

Quadrant II – Notes

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Subject: Geography

Course Code: GEG101

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Unit III – Resource Utilization: Pre & Post Liberation, 21st Century

Module Name: Transport: Modes and Distribution

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Introduction

Transport, or transportation, is the movement of humans, animals, and goods from one location to another. In other words, the action of transport is defined as a particular movement of an organism or thing from a point A (a place in space) to a point B. Modes of transport include air, land (rail and road), water, cable, pipeline, and space. The field can be divided into infrastructure, vehicles, and operations. Transport enables trade between people, which is essential for the development of civilizations.

Transport infrastructure consists of the fixed installations, including roads, railways, airways, waterways, canals, and pipelines and terminals such as airports, railway stations, bus stations, warehouses, trucking terminals, refueling depots (including fueling docks and fuel stations), and seaports. Terminals may be used both for interchange of passengers and cargo and for maintenance. Means of transport are any of the different kinds of transport facilities used to carry people or cargo. They may include vehicles, riding animals, and pack animals. Vehicles may include wagons, automobiles, bicycles, buses, trains, trucks, helicopters, watercraft, spacecraft, and aircraft.

Transport sector plays a vital role in the economy of Goa directly influencing mining, industry, construction, trade and commerce, tourism and other services. Transport and Communication contributed almost 19.8 per cent of the Net State Domestic Product (NSDP) at constant prices in 2009-10 as compared to 6.9 per cent in 1999-2000 while railways and communications accounted for 0.4 and 1.6 constant prices in 2009-10 as compared to per cent in respectively of the NSDP in 2009-2010, transport by other means accounted for 17.8 per cent.

The State of Goa has a fairly well-developed network of transport and communication system. It is served by railway, roadways, inland waterways and airways as well as by post and telegraph service, telephone, telex, exchanges etc. It has a very good natural harbour at Mormugao in South Goa. Mandovi, Zuari, Sal, Chapora and Talpona rivers provides inland waterways and are extensively used particularly to transport minerals to the port.

MODES OF TRANSPORTATION IN GOA

Roadways

Even before liberation Goa was well endowed with road facilities. However, the roads were generally narrow and not asphalted. In 1961, the total length of roads including rural roads was only 2735 km., most of which were not asphalted. The phenomenal rise of vehicular traffic from 8531 in 1961 to 4,53,543 in 2009 as now the demand of the growing population and the development activities had necessitated better network of roads and bridges. There are more than 57 big and small bridges in Goa of which 46 were constructed after liberation. The total length of roads inclusive of rural roads has increased from 9,240 kms in 2000 to 10,569 in 2010. Thus Goa has 2,855 kms of roads per every 1000 sq. kms of area. All weather roads in the State have connected all the villages.

LOCAL AND PUBLIC TRANSPORTATION

1. Public

With the objective of providing safe, regular, reliable and comfortable road transport to the traveling public and to connect interior remote areas with the urban centers, Kadamba Transport Corporation (KTC), a wholly owned company of the Government of Goa was established in October 1980 with an initial strength of 10 buses. Today, the State owned KTC has a fleet of 4,940 buses serving the entire State, mainly the remote areas, of which 274 are mini buses. The mini buses are operating non-stop shuttle service connecting major towns of Panaji, Ponda and Mapusa in North Goa and Margao and Mormugao in South Goa. The KTC buses cater to 92,036 passengers covering about 95,643 kms per day. Apart from KTC buses, 4,331 buses and mini buses run by private operators are engaged in passenger transport service. Beside these buses there are 6,810 taxis, 10,222 motorcycle on hire and 698 auto rickshaws in Goa as on 31.12.2009

Local Transportation in Goa

Travelling around the state is very comfortable and even if you are arriving in Goa for the first time, finding public transport over here is very easy. The extensive network of transport system connects the entire Goa with roads. Buses are the easiest and the quickest way of getting around the state. Buses in Goa are mostly operated by the Kadamba Transport Corporation, who owns 4 bus depots, 15 bus stands and one central workshop in Porvorim.

There are also many privately owned bus services that run across the state. The city buses over here mostly ply in Panaji and other neighbouring areas and are a great help to the tourists to get around the state. Even though, they might be over-crowded and make non-scheduled stops, however traveling by a bus in Goa is still an exciting experience. They are one of the most efficient, quick, easy and cheap modes of transport in Goa.

2. Local

Hiring or renting a car is a great way to explore Goa at your own pace. A number of companies provide both chauffeured and non-chauffeured driven cars for rental. In case you are not interested in renting or hiring a car, then there are also many ubiquitous tourist taxis available at all popular hotels, resorts and famous tourist destinations in Goa. There are mostly two types of taxis available over here – one private white coloured taxi that are easily available outside the Goa Airport, railway stations, hotels and at taxi stands near most popular tourist attractions. Moreover, most hotels can even arrange a taxi for you on request. These white taxis also have an interstate license and can even take you to nearby places outside Goa. The other type of taxi available in Goa is the regular yellow topped black taxis. All the taxis in the state charge rates on a per kilometer basis and with a little bargaining, you can get a rate, which is a little more reasonable. They can also be hired on a per day basis. However, when doing so, it is best to fix a rate before you sit in the taxi in order to avoid paying extra at the end of the day. The standard rate for hiring a taxi is Rs. 8 per kilometer and a 50% extra charge is put when travelling outside the municipal limits. One of the easiest and the most economical ways of exploring Goa is by hiring a motorcycle taxi. Also, known as ‘pilot’, these taxis can only carry one rider at a time. The motorcycle taxis usually have yellow mudguards and number plates and can even take you outside Goa on short distances. They even have a separate taxi stand of their own. It is best to fix a rate with the pilot before you set out on a ride in order to avoid paying extra at the end of the trip. The standard rate for hiring a motorcycle taxi is Rs. 5 for the first kilometer and then Rs. 2.50 for every additional kilometer.

Motorcycle taxis are the most unique and popular way of traveling in Goa. Other forms of transport in Goa include hiring motorbikes, scooters and bicycles. They are also very economical and are easily available around the beaches of Goa. Hiring a bike from a good shop would cost around Rs. 200 – Rs. 400 per day. Usually, a form of security or a deposit like your passport would be required for hiring a motorbike. Auto Rickshaws are the most convenient forms of commuting and travelling within Goa, as they are widely available in each part of the state.

These three wheelers are recognized by their yellow and black colour with passenger seating towards the back of the Auto Rickshaw. They usually carry a maximum of three passengers per ride and are quite fast

in navigating their way through the crowded streets of Goa. Moreover, they are also inexpensive as compared to taxis and charge on a per kilometer bases. However, some Auto Rickshaws in Goa do not adhere to the meter system, therefore, it is best to fix a rate before setting out on your trip. The standard rate is Rs. 7 per kilometers and a 25% extra charge is put when travelling between 11 pm and 5 am.

Railways

Introduction of Konkan Railway in the mid-nineties has brought down the pressure on road transport. The passenger and goods traffic on inter and intra State has been diverted through Konkan Railway. Thus, the commissioning of the Konkan Railway has given a big boost to rail traffic, both passenger and freight in Goa during the decade 1991-2001. As regards railway transport, there is a broad-gauge line in South Goa extending from Mormugao Harbour to Castlerock in Karnataka State. The existing meter gauge line has been converted into broad gauge during the decade 1991-2000 from Mormugao to Miraj. The Konkan Railway Corporation Ltd. has been set up as a public sector company under the Ministry of Railway constructing one new station Loliem and two new lines one in Karmali, North Goa and Bali, South Goa. for constructing a new railway line from Roha to Manglore. It was completed and commissioned in the mid-nineties. In mid-nineties Ministry of Railway completed railway line from Roha to Manglore which is passes through Goa for the length of 129 kms. The line passes through the taluka of Pernem, Bardez, Tiswadi and Bicholim (North Goa), Salcete, Quepem, Mormugao and Canacona (South Goa).

Airways

Goa has an International Airport at Dabolim in South Goa. The distance from Panaji to Dabolim Airport is 27 kms. The CHOGM meeting held in Goa in 1983 led to the up gradation of the Dabolim Airport to an International Airport

Waterways

Goa has about 555 kms of inland waterways of 256 kms are navigable through the river Mandovi, Zuari, Chapora, Tiracol and Sal. There are 18 routes (including on interstate route) on which regular ferry services ply. There are 29 ferryboats in operation in 2009-2010, which ferried more than 24000 passengers per day. Besides, 395 barges with an average freight carrying capacity of 1400 tones are used for carrying ore by rivers to port. The entire movement of iron ore in Goa is on waterways.

DISTRIBUTION OF TRANSPORT FACILITIES IN GOA

Roadways

The transport system in Goa is mostly maintained by the Kadamba Transport Corporation, which links Goa to all major routes such as the Panjim – Margao route and some remote areas of the state as well. The transport corporation in Goa owns 4 depots, 15 bus stands and one central workshop and also has a head office in Porvorim. In big cities like Panjim and Margao, mostly intra-city bus's function. However, since the transport system in the state is still developing, the locals mostly depend on their own vehicles for transport, which mostly consists of small family cars and two-wheelers. Many private buses and taxis also form a major part of Goa's public transport.

Goa is very well connected with National Highways 66, 366, 4A, 768 and 566. With a total of 224 kilometers of national highways, Goa also has 232 kilometers of state highways and 815 kilometers of district highways. NH 66 connects Goa to Mumbai from the North and Mangalore from the South. NH 4A links the capital city – Panjim to Belgaum from the east and other cities in the Deccan. NH 366 links NH 66 to Mormugao Port via Cortalim. The newly constructed four lane highway NH 566 connects Mormugao Port to NH 66 via Dabolim Airport. This was done mainly to reduce the traffic to the airport and Vasco De Gama town. Goa has some of most narrow national highways in the country, however there are no plans to expand them in the future.

Railways

Goa has primarily two railway stations in the state, namely South-Central Railway Terminus and Konkan Railway Terminus. Both of them are located in South Goa, at Vasco Da Gama and Margao town respectively. Apart from these, the trains also stop at some smaller railway stations in Goa. Canacona Railway Station, Pernem Railway Station, Thivim Railway Station, Karmali Railway Station, Sanverdam Church Railway Station and Kulem Railway Station are some of the smaller railway stations in the state. The South-Central Railway Station at Vasco De Gama town has only one train called the Nizamuddin-Goa Express, which comes in every morning and departs from Delhi to Goa via Pune.

Goa is very well connected by trains and railways. There was a time when a train journey to Mumbai would take around 24 hours through the zigzag route of Miraj and Pune, which even involved changing trains. But with the introduction of high-speed Konkan Railways, the same journey only takes about 8 to 9 hours. There are other slower trains also from Panaji that take around 10 to 12 hours to reach Mumbai. Goa even has some trains that go beyond Mumbai to some of the northern most regions like Delhi as well. Similarly, there are trains that go towards the Southern direction till Thiruvananthapuram in Kerala also. The Konkan Railway Station also has a special facility via the Internet for foreign travellers where they can book their

tickets online using a credit card. Moreover, there are many automated reservation systems in most metros. Since the demand for railway journeys is quite high, especially during the peak season (November to January), it is best to book the tickets as early as possible in order to avoid delays.

The Konkan Railway connects Goa to Mumbai, Mangalore and other major cities located on the Konkan Coast of India. Constructed and maintained by the Konkan Railway Corporation, it runs a total distance of 741 kilometers along the Western Coast of the country, from Roha in the state of Maharashtra till Thokur in the state of Karnataka. The latest updates and schedules are easily available on the official Konkan Railway site (www.konkanrailway.com). It is without doubt one of the fastest and the cheapest train route to Mumbai from Goa.

Since the services and prices of the tickets keep changing seasonally, it is best to book the tickets as soon as possible. Train booking can be made online or at Margao's Madgaon Station, Panaji's Kadamba Bus Stand or at any travel agent in the state (they probably charge a small fee to book the tickets). Other small railway stations in Goa include Thivim for Mapusa, Pernem for Arambol, Canacona for Palolem and Old Goa for Panaji.

Airways

Dabolim Airport or Goa International Airport is the only airport in the entire state of Goa, located in the city of Dabolim. It also functions as a civil enclave in a military airbase called INS Hansa. The airport is located about 4 kilometers from the city of Vasco De Gama, 23 kilometers from the administrative headquarters of South Goa – Margao and 30 kilometers from the capital city of Goa – Panaji.

Waterways

The major seaport in Goa is located near the small town of Vasco De Gama at Mormugao Harbour. This port mostly handles the mineral ore, coal, petroleum and international containers. Most of the shipments contain minerals and ores that comes from Goa's surrounding areas. Another small seaport in Goa is located in Panjim, on the banks of River Mandovi that mostly handled passenger boats between Mumbai and Goa during the late 1980's. Earlier during the 1990's, there was also a Catamaran service operated by Damania Shipping Company connecting Panaji and Mumbai. Another popular and a fun mode of transport in Goa are ferryboats. There are many places in Goa, especially in the rural areas, which one has to cross a small river to get to the mainland.

In some areas, many bridges have been constructed to ease the traffic all over the state; however, there are still some localities in Goa where bridges are yet to be constructed. In such cases, ferries are the only way to get to the other side of Goa. Some popular river crossings in Goa include Divar Island to Narve, Old Goa to Divar Island, Cavelossim to Assolna and Querim to Tiracol. There is also a ferry that sails from Panaji to Betim, across the River Mandovi, despite the fact that there are two excellent bridges built across the river. Ferries are very popular among tourists and even locals, as they feel it is still the most fun way of traveling within Goa.

CONCLUSION

Transport sector plays a vital role in the economy of Goa directly influencing mining, industry, construction, trade and commerce, tourism and other services. Goa is well connected with transport such roadways, railways, airways and waterways. Mostly the roadways are connecting each and every corner of the state. However, there is other means of transport available like railways, airplanes and ferry boats. Goa is small state with rich in minerals and tourism. Hence good transportation is essential to promote tourism and movement of goods and minerals to other parts of the country and world. Goa is well connected with other states like Maharashtra and Karnataka with road linkages and also with rail routes. Goa also has a coastline which is more than 115 km which allowed the development of movement of people and goods through water. The movement of people takes place through the ferry boats and ships. Hence transportation and various modes allowed to free movement of people and goods within and outside Goa.

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