

## Terms of Reference

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# **TRAINING ON BUILDING A ROADMAP FOR A QUALITY MANAGEMENT SYSTEM AT DHM**

(Contract ID No: PPCR/DHM/S/IND-66)

May 2019



## **1. Background**

The objective of the BRCH project is to enhance government capacity to mitigate climate related hazards by improving accuracy and timeliness of weather and flood forecasts and warnings for climate vulnerable communities, as well as developing Agricultural Management Information System (AMIS) services, administered by the Ministry of Agriculture and Livestock Development (MoALD), to help farmers mitigate climate related production risks. The project comprises four components:

- A. Institutional strengthening, capacity building and implementation support to the Department of Hydrology and Meteorology (DHM);
- B. Modernization of observation networks and forecasting;
- C. Enhancement of the service delivery system of DHM; and
- D. Creation of an agriculture management information system (AMIS).

Component A, which is addressed by this training course, aims to develop and/or strengthen DHM's legal and regulatory frameworks, improve institutional performance as the main provider of weather, climate and hydrological information for the nation, build capacity of personnel and management, ensure operability of the future networks, and support project implementation. Component B aims to modernize DHM observation networks, communication and ICT systems, improve hydro meteorological numerical prediction systems and refurbish DHM offices and facilities. Similarly, Component C aims to enhance the service delivery system of DHM by creating a public weather service that provides weather and forecasts impact, and information services for climate-vulnerable communities and the key weather dependent sectors. Component D will provide critical and timely agro-climate and weather information as well as agro-advisories to farmers in order to increase productivity and reduce losses from meteorological and hydrological hazards.

This Terms of Reference (ToR) is for a Trainerto conduct a training on Building a Road Map for Quality Management System at DHM.

## **2. Introduction**

In any organization Quality Management consists of coordinated activities that the organization uses to direct, control, and co-ordinate quality. At the organization level these activities concentrate in formulating an overall quality policy and setting quality objectives. At the unit and process level, such as maintenance and development of observation and monitoring systems, and delivery of NMHS services, the activities also include quality planning, control and assurance measures to achieve continuous improvement of operations and services.

The main driver to adopt a quality management approach for NMHSs is the Quality Management Framework of the World Meteorological Organization (WMO-QMF). Furthermore, The International Civil Aviation Organization (ICAO) has identified the need to implement a quality management system for Aeronautical Meteorological Services as follows: *“The quality system established in accordance with 2.2.2 should be in conformity with the International Organization for Standardization (ISO) 9000 series of quality assurance standards and should be certified by an approved organization.”*<sup>1</sup>

The ISO 9001 is a global quality management standard. Thousands of companies in over 100 countries have adopted it, and many more are in the process of doing so. Because, it controls the quality. It saves money. Customers expect it. And competitors use it.

Previously in the BRCH project the System Integrator (SI) has organized a three-day Training Workshop to introduce the ISO 9001:2015 QMS standard to DHM staff. The workshop was held at DHM in January 2016 with 25 participants. Far more training and guidance is needed to support DHM on its way towards full implementation of QMS.

### **3. Objective of the Assignment**

The objective of this training is to provide, through an interactive dialogue with DHM staff, clear understanding on principles of Quality Management and a practical roadmap towards establishing a QMS at DHM, compatible with ISO 9001 Standard covering the key activities of DHM as applicable. Specific learning objectives of the Training course are:

- Enhancement of DHM’s knowhow on implementation ISO-9001:2015 to their organization at the extent they/their authority organization see appropriate.
- Participants are capable to prepare and maintain QMS documentation, understand the internal audit process and establish performance indicators as needed to monitor the quality of systems and processes.
- Participants have attained clear understanding on how the organization is managed by the ISO-9001-based QMS; trainees have learned how the requirements of the ISO-9001 Standard can be applied to the meteorological and/or hydrological services.

### **4. Scope of Work**

#### **4.1 Contents of Training**

The content of this training course shall cover at least, but not limited to, the following Topics:

- Introduction to QMS and especially to ISO 9001:2015 including Quality Management Principles and benefits of QMS to the organization.

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<sup>1</sup> ICAO Annex 3, Chapter 2.2

- Requirements to establish the ISO 9001:2015 Quality Management System.
- Practical advice and examples on how the ISO-9001:2015 standard requirements can be implemented to key operational processes of a NMHS.
- Exercises, to identify key processes and to prepare documentation such as quality statements and Standard Operational Procedures (SOPs).
- Creating a roadmap for Implementation of QMS at DHM
- Follow up and provide guidance on the first steps of QMS implementation.
- Introduction to Internal Auditing with practical exercises
- Provide online support as needed

## **4.2 Practical arrangements**

It is recommended that the course will be held in three phases:

- **Phase 1:** The Trainer will train the Trainees on the basic principles of QMS and requirements for ISO 9001:2015 Quality Management System. Together with the Trainees the Trainer shall identify the key processes at DHM applicable for a QMS. The Trainer will then train the Trainees and make them able to prepare a draft QMS roadmap. The length of this phase is limited to a maximum of 6 workdays;
- **Phase 2:** As per the instructions given by the trainer, DHM staff will prepare a draft DHM QMS roadmap (SOPs etc.). Duration of this Phase is 3 months. The Trainer will support the Trainees in preparing the draft as and when required, under remote on-line support basis.
- **Phase 3:** This phase is the most important part of the Task. This phase is exclusively dedicated to build a strong DHM QMS such as SOPs and other required DHM standards. The trainer will provide instructions and hands-on training and build the Trainees confident to prepare and finalize QMS documents. The Trainer then together with the Trainees will finalize the draft DHM QMS document. This training session should also include practical training on Internal Auditing. The length of this phase is limited to a maximum of 14 workdays.

The estimated maximum number of trainees is about 16. The training for Phases 1 & 3 will take place in a venue located by DHM, in Kathmandu. The Trainer shall plan the training course in cooperation with DHM representatives so that all listed topics, including evaluation of learned skills, are covered with sufficient detail and in the time frame given. Five (5) workdays are allocated to the trainer for planning and reporting.

Training courses are normally held on official working days (between Sunday and Friday), starting daily from 10 a.m. to 16 p.m. Lunch break is between 13:00-and 13:45. The Trainer

shall provide a list of requirements for the training facility and equipment needed<sup>2</sup>.

All training material shall be submitted in appropriate digital format(s) (e.g. .ppt, .doc, .pdf files) covering the lectures and demonstrations. The training material should include a comprehensive list of references to published literature that complement the content given during the training.

## **5. Reporting requirements, Time-line and deliverables**

The Trainer shall submit a detailed training plan and a Final report as follows. Both reports shall be submitted in 3 hard copies along with corresponding e-copies. These two reports are subject to approval by DHM.

### **5.1 Detailed Training plan; Due two weeks before the agreed start date of training.**

The Detailed Training Plan must, but is not limited to, include: objectives of training, detailed list contents of the training course, proposed schedule, daily agenda's, competence evaluation and training methods used, detailed arrangements of training as regards the training facility & equipment, required qualification of participants to attend the course, learning targets which comply with the international requirements quoted above, evaluation methods and scoring.

### **5.2 Intermediate report; Due after one week of completion of the 1<sup>st</sup> Phase of training**

The report shall cover the training material introduced and results of training obtained during the 1st Phase. In the report the trainer should also give instructions in writing to trainees to help complete their assignments during Phase 2.

### **5.3 Final Report: Report on results of Training; Due after two weeks of completion of the training courses**

The report shall consist of basic information of the courses (list of participants, daily agendas etc.), summary of course evaluations based on questionnaire submitted to the participants, and results on learning i.e. assessment of the competencies and skills acquired by the participants. The training report shall include all training material (Submitted as Attachments) in printed (3 copies) and digital files of the workshops and lectures including the Final DHM QMS document prepared together with the Trainees.

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<sup>2</sup> These are preliminary specifications used to facilitate the trainer selection process and to prepare the final plan for the training course. The length of training change in content and number of participating staff may be finalized at contract signing.

## **6. Client's Commitments (Inputs)**

DHM/PMU will provide basic organizational support to the Trainer. At the request of the Trainer, DHM will provide following documents/ information:

- Information and data related to the BRCH project including information on status of operational systems being implemented, organization structure and governance;
- Project Appraisal Document (PAD), reports submitted by SI and other relevant publications;
- Other related documents as requested in support of the training activities.
- Training facilities and logistics
  - Training Hall
  - Projectors
  - Audio/Video recording (If necessary)
  - Stationery
  - Refreshments/lunch
  - Necessary transportation and other logistics for field visits (if any)

## **7. General Requirements of the Trainer**

The Trainer is expected to have extensive experience in holding training on QMS for Hydro-Meteorological Services both in developed and developing countries. The Trainer will be responsible for providing DHM staff with a clear understanding on Quality management principles and a practical roadmap towards establishing a QMS at DHM. A total 31 workdays are allocated for completing the course.

Specific requirements and qualifications for the Trainer are as follows:

### **7.1 Qualifications:**

The Trainer must provide a CV, letter(s) of reference signed by clients, other relevant references, such as information of training courses held (year, name and length of the course, course feedback grade), as applicable for proof of the following qualifications:

- The Trainer should have a minimum of Bachelor's degree relevant to the training on Quality Management System. Higher academic degree in the topic relevant to the training would be an advantage.
- Evidence of having at least five (5) years of experience in working with Quality Managements Systems, longer experience is considered as an advantage.
- Letters of reference (including for example statements/participants feedback/ evaluation documents) of holding at least three (3) training courses on Quality Management Systems. More training courses are considered as an advantage.

- Experience on working with and/or holding training courses for meteorological and/or hydrological organizations (NMHSs), and/or in international context<sup>3</sup> is considered as an advantage.
- Co-operation skills, as well as a flexible, innovative and solution-oriented approach to work.
- Strong command in English language.

## **8. Payment schedule**

- 20 percent of contract value after approval by DHM on the Detailed Training Plan.
- 50 percent after completing all the training courses
- 30 percent of contract value after submission and acceptance of the Final report by DHM and SI.

## **9. Selection Criteria**

The Trainer will be selected based on the individual consultant selection method of the World Bank's Guidelines on "Selection and Employment of Consultants, January-2011, revised on April, 2015". Main criteria for the selection will be relevant work experience and qualifications.

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<sup>3</sup> Courses were held abroad or having participants from different countries than trainer's home country.