

Report on ENSO Climate Forecast Applications Projects in Vietnam

EXECUTIVE SUMMARY

A quick assessment study was undertaken on the status of ENSO climate forecast applications in Vietnam. The assessment was carried out by experts drawn from the Climate Prediction Branch of the Hydrometeorological Service, the Agro-Climate Research Centre, the Irrigation Department, and the Disaster Management Centre. The status of climate forecast applications in Vietnam is examined, the salient features appearing below.

Although ENSO has a definite influence on the climate of Vietnam, no systematic research has yet attempted to establish linkages between ENSO parameters and local climate/ weather parameters. Consequently, the use of ENSO climate forecasts has no institutional basis as yet.

While providing a short overview of the main features of the Vietnam climate (Chapter I), this paper attempts to establish linkages between ENSO and local weather parameters such as the incidence of tropical cyclones, rainfall distribution, stream flow, and temperature variations (Chapter II). This study delineates four climatic zones so that the different ENSO impacts upon them may be understood. They are:

- A. Northern Vietnam - the coastal provinces in the Bac Bo region from Quang Ninh province to Ninh Binh province (north of 20°N)
- B. North Central Vietnam - the coastal provinces of northern Trung Bo region from Thanh Hoa province to Thua Thien Hue province (from 17-20°N)
- C. South Central Vietnam - the coastal provinces in southern Trung Bo region from Quang Nam province to Bin Thuang province (from 10.6-17.0°N)
- D. Southern Vietnam - the coastal provinces of Nam Bo region (south of 10.6°N)

While ENSO has only a marginal influence on Zone A, it has a discernible impact on Zones B and C in terms of the incidence of tropical cyclones, rainfall and stream flow. Although Zone D is rarely struck by tropical cyclones during El Nino years they can still be highly destructive. ENSO also causes temperature anomalies in Zone A.

In Chapter III an attempt is made to relate ENSO parameters to local weather variations in order to analyse the potential of climate forecasts for management of tropical cyclone and other water disasters, and to restructure crop planning. It has been found that it would be possible to design an early warning system to minimize the tropical cyclone threat and to maximize crop production.

The study ends with a number of recommendations (Chapter IV). These include 1) the need for increased research to fill present gaps in our knowledge; 2) research agencies to serve as intermediaries between the providers of climate forecasts and the users; 3) defining climate-sensitive zones in which pilot applications projects could be undertaken; and 4) bringing ENSO factors into the current long-range forecasts in Vietnam.

The findings and recommendations of this study have been based on a quick assessment of the current situation and a more rigorous research effort will be required to confirm, modify or reject these preliminary findings. The national workshop deliberations will provide guidance for the further direction to be taken.