

# **INCEPTION REPORT**

## **Sector Specific Need Assessment Study**

### **Construction Sector**

**Submitted by**

**Clique Training Centre**

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# **1 Introduction**

Clique Training and Consultancy has been awarded the consultancy contract to undertake human resource sector studies for construction sector along with four other sectors under Employment Skills Training Project (ESTP) funded by Asian Development Bank (ADB) and implemented by Project Implementation Unit of Ministry of Higher Education, Employment and Labour. This report outlines the work undertaken since the inception of the study and briefly describes any changes to the proposed methodology.

## **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:

- I. Compiling profile of the Transport sector
- II. Compiling profiles of the most important employment opportunities in the Transport sector with the requirement skills and training
- III. 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 near future (up to the end of 2010) employment/occupational profiles of the sector showing current gender 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: Niyaz Mohamed

Sector Specialist: Mohamed Faiz

Economist: Hassan Waheed

## 2 Useful Documents and Materials

It is important to note that there are only a few studies carried out in the construction sector, especially in the human resource, in Maldives. The only comprehensive data available is the Census data that is taken every five years. 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 team 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:

- Strategic plan of the Ministry of Construction and Public Infrastructure (MCPI)
- Any data available in Maldives Association of Construction Industry (MACI)
- 7<sup>th</sup> National Development Plan 2006-2010
- Any available statistics, with MCPI
- Male' Youth Employment Survey Report, 2003

## Overview of Sector

Almost all the people of Maldives have been enjoying self-help and most of the times, incremental housing and building construction until a recent past. The type of construction, level of finishing and material used for construction has been factors enabling this mode of construction. With the introduction of reinforced concrete in late fifties, specialisation of different trades in construction, availability of different types of building materials and the requirement for different level of finishes, construction contracting and requirement for different trade expertise has become the norm for most of construction.

Given the limitation on the data availability, anecdotal evidence shows that the construction industry has been growing stronger every year except for few dips in early eighties and between 2002 and 2003. This growth in the industry has created a growing need for professional, paraprofessional (or semi-professional) and non-professional human resource.

Given the limited human resources available in Maldives, the human resource gap to support the growing industry has been filled with expatriates, mostly from South Asia region. Anecdotal evidence also suggests other factors contributing to growing expatriate population that takes a major share of the job market.

It is also important to note that there has been some externalities contributing to the boosting of the construction sector during some periods. For instance, 2004 tsunami that struck the Maldives had created a need for urgent construction of houses and other infrastructure causing a boost in the industry, especially in the islands. Similarly, government's decision to add 35 island resorts into the tourism sector would further contribute to this type boost in the industry. This should not be taken as normal growth of the sector, however, as opportunities to improve the capacity of the sector for a healthy growth of the industry.

Next to tourism, construction sector has the second most number of expatriate employees. The recent development of the industry and the urgent demand for construction has lead to an unprecedented increase in the number of expatriate workers.

Like other sectors, construction sector has also seen several developments in the recent years. These include;

- Compulsory registration of designers, engineers and other related professionals

- Development and implementation of the first Building Code of Maldives
- Registration of contractors
- Formation of Maldives Association of Construction Industry (MACI)
- Streamlining of the building approval mechanism
- Organisation of different training programmes in different fields

Details of these developments and their impact on the industry would be highlighted in the final report.

### **3 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
  - Employers' 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
- Critical training needs (for important occupations)
  - Present training needs
    - Employer identified training needs
    - Existing training institutes
    - Training constraints
  - Future training needs
  - Training plan to meet training needs in the short-term, mid-term and long-term

Since the awarding of the contract, works has been carried out for preparation for the study. These include Co-ordination and Administration (100), Signing of contract (110) and Client Briefing / Approval of Methodology / Consultant Team Mobilisation (120). Works described in item Project Reporting / Implementation Control (130) would continue throughout the project. The following points describe the methodology that would be used as the study approach.

### **3.1 Formulation and Finalisation of the Study design (200)**

Consultant team is currently working on this component of the project.

#### **3.1.1 Desk study (210)**

This is one of the key components for the study design. It is important that all the available and relevant studies, surveys, publications and reports done on the construction sector be studied. Hence, the Study Team would review available data and prepare a brief summary of the findings, which would form part of the final report. This component has been carried out since the awarding of the contract and would be continued throughout the initial stages. This component of the works would also include, as discussed in the section on comments to the TOR, a review of construction company formation and dissolution.

#### **3.1.2 Meeting with Key Stakeholders (220)**

Meeting with key stakeholders would be carried out at the initial stage of the study to understand their views on the study and for inclusion of their suggestions in deciding the study design and instrument designs. Some of the key stakeholders include the client (especially, the employment section of MHEES), Maldives Association of Construction Industry (MACI), Statistical Section of Ministry of Planning and National Development (MPND) and Ministry of Construction and Public Infrastructure (MCPI). Client could suggest at the briefing session, any other stakeholder that needs to be considered. The desk study would also look at the data available from MACI on the registered contractors and any contractor classification by MACI or MCPI. This could be carried out simultaneously to the desk study.

#### **3.1.3 Formulation of the Study Design (230)**

Based on the outcome of the desk study, briefing session with the client and the meeting with the stakeholders the study would be designed to achieve the required objectives. As discussed in the section on comments to TOR, the TOR does not elaborate scope the study. It has provided a set of objectives and expected outcomes. Therefore, it is important that proper research questions are formulated at initial stage of the design that would guide the study to achieve the outcomes. The study would then be designed around these main research questions. These questions would also guide selection of appropriate sampling methods and defining sample sizing. Sample sizing would also be determined by the outcome of the desk study.

### 3.1.4 Design of Study Instruments and Defining of Study Areas (240)

The Study Design and sampling methods would guide formulation of appropriate instruments for the study. It is understood that the employment market would have two dimensions – one would be jobs that would require certain skills (the supply side) and other would be potential people with certain skills and/or interests seeking jobs of their choice (the demand side). In a strong and well performing employment market any one of these dimensions would compliment and support the other reducing the mismatch. Hence, it is important these two dimensions be looked into. We propose to develop proper instruments (like questionnaires, guided interviews, open interviews) to look into these two components separately.

Contractors selected by the sampling process would be studied to study the supply dimension of the market. As for the demand side, we propose to study unemployed population. The sampling method for studying this dimension would be taking representative random sample households and studying the people in the employment age without employment. However, this would depend on the outcome of the desk study as well as meeting with key stakeholders and in consultation with the client.

The three development regions stated in the TOR would have many islands and given the limited time and finance availability, all the islands could not be studied under this study. Hence, we propose to carry out the study on the islands with majority of construction within the atoll. We propose to use questionnaires as well as guided interviews for this.

The major stakeholders would be studied using open questionnaires, which would provide the benefits of expertise and experience and facilitate more flexibility to explore all areas of concern.

## **3.2 Testing of Study Instruments and Preparation for Fieldwork (300)**

Upon formulation, the study instruments would be tested using a pilot survey on a randomly selected sample. This would provide us with opportunity to fine tune the instruments to cater for majority of limitations and constraints. Once the instruments are finalised, enumerators (or researchers) would be identified and along with preparation of manuals. Depending on the instruments used, the manuals could be as simple as a leaflet or a flyer. Both the instruments and the manuals would be submitted to the client for review and approval.

Along with the manual preparations, the preparations for the field visits would be carried out. This would include identification of local contacts (LC) on the project islands, facilitation for

mobilisation to the islands, getting maps and other data on the study islands and identifying the sampling to be used. This stage would also include training of the enumerators (or researchers) to use the study instruments effectively and consistently, and familiarising the study island environments including a basic review of the industry on the island through the identified local contacts on the study islands. It is envisaged that the Client would provide the required support for this.

### **3.3 Sample for the Survey (310)**

#### **3.3.1 Scope and coverage**

The study area covers the following geographical regions.

- Northern development region.
- Southern development region
- Male' and adjacent atolls.

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 construction activity, 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. Hulhule' and the islands where the regional airports are will be surveyed solely for the purpose of capturing transport sector.

Islands/Sectors	Agriculture	Fisheries	Construction	Transport	Education	Health
Kulhudhuffushi	17	172	137	148	250	153
Dhihdhoo	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>	<b>280</b>	<b>464</b>	<b>411</b>	<b>426</b>	<b>789</b>	<b>349</b>
<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 instance, information on construction companies/groups obtained from islands/Island Offices will be used to select a minimum representative sample, which will be enumerated using the “employer form” and employee form”.

### 3.3.2 The frame

The survey will be based on two separate 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 households 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 the “employer form” 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 Region. This will be obtained from the “Noonu form – Establishment form” of Population and Housing Census of Maldives, 2006. For Male’, the list of companies registered with Ministry of Construction and Public Infrastructure (MCPI) together with the list of Companies registered with Maldives Association of Construction Industry (MACI) would be used for the survey frame.

Sampling for “potential employees” and questionnaire for the households would be carried out using the listing of randomly selected blocks from the initial sampling for households.

### 3.3.3 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 has been 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.

The following tables would be filled upon selection of the samples.

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. Henveiru					
2. Galolhu					
3. Machchangolhi					
4. Maafannu					
5. Villigili					
6. Hulhumale'					
Total Male' region					

### 3.3.4 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

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

### Estimation of weights

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.

### 3.3.5 Representativeness of the 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%.

Sampling for data collection and field works, and the study instruments are currently being finalised.

## **3.4 Data Collection and Analysis (400)**

### 3.4.1 Field Visits (410)

Field visits to the study islands would be organised by the SC with support from the LCs on the islands. The Duration on the islands would be determined upon finalisation of sample sizes and study instruments that would be used. However, for the purpose of scheduling and cost calculations, we propose to spend a week in each of the two development regions, plus two weeks in Male' region, that represents the majority of construction activities. We also propose to initiate the field work in Male', then in the selected islands in Male' region followed by the North

and South development regions. This way, the team would be able to fine tune the instruments and the approaches before going to the islands in the distant regions.

#### 3.4.2 Data Collection (420)

Data collection would be carried out by the enumerators (or the researchers) using the instruments formulated. Supervision would be carried out constantly in order to maintain the quality of the data that is collected. Locals from the study islands may also be used as enumerators/researchers depending on the availability of suitable candidates and the level of complication of the instruments that would be used. This would be initially coordinated through the LCs. If it is decided to use locals for data collection, a training program would be conducted on the islands.

#### 3.4.3 Data Entry, Compilation and Tabulation (430)

The collected data would be entered into data management system using appropriate statistical software and managed by qualified personnel to handle the software. The enumerators / researchers may also be trained for data entry depending on the complexity of the instruments and the collected data. It is envisaged to carry out some of the data entry on the study islands. However, this, in no circumstances, would be allowed to compromise the quality of the data entered into the system. Compilation and data entry would be finalised in Male'. We estimate data entry and compilation to take a week.

#### 3.4.4 Data Analysis (440)

The collected data would be analysed to answer the main research questions and the sub-research questions which would provide the necessary conclusions to achieve the objectives of the study. Data would be compiled and tabulated by the software experts based on the requirements of the consultants, who would then analyse the data to answer the research questions. Cross checking of the entered data would be carried along with data compilation. It is expected that this activity would take about three days. Given that this activity is planned to go concurrently with final report writing, there would enough lag on the activity to cater for any additional days required.

### **3.5 Compilation of the Final Report (500)**

The final report would be prepared based on the data analysis and the outcome of the study. Upon compilation of the first draft, it would be submitted to the Client for comments. We also propose to conduct a stakeholder meeting on the outcomes of the study during this activity to capture their thoughts and suggestions in the final report. Any comments by the Client and/or from the stakeholder meeting would be incorporated into the report and a final draft of the report that would be submitted to the client before the report is finalised.