

Investment Phase:

Peer Advisor Semi-Annual Report



Bhutan

H2/2025

Submitted by Finnish Meteorological
Systematic Observations
Financing Facility

**Weather
and climate
data for
resilience**

General Information

Country	Bhutan	
Peer Advisor	Finnish Meteorological Institute (FMI)	
Implementing Entity	UNEP	
Agreement effectiveness date	3 May 2024	
Duration	60 Months	
Anticipated end date	1 May 2029	
Reporting period	To: 1 July 2025	To: 31 December 2025
Approved peer advisory fee	370 000 USD	
Disbursed peer advisory fee	73 826,94 USD	
Percentage of financial implementation	19.9 %	
Peer advisors's focal point signature	 Sami Kiesiläinen	
Country's focal point signature (to confirm timely and quality delivery)	 Thinley Phuntso	

Summary

Second year of project has started, and it has been busy especially at Bhutanese side for planning and preparing infrastructure. In general, project is well in schedule.

As mentioned in previous report, FMI has supported NCHM in developing QMS for Aviation (outside of SOFF-project). At the end of the reporting period FMI conducted remotely internal QMS auditing training using Aviation as an example. These

activities support building institute wide QMS in the SOFF-project and will be utilized in further trainings.

During mission to Bhutan carried out in October 2025, many project topics were addressed. There have been also active online discussions during the reporting period.

Co-operation with NGO's and CSO's started with joint meeting between NCHM, Bhutan Red Cross Society (BRCS), Finnish Red Cross (FRC) and FMI. FRC supports actively Nepal Red Cross (NRC) and BRCS. FMI has co-operated with FRC in Nepal and in few other countries.

In total two meetings were arranged during Bhutan missions of FRC and FMI personnel. Initial results of the meetings were that BRC officials will be added to the NCHM stakeholder WhatsApp and WeChat messaging groups, to receive important weather information and warnings.

Another important activity during visit was ICT aspect. Several ICT topics, including server infrastructure and dataflow, were discussed to prepare ICT mission on Jan 2026. This mission will focus to infrastructure improvements for the Smartmet.

Smartmet is backbone for forecasting, warning and service production of NCHM. It allows to utilize effectively all available data from observations to weather models, including ECMWF data provided to SOFF countries.

FMI has also provided on-line support in Smartmet production, network setup etc. This support continues during the project. Mission on Jan 2026 will focus ICT-issues and improvements to IT-infrastructure which are necessary to publish new Smartmet products.

Technical solutions for Upper-Air sounding have been discussed, and it looks that dataflow will be set up with Wis2Box –system, instead of vendor specific solution. Actual decision will be made during 2026, after WIS2 training and procurement of the systems.

In addition of topics related strictly to SOFF, FMI has supported AWOS (Aviation Weather Observation System) and opinions on siting for weather radars regarding new international airport planned to Gelephu.

Following year will see increase in Peer Advisor activities; support for procurement of Upper-Air sounding equipment, dataflow and trainings regarding QMS, Smartmet production and ICT are expected to begin.

Implementation progress

Services or activities listed in the peer advisor's ToR and assignment agreement must be included in the category "activities conducted/contribution" below. Sections that are not relevant or covered in the TOR can be left blank.

Output	Indicator (Please copy the indicators from RBM section of the funding request)	Activities conducted/contributions (Please list all activities that will be conducted by the peer advisor relevant to the output. Please add rows if more than one activity will be conducted)	Implementation plan ¹					Status	Challenges and risks
			Y1	Y2	Y3	Y4	Y5		
1. GBON institutional and human capacity developed									
1.1 National consultations , including with CSOs and other relevant stakeholders conducted	workshops per year	SOFF Project management meeting, Stakeholder consultation, Jan 2025 and Procurement and Project Management Workshop, March, 2025 (previous reporting period)	1	1	1	1	1	On-track	
	% female engagement in workshops	Events 2025, included in previous report 41% In Stakeholder Meeting (Jan 2025) 46% In PSC Meeting (Jan 2025) 40% In Procurement and Project Management Workshop (March 2025) 50% In Competency Based Framework Workshop (May 2025) 33% Instrumentation operation and maintenance workshop to Observers (Dec 2025)	50	50	50	50	50	On-track	
	# targeted gender workshops	Specify activities relevant to the output		1	1			Not yet started	Rescheduling for second workshop proposed to Y4
1.2 NMHS institutional capacity required to operate the GBON network developed	number of activities for strengthening institutional capacity	Specify activities relevant to the output		1	1			Not yet started	
	Add indicator as per approved funding request	Specify activities relevant to the output						Select an item	

¹ Indicate which year the activity is targeted to be conducted

Output	Indicator	Activities conducted/contributions	Implementation plan					Status	Challenges and risks
	Add indicator as per approved funding request	Specify activities relevant to the output						Select an item	
1.3 NMHS human capacity required to operate the GBON network developed	number of trainings	Specify activities relevant to the output <ul style="list-style-type: none"> - Smartmet products generated by NCHM (based on training at FMI 3/2025) are in internal testing. ICT mission on Jan 2026 prepares their operationalization, expected public launch Q2-Q3 2026. - Remote support to upgrade hardware and software components of Smartmet system (ICT-mission to Bhutan on Jan 2026) - QMS-audit training and support provided, utilizing Aviation-QMS as an example. (Aviation QMS training is outside of SOFF-project, but supporting SOFF goals). Work continues 2026. 	2	2	2	2	2	On-track	
	# recruited staff	NCHM to recruit IT- and relevant personnel staff	4	4	4	4	4	Delayed	NCHM has recruited new IT-staff and there are now 2 full-time persons handling IT-issues. NCHM has transferred a senior technician to an already existing one technician and recruited one Junior Engineer to the proposed Tsirang Upper Air Facility. Currently, 3 staff have been stationed at Tsirang.
	Add indicator as per approved funding request	Specify activities relevant to the output						Select an item	
2. GBON infrastructure in place									
2.1 New land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place	# of new stations installed as per the GBON National Contribution Plan	Specify activities relevant to the output						On-track	Land area acquired by NCHM and constructions are almost ready to start.

			Implementation plan						
2.2 Improved land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place	# of stations improved as per the GBON National Contribution Plan	<ul style="list-style-type: none"> Remote support to register the SOFF stations to the OSCAR 		1	1			Not yet started	Needs to be coordinated with sounding station Challenges and risks
2.3 New upper air stations and related equipment, ICT systems, data management systems and standard operating practices in place	# of new stations installed as per the GBON National Contribution Plan	<ul style="list-style-type: none"> General information on sounding operation for preparation of ToR for aviation sector - Specification for upper-air sounding building (2/2025) - Remote support to register the SOFF stations to the OSCAR (3/2025) 			1			On-track	Land area acquired by NCHM and constructions are almost ready to start. Procurement for equipment expected to start H2/2026. Needs to be coordinated with AWS-station.
2.4 Improved upper air stations and related equipment, ICT systems, data management systems and standard operating practices in place	# of stations improved as per the GBON National Contribution Plan	Specify activities relevant to the output						Select an item	
3. Sustained compliance with GBON									
3.1 GBON land-based stations' commissioning period completed , country-specific standard cost for operations and maintenance established, and data sharing verified by WMO Technical Authority	# of stations commissioned as per the GBON National Contribution Plan	<ul style="list-style-type: none"> Adding JICA-supported stations to GBON and monitoring 					6	On-track	Partial process achieved
3.2 GBON upper air stations' commissioning period completed , country-specific standard cost for operations and maintenance established, and data sharing verified by WMO Technical Authority	# of stations commissioned as per the GBON National Contribution Plan	Specify activities relevant to the output						Not yet started	