

# **INCEPTION REPORT**

**Sector Specific Need Assessment Study**

**Transport Sector**

**Submitted by**

**Clique Training Centre**

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## **1. Introduction**

This inception report outlines the preliminary work that has been undertaken to initiate the study.

### **1.1 Objectives**

The primary aim of the study is to generate the inputs required to ensure that the training programs designed by the Employment Skills Training Project for the Transport sector reflects and support the needs of the employers in this sector.

The secondary objectives include:

- Compiling profile of the Transport sector
- Compiling profiles of the most important employment opportunities in the Transport sector with the requirement skills and training
- Identifying issues and constraints that hinders locals from working in the Transport sector

### **1.2 Expected Outcomes**

At the end of the study, a report shall be prepared specifying the following:

- Profile of the sector outlining the history, scope and boundary of the sector
- Direction of strategic employment growth in the sector, listing all occupations according to ISCO classification and including wage structure and working conditions overview
- Current and future (2010) employment/occupational profiles of the sector showing gender of the current profiles
- Assessment of present and future training needs and development of a training plan to meet these needs
- Identification of critical areas for localization
- Identification of attitude change towards employment among youth
- Issues and problems related to the Maldivian labour force in these sectors

### **1.3 Research Team**

The research team includes:

Project coordinator: Ibrahim Shareef  
Sector Specialist: Ibrahim Iyas  
Economist: Hassan Waheed  
Five Enumerators  
One Administrative Assistant

## **2. Useful Documents and Materials**

The research team has based its work so far on the following material:

- Post secondary Education and Skills Development, ADB TA 3826-MLD, 14 Dec 2002, COL International and Simon Fraser University, Canada
- Human Resource Needs Study, March 2005, Robert Castley

- Population and Housing Census of Maldives 2006, Ministry of Planning and National Development
- Statistical Yearbook of Maldives 2006, Ministry of Planning and National Development
- Manpower Statistics, Ministry of Higher Education, Employment and Social Security

The research would also like to review the following publications/materials and it wishes to be notified of any other previous related studies and publications by the sponsor of this study:

- National Transport Master Plan
- 7<sup>th</sup> National Development Plan 2006-2010
- Transport statistics, Ministry of Transport and Communications
- Male' Youth Employment Survey Report, 2003

### **3. Overview of Transport Sector in the Maldives**

The Transport Sector plays a critical role in the development of Tourism and Fishing Sectors.

The sector can be broken down in to three main sub-sectors:

- Sea Transport
- Air Transport
- Land Transport

#### **3.1 Sea Transport**

A good transport link between the islands is vital, since most of the islands are remotely located from one another. Currently, there are only a few scheduled sea transport links between islands. Frequent ferry services are only provided between Male' and Male' International Airport, Male' and Villingili and between Male' and Hulhumale'. MTCC is the key player in providing ferry services between islands. MTCC has recently begun ferry services between Male' and some remote islands, however it is run mainly based on demand.

There is a well developed sea port at Male' and two regional sea ports have been developed, one in the South (Hithadhoo) and one in the North (Kulhudhufushi).

As of 2005, there were a total of 80 Yachts, 1,035 Launchs and 367 Boats registered in the Maldives (Statistical Year Book 2006). Compared to 2004 data, this is an increase of 29%, 13% and 9%, respectively. It is anticipated that, nationwide, there are currently a total of approximately 600 taxis, 8000 dhonis, 300 heavy machinery (includes pickups, trucks, loaders, excavators, ...), 10 boatyards and 60 garages and workshops.

There are several shipping companies and out of them Maldives National Shipping Ltd is the largest. Also, there are a number of recruiting agencies based in Male' for recruiting crew for cargo ships engaged in import and export trades.

There is only one training institute for training individuals for this sector, namely Centre for Maritime Studies, which provides general seamanship courses.

According to Human Resource Needs Study (2005), 52% of all employment in this sub-sector requires some form of specialized training and 50% of all employment was facing skills shortages. The localization rate for the sub-sector was 80%.

### **3.2 Air Transport**

Air Transport is critical for the development of the development of the Tourism Sector. Nearly 40% of the international arrivals travel to resort destinations by air.

There is one international airport at Male', and 4 domestic airports in Haa Dhaal Hanimadhoo, Laamu Kadhdhoo, Gaaf Dhaal Kaadedhoo and Seenu Gan. In addition about 40 Floating Platforms are served by the floatplanes that provide a regular service to the international tourists. Two new domestic airports, one in Maamigili and one in Madivaru are currently under development.

The government has identified key islands, considering the overall strategic and socio-economic development of the country, for the development of airports across the archipelago. Once this is attained a complete network of air transport will exist in the country.

Maldives today is served by 26 airlines, connecting to some of the major tourist generating markets. The current growth rate of passenger seat availability is about 3 percent per annum.

In 1999, the passenger throughput at Male' International surpasses the one million mark and in 2003, the passenger movement figure was just over 1.2 million. Male' international airport currently enjoys a cargo movement of 21.11 million kilograms.

Domestic aviation is served by three carriers, operating Twin Otter (DHC6) aircraft on floats and Dornier 228 and Dash 8 (DHC8) aircraft. The present domestic passenger movement figure is just over half a million per year.

As of 2005, there were 35 aircraft, 66 air traffic controllers, 29 aircraft maintenance engineers, 170 pilots and 11 approved organisations. These figures are expected to increase with the growth in the Tourism Sector.

According to Human Resource Needs Study (2005), 41% of all employment in this sub-sector requires some form of specialized training and 67 % of all employment was facing skills shortages. The localization rate for the sub-sector was 39%.

There is no specialized training sector in this sub-sector. It has been identified in the Human Resources Needs Study (2005) that there is no strong case for developing training facilities in the Maldives and current arrangements of using outside professional training instructors and/or airlines should be continued.

### **3.3 Land Transport**

There are only a few big islands or islands linked via bridges/link roads and only for these islands it is viable to have a land transport system. The big islands which have paved roads are Male', Hulhumale, Laamu Gan, Foahmulah and Addu Atoll (Link Road). The main mode of transport via road in these islands is via taxi. A large proportion of the working male population in these islands own Motor Cycles.

Currently a regular bus service is provided in Hulhumale', which provides transport between the ferry terminal and the populated area. There are plans for introducing regular bus services at large islands with paved roads, including Male'.

As of 2005, there were a total of 2,082 Motor Cars and 18,289 Motor Cycles/Auto Cycles registered in the Maldives (Statistical Year Book 2006). Compared to 2004 data, this is an increase of 17% and 26%, respectively.

According to Human Resource Needs Study (2005), 69% of all employment in this sub-sector requires some form of specialized training and 20 % of all employment was facing skills shortages. The localization rate for the sub-sector was 74%.

#### **4. Methodology**

In order to achieve the stated outcomes of the study, information will be collected and analysed in the following manner.

- History of the sector
  - This will be prepared based on the available literature and information collected via interviews with government institutions and companies.
- List all occupation according to ISCO classification
- For each occupation:
  - Total number of employees, listing by locals and expatriate numbers, by gender and by location/region and age groups
  - Wage structure
  - Employer's forecast for year 2010
- Identify critical occupations for localization based on:
  - Localization rates
  - Future demand for employment
  - Total number of expatriates employed and vacancies
  - Required skill level
- General working conditions of the sector such as but not limited to:
  - Working hours
  - Health and safety standards
  - Exposure to weather
  - Occupational stress due to work load and work pressure
- For finding out Direction of strategic employment growth in the sector:
  - Government policies and regulations concerning occupations
  - Statistics
- Identify reasons for low localization rates
  - Employer's perceptions about nationality of workers and occupations
  - Mind set of employees
  - Attitudes to types of employment by occupations
  - Issues and problems related to the local labour force
- Identify attitude change towards employment among youth
  - Attitudes identified in previous studies
  - Interview parents
  - Interview employees

- Training needs (for critical occupations)
  - Present training needs
    - Employer identified training needs
    - Existing training institutes
    - Training constraints
  - Future training needs
    - Depends on future demand for employment
  - Training plan to meet training needs in the short-term, mid-term and long-term

## 5. Sample for the Survey

The study area covers the following geographical regions:

- Northern development region (includes all islands of HA, HDh, Sh and N atoll)
- Southern development region (includes all islands of GA, GDh, GN and S atoll)
- Male' and adjacent islands

The study adopts 2 stages of sampling. In the 1<sup>st</sup> stage, the islands to be enumerated were selected based on the number employed/engaged in a certain activity. For instance, to identify which islands to select from the North for transport sector, all islands in the north (all islands of HA, HDh, Sh and N) were listed with the number engaged in the activity. Next a proportion was calculated for each island and the island with the highest proportion was selected as the initial sampling unit.

The following table shows the islands selected and their proportion in the different sectors. Apart from the islands, Male' will be enumerated to capture the sector specific information required.

Also, for the purpose of capturing the transport sector, Hulhule', Gan, Hanimadhoo and Kaadedhdhoo will be surveyed.

Islands/Sectors	Agriculture	Fisheries	Construction	Transport	Education	Health
Kulhudhuffushi	17	172	137	148	250	153
Dhithdoo	32	84	46	59	76	41
Kelaa	121	22	34	13	54	18
<b>Total of sample in North</b>	<b>170</b>	<b>278</b>	<b>217</b>	<b>220</b>	<b>380</b>	<b>212</b>
<b>Total of North</b>	<b>1,148</b>	<b>1,786</b>	<b>1,208</b>	<b>656</b>	<b>1,841</b>	<b>684</b>
<b>% covered</b>	<b>15</b>	<b>16</b>	<b>18</b>	<b>34</b>	<b>21</b>	<b>31</b>
Kaashidhoo	220	15	64	22	54	24
Thulusdhoo	5	54	31	25	58	24
Himmafushi	12	3	8	19	19	146
dhiffushi	4	83	7	2	21	5
<b>Total of sample in kaafu</b>	<b>241</b>	<b>155</b>	<b>110</b>	<b>68</b>	<b>152</b>	<b>199</b>
<b>Total of Kaafu</b>	<b>259</b>	<b>483</b>	<b>425</b>	<b>248</b>	<b>302</b>	<b>356</b>
<b>% covered</b>	<b>93</b>	<b>32</b>	<b>26</b>	<b>27</b>	<b>50</b>	<b>56</b>
Hithadhoo	20	153	150	180	326	143
Fuvahmulah	236	145	202	162	294	91
Thinadhoo	24	166	59	84	169	115

<b>Total of sample in South</b>	280	464	411	426	789	349
<b>Total of South</b>	<b>741</b>	<b>1,672</b>	<b>714</b>	<b>637</b>	<b>1,547</b>	<b>636</b>
<b>% covered</b>	<b>38</b>	<b>28</b>	<b>58</b>	<b>67</b>	<b>51</b>	<b>55</b>

The Ultimate Sampling Units (USUs) will be sector specific establishments in each of these islands and a minimum representative sample of households will be selected to capture data on supply of employees and perceptions of persons on employment related issues from household side. For the transport sector, a list of shipping companies, ferry service providers, regional ports, boat owners, air transport sales agents, domestic airlines, airports, taxi centres, driving schools, garages/workshops, bus service providers will be used to select the sample.

Also, the sector specialist would make visits to relevant government institutions in order to get information about government policies and regulations.

### **5.1 The frame**

The survey will be based on three separate main frames for the two main areas of data collection. An area frame compiled from the Population and Housing Census-2006. Information on households will be gathered from the Census listing for both Male' and the Atolls, and this will be used to select the enumeration blocks to be enumerated in the islands selected.

A frame of establishments (list of sector specific establishments) in the specified islands, which is required for the ultimate sampling, may be obtained from the island offices and the respective ministries. These will be used for capturing sector specific information on employment, using "employer form" and "employee form".

Sampling approach for sector based information for Male' region will be different to that of North and South region. A listing frame of all establishments of different sectors will be used as the frame for the survey frame of Male'. This will be obtained from the "Noonu form – Establishment form" of Population and Housing Census of Maldives, 2006.

1. Area frame of Male and specified Islands from Population and Housing Census of Maldives, 2006
2. Frame of establishments in Male', from "establishment form" of population and Housing Census of Maldives, 2006
3. Separate lists of focused sectors from the islands, through designated ministries.

### **5.2 Sampling strategy**

The initial selection of islands to carry out the survey is purposive because of the nature of spread of economic activity in the country. The research will be carried out in a manner that islands are selected based on the main economic activities carried out in the island.

The sampling approach for this study will be a scientific approach; however, based on available information some large establishments may have to be purposively included in the sample. In any case, special emphasis will be given to arrive to a sample which is representative of the whole region and the collected data will be raised to the regional level.

Note: The following tables will be filled once samples have been selected)

### Sampling in atolls

Region	Total			Sample		
	Number of inhabited islands	Number of establishments	Number of households	Number of inhabited islands	Number of establishments	Number of households
1. North	58		9313	03		
2. South	27		8028	03		
3. Kaafu	09			04		
Total	94			10		

### Sampling in Male'

Ward	Number of blocks in	Number of establishments		Sample size	
		Total	In %	Blocks	Establishment
1. Henvveiru					
2. Galolhu					
3. Machchangolhi					
4. Maafannu					
5. Villigili					
6. Hulhumale'					
Total Male' region					

### 5.3 Selection method

Selection of enumeration blocks in Male' as well as in the islands will be based on Simple Random Sampling.

Suppose 20 establishments ( $n$ ) out of a total of 199 ( $N$ ) were selected based on SRS method, then selection probability  $p$  would have been

$$p = \frac{n}{N} = \frac{20}{199} = 0.10 \text{ or } 10\%$$

### 5.4 ]

For estimation of regional totals, weights will be calculated separately for Male', North and South regions for all sectors based on the listing frames used.

### 5.5 How representative is sample

The sample will be representative to the regional level. The error margin for the estimates will be set to maximum 5% with a sample of 10% with a confidence interval of 95%.

## **6. Useful Data**

The data given in the following appendices to this report have been extracted from the publications/materials that have so far been reviewed during the desk study.

- Appendix 1: Data specific to Air Transport
- Appendix 2: Data specific to Sea Transport
- Appendix 3: Data specific to Land Transport
- Appendix 4: Data common to all sub-sectors