

**Report of the Informal Planning Meeting
on the Use of El Niño/Southern Oscillation Information
in Early Warning Systems (1994)**

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The meeting was convened on Monday, 24 January 1994, at the Ambassador Hotel in Bangkok, Thailand. The participants were drawn from several disciplines (climate impacts, geography, meteorology, hydrology, economics, political science, statistics), countries (Singapore, Thailand, USA, Vietnam), and organizations (NETTLAP, UNEP-Nairobi, UNEP-Bangkok office).

The objective of the IPM was to determine whether a conference was needed on the application of ENSO information to human activities in Southeast Asia. If deemed necessary, the participants' task was then to suggest the format of such a gathering.

Following the schedule of the two-day agenda, discussion first focused on what ENSO was and what ENSO did to societies around the tropics. Brief discussion was also held on the concept of teleconnections, the linking of climate anomalies over great distances that are thought to be related to ENSO events.

Following considerable discussion among the participants, it was concluded that a large conference (on the order of 100 – 200 people for the Southeast Asia and Pacific region) would be premature. Unlike the situation for the ENSO/Famine Early Warning Systems meeting held in Budapest in October 1993, with its relatively focused topic on African food production problems, a meeting in Southeast Asia would have to focus on a much broader range of issues. It was felt that the level of awareness in Southeast Asia on ENSO, its impacts on societies, and the use of ENSO information (including ENSO forecasts) could be improved by supporting a small but highly visible workshop on the use of ENSO information in Southeast Asia for early warning purposes.

The region of focus extends from Bangladesh to Hong Kong. Nations should care not only about the possible direct effects of ENSO on their economies and populations but on those of their competitors as well. This would be primarily a users' meeting.

ENSO refers to both warm (El Niño) and cold (La Niña) events. While there has been a considerable focus of attention on the warm events, there has been much less research on the impacts for ecosystems and societies of the cold events. The workshop would take steps to redress this imbalance.

It was noted that capacity-building in the region with regard to awareness, interest, and expertise in ENSO information (what it can and what it cannot be used for) is among the

highest priorities. In this regard, it was noted that support for a regionally-based IRICP-like organization be developed and that education, training and outreach be an integral part of its activities.

It was recognized by the participants that countries in the Southeast Asian region had different levels of awareness as well as different needs for and uses of ENSO-related information. As a result of the wide range of expected uses of such information, it was decided to focus on one socioeconomic sector and on one class of weather-related anomalies. Thus, the two areas for primary concern at this workshop would be agricultural production and climate-related disaster planning.

Two-way interaction in education and training in the use of ENSO information were deemed extremely important by IPM participants. Several organizations involved in these activities were identified for possible involvement in ENSO applications activities. These include but are not limited to NCAR, NETTLAP, NOAA, UNITAR, WMO, UNEP, and the proposed IRICP. Also included in this list is the media as a communicator of scientifically based information to the public, and therefore to decision-makers.

We have made distinction between ENSO forecasts and ENSO information. There is considerable utility in information about ENSO events once they have begun. Forecast information can be viewed as value added to what we may already know about ENSO. This is an important distinction when considering the application of our knowledge about ENSO events and their socioeconomic impacts, and would be considered at the workshop.

Input to the workshop could include a reader or collection of articles on various aspects of ENSO (the science, the impacts, the forecasts). In addition, information could be compiled on meetings (e.g., agenda, reports, participants) related to the use and value of meteorological information in general and ENSO information in particular.

The workshop participants would number between 25 and 35, depending on funding availability. It would be multidisciplinary and multinational in nature. Scientific presentations would set the background stage (what is known today and what research might realistically uncover tomorrow to enhance the utility of ENSO information). Potential users of such information would identify what their needs might be from the ENSO research community (broadly defined to include social scientists as well as physical scientists). Thus, the proposed workshop would be an interactive one, providing the participants from different sectors of society with the opportunity to interact in a user-friendly way with the scientists who are responsible for producing ENSO information. In return, scientists will learn of the needs of users.

The workshop would focus on the use of ENSO information to foster national and regional capacity building in Southeast Asia, to enhance the prospects for sustainable

development, and would serve as a prime example of technology and technique transfer from those who have the ability to forecast ENSO and its impacts on ecosystems and societies to those who need such information.

Proposed sessions (not in order of priority) include the following:

1. the science of ENSO;
2. the role of the media in ENSO-related early warning;
3. the role of international organizations, government agencies, and ngos in the use of ENSO information;
4. the role of educational and training organizations;
5. examples from countries now using ENSO information (within and outside the region);
6. missed opportunities of not using ENSO information;
7. the role of scientific uncertainty in the use/misuse of ENSO forecasts and ENSO information (including teleconnections);
8. users' needs and competing issues;
9. identification of the potential users of ENSO information;
10. constraints on the use of ENSO information;
11. best methods to disseminate ENSO information;
12. methods required to determine social and economic value of an ENSO forecast, the value of ENSO information, and the cost of an ENSO event;
13. ways in which an international forecast center could assist regional application centers and ways in which international forecasts could better serve societal needs.

It was suggested that the workshop be held in the Fall of 1994 in Southeast Asia (possibly in Ho Chi Minh City, Vietnam or Chiang Mai, Thailand). Such a workshop, with 25 to 35 participants, would cost approximately \$50,000 to \$65,000 to convene.

The meeting concluded on the afternoon of 25 January 1994 with remarks of appreciation from the UNEP representatives and participants to the meeting.

This letter-report constitutes the final report of our UNEP-supported IPM in Bangkok. I would appreciate hearing from you at your earliest convenience about the potential interest of UNEP in supporting such an important and timely workshop. It is a major step in regional capacity building which, in turn, is a *sine qua non* for sustainable development.

NCAR/UNEP
Informal Planning Meeting (IPM)
ENSO-Related Forecast Applications Workshop: Southeast Asia
24-25 January 1994
Ambassador Hotel, Bangkok, Thailand

Monday, 24 January 1994

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| 8:45AM | Welcome to meeting |
| 9:00-9:30 | Round-the-Table introductions; purpose of IPM |
| 9:30-10:00 | What ENSO is |
| 10:00-10:30 | Break |
| 10:30-11:00 | What ENSO does (including teleconnections) |
| 11:00-12:00 | Identify and build on the experiences (strengths and weaknesses) of earlier conferences focused on the use of meteorological (especially ENSO) information in decisionmaking in the region |
| 12:00-1:30 | Lunch |
| 1:30-2:30 | Theme and scope of an ENSO-Related Forecast Applications Workshop: Southeast Asia |
| 2:30-3:45 | The regional socioeconomic use of forecast information related to warm events. |
| 3:45-4:00 | Break |
| 4:00-4:30 | Identify actual and potential "users" of seasonal and interannual meteorological information |

Tuesday, 25 January 1994

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| 8:30-9:30AM | Dealing with scientific uncertainties related to ENSO and teleconnections |
| 9:30-10:30 | Identify methods required to determine (a) the social and economic value of an ENSO forecast; (b) the value of ENSO information; and (c) the cost of an ENSO event (this would have to be compared to a "normal" year's set of weather anomalies that also cause problems: what is a normal year?) |

- 10:30-11:00 Break
- 11:00-12:00 How might an international forecast center assist application centers throughout the world and international forecasts and better serve societal needs?
- 12:00-1:30 Lunch
- 1:30-2:15 Role of education and training in ENSO information communications (e.g., NETTLAP, UNITAR, IRICP, WMO, NOAA, UNEP, NCAR)
- 2:15-2:45 Role of media in ENSO reporting
- 2:45-3:30 Role of other (not atmospheric, non-agricultural) disciplines
- 3:30-3:45 Break
- 3:45-4:30 Post-Conference follow-up activities
- 4:30-5:00 Summary and recommendations

Adjourn

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