world have long attracted the tourist. Inland waterways, in particular--lakes, rivers and canals-- provide exceptional opportunities for recreation and tourism, and in Britain the renovation of former canals, derelict locks and similar water sites has added in recent years to the many opportunities for river and lake recreational travel. The Nile River in Egypt has provided inland waterway cruising for many years. The Rhine, the Mississippi, the Danube, Yangtze and Li rivers, etc, also offer inland waterway tourism.

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### **8.5 The Linkages among Various Modes of Transport:**

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Various modes of transport are interlinked and interconnected. This interrelationship that exists among different transport forms makes transportation more accessible and easier. The absence of it will cause difficulties. An optimal mix of road, rail and inland water transport will provide an efficient transport infrastructure with mobility, flexibility and cost effectiveness. Various linkages and relationship required between different modes of transport are discussed below.

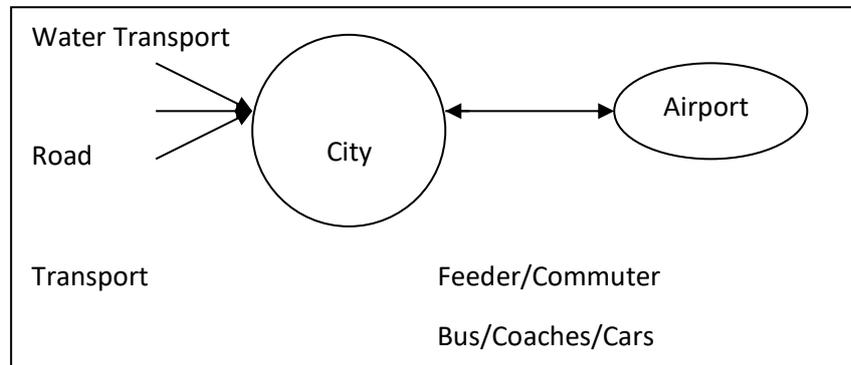
#### **Air and Other Modes of Transport:**

Air transport certainly requires to be assisted by other forms of transport, such as road. Usually airports are located at a distance from the city. Accessing air transport would therefore require other forms of transport. For example, buses operate regular airport services. Taxi services are operated from and to airports. A passenger who resides away from the city can have rail transport from and to his place and other modes of transport can be used for reaching airports from the city. Air taxis, commuter/ feeder services, taxi services, limousine services, scheduled bus and coach services are some forms of transport that are usually connected with air transport. In rare cases, passengers can reach a place without the help of other transport forms. For instance, an air taxi can be operated from the

office premises to another destination in the case of a business travel, if adequate facilities are available. But, it must be noted that, within the airport itself, other forms of transport are used to access the flights.

**Figure 8.1**

Air transport and linkages with other modes of transport



**International Travel and Linkages among Various Modes of Transport**

International travel may involve different forms of transport. If the countries are separated by sea, and if the passenger prefers sea transport, then naturally other modes of transport is required for him to access the sea transport. Reaching a sea port would necessitate the passenger to use one or more forms of transport like air, rail, bus, coaches, taxis, etc. Here, strong linkage with other forms of transport is essential. If the international travel is by air, similar linkages are involved. If it is road or rail transport also, usually a passenger has to depend on some other forms of transport for making the primary transport form accessible. In order to access rail transport, reaching a railway station itself would require usage of some other vehicles. After reaching the destination, usage of taxis, etc. may be required for the passenger to reach the final destination. Bus journey too may have to have link with other forms of transport. Hence, it can be concluded that one mode of transportation generally requires linkages with other modes of transport or usage of other types of vehicles and it means that a passenger has to use multi-transport forms in completing a journey.

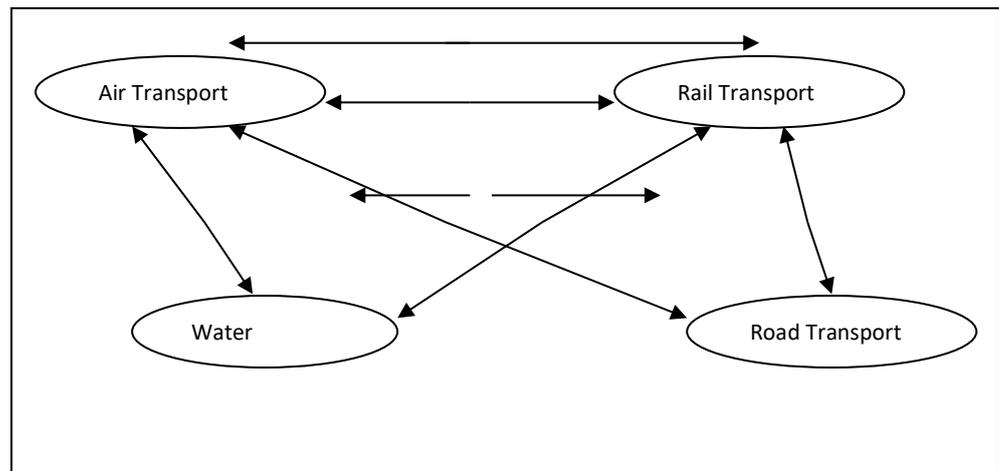
A study reveals that the dependency/ relationship vary from one mode of transport to other. For example air and sea transport necessitates more

linkages with other modes of transport since the airports and sea ports are usually located away from cities and residential areas. Whereas in the case of surface transportation, particularly road transportation, number of terminals is remarkably high and they are more easily accessible. Hence the dependency with other forms of transport is relatively less for road transportation, but road transportation is a vital link for other forms. In the Indian context, road transport provides crucial link for all other modes of transport. Road transport facilitates movement of men and material, helps trade and commerce, links industry and agriculture to markets, and opens up backward regions of the country. Road system provides last mile connection for other modes of transport such as railways, air, inland waterways and sea transport.

**Example of a multi-mode international travel:**

Usually, an international travel will be a combination of different forms of transport. For example, if a tourist from New York likes to visit a beach in Goa, he can use different forms of transport to reach. He can board a charter plane to Goa and reach there directly. But after reaching Goa, he may have to use Car/Bus/Coach/taxi service to reach the final destination. The same tourist can use scheduled air travel from New York to Bombay. From Bombay, he can have an intercity coach service to Goa. After reaching Panjim or any other place, he can hire a taxi to reach the hotel, where he is going to reside. While on his way back, same or different combination of transport forms can be used. In his city too, he has to use other vehicles to reach the airport or to return to his place of residence. Hence, it has to be understood that long-haul travel usually needs use of more than one form of transport and such modes/forms of transport are inter-linked as well as inter-related. The advent of Information Technology has made this interrelationship stronger and easier. Different forms of transport and multi-mode travel services can be booked easily through Computer Reservation Systems/ Global Distribution Systems. One passenger can book/reserve air ticket, car rental, cruise travel, etc. through a CRS terminal.

**Table 8.4**  
**Different modes of transport: Linkages and interrelationships**




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### Check Your Progress-II:

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Answer the following question:

1. \_\_\_\_\_ based holidays are in fashion among tourists in the modern world.
2. World Tourism Organisation reports that \_\_\_\_\_ are the most widely used means of transport by the international tourists.
3. Tourism transport is a vital link between tourists \_\_\_\_\_ and \_\_\_\_\_ regions.
4. \_\_\_\_\_ is one of the primary elements of tourism.
5. Lakes, rivers and Canals constitute the inland \_\_\_\_\_

Check your answer with the one given at the end at the end of the unit.

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### 8.6 Tourism and Transport: the Interrelationship:

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Tourism and Transport are inseparable; the latter bridges the gap between a tourists' place of origin and destination. According to Boniface and Cooper (2002), transportation has developed hand in hand with tourism. The developments in transport really stimulated the growth of tourism. Tourism development on the other hand led to further developments in transport. The role of transportation is basically related to accessibility, and

transportation makes tourist destination accessible to their markets in the tourist generating regions.

The transportation industry is a major segment of the tourism industry, particularly in terms of employment and revenue generation. Many estimates suggest that up to 40% of the leisure time is spent on travelling. Accessibility is one of the primary elements of tourism. Tourism is the outcome of travel and stay of people. The provision of adequate, safe, comfortable, fast, convenient and cheaper public transport is a pre requisite for mass tourism. Tourism and transportation are inextricably linked and as global tourism increases, additional demand will be placed on the transportation sectors (Goeldner and Ritchie, 2003; Holloway, 1996). The essential relationship between tourism and transport is to be understood and London Tourist Board's study findings (1990) are an example of it. It reveals that an efficient transport network is necessary for tourists to gain access to a destination such as London. Without a transport network tourism would not exist as it is part of tourism infrastructure. An integrated transport network with convenient transfers between different modes of transport is essential with reasonably priced travel options. Within the destinations, tourists need a choice of transport to move between port of arrival and their final destination. The importance of this sector in relation to tourism is three fold:

- **Reach the destination:** Transport provides the means of travel to the destination from the tourist's place of origin and back again.
- **Internal transportation:** Transport provides the means of travelling in and around the destination after reaching there.
- **Attraction:** Transport can be a main feature of a tourist trip when the form of transport itself is one of the main reasons for taking the trip.

In most cases, tourism has been developed in areas where extensive transportation networks were in place and the potential for further development was available. Tourism demand has stimulated the rapid development of transportation. Cooper et.al (2000) interpret tourism

product as everything that the visitor consumes not only at the destination, but also enroute to and from the destination. Thus, transport constitutes some key elements of the product. In certain cases transport itself acts as attractive tourist products. For instance Palace on Wheels, the Orient Express, etc.

Transport, one of the most significant factors that have contributed to the tremendous developments of tourism in the world, basically offers essential link between tourism origin and destination areas (Page S. 1994). Hall (1991) is of the opinion that evolution of tourism in Australia is inseparable from the development of new forms of transport and a clear relationship exists between transport development and tourism development. The relationship between tourism and transport is generally conceptualized in terms of accessibility. The transport sector has grown in a tremendous manner by which the external environment forces the transport operators to offer more enjoyable and satisfying transport products to the tourists. Hence, the transport service has much relevance and importance in the context of tourism experience.

From the geographers' point of view, tourist transport is a vital link between tourist generating and destination regions. Geographers typically analyze travel as a response to satisfy human desire for movement and spatial outcome of such journeys. For a geographer, transport facilitates the process of movement that has economic and budgetary costs. The Economists analyze tourist transport system based on demand and supply issues associated with the use and provision of different modes of transport. Transport geographers consider policy management and planning as issues associated with the provision of transport. Marketers have identified the importance of a more consumer oriented focus for tourist provision.

Table 8.5

International Tourist Arrivals in 2004, by mode of transport (in million)							
Year	Air	Land			Water	Not Specified	Total
		Total	Road	Rail			
1990	169.4	233.2	205.9	27.4	33.8	1.4	437.8
1995	217.7	276.6	250.9	25.7	43.6	1.6	539.5
2000	289.8	342.3	308.2	34.1	52.4	2.2	686.7
2002	287.5	363.1	328.3	34.8	53.1	2.6	706.4
2003	286.2	353.2	318.6	34.6	51.6	2.3	693.2
2004 (with % of total)	330.0 (43.2%)	375.1 (49.1)	338.5 (44.3%)	36.6 (4.8%)	55.7 (7.3%)	3.0 (0.4%)	763.9

Source: WTO, 2005

World Tourism Organization reports that air and land (road and rail) are the most widely used means of transport by the international tourists (WTO, 2005). In the year 2004, 43 percent of the international tourists used air transport whereas 49 percent used surface transportation. The share of water transportation is less, only 7.3 percent. America is the only region which receives more than fifty percent of the international tourists by air. In Asia and the Pacific (47%) and Middle East (47%) are the other regions which have good share of air travel. Air transport has relatively poorer share in Europe-- 38 percent. In other regions, road and rail transport have the important shares. Water transport has highest share in Asia and The Pacific, where it accounts for 11 percent of all international tourists arrivals. The share of water transport in other regions range from 5 to 8 percent (WTO, 2005).

Studies reveal that transport sector is greatly influenced by intermediaries like tour operators. The advent of Information Technology has contributed significantly in changing the scenario by giving more freedom to travellers to access the transport products.

Table 8.6

International Tourist Arrivals in 2004, by mode of transport (in million)					
Country/ Region	Air	Land	Water	Not Specified	Total
<b>World</b>	330.0 (43.2%)	375.1 (49.1%)	55.7 (7.3%)	3.0 (0.4%)	763.9
<b>Africa</b>	16.1 (48.0%)	14.7 (43.8%)	2.7 (7.9%)	0.1 (0.2%)	33.4
<b>Americas</b>	67.1 (53.4%)	51.5 (40.9%)	7.0 (5.6%)	0.1 (0.1%)	125.7
<b>Asia and the Pacific</b>	68.9 (47.4%)	58.9 (40.5%)	15.8 (10.8%)	1.9 (1.3%)	145.5
<b>Europe</b>	160.7 (38.0%)	233.0 (55.1%)	28.4 (6.7%)	0.8 (0.2%)	422.9
<b>Middle East</b>	17.2 (47.4%)	17.0 (47.0%)	1.8 (5.1%)	0.2 (0.5%)	36.3

Source: WTO, 2005

Investment in public transport provides social and economic benefits for both residents and tourists alike. Investment in transport infrastructure is a long term proposition and is unlikely to yield tangible benefits in market led economies in relation to tourism. Yet, without tourism, it would not be able to develop.

#### **Tourism System and Transport:**

Understanding tourism through systems approach concept will make the interrelationship that exists between tourism and transport clearer. For learning the complexities and multidisciplinary approaches of tourism, different frameworks can be drawn. One such approach, which is simple and suitable for understanding tourism is the model suggested by Leiper (1979, updated in 1990). He considers the phenomenon of tourism as a system, which is functioning in various environments such as, human, socio-cultural, economical, technological, physical, political legal, etc. According to the Leiper model, there are three major elements in a tourism system; they are tourists, geographical elements and industry.

**Tourists:** Tourist is considered to be the main and most important element of the system. Without the presence of tourists, the system may not function at all.

**Geographical Elements:** The various elements acting in the system related to geography are classified under this category. The front line geographical elements are further divided into three groups: Traveller Generating Region; Tourist Destination Region and Transit Route Region. Traveller generating region is the area where the tourists are emerging from and is usually referred to as tourism markets. For example, if a foreigner is coming to India for visiting various places from U K, then U K is the generating region of that particular trip in relation to India. Various intangible factors present in this area 'push' to stimulate and motivate travel. Tourist destination region represents the 'end' of tourism, which the tourist ultimately intended to visit. This region really attracts the tourists to engage in tourism. Leiper says that the 'pull' of the destinations energizes the whole tourism system and demands for travel in the generating region. The area between tourist generating region and destination region is referred to as the transit route region. This not only includes the short period of travel to reach the destination but also includes the stop-over, the intermediate places, which the tourist may visit enroute.

**Tourism Industry:** This is the last element in Leiper's model. As mentioned previously, tourism is a multi-sector industry that comprises of diverse range of sub-industries, which means that tourism industry is an amalgam of different industries. These provide different kind of products, which are essential for the tourism process. Hotels, Restaurants, Airlines, Travel agencies, etc. are some vital components. Such components can be located in different parts of the system. Hospitality industry is found in the destination region. Transport sector is largely represented in the transit route region.

In the above tourism system, transport has an important role. Tourism does not take place without transport. Transportation is the most

important activity in the transit route region, which is the link between TGR and TDR, and in the case of international tourism, this area involves international travel. Transportation also takes place in the TDR, referred to as internal or local transportation. Transportation is important in TGR, as well. Transportation industry is omnipresent in the above system, and overall, the model reveals that transportation is one of the fundamental components of any tourism sector.

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**8.7 Summary:**

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Transportation is a vital sector of any country in the world. It is basically classified on the basis of the medium in which the travel takes place and air transportation, water transportation and surface transportation are the three broad categories. Each mode of transportation involves a range of carrying units. The experiences reveal that each mode of transport and different types of transport are interrelated and complimentary to each other. Travel, particularly long haul, involves different types of transportation. Transportation forms the most fundamental component of tourism sector. This unit gives an overview of transportation and illustrates the linkages and relationships existing between various modes of transport. Also, the relationship between tourism and transport is also crucial and essential and this has also been discussed in this unit.

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**8.8 Answer to Check Your Progress:**

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**Check Your Progress-I:**

1. 1841
2. USE, European
3. Charter services
4. 4 and 18, business travelers.
5. Line-voyage

**Check Your Progress-II:**

1. Cruise
2. air and land
3. generating, destination

4. Accessibility

5. water ways

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**8.9 Suggested Readings:**

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## 8.10 Review Questions:

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1. Elucidate the interrelationships existing between different modes of transport.
2. Discuss how tourism is linked with transport sector.
3. Explain various modes of transport.
4. Discuss the evolution and growth of transportation in the world.
5. Give a brief account of different elements of transport.
6. Write a brief account on the interdependence of various modes of transport.

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## 8.11 Exercises:

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Identify various transportation services in the city/town near your place and discuss the linkages and relationships existing among them.

**Unit - 9**

**Role And Importance of IATA and ICAO  
In Development of Air Transport Industry**

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**Structure:**

**9.0 Objectives**

**9.1 Introduction**

**9.2 History and Organization**

**9.3 Security**

**9.4 Tariff coordination process**

**9.5 Summary**

**9.6 Suggested Readings**

**9.7 Review Questions**

**9.8 Glossary**

**9.0 Objectives:**

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After reading this unit, you will be able to:

- Explain the role and importance of IATA and ICAO in development of Air Transport Industry;
  - Familiarise yourself with various types of tourism organizations; and
  - Discuss the functions and relevance of some of these organizations.
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**9.1 Introduction:**

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The International Air Transport Association-IATA is the world organization of scheduled airlines. Its members carry the bulk of the world's scheduled air traffic under the flags of over 100 nations. For the airlines, IATA provides machinery for finding joint solutions to problems beyond the resources of any single company. It has become the means by which they knit their individual networks into a worldwide public services system, despite differences in languages, currencies, laws and measurements. Its secretariat is a pool of experience and information, and the administrator of many common services and enterprises.

For the governments, IATA furnishes a forum for developing industry-working standards and, as appropriate, coordinating international fares and rates. It provides the most practical way of drawing upon the experience and expertise of the airlines. It helps to carry out the fast and economical transport of international airmail and to make certain that the needs of commerce and the safety and convenience of the public are served. For the general public, IATA simplifies the travelling process. Thanks to airline cooperation through IATA, individual passengers can, by one telephone call and payment in a single currency, arrange journey that may include many countries and the services of several scheduled airlines.

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**9.2 History and Organization:**

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IATA was founded by airlines in 1945 to meet the problems anticipated in the expansion of civil air services after the Second World War. It is the

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successor in function to the previous International Air Traffic Association, organized at The Hague at the very dawn of regular air transport in 1919. The aims of IATA are clearly set down in its Articles of Association: to promote safe, regular and economical air transport for the benefit of the peoples of the world, to foster air commerce and to study the problems connected therewith, to provide means for collaboration among air transport enterprises engaged directly or indirectly in international air transport service, to cooperate with the International Civil Aviation Organization (ICAO) and other international organizations.

As an organization, IATA is voluntary, non-exclusive, non-political and democratic. Membership is automatically open to any operating company, which has been licensed to provide scheduled air service by a government eligible for membership in ICAO. Airlines engaged directly in international operations are Active Members, while domestic airlines are Associate Members.

All members are involved in Trade Association activities, while participation in the coordination of international fares and rates is optional. The basic trade association activities of IATA include such aspects as, technical, Medical, Legal, Security, procedures and administrative matters. All of the activities grouped under the heading of "Trade Association" support the very existence of an integrated worldwide system to the ultimate benefit both of the general public and of airlines, irrespective of whether they are members of IATA or not.

Management information, staff training, automation projects and finance services for airlines also form part of IATA's work.

IATA's contribution comes in only after governments have completed negotiating traffic and other rights (air service agreements) among themselves and have authorized airlines to perform such services. But from that point on, the activity of the association spreads through most phases of air transport operations. The basic source of authority in IATA is the Annual General Meeting in which all the Active Members have an

equal vote. Year-round policy direction is provided by an elected Executive Committee (of airline Chief Executives) and its creative work is largely carried out by its traffic, Technical, Financial and Legal Committees. Coordination of fares and rates agreements is entrusted to the IATA Tariff Coordination Conferences, with separate meetings considering passenger and cargo matters. Members of IATA committees are nominated by individual airlines and, subject to the regulation and review of the Executive Committee, serve as experts on behalf of the entire industry. In the Tariff conferences, however, delegates act as representatives of their individual companies. While the Executive Committee fixes the terms of reference of these Conferences, their decisions are subject only to the review of governments and cannot be altered by any other part of the association. The association has two main offices, one in Montreal and the other in Geneva. Regional Directors are based in Singapore, Geneva, Buenos Aires, Beirut and Washington, and the Regional Technical Directors in Bangkok, Dakar, Geneva, London, Nairobi, and Rio de Janeiro. IATA's budget is financed from the dues paid by its members, largely in proportion to the part of the total international air traffic carried by each airline. Some of the activities are self-supporting through charges for services rendered.

IATA member airlines are registered in over 100 nations. Their routes cross almost every country, IATA's operational task is to ensure that the aircraft utilized to carry the world's passengers and goods are able to operate with maximum safety and efficiency, under clearly defined and universally understood regulations. IATA's commercial objective is to ensure that people, cargo and mail can move on this vast global network as easily as if they were on a single airline within a single country. Obviously, these activities relate to the cost of airline operation and the prices carriers charge the public, plus the desire to keep both of these as low as possible, commensurate with safety. There is a constant and progressive effort to simplify and standardize procedures and documentation--within the airlines themselves, among governments and

manufactures, and in collaboration with other international organizations. Cooperation of the airlines in operational and technical matters is channeled through the IATA Technical Committee, and its various global and regional working groups. The Association's technical activity is founded upon full exchange of information and experience among all the airlines. Out of this data the airlines distil common requirements, which guide the standardization of their own activities, determine their practical advice and assistance to governments, and act as a guide to future development in transport technology. IATA has played, and continues to play, an important role in the drafting of the ICAO standards and recommended practices, which comprise the technical regulation of civil aviation, and the association cooperates closely with ICAO to encourage governments to implement them fully and keep them up-to-date. The Association works in much the same way with their organizations such as the International Telecommunications Union, the World Meteorological Organization and the International Standards Organization.

Current activities can be grouped under seven broad headings:

- **Avionics and Telecommunications**, dealing with air-to-ground and ground-to-air communications, radio navigation and landing aids, all of which contribute to cost-efficient, on-time journeys.
- **Engineering and environment**, covering the latest technology, both on-board aircraft and on the ground, and also developing airline policy on important environmental issues including aircraft noise, aviation fuel standards and emissions from aircraft engines.
- **Airports**, with responsibility for defining IATA policy on airline requirements for airport terminals, the expansion of existing airports or the development of new ones. Since airlines are the prime users of such facilities, whose costs are in turn reflected in the price of an airline ticket, their objective is to ensure that no expenditure beyond that required for functional efficiency is incurred.

- **Flight operations**, including factors worldwide that affect the safe operation of aircraft, such as air traffic control systems, procedures for operating in low visibility, operational equipment to be provided at airports, and flight crew training, all with emphasis on greater effectiveness and cost control. Many millions of dollars are saved each year in fuel costs, and journey times shortened, by persuading authorities to allow airlines to fly the shortest possible routes between one point and another.
- **Medical**, encompassing the monitoring of health standards for flight crews, hygiene and sanitation in aircraft catering, and making air travel easier for disabled passengers.
- **Facilitation**, meaning simplification of bureaucratic procedures. The objective at airports worldwide is to reduce to the minimum time-consuming government formalities such as customs and immigration; speeding up the flow of inbound and outbound passenger and cargo traffic not only improves customer service by eliminating frustrating bottlenecks but also enhances airline productivity by saving time and money.

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### 9.3 Security:

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**Security**, one of IATA's most vital activities, is conducted relatively discreetly, for obvious reasons. While the public at large may think of security services as meaning only anti-hijacking measures, they also include effort to counteract fraud and theft in a variety of forms. Activities are coordinated by the Security Advisory Committee, which groups them under: Property Crimes (theft), Revenue Crimes (fraud) and Airport and Aircraft Protection (terrorism). The IATA security services work in close liaison with Interpol, local police forces, and airport and airline staff. The Security Advisory Committee has sent teams to study equipment, layout and procedures at dozens of airports around the world.

The Legal committee of IATA, composed of experts in air law drawn from more than 20 airlines, is concerned with all legal matters having a bearing on international air transport. One of its main activities is the formation of

the airlines' views in the development of international conventions affecting such matters as the liability of air carrier's vis-à-vis their customers and other parties, the commission of offences on board aircraft, the carriage of potentially hazardous materials and the carriage of airmail. Another important side of the committee's work is the legal aspect of airline documents. Since the sale of a passenger ticket or the issue of a cargo waybill creates a contract between an airline and its customer, international airline documents must be effective under many different systems of law. The committee has prepared the legal foundation for the present system of uniform traffic documents and procedures that can be used throughout the worldwide network of IATA member's routes. New legal questions have been arising with the growing use of automated systems by the airlines, but these, too, are being resolved successfully.

The IATA financial committee deals with all aspects of accounting and settlements between airlines in respect of business they do with one another or on one another's behalf. It is also concerned with data collection and with many of the airlines common problems in regard to currency and exchange, taxation charges, insurance and statistics. An outstanding example of the association's financial work is the IATA clearing house through which the airlines settle monthly accounts for interline revenue transactions. It enables them to collect and pay their worldwide debts simultaneously by single cash settlement in either dollars or convertible sterling, regardless of the number of national currencies involved. Clearing house operation began in January 1947. Since, then, the IATA clearing house's participation has broadened to include over 300 airlines--many of them not members of the association-- carrying out 12 billion dollars' worth of transactions annually.

Interest in data collection was a direct consequence of the increased government involvement in civil aviation, particularly because of ICAO's needs for statistical information. IATA and ICAO worked out an agreement to avoid unnecessary duplication. However, it soon became

evident that member airlines had additional requirements for data collection, notably for market analysis and forecasting purposes, which are now being fulfilled. IATA has become active in several other fields, with the specific objective of saving money for the industry. A recent development has been the establishment of a captive insurance company for subscribing airlines. International air transport creates special problems in the field of taxation. Although there are many tax conventions that take account of the particular nature of the industry, IATA monitors developments to ensure that airlines are not unfairly taxed and to make representations to national authorities if necessary. There has been general acceptance of the free transferability of an airline's earnings back to its home country. However, economic difficulties in certain areas of the world during the past decade have caused shortages of hard currency and hampered such transfer of locally earned airline revenues. Currency remittance has thus become a priority of the IATA Financial Committee, and many missions have been undertaken to attempt to ease the situation. The association's financial activities also include the monitoring of "user charges" - the costs to airlines of using enroute navigation and airport facilities. Frequent discussions are held with government and airport authorities to ensure that user charges are not excessive, that they are cost-justified and equitably applied. These discussions have been helpful in controlling airline industry costs over the past decade.

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#### **9.4 Tariff coordination process:**

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The Tariff coordination process--the negotiation of international fares and rates for submission to governments--arises from the special nature of air transport. Any country in the world is accessible by air, and the airlines fly between most major cities over a maze of inter-related routes. Most governments reserve control over their own airspace and what air carriers may charge the public. International fares and rates and the conditions, which underline them, are the subject of discussions in which virtually

every country has some direct or indirect concern. However, participation in such activity by IATA member airlines is optional.

The tariff coordination framework is intended to provide considerable flexibility and since members used to respond quickly to market changes, provision has been made for them to introduce innovative passenger fares, or cargo rates rapidly without necessarily affecting other tariffs in their area of operation. Unlike most IATA activities, where consensus is the keyword, airline representative attend tariff coordination meetings as independent agents for their companies. Obviously, compromise is desirable but in the final analysis, governments may need to resolve major disputes relating to passenger fares and cargo rates. Tariff coordination activities, which are within the purview of the traffic committee, are open to input from representative third parties and arrangements have been made for the presence at fares and rates meetings of observers from ICAO, national governments, and from regional organizations. Worldwide tariff coordination meetings ("Traffic Conferences") are held as and when the members consider necessary, usually once a year. Meetings to review fares and passenger tariffs are normally held in the autumn, and those for matters involving air cargo in the spring. Special meetings can be held in the interim, and action can be taken by mail vote, subject to the voting requirements and government approval.

Although tariff activities are the most visible of the various responsibilities concerning the traffic committee, they are not the only ones of considerable importance for the international air transport industry. Of crucial significance for the worldwide system is the whole series of standardization measures-- ticket format, air waybills and other documents, plus uniform procedures for passenger, baggage and cargo handling. These activities are grouped under the generic heading of "Traffic Services". The traffic services work falls into three main areas: Passenger Services, Cargo Services and Airport Handling. These combine

to permit the world scheduled air transport system to handle about one billion passenger journeys annually.

Traffic services' most significant accomplishment has been the creation of the Multilateral Interline Traffic Agreements (MITA). These have integrated the routes of individual airlines into a coordinated world air network over which passengers, baggage and cargo can be carried, on very complex itineraries with a minimum of documentation. The International Air Transport Association worked closely with the US-based Air Transport Association (ATA) in developing MITA. More than 200 airlines belong to the agreements, accepting each other's passenger and cargo traffic, tickets and waybills on a routine basis. Today it normally takes only one telephone call to an airline or agent to obtain confirmed space aboard any flight. This is followed by the issue of a standard interline passenger ticket, permitting travel anywhere in the world, regardless of how many airlines participate in the carriage. This is made possible by extensive airline-owned communications networks run by individual carriers or special companies such as SITA (Societe Internationale de Telecommunications Aeronautiques) and ARINC (Aeronautical Radio Inc.)

The emphasis of passenger services is on speeding travellers through airport terminals and on to their flights at the lowest possible cost, but with due regard to many individual requirements. Automation has already facilitated reservations, ticketing and the associated accounting procedures, but even greater progress can be expected in the years to come. The world's airlines have been carrying incapacitated passengers for many years. During this time, precise industry standards for the guidance of airlines, physicians and handicapped people themselves have been developed by the carriers to simplify matters as much as possible. The industry now handles over a billion pieces of checked baggage each year. Despite the development of elaborate mechanical systems, some baggage is still handled manually. From time to time some are mishandled and there are standard procedures for their tracing, including the IATA/SITA BAGTRAC system.

No airline can afford to set up sales offices in every city of the world and the air transport industry has traditionally relied on sales agents as intermediaries in the market place. Originally, there was a single worldwide agency programme run for the airlines by the IATA secretariat. Passenger sales agency and cargo sales agency activities were administered under two sets of rules, in view of the differing nature of the two types of business.

The rules laid down the rights and obligations of both airlines and agents, as well as the procedures for agents seeking industry accreditation. Each agent was required to meet certain criteria relating to financial soundness, proficiency of staff and suitability of premises, particularly with regard to security. Over the years, IATA has built up a working relationship with both UFTAA (Universal Federation of Travel Agents' Associations) and FIATA (International Federation of Freight Forwarders' Associations). As the commercial environment has evolved so has the agency programme. Procedures to simplify agent accreditation have been developed and conditions tailored to meet local requirements. In the United States of America, the classic agency rules involving accreditation have been replaced by a new system whereby intermediaries are registered on a central record for member airlines to use or not, depending on their commercial policy and judgment. In other areas of the world, the agency programme is being liberalized as the industry's competitive environment develops. During the next few years, Europe, Asia and Australia are all expected to modify the classic airline/agent relationship to varying degrees, without abandoning the basic principle of setting certain business criteria for agents.

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**Check Your Progress**

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Answer the following questions:

1. Write the full form of IATA? When was it founded?
2. What is the full form of ICAO?
3. IATA member airlines are registered in over \_\_\_\_\_ nations.

- 
4. The traffic services work falls into three main areas: \_\_\_\_\_  
Cargo services and \_\_\_\_\_
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### 9.5 Summary:

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In fact tourism industry has different constituents related to various services. Most of these constituents have their representative organizations. In tourism we find organizations at International and national levels in both private as well as public sectors. These organizations represent and help in coordinating certain services along with standardizing them.

### Answer to Check Your Progress:

1. International Air Transport Association. It was founded in 1945.
  2. International Civil Aviation Organisation.
  3. 100
  4. Passenger Services, Airport Handling
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### 9.6 Suggested Readings:

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- Bhatia, A.K. (1991). International Tourism Fundamentals and Practices, New Delhi, Sterling,
  - Kaul, R.N. (1992). The Dynamics of Tourism, New Delhi, Sterling.
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### 9.7 Review Questions:

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1. Describe the aims and objectives of IATA.
  2. Define the role of IATA and ICAO and their inter-relationship.
  3. What has been the role and importance of IATA in developing Air Transport Industry?
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### 9.8 Glossary:

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- **Infrastructural facilities:** These include facilities like, airport, roads, drainage building etc, at a destination.
  - **Interline:** Between two or more transportation lines.
  - **Tariffs:** The published fares, rates, charges and or related conditions of carriage of a carrier.
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**Unit-10**  
**Role and Functions of DGCA**

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**Structure:**

**10.0 Objectives**

**10.1 Introduction**

**10.2 Role and Functions of DGCA**

**10.3 Development of Airport Infrastructure**

**10.4 Air Traffic Control**

**10.5 Summary**

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**10.0 Objectives:**

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**After reading this unit, you will be able to:**

- Discuss the role and functions of DGCA;
- Explain the Air Traffic Control, Air-to-ground communications and Air Traffic services; and
- Discuss the development of Airport infrastructure.

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**10.1 Introduction:**

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The linkages between international trade and the transport network are obvious. An efficient transport system can boost trade and greater volume of trade can, in turn, create demand for investment in the transport network. It is now widely acknowledged that efficiency in the transport sector has major spillover effects on the competitiveness of both goods and services. Competition and increased efficiency in maritime transport services, resulting in lower freight rates, contribute directly to a country's international competitiveness. Similarly, the development of air transport services is crucial for the sustainable development of trade and tourism. This sector acts as an economic catalyst by opening up new market opportunities, moving products and services with speed and efficiency. The quality of the transport network has direct implications for the inflow of Foreign Direct Investment (FDI). In the past, the requirement of large-scale investment, long gestation periods, uncertain returns, associated externalities together with social objectives such as consumer protection, welfare and equity, have resulted in government monopoly in transport services. In many developing countries, the Government owned, operated and financed the transport sector and success and failure in the provision of such services was largely a story of government's performance. This picture is rapidly changing with globalization and the liberalization of national economies. Increased commercialization and growth of international trade has led to considerable pressure on the operating environment of the existing transport infrastructure, forcing it to adopt new, improved and more reliable technology. Commercialization has also

enhanced competition among trading nations to increase their share in the world's trade. For instance, with increasing size and sophistication of ships, container ships now make only a few calls in three or four harbours at each end of the trade while small feeder ships serve the rest of the traffic. This has increased the competition among neighbouring harbours to develop as "hub" ports catering to large container ships. Governments all over the world are finding it increasingly difficult to finance the investment required to sustain the growth of transport infrastructure. On the other hand, globalization has given birth to large multinational corporations and alliances that have the willingness, financial strength and technical know-how to operate and manage the advanced transport network. This has created a unique situation whereby countries, which were once closed-door, are opening-up their corridors for privatization and foreign investment.

The Indian aviation and maritime transport sectors have not been an exception to this trend. Prior to the 1990s, the Government was the main provider of these services and there were various restrictions on private participation. During that period, the performance of these sectors was marked by monopoly-induced inefficiency and low productivity. In fact, in both these transport services, India's share in world trade had been steadily declining. In the 1990s, when India embarked upon an ambitious reform programme, the demand-supply gap in transport infrastructure became more pronounced. The need of the hour was to rectify the infrastructural bottlenecks to sustain the reform programme. It is at this juncture that the Government announced various reform measures in air and maritime transport services, including privatization. It was expected that privatization would increase efficiency through competition, reduce the financial constraints and speed up the process of adaptation of new technologies. The following section will provide a broad overview of maritime and air transport services in India. It will critically analyze the policies and developments in these sectors since the 1990s. The subsequent

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section will suggest various regulatory, fiscal and other reforms, which could facilitate the privatization process and improve the overall efficiency, productivity and global competitiveness of the sectors.

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### **10.2 Role and Functions of DGCA:**

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The BOOM in the civil aviation sector has put the focus on air safety. Does the apex regulatory body, the Directorate General of Civil Aviation (DGCA), have the wherewithal to ensure that the rules are followed?

There is an acute shortage of qualified pilots. In fact, the industry projection is that 4,000 more commanders will be needed to meet the expansion plans till 2010. "There is no way we can produce that number of commanders. There are not enough qualified pilots even in the global market," says a Boeing 737 check pilot based in Chennai. With the DGCA permitting the logging of 1,000 flying hours a year, a minimum of five sets of cockpit crew per aircraft is required for domestic jet operations. On international sectors, a minimum of eight sets of crew per aircraft is needed, according to an aviation source. The DGCA has stipulated that to qualify for direct command on wide bodied aircraft, a pilot should have logged at least 7,000 flying hours, 4000 of them as commander on smaller aircraft with an all-up weight of 55,000 kg. The pilot shortage has resulted in some easing of norms on duty hours, known in aviation parlance as "Flight Duty Time Limitation (FDTL)." Airlines do not have enough qualified engineers either, raising fears about the quality of aircraft maintenance procedures. Besides, are the safety audits by the DGCA being carried out on schedule since the regulatory body is also facing shortage of trained personnel to handle so many airlines? The Air Passengers Association of India (APAI) has already called for setting up of an independent civil aviation regulatory authority. Now the DGCA has allowed foreign nationals to fly as commanders to meet the shortage of pilots. Aviation experts say the earlier policy of not allowing foreign co-pilots was to improve the employment prospects of many youngsters in India. For a co-pilot in India, it takes about one year to complete the

mandatory 200 hours of flying. That is the reason captains from abroad were allowed in.

The DGCA is also allowing private airlines to employ non-airline jet rated pilots with turbo-prop and fighter jet flying experience from the services, directly as captains on new generation aircraft. They are unfamiliar with the Electronic Flight Instrument Systems these aircraft have. It takes a minimum of 300 hours to become comfortable with the EFIS. Air Force pilots also do not have enough experience of flying in monsoon conditions, says a senior Boeing instructor and a former core group member of the DGCA Task Force on the Approach and Landing Accident Reduction (ALAR) Procedure.

The civil aviation sector in India has undergone some significant developments/transformation during the Ninth Plan period. The more important developments are: The Government considerably disengaged itself from commercial operations of airlines. The government encouraged an increase in the role of the private sector in order to bridge the resource gap as well as to bring greater efficiency. A decision has been taken to disinvest up to 60 percent of Government equity in Air India of which 40 percent would be offered to the private sector and the balance 20 percent to employees, financial institutions and public. Indian Airlines, out of 51 percent equity to be disinvested, 26 percent would be given to a strategic partner and balance 25 percent to the employees, financial institutions and public. The process of disinvestments has, however, been delayed.

The decision to restructure existing airports at Delhi, Mumbai, Chennai and Kolkata through long-term lease in order to make them world class is another important milestone. The process of leasing of four metro airports, however, has also been delayed. The new airport at Neduembassery near Kochi has been constructed by Kochi International Airport Limited, a company promoted by the Kerala government with equity participation from a large number of non-resident Indians and financial institutions. Green-field international airports at Hyderabad and Bangalore are also on

the anvil with equity being shared by the AAI (13 percent), State Government (13 percent) and joint venture partner (74 percent) Emphasis has been laid on improvement/ upgradation in airport infrastructure/ upgradation in airport infrastructure. Domestic passenger and cargo transport services. Keeping in view the current security scenario in the country and elsewhere, the Government has taken a number of special steps to tighten security at the Indian airports for the safety of passengers, and after the hijacking incident involving Indian Airlines flight IC 814 in December 1999, the contingency plan to deal with hijacking and other unlawful activities have been made tour programme.

The demand for air transport traffic had hovered around 10 million passengers for quite some time. The increase in demand for air transport depends on a number of factors, which include rate of growth of the economy and fall in real prices of air services. The airlines operate at very thin margins. The utilization of capacity becomes another important factor for determining the viability of air operators. In order that air transport plays its role in accordance with its comparative advantage, it is necessary to remove the bottlenecks affecting the sector. To enhance the operational efficiency in the civil aviation sector, the infrastructure facilities will have to be augmented, specifically to ensure full utilization of runways leading to improved payload. Other steps required include extension of runways strengthening of navigation system to reduce flying time and allocation of optimal flight levels through a modern air traffic management system.

Fuel is the largest component of airline cost. Even though the pricing of Aviation Turbine Fuel (ATF) is now on import parity basis, the rates applicable for domestic operations continue to be significantly higher than that of international operations. Further, the ATF is subject to high rate of sales tax varying from 20 to 36 percent. The high ATF cost for domestic air transport increases the cost of operation and makes it unviable even in areas where it has comparative advantage over other modes of transport. The removal of this constraint would help in stepping up the rate of growth of the sector.

At present, the domestic air transport policy debars foreign airlines from equity participation in the companies formed for domestic air transportation. The policy allows participation of foreign individuals/companies up to 40 percent and the participation on Non Resident Indians (NRIs)/Overseas Corporate Bodies (OCB) up to 100 percent in the domestic air transport services.

In the past, capacity constraint on some of the international routes has been experienced and this has had an adverse impact on tourism and trade. There is a proposal to review the policy of regulating international services through bilateral air services agreements. While reviewing this policy, the interest of national carriers, on the one hand, and the need for promoting tourism and trade and the convenience of the travelling public on the other, will be considered. Domestic private carriers may also be permitted to utilize international air transport bilateral traffic rights subject to the first right of refusal by Air India and Indian Airlines.

Currently, international air cargo services are governed by the open sky policy. It is applicable to all airports having custom and immigration facilities. There is no restriction on these flights within the country except on carriage of domestic cargo. The operators of cargo flights are also free to charge rates as per market conditions. In order to promote international tourism, the liberal policy of foreign charter flights is also under consideration.

Barring a few airports, the available infrastructure facilities are underutilized at most airports. About 50 percent of the airports under AAI are not being utilized by various airlines. Besides, there are a large number of airports where full infrastructure is available but only one or two flights a day operate, leading to heavy under-utilization of infrastructure as well as wastage of manpower. Only nine airports of AAI manage to make profits.

There is a continuing effort towards upgradation and modernization of air traffic services. The navigation and surveillance facilities are being

upgraded as a matter of priority to be in line with world standards. New approaches in airport designs are also being considered to accommodate technological innovations. Technological up gradations include ground facilities through introduction of automation and computerization, mechanization of baggage handling facilities and provision of aerobridges etc.

The process of long-term leasing of airports at Delhi, Mumbai, Chennai and Kolkata in order to make them world class has already been initiated. This would help in attracting investment to improve infrastructure facilities and services at these airports.

Airports being nuclei of economic activity play a significant role in the national economy. The quality of airport infrastructure, which is a vital component of the overall transportation network, contributes directly to a country's international competitiveness and the flow of foreign investment. While cargo carried out by air in India is less than 1% of the total cargo exported, it accounts for 35% of the total value of exports. Better cargo handling facilities lead to enhanced levels of importation, especially of capital goods and high-value items. Likewise, 97% of the country's foreign tourists arrive by air and tourism is the nation's second largest foreign exchange earner.

1. Airports also represent a country's window on the world. Passengers form their first impressions about a nation from the stage of its airports. They can be effectively used as symbols of national pride, if we pay sufficient attention to their quality and maintenance.
2. In any remote, hilly and inaccessible areas of the country, air transport is the quickest and sometimes the only mode of travel available. This is especially true of sensitive regions on the borders with our neighbours in the west, north and the northeast.

There are a total of 449 airports/airstrips in the country. Airports are presently classified as international and domestic airports.

**International Airports:** These are available for scheduled international operations by Indian and foreign carriers. Presently, Mumbai, Delhi, Chennai, Kolkata, and Thiruvananthapuram fall into this category.

**Domestic Airports:** In this category fall those airports which have custom and immigration facilities for limited international operations by national carriers and for foreign tourist and cargo charter flights. These include airports at Bangalore (CE), Hyderabad, Ahmedabad, Calicut, Goa (CE), Varanasi, Patna, Agra (CE), Jaipur, Amritsar, Tiruchirapally, Coimbatore, Lucknow. Yet another type of airports are known as Model Airports. These have a minimum runway length of 7,500 feet and are capable of handling A320 type Airbuses. They can cater to limited international traffic, if required. These airports are in Bhubaneswar, Guwahati, Nagpur, Vadodara, Imphal and Indore. There are also airports with civil enclaves (CE) in defence airfields. Twenty of them are currently in operation. Mumbai (Chhatrapati Shivaji) airports is the busiest in India and handles about 30% of the total passenger traffic in the country. The Chhatrapati Shivaji international airport's share of the country's international traffic is around 40%.

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### **10.3 Development of Airport Infrastructure:**

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1. The government is responsible for ensuring adequate world-class airport infrastructure capacity in accordance with demand, ensuring maximum utilization of available capacities and efficiently managing the airport infrastructure by increasing involvement of private sector.
2. Greenfield airport are permitted by the government where:
  - (1) The existing airport is unable to meet the projected requirement of traffic, or
  - (2) A new focal point of traffic emerges with sufficient viability; and
  - (3) The new location is normally not within an aerial distance of 150 kilometers of an existing airport.

3. Encouragement is given to development/ construction in private sector of small airstrips/ helipads/ heliports, which are smaller and cheaper to construct.
4. Private sector participation:
  - (1) Private sector is encouraged to undertake
    - (a) Construction and operation of new airports/ airstrips/ helipads/ heliports including cargo complexes, express cargo terminals, cargo satellite cities and cargo handling facilities.
    - (b) Upgradation and operation of existing airports/ airstrips/ helipads/ heliports, including cargo complexes, express cargo terminals, cargo satellite cities and cargo handling facilities.
  - (2) Foreign equity participation is permitted up to 74% with automatic approval and 100% with special permission of government.
  - (3) Private sector participation includes participation of state government, urban local bodies, private companies, individuals and joint ventures on Build-Own-Operate (BOO) basis or any other pattern of ownership facilities and management depending on the circumstances.
  - (4) Restructuring of major airports is undertaken through long-term lease to private investors for efficient management, improvement of standards of services/ facilities and attracting private investment.
5. Civil Aviation Authorities license all airports/ airstrips/ helipads/ heliports used for scheduled air-transport services.
6. All airports/ airstrips/ helipad operators follow ICAO guidelines for levying airport/ airstrips/ helipad charges based on cost recovery principle.
7. **Cargo Handling:**
  - (1) Government is responsible for setting up infrastructure like satellite freight cities with multi-modal transport, cargo terminals, cold storage centres, automatic storage and retrieval systems, mechanized transport of cargo, dedicated express cargo terminals with airside and city side openings, computerization and automation etc.

- (2) Government envisages development of efficient electronic data interchange systems to be linked amongst all stakeholders in the trade.
- (3) Private sector participation in cargo handling is encouraged.
- (4) It is proposed by government to have air cargo complexes and dedicated express cargo terminals (with airside and city-side openings) at all major airports.

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**10.4 Air-Traffic Control (ATC):**

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The ATC is marked by Government Officials at all airports. It promotes the safe orderly and fast movement of aircraft operating in the air or on an airport surface by providing rules, procedures, and information and advisory services to pilots.

Safety is principally a matter of preventing collisions with other aircraft, obstructions, and the ground; assisting aircraft in avoiding hazardous weather, assuring that aircraft do not operate in airspace where operations are prohibited, and assisting aircraft in distress. Orderly and expeditious flow assures the efficiency of aircraft in distress. Orderly and expeditious flow assures the efficiency of aircraft operations along the routes selected by the operator. It is provided through the equitable allocation of system resources to individual flights.

In the United States, air traffic control (ATC) is the product of the National Airspace System (NAS), comprising airspace, air navigation facilities and equipment, airports and landing areas, aeronautical charts, information, and publications, rules, regulations and procedures, technical information and personnel.

**Air Traffic Services:**

- Air Traffic services are provided by AAI over the Indian air space as per standards set by Government in accordance with ICAO (International Civil Aviation Organisation) norms.
- New Satellite based CNS/ ATM systems have been introduced as per ICAO's regional plan.
- Efforts are made for civil-military co-ordination for

- (a) Greater sharing of civil and military airspace for unidirectional air-corridors and straightening of air-routes to save fuel and time.
- (b) Ensuring uniform air-traffic procedures.
- (c) Securing additional slots for civilian flights at military airports.
- (d) Sharing of revenues at civil enclaves.

Two principal categories of rules governing air traffic are visual flight rules (VFR) and instrument flight rules (IFR). Visual flight rules govern the procedures for conducting flight where the visibility, the ceiling, and the aircraft distance from clouds are equal to or greater than established minima. Ceiling is the height above the Earth's surface of the lowest layer of clouds or obscuring phenomenon that significantly restricts visibility. The minima for operation under visual flight rules vary by airspace.

Aircraft operating under visual flight rules (VFR aircraft) maintain separation from other aircraft visually. IFR aircraft in controlled airspace operate in accordance with clearances and instructions provided by air traffic controllers for the purpose of maintaining separation and expediting the flow of traffic. Flight crews operating under instrument flight rules are responsible for seeing and avoiding other aircraft, but the air traffic control clearances they receive provide substantial added assurance of safe separation. Consequently, flight crews often operate under instrument flight rules even though the weather satisfies visual meteorological conditions.

**Air-to-ground communications:**

Two way air-to ground voice communications between civil pilots and air traffic controllers are conducted in the very high frequency (VHF) band. In addition, certain radio navigation aids provide one-way communications from controllers to aircraft. These channels generally are used to broadcast weather and aeronautical information to pilots. Air-to-ground data communications are being increasingly used to transfer information to and from the cockpit. Many of the communications errors associated with incorrectly reading, speaking, and hearing text are eliminated by communications protocols that detect errors in data

transmissions, by electronically displaying the information received, and by storing the received information so that it can be reviewed. Data link also permits large quantities of data to be exchanged between ground-based and airborne computers. Civil aviation is exploiting three data-link media: some VHF voice channels, modes, and communications satellites. Air traffic control facilities include flight service stations, air-route traffic control centres (ARTCCs), and terminal facilities. Flight service stations provide preflight briefings for pilots, accept flight plans, broadcast aviation weather information, assist lost aircraft and aircraft in distress, and monitor the operation of radio navigation aids. Air route traffic control centres monitor all IFR aircraft not under the control of military or terminal facilities. They assure separation of IFR aircraft by issuing clearances and instructions as necessary and issuing traffic advisories, provide weather advisories, accept amendments to flight plans from flight crews, and assist aircraft in distress. Flight plans submitted to flight service stations usually are transmitted to parent air route traffic control center, where they are processed and the route clearance is generated.

**Safety:**

1. Standards for civil aviation safety for all agencies is set as per international norms prescribed by ICAO.
2. New Communication, Navigation Surveillance/ Air Traffic Management (CNS/ ATM) system has been introduced as per ICAO's regional plan.
3. Safety audit of various agencies in the civil aviation sector is carried out from time to time.
4. Installation of Airborne Collision Avoidance system (ACAS), Ground Proximity Warning System (GPWS) and transponders are mandatory on specific categories of aircraft to enhance safety in civil aviation.
5. Regular Flight Inspections is carried out by Civil Aviation Authorities.
6. Regular and systematic monitoring of recordings of Flight Recorded is mandatory and is carried out by the operators as part of accident/incident prevention programme.

7. Minimum Safe Altitude Warning (MSAW) system is provide in all secondary surveillance radars in the country to prevent Controlled Flights into Terrain (CFIT) accidents.
8. The personnel are specifically trained in responding to any safety-related emergency situation and role and responsibility of every functionary is clearly specified. Regular mock exercises are also conducted to deal with various possible emergencies.

**Security:**

1. A strict national civil aviation security policy exists to safeguard civil aviation operations against acts of unlawful interference through regulations, practices and procedures, which take account of the safety, regularity and efficiency of flight.
2. Periodic review of threat perception is carried out taking into account the international situation, internal security scenario and other relevant inputs.
3. Strict security standards/ security programme have been set by the BCAS (Bureau of Civil Aviation Security) as per ICAO standards.
4. Aircraft security is the primary responsibility of Airline-operator as per the standards set Governments. Suitable manpower, training and procedures are provided and set up the airline operators to ensure this.
5. All arrangements made and personnel engaged for security functions have to be licensed/ cleared by BCAS.
6. Evolving technologies and equipment's are constantly scanned for identifying those more suited to our security needs and their use is encouraged thereby resulting in more effective security arrangements.
7. Emphasis is given on unobtrusive, effective, passenger-friendly security.
8. Emphasis is given for state-of-art training of personnel engaged in security functions including in the areas of use of modern technology, passenger friendliness, and specific requirements of aviation security. Special training modules have been developed for all types of possible

emergencies, with clear analysis of different parameters, options available with consequent implications.

9. Contingency plans have been developed, are up-to-date and the resources are made available to safeguard airports and ground facilities used against acts of unlawful interference.
10. Effective measures relating to passengers and their cabin luggage, checked baggage, cargo and other goods and access control are taken as per international standards and recommended practices to prevent weapons, explosives or any other devices which may be used to commit an act of unlawful interference, the bearing of which is not authorized from being introduced, by any means however, on-board an aircraft engaged in civil aviation.
11. The plans for management of acts of unlawful interference in civil aviation operations are reviewed and suitably modified from time to time.

**Check Your Progress:****Answer the following questions:**

1. Tourism is the nation's second largest \_\_\_\_\_ earner.
2. Chhatrapati Shivaji international airport is situated at \_\_\_\_\_.
3. There are a total of \_\_\_\_\_ airports in the country.
4. In the United States, Air Traffic Control (ATC) is the product of the \_\_\_\_\_.
5. New Satellite based CNS / ATM systems have been introduced as per \_\_\_\_\_ regional plant.

Check your answer with the one given at the end of the unit.

**Check Your Progress**

Answer the following questions.

1. Tourism is the nation's second largest \_\_\_\_\_ earner.
2. Chhatrapati Shivaji international airport is situated at \_\_\_\_\_.
3. There are a total of \_\_\_\_\_ airports in the country.
4. In the United States, Air Traffic Control (ATC) is the product of the \_\_\_\_\_.

5. New Satellite based CNS/ATM systems have been introduced as per \_\_\_\_\_ regional plant.

Check your answer with the one given at the end of the unit.

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### 10.5 Summary:

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The civil aviation sector in India has undergone some significant developments/ transformation during Ninth Plan period. The government encouraged an increase in the role of the private sector in order to bridge the resource gap as well as to bring greater efficiency.

In this unit we have discussed the role and functions of DGCA. The development of Airport Infrastructure, Air-Traffic Control (ATC), Air Traffic services, Air-to ground communications safety and security.

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### 10.6 Answer to Check Your Progress:

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- a. foreign exchange
- b. Mumbai
- c. 449
- d. National Airspace System (NAS)
- e. ICAO's

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### 10.7 Suggested Readings:

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- Ram Acharya, Civil Aviation and Tourism Administration in India, New Delhi, National Publishing House, 1978.

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### 10.8 Review Questions:

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1. Write a short history of DGCA.
2. What is the role of DGCA?
3. What are the functions of DGCA?
4. Describe the objectives of DGCA.

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### 10.9 Glossary:

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- **Charter:** The bulk purchase of any carrier's equipment for passenger or freight. Legally, charter transportation is arranged for time, voyage or mileage.

- **Disembarkation:** The leaving of an aircraft after a landing, except by crew passengers continuing on the next stage of the same through flight.

**Unit-11**

**Contribution of ITTA in Growth of Indian Tourist  
Transport Industry**

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**Structure:**

**11.0 Objectives**

**11.1 Introduction**

**11.2 Objectives of the Association**

**11.3 Eligibility Criteria**

**11.4 Application form for Membership**

**11.5 Summary**

**11.0 Objectives:**

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After reading this unit, you will be able to:

- Explain the contribution of ITTA in growth of Indian Tourist Transport Industry.
  - Discuss the eligibility criteria to become an active/allied member of ITTA.
  - Explain the aims and objectives of the association.
- 

**11.1 Introduction:**

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Indian Tourist Transporters Association is a registered national body of Tourist Transport Operators, recognized by the Department of Tourism, Government of India and are solely involved in providing surface transport facilities to the foreign/domestic tourists. In this unit we will discuss the growth of Indian Tourist Transport Industry, aims and objectives of the association and the eligibility criteria to become an active/allied member of ITTA.

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**11.2 Objectives of the Association:**

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1. To promote, encourage, develop and safeguard the interest of Tourist Transport Operators in India.
  2. To promote, encourage, develop and help in bringing about the co-operation between persons, firms, association or companies and authorities concerned with Tourist Transport, so that they might adopt a common policy and collectively take such steps as may be deemed necessary and expedient to further and safeguard the interest of this particular association.
  3. To take up, consider and discuss questions connected with or affecting the above mentioned areas and to provide facilities for encouragement, co-operation mutual interests and problems connected therewith and for such purpose to organize and promote conferences, exhibitions, demonstrations, lectures, seminars and other useful functions.
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4. To enter into any arrangement with the Government of India, any local Government, Chambers of Commerce or any other Public or Private Bodies that may see conducive to the objects of the association or any of them and to obtain from any such government or Authorities all rights, concessions and privileges which the Association may deem desirable in the interest of its members and to obtain and carry out exercise and comply with any such arrangements, rights, concessions and privileges.
5. To present officially the views of its members on any questions affecting or likely to affect the Transport Operators to the Government of India, Local Government, Chambers of Commerce, and any other Public or Private Bodies.
6. To promote, support or oppose legislative or other measures, affecting the Tourist Transport Operators.
7. To collect, circulate and publish statistics and other information relating to the Tourist Transport operations in India.
8. To nominate representative of the Association in the various government officials and semi-official and other such bodies and Chambers including Associations.
9. To purchase, take on lease or hire or otherwise acquire or build any movable or immovable property for the purpose of the Association and sell, improve, manage, develop, lease, mortgage, charge, dispose of or otherwise deal with all or any such property for the furtherance of the Association.
10. To invest and deal with the money of the Association in such a manner as may from time to time be determined by the Managing Committee and to open and operate Current and Fixed Deposit Account with any Bank or Banks or in other approved Government securities to achieve the aims and objectives of the Association.
11. To subscribe, acquire and hold shares to become a member of or otherwise cooperative with any other Association whether incorporated or not whose objects are altogether or in parts similar to these of the Association.

12. From time to time to raise money by donation or subscription from patrons and members of the Association.
13. To borrow or raise on secure the payment of money which may be required for the purpose of the Association in such a manner as the Association may think fit, and in particular by the issue of promissory notes, bonds, debentures-stock, perpetual or otherwise charged upon all or any of the Association's property both present and future and to purchase, redeem and pay such securities or loans in such manner as the Association may think fit for furtherance of the Association.
14. To protect members from fraudulent transaction from the clients and to attain the above objects to invite information from members about defaulters and to maintain list of such defaulters and to request members to stop dealings with any or all such defaulters for such time as may be necessary and to take henceforth such other steps as may be necessary and conducive to any or all of the objects.
15. To commence and undertake any arbitration for settlement of general or special disputes arising between members of the Association.
16. All the incomes, earnings, movable or immovable properties of the society shall be solely utilized and applied towards the promotion of its aims and objectives only as set for in the Memorandum of Association and no profit on thereof shall be paid or transferred directly or indirectly by way of dividends, bonus, profits or in any manner whatsoever to the present or past members of the society or to any person claiming through anyone or more of the present or the past members. No member of the society shall have any personal claim on any movable or immovable properties of the society or make any profits, whatsoever, by virtue of this membership.

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**11.3 Eligibility Criteria:**

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**Eligibility to Become an Active Member:**

Any person, firm or company engaged in business as Tourist Transporter having an established office of business in India and duly recognized by

the Department of Tourism, Government of India, as Tourist Transport Operators are eligible for membership of the Association.

**Eligibility to Become an Allied Member:**

Any person, firm or company engaged in business related to tourism is eligible for Allied Membership of the Association.

**11.4 Application form for Membership:**

**Indian Tourist Transporters Association**

(Registered under Societies Registration Act XXI of 1860)

5-H, Vandhna Building, Tolstoy Marg, New Delhi-110001

**Application Form for Active Membership**

Name of the Applicant \_\_\_\_\_ Company \_\_\_\_\_

Address \_\_\_\_\_

TelephoneNo(s). \_\_\_\_\_ FaxNo(s) \_\_\_\_\_

E-mail \_\_\_\_\_ Address \_\_\_\_\_

Website \_\_\_\_\_

Branches if any \_\_\_\_\_

Name of two authorized representative with the designation and residential address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Contacts \_\_\_\_\_

\_\_\_\_\_

Date of recognized by DOT (Please attach copy) \_\_\_\_\_

Experience as Tourist Transport Operator \_\_\_\_\_

\_\_\_\_\_

No. of vehicles as on date \_\_\_\_\_

Indian Cars (Please specify) \_\_\_\_\_

\_\_\_\_\_

—

Imported Cars (Please specify) \_\_\_\_\_

Mini Coaches      A/C      \_\_\_\_\_

                                 Non A/C      \_\_\_\_\_

Large Coaches      A/C      \_\_\_\_\_

                                 Non A/C      \_\_\_\_\_

**Payment details:**

Membership Fee Rs.1500.00 \_\_\_\_\_

Annual Subscription Rs 2000.00 \_\_\_\_\_

Any other information \_\_\_\_\_

\_\_\_\_\_

The information given above is true to the best of my knowledge and belief and the conditions for Membership and by laws, rules and regulations of the Association have been carefully read and understood by us and are acceptable to us. I further agree to abide by the rules and regulations of the Association.

Proposed by \_\_\_\_\_ Name of Applicant \_\_\_\_\_

Name \_\_\_\_\_ Designation \_\_\_\_\_

Designation \_\_\_\_\_ Signature \_\_\_\_\_

Signature \_\_\_\_\_ Official \_\_\_\_\_

Official

Seal \_\_\_\_\_

Date \_\_\_\_\_

Place \_\_\_\_\_

**For Official Use Only:**

Date of Receipt of Form \_\_\_\_\_ Date of Meeting \_\_\_\_\_

Whether

approved/rejected \_\_\_\_\_

Reason for Rejection\_\_\_\_\_

Membership No.\_\_\_\_\_

**Indian Tourist Transporters Association**

Registered under Societies Registration Act XXI of 1860)

5-H, Vandhna Building, Tolstoy Marg, New Delhi-110001

E-mail: [info@ittaindia.com](mailto:info@ittaindia.com): Website:www.ittaindia.com

**Application Form For Allied Membership**

Name of the Applicant

Company\_\_\_\_\_

Address\_\_\_\_\_

\_\_\_\_\_

Telephone No (s).\_\_\_\_\_ Fax No (s).\_\_\_\_\_

E-mail Address\_\_\_\_\_ Website\_\_\_\_\_

Branches, if any\_\_\_\_\_

Name of two authorized representative with the designation and residential address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Payment Details:**

Membership Fee Rs. 1500.00\_\_\_\_\_

Annual Subscription Rs 2000.00\_\_\_\_\_

Any other information\_\_\_\_\_

\_\_\_\_\_

The information given above is true to the best of my knowledge and belief and the conditions for Membership and by laws, rules and regulations of the Association have been carefully read and understood by us and are

acceptable to us. I further agree to abide by the rules and regulations of the Association.

Proposed by \_\_\_\_\_ Name of Applicant \_\_\_\_\_

Name \_\_\_\_\_

\_\_\_\_\_ Designation \_\_\_\_\_

Designation \_\_\_\_\_ Signature \_\_\_\_\_

Signature \_\_\_\_\_ Official seal \_\_\_\_\_

Official Seal \_\_\_\_\_

Date \_\_\_\_\_

Place \_\_\_\_\_

**For Official Use Only**

Date of Receipt of Form \_\_\_\_\_ Date of Meeting \_\_\_\_\_

Whether approved/ rejected \_\_\_\_\_ Reason for Rejection \_\_\_\_\_

Membership No. \_\_\_\_\_

Remarks \_\_\_\_\_

**President**

**Hon. Secretary**

**Check Your Progress:****Answer the following questions:**

1. ITTA is a registered national body of Tourist Transport Operators recognized by \_\_\_\_\_ Govt. of India.
2. Any person, firm or company engaged in business related to tourism is eligible for \_\_\_\_\_ of the Association.
3. ITTA promote, encourage, develop and safeguard the interest of \_\_\_\_\_ in India.

Check your answer with the one given at the end of the unit.

**11.5 Summary:**

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Indian Tourist Transporter Association (ITTA) promotes, encourage and safeguard the interest of Tourist Transport Operators in India. It helps in bringing about the co-operation between persons, firms, association or companies and authorities concerned with Tourist Transport. The unit has familiarized you the contribution of ITTA in growth of Indian Tourist Transport Industry and with the relevance of objectives of the Association, eligibility to become an Active/Allied member.

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**11.6 Answer to Check Your Progress:**

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1. Department of Tourism
  2. Allied Membership
  3. Tourist Transport Operators
- 

**11.7 Review Questions**

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1. List the Contributions of ITTA in growth of Indian Tourist Transport Industry.
  2. Explain the aims and objectives of Indian Tourist Transporter Association (ITTA).
  3. What is the eligibility criteria to become Active Member of ITTA.
- 

**11.8 Glossary:**

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**• Transit Traffic:**

Persons carried by transportation lines and passing through a country en route to some other destinations.

**• Vouchers:**

Documents issued by tour operators in exchange for which travelers receive pre-paid accommodation, meals, sightseeing trips, etc.

**Unit - 12**  
**Indian Railways and Tourism**

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**Structure:**

**12.0 Objectives**

**12.1 Introduction**

**12.2 Setting up of the Indian Railway Catering and Tourism Corporation  
Limited**

**12.3 Promotion of Domestic Tourism**

**12.4 Special Promotional Schemes**

**12.5 Summary**

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**12.0 Objectives:**

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After reading this unit, you will be able to:

- Explain the role of Indian railways in promotion of tourism.
- Discuss the role of Indian Railway Catering and Tourism Corporation Limited.
- Explain the special promotional schemes of Indian railways.

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**12.1 Introduction:**

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Indian Railways serve as the principal mode of passenger transport in the country. During 1996-97, the number of passengers carried was 4,153 million as against 4,018 million in 1995-96 – an increase of about 3.4%. Passenger kilometers, which is the product of the number of passenger's carried and average distance traversed was 357 billion, up by about 4.4% from the level of 342 billion in the previous year.

Indian Railways, the largest of its kind in the world with a workforce of about 1.5 million employees, can be easily described as the lifeline of the nation and its fast growing economy. Safe and hassle and free journey at most affordable price, to almost every nook and corner of India, speak volumes about the inherent strength of our Railways.

Daily about 14 million passengers benefit directly from this huge network of 62,800 route Kms. The last two years have witnessed considerable improvements in various areas including passenger amenities, number of new trains, extension of service and indigenous technology.

The Indian Railways (IR) has made significant contribution in promoting tourism. Besides offering the facility of traveling from one end of the country to the other, at affordable cost, it has taken several steps and introduced tourism specific trains to promote tourism.

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**12.2 Setting up of the Indian Railway Catering and Tourism Corporation Limited:**

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The Indian Railway Catering and Tourism Corporation Limited (IRCTC) is a public sector company set up and fully owned by the Ministry of Railways. The IRCTC has been incorporated under the Companies Act

1956, has its Registered Office at 9th Floor, Bank of Baroda Building, Sansad Marg, New Delhi 110001. This company has been formed to function as an extended arm of the Indian Railways to upgrade, professionalize and manage the catering and hospitality services at stations, on trains and other locations and to promote domestic and international tourism through development of budget hotels, special tour packages, information, commercial publicity and global reservation systems, with the objective of upgrading and managing rail catering and hospitality. IRCTC Ltd. Goes functional for adequately harnessing the tourism and catering potential, worth Rs 500 crores, that exists on the Indian Railways. A Memorandum of Understanding was signed between IRCTC Ltd, and Indian Railways to this effect on 12th April, 2002.

**Introduction of New Technologies:**

Railways established their own intra-net 'Railnet'. It envisages networking between Railway Board, Zonal Headquarters, Divisional Headquarters, Production Units, Training Centres etc. LAN/WAN is being provided in all Divisional Headquarters to derive full benefits of Railnet.

IRCTC has begun operations in the ticket-booking venture. Passengers can now order tickets online by logging into the IRCTC website. The tickets are delivered on their doorstep by IRCTC after verification of the recipient. Indian Railways, web reservation system, powered by Broad Vision ®'s enterprise business portal applications, now enables Indian Railway train tickets to be purchased from anywhere in the world and have the tickets delivered to their doorstep. Using Broad Vision applications, IRCTC now provides Indian Railways passengers with convenient online booking. Passengers can check train fares, routes and availability in real-time and receive alerts about rail schedules. In addition, passengers can subscribe to an alert service that advises them about PNR status at fixed intervals. In the future, IRCTC intends to expand its travel portal to leverage Broad Vision's advanced personalization capabilities to the fullest extent. In the next phase, IRCTC's travel portal will add other tourism and reservation touch-points and expands ticket delivery services to all major cities in

India. Security remains the primary concern of on-line consumers. IRCTC is a VeriSign Secure Site. VeriSign protects the confidential information entered by the customers including Credit card details.

**The Charter Schemes:**

There are three different plans under the charter schemes the IR has launched. Firstly, they offer the entire train on charter, whose schedule can then be altered to suit needs of the chartering party. Secondly, the offer of private players and tour operators chartering entire coaches has really gained ground with leading tour operators like Kesari tours, who have signed year-long contracts engaging one coach twice a week to Delhi. The third option is naturally buying out a fixed number of seats on a particular train for a fixed period of six months or a year. They have already signed contracts with operators like Thomas Cook and Cox and Kings to this effect.

**Better Passenger Services:**

Allocation for passenger amenities put at Rs 200 crore, 285 stations identified to be developed as model stations. Internet based enquiry system for information on train timetable and status of passenger reservation has been made operational for public. A National Train Enquiry System (NTES) has been introduced for disseminating real-time information regarding passenger trains through terminals and Inter-Active Voice Response System (TELEPHONE). Catering and Tourism Promotion.

**Other Steps:**

Size for catering/vending stalls at platforms has been standardized, to provide free movement to the passengers. About 1000 stalls over Indian Railways have been reconstructed and 1,500 stalls will be replaced in the current financial year. Automatic Vending Machines for dispensing cold and hot beverages have been provided to make platforms free from cooking and to control pollution. This has also helped in maintaining hygiene, cleanliness and quality of products. Sale of Bidi/ Cigarettes/ Paans at stations and in trains is prohibited.

**12.3 Promotion of Domestic Tourism:**

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The IRCTC has decided to set up 100 budget hotels in all cities holding attraction to the inbound or domestic tourist. Work on this project is underway with areas short-listed. But the most significant development at IRCTC to facilitate domestic tourism has launched online ticket reservation system. This will enable all rail travellers to book tickets at their own convenience in the comfort of their homes or offices through the website that will be functional 24 hours of the day. Payment can be made via the net through the use of credit cards and tickets can be collected directly on the train.

As part of its long-term strategy towards organizational reforms and restructuring, the Indian Railways (IR) has made serious attempts to induct.

**Train Tourism in India:**

The train tourism in India has actually done wonders bringing to life the concept of 'live life king-size'. The luxury trains of India namely the Palace-on-Wheels and the Royal Orient do more than providing opportunity of sightseeing the Indian States of Rajasthan and Gujarat. They offer an unforgettable holiday experience. The Palace on Wheels lives by its name and is no less than a fort on the swing. The lavish lifestyle, the facilities, the décor, the comfort and the style have made the first tourist train of India the most sought after. The journey is like a dream come true.

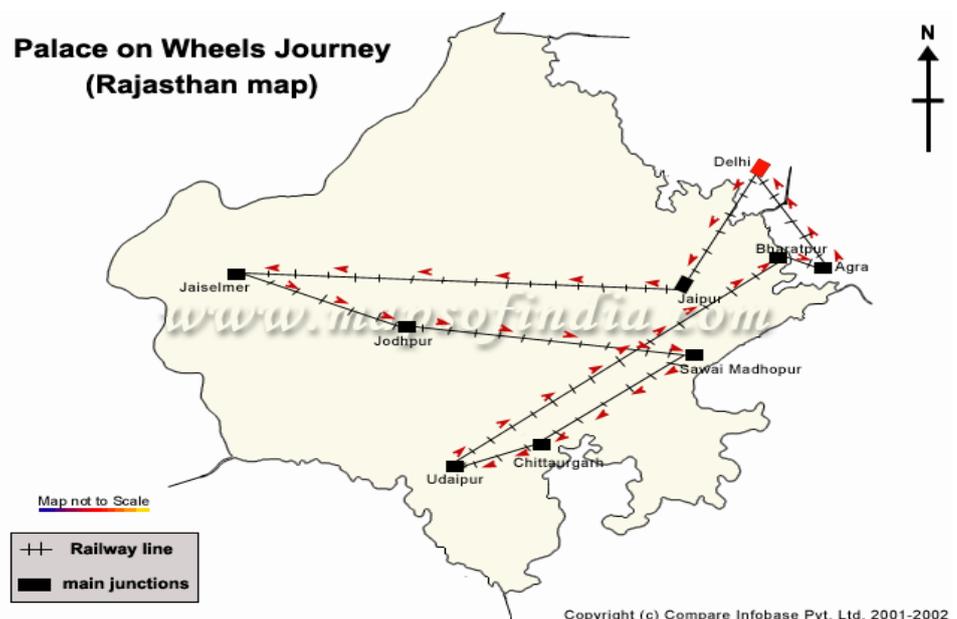
**Palace on Wheels:**

Palace on wheels, a train modeled on the lines of the beautiful palaces of the erstwhile Maharajas of India has been rated among the most prestigious trains of the world. The pride of India, Palace on Wheels undoubtedly, is the most luxurious train of India and probably the world. The comfort and the convenience available in Palace on Wheels are unmatched by any other luxury train. If you want to experience a feeling of royal luxuries, then choosing Palace on Wheels can be the best option for you. This beautiful train offers you an opportunity to peep into the

cultural, architectural, natural and traditional richness of India. But you can enjoy your memorable ride on this train only during the months from September to April. As this beautiful train requires a lot of renovation and maintenance to retain its comfort and charm.

The itineraries of this train is planned in such a way that during the night you travel and daytime you enjoy visiting numerous tourist destinations. The train takes you to palaces, forts, havelis, sand dunes, wildlife sanctuaries and many other fabulous destinations. The Palace on Wheels has 14 fully air-conditioned deluxe saloons, each having 4 cabins attached with bath and shower. These saloons are well connected with channel music, intercom and interesting games for children. The Palace on wheels also has two restaurants cum kitchen cars named Maharaja and Maharani offering you Indian, Rajasthani, Continental and Chinese cuisine. The other services on request include laundry services, barbershop and beauty parlors. An attendant or 'Kindmatgar' is always there at your service to cater to all your travel needs. The royal treatment received onboard the Palace on Wheels is worth a trial.

The destinations covered by the Palace on Wheels are Delhi, Jaipur, Jaisalmer, Jodhpur, Sawai Madhopur, Chittorgarh, Udaipur, Bharatpur and finally Agra.



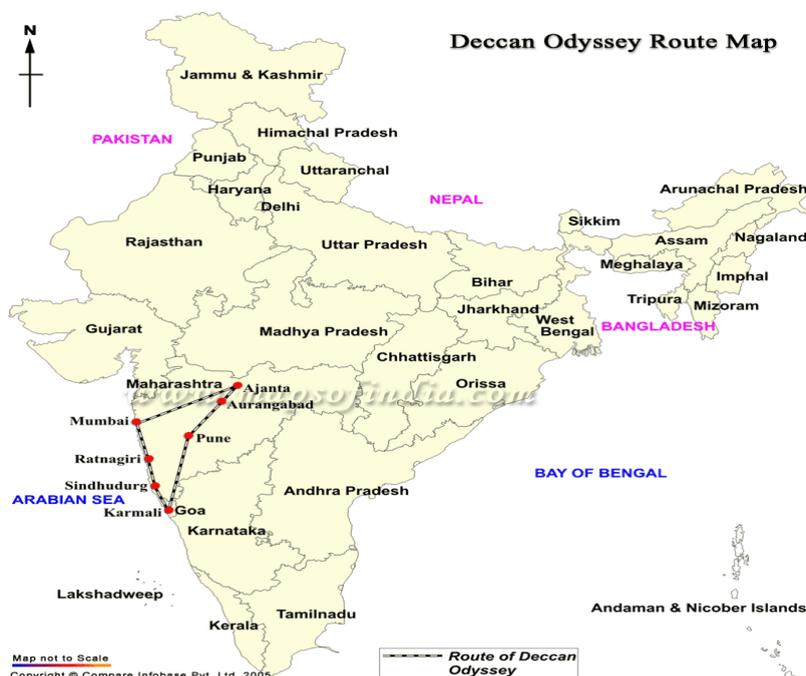
Palace on Wheels Route Map

**Deccan Odyssey:**

The Deccan Odyssey is the newest luxury train of India. If the Palace On Wheels is a gem for Rajasthan and Agra tour, Deccan Odyssey is regarded yet another jewel of the Indian railways and rightly so. It is known as the Palace on Wheels of Maharashtra.

The Deccan Odyssey offers you a memorable and lifetime journey to the most popular and charming tourist destinations of Maharashtra and Goa. Splendorous royal train journey adorned with all the modern luxuries and comforts, the Deccan Odyssey takes you on an unforgettable tour, which covers land of legendry and mighty Marathas, the architectural beauty of Ajanta and Ellora, serene beaches, magnificent forts and palaces, the scintillating cities of Mumbai and Pune and many other exotic and beautiful tourist destinations in western India.

The destinations covered by the train include numerous exotic tourist destinations such as Mumbai, Ratnagiri, Jaigadh, Ganapatipule, Bhatye Beach, Goa, Sindhudurg, Tarkarli, Sawantwadi, Pune, Aurangabad, Ajanta and Nasik. A tour on the magnificent Deccan Odyssey surely provides you the finest train journey experience not to be found on any other train of the world. The Deccan Odyssey is much more than a mrere luxury train cruise.



**Heritage on Wheels:**

Heritage on Wheels is yet another initiative by the Indian Railways to bring tourists closer to Indian culture. In association with the Rajasthan Tourism Development Corporation, the Indian Railways have launched this luxury tourist train.

Traversing all the nook and crannies of the Bikaner and Shekhawati regions of Rajasthan, Heritage on Wheels takes you through an unbelievable journey that will remain etched in your memories forever.

Rajasthan is one of the culturally richest states in India. Heritage on Wheels is invariably the best way to showcase India to the world. Tourists get to witness the effortless amalgamation of city lifestyle in a rustic setup. This fusion has a uniqueness of its own.

International as well as domestic tourists will love to travel by Heritage on Wheels for its sheer royalty and splendor. Known to be one of the best luxury trains in India today, Heritage on Wheels gives you what no other train does.

Modeled on the Palace on Wheels, another luxury train of India, Heritage on Wheels has marvelous settings and will prove to be an ideal haven all through the journey. Luxurious amenities, personalized services and a congenial atmosphere will enhance the pleasure of your journey.

**Some Other Notable Trains:**

The Darjeeling Himalayan Railway, a narrow gauge train with a steam locomotive is classified as a World Heritage Site by UNESCO. The route originally started from Siliguri but now it commences its journey at New Jalpaiguri in the plains in West Bengal and traverses tea gardens en route to Darjeeling, a hill station at an elevation of 2,134 metres (7,000 ft). The highest station in this route is Ghum.

The Nilgiri Mountain Railway, in the Nilgiri Hills in southern India, is also classified as a World Heritage Site by UNESCO. It is also the only rack railway in India.

The Lifeline Express is a special train popularly known as the "Hospital-on-Wheels" which provides healthcare to the rural areas. This train has a

compartment that serves as an operating room, a second one which serves as a storeroom and an additional two that serve as a patient ward. The train travels around the country, staying at a location for about two months before moving elsewhere.

Among other famous locomotives, the *Fairy Queen* is the oldest running locomotive in the world today.

The Himsagar Express, between Kanyakumari and Jammu Tawi, has the longest run in terms of distance and time on Indian Railways network. It covers 3,745 km (2,327 miles) in about 74 hours and 55 minutes. The Trivandrum Rajdhani, between Delhi's Nizamuddin Station and Trivandrum, travels non-stop between Vadodara and Kota, covering a distance of 528 km (328 miles) in about 6.5 hours, and has the longest continuous run on Indian Railways today. The Bhopal shatabdi Express is the fastest train in India today having a maximum speed of 140 km/ha (87 mph) on the Faridabad – Agra section.

**Check Your Progress:****Answer the following questions:**

1. Write the full form of IRCTC, NTES and ITB.
2. A memorandum of understanding was signed between IRCTC Ltd. and Indian Railways on\_\_\_\_\_.
3. The luxury trains of India are\_\_\_\_\_ and \_\_\_\_\_.
4. Deccan Odyssey offers a memorable journey to the most popular tourist destinations of\_\_\_\_\_ and\_\_\_\_\_.
5. The Life line Express is a special train popularly known as the \_\_\_\_\_.

Check your answer with the one given at the end of the unit.

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**12.4 Special Promotional Schemes:**

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**Indrail Pass:**

Apart from the luxury trains, Indian Railway is offering one railway pass scheme (Indrail pass), as part of promotion of international tourism in

India. To explore the splendour of multifaceted India, Indrail pass provides excellent value and enhances the diagram of holidays from abroad. It enables a tourist to travel wherever he likes and whichever trains he likes within the validity period. A separate foreign tourist quota has been provided in all classes and almost all trains for the facility of the tourists. Reservation facility is an available again Indrail Pass from any reservation office over Indian Railways, railway system. The pass holder is not required to pay any reservation fee, super-fast charge or surcharge for the journey. Indrail Passes can be purchased from Indian Railways, India Tourist Bureaus at major railway stations and certain recognized travel agents in Delhi, Chennai, Mumbai and Kolkata and from abroad – General Sales Agents of Indian Railways, Indian Airlines and Air-India. Only foreign nationals and non-resident Indians can purchase these passes on payment of US dollars, Pound Sterling and other convertible foreign currencies.

#### *International Tourist Bureau*

Indian railways have set up an International Tourist Bureau exclusively for assisting foreign tourist and NRIs regarding enquires, booking reservation, travel planning etc. They issue reserved tickets to foreign tourists and NRIs holding valid passport against payment of US dollars, Pounds, Sterling and in rupees against encashment certificate. They also sell Indrail Passes. The ITB are located at various important cavities all over India.

#### **Future Plans:**

The Railways have planned to introduce two luxury tourist trains in collaboration with the private sector. One train will cover various important places in North India, while the other will run in the South. The first train will have its terminus in Delhi and will touch Jaipur, Agra, Gwalior, Jhansi (Khajuraho), Varanasi and Lucknow. The second one will start from Bangalore and proceed to Mysore, Chennai, Kodaikanal Road, Kanniyakumari. Thiruvananthapuram, Cochin and Mettupalayam (Ooty). Northern and Southern Railway have already signed an

agreement with M/s Sterling Holiday Resorts Ltd., Chennai, for operation of these trains. The trains are expected to start operating next year.

To promote domestic tourism, the railways have also introduced the **Rail Weekender in collaboration with various State Tourism Corporations.**

This service is an all-inclusive package, covering boarding/ lodging and rail-cum-road transport. Most of these trains are in the Eastern Circuit, originating from Calcutta and covering a large number of tourist spots including Darjeeling, Shantiniketan, Murshidabad, Gour in West Bengal and even Varanasi in Uttar Pradesh. From Delhi there is a service to Vaishno Devi Jammu, called "Pilgrim's Progress" and another service called "Shrine and Sarovar", which goes to Indore and Ajmer. A third service, "Sabarmati Revisited" runs from Delhi and Mumbai to Ahmedabad.

Besides, **Mahaparinirvan Express** has already started running from 12 Jan 2007. This train with 9 coaches will take the tourists to sites associated with Buddha throughout India viz., Guntoor, Aurangabad, Bhopal, Agra, Delhi, Gonda, Gorakhpur, Varanasi, Gaya, Bhubneshwar. It also gives an opportunity to visit lumbini in Nepal. The 15 days tour starts from Chennai.

India's only Bullet Train - **Vayu Express** was introduced in August 2005. It runs between Mysore and Bangalore at a speed of 300 km.

India will soon have more trains dedicated to tourism - a train for south called the **Deccan Splendour**. One for aam adami called **Bharat Darshan** and another **Punjab Palace on Wheels**.

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### **12.5 Summary:**

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Indian Railways have been the prime movers to the nation. Railways being the more energy efficient mode of transport are ideally suited for movement of bulk commodities and for long distance travel. As compared to road transport, the railways have a number of intrinsic advantages. Railways are five to six times more energy efficient, four times more efficient in land use and significantly superior from the standpoints or

environment impact and safety. Indian Railways, therefore, rightly occupy pride of place in the growth and development of the nation.

The fact that the Indian Railway system has an enormous asset in the development of the tourism and hospitality industry in the country needs to be appreciated. Railway services are equipped not only to meet the travel needs of domestic and foreign tourists, but also have the infrastructure and land resources to contribute significantly to the growth of.

Special tourism trains like Royal Orient, Palace on Wheels, etc. are extremely popular with the tourists, as they are steam hauled tourist trains. Steam traction is still operative in India and for special tourist segment it should be continued in perpetuity, otherwise skills to operate this kind of technology could die.

To sum up it can be said that keeping in mind the enormous boom in the tourism sector and the large amount of revenue which tourist trains can generate more trains like Shatabdi and Rajdhani with a special tourism and hospitality focus should be planned both for the foreign and domestic tourist.

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**12.6 Answer to Check Your Progress:**

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1. IRCTC- Indian Railway Catering and Tourism Corporation Limited  
NTES- National Train Enquiry System ITB - International Tourist Bureau
2. 12<sup>th</sup> April, 2002.
3. Palace-on-Wheels, Royal Orient.
4. Maharashtra, Goa
5. "Hospital-on-Wheels".

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**12.7 Suggested Readings:**

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- **Bukart, A.J and Medlick, S.** (1976). *Tourism: Past, Present and Future*, London, Heinemann.

- **Seth, P.N.**, (1978). Successful Tourism Planning and Management, New Delhi, Cross Section Publications.

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**12.8 Review Questions:**

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1. Write the role of Indian Railway Catering and Tourism Corporation Limited?
2. How railways have promoted Domestic Tourism?
3. Write the main aspects of “Railway Budget 2006”?

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**12.9 Glossary:**

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- **Carrier:** A public transportation company such as air or steamship line, railroad, bus etc.
- **Destination:** The place at which a traveler terminates his journey. The ultimate shopping place according to the contract of carriage.

**Unit-13**  
**Demand And Supply Equation Vis-A-Vis Tourist**  
**Transport**

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**Structure:**

**13.0 Objectives**

**13.1 Introduction**

**13.2 Demand and Supply Functions**

**13.2.1 Modal Competition**

**13.2.2 Passengers or Freight?**

**13.2.3 A Growing Divergence**

**13.3 Unique Characteristics of Tourist Transport Demand and Supply**

**13.3.1 Demand**

**13.3.2 Supply**

**13.4 Summary**

**13.0 Objectives:**

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After reading this unit, you will be able to:

- Explain the demand and supply of Tourist Transport;
  - Discuss the unique characteristics of tourist transport; and
  - Describe supply and demand functions.
- 

**13.1 Introduction:**

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What are the differences between a Boeing 747, an oil tanker, a car and a bicycle? Many indeed, but they each share the common goal of fulfilling a derived transport demand, and thus they all fill the purpose of supporting mobility. Transportation is a service that must be utilized immediately and thus cannot be stored. Mobility must occur over transport infrastructures, providing a transport supply. In several instances, transport demand is answered in the simplest means possible, notably by walking. However, in some cases elaborate and expensive infrastructures and modes are required to provide mobility, such as for international air transportation. An economic system, including numerous activities located in different areas, generates movements that must be supported by the transport system. Without movements infrastructures would be useless and without infrastructures movements could not occur, or would not occur in a cost efficient manner. This interdependency can be considered according to two concepts, which are transport supply and demand.

**Tourist Transport supply.** This is the expression of the capacity of transportation infrastructures and modes, generally over a geographically defined transport system and for a specific period of time. Therefore, supply is expressed in terms of infrastructures (capacity), services (frequency) and networks. The number of passengers, volume (for liquids or containerized traffic), or mass (for freight) that can be transported. Per unit of time and space is commonly used to quantify transport supply.

**Tourist Transport demand.** It is the expression of the transport needs, even if those needs are satisfied, fully, partially or not at all. Similar to

transport supply, it is expressed in terms of number of people, volume, or tons per unit of time and space.

There is a simple statistical way to measure transport supply and demand for passengers or freight:

The **passenger-km** (or passenger-mile) is a common measure expressing the realized passenger transport demand as it compares a transported quantity of passengers with a distance over which it gets carried. The **ton-km** (or ton-mile) is a common measure expressing the realized freight transport demand. Although both the passenger-km and ton-km are most commonly used to measure realized demand, the measure can equally apply for transport supply.

For instance, the transport supply of a Boeing 747-400 flight between New York and London would be 426 passengers over 5,500 kilometers (with a transit time of about 5 hours). This implies a transport supply of 2,343,000 passenger-kms. In reality, there could be a demand of 450 passengers for that flight, or of 2,465,000 passenger-km, even if the actual capacity would be of only 426 passengers (if a Boeing 747-400 is used). In this case the **realized demand** would be 426 passengers over 5,500 kilometers out of a **potential demand** of 450 passengers, implying a system where demand is at 105% of capacity.

Transport demand is generated by the economy, which is composed of persons, institutions and industries and which generates movements of people and freight. When these movements are expressed in space they create a pattern, which reflects mobility and accessibility. The location of resources, factories, distribution centers and markets is obviously related to freight movements. Transport demand can vary under two circumstances that are often concomitant: the quantity of passengers or freight increases or the distance over which these passengers or freight are carried increases. Geographical considerations and transport costs account for significant variations in the composition of freight transport demand between countries. For the movement of passengers, the location of

residential, commercial and industrial areas tells a lot about the generation and attraction of movements.

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**13.2 Supply and Demand Functions:**

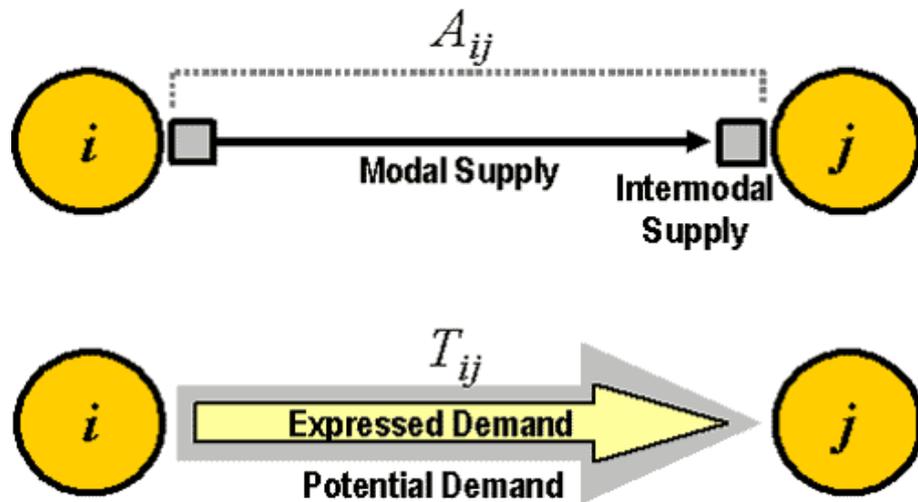
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Transport supply can be simplified by a set of functions representing what are the main variables influencing the capacity of transport systems. These variables are different for each mode. For road, rail and telecommunications, transport supply is often dependent on the **capacity of the routes and vehicles** (modal supply) while for air and maritime transportation transport supply is strongly influenced by the **capacity of the terminals** (intermodal supply).

Transport demand tends to be expressed at specific times that are related to economic and social activity patterns. In many cases, transport demand is **stable and recurrent**, which allows a good approximation in planning services. In other cases, transport demand is **unstable and uncertain**, which makes it difficult to offer an adequate level of service. For instance, commuting is a recurring and predictable pattern of movements, while emergency response vehicles such as ambulances are dealing with an unpredictable demand. Transport demand functions vary according to the nature of what is to be transported:

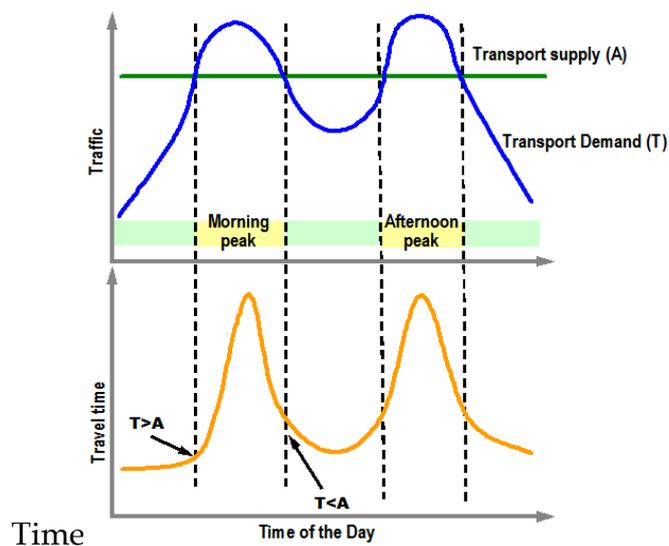
- **Passengers.** For the road and air transport of passengers, demand is a function of demographic attributes of the population such as income, age, standard of living, race and sex, as well as modal preferences.
- **Freight.** For freight transportation, the demand is function of the nature and the importance of economic activities (GDP, commercial surface, number of tons of ore extracted, etc.) and of modal preferences. Freight transportation demand is more complex to evaluate than passengers.
- **Information.** For telecommunications, the demand can be a function of several criteria including the population (telephone calls) and the volume of financial activities (stock exchange). The standard of living and education levels are also factors to be considered.

Figure 13.1 Transport Supply and Demand



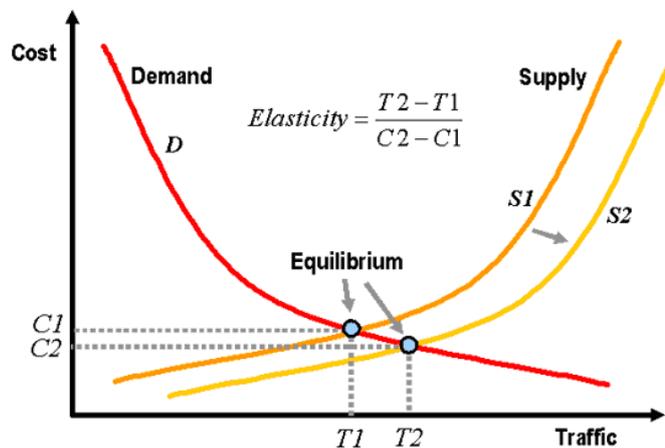
Transport supply is generally expressed by  $A_{ij}$ ; transport supply between location  $i$  and  $j$ . indirectly it combines modal supply, the capacity of a mode to support traffic, and intermodal supply, the capacity to transship traffic from one mode to the other. Transport demand is represented by  $T_{ij}$ , which expresses the **transport demand** between location  $i$  and  $j$ . The potential **transport demand** would be the amount of traffic if transport costs were negligible. The **realized transport demand**, a subset of the potential transport demand, is the traffic that actually takes place, namely in view of costs between the origins and the destinations.

Figure 13.2 Transport Supply, Demand and Travel



Within an urban area, transport supply (A) tends to be stable throughout the day, with the exception of public transit that adjusts its services (namely in terms of frequency) to cope with peak hours. Transport demand (T), on the other hand, varies considerably for several reasons, mainly linked with commuting. Typically, transport demand exceeds transport supply twice during the day (morning and afternoon peaks). The resulting congestion significantly increases travel time.

Figure 13.3 Classic Transport Demand / Supply Function

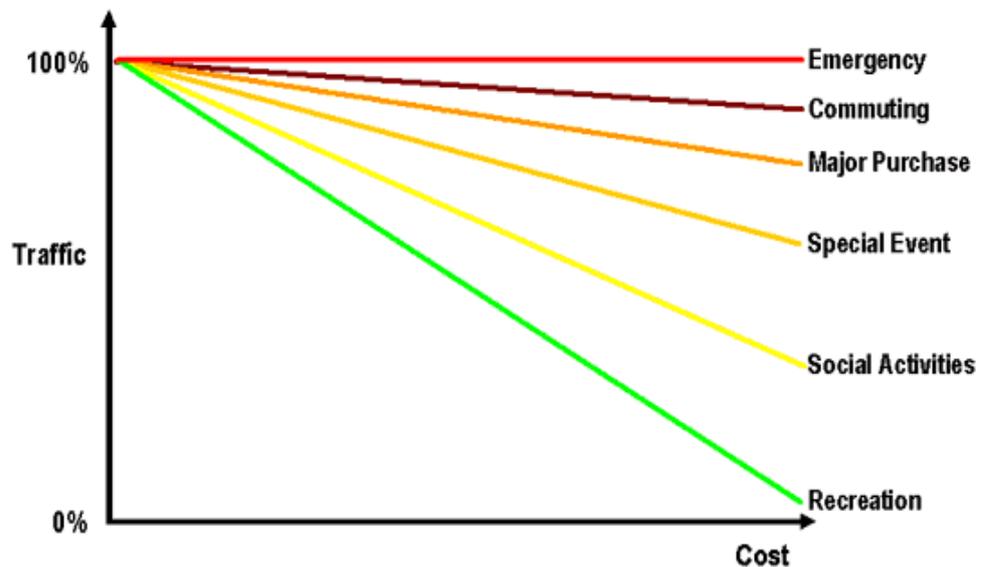


Many transport systems behave in accordance with supply and demand, which are **influenced by cost variations**. On the above figure the **demand curve** assumes that if transport costs are high, demand is low, as the consumers of a transport service (either freight or passengers) are less likely to use it. If transport costs are low, the demand would be high, as users would get more services for the same cost. The **supply curve** behaves inversely. If costs are high, transport providers would be willing to supply high quantities of services since high profits are likely to arise under such circumstances. If costs are low, the quantity of transport services would be low, as many providers would see little benefits operating at a loss.

The **equilibrium point** represents a compromise between what users are willing to pay and what providers are willing to offer. Under such circumstances, an amount of traffic T1 would flow at an operating cost C1. If because of an improvement a larger amount of service is possible for the same cost (the supply curve moves from S1 to S2), a new equilibrium will be reached with a quantity of traffic T2 at a price C2. **Elasticity** refers to the

variation of the demand in accordance to the variation of the price. The higher it is, the more the traffic in a transport system is influenced by costs variations.

**Figure 13.4 Transport Elasticity by Activity:**



**Source:** Adapted from Victoria Transport Policy Institute (2002) - Transportation Elasticities

The concept of elasticity is very useful to understand the economic behavior of transport supply and demand. Depending on the transport activity, a movement is linked with different elasticities. Emergencies tend to have low, if any, elasticity. Commuting has also a very low elasticity as this category of movements is related to a fundamental economic activity that provides income. This fact is underlined by empirical evidence that shows that drivers are marginally influenced by variations in the price of fuel in their commuting behavior, especially in highly motorized societies. Since work is a major, if not the only, source of income, commuting can simply not be forfeited under any circumstances short of being cost prohibitive. Activities that confer limited economic benefits tend to have high elasticities. Social and recreation-oriented movements are commonly those whose users have the least cost tolerance. Consequently, as transport costs increase, recreational movements are those who experience the fastest decline.

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### 13.2.1 Modal Competition:

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A general analysis of transport modes reveals that each mode possesses key operational and commercial advantages and properties. However, contemporary demand is influenced by **integrated transportation systems** that require maximum flexibility. As a result, modal competition exists at various degrees and takes several dimensions. Modes **can compete with or complement each other** in terms of cost, speed, accessibility, frequency, safety, comfort, etc. Although intermodal transportation has opened many opportunities for complementarity between modes, there is intense competition as companies are now competing over many modes in the transport chain. Modal competition thus occurs over three dimensions:

- **Modal usage.** Competition that involves the comparative advantage of using a specific or a combination of modes. Distance remains one of the basic determinants of modal usage for passenger's transportation. However, for a similar distance, costs, speed and comfort can be significant factors behind the choice of a mode.
- **Infrastructure usage.** Competition resulting from the presence of freight and passenger traffic on the same itineraries linking the same nodes.
- **Market area.** Competition being experienced between transport terminals for allocating new space or capturing new markets.

Modal competition can also be influenced by **public policy** that may influence one mode over the others. This particularly takes place over funding and regulation issues.

As transport demand is a **derived demand** from individuals, groups and industries, it can be desegregated into series of partial demands fulfilled by the adaptation and evolution of transport techniques, vehicles and infrastructures to changing needs. Moreover, the growing complexity of economies and societies linked with technological changes force the transport industry to constant changes. This leads to growing congestion,

a reduction in transport safety, a degradation of transport infrastructure and growing concerns on environmental impacts.

The technological evolution in the transport industry aims at adapting the transport infrastructure to growing needs and requirements. When a transport mode becomes more advantageous than another over the same route or market, a modal shift is likely. A modal shift involves the growth of demand of a transport mode at the expense of another, although a **modal shift** can involve an absolute growth in both the concerned modes. The comparative advantages behind a modal shift can be in terms of costs, convenience, speed or reliability. For passengers, this involves a transition in modal preferences as incomes go up, such as from collective to individual modes of transportation. For freight, this implies a shift to faster and more flexible modes when possible as well as cost effective, namely, trucking and air freight.

The geographical distribution of transport infrastructures and networks varies enormously. Some regions are characterized by the coexistence of several transport modes, while in other regions only one mode can provide transport service. The evolution of transportation concerns both the infrastructure and the vehicle. The technological changes in the transport sector have helped in improving the performance of existing transport modes and the creation of new forms of transportation, such as intermodal transportation.

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### Check Your Progress - I:

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Answer the following questions.

1. For road, rail and telecommunications transport supply is often dependent on the \_\_\_\_\_.
2. Freight transportation demand is more complex to evaluate than \_\_\_\_\_.
3. Many transport systems behave in accordance with supply and demand, which are influenced by \_\_\_\_\_.

4. Contemporary demand is influenced by \_\_\_\_\_  
that require maximum flexibility.

Check your answer with the one given at the end of the unit.

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### 13.2.2 Passengers or Freight?:

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With some exceptions, such as buses and pipelines, most transport modes have been developed to handle both **freight and passenger traffic**. In some cases both are carried in the same vehicle, for example the airline, where freight is transported in the cargo holds of passenger aircraft. In others, different types of vehicle have been developed for freight and passenger traffic, but they both share the same road bed, as for example in rail and road traffic. In shipping, passengers and freight used to share the same vessel, but since the 1950s specialization has occurred, and the two are now quite distinct, except for ferries and some other similar services.

The sharing by freight and passengers of a mode is **not without difficulties**, and indeed some of the major problems confronting transportation occur where the two seek to co-inhabit. For example, trucks in urban areas are seen as a nuisance and a cause of congestion by passenger transport users. The poor performance of some modes, such as rail, is seen as the **outcome** of freight and passengers having to share routes. This raises the question as to whether freight and passengers are compatible. **The main advantages of joint operations are:**

- **High capital costs** can be justified more easily with a diverse revenue stream (rail, airlines, and ferries).
- **Maintenance costs** can be spread over a wider base (rail, airlines).
- The same traction sources can be used for both **freight and passengers**, particularly for rail.

**The main disadvantages of joint operations are:**

- **Locations of demand rarely match** - Demand for freight is usually quite distinct spatially from passenger traffic.
- **Frequency of demand is different**- for passengers the need is for high frequency service, for freight it tends to be somewhat less critical.

- **Timing of service-** demand for passenger services has specific peaks during the day, for freight it tends to be more evenly spread throughout the day.
- **Traffic balance-** on a daily basis passenger flows tend to be in equilibrium, for freight, market imbalances produce empty flows.
- **Reliability-** although freight traffic increasingly demands quality service, for passengers delays are unacceptable.
- **Sharing routes favors passenger traffic-** passenger trains are given priority; trucks may be excluded from areas at certain times of the day.
- **Different operational speeds-** passengers demand faster service.
- **Security screening measures** for passengers and freight require totally different procedures.

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### 13.2.3 A Growing Divergence:

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Passengers and freight are increasingly divergent activities as they reflect different transportation markets. In several modes and across many regions passenger and freight transport is being unbundled:

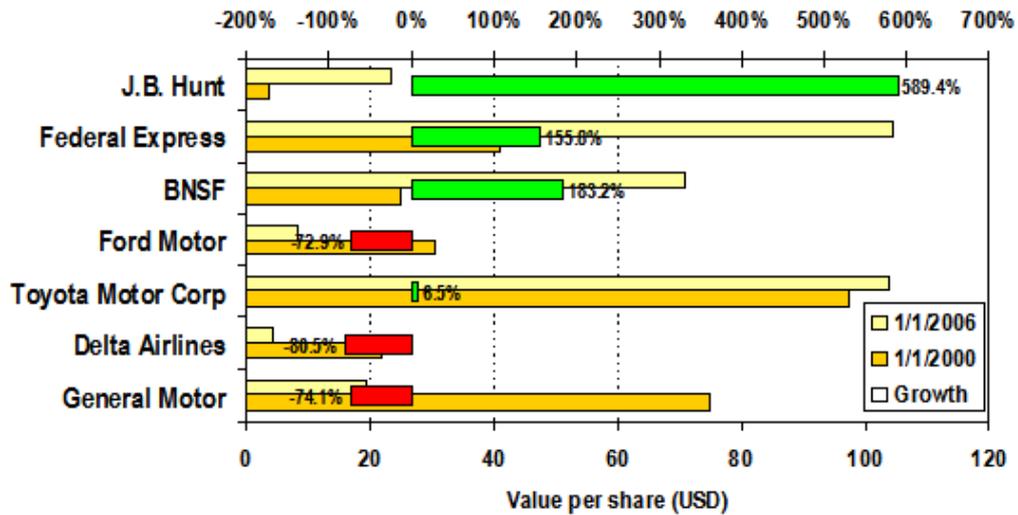
- **Shipping.** Mention has been made already how in the maritime sector passenger services have become divorced from freight operations. Deep sea passenger travel is now dominated by cruise shipping which has no freight-handling capabilities, and bulk and general cargo ships rarely have an interest or the ability to transport passengers.
- **Rail.** Most rail systems still operate passenger and freight business. Where both segments are maintained, the railways give priority to passengers, since rail persists as the dominant mode for inter-city transport in India, China and much of the developing world. In Europe the national rail systems and various levels of government have prioritized passenger service as a means of checking the growth of the automobile, with its resultant problems of congestion and environmental degradation. Significant investments have occurred in improving the comfort of trains and in passenger rail stations, but most notable have been the upgrading of track and equipment in order to

achieve higher operational speeds. Freight transport has tended to lose out because of the emphasis on passengers. Because of their lower operational speeds, freight trains are frequently excluded from daytime slots, when passenger trains are most in demand.

- **Roads.** Freight and passenger vehicles still share the roads. The growth of freight traffic is helping increase road congestion and in many cities concerns are being raised about the presence of trucks. Already, restrictions are in place on truck dimensions and weights in certain parts of cities, and there are growing pressures to limiting truck access to non-daylight hours.
- **Air transport.** Air transport is the mode where freight and passengers are most integrated. Yet even here a divergence is being noted. The growth of all-freight airlines and the freight-only planes operated by some of the major carriers, such as Singapore Airlines, are heralding a trend. The interests of the shippers, including the timing of the shipments and the destinations, are sometimes better served than in passenger aircraft. The divergence between passengers and freight is also being accentuated by the growing importance of charter and 'no-frills' carriers. Their interest in freight is very limited, especially when their business is oriented towards tourism, since tourist destinations tend to be lean freight generating locations.

**Fig 13.5 Stock Market Performance of Key Passenger and Freight Transport Companies of USA, 2000-2006:**

A significant difference between the stock market performance of passenger and freight transport companies is observed (dividends are



excluded here). While passenger companies have seen a significant drop in their shares' value between 2000 and 2006, the share value of freight companies has more than doubled. One of the best performing car manufacturer, Toyota, saw a modest 6.5% increase during the 2000-2006 period, not even compensating for inflation. While the American passenger transportation market has attained a phase of maturity, it is highly competitive and undermined by "legacy costs" (benefits for current and retired employees), globalization and the relocation of many manufacturing activities to other locations has favored a surge in demand for freight distribution in the United States. The corporations involved in such activities have consequently experienced a substantial growth of their valuation. Freight companies, especially railways, tend to be more assets based and a growth in the level of use of these assets is linked with increasing returns.

**13.3 Unique Characteristics of Tourist Transport Demand and Supply:**

To understand and appreciate the difficulties involved, it is necessary to consider the characteristics of demand and supply of passenger transportation.

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**13.3.1 Demand:**

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- **The demand is instantaneous:** For carriers/transporters there is a great deal of uncertainty on which day what will be the demand between two points. Past trends are useful but not very reliable. When demand is greater than the supply, customers are unhappy. In a perfect match of supply and demand the load factor would be 100%, anything less gives an indication of over capacity.
- **The demand is variable:** It is not same each hour of each day of each month. It shows several peaks and valleys. To cover demand in peak times more capital has to be invested. The pricing strategies have to be effectively designed. Attempts of marketing like - peak pricing, mid-season pricing and off-peak pricing are commonly seen in transport marketing.
- **There are more than one type or segment of demand** for transportation. Demand is either for business or pleasure. The motivations, frequencies and responses to price change are different in both the segments. The motivation for business traveller is **derived demand**, whereas the demand for pleasure traveller is **primary**. The **derived demand** tends to be affected more by factors external to the transport industry. The reduction of fares may effect primary demand but not the derived demand.
- **Elasticity-** The sensitiveness to the price change is generally termed as elasticity. The Elastic demand is sensitive to substitution and an inelastic demand is not. Pleasure travel is more elastic, than business travel: that means the primary demand is elastic and derived demand is inelastic.
- **Competition** exists within one mode between various carriers. Like different trains operating between two points pose stiff competition to each other. Small change in departure time can capture significant number of passengers.
- **Different types of services on the same mode of transportation are in competition with each other.** Like, Business Class, Y Class, F Class, J

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Class compete with each other, a slight change in the tariff may attract or distract passenger from that class of service to another or vice versa.

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### 13.3.2 Supply:

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The uniqueness of supply of tourist transport can be studied under eight distinct heads:

- **Transport is highly capital intensive.** The terminals, equipments, manpower, etc cost great deal of money.
- **Costs are indivisible.** Airlines cannot put half plane in air if the plane is half full. The management is under great pressure to fill seats because they have to repay the costs.
- **Costs are sunk, with few alternatives.** Once invested in the transport services, whether terminals or equipment's, the only option is to operate, operate and operate, so that revenue is generated.
- Because of high level of costs, the incremental costs of operation are small.
- **Supply cannot be stored for future use.** The sale lost today is lost forever. So management has to sell, sell and sell. For example, if an aircraft having 100 seats has only 60 passengers on a particular flight, it cannot sell the unsold 40 seats in the subsequent flights.
- **Demand is instantaneous but Supply is not.** There is long time gap between planning and placing order for an equipment (aircraft, etc.), between placing order and getting it, between putting it into service and scrapping it. Thus demand can shift quickly, but it takes great deal of time to adjust supply.
- **Transport service must be made available on a continuous basis, because transport is expected to be reliable.** This further adds to the costs of providing services.
- **The labour/ manpower,** whether in maintenance or operations are required to be in service for 24 hours a day, while adds to the costs as more people will have to be employed in shifts and specific norms have to be followed, e.g like, pilots to fly only 30 hours in a week, etc.

**Check Your Progress - II:**

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**Answer the following questions.**

1. Freight and passenger vehicles still share the\_\_\_\_\_.
2. Demand is instantaneous but supply is\_\_\_\_\_.
3. Transport service must be made available on a continuous basis, because transport is expected to be\_\_\_\_\_.
4. Elasticity refers to the variation of the\_\_\_\_\_ in accordance to the variation of the\_\_\_\_\_.

Check your answer with the one given at the end of the unit.

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**13.4 Summary:**

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Tourist Transport involves transportation options for recreational travel to/fro and within destination areas. Many destination visitors will use alternative modes if they are convenient, enjoyable and affordable. Traffic to destination areas often peaks at particular seasons and times of the week. In this unit we have discussed the demand and supply of tourist transport, unique characteristics of tourist transport and demand and supply functions.

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**13.5 Answer to Check Your Progress:**

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**Check Your Progress-I:**

1. Capacity of the routes and vehicles
2. Passengers
3. Cost variations
4. Integrated transportation systems

**Check Your Progress-II:**

1. Roads
  2. Not
  3. Reliable
  4. Demand, price
- 

**Review Questions:**

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1. Write a short note on demand and supply of tourist transport.
-

2. List the unique characteristics of tourist transport.
3. Write a short note on 'Modal Competition'.

**Unit-14**

**Promotion of the Product through Positioning  
Approaches and Techniques**

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**Structure:**

**14.0 Objectives**

**14.1 Introduction**

**14.2 The Principles of Product Positioning**

**14.3 Establishing a Position**

**14.3.1 Analysing Product**

**14.3.2 Identifying Your Current Position**

**14.3.3 Compare Your Current Position with Your Marketing  
Objectives**

**14.4 Creating the Positioning Statement**

**14.5 Examples of Positioning Statements and Strategies**

**14.5.1 Positioning Relative to a Target Market**

**14.6 The Role of Image in Buying Decisions**

**14.7 Summary**

**14.0 Objectives:**

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After reading this unit, you will be able to:

- Explain why a company must establish a position for its product;
- Illustrate how establishing a position for a new product is different from maintaining a position for an existing one;
- Analyze what a positioning statement does;
- List why it is important to identify a product's current position when developing or positioning statement;
- Illustrate product features and product benefits as elements of a product analysis;
- Classify reasons for formally writing a concise positioning statement; and
- Identify several examples of positioning strategies.

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**14.1 Introduction:**

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This is the second unit of this block. In this unit we will discuss the principles of product positioning, analyzing product, and creating the positioning statement and the role of image in buying decisions.

The world is literally full of travel products. Not only do travellers have a huge variety of destinations, they also have many hotels, airlines, car rental companies, and other travel products from which to choose.

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**14.2 The Principles of Product Positioning:**

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Many elements go into a traveller's choice. Sometimes people visit a location because a friend or family member recommended it. Some people choose a destination because they see an inviting advertisement. Sometimes people are not conscious of the reasons for their choices.

Borrowing an example from consumer marketing, perhaps you have had the experience of being in the grocery store and looking at several kinds of ice cream. You choose a brand that has a European name and comes in an attractive gold and white package. You don't necessarily know why you chose that brand, but you have a good feeling about it. Whether you realize

it or not, something about that ice cream or its packaging influenced you to purchase that product rather than the others displayed right next to it.

The perceptions of consumers are a critical variable in the marketing process, one that has a great influence on purchasing decisions, especially decisions among similar products. For that reason, marketers pay a great deal of attention in trying to control--or at least influence--the ways in which their products are perceived by prospective customers.

**The process by which they address the issue of consumer perception is referred to as product positioning, or simply positioning.** Perhaps the best way to understand the meaning of this term is to think of it as referring to (1) the position of a single product in relation to competing products (its similarities and differences) and (2) prospective customers' perceptions of that product's position. Positioning is an attempt to clarify the former in order to influence the latter, thus gaining an advantageous position in the minds of consumers.

It is not sufficient simply to direct a travel product at a well-selected target market. Instead, a position for that product must be established, both within the marketplace and in the perceptions of potential customers within that target market.

The main mechanism marketers use to establish a position for a product is the creation of an image for it. The image is meant to determine and influence how a product is perceived. Consequently, travel marketers devote a great deal of time and energy to developing and refining effective images of their products. When product positioning is used effectively, that image becomes a central and unifying influence on every aspect of travel product. Everything from uniforms of the staff to corporate logo to the advertising of the product should relate to image.

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### **14.3 Establishing a Position:**

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A Systematic Approach to establishing a product position is the best way to develop an effective image of a product. The three steps in establishing an effective position are:

- Analyzing your product, identifying its major features and benefits
  - Identifying your current position.
  - Comparing your current position with your marketing objectives.
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### **14.3.1 Analysing Product:**

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A critical aspect of the development of positioning statement is analysis of the travel product. There are two distinct ways, one in terms of its features, both tangible, and intangible and the second is the way it meets the needs or interest of the prospective customer--the products benefits. Both features and benefits are examined as part of complete product analysis.

**Product Features:** Describing something you know well is not always easy. Think about a car you have driven. How would you describe it? You could easily list the model, the year, and the color, but what about some features of the car that make it unique? These are probably difficult to recall.

In developing a positioning statement, though, you must be able to describe your product or service very well. One way is to focus your thinking by compiling what's called a "laundry list" of features. The goal here is to develop a complete product description by listing every single feature of the product, whether you think it is important or not. Sometimes what one person thinks is insignificant is perceived by another as having great value. Laundry lists should be comprehensive.

**Customer Benefits:** Another way to describe a travel product is according to how it meets the needs or interests of the prospective customer. A list of features cannot take into account how customers might feel about those aspects of the product. Benefits can do this, though, and are therefore part of the complete product analysis. To determine benefit, you can begin by looking at the features you already listed and imagining a prospective customer asking you, "What good is that for me?"

When looking for the benefits of a leisure travel product, consider the needs people satisfy by vacationing. Relaxation, recreation, fun, sun, and good food are just a few that may come to mind.

The benefits of a business-oriented travel product or service would be quite different. For example, a downtown hotel might offer these benefits to business people:

- **Convenience:** free limousine service to and from the airport.
- **Flexibility:** meeting rooms to accommodate both small groups and gatherings of, say, up to 250.
- **Special services:** videotape players available at no charge for that important presentation.
- **Eating options:** room service, 24 hours a day.
- **Comfort:** all rooms with king-size beds.

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### **14.3.2 Identifying Your Current Position:**

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The next step in establishing an effective position is looking at where you are now. Two good questions to ask to identify your current position are:

- What is the appeal of my travel product or service?
- What characteristics of my product are being marketed as part of the current position?

**Strengths and Weaknesses Based on Appeal:** Different things appeal to different people. Just take a look at the cereal aisle of a supermarket. The number of breakfast cereals is incredible – Hakes, nuggets, wafers, animal shapes; with and without sugar; with and without bran. When it comes to cereals, there really is something for everyone. So it is, too, for travel products.

You only have to consider the vast and varied geography of the world to realize that there are literally thousands of destinations to appeal to the many tastes of consumers. Their appeal ranges from the familiar to the exotic; historic to futuristic; nearby to faraway; frigid to tropical; and so on. What one person finds appealing, another may not. Appeal is intangible and personal. Every product or service that is purchased appeals to someone. Usually, a product's appeal is based on the benefits consumers believe they will derive from it. Sometimes the appeal of a product is luxury, for example, a first-class cruise to Europe. The opposite can also be

true, where the product's appeal is its low price. A supersaver airfare from New York to California has appeal because it is the least expensive, quickest way to get there.

To position a product, marketers begin by trying to understand its appeal to existing and potential customers. Maximizing the appeal of the product's image greatly enhances the way it is perceived and, consequently, its position in the marketplace.

**Strengths and Weaknesses Based on Characteristics:** In identifying the current position of a product, marketers look at the characteristics of a product that are part of its current image.

Not all the characteristics of a product or service contribute to its current position. Marketers need to identify not only the characteristics of a travel product that contribute to its current position but also those that may meet the needs of groups other than the current target market. Later, they may choose to downplay some characteristics and emphasize others in order to reposition the product to attract a different target market position.

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### **14.3.3 Compare Your Current Position with Your Marketing Objectives:**

A marketing objective is a specific statement about what an organization expects to accomplish with its marketing programs. This includes future goals for its products or services. Accomplishing marketing objectives requires that all aspects of the marketing program be coordinated and operated in concert. Thus it is critical that the product position be completely compatible with the marketing objective and vice versa. If they are not, then one must be altered. In some cases the objective is changed to reflect a new position. In other cases, a new position is required to accomplish the marketing objective.

Alterations, refinements, and restatements are all a necessary part of maintaining compatibility between a marketing objective and a position. Ideally, as managers consider the objective and product position, they can sharpen their ideas and visions in a way that produces a powerful marketing programme with a realistic goal for all to work toward.

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#### 14.4 Creating the Positioning Statement:

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Once you have analyzed your product thoroughly, identified your current position, and compared it with your marketing objectives, you are ready to write the positioning statement. It is important to write the statement down formally so that many people can refer to it. It is not enough for just one person to know the positioning statement. In the travel business particularly, many people are involved in serving customers, and the positioning statement communicates a consistent viewpoint and goal shared by all members of the organization.

The positioning statement takes into account many diverse elements. It considers what image the company now conveys and determines whether this is what management desires the image to be. For example, a small hotel may be quaint and folksy, but to increase its room rates, it would like to develop a more sophisticated, upscale image. Its positioning statement would have to be changed to reflect that image clearly.

A positioning statement should also indicate how a travel product is different from others in the market. Marketers call this the **unique selling proposition (USP)**. If an airline is just like every other airline, there is not much to differentiate it from the others. If on the other hand, the airline serves gourmet food and fine wines in-flight at no additional cost, it has a USP. Whenever a positioning statement uses words like "biggest," "smallest," "fastest," "least expensive," it's intended to differentiate the product to help potential customers distinguish it from others and therefore remember it. Marketers always look for a USP to weave into their positioning statements to help produce a distinctive image in the marketplace.

**Sometimes people confuse a positioning statement with a slogan; they are different.** The positioning statement is created for use within the company. It is a concise theme or statement that is woven through all marketing communications. A slogan, on the other hand, is a phrase generated from the positioning statement that is designed to catch the

attention of the target market and reinforce a product's image. The positioning statement also serves as a basis for many other marketing components, including the advertising campaign and slogan and virtually all other elements that contribute to a product's image.

Another element in the positioning statement – and consequently the product's image – is emotional appeal. Since buying decisions are based on emotion as well as hard facts, emotional appeal is an important aspect of positioning a product, especially a travel product.

Unlike televisions and many other tangible goods, travel products include many intangible elements. Since customers cannot inspect or try out a travel product, they need to feel positive about it. How a customer feels about flying an airline, or staying in a hotel, or visiting a destination is important. The positioning statement should, therefore, convey a strong appeal that will elicit an emotion-based response from members of the target market.

The positioning statement should be designed to produce a distinct image of the product. All marketing efforts and expenditures are wasted if potential customers confuse a product with its competitor. The positioning statement should consistently convey the image that you want customers to have of your product. That image, in turn, creates a distinct and positive perception in customers' minds of the benefits of your product, thus establishing its position. The positioning statement serves as the basis for all marketing efforts and is woven through all of your organization's communications with its customers. It is intended to establish a "special place" in the minds of your target market.

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#### **14.5 Examples of Positioning Statements and Strategies:**

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There are many ways to position a travel product or service. No single way is right or wrong. Often a company will stay with one positioning statement for several years because it is producing positive results. On the other hand, if a company is not meeting its objectives with one positioning strategy, then it should try another tactic.

In travel marketing, the success of a product's position is ultimately measured by how well marketing objectives are accomplished. For example, the best-written and most attractive positioning statement is worthless if it does not generate sales and profit for the company.

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**14.5.1 Positioning Relative to a Target Market:**

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There are many possible target markets for travel products. To maximize its profit potential, a company identifies a target market, a portion of the population that it thinks it can serve well. The company then directs its marketing message to that particular group of people.

Perhaps one of the best travel industry examples of establishing a successful position in relation to a target market is Club Med. It is pioneer in the sector of the resorts industry known as all-inclusive resorts. For one fixed price, these resorts provide guests with accommodations at a resort, meals, entertainment, and an array of activities and sports.

When they decided to enter the American market, Club Med's marketers looked carefully at the demographics of the population and decided to target baby boomers, the people born after World War II during a period of unprecedented growth in the population of the United States. With so many people in that age group, marketers often find it profitable to identify the needs of that group in deciding how to position a product. Club Med did just that.

The need of the baby boomers in the 1960s and 1970s was for a casual resort that offered a combination of relaxation and sports. Their ideal vacation spot was conceived at the time to be one where you could escape from the cold and winter to an island paradise. In the paradise environment, everyone would smile at you, help you enjoy yourself. There would be plenty of food and entertainment. You would not have to worry about telephones, newspapers, or money. You could sit on the beach for hours at a time if you wanted or play an energetic game of volley-ball if you were so inclined. There would be no need to dress formally for dinner.

An important element of Club Med's appeal to this target market was that it was designed with an emphasis on the needs of single people, which most baby boomers were in the 1960s. Club Med intentionally positioned itself to appeal to young singles. Its environment tailored to make those travelling alone feels comfortable and to make it easy to meet many other singles at Club Med, often through planned group activities. No other resort positioned itself so clearly to meet the needs of this target market.

Club Med recognized all those needs the baby boomers had for a vacation resort and met them with their specially designed resorts. Since their start, the number of specialized all-inclusive resorts has expanded greatly. Many other companies now offer resorts based on the same concept.

A few things have happened to the baby boomers since the 1970s. Many of them have married and now have children. As a result, their vacation needs have changed. But, what the older baby boomers want in a vacation now is not all that different from what Club Med was offering previously, with one exception. Club Med's resorts used to frown on children as guests because children were incompatible with the singles image. The resorts also just were not equipped to handle kids, to keep them busy and happy while their parents enjoyed themselves. The baby boomers of the 1980s wanted to be able to bring their children with them on vacation. They wanted to spend time with their kids but still have some time with each other.

Club Med met the new needs of this large target market by developing the Mini Club. At many locations, as part of the regular Club Med, Mini Clubs offer special facilities and a full programme of activities for children. From morning till night parents can leave their children in the care of counselors at the Mini Clubs. If they would rather have the kids with them for a day on the beach, that is acceptable too. But the Mini Clubs offer lots of planned and supervised activities for children. Many parents especially enjoy the chance to have a quiet, romantic dinner – something they do not often get at home.

Having chosen a target market, Club Med positioned its products to appeal to the vacation needs of a generation. Recognizing that the needs of that generation were changing, it followed its early success with another product, in the form of the Mini Club. Both illustrate the need for marketers to pay attention to the changing needs of a target market and to adapt their products to better meet those changing needs.

**Positioning by Price and Quality:**

One of the more obvious ways that a company positions its product or service is by price and quality. Many travel and tourism offerings are found at both ends of the price and quality spectrum.

Consider hotels as an example of a travel product offered in a variety of price and quality levels. At the high end, hotels offer many elaborate services for their guests. From the uniformed bellhops and sumptuous lobbies with expensive carpeting to large fresh-flower arrangements and exquisite furniture, these hotels scream luxury. Their rooms are well decorated, spacious, and spotless. Such hotels usually have several restaurants featuring different cuisines. They may also offer a beauty parlor, a massage service, an indoor swimming pool, and an exercise room.

**Positioning Relative to a Product Class:**

A third way a company can position its product is in relation to a product class. This can be done either by likening the product to others in its class or by disassociating it from other products in its class.

A look at the large array of soft-drink products provides several examples. Many different colas are available in the market. There is cola with caffeine and sugar; cola with caffeine and without sugar; cola without caffeine and without sugar. Each brand of cola claims to be superior to other brands. They all are positioning themselves in relation to their own product class. But for a soft drink that is not a cola, quite another position can be taken. Seven-Up increased its sales by positioning its soft drink as the "un-cola." Seven-Up contrasted its product with others in that class, thus disassociating itself from all colas. By stating that the product was different

from colas, the marketers suggested that Seven-Up was a better alternative.

The same type of positioning is used in the travel business. A new airline might at first position itself by associating itself favorably with established airlines. By doing so, it can quickly shed the image of the inexperienced "new kid" on the block. However, once it has established a reputation, it may want to disassociate itself from other airlines. By showing how it is not like everyone else, it differentiates itself, developing an image that will appeal to a certain group of people.

Many hotels and resorts also position themselves in relation to a product class, frequently stressing how they are different from others. A large New York hotel ran many ads illustrating how it paid more attention to little details than did other luxury hotels. It provided plenty of thick towels, free premium soaps and shampoo, and an extra pillow and blanket and boasted of an especially courteous staff, for example.

#### **Positioning Relative to a Competitor:**

Almost every travel product has competition for the consumer's attention and dollar. Sometimes the competition is direct, and sometimes it is indirect. Direct competition is between two or more hotels, airlines, ski resorts, or any travel products that are essentially similar. Indirect competition is between travel products that are less similar but fulfill a somewhat similar need.

For example, two airlines flying from Los Angeles to Hawaii would be considered direct competitors. A traveller would choose one airline or the other. On the other hand, only one ferryboat operator may offer service to a small island, meaning the ferry has no direct competitor. However, an air shuttle service may carry people on the same route. In a real way, the two compete for the same travellers' dollars, making them indirect competitors. Often, the leader in an industry attempts to maintain its share of the market by positioning itself as the clear leader in its field.

Amtrak has positioned itself to win customers by differentiating its product from the air shuttles. Its advertisements depict the air shuttles as

harried and inconvenient. First, they usually require a taxi ride to the airport in the suburbs of the city and a wait at the airport for a flight that lasts about an hour. Then, after arrival, there is the problem of getting from the airport to wherever the traveller is going, presumably somewhere in downtown Washington or New York.

By contrast, Amtrak suggests that a train ride is quiet and peaceful. Its ads remind customers that the train stations in New York and Washington are conveniently located downtown in the business district, so long taxi rides are not required at either end of the trip. On the train, passengers sit in large, comfortable seats, which actually make it possible to get some work done. Amtrak concedes that the train takes longer than the plane but positions its product as a more civilized, less hassled alternative to air travel.

The competition for customers is also fierce in the car rental business. For many years, Hertz has held the number one sales position in the industry. Currently, Avis Rent a Car holds the second-place spot, followed by Budget Rent a Car and National Car Rental.

But it wasn't that long ago that Avis was in the sixth-place position. It had positioned itself directly against Hertz and was taking on the leader head to head. Then someone came up with a novel idea. Avis decided not to position itself against Hertz but to admit to its subordinate spot in the industry. As a result, the "We try harder" advertising campaign was born. Instead of saying it was larger, Avis was saying in a subtle way that it worked harder precisely because it was smaller. Its reservation clerks wore buttons proclaiming the "We try harder" slogan, and all the advertising for Avis mentioned in some way how it had to try harder to please customers because it was not in the number one spot. The Avis campaign created a clear image with an emotional appeal to customers – the underdog. It also differentiated itself from the bigger car rental companies by implying that they were not necessarily better at serving their customers. Today Avis is

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firmly in the number two spot and continues to challenge Hertz, often more directly.

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#### **14.6 The Role of Image in Buying Decisions:**

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Everyone perceives things differently. Maybe you have been with a friend looking for a restaurant to have lunch. You examine the menu displayed in the window and talk about whether you want to eat there. You like the choices and find the prices reasonable. Your friend, however, comments that the place is overpriced. Are you right or is your friend right? You both are; you simply perceive the restaurant differently.

Perception heavily influences buying decisions. A travel product that one person perceives as too inexpensive may be perceived by another person as perfect. What is judged too fancy for one vacationer is certain to be just right for another.

Building a distinct, positive, and appealing image, therefore, is critical. It is not, however, created through illusions. A product's image is grounded in its very nature and developed through an intentional, systematic marketing process called positioning. For those who have not visited a travel destination, perception is reality. The image that your product or service creates in a prospective customer's mind is sometimes more important than the product itself. If a customer perceives a hotel as too fancy, it does not really matter if it really is, because the customer will not stay there. The perception determines the sale or lost sale.

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#### **Check Your Progress**

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Answer the following questions.

1. One of the best travel industry examples of establishing a successful position in relation to a target market is\_\_\_\_\_
2. Mini clubs offer lots of planned and supervised activities for \_\_\_\_\_.
3. Amtrak has positioned itself to win customers by differentiating its products from\_\_\_\_\_

4. Positioning by \_\_\_\_\_ and \_\_\_\_\_ is most effective at the high and low end of the spectrum

Check your answer with the one given at the end of the unit.

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**14.7 Summary:**

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- A company establishes a position for its product by building an identifiable image relating to the needs of its target market.
- A positioning statement defines what is unique about a product and places it in the context of its competitors.
- A product's position is identified by analyzing its appeal and the characteristics of the product that contribute to that appeal.
- Features, both tangible and intangible, are lists of qualities of a product or service. Benefits show how a product or service fulfills needs.
- Written positioning statements for a travel product enable employees to work toward the same goal.
- Companies position their products relative to those of their direct and/or indirect competitors.
- When positioning relative to a product class, differences between products help position products by disassociation.
- Positioning by price and quality is most effective at the high and low ends of the spectrum.
- The image a company creates of a product in a prospective customer's mind can be as important as the product itself.

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**14.8 Answer to Check Your Progress:**

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1. Price, quality
2. Club Med.
3. Childrens
4. Air shuttles

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**14.9 Review Questions:**

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1. Name two important actions a company must take to establish a position.

2. Give a current example of product advertising that appears to be aimed at maintaining a position.
3. What is the purpose of creating a positioning statement for a product or service?
4. Give some examples of situations in which current position may be incompatible with a marketing objective.
5. What are the two distinct ways of describing, product or service"? Give examples of each for one product.
6. What is the purpose of formally writing a positioning statement?
7. Choose one of the following ways to position a product and give a specific current example:
  - Positioning to a target market.
  - Positioning by price and quality.
  - Positioning to a product class.
  - Positioning relative to competition.

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**Unit -15**  
**Effective Sales And Advertising For Tourist**  
**Transport**

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**Structure:**

**15.0 Objectives**

**15.1 Introduction**

**15.2 Advertising**

**15.3 Steps of the Advertising Process**

**15.3.1 Selecting the Audience**

**15.3.2 Creating the Advertising Message**

**15.3.3 Selecting and Scheduling Media**

**15.3.4 Radio and Television**

**15.3.5 Direct-Mail Marketing**

**15.3.6 Out-of-Home Media**

**15.3.7 Directory Advertising**

**15.4 Public Relations**

**15.4.1 Newsworthy Information**

**15.4.2 Media Contacts**

**15.4.3 Public Relations Techniques**

**15.5 Sales Promotion**

**15.5.1 Customer-Oriented Sales Promotion**

**15.5.2 Point of Purchase Displays**

**15.5.3 Price Breaks and Special Discounts**

**15.5.4 Free Travel Products**

**15.5.5 Sweepstakes, Gifts, and Prizes**

**15.5.6 Loyalty Marketing**

**15.6 Trade-Oriented Sales Promotion**

**15.6.1 Sales Incentives**

**15.6.2 Trade Shows, Parties, and Receptions**

**15.6.3 Familiarization Trips**

**15.6.4 Sales Contests and Sweepstakes**

**15.7 Summary**

**15.0 Objectives:**

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After reading this unit, you will be able to:

- Explain reasons why travel suppliers and intermediaries need to communicate information about travel products;
  - Identify the three components of the communication mix;
  - Discuss guidelines for creating an advertising message;
  - Evaluate the advantages and disadvantages of different advertising media;
  - Explain the methods used to evaluate advertising campaigns;
  - Analyze a strategy for a public relations campaign using a variety of public relations tools; and
  - Distinguish between trade and consumer sales promotion methods.
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**15.1 Introduction:**

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When a travel company introduces a new product, it must make travel customers aware of the product. It must also make certain that those who sell the new product are aware of its features and how they will benefit travel customers. To communicate this information, the company uses three primary promotional techniques: **advertising, public relations, and sales promotion**. These three activities, often known as the **communications mix**, are intended to create or meet demand for a product by convincing potential customers of its value.

Since the market for any travel product can change quickly, travel companies must be able to adjust their communications mix to reflect current sales needs. When evaluating the balance of the communications mix, marketing specialists consider:

- The type of customer to be reached.
- The geographic location of the customers.
- The communications mix of competing companies.

This chapter examines how each element in the communications mix contributes to the sale of travel products.

**15.2 Advertising:**

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Do you know which airline is "Doing what we do best," which car rental agency says "We try Harder," or which hotel chain is "The business traveler's friend"? Advertising is such a common element of our daily lives that few of us give much thought to what makes a particular advertisement effective. Advertisers, on the other hand, carefully research how to convey information to the public in a way that will elicit the desired response – the purchase of a product, in most cases. The purpose of advertising is threefold:

- To give customers information.
- To develop positive attitudes toward products.
- To encourage sale of products.

However powerful advertising may be, it does not close sales. Rather, the goal of advertising in the travel industry is to motivate a potential customer to contact a travel supplier or intermediary for information about a travel product and to prepare the customer to receive the personal selling message.

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**15.3 Steps of the Advertising Process**

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Travel advertising takes many forms, from expensive network television advertising by major travel suppliers to yellow pages listings placed by small travel agencies. Regardless of the audience, medium, or budget, however, the basic process of advertising remains the same.

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**15.3.1 Selecting the Audience:**

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Before an advertiser can create a message or select an advertising medium, it must target an audience. **Trade Advertising** is designed to communicate information to the various members of the travel distribution channels, especially between the suppliers and travel agent. **Consumer advertising** focuses on customers who buy travel product. Few travel agents can afford to bear the total cost of a large-scale advertising campaign. For this reason, the travel industry has developed a system of **cooperative advertising**,

whereby a travel agency and a supplier (or another intermediary) jointly sponsors an advertisement. Cooperative advertising is particularly popular in the print media because of the ease with which both sponsoring organizations can be featured. A cruise line, for example, may provide a complete newspaper advertisement, to which a travel agency's name may simply be added. Agencies can also add their names to radio and television advertisements prepared by suppliers. Some cooperative advertising may emphasize a particular travel destination.

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### **15.3.2 Creating the Advertising Message:**

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Having selected the appropriate audience, an advertiser must decide what the advertising message should say. Creating the message is the heart of the advertising process, since the message must make prospective customers aware that they have a need for travel products and that certain products will best fill those needs. The more specific the target audience, the more focused the advertising message can be. But how does an advertiser determine what message will appeal to its target audience? Consumer research, a component of market research, analyzes consumer preferences, buying patterns, and the influence of various forms of advertising on the public. This research is usually done by specialized market research organizations, which provide advertisers with detailed profiles of their intended audiences. These profiles can be used to determine what information is relevant to a given customer and create a message that will address the target market's specific needs and interests. Once a target audience profile has been established, the advertiser can then decide on the intended purpose of the message. An advertising message may be intended to:

- Inform customers about unique features, new locations, or improved services.
- Establish, retain, or change attitudes about a product, destination, or agency.

- Persuade customers to try a new product or to change from another supplier's product.
- Elicit response by offering incentives to those who inquire about travel products and services.

Two other factors affect the content of the advertising message: the prospective customer's perception of benefits and the role of psychological factors in buying decisions. Clearly, travel needs and desires differ among individuals within a target audience; they may even differ from one time to another for the same individual. Nevertheless, advertisers use their research profiles to highlight those aspects of the product that each group is most likely to regard as a benefit.

Understanding the psychology that underlies purchasing patterns is important when developing an advertising message. Research has repeatedly shown, for instance, that customers are motivated by the idea of a bargain, by familiar product names, and by positive images they have of products. The psychological appeal of an apparent bargain affects the prices used in advertising. Even though the price difference is insignificant, customers often choose the product with the lower price. Other psychological factors that enter into the creation of an advertising message include the appeal of products that will impress friends and acquaintances, the appearance of celebrities, and the use of language and art that reflect the latest trends.

Combining all these elements and emphases into a compelling advertising message is not an easy task. For this reason, many travel professionals who are responsible for their company's advertising turn to advertising agencies for assistance in the development of effective advertisements. Certain guidelines, however, should be followed by anyone writing an advertising message:

- Make the message clear, direct, and concise.
- Be sure the product's benefits are dominant.
- Call for specific action by the customers.

- Avoid clichés.
  - Use current product information.
  - Use only high-quality photos and art.
  - Advertise one destination or product at a time.
  - Know what legal restraints affect advertising.
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### **15.3.3 Selecting and Scheduling Media:**

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Once the basic message has been determined, an advertiser must decide which media will reach the target market most effectively. The advertiser evaluates five primary avenues to find the one with the highest impact/cost ratio:

- Print – newspapers and magazines
- Broadcast – radio and television
- Direct-mail marketing
- Out-of-home – billboards and signs on buses and taxis
- Directories, including the yellow pages

How does an advertiser select from among these different media? The following factors help determine the best medium for the situation:

- Area of coverage
- Selectivity
- Consumer acceptance
- Consumer attentiveness
- Reproduction quality
- Flexibility
- Cost per contact

Each medium has its own particular strengths, making it capable of meeting certain advertising requirements. Each also has its own disadvantages that must be considered in light of the objectives of the advertising programme. In general, however, the cost of placing an advertisement increases as the coverage of the medium increases.

**Newspapers and Magazines:** Most print advertisements for travel products appear in newspapers and magazines. Together, they account for

almost half of all travel and tourism expenditures. About 80 percent of the people in the United States look at a newspaper each day. Because newspapers appeal to such a wide audience, they are a potentially important avenue for any travel supplier or intermediary.

Compared with other media, newspapers have several advantages:

- Wide readership
- Frequency of publication
- Low cost, particularly in small newspapers
- Good geographic segmentation, based on residence
- Short lead-time (prior to publication), allowing flexibility for late changes, updates, and additions
- Response – good coupon medium

Advertisers must also bear in mind the disadvantages of newspapers:

- Waste circulation – Newspapers reach many who are not potential customers
- Short life – There is no repeat exposure
- Little attention – Newspapers are often scanned
- Poor print quality – This is especially true for color ads

General-circulation magazines, such as TIME and News-week, attract many of the same travel advertisers as do the major newspapers. Many travel advertisers also place advertisements in smaller specialty magazines, such as Travel and leisure and Travel/Holiday, whose readers are already predisposed to travel. Magazines offer travel advertisers several advantages:

- Large circulation.
- Excellent print and color quality.
- Regional and subject specialization.
- Good psychographic segmentation possibilities.
- Association with prestigious magazines.
- Long life owing to many secondary readers.

Magazines have certain disadvantages as well:

- Long production lead time (up to three months).
  - High production costs, especially for colour advertising.
  - Less frequent schedule of publication than newspapers.
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#### **15.3.4 Radio and Television:**

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Radio and television reach more homes than any other advertising medium. In both these media, advertisers rely on repetition to help their message reach potential customers.

With a few exceptions, a radio advertisement reaches a relatively small geographic area. Yet many travel advertisers find the specificity of radio attractive when, for example, an airline wishes to advertise new service between two cities.

The advantages of radio include:

- Geographic and demographic selectivity.
- Relatively low cost.
- Contact with people other media cannot reach, especially in cars.
- Appeal of the human voice.
- Short production lead time, allowing last-minute changes.

The accompanying disadvantages of radio are:

- It often does not receive listener's full attention.
- Visual appeal is lacking.
- Competition for listeners is heavy.
- Message is not available for review by listener.

Nationwide network of television gives big-budget advertisers an opportunity to reach many people with their messages. Local television fits the needs of companies that serve a small area, and cable channels give both types of advertisers the ability to focus on a particular type of viewer.

For travel advertisers, television offers these advantages:

- Stronger impact than that of other media (moving images with sound).
- Visual demonstration of product or destination.
- Large and/or selective audience.

The disadvantages of television should not be overlooked by prospective advertisers. They include:

- High cost of production and air time.
- Short life, with ads unavailable for review by viewer.
- Long production lead time (up to several months).
- Message restricted to 15, 30, or 60 seconds.

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**15.3.5 Direct-Mail Marketing:**

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Many travel advertisers send catalogs, brochures, fliers, and other information directly to prospective customers through the mail. They can obtain mailing lists from mailing list brokers, local directories, or their own listing of past customers (including those who responded to previous advertising by phoning a toll-free number or returning a coupon). Direct mail has several advantages:

- Production and mailing flexibility.
- High selectivity, offering good behavioristic segmentation.
- No competition within the mailing.
- Ease of response as a result of reply cards and coupons.
- Attention drawn to personally addressed mail.

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**15.3.6 Out-of-Home Media:**

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The two most common forms of out-of-home media are billboards and the transit signs that appear on the sides of buses, street cars, and taxis. In many cases, these advertisements can reach people who are already travelling. The main advantages of out-of-home media advertising are:

- Relatively low cost.
- Repetition (Travellers see signs day after day)
- Geographic selectivity.
- High impact achieved by good reproduction.

The disadvantages are:

- High waste coverage caused by low percentage of prospective customers and low attention in some locations.
- Message size restrictions

- Long production lead-time making it difficult to change quickly.

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**15.3.7 Directory Advertising:**

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Unlike other forms of advertising, directories do not impose themselves on prospective customers. People who seek information about a particular travel product often look in the yellow pages or in a travel business directory produced by a local tourism promotion agency or some other group of businesses. Because the prospective customers are already pre-disposed to purchase a particular item, directory advertising often provides more detailed information on the products or services offered by a travel supplier or intermediary. Directories offer excellent geographic selectivity at a relatively low cost.

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**Check Your Progress -I:**

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Answer the following questions.

1. The primary promotional techniques are \_\_\_\_\_, public relations and\_\_\_\_\_.
2. Consumer advertising focuses on\_\_\_\_\_ who buy travel product.
3. Press releases should be written in a lively but simple narrative style that covers the “5 Ws” \_\_\_\_\_.
4. Radio and\_\_\_\_\_reach more homes than any other advertising medium.

Check your answer with the one given at the end of the unit.

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**15.4 Public Relations:**

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A public relations, in its broadest sense, is the process of building the goodwill of customers toward a business or product. By emphasizing the news value of various aspects of a company and its products – whether a staff promotion, corporate support of a worthy cause, or a reception marking a new hotel's opening for business – travel companies can convey information of a positive nature to customers, bringing attention to themselves and their products. In many cases, then, the public relations

effort focuses on those travel editors, writers, and journalists who are in a position to influence public opinion via the news media.

A strong emphasis on public relations has several distinct advantages. Most public relations campaigns cost far less in the long run than do advertising campaigns. The principle is simple: advertising time and space must be purchased, whereas time for a television feature story or space for a travel article does not. Furthermore, the context in which information about a supplier or product appears can affect the potential customer's perception of that information positively. Advertising, being sponsored, is a means of selling a product directly, and viewers or readers know it as such. But a magazine article describing a resort in the Bahamas, for example, has an air of objectivity and credibility about it, regardless of the initial source of that information.

Some articles and news stories are long enough to provide more detailed information on a company or product than an advertisement can, making public relations an ideal companion to advertising. One objective of a public relations campaign is to create a positive image for a company and its product in the minds of prospective customers, making them more receptive to the company's advertising. In this way, good publicity can distinguish one supplier from its competition, even in a highly competitive market.

One drawback of this so-called free publicity in the news media is that companies must relinquish control of the message content, and consequently the travel product's image, to a third party with its own separate interests in mind. The article mentioned previously about the resort in the Bahamas could end up making the resort less desirable to prospective customers. It may observe that the resort shares a beach with two other hotels, whereas a similar resort nearby has a private beach for the exclusive use of its guests. An astute public relations officer considers this possibility and takes steps to maximize media exposure while minimizing risks.

In many cases, however, the public relations goal is simply creating a positive image of a company and its employees. For example, American Airlines' sponsorship of a tennis tournament does not bring specific attention to its business-class service but is intended instead to create goodwill in the minds of prospective customers when they read about the "American Airlines' National Junior Tennis Championships." Companies using public relations for this purpose must choose carefully those organizations and events with which they are identified.

What, then, are the basic principles underlying a successful public relations effort? Since the goal of public relations is getting information into the media, public relations professionals need to know:

- The kind of information or activities that make news
- The people in the media who control the flow of news and other timely information
- How to use the basic techniques of public relations – that is, the means by which news-worthy information is conveyed.

#### **15.4.1 Newsworthy Information:**

A careful survey of major travel magazines and the travel sections of large newspapers gives a sense of what kinds of stories or events interest travel writers and editors. But public relations need not be limited to stories that describe the best resorts or the newest travel destination. The following list, though not exhaustive, indicates some types of information that may be of interest to the media.

- Professional certifications earned by employees.
- Staff appointments and promotions
- Innovative products or operating procedures.
- Unusual services not offered by competitors.
- Company involvement in community service activities
- Employee honours and awards.
- Celebrity appearances.
- Charitable contributions and activities.

- Election to office in trade organizations.
  - Opening of new or renovated facilities.
  - Human interest stories.
  - Consumer tips.
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**15.4.2 Media Contacts:**

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Newsworthy events become news only when editors or producers decide that the information is of interest to their readers or viewers. For that reason, good contacts in the media are crucial to the success of any public relations professional. Knowing travel professionals benefits media personnel as well, since the travel industry can be a frequent source of news.

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**15.4.3 Public Relations Techniques:**

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When a travel company has newsworthy information and knows which media sources to contact, how does it convey the information to them? Public relations professionals have several basic tools for this purpose.

**Press Releases.** A press release is a news article, written by or for a travel company that objectively describes something newsworthy, such as the appearance of a celebrity, the work of an employee who has made a special contribution to the community, the introduction of an innovative product, or the opening of a new facility. Press releases should be written to maximize news value of the particular event and in a journalistic style. Many public relations departments, particularly in large companies, employ trained journalists for precisely these reasons. But any travel professional can learn to write an effective press release. Releases should be written in a lively but simple narrative style that covers the “5 Ws” - who, what, where, when, and why.

Newspapers usually prefer articles that make liberal use of quotations, focus on the human side of a story, and emphasize the local impact of the subject under discussion. A well-written article includes the name of the company and all relevant information about its products and services, presented in a way that emulates what an unbiased reporter might write. A press release, after all, is a news story, not a paid advertisement.

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The purpose of a press release is to make information available to the media in a form that the media can use editorially. Even so, travel companies should try to make their job as simple as possible by including with all press releases the date when the information should be published, the name of the person who prepared the article, and the telephone number at which the writer can be reached.

**Press Conferences:** A press conference is another means of disseminating information through the media about a special occasion or event, such as a new product launch. At a press conference, a company makes a presentation or an announcement to invited members of the media and then answers their questions. Often, press conferences are used to announce upcoming events in order to increase media and customer awareness and curiosity. For example, a company may hold a press conference to announce that it will be sponsoring a travel fair and to encourage area residents to attend the event. Press conferences can be expensive, partly because the conference itself is usually supplemented by complimentary press kits that are distributed to the members of the media. These kits usually contain a printed news release prepared by the supplier's public relations staff, a fact sheet, photographs, and other information.

**Staged Events:** Travel companies may also choose to stage a special event for members of the media, invited guests, and sometimes the general public in order to increase its visibility and develop goodwill in the community. The sponsored appearance of a celebrity, the special showing of travel films, performances by musical and drama groups, and the staging of a food festival are examples of events that might well be covered by local news programs.

Because the reputation of the company depends on the quality of the staged event itself, careful planning is critical to the success of this type of public relations effort. All contingencies must be allowed for, from a celebrity not arriving on time to a shortage of punch glasses. When properly conceived and executed, however, a special event can return a

substantial measure of community goodwill and name recognition for the time and money expended.

**Receptions:** Receptions are designed for the purpose of promoting contact between travel companies and media representatives such as publishers, producers, editors, writers, and reporters. Thus, many of the same people who attend a press conference go to a reception, but the atmosphere is designed to be conducive to establishing contact between the supplier and the press, rather than conveying information. For that reason, receptions are usually held in luxury hotels or restaurants so that both the location and the free food and drink will attract the media representatives, who will presumably react favorably toward sponsoring organizations.

**Familiarization Trips:** Perhaps the most effective way to generate goodwill among the media is to make it easy for them to examine travel products firsthand. These subsidized or all-expenses-paid familiarization trips can, of course, be expensive to the sponsor, but the opportunity to influence the media directly can justify the cost. Government tourist offices, airlines opening service to a new city, and hotel chains opening a new property frequently use familiarization trips to generate publicity and awareness among the media. The return on investment in this public relations method may not be immediate or obvious. For instance, the agreement of a journalist to participate in a **fam trip** to the Poseidon Resort in Cancun does not constitute an agreement to write a favorable article about the resort. Nevertheless, media representatives do use familiarization trips as one method of evaluating travel products, and they usually pass these evaluations along to their readers or listeners.

Public relations, then, has a dual function. First, a high-caliber public relations effort can create a positive image for travel companies and the travel industry as a whole among those who influence the opinions of prospective customers. When this first function is successful, the press

coverage associated with public relations also reinforces the effectiveness of advertising.

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### **15.5 Sales Promotion**

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Sales promotion is the third component of the communication mix, extending the impact of advertising to the point of sale. The way in which advertising, public relations, and sales promotion combine to form an overall communications program varies to suit a company's particular needs. In an effective program, each element of the mix enhances and supplements the other elements.

Sales promotion techniques are used to achieve four primary objectives:

- Motivating people to make an initial product purchase.
- Encouraging repeat sales.
- Maintaining overall customer loyalty.
- Maintaining product competitiveness.

Because every sales transaction involves at least two people, a buyer and a seller, sales promotion techniques can be directed at both. They provide specific, usually tangible, incentives both for the buyer to make the purchase and for the seller to close the sale. This section looks first at sales promotion strategies directed by suppliers or intermediaries toward prospective customers and then examines sales promotion efforts directed by suppliers toward intermediaries selling their products.

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#### **15.5.1 Customer-Oriented Sales Promotion:**

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In a sense, customer-oriented sales promotion completes the work begun by the advertising or public relations campaign. If advertising paints the product picture with broad strokes designed to stimulate the imagination and pique the interest of prospective customers, then sales promotion attempts to stimulate action by those customers. Travel companies use several promotional strategies to encourage customers to purchase travel products.

**15.5.2 Point of Purchase Displays:**

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Most prospective customers respond positively to visual displays that picture travel products and destinations. How could a person who enters a travel agency in Detroit on a snowy winter day and sees a poster of a beach in the Caribbean not think about a vacation, even if he came to make business travel plans? Most travel agencies use some or all of the following point of purchase displays:

- Brochures and other printed materials.
- Posters and photographs.
- Displays of handicrafts and souvenirs from travel destinations.
- Slide shows and videos.

Some of these materials are used for interior wall decorations or window displays; others appear in special stands and racks made especially for promotional materials. Attractive and highly visible displays of brochures, most of which are provided by travel suppliers are prominently placed in almost every travel agency. These brochures vary from a small leaflet describing a single hotel to a large catalogue listing a company's entire range of products, such as those of American Express or Club Med. In most cases, the brochures are carefully designed and written and feature glossy photographs of glamorous travel products and destinations. Not only are brochures used by agents to show customers available products, but they have the added benefit of continuing the selling process after the customer takes them home.

Videotapes are an increasingly popular means of promoting travel destinations and products to customers. Some videos, because they are short and focused on a particular product, can be viewed by the customer at the travel agency. Others, such as a destination video that thoroughly examines many aspects of travel in Thailand, are designed for home viewing. National tourist offices, major tour operators, and large cruise lines have led the trend to video sales promotion, which is likely to become even more important in the future.

Often, a travel agency coordinates its point of purchase displays to emphasize a special promotion or event that is taking place.

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### **15.5.3 Price Breaks and Special Discounts:**

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In general, travel sellers find that reducing the price of a product increases its sales, all other things being equal. The art of promotional pricing is to use discounts to attract customers initially to products they will buy again at non-discounted prices. Toward that end, suppliers often use promotional pricing to stimulate interest in a new product or to attract new customers. Many cruise lines, for example, offer a substantial discount on the first season of cruises on a new ship.

Suppliers often use discounts to attract the business of students, retired people, and other groups for whom price is a decisive consideration when making a travel purchase. Discount pricing can also help overcome sales declines during slow-travel periods.

One means by which travel suppliers have increased the scope of their promotional effectiveness is by using a tie-in between the purchase of widely distributed consumer products and discounts on travel products. A tie-in of this type is a promotional agreement between a travel company and a consumer goods company. For example, an airline may offer fare discounts to people who have purchased a certain brand of camera, stereo system, or even peanut butter.

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### **15.5.4 Free Travel Products:**

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Customers often respond positively to an offer of a free product with the initial purchase of a non-discounted product. Major hotel chains often use this strategy, offering an additional night free to a customer who has paid for a three-night stay, for example. Suppliers of different types of travel products sometimes agree to offer tie-ins involving free products. For example, customers may qualify to receive a free weekend car rental by renting a car for three weekdays and possessing a recent boarding pass from a particular airline.

**15.5.5 Sweepstakes, Gifts, and Prizes:**

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Sweepstakes are a popular way to attract the attention of new customers and keep regular customers interested by giving away free prizes, often expensive ones. By law, a person need not make a purchase to enter a sweepstakes, but many companies make entry automatic upon the purchase of a travel product. British Airways, for example, once offered the chance to win a Rolls Royce to everyone who purchased a ticket to London within a defined period of time.

Many tour operators and cruise lines offer free gifts to customers who purchase their travel products. These gifts include tote bags and luggage, audio- or videotapes, travel books, coffee mugs, and miscellaneous items of clothing. Sometimes companies offer free prizes to customers who are among the first to purchase a new or promotional product.

**15.5.6 Loyalty Marketing:**

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The loyalty marketing has been an increasingly important part of sales promotion in the travel industry. The goal of loyalty marketing is twofold: to attract new customers for the travel company and, more important, to keep established customers coming back.

These plans have several benefits to frequent travellers, including free air travel after accumulating a certain number of miles or credits and special ground services, such as preferential check-in and exclusive airport lounges. Most frequent-flier plans now have agreements with major hotel chains, cruise lines, and car rental companies, whereby members receive discounts on hotel rooms and car rentals while they accrue additional credits on their airline frequent-flier plans.

**15.6 Trade-Oriented Sales Promotion:**

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For travel suppliers, an effective program of, sales promotion must consider more than direct contact with customers. It should also consider the intermediaries who, in most instances, link the travel suppliers to their customers. An important part of the sales promotion strategy focuses on

the intermediaries who actually sell its products for the following purposes:

- To generate enthusiasm for the supplier's products.
- To maintain supplier loyalty among intermediaries.
- To communicate effectively with intermediaries.
- To provide intermediaries with materials and incentives to complete the sales process.

Suppliers direct two distinct types of sales promotions toward intermediaries. One encourages a high volume of sales by rewarding intermediaries when they reach a specific sales goal, and the other helps agents become more familiar with the travel products to sell them more effectively.

The following discussion identifies some methods employed by travel suppliers to reach these two objectives:

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#### **15.6.1 Sales Incentives:**

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Suppliers use several sales incentives to motivate agents to sell more travel products. Suppliers may, for example, offer gifts of merchandise or free travel to agents who meet sales goals. Some car rental companies, for instance offer travel agents a free one-day car rental for each car rental contract they sell. Some suppliers pay cash bonuses to agents who sell a certain quantity of their products within a specified period. These bonuses may take the form of extra commissions, such as 15 percent instead of 10 percent on all products sold in excess of a certain sales volume, or of overrides, which are cash payments made to the agency above the standard commission rate.

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#### **15.6.2 Trade Shows, Parties, and Receptions:**

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Suppliers can use these shows as forums for introducing new products, informing agents of changes in established product lines, and generating wide-ranging enthusiasm for the suppliers' products. Many suppliers hold parties or receptions for intermediaries at these trade shows. Regardless of the specific purpose of the show or reception, these events help increase

the visibility of the suppliers' products. Because agent enthusiasm is such a critical element in the total sales effort, travel suppliers have found trade shows to be a key venue for sales promotion.

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**15.6.3 Familiarization Trips:**

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In the context of sales promotion, suppliers offer familiarization trips to agents to increase their motivation to sell a product. Fam trips put travel agents in a better position to describe the product to customers and make them aware of its features and benefits firsthand.

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**15.6.4 Sales Contests and Sweepstakes:**

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Over the past few years, sales contests and sweepstakes have become a popular means of encouraging agents to sell more products. Usually the contests are simple to enter, since the completion of a certain number of bookings automatically makes the agent eligible to win sweepstakes prizes. The prizes often include expensive cars, vacations in exotic places, or large cash prizes, as well as a number of prizes of lesser value. Some suppliers run sweepstakes for their intermediaries in conjunction with contests aimed at travel customers. This gives agents additional incentive to close the sale by encouraging customers to buy the products.

Whether directed toward the travel trade or the travel consumer, advertising, public relations, and sales promotion all have one purpose: setting up the sale of travel products.

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**Check Your Progress - II:**

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Answer the following questions.

1. Two most common forms of out-of-home media are \_\_\_\_\_ and the \_\_\_\_\_.
2. \_\_\_\_\_ is the process of building the goodwill of customers towards a business or product.
3. Familiarization trip is the most effective way to generate \_\_\_\_\_ and \_\_\_\_\_ among the media.
4. \_\_\_\_\_ are an increasingly popular means of promoting travel destinations and products to customers.

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Check your answer with the one given at the end of the unit.

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**15.7 Summary:**

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- The communication mix helps implement an overall marketing strategy.
- Advertising disseminates information, develops positive attitudes, and encourages customers to inquire about products.
- Trade advertising provides detailed product information and suggestions for selling methods.
- Consumer advertising appeals to the needs and desires of travel customers.
- Consumer research, the perception of benefits, and the psychology of buying all affect the nature of advertising messages.
- Public relations is the process bringing media attention to and building goodwill for a business or product.
- Public relations is achieved primarily through media attention to newsworthy events.
- Information about travel products in an article or a news story has more credibility with consumers than does advertising.
- Companies do not have control over how the media use public relations materials.
- Good media coverage depends on knowing what is newsworthy, whom to contact with the information, and how to convey it.
- Sales promotion efforts seek to translate customer interest into bookings.
- Customer-oriented sales promotion completes the work begun by the advertising campaign.
- Trade-oriented sales promotion provides intermediaries with information to help them sell the product and with special incentives to encourage more sales.

**15.8 Answer to Check Your Progress:**

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**Check Your Progress-I:**

1. Advertising, sales promotion
2. Customers
3. Who, what, where, when and why
4. Television

**Check Your Progress-II:**

1. Billboards, transit signs
  2. Public relations
  3. Goodwill, aware ness
  4. Videotapes
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**15.9 Review Questions**

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1. Explain the communications mix, and indicate its importance.
2. Describe the relationship between the three aspects of the communication mix.
3. Write a one-line advertising message for a specialized tour, and discuss the objectives of the message.
4. How would you select the media that should be used in an advertising campaign?
5. Why are advertising campaigns of small-budget advertisers so difficult to evaluate?
6. Describe the public relations tools a travel agency might use when it opens.
7. Discuss the similarities and differences between sales promotion methods for consumers and intermediaries.

**Unit-16**

**Marketing of Tourist Transport: Challenges and Prospects**

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**Structure:**

**16.0 Objectives**

**16.1 Introduction**

**16.2 Managing Capacity and Demand**

**16.3 Measuring Current Market Demand**

**16.4 Forecasting Future Demand**

**16.5 Managing Capacity**

**16.6 Managing Demand**

**16.7 The Issue of Transport and the Environment**

**16.8 Infrastructure and Technology**

**16.9 Distribution Systems**

**16.10 Motivation, Trends, Types and Forms**

**16.11 Consumer Behaviour and Future Tourism**

**16.12 Summary**

**16.0 Objectives:**

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After reading this Unit you will be able to:

- Explain about the various challenges and promises that are in store for marketing managers;
  - Discuss demand estimation and forecasting and managing demand and capacity;
  - Analyze how tourism markets can be understood by analyzing present day trends; and
  - Define the relationship between travel motivators and tourism marketing;
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**16.1 Introduction**

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Future of transport depends upon Economic, Social, Political and Environmental Factors. The marketing of tourist transport is a highly complex phenomenon. The common challenges faced by the marketing manager to day to shall not only consist of changing demand and supply patterns arising due to technological breakthroughs, environmental consciousness, uneven distribution of supply demand, but also sustainability in the key element in marketing decisions.

The concepts of flying homes, 1000 seater airbuses, Charters, Digital command in cockpit, super advanced Telecommunications will certainly change the outlook of transport trade in time to come. The Technological breakthrough paving way for high-speed trains shall create divergence in approach among mass public transport and personal public transport. More fuel - efficient and faster aircrafts are proposed to be replacing the existing Airships. Speed pollutes spaces and places and hence has alarmed masses for more conspicuous consumption of depleting resources. Sustainability will be global concept in the years to come. The future may witness more shift from government - owned to privately owned and greater deregulation. There will be more market -oriented transport services and efforts to market the specialized products amongst the target markets. Demand estimation and forecasting shall become vital and the

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managers shall have to strive for balancing between the capacity and demand.

This chapter starts with a section on **market definition** followed by a discussion of different techniques for **forecasting demand**. The chapter ends with a discussion of techniques used to **manage capacity and demand**.

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### **16.2 Managing Capacity and Demand:**

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Measuring market demand starts with a clear understanding of the market involved.

Like airlines, hotel companies have to commit large amounts of capital to build capacity. Long-term planning ensures that future demand will fit the company's expansion programs. Short-term forecasting is important to ensure that each hotel or restaurant maximizes its capacity. The inability to inventory products means that, if today's capacity does not match today's demand, problems can arise for the company. Businesses must turn guests away when demand exceeds capacity. If demand is less than capacity, hotel rooms/ transportation go unsold and airlines seats are empty. Many restaurants have gone out of business because they were built to handle a capacity that ended up being two to three times their demand. In many cases a smaller restaurant with less overhead would have survived. Fast-food chains are developing smaller units with a capacity that will match the demand of secondary markets. In the long run, firms must match capacity with demand.

Staffing is another important reason for forecasting. Understaffing results in poor customer service and delays that may send customers somewhere else. Overstaffing is expensive, and in tipped positions, it can result in employee dissatisfaction. Thus forecasting and adjusting the business to fit the forecasted demand are essential to a well-run business.

#### **Defining the market:**

Market demand measurement calls for a clear understanding of the market involved. The term market has acquired many meanings over the years. In

its original meaning, a market was a physical place where buyers and sellers gathered to exchange goods and services. Medieval towns had market squares to which sellers brought their goods and buyers shopped for them. In today's cities, buying and selling occurs in what are called shopping areas rather than markets.

To an economist, the term market describes all the buyers and sellers who transact over some good or service. Thus the limited-service hotel market consists of all the consumers who use limited-service hotels and the companies who supply limited-service hotel rooms. The economist is interested in the structure, conduct, and performance of each market.

To a marketer, a market is the set of all actual and potential buyers of a product or service. A **market** is the set of buyers, and the **industry** is a set of sellers. The size of the market hinges on the number of buyers who might exist for a particular market offer. Potential buyers for something have three characteristics: **interest, income** and **access**.

Consider the market for Carnival Cruises. To assess its market, Carnival first must estimate the number of customers who have a potent interest in going on a cruise. To do this, the company could conduct a random sampling of consumers and ask the following question: "Do you have an interest in taking a cruise?" If one person out of ten says yes, Carnival can assume that 10% of the total numbers of consumers are the potential market for cruises. The **potential market** is the set of consumers that professes some level of interest in a particular product or service.

Consumer interest alone is not enough to define the cruise market. Potential consumers must have enough income to afford the product they must be able to answer yes to the following question: "Can you afford to purchase a cruise". Higher the price, fewer the number of people who can answer yes to this question, thus market size depends on interest and income.

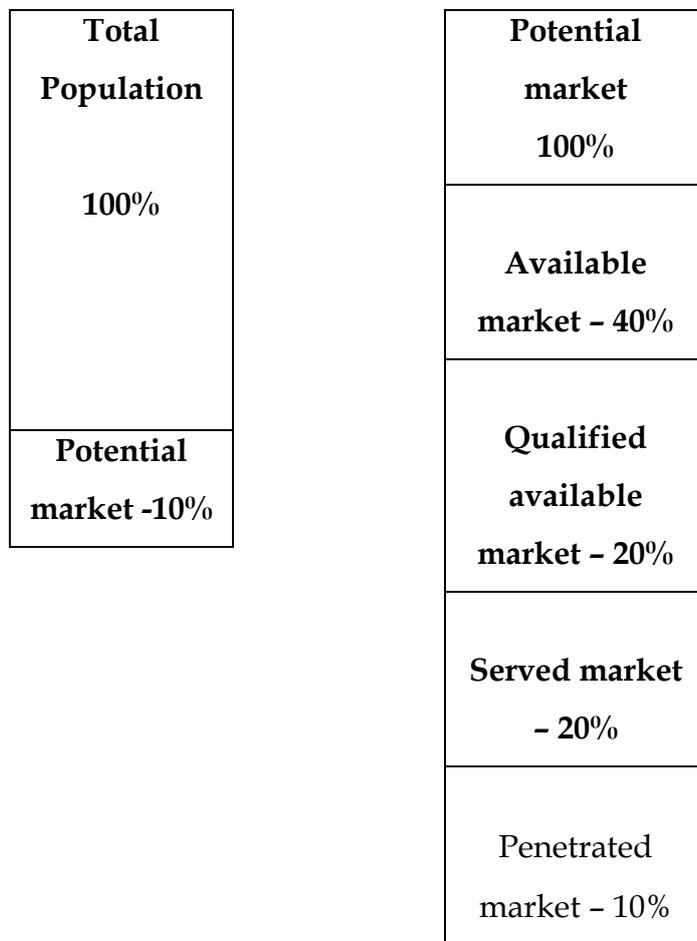
Access barriers further reduce the cruise market size. If Carnival markets its cruises in remote areas not served by travel agents, the number

potential customers in these areas are limited. The **available market** is the set of consumers that has interest, income, and access to the product.

For some market offers, Carnival might have to restrict sales to certain groups. The country rules may not allow an Agreement for cruises for anyone below 21 years. The remaining adults make up the qualified available market--the set of consumers that has interest, income, access, and qualifications for the product.

Carnival now has the choice of going after the whole qualified available market or concentrating on select segments. Carnival's **served market** is the part of the qualified available market that it decides to pursue.

**Fig 16.1 Levels of Market Definition**



**A. Total market**

**B. Potential market**

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**16.3 Measuring Current Market Demand:**

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We now turn to some practical methods for estimating current market demand. Marketers will want to estimate three different aspects of current market demand: total market demand, area market demand, and sales and market shares.

**Estimating Total Market Demand:**

**The total market demand** for a product or service is the total volume that would be bought by a defined consumer group in a defined geographic area in a defined time period in a defined marketing environment under a defined level and mix of industry marketing effort.

Total market demand is not a fixed number, but a function of the stated conditions. One of these conditions, for example, is the level and mix of industry marketing effort. Another is the state of the environment. Part A of Figure below shows the relationship between total market demand and these conditions. The horizontal axis shows different possible levels of industry marketing expenditure in a given time period. The vertical axis shows the resulting demand level. The curve represents the estimated level of market demand for varying levels of industry marketing expenditure. Some base sales (called the market minimum) would take place without any marketing expenditures. Greater marketing expenditures would yield higher levels of demand, first at an increasing rate and then at a decreasing rate. Marketing expenditures above a certain level would not cause much more demand, suggesting an upper limit to market demand called the market potential. The industry market forecast shows the level of market demand corresponding to the planned level of industry marketing expenditure in the given environment.

The distance between the market minimum and the market potential shows the overall sensitivity of demand to marketing efforts. We can think of two extreme types of markets, the expandable and the non-expandable. An expandable market, such as the market for air travel, is one whose size is affected by the level of industry marketing expenditures. In terms of

Figure below, in an expandable market, the distance between  $Q_1$  and  $Q_2$  would be fairly large. A non-expandable market, such as the market for opera, is one whose size is not much affected by the level of marketing expenditures; the distance between  $Q_1$  and  $Q_2$  would be fairly small. Organizations selling in a non-expandable market can take **primary demand** – total demand for all brands of a given product or service – as given. They concentrate their marketing resources on building **selective Demand** – demand for their brand of the product or service.

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#### 16.4 Forecasting Future Demand:

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##### Estimating Actual Sales and Market Shares:

Besides estimating total demand, a company will - want to know the actual industry sales in its market. Thus it must identify its competitors and estimate their sales. The industry's trade association often will collect and publish total industry sales, although not listing individual company sales separately. In this way, each company can evaluate its performance against the industry as a whole. Suppose that the company's sales are increasing at a rate of 5% a year and industry sales are increasing at 10%. This company is actually losing its relative standing in the industry.

**Forecasting** is the art of estimating future demand by anticipating what buyers are likely to do under a given set of conditions. For example, an association wants to book 100 rooms for three nights in a 250-room hotel next year. They will pay \$ 95 per room per night. The current rate structure of the hotel is as follows: rack rate \$150, corporate rate \$125, and average rate \$105. Should the manager take the 300 room nights at a low rate or does the manager turn down this request for \$28,500 of business. Without forecasting, it is difficult to answer this question. Forecasts help managers maximize their profits.

Most markets do not have a stable industry or company demand, so good forecasting becomes a key factor in company's success. Poor forecasting can lead to overstaffing and excess inventories or understaffing and

running out of products. The more unstable the demand, the more the company needs accurate forecasts and elaborates forecasting procedures.

**Forecasting Methods:**

Many firms base their forecasts on past sales. They assume that the causes of past sales can be uncovered through statistical analysis and that analysts can use the causal relations to predict future sales. One popular method, **time-series analysis**, consists of breaking down the original sales into four components – trend, cycle, season, and erratic components – and then recombining these components to produce the sales forecast. **Trend** is the long-term, underlying pattern of growth or decline in sales resulting from basic changes in population, capital formation, and technology. It is found by fitting a straight line through past sales.

**Cycle** captures the medium-term wave movement of sales resulting from changes in general, economic, and competitive activity. The cyclical component can be useful for medium-range forecasting. Cyclical swings, however, are difficult to predict because they do not occur at regular intervals.

**Season** refers to a consistent pattern of weekly, monthly, or quarterly sales movements within the year. In the hospitality industry, we usually think of seasonal changes on a yearly basis, but weekly and hourly sales changes are important. The seasonal component can be related to weather factors, holidays, and trade customs. The seasonal pattern provides a norm for forecasting short-range sales. Yield management depends on forecasting demand by day, by flight or cruise, and by hour of the day. Historical sales patterns are carefully analyzed, such as examining sales for Tuesdays of the second week of September or total passengers and the mix of passengers on flight 482 each Wednesday afternoon at 3:30. Forecasting in the airline industry is further complicated by the presence of interconnecting stops. Large hospitality companies such as airlines, hotel chains, and car rental firms, such as Hertz, depend on sophisticated software to analyze huge volumes of data.

Finally, **erratic events** include fads, strikes, snowstorms, earthquakes, riots, fires, and other disturbances. These components, by definition, are unpredictable and should be removed from past data to reveal the more normal behavior of sales. Most of these events cannot be accurately forecasted, but a few, such as snowstorms and strikes, lend themselves to short-run forecasting. Hotel managers in Washington, D.C., know that, if a major snowstorm is predicted for the city, room demand will increase. Visitors will be unable to leave the city and will want to retain their rooms. Office workers may be unable to return home and will also want a room. Managers who have knowledge of the past behavior of demand when erratic event occurred can factor this into their thinking in times of crisis management.

The first step in managing demand understands the factors that affect the demand of the firm's market segments. The payday of a major employer may drive area customer demand. Holiday periods have a positive influence on demand at most resorts. Business travel drops off between mid-December and mid-January, during the summer period, and over weekends. Although there is fluctuation in demand, much of the fluctuation can be explained. Managers must understand the factors that drive demand and build it into their forecasts.

When a forecast calls for a decrease in sales, it is important to document the reasons for the decrease. This is especially true of regional recessions. A regional economy with a heavy dependence on one industry can suffer a regional recession when that industry declines, while the rest of the country enjoys prosperity. When the hotel management sends its forecast showing a decline in sales to the home office, it will be rejected unless it is well supported. In many cases when a director of sales has presented a marketing plan calling for a decrease in sales without supporting documents to defend the projected decrease, corporate management require the director of sales to increase the forecast. In this scenario, the hotel fails to meet the revised forecast, and the director of sales is fired for

not meeting the sales goal. Managers must forecast accurately and provide information to support their forecasts.

### **Statistical Demand Analysis**

Time-series analysis views past and future sales as a function of time, rather than as a function of any real demand factors. But many factors affect the sales of any product. **Statistical demand analysis** is a set of statistical procedures used to discover the most important real factors affecting sales and their relative influence. The factors most commonly analyzed are prices, income, population, and promotion.

Statistical demand analysis consists of expressing sales (Q) as a dependent variable and trying to explain sales as a function of several independent Demand variables  $X_1, X_2, \dots, X_n$ . That is,

$$Q = f (X_1, X_2, \dots, X_n)$$

Using a technique called multiple-regression analysis, various equation forms can be statistically fitted to the data in the search for the best predicting factors and equation.

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### **16.5 Managing Capacity:**

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Managers have two major options for matching capacity with demand: change capacity or change demand. For example, an airline can change capacity on heavily travelled route by assigning a large plane to the route. If the larger plane is not available, they can reduce demand by eliminating discounted fares.

This section will discuss capacity management, and the next section will focus on demand management.

Corporate management is responsible for matching capacity with demand on a long-term basis, while unit managers are responsible for matching capacity with fluctuations in short-term demand. The techniques presented in this section assist in managing short-term demand. The actions managers can take to adjust to short-term capacity include the following:

1. Involve the customer in the service delivery system.

2. Cross-train employees.
3. Use part-time employees.
4. Rent or share extra facilities and equipment.
5. Schedule downtime during periods of low capacity.
6. Extend service hours.
7. Use technology.
8. Use price.

**Involve the Customer in the Service- Delivery System:**

Getting the customer involved in service operations, expands the number of people that one employee can serve, thus expanding the capacity of the operation. The concept has wide acceptance in food and beverage operations, but modern technology is responsible for its increasing use in the accommodation sector as well.

**Food and beverage operations can develop systems that permanently involve customers in service delivery or use customer involvement as a way to increase capacity during extremely busy periods. Many convention hotels have self-service food and beverage operations. These operations can serve many people in a short time.**

**Cross-train Employees:**

In a hotel the demand for all service does not rise and fall in unison. One outlet may experience sudden strong demand while other areas enjoy normal levels. When managers cross-train their employees, they can shift employees to increase the capacity. A hotel restaurant that does only 30 to 40 covers a night cannot justify more than two service people, even though they may have 80 seats. However, such low staffing levels mean that the restaurant may have a difficult time serving more than 60 guests, especially if they arrive at about the same time. Having front desk staff and banquet staff that are trained in a la carte service means that the restaurant manager has a group of employees that can be called on if demand for the restaurant on any particular night exceeds the capacity of two service people also provides the manager with a group of substitute service people who can fill in should a regularly scheduled employee call in sick. Cross-

training employees give the operation flexibility by allowing the business to increase capacity by shifting employees and can help to prevent the organization from reducing capacity when an employee calls in sick.

**Use Part-time Employees:**

Managers can use part-time employees to expand capacity during an unusually busy day or meal period or during the busy months of the year for seasonal businesses. Summer resorts hire part-time staff to work during the summer period. They reduce their staff during the slower seasons and either reduces staff further or close during the low season. Part-time employees allow a hotel or restaurant to efficiently increase or decrease its capacity. Part-time employees can also be used on an on-call basis.

**Rent or Share Extra Facilities and Equipment:**

Businesses do not have to be constrained by space limitations or equipment limitations. A hotel with an opportunity to book a 3-day meeting from Tuesday to Thursday may have to turn down the business because all the function space is booked Wednesday evening and there is no space for the group's Wednesday evening dinner. Rather than lose the group, a creative solution would be to suggest the group go outside the hotel for a unique dinner experience.

**Extend Service Hours:**

Restaurants and entertainment facilities can increase capacity by extending their hours. A hotel coffee shop that is full by 7:30 A.M. may find it useful to open at 6:30 A.M. instead of 7:00. If five tables arrive in the first half-hour, these should be free in about a half-hour, allowing the restaurant to have more tables available during the peak period. Many businesses can increase their capacity expanding their hours of operation.

**Use Technology:**

Phone systems with automatic wake-up capability allow many guest to receive wake-up calls simultaneously. Although a wake-up call from a computer is impersonal, it ensures that guests in large hotels receive their wake-up calls in a timely and accurate manner. Technology will become

increasingly important as advances are made in robotics. Technology also makes it easier to involve the customer in the service delivery system.

**Use Price:**

As previously discussed, there is a relationship between pricing strategy and capacity management. Car rental firms attempt to manage capacity through the use of one-way drop fees. A spokesperson for Avis said. "You lose too much business if your cars are in another part of the country everyone wants to rent from you."

Alamo Rent-A-Car offered daily rates in Houston as low as \$18, but if the car was driven into Louisiana and dropped at New Orleans, the cost would be an additional \$600. Conversely, rent-a-car companies may offer low or no drop-off rates to areas where they need cars.

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**Check Your Progress - I:**

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Answer the following questions.

1. A \_\_\_\_\_ is the set of buyers and the industry is the set of \_\_\_\_\_ .
2. \_\_\_\_\_ is the art of estimating future demand by anticipating what buyers are likely to do under a given set of conditions.
3. Yield management depends on \_\_\_\_\_ by day, by flight or cruise, and by hour of the day.
4. Corporate management is responsible for matching capacity with demand on a \_\_\_\_\_ .

Check your answer with the one given at the end of the unit.

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**16.6 Managing Demand:**

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In an ideal situation, managers simply expand capacity to meet demand. However, during a citywide convention, a hotel may receive requests for rooms that exceed its capacity. The Saturday before Christmas, a restaurant could book more banquets if it had space, and during a summer holiday a resort could sell more rooms, if it had them. All successful hospitality business become capacity constrained. Capacity management allows a business to increase its capacity, but it will not prevent situations

where demand exceeds capacity. Besides managing capacity, managers must manage demand. The following strategies for managing demand will be discussed:

- Use price to create or reduce demand.
- Use reservations.
- Overbook.
- Use queuing.
- Shift demand.
- Change the salesperson's assignment.
- Create promotional events.

#### **1. Use price to create or reduce demand**

Pricing is one method used to manage demand. As we saw that price is inversely related to demand for most products, Managers can create more demand for a product or service by lowering its price.

#### **2. Use reservations**

Hotels and transport companies use reservations to monitor demand. When it appears that they will have more demand than capacity, managers can save capacity for more profitable segments. Reservations can also limit demand by allowing managers to refuse any further reservations when capacity meets demand.

#### **Overbook:**

Not everyone who reserves a seat or books a room shows up. Plans change and people with reservations become no shows. Overbooking is another method that hotels, trains and airlines use to match demand with capacity.

#### **4. Use queuing**

When capacity exceeds demand and guests are willing to wait, queues will form. Sometimes guests make a decision to wait; in other cases they have no choice.

**5. Shift demand**

It is often possible to shift demand for banquets and meetings. The business and pleasure visit may be rescheduled depending upon the availability of seats in trains or airlines.

**6. Change the salesperson's assignment**

The salespersons are assigned specific segments, but depending on the opportunity, they may be asked to sell to other market segments temporarily, which can be more profitable.

**7. Create promotional events**

Promotional events can shift the demand curve to the left. During slow periods, creative promotions can be effective way of building business.

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**16.7 The Issue of Transport and the Environment:**

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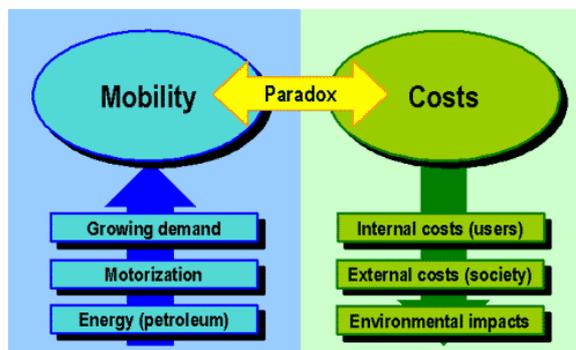
The issue of transportation and the environment is paradoxical in nature. From one side, transportation activities support increasing mobility demands for passengers and freight, notably in urban areas. On the other side, transport activities have resulted in growing levels of motorization and congestion. As a result, the transportation sector is becoming increasingly **linked to environmental problems**. With a technology relying heavily on the combustion of hydrocarbons to provide momentum, notably with the internal combustion engine, the impacts of transportation over environmental systems has increased. In recent years, this has reached a point where the spatial accumulation of transportation is a dominant factor behind the emission of most pollutants and thus their impacts on the environment. These impacts, like all environmental impacts, can fall within three categories:

- **Direct impacts.** The immediate consequence of transport activities. The cause and effect relationship is generally clear and well understood.
- **Indirect impacts.** The secondary (or tertiary) effects of transport activities. They are often of higher consequence than direct impacts, but the involved relationships are often misunderstood and difficult to establish.

- **Cumulative impacts.** The additive, multiplicative or synergetic consequences of transport activities. They take into account the varied effects of direct and indirect impacts on an ecosystem, which are often unpredicted.

The complexities of the problems have led to much controversy in environmental policy and in the role of transportation. The transportation sector is often subsidized by the society, especially through the construction and maintenance of infrastructure. Total costs incurred by transportation activities, notably environmental damage, are generally not assumed by the users. The lack of consideration of the **real costs of transportation** could explain several problems that are experienced in a number of developing and developed countries. For instance, external costs account on average for more than 30% of the estimated automobile costs. If environmental costs are not included in this appraisal, the usage of the car is consequently **subsidized by the society and costs accumulate as environmental pollution**. This requires due consideration as the number of vehicles, especially automobiles, is steadily increasing.

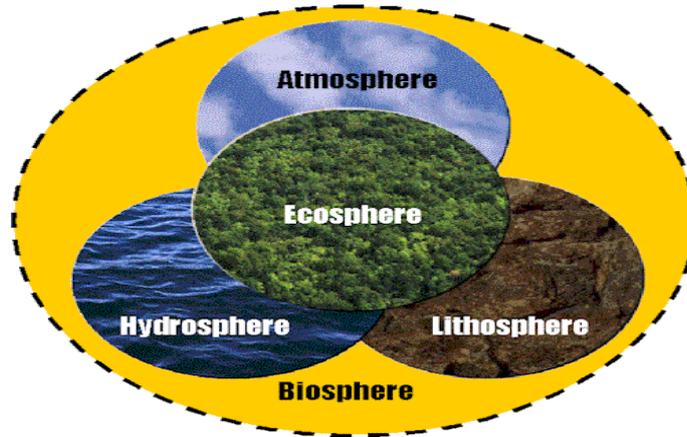
Fig 16.3 The Paradox of Mobility and its Costs



Motorization has been linked with increasing demands for mobility. This mobility is mainly supported by the internal combustion engine that consumes vast quantities of energy, mainly petroleum. Mobility comes at a cost, which is partially assumed by the users (e.g. fuel, licensing, insurance, etc).

The Environmental System

Fig 16. 4 The Environmental System



- The environmental system may be understood in an ecological sense as the set of interactions between the elements of the biosphere, which includes the atmosphere, the hydrosphere, the lithosphere and the ecosphere.

**Table 16.1 The Environmental Impacts of Transportation**

There are number of relationships between the atmosphere, the hydrosphere, the lithosphere and the ecosphere and some noted impacts.

Atmosphere
<ul style="list-style-type: none"> <li>• Large scale diffusion of pollutants.</li> <li>• High growth on a short term basis of the concentration of pollutants because of local conditions (e.g. smog).</li> <li>• Photochemical reactions caused by ultraviolet rays, notably over ozone, sulfur dioxide and nitrogen dioxide.</li> <li>• Climatic changes (global warming).</li> <li>• Acid rain.</li> <li>• Synergetic and cumulative effects when pollutants are combined (e.g. smog and greenhouse gases).</li> </ul>
Hydrosphere

- Diffusion of pollutants in a dissolved or colloidal state.
- Acidification and loss of neutralizing potential of ground and underground water.
- Drops of pH following snow melting (aquatic organism are particularly vulnerable).
- Growth in the solubility of several metals because of acidification.
- Additions of organic compounds, aluminum, manganese, calcium, magnesium and potassium by runoffs.
- Contamination of ground and underground water by nitrates.
- Modifications of hydrological systems by the construction and maintenance of infrastructure.

### Lithosphere

- Acid depositions.
- Liberation of toxic metallic ions (aluminum, cadmium, etc.) through acidification.
- Loss of nutrients, notably calcium and magnesium.
- Inhibition of the mineralization of nitrogen.
- Modifications in the compositions and the depth of decomposition gradient.
- Inhibition of decomposition.
- Loss of the soil flora and fauna.
- Fixation by plants of heavy metals (e.g. lead) and contamination.
- Removal and consumption of land.
- Extraction of raw materials like mineral products and energy.

### Ecosphere

- **AQUATIC ECOSPHERE**
  - Alteration of ecosystems in unforeseeable ways.
  - Disappearance of vulnerable species and proliferation of tolerant ones.

- Reduction of bacterial treatment of organic matter by nitrification.
- Reduction of available nutrients to aquatic species.
- Reproductive impediments.
- **LAND ECOSPHERE**
  - Damages over the vegetation modifying: hydric cycles, the level of underground water resources, soil erosion, air purification capacity of the ecosphere, food sources (agriculture) and entertainment and tourism potential.
  - Reduction of the vital space.
  - Reduction of the genetic potential of species.
  - Reduction of the food supply and alteration of the food chain.
  - Consumption of resources.
- **HUMAN ECOSPHERE**
  - Odors.
  - Noise.
  - Cardiovascular and respiratory problems.
  - Susceptibility to infection.
  - Drop in life expectancy.
  - Injuries, incapacity, hospitalization, death.
  - Damage to structures: loss of useful life (amortization) loss of property values, corrosion of metal structures (bronze, steel, etc.) destruction of historical and cultural monuments.

Travel impacts depend on the nature of the strategies that are implemented, the types of trips, location, and demographics of visitors. Large travel impacts are possible. Some resorts and destination parks have virtually eliminated private vehicle traffic. ICAO (International Civil Aviation Organization) has prepared an Inventory of Environmental

Impacts (Table 16.2) and **Environmental Issues and Potential Solutions** (Table 16.3) pertaining to aviation industry.

**Table 16.2 ICAO Inventory of Environmental Impacts**

<b>Environmental Concern</b>	<b>Typical Sources</b>
<b>Aircraft noise</b>	<p>Noise in the vicinity of airports caused by aircraft operations.</p> <p>Engine testing and others noise sources at airports.</p> <p>Ground support vehicles and operations.</p> <p>Sonic boom caused by supersonic aircraft.</p> <p>Noise caused by aircraft en-route.</p>
<b>Air pollution near airports</b>	<p>Aircraft engine emissions (carbon monoxide, nitrogen oxides, volatile Organic compounds, unburnt hydrocarbons) during landing and take-off cycle.</p> <p>Emissions from airport ground service vehicles.</p> <p>Emissions from access traffic (automobiles, buses, trains).</p> <p>Emissions from other airport sources (solvents, fuels, etc.).</p>
<b>Global phenomena</b>	<p>Long-range air pollution (eg. acid rain).</p> <p>Greenhouse effect (combustion gases including carbon dioxide, water, Carbon monoxide, oxides of nitrogen, methane).</p> <p>Depletion of ozone layer (releases of chlorofluorocarbon, oxides of nitrogen and high altitude vapour trails).</p>
	<p>Loss of land.</p> <p>Soil erosion.</p>

<p><b>Airport and infrastructure construction</b></p>	<p>Impact on water tables, river courses and field drainage.</p> <p>Destruction of natural resources (wetlands, wildlife, ecosystems).</p> <p>Impact on flora and fauna.</p>
<p><b>Water and soil pollution near airports</b></p>	<p>Water pollution caused by inadequate treatment of contaminants in airport wastewaters.</p> <p>Herbicides, defoliants and poisons to eliminate rodents and pests.</p> <p>Aircraft maintenance (oils, paints, wastes from workshops facilities).</p> <p>Aircraft washing, deicing and anti-icing.</p> <p>Leaking pipes and storage tanks (above and below ground level).</p> <p>Spills of fuels, lubricants and solvents.</p> <p>Runoff from paved areas.</p>
<p><b>Airport waste management</b></p>	<p>Disposal of environmentally harmful materials used in aircraft servicing and maintenance (metals, solvents, acids, dyes, paint strippers, adhesives, petroleum distillates, hydraulic fluids, etc.).</p> <p>Pesticides, herbicides, disinfectants.</p> <p>Solid and liquid wastes from airport operations including administration, cargo, maintenance, terminal buildings, restaurants and cafeterias, parking lots, medical clinics, etc.).</p> <p>Disposal of waste from the airport and incoming aircraft.</p>

<b>Aircraft accidents/incidents</b>	<p>Accidents/incidents involving dangerous goods carried as cargo.</p> <p>Other environmental problems arising from aircraft accidents.</p> <p>Emergency procedures involving fuel dumping.</p>
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**Table-16.3**  
**Environmental Issues and Potential Solutions (ICAO)**

<b>Environmental Issues</b>	<b>Actions Required</b>
<b>Global impacts including the "greenhouse effect" and depletion of the ozone layer</b>	Reduce carbon dioxide emissions, improve fuel efficiency, reduce emissions of oxides of nitrogen, chlorofluorocarbons and other contaminants which destroy the ozone layer.
<b>Air pollution</b>	Reduce emissions of carbon monoxide, hydrocarbons, volatile organic carbons, oxides of nitrogen and other air pollutants from aircraft, ground vehicles and other airport operations.
<b>Surface water, soil and groundwater contamination</b>	Limit contamination of waters by accidental or routine emissions of de-icing fluids, waste oils, cleaning fluids, paints, solvents, spillage, aircraft and equipment fuels, batteries, including chemicals and other dangerous goods shipped for commercial purposes. Control surface water runoff and treat contaminated waters. Replace hazardous materials with safer alternatives.
<b>Waste disposal</b>	Improve the efficient management of the use of materials. Replace hazardous materials with more benign substances. Reduce consumption. Reduce quantities of waste materials for disposal. Improve packaging standards. Promote greater awareness and use of recyclable materials. Develop safe means of waste collection, sorting, distribution, recycling and disposal. Develop industry standards and technologies.
<b>Noise emissions</b>	Reduce noise from aircraft, ground vehicles and access traffic. Design airports and support systems to be

	compatible with communities. Optimize management of airport activities.
<b>Consumption of resources</b>	Optimize airport design and layout, resources planning; waste collection, recovery, reuse and destruction. Improve building efficiency and design. Rehabilitate existing structures in harmony with the environment. Improve efficient use of energy and land. Recover reusable materials. Collection of harmful materials and gases; heating, cooling and lighting.
<b>Natural resource conservation and sustainable development</b>	Design airports to be compatible with surrounding landscape. Management and conservation of wildlife and ecosystems at airports and the surrounding areas. Minimise use of pesticides and herbicides. Conduct airport development in harmony with the surrounding terrain, flora and fauna.
<b>Environmental laws and legislation</b>	Review existing municipal, regional and national laws and international conventions affecting airports, airlines, travelling public, suppliers and manufacturers at large so as to respond to a wide variety of political, social, economic and technical initiatives emanating from local, national and international bodies. Develop compatible policies and practices.
<b>Technology transfer and development</b>	Learn from the experiences from others. Share existing technologies. Encourage the development of new technologies.
<b>Development and harmonisation of environmental standards</b>	Rationalize methods and develop standards, recommended practices and guidelines for world-wide application. Create methods for environmental certification. Give preference to international actions.
<b>Collection of statistical data and analysis</b>	Monitor performance and collect data to aid in prioritization of activities, decision making, and to demonstrate compliance. Report synthesised data in order to assess the nature of the problems and to be in a position to formulate appropriate recommendations and standards.

- **Transport and energy.** With increases in energy costs, significant adjustments in transport modes may be expected in the future. While technologies may make alternative fuel vehicles a commercial option to the internal combustion engine, the main question is the effect of higher

prices on automobiles and trucks. If the costs are passed on to users, will the global production systems that depend upon cheap transport be impacted? How will the logistics industry that exploits the most energy inefficient modes be affected? Will a modal shift to more energy efficient modes, such as rail or shipping, take place? What forms of transport and mobility will take shape as the energy transition away from fossil fuels takes place?

- **Transport and atmospheric pollution.** Air quality standards are being implemented with increasing rigor in more and more countries around the world. There are still striking differences between regions and between the modes. For example, most of the countries of the developing world still have to go a long way in fixing and enforcing standards. In North America, passenger vehicles are more rigorously controlled than trucks, and ships are much less controlled than other modes. However, the trend is towards greater control over emissions. What will be the modal effects and the impacts on modal competition? Despite international accords, global warming is unlikely to be overturned in the immediate future. Already a higher incidence of severe climatic events such as hurricanes and storminess are being ascribed to atmospheric warming by environmentalists while others argue that such occurrences are part of natural cycles with anthropogenic factors being negligible. Which regions and what transport systems are most likely to be impacted?

- **Transport and water quality.** The contribution of transport to the pollution of rivers and oceans is considerable, and is only recently being addressed by international legislation. Considerable progress has been made in a number of areas such as ballast water, waste and oil spills. As the legislation increases in its comprehensiveness, the more the transport industry is impacted. This is particularly evident in matters relating to dredging, where environmental constraints are placing a growing financial burden on ports that are seeking to deepen channels in order to keep pace with the growth of vessels size. Will these constraints serve to

reduce the competitiveness of some ports? Will increased dredging costs bring about a break in the growth of vessel size? Similar questions arise out of coastal zone legislation, especially the provisions for protecting wetlands.

- **Transport and land take.** Increased demand for transport is already placing enormous pressures for new infrastructures. Many of these transport facilities such as airports and ports require very large amounts of land for their own internal operations and for the external transport links that have to be provided. A fundamental question is, can the environment and society afford to provide sites of the scale required by the transport industry? Will the transport industry have to move away from its preferred model of massive hubs and load centers?

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### 16.8 Infrastructure and Technology

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Contemporary logistics were originally dedicated to the automation of production processes, in order to organize manufacturing as efficiently as possible, with the least cost-intensive combination of production factors. The technological dimension of logistics can thus be considered from five perspectives:

- **Transportation modes.** These have been very limited technological changes in transportation nodes in recent decades. In some cases, modes have adapted to handle containerized operations such as road and rail (e.g. doublestacking). It is maritime shipping that has experienced the most significant technological change, which required the construction of an entirely new class of ships and the application of economies of scale to maritime container shipping. In the context of these changes, a global network of maritime shipping servicing large gateways has emerged.

- **Transportation terminals.** The technological changes have been very significant with the construction of new terminal facilities operating on a high turnover basis. Better handling equipment lead to improvements in the velocity of freight at the terminals, which are among the most significant technological changes brought by logistics in materials

movements. In such a context, the port has become one of the most significant terminals supporting global logistics.

- **Distribution centers (DCs).** Technological changes impacted over the location, design and operation of distribution centers; the facilities handling the requirements of modern distribution. From a locational standpoint, DCs mainly rely on trucking, implying a preference for suburban locations with road accessibility. They have become one storey facilities designed for more throughput and less warehousing with specialized loading and unloading bays and sorting equipment. Cross-docking distribution centers represent one of the foremost expressions of a facility that handles freight in a time sensitive manner.

- **Load units.** Since logistics involves improving the efficiency of flows, load units have become particularly important. They are the basic physical management unit in freight distribution and take the form of pallets, swap bodies, semi-trailers and containers. Containers are the privileged load unit for long distance trade, but the growing complexity of logistics require a more specific level of load management. The use of bar codes and increasingly of RFID (Radio Frequency Identification Device) enables a high level of control of the load units in circulation.

#### **Effects of Technological Innovations:**

Innovations will continue to change the tourism industry in several ways:

- The development of the internet has stimulated direct marketing and direct booking. Tourists are able to access information and make bookings on their own, making the travel agents redundant. Tour operators, hotels and airlines encourage this trend as it comes out inexpensive than conventional promotional campaigns and they do not have to pay commissions to agents.
- The growth of GDS (Global Distribution System) helps tourists put together individual, tailor made itineraries as they have all product information available.

- Growth of smart card technology, already used by Lufthansa and other airlines will bring ticketless travel that helps last minute buying.

Technology will bring about a decline in the role of traditional travel or booking agent. Instead there can emerge new categories like:

- Tele-shopping networks that may simply add holidays to their range of products,
- Retailers who will give information about travel, sell holidays and all other accessories required by a traveller,
- Banks providing loans for holidays, or
- Agencies selling holidays on down payment or installment options as for example SOTC had done which required tourists to pay a sum as down payment and take their holiday and repay in installments.

One of the major items of discussion in so far as technology is concerned, is virtual reality. The burning issue is will VR (virtual reality) be able to lessen conventional tourism demand or increase it by giving people a glimpse of what to expect.

**E-commerce:** Consider the vast array of information processing changes brought by logistics. The commodity chain is linked with physical flows as well as with information flows, notably through Electronic Data Interchange. Producers, distributors and consumers are embedded in a web of reciprocal transactions. These transactions mostly take place virtually and their outcomes are physical flows. E-commerce offers advantages for the whole commodity chain, from consumers being exposed to better product information to manufacturers and distributors being able to adapt quickly to changes in the demand. The outcome is often more efficient production and distribution planning with the additional convenience of tracking shipments and inventories.

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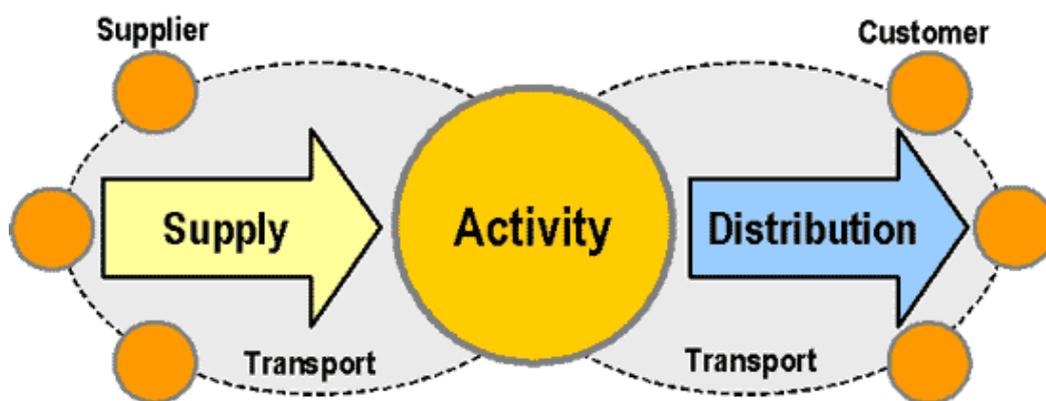
### 16.9 Distribution Systems:

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In a broader sense distribution systems are embedded in a changing macro- and microeconomic framework, which can be roughly characterized by the terms of flexibilization and globalization:

- **Flexibilization** implies a highly differentiated, strongly marketed and customer driven mode of creating added-value. Contemporary production and distribution is no longer subject to single-firm activity, but increasingly practiced in networks of suppliers and sub-contractors. The supply chain bundles together all this by information, communication, cooperation, and, last but not least, physical distribution.
- **Globalization** means that the spatial frame for the entire economy has been expanded, implying the spatial expansion of the economy, more complex global economic integration, and an intricate network of global flows and hubs.

Fig 16.5 Transportation and the Supply and Distribution Chain



An economic activity is linked to a complex system of suppliers and customers, which must be supported by a transport system. The activities that are upstream of a specific activity (suppliers) are part of its supply chain, while the activities that are downstream (customers) are part of its distribution chain. The term supply chain commonly refers to the whole chain as an activity, namely, retailing, which eventually acts as the final "customer".

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#### 16.10 Motivation, Trends, Types and Forms:

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Without a tourists motivation to travel there would be no travel industry. It is very important for the industry to understand what motivates tourists to visit a particular destination or attraction. For the industry

manager/authorities it is also imperative to seek out the new and emerging trends of tourist's behaviour, their tastes and the kind of touristic activity they are interested in. We shall try and look into the present day and emerging trends of tourism markets and how they can be made best use of in marketing country or a destination.

### **Travel Motivators:**

Any kind of research on human motives is a very difficult task. More so, when an intangible aspect like travel motive is concerned. The underlying motive for almost any type of tourist-activity is escape--sometimes physical, sometimes mental. However, tourists can have multiple motives for travel. For example, a business traveller extends his trip to visit his conference destination to get rid of the stress he underwent. In this case, escape is coupled with work. In fact, one destination can see different travel motivation by different groups. For example, one group of tourists can be visiting Guwahati for spiritual purposes to visit Kamakhya Devi temple, another group can be visiting it for its tea gardens and yet another to shop for Assam silk. It is this multi-facetedness of destinations that has to be realized and used by marketers for increasing sales keeping in view the motivators.

There are destination-related motivations and non-destination-related motivations. In other words, there are motivators that are not affected or related to the destination. Tourists either have no choice in choosing it or they are bound to it. In such situations, the cause of travel, rather than the destination, is the determining factor.

### **1) Non-Destination Motivators:**

Some of the non-destination related travel motivators are listed below.

**a) Business:** This is one of the most important and all pervasive of tourism motivators. According to Coltman, M.M. (Introduction to Travel and Tourism, An International Approach, 1989, VNR) about 85% of all air travel is business related. Business travel is not all location/destination specific. It is also one demand that will seldom change to circumstances except in cases of wars, etc.

- b) **Visiting friends and Relatives (VFR):** This is perhaps the most important of non-destination motivators after business travel. In India, this accounts for a large share in the domestic travel market. It provides a major escape to an entire chunk of middle class whose concept of holiday still means visiting relatives.
- c) **Educational Travel:** This is also largely not a destination specific motivator. For the developing countries, US, UK and Australia are major educational markets and for the underdeveloped countries, even India can be major a educational center. A student though is not a tourist in the perfect sense of the word but as long as she or he does not work at a job, they are contributing to the economy the way tourists do.

## 2) Destination Specific Travel Motivators

These motivators are those that give the tourist the liberty to choose the destination they want to visit. Destination can be compared, analyzed and chosen from at their own will.

Destination related travel could have a lot of casual factors. They include things as curiosity about other cultures, places, people, religion, cultural, social, natural and manmade environment and other such things. It can also include search for adventure, romance or even self-identity through spirituality, like for example visiting Rishikesh, etc. The category of motivators related to destination is very large and very difficult to classify. In fact, as more and more ideas of tourism are developing, this category is becoming more complex.

In 1983, Beach and Ragheb (Journal of Leisure Research, developed a model called the Leisure Motivation Scale, which sought to classify motivators into four types based on the work of Maslow. The four types were as follows:

- a) The **intellectual component**, which assesses the extent to which individuals are motivated to engage in leisure activities which involve mental activities, such as learning, exploring, discovery, thought or imagery.

- b) The **social component**, which assesses the extent to which individuals engage in leisure activities for social reasons. This component includes two basic needs -- the need for friendship and interpersonal relationships, while the second is the need for the esteem of others.
- c) The **complete mastery component**, which assesses the extent to which individuals engage in leisure activities in order to achieve master, challenge and compete. The activities are usually physical in nature.
- d) The **stimulus avoidance component**, which assesses the desire to escape and get away from over - stimulating life situations. It is the need for some individuals to avoid social contact, to seek solitude and calm conditions; and for others it is to seek rest and to unwind themselves.

It has to be recognized that the motivators that make people travel are not universal in nature. As said earlier, the marketers have to realize this aspect and then optimally utilize their skills to tap the components. It is this aspect we will seek to understand in the next Section.

In their work on Consumer Behavior in Tourism (1999) Swarbooke and Holmer discussed the typology of motivators in tourism. Their classification is as follows:

**Table 16.4 Typology of Motivators in Tourist**

<p><b>i) Cultural</b> Sight-seeing Experiencing new culture</p> <p><b>ii) Physical</b> Reservation Sun Exercise and Health Sex</p> <p><b>iii) Emotional</b> Nostalgia Romance Adventure Escapism Fantasy Spiritual fulfillment</p>	<p><b>iv) Tourist</b> Status Exclusivity Fashionability Obtaining a good deal Ostentatious spending opportunities</p> <p><b>v) Personal Development</b> Increased knowledge Learning a new skill</p> <p><b>vi) Personal</b> VFR Make new friends Need to satisfy others Search for economy if on limited income</p>
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**Source:** Swarbooke and Holmer - Consumer behaviour in Tourism, 1999. Butterworth - Heinemann

Here, one must remember that pilgrimage is a very strong motivator for travel, and from the most ancient times the **char dham yatra** can be cited as an appropriate example. It is still the strongest motivator in domestic travel and in many cases, like Haj, for international travel also. Similarly, for inbound travel to India, Buddhism offers a big tourist market for the industry in South-East Asia and Sikh pilgrimage destinations for the NR1Sikhs settled abroad. Destinations like Varanasi, Haridwar or the temple towns in Southern India are strong motivators for Hindus settled abroad or the people from Nepal.

**Jost Krippendorf** in his paper "**The Motives of the Mobile Leisure man Travel**

**Between Norms, Promise and Hope** (published in **Sustainable Tourism**, edited by Lesley **France**, 1997) mentions that "many things remain hidden in the sub-consciousness and cannot be brought to light by simple questions". Dealing with the research in this area he states that many of the quoted motives are nothing but empty boxes, which every individual may fill with quite different contents". According to him: "Subjective wishes are thus condensed, simplified, registered and presented in the given answer formulas and statistics. Though this is probably the only way of measuring holiday-makers' motives, the reality is much more complex than what appears from the results of various studies. There are always several motives that prompt a person to travel."

- a) Recuperation and regeneration,
- b) Compensation and social integration,
- c) Escape,
- d) Communication,
- e) Freedom and self-determination,
- f) Self-realization,
- g) Happiness, and
- h) Broadening the mind.

Travel motives also depend on the social status, attitudes and the monetary situation.

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**16.11 Consumer Behaviour and Future Tourism**

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**Swarbrooke and Homer (Consumer Behaviour in Tourism, 1999, Butterworth**

Heinemann, have given a ten-point agenda for understanding consumer behaviour.

- Focus upon the process by which tourists make their purchase decisions.
- Recognize the importance of tourist's perceptions and endeavors to find them out.
- Use more qualitative research to improve.
- Give high priority to quality and tourist satisfaction.
- Identify trends in tourist behaviour.
- Make segmentation simpler and more accurate.
- Look at tourists buying behaviour.
- Develop techniques to know why a product was not chosen.
- Know variations in tourist behaviour in different nationalities and culture.
- Link consumer behavior in tourism and other industries.

**Table-16.5**  
**Main Reasons for Holiday Journeys**

What is of importance is that marketers and firms alike need a new Approach to consumer behavior for future tourism and travel activities.

Question: What were the main reasons for your) holiday journey? 1986 (main	
• To switch off, relax	66%
• To get away from everyday life, have a change of scene	59%
• To recover strength	49%
• To experience nature	47%
• To have time for one another	42%
• To get sunshine, to escape from bad weather	39%
• To be with other people, to have company	37%
• To eat well	36%
• To have a lot of fun and entertainment, enjoy oneself, have a good time	35%
• To do as one pleases, to be free	35%
• To experience a great deal, to have a lot of change (diversity)	33%
• To experience something entirely different, see new things	33%
• Cleaner air, clean water, to get out of the polluted environment	32%
• To get exercise, to engage in light sports and games activities	30%
• To experience other countries, to see the world	30%
• To rest a great deal, do nothing, little exertion	29%
• To be pampered, go on a spree, enjoy oneself	26%
• To make new friends	23%
• To do something for one's beauty, get a tan	23%
• To travel a great deal, to move around	21%
• To broaden one's horizons, do something for one's culture and education	20%
• To pursue one's own interests	19%
• To do something for one's health, prevent disease	18%
• To refresh memories	18%
• To see relatives and friends	16%
• To have time for introspection thought	15%
• To engage actively in sport, to get fit	12%
• To go on exploration trips, to take a risk, to experience something out of the ordinary	10%
• To have time for one's hobbies	7%

**Check Your Progress:**

Answer the following questions.

1. Overbooking is the method that hotels, train and airlines use to match \_\_\_\_\_ with \_\_\_\_\_.
2. About \_\_\_\_\_ of all air travel is \_\_\_\_\_ related.
3. VFR is the most important \_\_\_\_\_ motivators after business travel.
4. \_\_\_\_\_ is a very strong travel motivator since ancient times.

Check your answer with the one given at the end of the unit.

**16.12 Summary:**

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Without a tourists motivation to travel there would be no travel industry. It is very important for the industry to understand what motivates tourists to visit a particular destination or attraction. For the industry manager/authorities it is also imperative to seek out the new and emerging trends of tourist's behaviour, their tastes and the kind of tourist activity they are interested in.

In this unit we have discussed the marketing of tourist transport, forecasting and managing demand and capacity. It also discusses the relationship between travel motivators and tourism marketing and travel trends.

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**16.13 Answer to Check Your Progress - II:**

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**Check Your Progress-I:**

1. Market, sellers
2. Forecasting
3. Forecasting demand
4. Long-term basis

**Check Your Progress-II:**

1. Demand, capacity
2. 85%, business
3. Non-destination
4. Pilgrimage

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**16.14 Review Questions:**

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1. How technology can help in marketing of tourist transport.
2. List the various issues of transport and the environment.
3. Write short on Consumer behaviour and future tourism.
4. Define the relationship between travel motivators and tourism marketing.

**Unit-17**

**Luxurious Trains of India**

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**Structure:**

**17.1 Introduction:**

**17.2 Concept of Luxury Train Tourism**

**17.3 Objectives of Luxury Trains**

**17.4 Major Luxury Trains of India**

**17.5 Facilities Provided in Luxury Trains**

**17.6 Role of Luxury Trains in Tourism Development**

**17.7 Challenges Faced by Luxury Train Tourism**

**17.8 Future Prospects**

**17.9 Summary**

**17.10 Keywords**

**17.11 Review Questions**

**17.1 Introduction:**

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India is known for its rich cultural heritage, diverse landscapes, and royal history. One of the most unique ways to experience this heritage is through luxury train tourism. Luxurious trains in India offer travelers a royal travel experience with world-class hospitality, elegant interiors, fine dining, and guided excursions to major tourist destinations. These trains recreate the lifestyle of kings and maharajas while promoting high-end tourism in the country.

**17.2 Concept of Luxury Train Tourism**

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Luxury train tourism refers to premium rail travel designed to provide comfort, exclusivity, and personalized services. These trains function like moving five-star hotels and cater mainly to high-spending domestic and international tourists.

**Key Features:**

- Lavish cabins with modern amenities
- Fine dining restaurants and bars
- Personalized hospitality services
- Guided sightseeing tours
- Cultural performances
- Security and comfort

**17.3 Objectives of Luxury Trains**

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- To promote high-value tourism in India
- To showcase India's royal heritage and culture
- To provide unique travel experiences
- To generate foreign exchange earnings
- To boost regional tourism development

**17.4 Major Luxury Trains of India**

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**1. Palace on Wheels**

Launched in 1982 by Rajasthan Tourism and Indian Railways, it is one of the oldest luxury trains in India.

**Route:** Delhi – Jaipur – Sawai Madhopur – Udaipur – Jaisalmer – Jodhpur – Bharatpur – Agra – Delhi

**Features:**

- Royal interiors inspired by Rajput palaces
- Deluxe cabins with attached bathrooms
- Cultural programs and guided tours

**2. Maharajas' Express**

Introduced in 2010, it is considered one of the most luxurious trains in the world.

**Routes:** Multiple itineraries covering Rajasthan, Central India, and North India

**Features:**

- Presidential suite and luxurious cabins
- Fine dining restaurants
- Personalized butler service

**3. Deccan Odyssey**

Started in 2004, it mainly covers Maharashtra and nearby regions.

**Route:** Mumbai – Nashik – Aurangabad – Ajanta – Kolhapur – Goa

**Features:**

- Modern luxury amenities
- Spa and wellness facilities
- Conference car

**4. Golden Chariot**

Operated by Karnataka Tourism, it highlights South Indian heritage.

**Route:** Bengaluru – Mysuru – Hampi – Goa – Kerala

**Features:**

- Elegant interiors inspired by South Indian architecture

- Multi-cuisine restaurants
  - Cultural excursions
- 

### **17.5 Facilities Provided in Luxury Trains**

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- Air-conditioned cabins with Wi-Fi
  - Restaurants serving Indian and international cuisine
  - Lounge and bar
  - Medical facilities
  - Travel guides and excursion coaches
  - Security arrangements
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### **17.6 Role of Luxury Trains in Tourism Development**

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Luxury trains play an important role in promoting niche tourism and enhancing India's image as a premium destination.

#### **Contributions:**

- Attract high-spending international tourists
  - Promote heritage tourism
  - Generate employment opportunities
  - Support local handicrafts and cultural industries
  - Increase revenue for Indian Railways
- 

### **17.7 Challenges Faced by Luxury Train Tourism**

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- High operational and maintenance costs
  - Expensive ticket prices limiting domestic tourists
  - Seasonal demand fluctuations
  - Competition from luxury hotels and airlines
  - Economic slowdowns affecting international travel
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### **17.8 Future Prospects**

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Luxury train tourism has strong growth potential with proper marketing, dynamic pricing, and integration with experiential tourism like wellness and cultural tourism. Government initiatives and public-private partnerships can further enhance this segment.

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**17.9 Summary**

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Luxury trains in India provide a unique blend of heritage, comfort, and exclusivity. They play a significant role in promoting high-end tourism while preserving India's royal traditions. With continued innovation and marketing, luxury train tourism can become a major contributor to India's tourism economy.

**17.10 Keywords**

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Luxury Train Tourism, Heritage Tourism, Palace on Wheels, Maharajas' Express, Deccan Odyssey, Golden Chariot, Premium Tourism

**17.11 Review Questions**

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**Short Answer Questions**

1. Define luxury train tourism.
2. Name any two luxury trains of India.
3. What are the objectives of luxury trains?

**Long Answer Questions**

1. Explain the features of luxury trains in India.
2. Discuss the role of luxury trains in tourism development.
3. Describe the major luxury trains of India.

**Unit-18**  
**Toy Trains of India**

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**Structure**

**18.1 Introduction**

**18.2 Objectives**

**18.3 Concept of Toy Trains**

**18.4 History of Toy Trains in India**

**18.5 Major Toy Trains of India**

**18.6 Features of Toy Train Journeys**

**18.7 Role of Toy Trains in Tourism Development**

**18.8 Challenges Faced by Toy Train Services**

**18.9 Future Prospects**

**18.10 Summary**

**18.11 Keywords**

**18.12 Review Questions**

**18.1 Introduction:**

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Toy trains are one of the most fascinating and nostalgic components of India's transportation heritage. These trains operate mainly on narrow-gauge or mountain railway tracks and are known for their small size, slow speed, and scenic routes through hills, valleys, forests, tunnels, and bridges. Originally built during the colonial period to connect hill stations with the plains, toy trains today serve both transportation and tourism purposes. They provide travelers with a unique opportunity to experience nature, history, and engineering marvels together.

In the context of tourism, toy trains are an important attraction because they offer experiential travel rather than just point-to-point transportation. The journey itself becomes the main attraction, allowing tourists to enjoy breathtaking landscapes, interact with local culture, and experience heritage locomotives. Several toy train routes in India have been recognized as UNESCO World Heritage Sites, highlighting their global cultural and historical significance.

Toy trains contribute significantly to hill tourism by improving accessibility to remote destinations and supporting local economies. They also help preserve traditional railway engineering techniques and cultural heritage. Due to their charm and historical value, toy trains continue to attract both domestic and international tourists. Thus, they play an important role in promoting sustainable and heritage tourism in India.

**18.2 Objectives:**

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- To understand the concept, history, and major toy train routes in India.
- To analyze the role of toy trains in promoting heritage tourism and regional development.
- To examine the features, challenges, and future prospects of toy train tourism.

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**18.3 Concept of Toy Trains**

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Toy trains refer to small trains operating on narrow-gauge or mountain railway tracks, primarily in hilly and mountainous regions. The term “toy train” does not imply that the trains are merely for entertainment; rather, it reflects their small size and charming appearance. These trains were designed to navigate steep gradients, sharp curves, and difficult terrains where standard railway systems could not operate effectively.

The concept of toy trains combines transportation with heritage tourism. Unlike conventional trains, toy trains emphasize the journey experience, allowing passengers to enjoy scenic beauty and cultural landscapes at a leisurely pace. Their slow speed enhances sightseeing opportunities, making them popular among tourists, photographers, and nature lovers. Toy trains are characterized by their narrow tracks, vintage locomotives, small coaches, and unique engineering features such as loops, zigzags, tunnels, and bridges. Many toy train routes pass through picturesque locations, offering panoramic views of mountains, forests, tea gardens, and valleys. These features make toy trains an important part of experiential tourism.

In modern tourism, toy trains are considered heritage attractions that preserve historical railway technology while providing recreational travel experiences. They represent a blend of engineering excellence, cultural heritage, and natural beauty, making them valuable assets for sustainable tourism development.

**18.4 History of Toy Trains in India**

The history of toy trains in India dates back to the late nineteenth and early twentieth centuries during British colonial rule. The British administration built mountain railways to connect hill stations, which served as summer retreats, with major cities in the plains. These railways were designed to overcome difficult terrain and climatic conditions using innovative engineering techniques.

The first major toy train in India was the Darjeeling Himalayan Railway, opened in 1881. It was followed by other mountain railways such as the Nilgiri Mountain Railway and the Kalka-Shimla Railway. These railways played a crucial role in improving connectivity and facilitating trade, administration, and tourism.

Over time, toy trains became symbols of engineering excellence due to their innovative designs, including loops, tunnels, and rack-and-pinion systems. After independence, these railways continued to operate and gradually gained recognition as heritage assets. UNESCO recognized several mountain railways of India as World Heritage Sites, further enhancing their global importance.

Today, toy trains are preserved not only as transportation systems but also as living museums of railway history. Their continued operation reflects India's commitment to preserving cultural heritage while promoting tourism.

### **18.5 Major Toy Trains of India**

India has several famous toy train routes that attract tourists from across the world due to their scenic beauty and historical significance. Apart from the three UNESCO-recognized railways, other important toy trains include the Kangra Valley Railway and the Matheran Hill Railway.

The Darjeeling route is known for its breathtaking views of the Himalayas and the famous Batasia Loop. The Nilgiri route is unique because of its rack-and-pinion system, which helps trains climb steep gradients. The Kalka-Shimla route is famous for its numerous tunnels and colonial architecture. The Kangra Valley Railway offers scenic views of valleys and rivers, while the Matheran Railway is popular as an eco-friendly transport system in a pollution-free hill station.

Each toy train route has its own unique charm and contributes to regional tourism by attracting visitors, supporting local businesses, and preserving cultural traditions. These railways provide memorable travel experiences and highlight India's rich railway heritage.

**18.6 Features of Toy Train Journeys**

Toy train journeys are known for their unique travel experience, combining scenic beauty, heritage value, and leisurely travel. One of the main features is the slow speed, which allows passengers to fully enjoy the surrounding landscapes. The routes often pass through mountains, forests, tea gardens, tunnels, and bridges, offering excellent opportunities for sightseeing and photography.

Another important feature is the vintage charm of locomotives and coaches. Many toy trains still use traditional steam engines or heritage coaches, creating a nostalgic atmosphere. The small size of coaches provides a cozy and intimate travel experience compared to regular trains. Toy trains also offer cultural experiences as they connect travelers with local communities and traditions. Passengers can observe rural lifestyles, local markets, and traditional architecture along the route. The journey often becomes more memorable than the destination itself.

Safety and environmental sustainability are also important features, especially in eco-sensitive regions. Overall, toy train journeys provide a relaxing, educational, and culturally enriching travel experience that appeals to tourists of all ages.

**18.7 Role of Toy Trains in Tourism Development**

Toy trains play a significant role in promoting tourism, particularly in hill and heritage destinations. They act as major tourist attractions and enhance the overall travel experience by offering scenic and cultural journeys. Many tourists visit hill stations specifically to experience toy train rides, which increases tourist arrivals and revenue.

Toy trains contribute to local economic development by creating employment opportunities in operations, maintenance, hospitality, and tourism services. They also support local businesses such as hotels, restaurants, handicrafts, and transport services. By improving accessibility to remote areas, toy trains help promote regional tourism and balanced development.

Another important role is heritage conservation. Toy trains preserve historical railway technology and promote awareness about cultural heritage. They also enhance India's image as a destination rich in history and engineering achievements.

Furthermore, toy trains support sustainable tourism by encouraging slow travel and reducing environmental impact compared to road transport. Thus, they are valuable assets for promoting responsible tourism and cultural preservation.

### **18.8 Challenges Faced by Toy Train Services**

Despite their importance, toy train services face several challenges that affect their operations and sustainability. One major challenge is high maintenance costs due to aging infrastructure, heritage locomotives, and difficult terrain. Regular repairs and upgrades require significant financial investment.

Natural hazards such as landslides, heavy rainfall, and soil erosion often disrupt services, especially in mountainous regions. Limited speed and carrying capacity also restrict revenue generation, making operations less profitable compared to modern transport systems.

Another challenge is competition from road transport, which is faster and more flexible. Changing tourist preferences and seasonal demand fluctuations also affect passenger numbers. In some cases, lack of modernization and marketing reduces the visibility of toy train tourism.

Environmental concerns and conservation requirements may further limit expansion or infrastructure development. Addressing these challenges requires proper funding, infrastructure improvement, and effective tourism marketing strategies.

### **18.9 Future Prospects**

The future of toy train tourism in India is promising due to increasing interest in heritage and experiential travel. With proper conservation efforts, infrastructure modernization, and digital promotion, toy trains can attract more domestic and international tourists. Government initiatives

and public-private partnerships can help improve facilities and ensure financial sustainability.

Integrating toy train journeys with eco-tourism, cultural tourism, and adventure tourism can enhance their appeal. Improved marketing through online platforms and tourism campaigns can increase awareness and demand. Introducing themed journeys and luxury heritage experiences can also attract high-value tourists.

Sustainable practices such as eco-friendly operations and community involvement can further strengthen the future of toy train tourism. With strategic planning and investment, toy trains can continue to preserve heritage while contributing to tourism growth and regional development.

### **18.10 Summary**

Toy trains of India are unique heritage railways that combine transportation, history, and tourism. They provide scenic journeys, preserve engineering heritage, and contribute significantly to tourism development. Despite operational challenges, toy trains have strong potential for growth through conservation and modernization. They remain valuable cultural assets and important attractions in India's tourism industry.

### **18.11 Keywords**

Toy Train, Mountain Railways, Heritage Tourism, Narrow Gauge, Hill Railways, Scenic Tourism

### **18.12 Review Questions**

#### **Short Answer Questions**

1. Define toy trains.
2. Name major toy trains of India.
3. What are the features of toy train journeys?

#### **Long Answer Questions**

1. Discuss the role of toy trains in tourism development.
2. Explain the history of toy trains in India.
3. Describe challenges and future prospects of toy trains.

**Unit-19**  
**Indrail Pass**

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**Structure:**

**19.1 Introduction**

**19.2 Objectives**

**19.3 Concept of Indrail Pass**

**19.4 Features of Indrail Pass**

**19.5 Types and Validity of Indrail Pass**

**19.6 Eligibility and Procedure for Obtaining Indrail Pass**

**19.7 Advantages of Indrail Pass for Tourists**

**19.8 Role of Indrail Pass in Tourism Development**

**19.9 Challenges and Limitations**

**19.10 Future Prospects**

**19.11 Summary**

**19.12 Keywords**

**19.13 Review Questions**

**19.1 Introduction:**

The Indrail Pass is a special travel facility designed primarily for foreign tourists visiting India, allowing them to travel across the country on the railway network with a single ticket for a specified period. Introduced by Indian Railways, the Indrail Pass aims to promote rail tourism by providing convenience, flexibility, and cost-effective travel options. It enables tourists to explore India's diverse destinations without the need to purchase separate tickets for each journey.

India has one of the largest railway networks in the world, connecting major cities, heritage destinations, hill stations, and rural areas. The Indrail Pass makes it easier for travelers to experience this vast network while enjoying the cultural and geographical diversity of the country. By simplifying travel procedures, the pass enhances the overall tourist experience and encourages longer stays.

The concept is similar to international rail passes used in Europe, where tourists can travel freely within a certain time frame. The Indrail Pass is particularly beneficial for backpackers, cultural tourists, and long-term travelers who wish to explore multiple destinations. Thus, it plays an important role in promoting rail-based tourism and enhancing accessibility across India.

**19.2 Objectives:**

- To understand the concept, features, and types of the Indrail Pass.
- To analyze the advantages and role of the Indrail Pass in facilitating tourism in India.
- To examine the eligibility, limitations, and future prospects of the Indrail Pass scheme.

**19.3 Concept of Indrail Pass:**

The Indrail Pass is a prepaid rail travel pass that allows foreign tourists to travel on India's railway network without purchasing individual tickets for each journey. It is designed to offer unlimited travel within a specified

period and class of travel. The pass simplifies travel planning and provides flexibility in choosing routes and destinations.

The concept is based on the idea of promoting seamless travel experiences by reducing ticketing complexities. Tourists can board trains across different routes, subject to reservation requirements, without worrying about separate fares. This makes the Indrail Pass particularly suitable for travelers who wish to explore multiple destinations within a limited time frame.

The pass is available for various durations, ranging from a few days to several months, depending on travel needs. It also offers different travel classes, allowing tourists to choose according to their budget and comfort preferences. By providing a single travel document for multiple journeys, the Indrail Pass enhances convenience and encourages rail travel as a preferred mode of transportation.

Overall, the concept reflects the integration of transportation services with tourism facilitation, making travel more accessible and enjoyable for international visitors.

#### **19.4 Features of Indrail Pass:**

The Indrail Pass offers several features that make it a convenient travel option for foreign tourists. One of its key features is unlimited travel within the validity period, allowing tourists to explore multiple destinations without additional ticket costs. This flexibility encourages travelers to plan extensive itineraries and discover diverse regions of India. Another important feature is the availability of different travel classes, including sleeper, AC classes, and first-class options. This allows tourists to choose a level of comfort that suits their preferences and budget. The pass also simplifies travel by eliminating the need to purchase individual tickets, reducing time and effort.

The Indrail Pass is valid across a wide network of trains, including major routes connecting popular tourist destinations. Reservation facilities are available to ensure seat availability, especially on long-distance trains. The

pass also offers cost savings compared to purchasing multiple tickets separately.

Additionally, the Indrail Pass promotes hassle-free travel by providing a single travel document that covers multiple journeys. These features collectively enhance convenience, flexibility, and affordability, making the pass an attractive option for international travelers exploring India.

#### **19.5 Types and Validity of Indrail Pass:**

The Indrail Pass is available in various types based on duration and travel class, allowing tourists to select options according to their travel plans. The validity period typically ranges from half a day to several months, providing flexibility for both short-term visitors and long-term travelers. Shorter validity passes are suitable for tourists visiting specific regions, while longer passes are ideal for those planning extensive travel across India.

Different classes of travel are offered, including First AC, AC 2-tier, AC 3-tier, and sleeper class. These options cater to different comfort levels and budgets. The pricing of the pass varies depending on the duration and class selected. Tourists can choose the most suitable combination based on their itinerary and financial considerations.

The pass becomes valid from the date of first use and allows unlimited travel within the selected period. However, advance reservations may be required for certain trains to ensure seat availability. Understanding the types and validity options helps tourists plan their travel efficiently and maximize the benefits of the pass.

Thus, the variety of options available under the Indrail Pass scheme makes it a flexible and user-friendly travel solution.

#### **19.6 Eligibility and Procedure for Obtaining Indrail Pass:**

The Indrail Pass is primarily available to foreign tourists and non-resident Indians visiting the country. To obtain the pass, travelers must provide valid identification documents such as a passport and visa. The pass can be purchased through authorized travel agents, railway offices, or designated tourism offices.

The procedure involves selecting the desired duration and class of travel, filling out the application form, and making the required payment. Once issued, the pass serves as a travel document that must be presented during ticket inspections. Tourists may also need to make advance reservations for certain trains, especially during peak travel seasons.

Proper documentation and adherence to reservation rules are important to ensure smooth travel. Travelers are advised to plan their itineraries in advance to make the most of the pass. The straightforward procedure and clear eligibility criteria make it easy for tourists to obtain and use the Indrail Pass.

Overall, the pass is designed to provide convenience and ease of travel, ensuring that tourists can focus on exploring destinations rather than dealing with ticketing formalities.

#### **19.7 Advantages of Indrail Pass for Tourists:**

The Indrail Pass offers numerous advantages that enhance the travel experience of foreign tourists. One of the main benefits is cost savings, especially for travelers planning multiple journeys across different regions. Purchasing a single pass is often more economical than buying individual tickets for each trip.

Flexibility is another major advantage, as tourists can modify their travel plans without worrying about ticket changes. The pass allows unlimited travel within the validity period, making it ideal for exploratory and spontaneous travel. It also saves time by eliminating the need to stand in ticket queues or make repeated bookings.

The Indrail Pass encourages tourists to explore offbeat destinations and lesser-known regions, promoting cultural exchange and regional tourism. It also provides a sense of security and convenience, as travelers have a single travel document covering their journeys.

By simplifying travel logistics, the Indrail Pass enhances overall satisfaction and encourages longer stays, contributing positively to the tourism experience.

**19.8 Role of Indrail Pass in Tourism Development**

The Indrail Pass plays an important role in promoting tourism by encouraging rail travel among international visitors. It facilitates multi-destination travel, allowing tourists to explore diverse regions, cultures, and attractions within a single trip. This increases tourist movement and boosts revenue across different destinations.

The pass supports regional tourism development by improving accessibility to lesser-known destinations. Tourists traveling with the pass often visit smaller towns and rural areas, contributing to local economies. It also helps distribute tourism benefits more evenly across regions rather than concentrating them in major cities.

Another important role is enhancing India's image as a tourist-friendly destination with convenient travel facilities. By providing an affordable and flexible travel option, the Indrail Pass encourages longer stays and repeat visits. It also strengthens the integration of transportation and tourism services.

Thus, the Indrail Pass contributes significantly to tourism growth, economic development, and cultural exchange.

**19.9 Challenges and Limitations**

Despite its benefits, the Indrail Pass faces several challenges. Limited awareness among international tourists reduces its usage compared to similar passes in other countries. Marketing and promotion efforts need to be strengthened to increase visibility.

Reservation requirements for certain trains may reduce flexibility, especially during peak travel seasons. Pricing may also be perceived as high by budget travelers, limiting its appeal. Operational complexities and lack of digital integration can create inconvenience for users.

Competition from low-cost airlines and improved road transport also affects demand for rail passes. Additionally, limited availability for domestic tourists restricts its potential market. Addressing these challenges requires better promotion, digital booking systems, and flexible pricing strategies.

**19.10 Future Prospects**

The future of the Indrail Pass is promising with increasing interest in experiential and rail tourism. Digitalization of booking processes and integration with tourism platforms can improve accessibility and user experience. Expanding eligibility and offering customized packages can attract more travelers.

Collaboration with tour operators and promotion through international tourism campaigns can increase awareness. Introducing flexible pricing and regional passes may further enhance demand. With proper marketing and technological improvements, the Indrail Pass can become a major tool for promoting rail tourism in India.

**19.11 Summary**

The Indrail Pass is an important tourism product that facilitates convenient and flexible rail travel for foreign tourists in India. It simplifies travel procedures, promotes multi-destination tourism, and contributes to regional development. Despite certain challenges, the pass has strong potential to enhance rail tourism with improved promotion and modernization.

**19.12 Keywords**

Indrail Pass, Rail Tourism, Travel Pass, Tourist Facilitation, Indian Railways, Unlimited Travel

**19.13 Review Questions****Short Answer Questions**

1. What is an Indrail Pass?
2. Who is eligible for the Indrail Pass?
3. What are its main features?

**Long Answer Questions**

1. Discuss the advantages of the Indrail Pass.
2. Explain its role in tourism development.
3. Describe challenges and future prospects.

**Unit-20**

**Relationship between Tourism Industry and  
Transportation**

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**Structure**

**20.1 Introduction**

**20.2 Objectives**

**20.3 Concept of Tourism and Transportation Relationship**

**20.4 Importance of Transportation in Tourism Development**

**20.5 Modes of Transportation in Tourism**

**20.6 Impact of Transportation on Tourist Experience**

**20.7 Role of Transportation in Regional Development**

**20.8 Challenges in Tourism Transportation**

**20.9 Future Trends**

**20.10 Summary**

**20.11 Keywords**

**20.12 Review Questions**

**20.1 Introduction**

Tourism and transportation share a strong and interdependent relationship. Transportation is the backbone of the tourism industry as it enables the movement of tourists from their place of residence to tourist destinations. Without efficient transport systems, tourism cannot function effectively. The growth and expansion of tourism largely depend on the availability, accessibility, affordability, and quality of transportation services.

Transportation connects destinations, supports tourism infrastructure, and facilitates the flow of goods and services. It helps tourists reach remote areas, heritage sites, hill stations, and rural destinations. The development of modern transport systems such as airways, railways, and highways has significantly increased tourist mobility and reduced travel time, making tourism more accessible.

Efficient transportation also enhances the overall tourist experience by providing comfort, safety, and convenience. It plays a vital role in shaping travel patterns, destination popularity, and tourism demand. Thus, transportation is not only a supporting service but also a key component of tourism development and planning.

**20.2 Objectives**

- To understand the relationship between transportation and tourism development.
- To analyze the role of different modes of transportation in tourism.
- To examine challenges and future trends in tourism transportation.

**20.3 Concept of Tourism and Transportation Relationship**

The relationship between tourism and transportation is symbiotic, meaning both sectors depend on each other for growth and sustainability. Transportation provides the physical means for tourists to travel, while tourism generates demand for transportation services. This mutual dependence makes transportation a fundamental element of the tourism system.

Transportation determines the accessibility of destinations and influences travel decisions. The availability of efficient transport networks encourages tourists to explore new places and increases tourist arrivals. For example, the introduction of budget airlines and high-speed trains has expanded tourism markets by making travel faster and more affordable. The quality of transportation services also affects destination competitiveness. Comfortable, safe, and reliable transport systems enhance tourist satisfaction and encourage repeat visits. Thus, the relationship between tourism and transportation is essential for economic growth, destination development, and improved travel experiences.

#### **20.4 Importance of Transportation in Tourism Development**

Transportation plays a crucial role in tourism development by improving accessibility and connectivity. It allows tourists to reach destinations that would otherwise remain isolated. Efficient transport infrastructure supports tourism growth by facilitating the movement of people, goods, and services.

Transportation also influences the spatial distribution of tourism by connecting urban centers with rural and remote areas. This helps promote regional development and reduces economic disparities. Improved transport facilities attract investment in tourism infrastructure such as hotels, resorts, and attractions.

Furthermore, transportation enhances destination competitiveness by reducing travel time and increasing comfort. It enables the development of new tourism products such as cruise tourism, rail tourism, and road trips. Thus, transportation is a key driver of tourism growth and economic development.

#### **20.5 Modes of Transportation in Tourism**

Tourism relies on various modes of transportation, each serving different travel needs and destinations. Air transport is the fastest mode and is essential for international tourism and long-distance travel. It connects major cities and tourist destinations globally.

Rail transport is popular for domestic travel due to its affordability, comfort, and scenic routes. It supports mass tourism and provides connectivity to remote regions. Road transport offers flexibility and convenience, making it ideal for short-distance travel and local sightseeing.

Water transport, including cruises and ferries, is important for coastal and island tourism. Each mode contributes to tourism development by providing diverse travel options and enhancing accessibility.

### **20.6 Impact of Transportation on Tourist Experience**

Transportation significantly influences the overall tourist experience. Comfortable and reliable transport services enhance satisfaction and create positive travel memories. Scenic routes such as mountain railways and coastal drives add recreational value to travel.

Efficient transportation reduces travel stress and improves convenience, allowing tourists to focus on enjoying their trips. On the other hand, poor transport facilities can negatively affect travel experiences and destination image.

Transportation also shapes travel behavior and preferences. Tourists often choose destinations based on ease of access and travel time. Thus, transportation plays a key role in shaping perceptions and satisfaction levels in tourism.

### **20.7 Role of Transportation in Regional Development**

Transportation contributes to regional development by improving connectivity and promoting tourism in less-developed areas. It encourages investment, creates employment opportunities, and supports local businesses.

Improved transport infrastructure helps integrate remote regions into the tourism economy, promoting balanced development. It also facilitates cultural exchange and enhances social connectivity.

Thus, transportation acts as a catalyst for economic growth and regional development through tourism.

**20.8 Challenges in Tourism Transportation**

Tourism transportation faces challenges such as congestion, environmental pollution, high infrastructure costs, and safety concerns. Seasonal demand fluctuations also affect service efficiency.

Lack of integrated transport planning and inadequate infrastructure in developing regions can limit tourism growth. Addressing these challenges requires sustainable transport policies and investment in infrastructure.

**20.9 Future Trends**

Future trends include sustainable transportation, electric vehicles, smart mobility solutions, and high-speed transport systems. Integration of digital technology and eco-friendly transport will shape the future of tourism mobility.

**20.10 Summary**

Transportation is a vital component of tourism that facilitates movement, enhances accessibility, and supports destination development. A strong transport network is essential for sustainable tourism growth.

**20.11 Keywords**

Transportation, Accessibility, Tourism Development, Mobility, Infrastructure

**20.12 Review Questions****Short Answer**

1. What is the relationship between tourism and transportation?
2. Name major modes of transport in tourism.

**Long Answer**

1. Discuss the importance of transportation in tourism development.
2. Explain future trends in tourism transportation.

**Unit-21**

**Problems and Challenges Faced by  
Transportation System**

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**Structure:**

**21.1 Introduction**

**21.2 Objectives**

**21.3 Major Problems in Transportation System**

**21.4 Infrastructure Challenges**

**21.5 Environmental Issues in Transportation**

**21.6 Economic and Operational Challenges**

**21.7 Impact of Transportation Problems on Tourism**

**21.8 Measures to Overcome Transportation Challenges**

**21.9 Future Prospects of Transportation Systems**

**21.10 Summary**

**21.11 Keywords**

**21.12 Review Questions**

**21.1 Introduction:**

Transportation systems are the backbone of economic growth, social connectivity, and tourism development. They facilitate the movement of people, goods, and services across regions and play a vital role in national and regional development. However, despite their importance, transportation systems across the world face numerous problems and challenges that affect efficiency, safety, and sustainability.

Rapid urbanization, population growth, and increasing travel demand have placed significant pressure on existing transportation infrastructure. In many regions, especially in developing countries, infrastructure development has not kept pace with growing demand, resulting in congestion, delays, and poor service quality. These issues not only affect daily commuters but also create barriers to tourism development by reducing accessibility and travel comfort.

Environmental concerns such as air pollution, noise pollution, and greenhouse gas emissions have further increased the complexity of transportation planning. Additionally, high operational costs, safety issues, and lack of integrated planning create operational challenges for transport authorities.

Understanding these problems is essential for developing sustainable and efficient transportation systems. Addressing these challenges through proper planning, technological innovation, and policy reforms can improve mobility and support tourism growth.

**21.2 Objectives:**

1. To identify and understand the major problems and challenges faced by transportation systems.
2. To analyze the impact of transportation issues on tourism development and regional connectivity.

3. To examine possible measures and future strategies for improving transportation efficiency and sustainability.

### **21.3 Major Problems in Transportation System**

Transportation systems face a wide range of problems that affect their efficiency and reliability. One of the most common issues is traffic congestion, particularly in urban areas where the number of vehicles has increased rapidly. Congestion leads to delays, increased travel time, and higher fuel consumption, which reduces productivity and increases travel costs.

Another major problem is inadequate connectivity in rural and remote areas. Many regions lack proper road, rail, or air connectivity, limiting economic opportunities and restricting access to essential services. This imbalance creates regional disparities and slows down overall development.

Safety concerns are also significant, as accidents caused by poor road conditions, lack of traffic management, and inadequate safety measures lead to loss of life and property. Overcrowding in public transport systems further reduces passenger comfort and service quality.

Additionally, lack of proper planning and coordination among transport agencies leads to inefficiencies and duplication of services. These problems collectively reduce the effectiveness of transportation systems and highlight the need for comprehensive planning and management.

### **21.4 Infrastructure Challenges:**

Infrastructure is the foundation of any transportation system, and its inadequacy creates major operational difficulties. Poor road conditions, insufficient highways, outdated railway tracks, and limited airport

capacity are common challenges faced in many regions. These issues result in delays, accidents, and reduced service reliability.

In developing countries, funding constraints often limit infrastructure expansion and modernization. Maintenance of existing infrastructure is also neglected due to financial and administrative limitations. As a result, transportation networks deteriorate over time, affecting efficiency and safety.

Urban areas face additional challenges such as limited space for infrastructure expansion and increasing traffic density. Lack of integrated transport hubs and poor connectivity between different modes of transport further complicate mobility.

Addressing infrastructure challenges requires long-term investment, proper planning, and adoption of modern technologies. Developing high-quality infrastructure is essential for improving transport efficiency and supporting economic and tourism growth.

### **21.5 Environmental Issues in Transportation**

Transportation is one of the major contributors to environmental degradation. Increasing use of vehicles has led to higher levels of air pollution, which affects public health and contributes to climate change. Emissions from fossil fuel-based transport systems release harmful gases such as carbon dioxide and nitrogen oxides.

Noise pollution is another environmental concern, particularly in urban areas and near transport hubs such as airports and highways. It affects the quality of life and creates health issues for residents.

Transportation infrastructure development can also lead to deforestation, habitat destruction, and ecological imbalance. Unsustainable transport

practices increase carbon footprints and threaten environmental sustainability.

Promoting eco-friendly transportation such as electric vehicles, public transport systems, and non-motorized transport can help reduce environmental impact. Sustainable planning and environmental regulations are essential to balance transportation development with environmental protection.

### **21.6 Economic and Operational Challenges**

Transportation systems face significant economic and operational challenges that affect their performance. High infrastructure development costs, maintenance expenses, and fluctuating fuel prices increase operational costs for transport providers. These costs often result in higher fares, affecting affordability for passengers.

Operational inefficiencies such as poor scheduling, lack of coordination among transport agencies, and outdated technology reduce service quality. Shortage of skilled manpower and inadequate training also affect operational efficiency.

Financial constraints limit investment in modernization and expansion projects, especially in developing regions. Additionally, seasonal demand fluctuations create challenges in managing capacity and maintaining profitability.

Effective management practices, technological upgrades, and policy reforms are necessary to address these economic and operational challenges and ensure sustainable transport services.

### **21.7 Impact of Transportation Problems on Tourism**

Transportation problems directly affect tourism development by reducing accessibility, increasing travel time, and lowering travel comfort. Poor transport infrastructure discourages tourists from visiting destinations, especially remote and rural areas. This reduces tourism revenue and limits economic benefits for local communities.

Delays, overcrowding, and safety concerns negatively affect tourist satisfaction and destination image. Tourists prefer destinations that offer convenient and reliable transport facilities. Therefore, inefficient transport systems reduce destination competitiveness.

Transportation challenges also increase travel costs, making destinations less attractive to budget travelers. Seasonal disruptions caused by weather or infrastructure issues further affect tourism flows.

Improving transportation systems is essential for enhancing tourist experiences, increasing tourist arrivals, and promoting sustainable tourism development.

### **21.8 Measures to Overcome Transportation Challenges**

Several measures can be adopted to address transportation challenges and improve efficiency. Investment in infrastructure development and modernization is essential to meet growing demand. Expanding road networks, upgrading railway systems, and improving airport facilities can enhance connectivity.

Adopting sustainable transport solutions such as electric vehicles, mass transit systems, and smart mobility technologies can reduce environmental impact. Integrated transport planning can improve coordination among different modes of transport.

Public-private partnerships can help mobilize financial resources and improve service quality. Effective traffic management systems, safety regulations, and digital technologies can enhance operational efficiency.

Promoting research and innovation in transport planning can also help develop long-term solutions for sustainable mobility.

### **21.9 Future Prospects of Transportation Systems**

The future of transportation systems lies in technological innovation, sustainability, and integrated planning. Smart transportation systems using artificial intelligence, real-time data, and automation will improve efficiency and reduce congestion.

Green mobility solutions such as electric vehicles, hydrogen fuel technology, and improved public transport systems will help reduce environmental impact. High-speed rail networks and improved connectivity will enhance travel convenience and support tourism growth.

Digital platforms will simplify travel planning, ticketing, and information access, improving user experience. With proper planning and investment, transportation systems can become more efficient, safe, and environmentally sustainable.

### **21.10 Summary**

Transportation systems are essential for economic growth and tourism development but face numerous challenges such as congestion, infrastructure gaps, environmental concerns, and operational inefficiencies. These problems affect accessibility, travel comfort, and destination competitiveness. Addressing these challenges through sustainable planning, investment, and technological innovation is essential for improving transportation efficiency and supporting future growth.

### **21.11 Keywords**

Transportation Challenges, Infrastructure, Congestion, Sustainability, Mobility, Transport Planning

## 21.12 Review Questions

### Short Answer Questions

1. What are the major problems in transportation systems?
2. How do transportation challenges affect tourism?
3. What are environmental issues in transportation?

### Long Answer Questions

1. Discuss infrastructure challenges faced by transportation systems.
2. Explain measures to overcome transportation problems.
3. Analyze the impact of transportation challenges on tourism development.