Seasonal Forecasting Review Report
TANZANIA
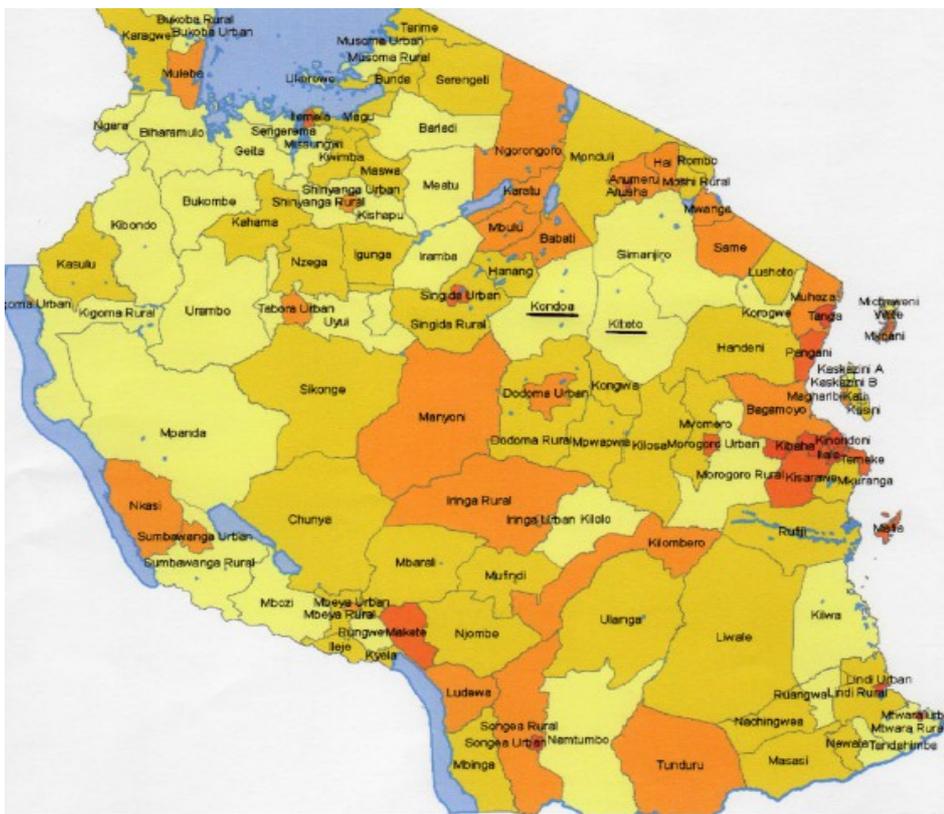
The Districts of Tanzania

Content :

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Annex 1 – Response of TMA to the questionnaire

SeasonalForecasting System Review
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1. SF system

1.1 Large Scale information (LSI)

 Are the impacts of LSI on your country wellestablished (referencedpapers, studies, …) ? Yes

 Which LSI are youcurrentlyusing ? GFS, GPC (UK Met Office), ECMWF, APCC, etc.

 Whoisprovidingsuch information ? IRI, UK Met Office, ECMWF, APEC Climate Center, etc.

 Is itobserved, predicted or both ? Both (but mostly predicted)

 Is some crucial LSI are missing or are not providedtimely ? Yes

 If Yespleasedetails ! GPC products not accessible in GPC website; even after registration (the web won't let us login)

1.2 Regional/Local information (RSI)

 Which RSI are youcurrentlyusing ? RCOF (GHARCOF and SARCOF), In-house Seasonal Rainfall/Temperature forecast (based on both statistical and input from LSI/GCMs)

 Whoisprovidingsuch information ? RCOF (GHARCOF and SARCOF)

 Is itobserved, predicted or both ? Both (but mostly predicted)

 Is some crucial RSI are missing or are not providedtimely ? No

 If Yespleasedetails ! NA

1.3 Products to prepare

 Whichproducts are youissuing ? Long range rainfall (and sometimes temperature) forecasts

 Which are the space and time scalesappropriate for yourproducts ? Seasonal (3 months) and Sub-seasonal (monthly)

 Whichis (are) the relevant Lead-Time(s) ? At least one month

 Are the productsprobabilistic, deterministic or both ? Both

 Do youneeddaily, monthly or seasonalquantities for yourproducts ? We need monthly and seasonal ; since we deal with long range (seasonal or at most monthly) we hardly need daily quantities

 Are the differentproductspresented as maps, bulletins, digital data ? maps and bulletins (hardly digital data)

 Are some important and/or expectedproductsmissing ? If Yeswhich and why. We miss digital data ; which is becoming more and more required

 Are youchecking the quality of the issuedproducts (wrong information, unconsistency, ...) ? Yes. However quality checks are limited since the products are in maps and/or bulletins

2. Operations

 Is your SF operatedroutinely ? Yes

 If Yes, to whichfrequency ? Whichis the date(s) of issuance ? at least four times a year

 If No for which occasion(s) ? NA

 How long the preparation and issuance of your SF take ? One month

 Do you have anyprocess to follow-up the operations (e.g. task monitoring, …) ? Yes

 Is your system operatedmanually, automatically or in between ? Manually

 Are youroperationsdescribedinto a specific document ? Generally yes (not all documents are documented)

 How are youensuring the sustainability of youroperational system ? By making seasonal weather forecasting capacity building every time a forecast is prepared. By making sure that the computers and packages are in place and well maintained. A Mac machine was recently procured

specifically for seasonal forecasting

Is your SF operatedjointly or separatelywithyourWeatherForecasting System ? Generally separately

3. Methods
3.1 Generality

Is your SF mostlybased on Dynamical, Statistical or Hybridmethods ? Dynamical and statistical

In addition are youusing expert judgement ? Yes

For dynamical/hybridmethodswhich model(s) are youusing ? GFS, ECMWF, GPC

For statistical/hybridmethodswhichmethods are youusing ? Usingwhich software/tool ? Multiple Linear Regression models and Analog Years. Packages : Systat, CPT, GrADS

Are youfacingdifficulties to use thesemethods ? (pleasedetails) We lack full expertise on the use of some of the packages as well as methodologies e.g. in making homogeneous climatological zones etc.

Do you have difficulties to get relevant and updated information on these topics. Not as much

3.2 Downscaling

Do youpreparedownscaledforecasts and products ? Yes

Is it for specific application(s) ? If Yespleasedetails. Generally yes ; it is done mainly for agriculture and livestock keeping

To whichspace and time scales are youdownscalingyourforecasts and products ? District to ward level. Done in seasonal time scales

Is yourdownscalingdynamical, statistical or both ? Statistical

Same questions for upscaling (if any – e.g. movingfrom stations to spatiallyintegrated information) We've never done upscaling

3.3 Dataset

Whichreferenceperiod are youusing for your SF ? 1981-2010

Are all the used data qualitycontrolled ? Yes (by climat/data section)

Are the data homogeneous over the referenceperiod ? Didn't understand the question

Is thereanymissing data ? Yes

Is the access to some crucial data missing or difficultwith respect of operations ? Yes

Same question with respect of R&D ? Yes

3.4 Verification

Are youcomputing scores and skill-scores associated to your SF ? Yes

Are youusing the SVS (or part of the SVS) ? Dont undestand what it means by 'SVS'

Are youusingadditionalverification ? Not sure

Are you monitoring the quality of the current SF ? If Yeswithwhich scores ? Yes. Skill Scores

4. Resources

How many staff involvedintooperations ? Into the R&D of your SF ? Around 20

Whichconnectionbetween the R&D side and the operations ? SF is always done jointly between R&D and operations (forecasting)

Whichcomputing ressources involvedinto the operationalprocess ? PC and/or Mac desktops as well as laptops

Are youfacingspecificdifficulties for the maintenance of computing ressources (hardware and software) ? Yes. Takes along time between the issue is reported and when it is fixed.

Same question for human ressources (e.g. maintenance of competencies) Not as much

5. Application

Are yourproductsdirectlyrelated to specific application domains (Water, Health, Agriculture, Energy, DRR, …) ? No
Are the productsprobabilistic, deterministic or both ? Both
Which type of stakeholdersisusingyour SF (institutional, private, ministery, …) ? All of these

Whichdecision(s) are takenusingyourproducts ? Withwhich Lead-Time ? Hard to know
Do you have anyregular feedback from the stakeholdersusingyour SF ? Feedback is limited
How the liaison withyourstakeholdersisachieved ? Through workshops everytime the SF is about to be issued

4. Communication

How are youpreparing the communication of your SF to yourdifferentusers ? Statement to the public is prepared
Which media (technicalviewpoint) are youusing to conveyyour SF to yourdifferentusers ? Press releases, email, social media (tweeter, facebook)
Do you face anyconcernwith the message to communicate ? As expected, not all users get the message or get it in time
Do you have anyregularpress release, interviews, … regardingyour SF ? Yes. In every seasonal forecast
Do you have any user facilities to help theminto the use of your information ? No. But the media is trained (each time seasonal forecast is about to be issued) to convey the message to the users

5. General organisation

Whatis the nature of your mandate for ClimatePrediction ? For Climate Projection ? TMA is the sole entity which is mandated to issue weather and climate information to the Public
Do you have any mandate for providingClimate Services ? Yes
If Yespleasedetail the nature of your mandate, if No pleasegivedetails on which
organisation have the mandate or whythereis not yetany mandate in your country. Tanzania Meteorological Agency has the mandate to issue all weather/climate information to the public