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RAPID REVIEW OF RISK MITIGATION MEASURES

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THE CYCLE OF DISASTER MANAGEMENT

DROUGH RISK MITIGATION MEASURES – A DEFINITION

Any structural/physical measures (e.g., appropriate crops, dams, engineering projects) or non-structural measures (e.g., policies, awareness, knowledge development, public commitment, and operating practices) undertaken to limit the adverse impacts of drought.

RISK MITIGATION MEASURES: AREAS OF INTERVENTION

1. Reduce exposure and increase resilience to drought;
2. Diversify and modernize the agricultural sector;
3. Sustainable land and water management;
4. Communication, education and capacity-building;
5. Transfer and share of risk.

1. REDUCE EXPOSURE AND INCREASE RESILIENCE TO DROUGHT

Reducing exposure aims to reduce the potential for loss of people, livelihoods, ecosystem services and resources, infrastructure, and economic, social, or cultural assets.

Increasing reliance to drought aims to strengthen the ability of communities, ecosystems and economies to anticipate, absorb, accommodate, or recover from the effects of drought in a timely and efficient manner.

Exposure and resilience are inextricably linked because options that reduce exposure often increase resilience.

2. DIVERSIFY AND MODERNIZE THE AGRICULTURAL SECTOR

Encourage the diversification of land and agricultural production systems to reduce reliance on single crops and single land use types.

Diversify livestock composition;

- Diversify crop types;
- Change crop sowing times;
- Managing pasture and rangeland carrying capacities in line with climate fluctuations.

3. SUSTAINABLE LAND AND WATER RESOURCES MANAGEMENT

Many IWRM options are available:

- Long-term measures implemented in preparation for future drought, e.g. supply enhancements measures such as rain-water harvesting, nature based approaches, large infrastructure projects;
- Short term measures implemented during drought, e.g. demand reduction options, regulation of water allocation and use, water monitoring, water efficient technologies).

4. COMMUNICATION, EDUCATION AND CAPACITY-BUILDING

- Educate communities about drought-risk;
- Identify and demonstrate links between drought risk reduction interventions in agricultural systems and livelihood improvements;
- Promote community-led, bottom up initiatives to create sense of ownership of drought resilience and risk reduction strategies;
- Engage with and empower groups typically marginalized such as the poor, migrants, indigenous, women, young and old, disabled.

5. TRANSFER AND SHARE OF RISK

Transfer risks from those most vulnerable to a wider part of the community

GOAL

Design and implement intelligent, risk reducing financial strategies

EXAMPLES

Insurance products (micro-insurance, reinsurance) and an expansion of the risk pools to national, regional, and global scales.

WEATHER INDEX INSURANCE

A type of insurance linked to indexes such as rainfall, temperature or crop yields.

WHY INDIGENOUS KNOWLEDGE MATTERS

- 2.5 billion people derive their livelihoods from agricultural resources

- 900 million poor people live in rural areas and 720 million – 400 million of whom are indigenous peoples – directly depend on agriculture

Today in the world 10 000 cultures and 6 900 languages are involved in thousands of traditional knowledge systems

EMBEDDING TRADITIONAL KNOWLEDGE INTO MODERN PRACTICES – THE BENEFITS

1. Some indigenous practices could be transferred and adapted to other communities;
2. Including indigenous knowledge encourages the participation of the community;
3. Indigenous knowledge provides valuable information about the local context;
4. The non-formal means by which indigenous knowledge is disseminated provide a successful model for other education.

FAO EXPERIENCE IN THE FIELD (1)

DISASTER RISK REDUCTION/MANAGEMENT TO SUPPORT AGROPASTORAL COMMUNITIES AFFECTED BY RECURRENT DROUGHTS AND OTHER NATURAL DISASTERS IN SOUTHERN ANGOLA AND NORTHERN NAMIBIA

OBJECTIVE

Strengthen food security and DRR/M and increase the resilience of agropastoral livelihoods by increasing capacity to manage risks related to natural disasters at the level of communities and local institutions.

OUTPUTS

- Early warning systems and analysis for DRR/M and food security at the provincial/regional level are established/consolidated;
- Skills for DRR/M at the decentralized level (community and local institutions) strengthened and capacity developed;
- Evidence on the application of DRR and resilience building technologies and practices documented, shared and applied in advocacy.

FAO EXPERIENCE IN THE FIELD (2)

IMPROVING WATER ACCESS IN THE DROUGHT AFFECTED REGIONS OF NAMIBIA

OBJECTIVE

To improve access to water in line with the Drought Response Plan of the Government of Namibia.

STAKEHOLDER CONSULTATION

The Erongo region had the lowest proportion of households (27.5%) with access to adequate water supplies for livestock, in comparison to Kunene (48.3%) and Omusati (80.1%).

QUICK-WIN INTERVENTION

- Rehabilitation of boreholes and traditional wells;
- Extension of water pipelines.

FAO EXPERIENCE IN THE FIELD (3)

INTEGRATING CLIMATE RESILIENCE INTO AGRICULTURAL AND AGROPASTORAL PRODUCTION SYSTEMS THROUGH SOIL FERTILITY MANAGEMENT IN KEY PRODUCTIVE AND VULNERABLE AREAS USING THE FARMERS FIELD SCHOOL APPROACH – ANGOLA

OBJECTIVE

To strengthen the climate resilience of the agropastoral production systems in key vulnerable areas in the Provinces of Bié, Huambo, Malanje and Huila.

ACTIONS

- Mainstreaming Climate Change Adaptation (CCA) into agricultural and environmental sector policies, programmes and practices;
- Capacity building and promotion of CCA through soil fertility and Sustainable Land Management (SLM) practices using the FFS approach.

FAO EXPERIENCE IN THE FIELD (4)

SOIL AND WATER MANAGEMENT AND CROP NUTRITION (SWMCN) SECTION OF THE JOINT FAO/IAEA PROGRAMME

Focus on the development, validation and dissemination of soil, water and crop management technology.

OBJECTIVES

- Enhancing agricultural productivity, ensuring the conservation of soil and water resources;
- Improving soil quality and soil resilience;
- Reducing greenhouse gas emissions and increase soil carbon sequestration.

Thank you

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