

prob. areas
• Analogy
• Food security vs Famine
(does it have to be FS vs F?
or can it be FS + F)

EWS PAPER/PROJECT (6/8/87)

Introduction

catalyst
underlying causes

- o Why the current interest in ews?
→ *recent act of African famines*
- o Food problems in African countries in 1970s and 1980s.
- Potential benefits of ews

- o What will ews do that hasn't been done in the past?
- o Not all food problems lead to famine - i.e., the difference between food security concerns and famine
- o What do we mean by famine?
- o What do we mean by food security?
- o Role of drought in famine and food security problems, in the continuum of levels of malnutrition, leading potentially to famine
- o Role of ews in famine and food security problems, also in the continuum
- o Importance of spatial distributions of food needs
- o How will ews help?

Supply Side of ews (i.e., What goes into ews?)

- o Meteorological information is not enough
- o Nutrition information is not enough
- o Agricultural production information is not enough, and so on
- o ews is needed to monitor relevant indicators
- indicators may depend on whether the focus is food security or famine or something inbetween
- o ews is needed to somehow combine the indicators to provide information, forecasts, warnings to decision makers
- o ews characteristics may differ from country to country, from one locale to another within the same country, etc.
- o ews may differ depending on the scale of the ews and on the characteristics of the decision makers [i.e., whether international (e.g., AID, FAO), national (e.g., Ethiopia RRC), or local (e.g., Oxfam)]
- o Who are the present ews developers and why?

- o What kinds of information do the systems provide to decision makers? How is the information expressed? How is uncertainty in the information/forecasts expressed?

Demand Side of ews (i.e., What comes out of ews?)

- o Why are there competing ews?
- o Why don't ews agencies cooperate and combine their efforts?
- o Who are the present users of ews?
- o Who should be the users of ews?
- o What are the constraints on involvement by those who should be users but for one reason or another (to be identified) are not?
- o At which levels of social organization might ews information be effectively used?
- o By which organizations might different types of ews information be effectively used (aid agencies, bilateral, pvo, regional, national, provincial, national pvo, national ews)?
- o What kinds of information do the different users need for effective decision making? What kinds of information do they get presently?
- o What decisions does the ews information affect? How?
- o How is uncertainty in the information taken into account by the decision makers?

The ews--Meteorological Forecasting System Analogy

- o ews as a forecasting system
 - elements of ews that are like a forecasting system
 - elements of ews that are not like a forecasting system
- o Types of meteorological forecasts (e.g., point, areal, probabalistic, qualitative, and so on)
- o Attributes of meteorological forecasts
- o Value of meteorological forecasts
- o Limitations of meteorological forecasts
- o Does the analogy hold between ews and meteorological

forecasts?

Description of an Operational ews

- o For example, FEWS in Sudan, Oxfam, Ethiopian RRC
- o Identification of relevant indicators for food security/famine
 - description of indicators
 - categorical, continuous, probabilistic?
- o Processing of indicators
 - weights, credibility, reliability
 - timeliness of availability
 - monitored or sporadic, and so on
 - combination of indicators into "nowcast" or forecast
- o Formulation of "bottom line" assessment
 - who makes bottom line assessment?
 - for whom is that bottom line assessment made?
- o Issuance of forecast: no problem, alert, warning, call to immediate action, etc.
 - many analogues here; El Nino alerts, other disaster systems' gradations of response to varying levels of threat
 - how are uncertainties relayed?
- o Interpretation of bottom line forecast from ews
- o Reactions to ews forecast by relevant actors, agencies, governments, communities, individuals
- o Who "calibrates" (interprets) the forecast for the decision-making situation, and perhaps makes the call to action?

Description of an Actual Use of an ews Forecast

- o For example, how does FAO use a forecast, on the international level; how does the Ethiopian government use a forecast, on the national level; how are Oxfam forecasts used on the local level?
- o What decisions are affected, and how?

Description of an Actual (Not Ideal) Meteorological Forecasting System Most Analogous to an ews

- o For example, the National Weather Service long-range forecasting system or severe storm forecasting system
- o Describe operational aspects of the system
- o Describe how indicators selected, measured, combined into forecasts and warnings

Description of an Actual Use of a (Relevant) Meteorological Forecast

- o How do farmers, natural gas companies use seasonal forecasts? How do disaster agencies use severe storm forecasts?
- o What decisions are affected, and how?

Comparison of the Two Systems: On the Supply Side

- o What are the similarities/differences between the types of indicators that are used in the two types of forecasting systems?
- o What are the similarities/differences in the ways the indicators are combined to formulate forecasts by the two systems (e.g., one system may be based on subjective methods, whereas the other may be based on a more objective approach)

Comparison of the Two Systems: On the Demand (or use) Side

- o What are the similarities/differences between the types of decision makers and the types of decisions between the two types of systems?
- o What are the similarities/differences in the ways the forecasts are used to make decisions?

Are There Lessons to be Learned by ews from the Analogue?

- o Can methods of forecast evaluation - both regarding forecast quality and forecast value - that have been applied to meteorological forecasts also be used to evaluate ews forecasts?
- o Can similar methods (e.g., "hindcasting") be used as aids for improving both forecasting systems?

Where Do We Go From Here With ews?

- o What are the true benefits of ews? How can they be evaluated?
- o How can ews be improved to meet the needs of decision makers, and to increase food security and reduce loss of life?