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**Minutes of the 4<sup>th</sup> Meteo Rwanda Technical Working Group meeting  
24<sup>th</sup> May 2016 at Classic Hotel**

1. **Date:** 24 May 2016
2. **Venue:** Classic Hotel
3. **Time:** 9:15am – 12:30pm
4. **Agenda**
  - Welcome remarks
  - Presentation 1: The relevance of meteorological information of different sectors
  - Presentation 2: Use of weather and climate information in Agricultural Sector
  - Presentation 3: Use of weather and climate information in disaster risk reduction and preparedness
  - Recommendations and way forward
  - Closing remarks

**5. Summary of discussion**

The meeting was attended by Government Institutions, Development Partners, Non-Governmental Organizations, Private Sector and Researchers. The meeting turn up was large with around 40 participants (For the full list of participants, please refer to [Annex I](#)).

1) Welcome remarks

In his welcome remarks, **Mr. John Ntaganda Semafara**, the Director General of Rwanda Meteorology Agency (Meteo Rwanda) thanked participants for attending the meeting. He continued with a quick overview of Meteo Rwanda which highlighted the background, status to date and major challenges of Meteo Rwanda that affect its performance. He concluded his remarks by inviting stakeholders to advocate for the development of meteorological services in Rwanda in order to deliver weather and climate information to the users for planning and decision making.

The Co-chair of the sub-sector, **Mr. Stephen Rodriques** who is also the Country Director of UNDP, made his remarks by first welcoming the stakeholders who were present. He recalled the frequent disasters related to weather that are occurring worldwide. He particularly cited the recent El Nino phenomenon which caused food insecurity in the various corners of the world. He highlighted how accurate information on weather and climate is important for the safety of life and people's property. Mr. Rodriques requested the Development Partners to pay great attention to the meteorology sector and render enough support for strengthening the capacity of the Rwanda Meteorology Agency. The Director also urged Meteo Rwanda to improve quality on data and timeliness and increase public awareness. He finally thanked the participants who were present and requested them to take up active participation to support the strengthening of the meteorology sector.

2) The relevance of meteorological information of different sectors

(Presenter: **Mr. Twahirwa Anthony**, the Division Manager of Weather/Climate Services and Application Division, Meteo Rwanda)

Mr. Twahirwa presented why provision of quality meteorological services is a crosscutting issue and how it helps decision makers to better plan their daily activities as well as development strategy and framework in the sectors such as agriculture, fishery, water, aviation, tourism and health to name a few. The use of correct meteorological information would help those sectors to avoid losses.





While there are achievement made by Meteo Rwanda such as i) a more frequent early warning service (4 times a day), ii) increased frequency of provision of information through different media and channels, iii) installation of 24/7 weather watch to name but a few. It was observed that there is currently low level of application and limited awareness of weather and climate information by users and this remains as one of the major challenges faced. The end products of Meteo Rwanda are pure science and they need to be tailored to make sure that the users can understand them better. To address this issue, Meteo Rwanda recently embarked on engaging end-users so that they may easily understand how to apply the weather services in their daily lives.

### 3) Use of weather and climate information in Agricultural Sector

(Presenter: **Mr. Ngoga Tenge Gislain**, the Head of Climate Change, Agro meteorology and GIS Program in Rwanda Agriculture Board)

Mr. Ngoga highlighted that weather and climate information is vital in agriculture processes especially during the planting period, irrigation, harvesting and during the post harvesting period. In practical terms, daily rainfall data can enable farmers to determine the planting dates and associated risks. The data can further provide information on dry spells conditions, on seasons using water balance model, for analysing the conditions during the dry and rainy days, as well as during the growth season. The data can be used to predict the lengths of the seasons and to predict risks of crop varieties in order to cope with the weather of an area. Weather indices that derive from weather data and information help insurance companies conduct quick analyses on the risks from crop failure and results from the analyses enable establishing crop insurance schemes which help farmers' cooperatives access loans from financial institution which in turn link to poverty alleviation of the rural population as well as the whole nation. Using modern techniques such as crop modelling with inputs on weather data, it is possible to scale up the results of crop growth from specific locations to all the other areas in Rwanda. Weather data is also used to calibrate data and observations from satellite images which generate further useful information to agricultural activities such as NDVI, soil moisture, radiation, temperature, etc.

### 4) Use of weather and climate information in disaster risk reduction and preparedness

(Presenter: **Mr. Jean Baptiste Nsengiyumva**, the Director of Disaster Risk Reduction and Preparedness, MIDIMAR)

The presentation initiated from explaining the losses incurred from weather events. Since 1980, risk of economic loss due to floods and landslides had increased by over 160 % and the tropical cyclones by 265%. He highlighted that disasters can be avoided and their impacts minimized and are mainly caused by climate change, rapid urbanization, poverty, population growth and environmental degradation. In Rwanda, climate change is a reality resulting into higher unpredictable rainfall and increased temperatures.

Mr. Nsengiyumva showed how meteorological information has helped the preparedness and mitigation planning in his ministry. Weather and climate information helped to establish comprehensive end-to-end early warning systems for hydro-meteorological hazards, to provide weather forecasts and climate information on a regular basis to inform the disaster risk management planning processes and to conduct comprehensive risk assessment such as formulation of the first ever Rwanda risk profile for hazard and risk maps. This information also feeds into communication systems for disaster monitoring, elaboration of disaster contingency planning for major disasters and preparedness and response plans such as El Nino and assists the different end-users in awareness creation and education on disaster preparedness and readiness.

However, challenges and gaps remain in i) little budget for DRM and dissemination of climate information to the low levels, ii) low level of public perception and awareness of risk, iii) limited communication channels and education on disaster information and hazard early warning, iv) lack of elaboration and/or comprehensive Hazards Early Warning System with good lead time and v) lack of downscaled weather forecast at sectorial level.





## 6. Recommendations and way forward

Through active discussions and Q&A on the presentations, the points listed were recommended to the Meteorology sub-sector under the ENR Sector for action and follow-up.

	Recommendation	Responsible	Deadline/ Timeframe
<b>Collaboration with other sectors</b>	<ul style="list-style-type: none"> <li>To strengthen close collaboration and cooperation with other sectors in the government which require Meteorological data and services.</li> <li>To raise awareness on Meteo Rwanda's available services across sectors and different government institutions and improve communicate on this issue</li> <li>To incorporate Meteo Rwanda's role and services into other sector's policy or strategy.</li> </ul>	Meteo Rwanda and other sectors e.g. MINAGRI, MIDIMAR etc.	N/A
<b>Improvement of capacity and accuracy of data</b>	<ul style="list-style-type: none"> <li>To ensure quality of data and accuracy of the information provided by Meteo Rwanda.</li> <li>To establish web-based stations that show cumulative rainfall for a short time (for rainfall intensity).</li> <li>To get certification from ISO in all Meteo Rwanda's services so that they meet the international standards to provide quality product to users.</li> </ul>	Meteo Rwanda	N/A  Dependant on the RSB plan
<b>Strategic planning</b>	<ul style="list-style-type: none"> <li>To establish a comprehensive work plan for Disaster Reduction and Mitigation</li> <li>To update the Strategic Plan and the National Meteorological Policy.</li> <li>To mainstream meteorological services in policies such as SDGs domestication policy, revised EDPRS II and Vision 2050 through joint planning with intervening sectors.</li> </ul>	Meteo Rwanda in collaboration with MINIRENA and MINECOFIN	-Under development by an expatriate  - Planned for during the F/Y 2016/17
<b>Fund raising and resource mobilization</b>	<ul style="list-style-type: none"> <li>To sensitize potential donors to fund disaster prevention rather than sponsor recovery after damages and hazards.</li> <li>To allocate more resources on raising public awareness and organizing training sessions</li> <li>To set cost recovery on data and other weather and climate information provided for commercial ventures.</li> </ul>	Meteo Rwanda	-To be done in FY 2016/17
<b>Improvement in communications</b>	<ul style="list-style-type: none"> <li>To develop a strategy to secure funding from the government allocation for broadcasting the weather information on different communication channels and to ensure getting slots in national radio/TV stations in order to share alerts with end-users beyond the existing MOU with those stations to get clear and solid slots for Meteo Rwanda.</li> <li>To work on packaging information/channels to reach different end users.</li> </ul>	Meteo Rwanda	-Planned for in FY 2016/2017  - Communication Strategy being developed

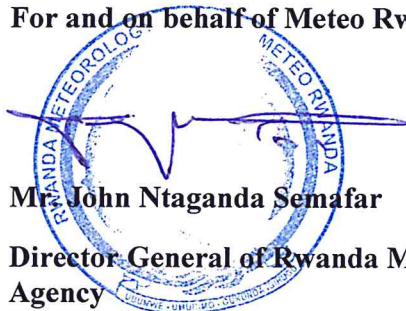


	<ul style="list-style-type: none"><li>• To review the Communication Strategy in DRR and meteorological service.</li><li>• To create awareness of people and users on climate change and listen to their feedback in order to improve communications capacity.</li></ul>		within FY2016/2017
<b>Strengthening capacities for DRR</b>	<ul style="list-style-type: none"><li>• To follow up completion of establishing comprehensive end to end early warning system.</li><li>• In order to cope with disasters, it is required to build a well-functioning team not only for providing information but also to train on how to work effectively together once a disaster is about to occur.</li></ul>	Meteo Rwanda and MIDIMAR	MIDIMAR to determine

The Chair, Director General of Meteo Rwanda and the Co-chair, UNDP Country Director closed the meeting thanking all participants and invited them to positively respond to any intervention and invitations for next meetings.

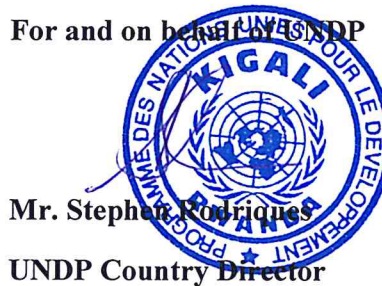
Kigali on 8<sup>th</sup> June 2016

For and on behalf of Meteo Rwanda



**Mr. John Ntaganda Semafar**  
Director General of Rwanda Meteorology Agency

For and on behalf of UNDP



**Mr. Stephan Rodrigues**  
UNDP Country Director



Annex I: List of participants  
Attached

Annex II: Final Agenda

Time	Presentation	Presenter
08:30 – 09:00	<i>Registration</i>	PRO
09:00 – 09:30	Welcome message	Chair & Co-Chair
09:30 – 9:45	Presentation 1: The relevance of meteorological information to different sectors	Meteo Rwanda (DM Twahirwa)
9:45 – 10:00	Presentation 2: The use of weather and climate information in Agricultural Sector	RAB
10:00-10:45	Q&A Session	Moderator
10:45-11:00	<i>Coffee &amp; Tea Break</i>	Classic Hotel
11:00-11:15	Presentation 3: Use of weather and climate information in disaster risk reduction and preparedness	MIDIMAR
11:15-11:45	Q&A Session	Moderator
11:45-12:25	General wrap up: Recommendations and Way forward	Rapporteur
12:25-12:45	Closing Remarks	Chair & Co-Chair
12:45-	<i>Lunch</i>	Classic Hotel

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