

WIGOS DEMONSTRATION PROJECT-KENYA
V.4 (Friday, October 16, 2009)

Project Name	WIGOS Demonstration Project in Kenya
Acronym	WDP-K
Project Type	Demonstration Project
Project Status	In Progress
Project Overview	<p>The project aims at integrating all the national observation systems in Kenya taking into account the three levels of WIGOS implementation.</p> <ul style="list-style-type: none"> ➤ Integration and Standardization of all National observations for purposes of Interoperability ➤ Availability of National and RAI data through the WIS ➤ Quality Management and Assurance <p>Data Gathering, Integration and Standardization</p> <p>Kenya Meteorological Department (KMD) has planned to improve and integrate the national environmental observational systems in Kenya. These include land, sea, and upper air observations.</p> <p>To improve the Observational network , KMD has planned the following:</p> <ul style="list-style-type: none"> • Increasing the number of automatic weather stations from 24 to 36 by end of 2009; • Installation of two upper-air stations by end of 2009; • Increasing the number of hydro- meteorological stations from ten to twelve by June of 2010; • Establishing a seismic network in the country. Three seismic sensors will be installed in different parts of the country by the end of 2009; • Installation of two urban climatology pollution monitoring stations <p>Five Tidal stations have been installed at the Kenyan Indian ocean coast.</p> <p>KMD intends to integrate data and products from all the observational systems in KMD into one Information system taking into account the WMO recommended data formats and in line with WIGOS procedures. In support of this project, KMD is in the process of procuring an Integrated Meteorological Information System (IMIS).</p> <p>The IMIS will be able to pre process, decode, process, manage, perform quality control and integrate conventional surface and upper-air observations Stake holders who have</p>

environmental observational systems have already been identified.

Software for coding data into the required Table Driven Code Format (TDCF) has been developed and training is going on for the use of the software. Training for the trainers is already concluded.

Availability of National and RAI data through the WIS

- The IMIS will have a well defined Meta data database for interface with the WIS.

- Nairobi RTH is already has a modern Message Switching System and the internet bandwidth has now been upgraded to 2 Mbps.

Quality Management and Assurance

1. Through the cost sharing effort of Finland VCP (through WMO) and the Government of Kenya , KMD will modernize the WMO **Regional Instrument Centre (RIC)** by installing the following:
 - ▶ Chamber for Calibration of humidity and temperature;
 - ▶ Stirred liquid oil bath for the calibration of thermometers and AWS temperature sensors;
 - ▶ Resistance measuring bridge for the calibration of AWS temperature sensors and references;
 - ▶ Wind Tunnel for calibration of wind instruments.

Tenders for the modernization of the centre are being processed by WMO and KMD.

2. Besides the existing Quality Control system, will be achieved through the IMIS system.

Project Aim

The aim of the WIGOS/WIS Demonstration Project is to:

- Integrate all national observation systems including land, sea, and upper air observations from the Kenya Meteorological network and other national observing networks that provide time critical data and products.
- Significantly improve the availability of national and regional observational data and products.
- Standardize Instruments and methods of observation in Kenya.
- Provide End-product quality assurance

Partners/Participant	KMD has identified the following stakeholders who have environmental data networks:																														
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	15. Ministry of Forestry	Participant			
	16. Department of Resource Surveys and Remote sensing (DRSRS)	Participant			
	17. Department of Mines and Geology	Participant			
	18. Regional Center for Mapping of Resources for Development (RCMRD)	Participant			
	19. Kenya Bureau of Standards (KEBS)	Participant			
	20. Water Resources Management Authority (WRMA)	Participant			
	21. National Environment Management Authority (NEMA)	Participant			
	22 Kenya Water Institute (KEWI)	Participant			
	KMD has signed a Memorandum Of Understanding (MOU) with Meteo France International (MFI) to assist KMD to successfully realize the Implementation of WIGOS and WIS within the implementation timeframe.				
Funding Sources	The implementation of the Demonstration Project will be funded from the National Budget and support through WMO VCP and WIGOS&WIS Trust Fund.				
Overall Project Costs	Estimated at being around US\$ 6,000,000				
Project Timescale	2008 – 2011				
	Activity	Objective/Action	Status	Implementation constraint	Due Date
	Identification of Focal Point(s)	National Coordination of the project	Completed	none	Completed
	Taking Environmental data inventory	Identify all types of environment data and products available in Kenya.	In Progress	Lack of cooperation from some possible partners	Dec 2009
	Improvement of National observational network	Increase data availability	In progress	Low national budgetary allocation.	Continuous
	Modernizing the Regional Instrument Calibration Centre (RICC)	Install the following: -Calibration chamber for	Technical evaluation of Tenders in progress.	None	-----

		<p>humidity and temperature ;</p> <p>-Stirred liquid oil bath for the calibration of thermometers and AWS temperature sensors;</p> <p>-Resistance measuring bridge for the calibration of AWS temperature sensors and references</p>			
	Implementation of the WMO Table Driven Code Format (TDCF) in all data coding.	Code all environmental data using TDCF.	<p>- (TDCF) BUFR and CREX template done;</p> <p>-Training of trainers has been complete;</p> <p>-Training of the observers ongoing. (one such course started on 12th October 2009)</p>	Low budgetary allocation	Dec 2009
	Identification of stakeholders	Identify all national institutions with environmental observations.	<p>- A number of stakeholders/partners have been identified.</p> <p>-Meetings to be arranged to discuss the way forward.</p>		Dec 2010
	Development of Meta data catalogue				
	Formation of an inter-ministerial committee	<p>- bring together all ministries hosting institutions with environmental data.</p> <p>-discuss the implementation procedure for the integration.</p>	In progress	Educating the targeted partners on the benefits of data integration.	Dec 2009
	Integration of data	-Install an	IMIS system	Low national	Dec 2010

	and products to one information System	Integrated Meteorological Information System (IMIS) with a well defined metadata for data and products.	procurement in progress	budgetary allocation	
Expected Key Deliverables	<ol style="list-style-type: none"> 1. Availability of more data for operation and research 2. Homogeneity, interoperability and compatibility of observations from related observation networks 3. Conformity of data and information generated by observation networks with a comprehensive, standardized set of WIS data and information 4. A well defined meta data catalogue at WIS level 				
Project Links	http://www.meteo.go.ke/WIGOS-Kenya.pdf				
Project Summary	To be given periodically				
Date updated	Friday, October 16, 2009				
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