



Environmental and Natural Resources Management for Food Security and Poverty Alleviation

Capacity building Framework

22 September 2004



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Environment and Natural Resources Service
Sustainable Development Department



Outline

Capacity Building Framework

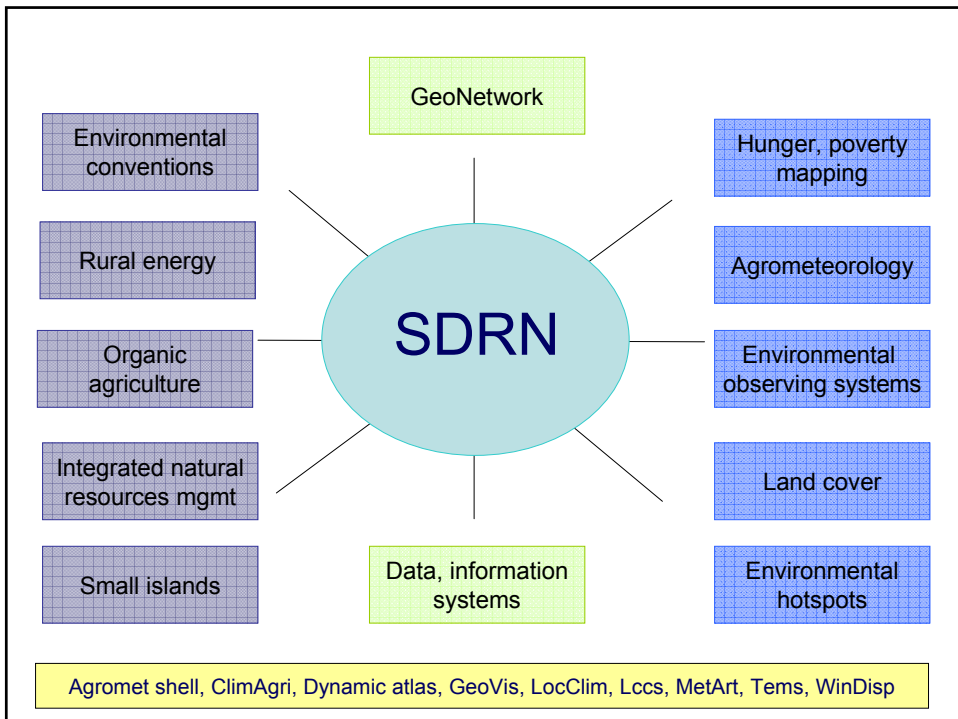
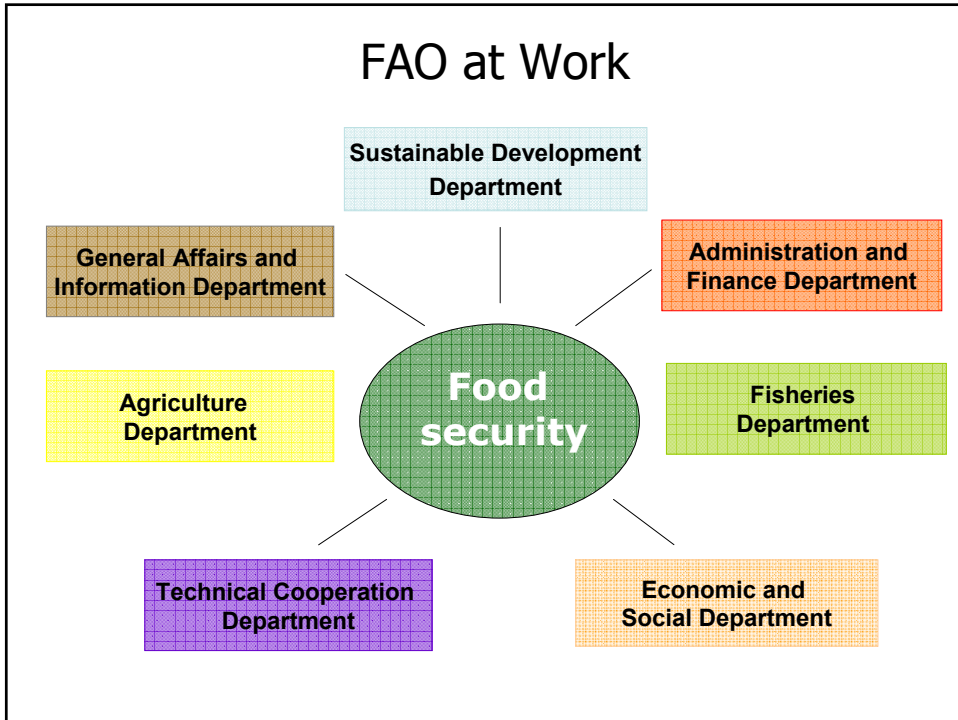
African experiences

Lessons learned

Future

GeoNetwork experience at WFP

FAO at Work



Capacity-building Principles

Ownership

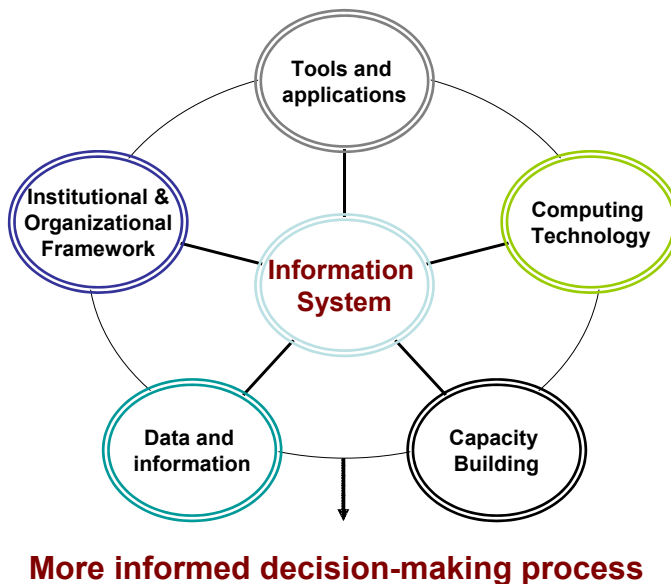
- Promote *local and national ownership* of the activities
- Ensure that resources provided are *demand-driven* and compatible with the *user's context*

Partnership

- Ensuring *interdisciplinary* efforts addressing *cross-cutting priorities*
- Foster *cooperation and collaboration* with key national and regional stakeholders

Equity

- Making sure that the benefits and impacts of activities spread to the most *vulnerable population and marginal areas*
- Contribute towards the reduction of the *digital gap disparity* among countries and regions within a country, and institutions





Capacity building activities...

Training courses and training materials

On the job training

Publications

Distance learning

Awareness and advisory within expert missions/
seminars /meetings/ e.conf./working
groups/concept documents

Web portal



Some challenges...

- State of food security changes due to **various drivers**
- **Inter-dependencies** within and between watersheds/landscapes/territories/countries/regions
- Diversity of actors and their **interests/concerns**
- Lack of **easy flow of information** to comprehensively address the needs of the food insecure



What do they mean?

Food Security

When all people at all times have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. (*World Food Summit, 1996*)

Sustainable Development

Development is sustainable if it satisfies present needs without compromising the ability of future generations to meet their own needs (Brundtland Commission, 1987)



In reality, Food Security includes...

More than 200 definitions, and 450 indicators of Food Security

Local context should guide the selection of an appropriate Food Security Framework



Capacity Building Activities

United Nation Environmental Programme

Mozambique experience
FAO/SADC/SETSAN

World Food Programme



GeoNetwork Spatial Data Infrastructure

Provides

Easy to use tools to accomplish data sharing and use

Mean for distributed maintenance and ownership of data

Integrates

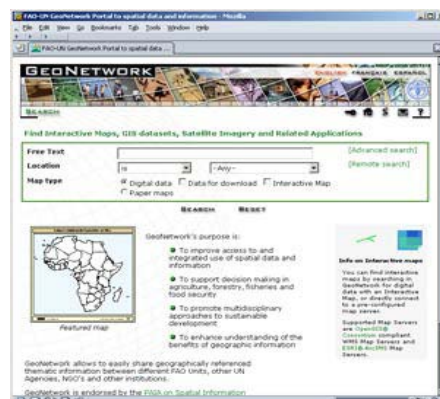
Metadata search and maintenance functions

Distributed databases for data & metadata

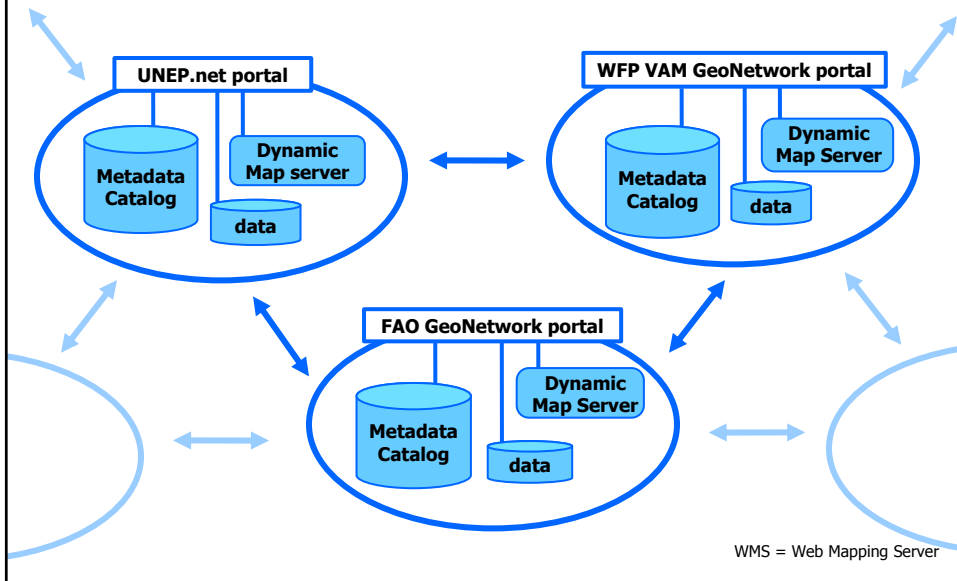
Interactive access to Geographic Data from distributed sources through Internet Mapping Services (InterMap)

Implements

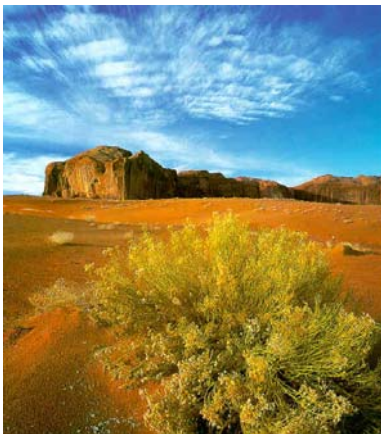
Implements widely accepted standards: ISO19115 (geographic metadata)
OpenGIS Consortium standards (e.g dynamic internet map services)



Integrated Portals



Current developments



- Joint development by FAO, WFP and UNEP on version 1.3
- A number of significant improvements will be implemented
 - Documentation/ guidelines/ training
 - Improved integration with external software

UNEP.Net, the Environment Network - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://unep.net

United Nations Environment Network

Welcome to UNEP.Net, the United Nations Environment Network:
a global portal to authoritative environmental information based on themes and regions.

Thematic Portals

- o [Climate change](#)
- o [Freshwater](#)
- o [GEO data portal](#)
- o [Mountains](#)
- o [Socioeconomic](#)
- o [Urban environment](#)

Regional Portals

[Arctic](#) - [Europe](#) - [Latin America](#)

More regional portals will be opening soon

search

in UNEP.Net
Enter words to search for:
africa precise fuzzy

Maps and graphics
Search all topics

Search [advanced search](#)

country profiles

Angola
Currently 79 countries have complete profiles, but some basic information is available for all countries.

**FAO/UNEP.NET partnership
GeoNetwork**

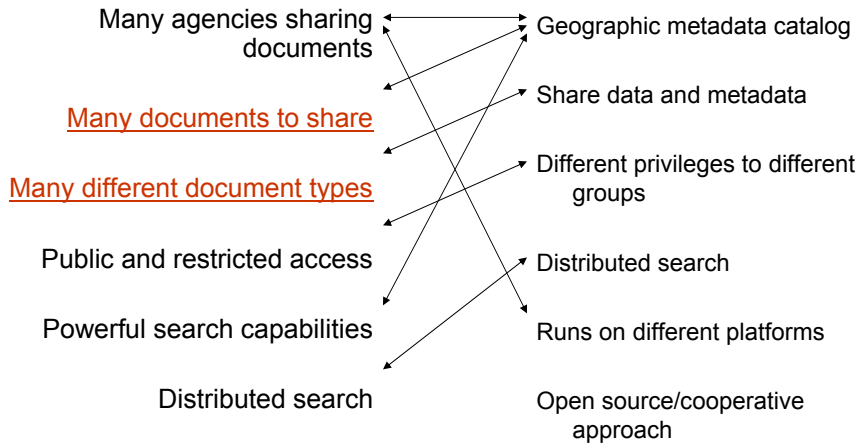
UNEP.NET Context

- Public and restricted access
- Many agencies as providers and users of information
- Need for improved data sharing and access
- Different documents types

GeoNetwork to build UNEP.NET

UNEP.NET needs

GeoNetwork capabilities



FAO/SADC/SETSAN partnership Integrated Food security analysis: Mozambique experience

“Using databases, information system tools and methodologies for emergency planning towards sustainable development and food security”

Mozambique in 2004

Water and Sanitation: Over 50% do not have access and sanitation facilities

HIV/AIDS: 15% of the population between 15-49 years having the virus

Poverty: more than 70% living under below the poverty line

Chronic food insecurity: several consecutive years of war, flooding and drought



DEMAND: Strengthen and further develop our capacities for an integrated use of information that would allow us to translate information into actions that best address our current food security issues

**Mozambique Technical Secretariat for
Food and Nutrition Security (SETSAN)**



Training objectives

Demonstrate:

1. Potential and usefulness of several FAO tools
2. Benefits of an integrated use of data and information tools to comprehensively and holistically address food security issues

Context of the 2003-2004 drought in Mozambique, in particular, and the SADC region, in general

Training partners

Coordinating Unit: SDRN

47 partners, including trainees, guest speakers, and lead instructors

From **9 countries**: Angola, Botswana, Eritrea, Italy, Kenya, Malawi, Mozambique, South Africa, Zimbabwe

With more than **20 institutions**: Government, Universities, NGOs, International institutions (WFP, UNEP, PPF, WHO), Private companies, projects, etc.

Within FAO: As lead instructor or collaborator: Economic and Social (ESCG, ESDG, ESNA, ESNP), Sustainable development (SDAA, SDRN), Agriculture (AGLW, AGPS), Technical Cooperation (TCEO and TCER), Fisheries (FIDI)



Global partnership to act locally

Within SIMAG: UNEP, CIESIN, WHO, PPF, ITC...

InterMap

SETSAN InterMap

LOSE ?

Layers

- Perspectives on food security in time of emergency:** 12 presentations and a plenary
- GeoNetwork:** Jeroen Ticheler and Patrizia Monteduro – SDRN
- AgrometShell:** Elijah Mukhala – SADC RRSU
- WinDisp:** Tinashe Mandaza – SADC RRSU
- GeoVIS:** Craig von Hagen – Africover
- Dynamic Atlas:** Craig von Hagen – Africover
- ArcGIS:** Craig Beech – Peace Parks Foundation

Customized training

Modules integration

Flexibility

Practical exercises: Integrated use of information tools for targeting areas for holistic emergency interventions

Prioritized areas for actions



Partnering and next steps...

"What are the actions to be taken in order to ensure a **follow-up to this training activity**?"

"How to ensure a **continuous strengthening** of the participants in the use of the tools introduced during this training activity?"

"How could we better share data and information, promote our complementarities, and improve the **coordination of efforts** that must be coherent with local, national and regional realities?"

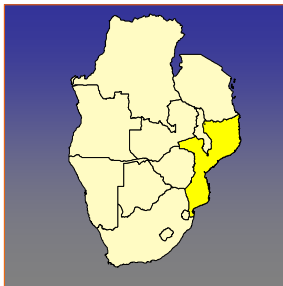
"What strategy could feed in information to the policy makers and stakeholders at **national and provincial level** ?"

"Could we agree on **suitable outputs** to be produced in a timely manner?"



Context of our decision analysis...

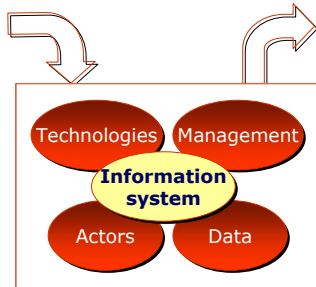
Drought in SADC focus on Mozambique



Interventions: e.g. seed fairs

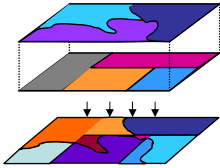


Priority areas



Logical framework...

(1) Baseline data and information gathering

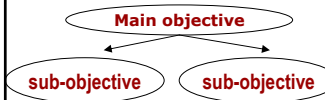


(2) Problem identification and characterization



(3) Needs assessment

(4) Setting objectives



(5) Targeting and selection of interventions



(6) Monitoring and impacts evaluation

- preparedness
- early warning
- relief
- rehabilitation
- sustainable development

Sub-national datasets complemented by Global ones

AGRICULTURE:

Crops yields, Crops areas, Regional Maize Availability 2003

BASELINE:

Political boundaries, Hydrology, Cities, Villages, Road networks, etc.

NATURAL RESOURCES:

Coral reefs, Dugong sites, Wetlands, Parks, Land cover

METEO:

Climatic stations, rainfall, growing length period/crop, drought extent

DEMOGRAPHY:

Population, Life expectancy, Percentage of rural population, Population density (Provincial level)

DRINKING WATER:

Population access to drinking water

ECONOMY:

Percentage active population, Crop retail prices

EDUCATION:

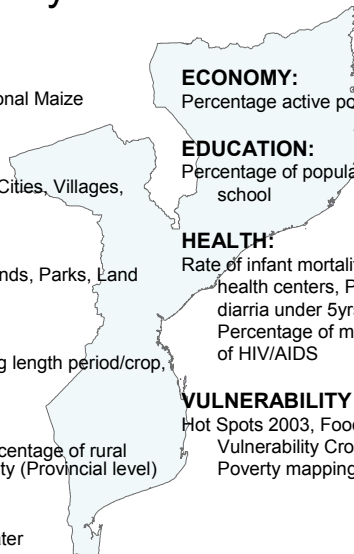
Percentage of population having completed primary school

HEALTH:

Rate of infant mortality per 1000 newborns; Number of health centers, Percentage of population having diarrhea under 5yrs, Percentage 0-14 yrs orphans, Percentage of mothers who died from HIV/AIDS, % of HIV/AIDS

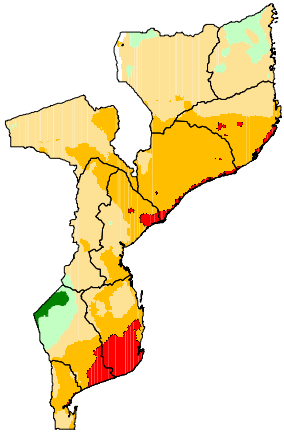
VULNERABILITY ANALYSIS POVERTY:

Hot Spots 2003, Food Aid September 2003, Vulnerability Crop Assessment 2002-2003-2004, Poverty mapping





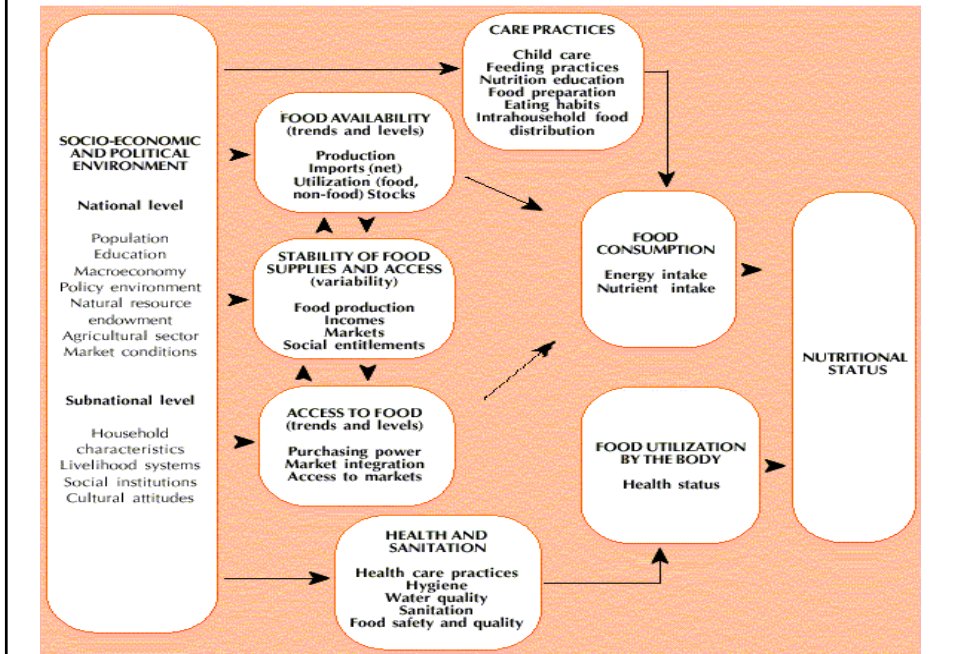
Problem identification and characterization



The starting point in any decision making analysis involves a determination of whether a decision needs to be made

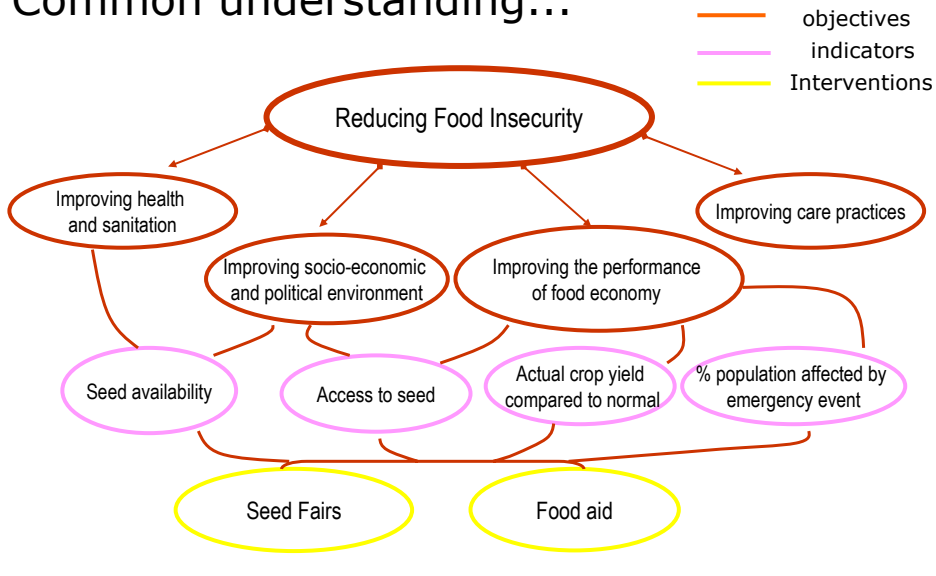
“Yields per hectare are expected to be low again for a variety of reasons: late onset of the rains, lack of cash to buy inputs and the effect of HIV/AIDS on the availability of farm labor. Many crops that have been planted late are **not expected to produce any harvest**, unless rainfall continues well beyond the normal season.” (SADC RRSU (March, 2004))”

FIVIMS as the SETSAN, in Mozambique





Common understanding...



Targeting areas for interventions where households might be at risk to become food insecure

Step 1

GROUP 1

Entry point: **crop production and market prices**

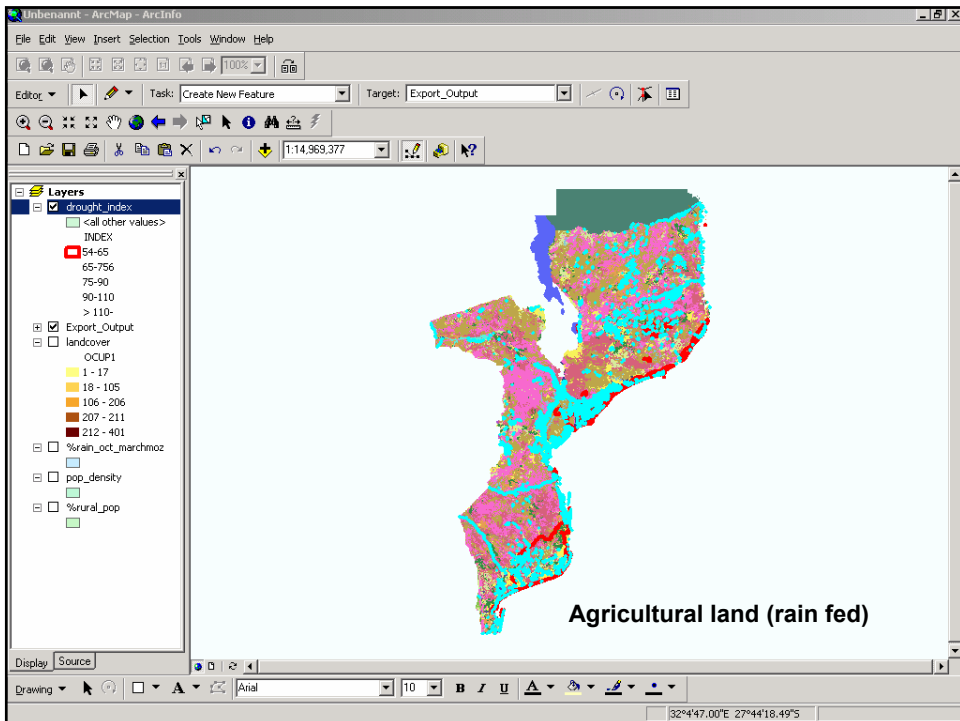
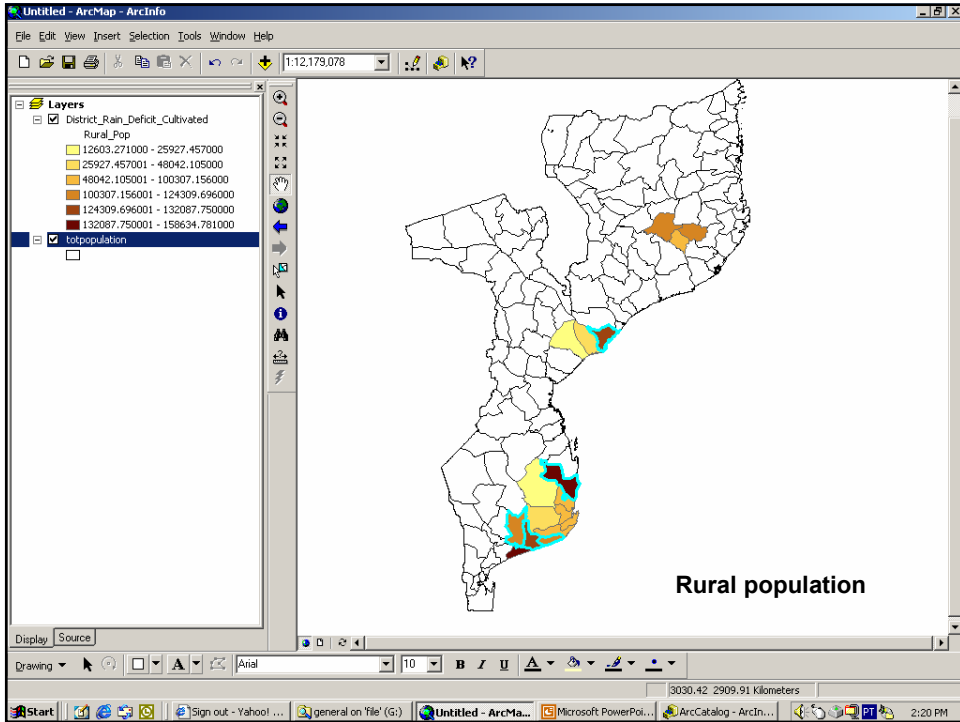
GROUP 2

Entry point: **Physiologically vulnerable group**

GROUP 3

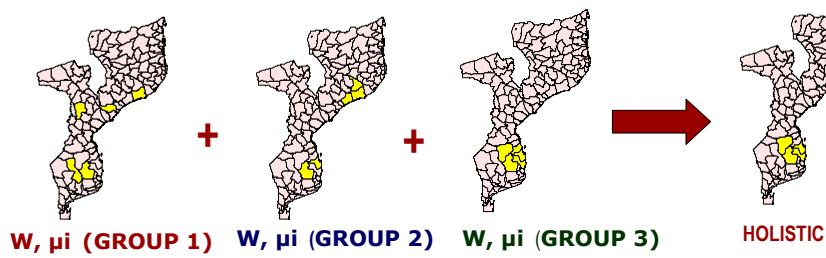
Entry point: **Socio-economic deprived population**







Step 2



Multiple criteria decision making (MCDM) refers to making decisions in the presence of **multiple**, usually **conflicting** criteria



Determining food security interventions

Technical, **policy** or **institutional** interventions





Monitoring and impact evaluation

Monitoring provide a continuous flow of information throughout the course of the emergency cycle to make sound decisions

Evaluation is the measurement of the outcomes of an intervention in comparison to its objectives



Partners' roles in follow-up activities

Trainees

Make use of the tools
Provide feedback to instructors/developers

Instructors

Provide continuous support to trainees in the use of the tools
Improve and customize the tools and training materials, by focusing on the lessons learned during the workshop and the close monitoring of users' needs

Support mechanisms

Commitment to support this process and ensure its continuity

- Mailing list
- Reporting activities
- Information working group
- Follow-up activities: FAO HQs, Provincial level, other countries



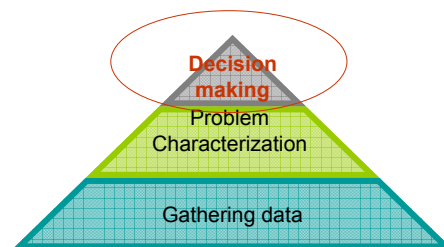
Mozambique experience

- Partnership is key
- On-going learning process for all partners
- Integration of environmental and socio-economic data
- Clear linkage between the data - tools and the decisions to be made
- Continuous commitment to the training activity by all partners is essential for its sustainability
- South-South cooperation (trainers-to-trainers)
- No one fits all !!
- Monitoring and evaluation



Further demands from users...

- Multiple criteria decision-making
- Inclusion of uncertainty, and qualitative information (expert and traditional knowledge) as other sources of information
- Improve the last section of the decision-making process
- Better understanding of the impacts of our decisions at different scales
- Information needs assessment tool





Criteria of success Capacity Building activities

- Empowering all involved or affected stakeholders
- Improved awareness on the benefits of information and tools
- Space for interaction between different actors linked by common discourse
- Reduce the complexity of the decision problem
- Efforts should be nationally-driven ensuring congruence with national contexts, policies, strategies and programmes, and complemented by global efforts

... more informed decisions



Thank you !



FAO/WFP partnership

GeoNetwork