

# 4<sup>th</sup> Regional EST Forum in Asia

## 24 – 26 Feb 2009

### Seoul, Korea



## Presentation from Maldives

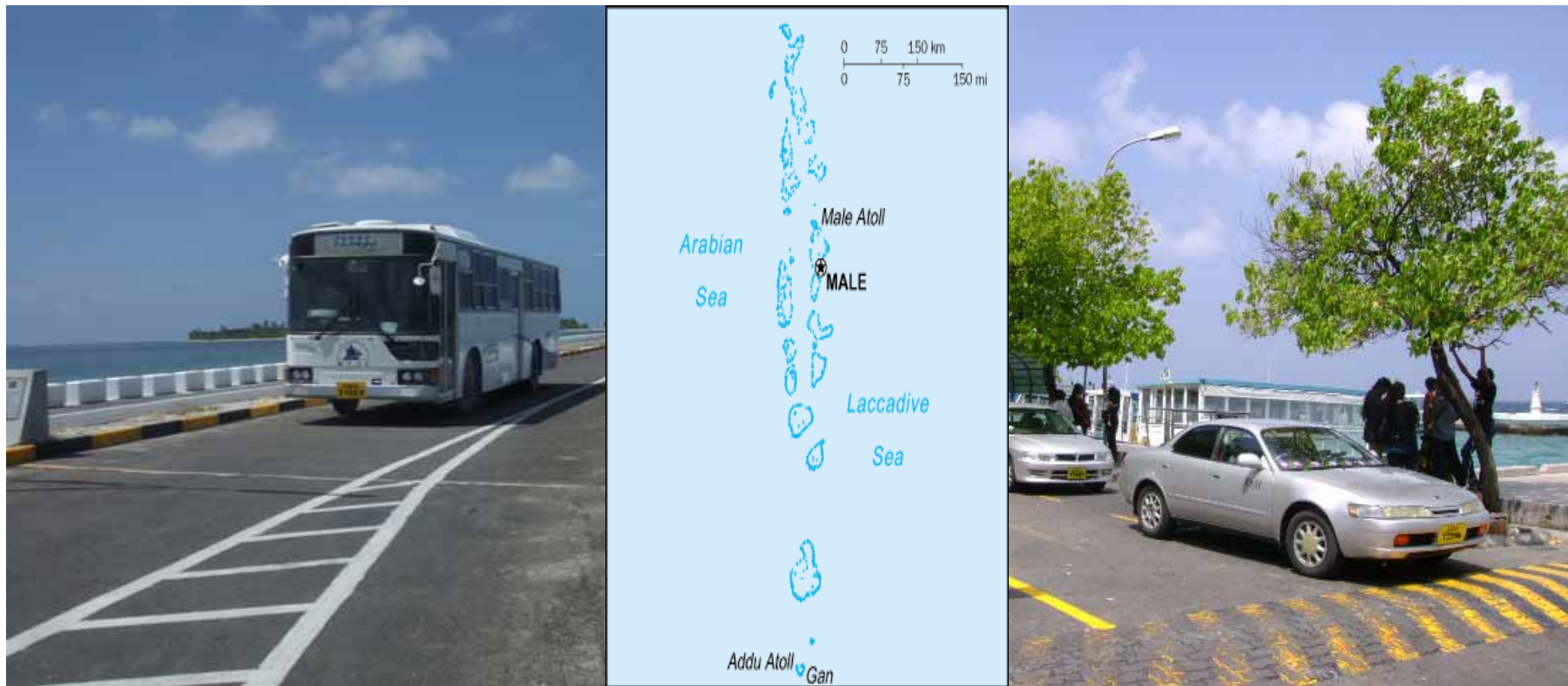
Ministry of Housing, Transport and Environment







# Public Transport in Maldives



**Ministry of Housing, Transport and Environment - 2009**



# Profile

- Maldives consists of 1190 individual islands from which 198 islands are inhabited,
- The main mode of passenger transport **between these islands is by ferry.**



- Most popular mode of passenger transport **within the islands is motorcycles.**
- The main mode of **public road passenger transport** in most populated **islands are taxis.**

# Transportation in the Maldives

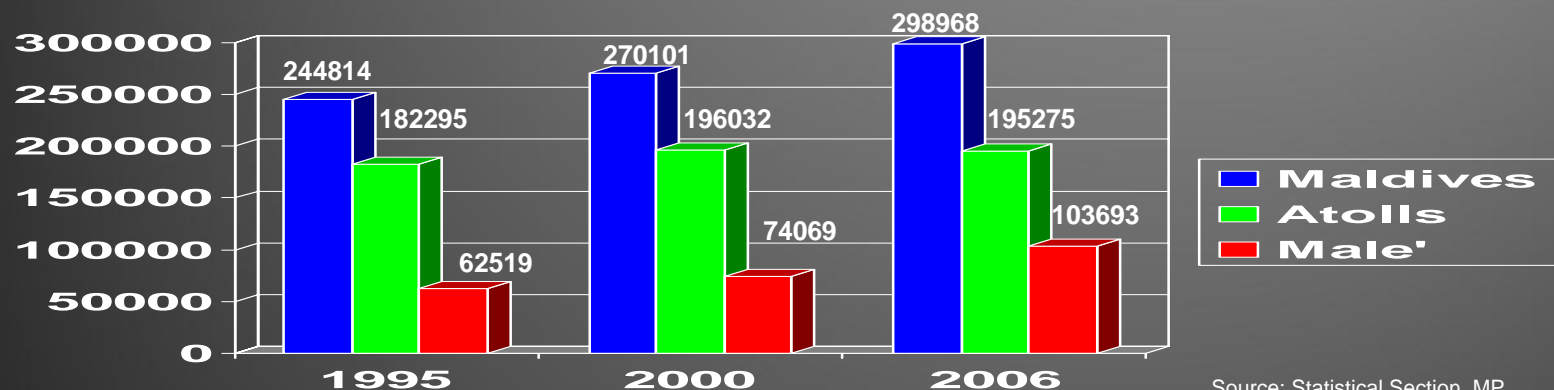
Male' the Capital of Maldives is experiencing the biggest vehicle population in the Country

In our Everyday life we experience some kind of a Multi-Model Transport

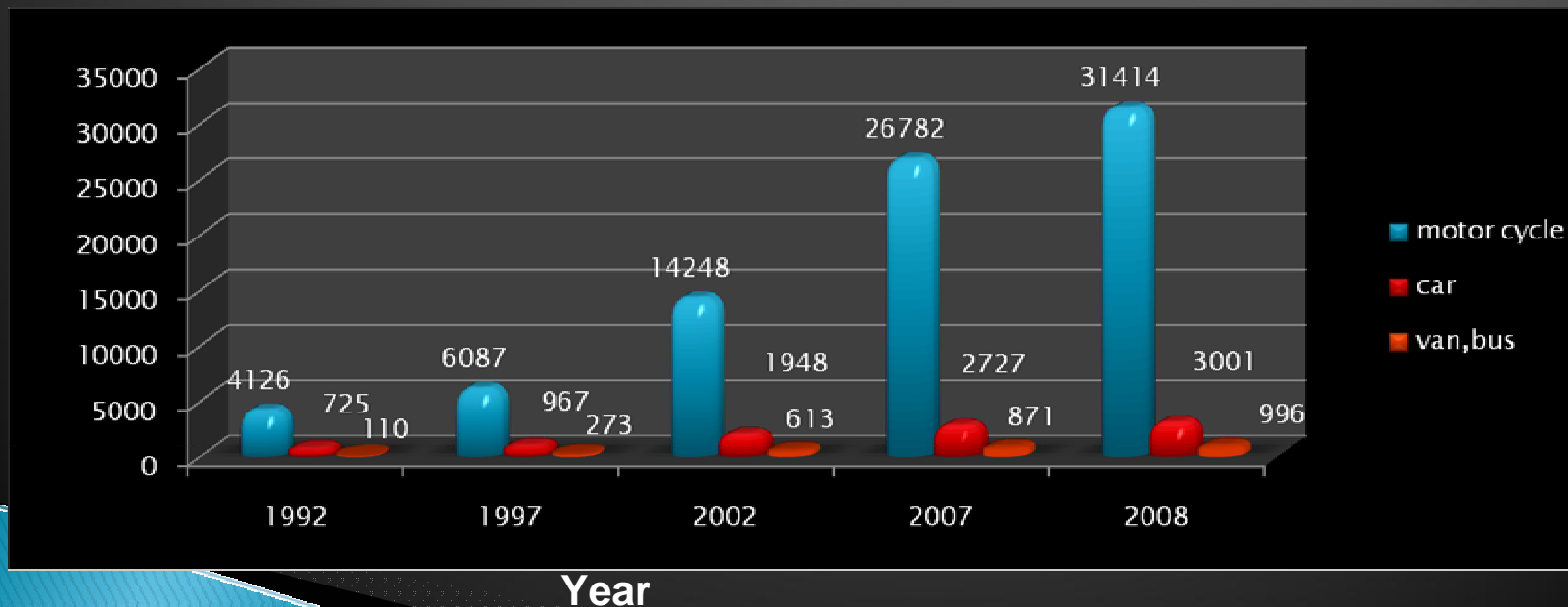


# Vehicle Population in relation to Country Population

Population of Maldives, Atolls and Male' (Capital Island)



## Passenger Transport Vehicle Population





# Profile

- ▶ **In Male'** (Capital Island) the main mode of public road passenger transportation is **taxi**.
- ▶ **In Hulhumale'** (the newly developed residential island in greater male' urban region) **bus** is the main mode of public road passenger



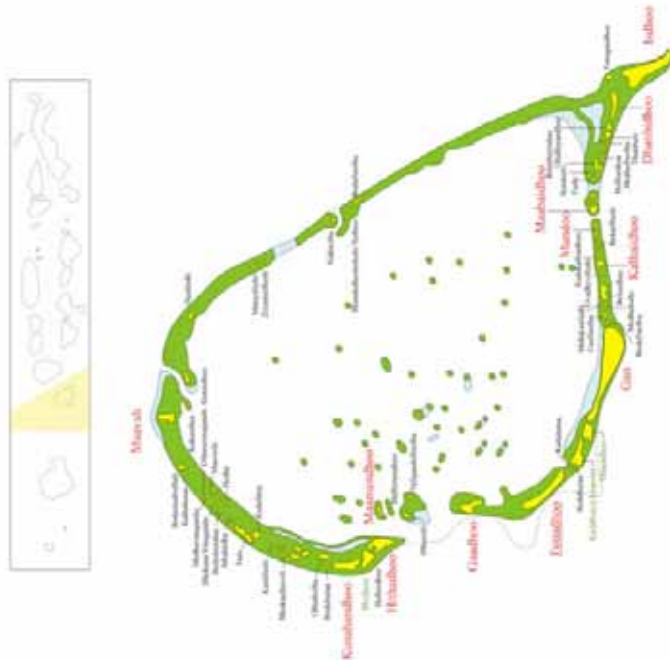
**Male'**



**Hulhumale'**

# Profile

- ▶ Between Fonadhoo, Kahdhoo (Domestic Airport), Maandhoo (Industrial island) and Gan, (Laamu Atoll) the main mode of public road transport is bus.



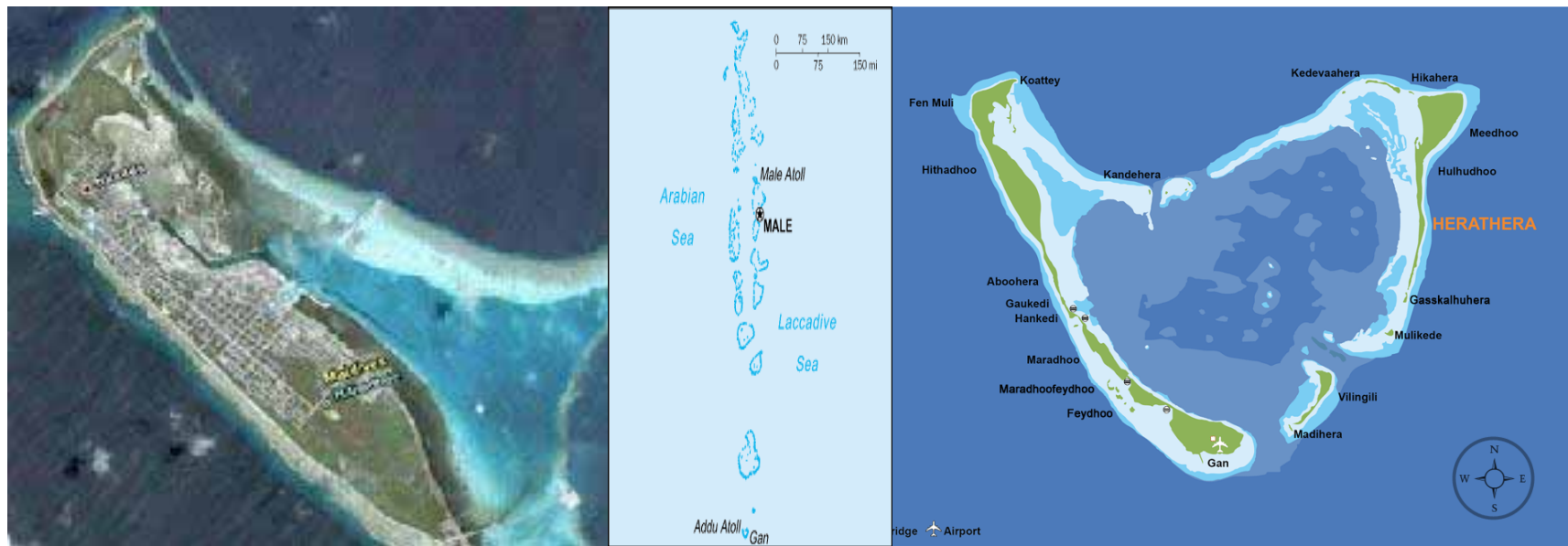
**Laamu Atoll**



**Bus Service in Laamu Atoll**

# Profile

- ▶ Between Hithadhoo and Gan (Seenu atoll) the main mode of public transport is taxi
- ▶ School bus services are provided by private parties.



**Hithadhoo**

**Addu Atoll**



# Profile

## Air Transport

- ▶ 2 International Airports
- ▶ 5 Domestic Airports
- ▶ 10 Domestic Airports under construction by Private Sector
- ▶ Transportation for Tourist Resorts are mainly carried out by Sea Plans (2 companies)



# Development of public transport

- ▶ The industry of public road passenger transport in Maldives is very young, it started in Male' in early 70's by private initiatives.
- ▶ In mid 80's they formed taxi centers and started to give taxi services through these taxi centers.



- ▶ Ministry of Transport started to register taxi centers from 1989 and taxi drivers from 1997.
- ▶ In the year 2000 taxi services were totally regulated.

# Development of public transport

- ▶ In late 70's school bus services were introduced to Male'.
- ▶ This service did not last long as the condition of the roads in Male' at that time were deplorable.



Bus Stand in Male' 1979



Bus Stand in Male' 1979

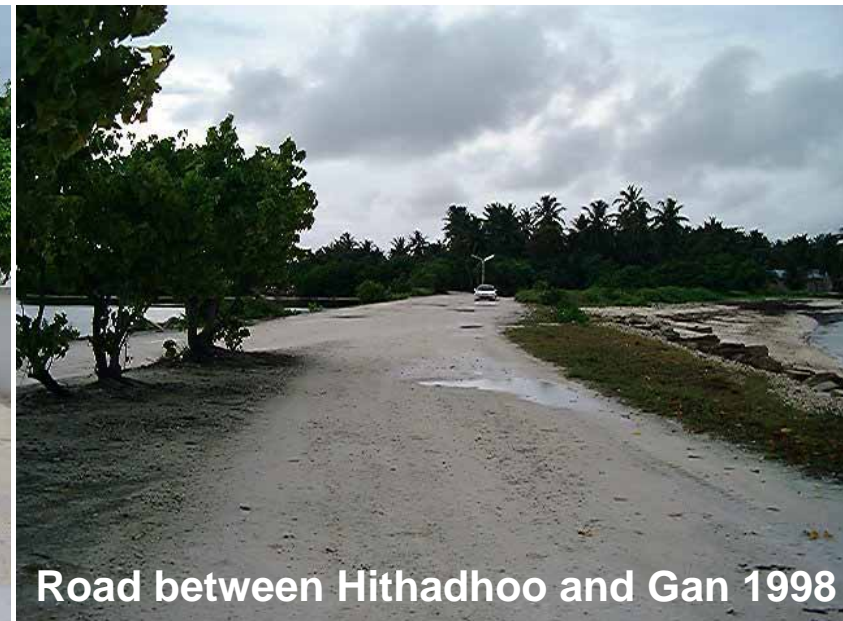


# Development of public transport

- ▶ In mid 90's between Hithadhoo and Gan (Addu Atoll) bus services was introduced to the public by a private party, and the services was stopped subsequently because of road conditions.



Hithadhoo 1998



Road between Hithadhoo and Gan 1998

# Development of public transport

- ▶ From 2004 bus services were introduced to Hulhumale' by Hulhumale Development



Hulhumale' Bus Service



Hulhumale' Bus Stop

- From 2007 bus services were introduced between Fonadhoo and Gan by Maldives Transport and Contracting Company (MTCC).



MTCC Bus Service (Laamu Atoll)



MTCC Bus Service (Laamu Atoll)

MITE 2009

# Performance of modes of public road passenger transport

## Male'

- ▶ At present the only form of road based public transport system used in male' is taxis

"Taxi services is satisfactory , but cannot handle the high peaks such as on rainy days. No other form of public transport system to serve ferry terminals, hospitals and schools . This causes heavy local congestion around roads which service popular schools" Male' DTSDP Final Report (2007) Prof Amal. S. Kumarage.





## Performance of modes of public road passenger transport

- ▶ There is a high demand for passenger coming from villingili and Hulhumale' for an efficient road based public transportation.

“Over 85% of Ferry passengers walk to and from their final destination in male '. The absence of inter-modal connection between ferries and a road based public transport in obvious” Male' DTSDP Final Report (2007) Prof Amal. S. Kumarage.



# Performance of modes of public road passenger transport

## Laamu Atoll

- Bus services are provided to the following islands :  
Fonadhoo  
Kahdhoo (Domestic Airport)  
Maandhoo(Industrial Island)  
Gan
- Currently people from the above mentioned islands use bus and taxis as their main mode of public road passenger transport.
- Latest reports shows that there is a lack of demand for the existing bus system in this region.



## Performance of modes of public road passenger transport

### Addu Atoll

- ▶ Hitahdhoo, Maradhoo, Maradhoo-feydhoo, Feydhoo and uninhabited island Gan International Airport is connected through a series of causeways.
- ▶ The only mode of road based public transport in the above mentioned islands and between Hitahtadhoo and Gan International Airport is taxi.

“Introduction of a public transport system could be an effective from of transport for various communities of Addu Atoll given the existing transport needs of the population. Because there is high demand for regular and reliable transport services for workers traveling to Gan, and increasing need for transport services for the growing student population” Study on establishment of public transport services in selected islands/region of Maldives. Addu Inter-Island Bus and ferry Service – 2005 Fali investments Pvt Ltd.

# Regulatory roles – Institutional Structure

- ▶ Ministry of Housing, Transport and Environment (MHTE) is responsible for making overall policies, national strategies on transport development
- ▶ Transport Authority was recently formed for regulating the transport sector in Maldives





## Regulatory roles, cont'd...

Ministry of Housing, Transport and Environment is mandated to

- ▶ regulate the transport sector

Maritime Transport Department

- ▶ regulates the deep sea and interisland transport modes

The Coast Guard assists the Maritime Department in the enforcement of regulations

The Land Transport Department

- ▶ regulates land transport throughout the country

Maldives Port Authority (MPA)

- ▶ manages the Port of Male'
- ▶ passenger services

## Regulatory roles, cont'd...

### Maldives Airport Company Limited

- ▶ Administer the International airports at Male' and Gan

### Civil Aviation Ministry

- ▶ responsible for the regulation of the international and domestic air

# Legal Framework

- ▶ Law on Land Vehicles. The 2nd amendment
- ▶ Law for Pedestrians
- ▶ Law of Maritime Vessels
- ▶ Collection of fees from Maritime Vessels. The 8th amendment
- ▶ Licensing of Ship Stations
- ▶ Law for Wrecked and/or Sunken Vessels
- ▶ 43 percent is used for Transport and Fishing
- ▶ Law for Light Indicators at the Vessels within the Harbor

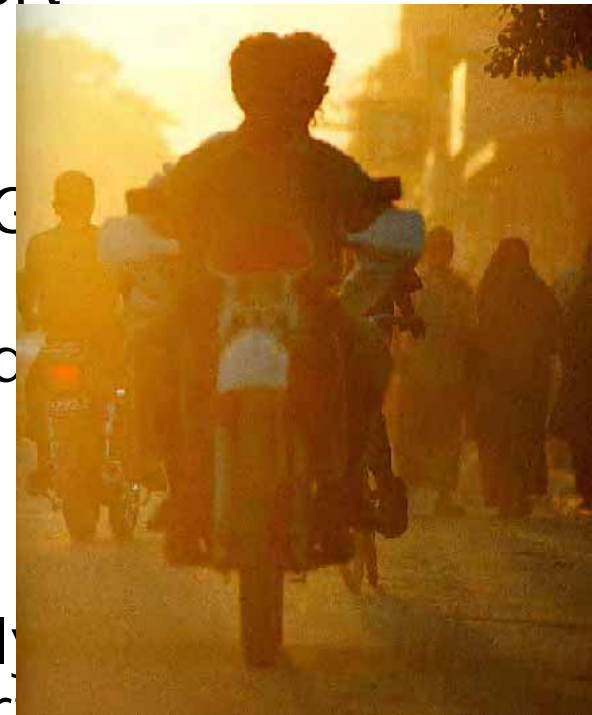
## Legal Framework, cont'd...

- ▶ Harbor Fee Collection Law
- ▶ Change of Ownership of Registered Vehicles.
- ▶ Presidential decree for the Maldives Airports Company Limited



# Transport and Environment

- ▶ Nearly 43% of the primary energy in the Maldives is used in the transport and fishing
- ▶ Evidence of pollution in Male'
- ▶ Generally very low emission of GHG from the country
- ▶ Some renewable energy being used in the country;
  - Solar navigational lights
  - Solar energy for other small projects
- ▶ Development of pedestrian-friendly and environment-friendly transport in the Maldives



# Future Challenges

- ▶ Introducing a bus system to Male' is one of the challenges that face, as it is already congested with all types of vehicles.
- ▶ All the ground work for Male' bus system has been already done and in few months time it will be operational.
- ▶ Introduction of bus system in Addu Atoll and other densely populated islands which do have a need of a bus system.
- ▶ From the experience obtained from Male', there is need to establish a proper bus system in other relevant islands before it is too late.
- ▶ Because of the geographical distribution of islands, a public transportation needs study should be undertaken before establishing an efficient road based public transport system in each inhabited island.

# Addressing Current and Future Needs through Sustainable and Integrated Transport Network in the Maldives

# Concept Highlights

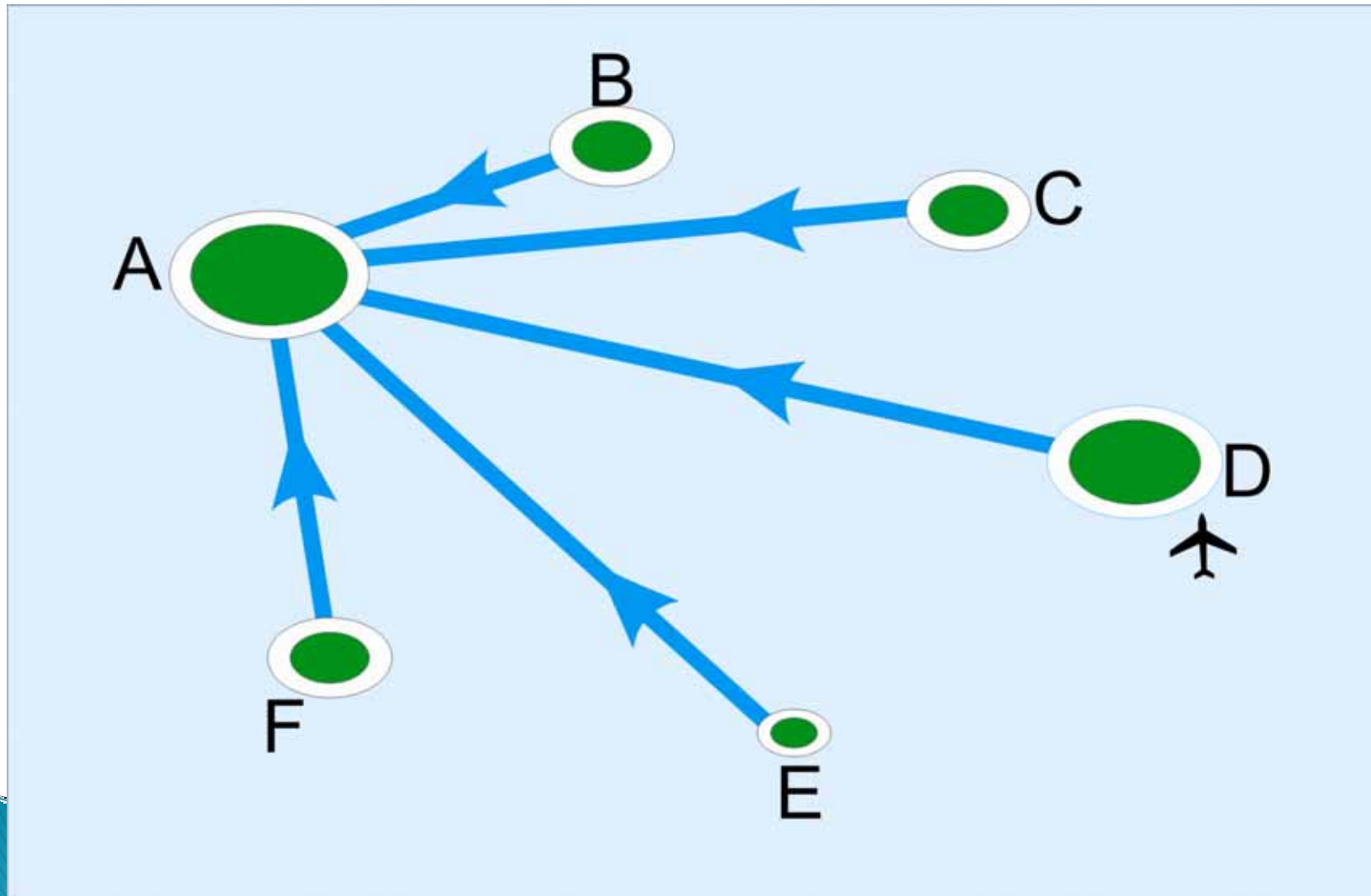
- ▶ Transportation within the atolls, Province, and at National level
- ▶ Population Consolidation
- ▶ Work to be carried out by Government/Private Sector



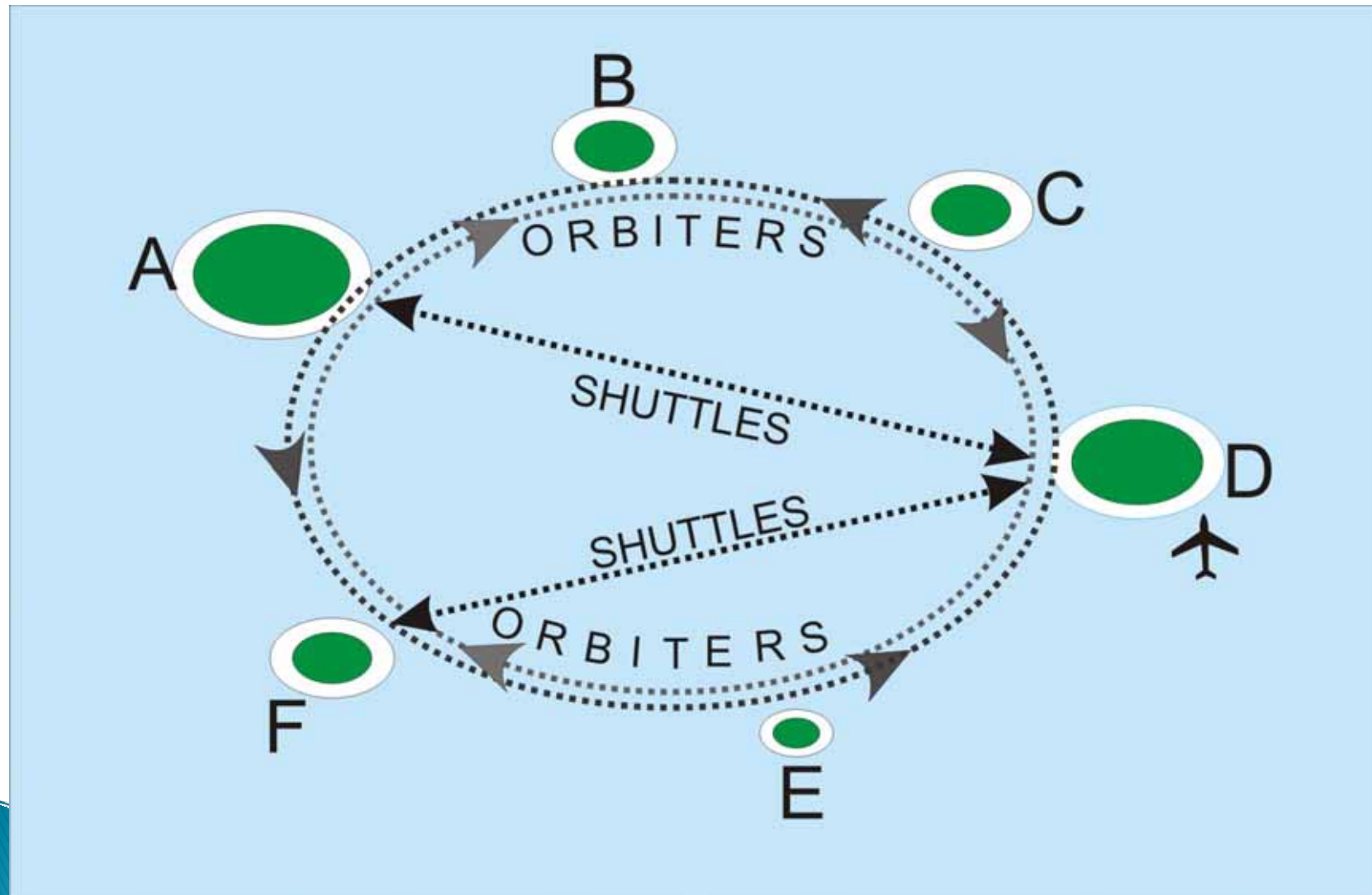
# Objectives

- ▶ Increase mobility and accessibility
- ▶ Improve efficiency
- ▶ Safety
- ▶ Equity
- ▶ Sustainability
- ▶ Economic regeneration

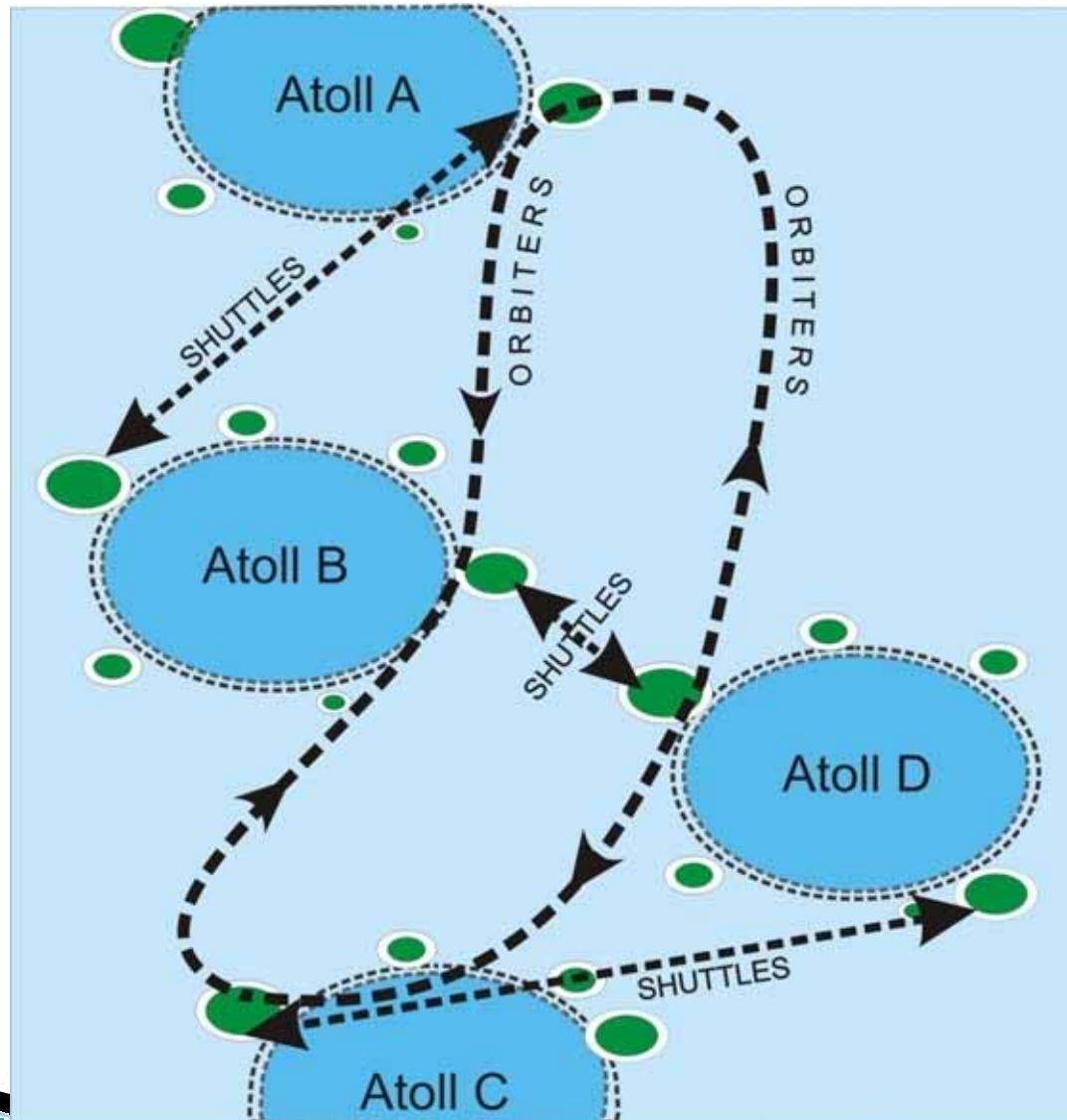
# Intra-Atoll (Hub and Spoke)



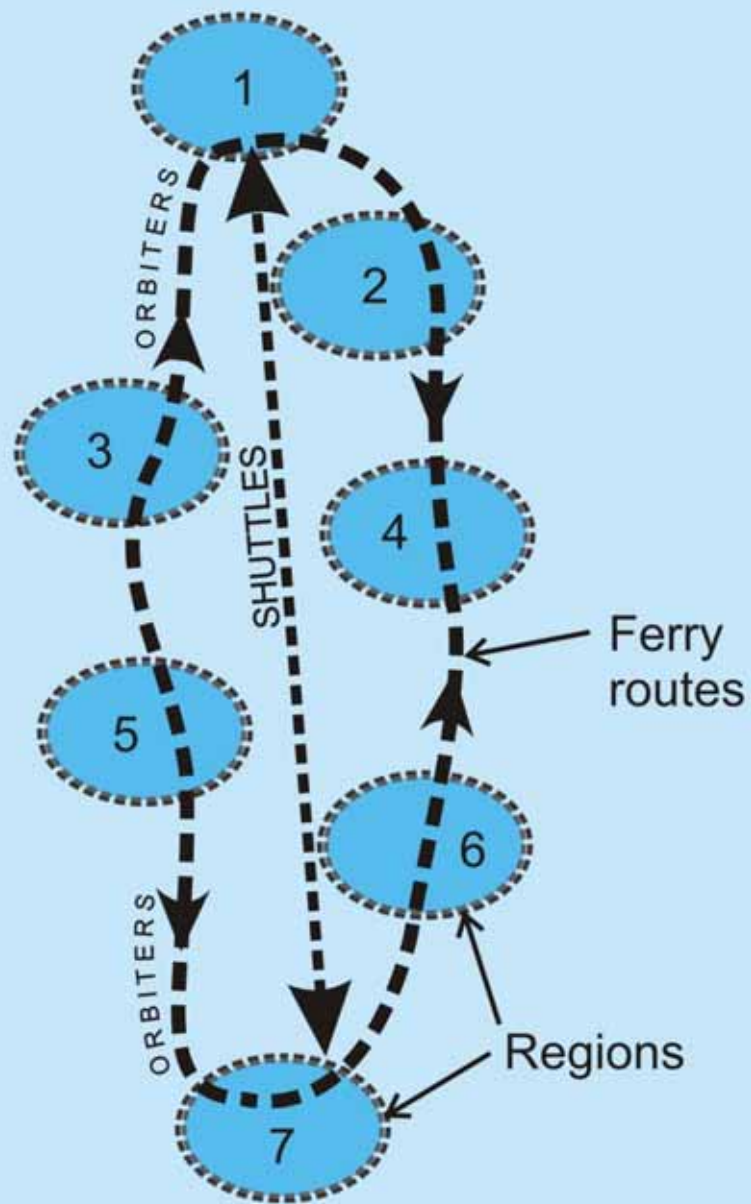
## Intra - atoll (Orbiter)



# Intra – Province







## National Ferries



