QUARTERLY NARRATIVE PROGRESS REPORT 2020/Q2

Purpose: This report aims at assessing the achievements against the planned results during the quarter as well as risks and issues that could affect project implementation.

Project title:	Strengthening National and Local Disaster Risk Management Capacity, Resilience and Enhancing Preparedness and Early Warning System in Rwanda
Project number:	00117911 "Strengthening DRM Capacity in Rwanda (METEO)"
Implementing Partner(s)	Rwanda Meteorology Agency (METEO)
Project/UNDAP/CPD outcome:	UNDAP Outcome 2; UNDP-CPD Outcome 2; By 2023 Rwandan institutions and communities are more equitably, productively, and sustainably managing natural resources and address climate change
NST priorities:	NST1 Priority 7: 'Sustainable Management of Environment and Natural Resources' under the 'Economic Transformation' Pillar
SDGs:	11, 13
Project start date:	01/01/2019
Project end date:	30/06/2023
Reporting period:	Q2/2020
Project budget (USD):	TRAC (core): $ 2,765,065
	Government of Rwanda (in kind): $ 200,000
	Total project budget: $ 2,965,065

Prepared by (name & institution):

MUNYARUGERO JEAN/Meteo Rwanda

Approved by (name & title):

Gahigi Aimable, Director General

Date: 09 July 2020

Results-based Reporting

OUTPUT 1: Institutions at national, district and community level have improved technical capacities to reduce risks, manage and respond to natural disasters and limit gender-differentiated impacts
Results achieved and evidence *(Explain the achievements at the output level. Make sure to provide evidence, related data and how it was collected)*:
During this period, the Account was remunerated. The program Manager was not on board yet. The periodic back charges were paid. The envisaged testing phase of the automated meteogram was not achieved due to COVID-19 lockdown which was put in place by the government, where everyone was asked to stay home.
Completed activities that contributed to the above achievements *(Explain which activities took place and how they contributed to the achievement of the output. Photos or reports can be added as annex)*:
1.9 Support to developing and customizing Multi Hazard EWS and sharing best practices The planned configuration of the Cluster computer was done by Meteo Rwanda system administrator so that it is made ready for data ingestion and enable testing stage. However, this activity was not fully implemented as its schedule coincided with the COVID-19 lockdown where no gathering were allowed.
Change in plan *(what results were not achieved as planned and why)*:
Data ingestion into the Cluster computer was not implemented. This activity required that involved people would meet and work on it at office but the lockdown measure to curb COVID-19 halted the plan.

OUTPUT 3: Enhanced Multi Hazard Early Warning Systems (MHEWS) to enable effective preparedness, response and recovery
Results achieved and evidence *(Explain the achievements at the output level. Make sure to provide evidence, related data and how it was collected)*:
Some analysis was conducted and generated draft reports which includes the continuation of the impact tables for extreme weather events where thresholds were identified for rainfall and wind and; the climate normal where secondary parameters were computed. The climate normal computed were for the period between 1981-201.
Completed activities that contributed to the above achievements *(Explain which activities took place and how they contributed to the achievement of the output. Photos or reports can be added as annex)*:

3.3. Upgrade national disaster communication system and provide real-time early warnings

This activity did not happen. During this period, the government set measure which only allowed key staff and priority activities to be done. It is envisaged that this activity will resume during the next quarters.

3.4. Support to improve the generation of weather forecasts and dissemination

a) Generation and dissemination of weather warnings

On 9th March 2020, the Director General of Meteo Rwanda Mr. Aimable Gahigi joined other officials namely Prof. Shyaka Anastase, Minister of Local Government; Mrs. Marie Solange Kayisire, Minister in Charge of Emergency Management and Mr. Pudence Rubingisa, the Mayor of Kigali City in a press conference that discussed Kigali City disaster prone areas and the need to accelerate the relocation of people in high risk areas.

During the press conference, the Director General of Meteo Rwanda talked about the March to May 2020 rainfall seasonal forecast.

Prof. Shyaka Anastase, Minister of Local Government (C) chairing the press conference on relocation of people in high risk zones	The Director General of Meteo Rwanda presented March to May 2020 seasonal rainfall forecast in a press conference that discussed the relocation of households in high risk zones

Soon after Meteo Rwanda has issued the weather forecast for March to May 2020 rainfall season, the city of Kigali announced the plan to relocate more than 11,000 families that were living in disaster-prone areas.

b) Analysis and development of impact tables for the wind and rainfall:
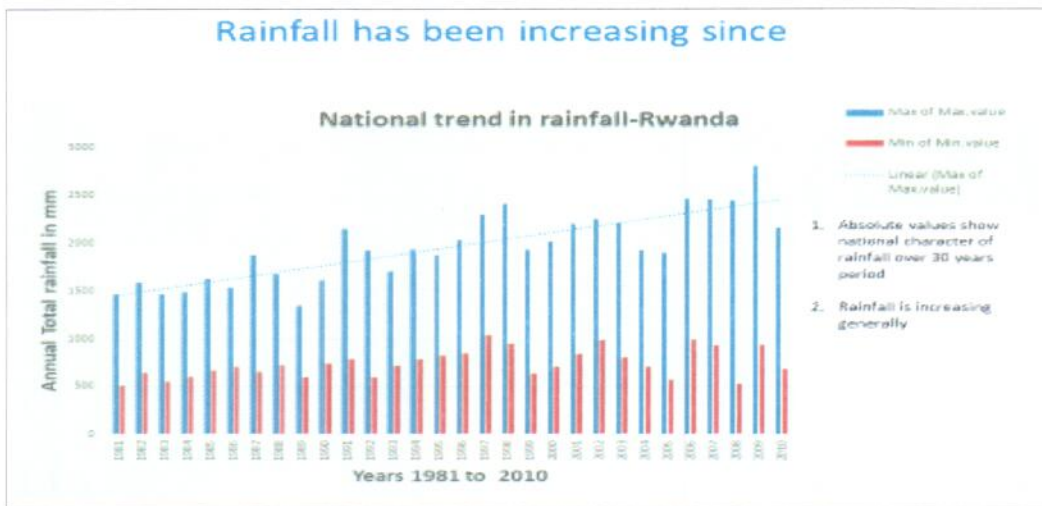
The wind and rainfall are the major weather parameters that cause distraction of property countrywide and these conditions can be averted by Meteo Rwanda through providing weather warning on expected strength in terms of severity and likelihood as well as the associated potential impacts. Hence, the wind and rainfall impact tables were developed based on the observed hazard cases to support weather warning end users in severe weather

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risk reduction.

The impact tables developed will be used during the issuance of the weather warnings based on a combination of the likelihood of severe weather expected to occur and the level of impacts the weather may cause. The impact tables will guide forecasters on duty as well as MINEMA to advise the end users of the warning.

Wind thresholds			Rainfall thresholds		
Categories	Wind in m/s	Colors	Categories	Rainfall in mm/day	Colors
Light	< 3		Light	<10	
Moderate	3 - 6		Moderate	10-25	
Strong	6.1 - 13		Heavy	>25-40	
Very Strong	> 13		Very heavy	>40	

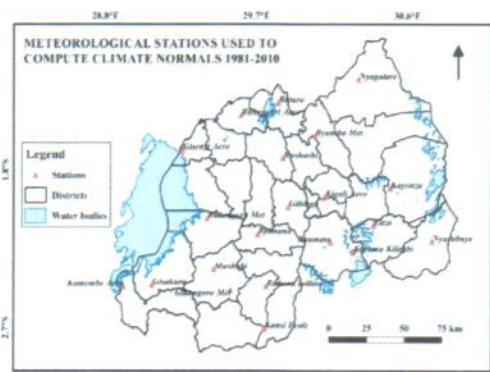During the analysis, staff realised the following:

3.5. Support the improvement of a national climate database providing accurate data and information

a) Development of climate normal for Rwanda 1981-2010

This was the continuation of the started development and aimed

1. To compute and document the updated second parameters of 1981-2010 Rwanda Climate Normals according to the WMO guideline No 1203

2. To review and finalize the documentation of Rwanda Climate Normals (1981-2010)

This exercise used data from 21 weather stations to compute rainfall and 18 stations weather stations to compute temperature since they contained data with relatively fewer missing records.

b) Pay for the data backup service

Data was regularly backed up at the National Data Centre to ensure they are in a safe place, therefore, assured they will be used by future generations.

c) Data rescue

In March 2020, data rescue team started to digitize handwritten historical climate data from paper forms from weather stations installed across the country for different years which were collected in during those years. But, unfortunately it was halted due to the lockdown measure to curb the COVID-19 pandemic.

As the lockdown continued, we created an opportunity to use the recently developed Monitoring and Evaluation (M&E) system which was also funded through this project by creating a dedicated menu to be used by the data rescue team while they are at their homes.

Since then, the team has accessed day-to-day tasks and has transcribed data for the following weather parameters written on 1,629 paper forms:

- Humidity
- Temperature
- Rainfall
- Wind speed
- Wind Direction
- Pressure

Statistics below show the digitised data to date:

d) Maintenance of weather stations

Meteo Rwanda was supported to visit and conduct required station maintenance (Preventive and Corrective) in 3 Provinces and in Kigali where in total 132 weather stations were visited and maintained.

In Eastern Province and in Kigali, 30 stations were visited where technicians carried out preventive and/or corrective maintenance. Among them 24 stations were left operational and 6 did not work, they require spare parts or replacement.

In Southern Province, 50 Stations were visited, where 48 stations were fully maintained and only 2 failed to work.

In Northern Province, 52 stations were visited. It is only 2 stations which were not able to function.

Meteo Rwanda was not able to visit stations installed in Western Province due to COVID-19, lockdown.

Change in plan *(what results were not achieved as planned and why)*:

Basic data analysis reports which would inform the decision making and improvement of weather forecast were not fully produced and validated.

The CAP system was not operational as involved people could not meet, set necessary infrastructure and gather to taken decision on the field.

This was some of the effect on COVID-19 on the envisaged results.

OUTPUT 5: Response to Covid19

Results achieved and evidence *(Explain the achievements at the output level. Make sure to provide evidence, related data and how it was collected)*:

Meteo Rwanda one of the few essential service providers which were allowed to continue the office work could not serve unless it fulfils safety requirements. For the safety of the staff and to fulfil government requirements, 12,000 pieces of face masks were purchased by UNDP under this project to ensure the continuation of the service. These masks were received and distributed to all Meteo Rwanda staff and they are using them. Every staff has received face masks which they wear every time.

As of the time of writing this report, no case of COVID-19 infected Meteo Rwanda staff.

Completed activities that contributed to the above achievements *(Explain which activities took place and how they contributed to the achievement of the output. Photos or reports can be added as annex)*:

5.1. Provide support for protective equipment and aid kits at weather stations

To curb the spread of the COVID-19 while protecting Meteo Rwanda staff who continued to perform office work and those who were intermittently called to come on work; UNDP purchased 12,000 pieces of face masks for protect Meteo Rwanda while at work.

These staff are working at the head office and at upcountry stations sites.

It was unfortunate though, the handwashing facilities envisaged to be installed at 12 sites and the 2 first aid kits were not purchased. It procurement failed due to the lockdown that hampered the procurement processes.

5.2. Provide support for urgent transportation for weather information collection and forecasting under COVID 19 emergency

During the COVID-19, the Government decided for lockdown whereby no vehicle movements were allowed except vehicles with pass/authorisation from the Local Government and Police.

Meteo Rwanda would be affected but the project availed fuel for the Meteo Rwanda vehicle which was allowed to move when an intervention was required at weather station sites.

2,000 liters of fuel was purchased and made available for that purpose.

Change in plan *(what results were not achieved as planned and why)*:

Meteo Rwanda were not fully protected as they only had face masks. It is envisaged that the pending activities to avail all basic protective kit will resume soon starting with the next quarter.

Overall Challenges, Recommendations and Lessons learnt

Raise any challenges that require attention, and lessons learnt / best practices that can be shared within the project and with other projects.

Key challenges and risks, recommendations *(Identify challenges and risks and recommended solutions)*:	
1. The effects of COVID-19 which did not all the continuation of planned activities	Develop innovative plans that align with existing measurement to curb COVID-19 and which bear multi-solutions.
Lessons learned and/or good practices	

The impact of COVID-19 and its prevention measures have affected the operations hence lead to failure to implement critical activities. However, Meteo Rwanda and UNDP made solutions that avoided the closure of the weather and climate services for the benefit of Rwandans. Also the use of ICT and online tools helped very much to the continuation of the activities which were implemented by some staff at home through the plate forms developed for that purpose.

Leave No One Behind, Gender, Knowledge & Innovation, Environment: *(Share any achievements or lessons learnt, good practices on Leave None Behind, gender equality and women's empowerment, Innovation and Environment (Reports that will include a section on "Environment" are only those for projects focusing on socio-economic development)*

Results Framework Summary

Monitor the indicators by quarter and record relevant progress. Make sure to add the source of data.

Outcome / Output	Indicator	Baseline	Project Achievement (Y1/2019)	Project target (Q2/2020)	Q2 Achievement	Q3 Achievement	Q4 Achievement
Project output 1: Institutions at national, district and community level have improved technical capacities to reduce risks, manage and respond to natural disasters and limit gender-differentiated impacts	Automation process of forecast preparation	Manual system	N/A	Program manager and accountant remunerated	Project Management costs were paid		
				Prototype of the Automated Meteogram	There were some configuration of the Cluster computer but COVID-19 halted the next activity to develop the Automation of the meteogram		
	New Channel for weather warning dissemination	Broadcast (TV and Newspapers), Social media and Text messages	4 MINEMA staff trained on CAP operations	Common Alerting Protocol operational in Rwanda	The common Alerting Protocol implementation process was halted due to the measures to curb COVID-19 pandemic		

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Percentage of disasters from extreme weathers warned 24 hours before occurring	N/A	Climate data compilation and thresholds for extremes computed for rainfall	Climate Normals 1981-2010 validated New parameters for Impact tables analysed (relevant to Disaster, Agriculture and Health)	Draft Climate Normal document was finalised but host the validation meeting coincided with the outbreak of the COVID-19 pandemic. The continued exercise to develop the impact tables included the wind parameter which is one of the causes of disaster in the agriculture area.
Output 3: Enhanced multihazard early warning systems to enable effective preparednes s, response and recovery	Percentage of disasters from extreme weathers warned 24 hours before occurring	No existing baseline Disaster Communicati on system data (2018)	90% Extreme weather events warned before 24 hours	90% Extreme weather events warned before 24 hours	100% of Extreme weather events (extreme rainfall) in Kigali were warned. During March to May 2020, the weather updates were provided and the alert of March 2020 saved lives of people where for example the city of Kigali relocated households
	Updates of the National Climate data bank	Back up on portable hard drives	Subscription to Cloud storage for climate data backup	Safe and Up dated data bank	The regular and required data backup was performed without interruption

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Performance of volunteer weather stations	Manual data transmission system	The system phase I was tested and is being used by volunteer observes	Daily data from All volunteer manned stations transmitted via the system	The system for data transmission from Volunteer weather observers as operational.
			Rescue data from 2,000 paper archives to digital storage	1,629 paper forms were transcribed/digitised by the data rescue team while working from their homes. They could not reach the office due the lockdown measure to curb the COVID-19 pandemic.
Output:5				
Number of Meteo Rwanda sites with hand-washing facilities		11 locations (HQs and weather stations offices) with hand washing facilities	N/A	The installation of the hand washing facilities did not happen due to limitation in procurement process.
Available protection kits		2 First aid kits availed	N/A	The 2 first aid kits were not acquired due to limitation in procurement process.
Staff using face masks		50 staff have face masks for 2 months availed	N/A	Due to limitation in procurement process the face masks were not bough by Meteo Rwanda but through UNDP procurement, Meteo Rwanda got

Standby vehicle for technical interventions	2000 liters of fuel for Meteo Rwanda vehicle intervention	N/A	12.000 pieces of masks and were distributed to all staff
			The 2000 liters of fuel were purchased. It was used during the station maintenance in Southern and in Northern Provinces.

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Financial Summary

| | Quarterly financial report | | | | | Annual financial summary | | |
	Q2 Budget allocation (USD)	Q2 Expenditure (USD)	Balance for Q2 (US$)	Delivery rate for Q2 (%)	Notes (Explain reason if there are differences between budget and expenditure)	Annual Budget allocation (USD)	Annual expenditure by end of Q4 (USD)	Delivery rate at end of Q4 (%)
Output 1	4,269	2,252	2,017	53%	The Program Manager was not hired hence not paid. Part of the Activities were not implemented due to COVID-19			
Output 3	30,989	32,723	-1,734	106%	Remaining budget from the Q1 was paid in Q2			
Output 5	6,579	1,921	4,658	29%	Handwashing facilities and first aid kits were not acquired.			
TOTAL	41,837	36,896	4,941	88%				

Next Quarter Work Plan (QWP)

Please provide Q3&4 work plans.

List of Annexes

Below are potential contents that can be annexed to the report (optional but recommended to have at least one annex).

a) Success Stories

The recently developed M&E system help Meteo Rwanda to continue accessing some work from home and serve customers online (for the first time). The system has helped much to archive and digitise data at risk which were kept on paper records which were being deteriorated by time.
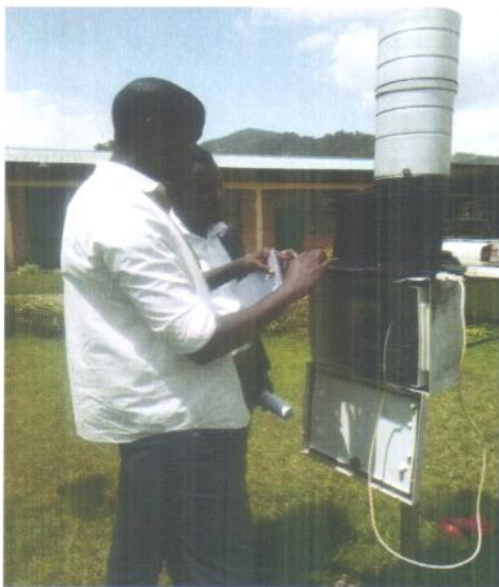
The system is even helping to communicate with customers/users where it is used to collect feedback which is used for continual improvement of weather and climate information generation and dissemination.

b) Key studies

c) Other reports / documentation (e.g. field reports)

http://mis.meteorwanda.gov.rw/sites/default/files/2020-04/Mission%20report%20on%20corrective%20and%20preventive%20maintenance.docx

d) Photos

Meteo Rwanda troubleshooting an automatic weather station.

| 03-Jul-2020 | KALIMBA Innocent | HCC | 0788685002 | Rainfall = Monthly total, Evaporation = Monthly Total, Sunshine Hours = Daily Total | Western Province = Karongi = Rubengera = Kibinzi, Western Province = Karongi = Rubengera = Ruragwe | 01-Jan-1970 - 03-Jul-2020 | Completed | Approved | Download |
| 15-Jun-2020 | William Mudahemuka | SHER Ingenieurs Conseils s.a. | 0780493775 | Rainfall = Daily total | Kigali = Kicukiro = Kanombe = Kabeza, Northern Province = Gicumbi = Byumba = | 01-Jan-1983 - 02-Jul-2020 | Completed | Approved | Download |

Screenshot of data requested served online through the recently developed Monitoring and Evaluation system of Meteo Rwanda

Submitted on	Name	Email	Phone Number	Subject	Message
Wed, 01/07/2020 - 10:26	Egide Kalisa	kalisa.egide@gmail.com	0783087031	Our website	Probably the best easily and friendly website ever seen in Rwanda. The website is well designed and I can submit my request without any difficulties. Well Done Meteo !!!
Mon, 29/06/2020 - 11:13	Alexis Dushimire Hategekimana	alexis.dushimire@gmail.com	0788306962	The quality of Climate data (only data)	I have received the rainfall data as requested, many thanks. However, there was no data for 2nd December 2019, for Kigali Airport.
Tue, 23/06/2020 - 18:09	Sosthene Habumuremyi	h1sosthene@hotmail.com	+250783302561	Climate data service/Access	Dear Sir/Madam, This is just to notify you that I completed my application for your reexamination. Regards.

Screenshot of customers/users' feedback through the recently developed Monitoring and Evaluation system of Meteo Rwanda

e) Links to articles etc.

https://www.newtimes.co.rw/news/meteo-western-rwanda-get-above-average-rainfall-april

https://pbs.twimg.com/media/EbNWxp5WkAIufhr?format=jpg&name=small

https://pbs.twimg.com/media/EXzO1iUWsAEe6Xl?format=jpg&name=900x900

https://taarifa.rw/heavy-rains-kill-1-in-kigali-2-in-nyaruguru-district/

https://www.ktpress.rw/2020/03/1000-households-to-be-relocated-from-high-risk-zones/

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Electronic Record and Signature Disclosure: Not Offered via DocuSign		
Varsha Redbkar-Palepu varsha.redkar-palepu@undp.org UNDP DRR UNDP Headquarters Security Level: Email, Account Authentication (None)	*Varsha Redkar-Palepu* Signature Adoption: Pre-selected Style Using IP Address: 196.12.137.167	Sent: 7/15/2020 1:00:08 AM Viewed: 7/15/2020 8:08:10 AM Signed: 7/15/2020 8:08:30 AM
Electronic Record and Signature Disclosure: Not Offered via DocuSign		

In Person Signer Events	Signature	Timestamp

Editor Delivery Events	Status	Timestamp

Agent Delivery Events	Status	Timestamp

Intermediary Delivery Events	Status	Timestamp

Certified Delivery Events	Status	Timestamp

Carbon Copy Events	Status	Timestamp

Witness Events	Signature	Timestamp

Notary Events	Signature	Timestamp

Envelope Summary Events	Status	Timestamps
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Certified Delivered	Security Checked	7/15/2020 8:08:10 AM
Signing Complete	Security Checked	7/15/2020 8:08:30 AM
Completed	Security Checked	7/15/2020 8:08:30 AM

Payment Events	Status	Timestamps