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EXPERIMENTAL EXCHANGE OF LONG-RANGE FORECASTS AND REPORT OF RESULTS

(Submitted by Ikalafeng Ben Kgakatsi, South Africa)

Summary and purpose of document

This document outlines the long-range forecasting program and project for real-time exchange of climate prediction information to producers and users, being carried out by the South African Weather Service.

Action required

The Team is invited to make its recommendations taking into account the proposals submitted in this document.

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1. INTRODUCTION

The Prediction Research and Development directorate of the South African Weather Service, deals mainly with the development of prediction techniques for Southern African monthly and seasonal rainfall and temperature and supply to the end-user community. Both statistical and dynamically based techniques are being used operationally to compile monthly and seasonal forecasts. The products are supplied to end-users through the Long-term Operational Group Information Centre. Further dissemination is done through seminars and a monthly forum for explaining climate related topics.

Apart from the models and techniques developed at the South African Weather Service, dynamical model forecast products supplied by the International Research Institute for climate prediction and ECMWF are used to compile the forecast. One of our colleagues is presently at IRI, busy with his post-doctoral program, to bring additional techniques to our seasonal forecasting team. The seasonal outlook is then compiled and distributed to our neighbouring countries namely, Botswana, Lesotho, Namibia and Swaziland, as per their request. Consensus is then reached among all the models used.

The South African Weather Service is actively involved in the South African Regional Climate Outlook Forum (SARCOF). The collaboration is either through training, serving on organising committees and through presentations at the SARCOF meetings. The SARCOF process is an annual event of the South African Development Community (SADC) countries, on seasonal climate forecast meetings, whereby contributions from climate scientists and other experts from national, regional and international research institutes, are used to construct the early (October to December) and late summer (January to March) climate forecasts of the SADC region. During these meetings, ideas are exchanged with the aim of achieving the goals and objectives of the FORUM. Investment is the key to future success for both information producers and users, and the greatest return on investment will be gained from strengthening the interface between the national producers and the intermediaries, that help translate forecast products.

The South African Weather Service has embarked on training users on the understanding and interpretation of weather and climate products. The program started with extension officers in the Agricultural sector and will be extended to other sectors throughout the country. The limited funds available however, will restrict the initial goals set by the project.

2. RECOMMENDATIONS FOR FUTURE CONSIDERATION

Continuous support to the SARCOF process is needed to develop the long-range forecast and verification techniques on meteorological and hydrological monitoring and prediction, aimed at integrated preventive development strategy. National Meteorological and Hydrometeorological Services (NMHSs) with limited resources need to be assisted in the field of long-range prediction, and the enhancement of the necessary infrastructure. If reliable seasonal prediction information is required; the tasks should be properly distributed until credibility is established. Furthermore, the understanding and interpretation of the seasonal outlook products by all users is needed, in order to increase the value of climate products.
