

**THE TANZANIA REPORT FOR THE WORLD CONFERENCE ON  
NATURAL DISASTER REDUCTION AND MID TERM REVIEW OF  
THE IDNDR FOR YOKOHAMA CONFERENCE OF 23 - 27 MAY  
1994**

**by**

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(i)  
OVERVIEW AND EXECUTIVE SUMMARY

COMPOSITION OF NATIONAL COMMITTEES:

1. Recognising the importance of disasters in Tanzania Act Number 9 of 1990, Entitled "DISASTER RELIEF COORDINATION" was Legislated. The Act provides for the formation of Disaster Relief Coordination Committee and Subcommittees at national level as well as local level (District Level), the Committee and the Sub-Committees are charged with relief and preparedness plans formulation and coordination of implementation.

RISK ASSESSMENT:

2. The paper identifies six major natural hazards which are drought, floods, diseases crop pests/disease, severe storms, wild fires, and landslides. These hazards afflict millions of Tanzanians causing loss of life property and inflict suffering. These hazards are the cause of recent natural disasters experienced. The assessment shows that between 1990 - 1994 drought and floods together seriously affected a total number of 1,305,535 people in 15 Regions: causing 189 deaths. In these disasters 7,226 houses were totally destroyed 21,201 hectares of crops were destroyed incurring a total loss of 4,200,395,000 Tanzania shillings or US\$ 8,400.790 (taking \$1 = TAS 500). Total requirement of food aid stood at 51,649 metric tons of food worth 5,164,900.00 (purchases value, transport, storage and handling charges considered). It is further noted that only 27,107 metric tons of food were supplied (52,5%) due problems of funding.

MITIGATION ACTIVITIES:

Considering the gravity of the losses that these disasters inflict on society the need to include mitigation plans in national development plans has been clearly felt. Consequently, Tanzania has embarked on short and long term plans to

- Combat desertification through extensive afforestation programmes.
- Encourage irrigation both small and large scale to improve agricultural production and income levels.
- Adopt land use plans in Maasai, Dodoma, Mbinga and Kondoa Districts to stop soil erosion, manage drought and raise crop yield through improved land husbandry.
- Strengthen Early Warning systems for Community involvement in preparedness plans.
- Encourage human health improvement programmes like Immunization Programme, Clean Water and Sanitation Provision Programmes, Malaria Control, and Improved Nutrition Campaign programmes.

(ii)

**WARNING:**

Crop monitoring and Early Warning is considered crucial in community involvement in preparedness plans and disaster impact mitigation. Improvement of meteorological forecasting and warning are equally important if such measures like legislation, agricultural improved cultural practices are to be of any use at all. The paper emphasises the need for support of this area.

**INTERNATIONAL COOPERATION:**

Both Regional and International Cooperation is a litch-pin in Disaster Management and Mitigation. Cooperation is badly required in areas of both soft and hardware (technical training, research and equipment). Assistance is invaluable required in

- FOOD AID:

Disasters undermine the productive capabilities of people and increase the number and levels of vulnerable target groups. As shown in the report between 1990 - 93 a total of over 51,000 metric tons of food was required with only 52% supplied. This year (January - June) food aid is estimated at over 21,000 MT. and may increase if the rainfall season will not improve.

- AGRICULTURAL:

Inputs like seeds, fertilizers, and pesticides is another important area to focus on so as to shorten the duration of dependence on food aid by the vulnerables.

- IRRIGATION AND AFFORESTATION:

Need support as important for mitigation of both floods and drought. However, a quantum of resources is required which is beyond what Tanzania can afford.

PREAMBLE

LOCATION:

Tanzania is constituted of two countries, Tanzania Mainland and Tanzania Islands (Zanzibar and Pemba Islands). It is located between latitude  $1^{\circ}$  and  $11\frac{1}{2}^{\circ}$  South of the equator and longitude  $29^{\circ}$  and  $40.3^{\circ}$ . It is bordered by Indian Ocean in the East; Kenya and Uganda in the North; Burundi and Rwanda in North West; Zaire in the West; Zambia and Malawi in South West and Mozambique (Msumbiji) in the South. It has an area of 940,000 sq km. (Mainland) and 25,000 sq km. (Islands).

ECONOMY:

Tanzania has a population 25,800,000 people (25 million Mainland and 800,000 Islands). About 90% of Tanzanians are engaged in agricultural related activities (crop farming, animal production, fisheries and forest products). The rest of the population draws its livelihood from non - agricultural activities like industry and trade. Tanzania is among Third World countries with per capital income of about U\$ 100. Mode of production is mainly peasant farming of both cash and food crops. Major cash crops grown are coffee, cotton, sisal, tobacco, tea, pyrethrum, sugar, cashewnut, and cloves. Whereas major food crops are maize, beans, cassava, sorghum, millets, bananas and potatoes. Income from agricultural activities has been characterized with declining trend due to both unfavourable weather and global economic system. Hence the low per capital income mentioned earlier, associated with increased vulnerability.

CLIMATE:

Tanzania being a vast country has variable climate ranging from tropical to semi temperate climate. Hydrologically some areas are semi-arid prone to constant drought conditions with others receiving adequate rainfall and more frequently prone to flooding. Consequently, Tanzania is constantly prone to both drought and flood disasters.

## **THE TANZANIA NATIONAL REPORT FOR THE WORLD CONFERENCE ON NATURAL DISASTER REDUCTION AND MID TERM REVIEW OF THE IDNDR**

### **1. INTRODUCTION:**

#### **1.1 IDNDR Objectives:**

This report has been prepared with full understanding that The General Assembly in its resolution 44/236 defined the objectives for the IDNDR as the reduction of the loss of life, property damage, social and economic disruption caused by natural disasters. And that by defining specific targets for the Decade, the Scientific and Technical Committees (STC) considered that the Decade calls primarily for action at national level with supporting action at the Regional and Global Levels. The report is also conscious of the hope of the Decade that by the year 2000, all countries, some through Regional arrangements, should have in place, as part of their plans to achieve sustainable development of the specific targets of the decade namely:-

- (a) National assessment of Risks;
- (b) National and or local preparedness Plans;
- (c) Global, Regional, National and Local warning systems.

#### **1.2 Disaster Management Structural Set Up:**

Tanzanian Commitment in carrying out the IDNDR objectives is reflected in its Disaster Management Structural set up which involves National Committees and Institutions

### **COMPOSITION OF NATIONAL COMMITTEE (FOCAL POINT)**

Act Number 9 of 1990 was enacted to establish and provide for the maintenance and operation of a system for the anticipation, coordination and control of disastrous situations and the organization of relief from disaster:

Section 3 of this Act establishes a Disaster Relief Coordination agency known as The Tanzania Relief Coordination Committee (or TANDREC). It is this Committee which is charged with the Responsibility of carrying out the provisions of the Law namely anticipation, coordination of preparedness plans and organization of relief -The Committee draws its members from nine Ministries of:-

- (i) Prime Minister's office & First Vice President;
- (ii) Treasury;
- (iii) Planning Commission;
- (iv) Defence;
- (v) Works & Communications;
- (vi) Health;
- (vii) Education;
- (viii) Agriculture & Livestock;
- (ix) Home Affairs;
- (x) Directorate of Meteorology
- (xi) Foreign Affairs
- (xii) Water, Energy and Minerals

### **1.3 INTERNAL ORGANIZATION OF COMMITTEE:**

The National Disaster Committee Organisation is essentially a two - tier system organized at National and Regional levels:

#### **1.3.1 National level:**

At National Level there is Tanzania Disaster Relief Coordination Committee (TANDREC). This Committee has several subcommittees:

- (a) Disaster Operation and Preparedness Committee (DOPC). The subcommittee is responsible for carrying out relief and preparedness plans as and when necessary, it draws its members from TANDREC members.
- (b) Food Emergency Subcommittee. This subcommittee is mainly responsible for relief activities like procurement and distribution of relief supplies (food, medicines, shelter etc). Members of this Committee are drawn from TANDREC and from important NGOs operating in the country. The full list of members is as follows:

GOVERNMENT: The Prime Minister's Office & First Vice President  
Treasury, Agriculture & Livestock Development.

NGO s:

- (i) World Food Programme (WFP);
- (ii) Red Cross;
- (iii) United Nations Development Programme; (UNDP);
- (iv) Tanzania Christian Refugee Services (TCRS);
- (v) Catholic Relief Services (CRS);
- (vi) International Islamic Relief Organizations;
- (vii) Concern;
- (viii) UNICEF;
- (IX) FAO;
- (x) World Health Organization (WHO).

#### **1.3.2: AT REGIONAL LEVEL:**

At Regional levels Emergency Committees are formed at District level and are coordinated by Regional Authorities. There is a Disaster Prevention Committee (DDPC) whose members consist of:-

- (i) The District Commissioner - who is the Chairman.
- (ii) Members from Ministry of Health.
- (iii) Members from Red Cross.
- (iv) Education.
- (v) Agricultural and Livestock Development.
- (vi) Communication and Works.
- (vii) Natural Resources and Land Development.
- (viii) Any other person appointed by the Minister.

Under DDPC there is a District Disaster operations and Preparedness Committee (DDOPC) charged with the same functions as those of the National Disaster, Operations and Preparedness Committee.

### 1.3.3 Institutions:

Besides the National Disaster Relief Coordination Committees (TANDREC, DDOPCs) there are Institutions which deal directly with some natural disasters. These institutions which are formed by relevant Laws are:-

- The Directorate of Meteorology which is responsible for in weather forecasts, flood forecasting and warning and drought monitoring.
- National Land Use Commission (NLUC) which is charged with Land Use Plan to mitigate on Natural disasters through improved uses of Land.
- National Environmental Management Council (NEC) responsible for Environmental Conservations.
- Crop Monitoring and Early Warning System in collaboration with the Directorate of Meteorology.
- Ministry of Health Combats epidemics through health campaign programmes.

## 2. THE RISK ASSESSMENT:

Surveys through historical perspective identifies seven major natural hazards namely drought, floods, diseases, crop pests, tropical cyclones and severe storms, wild fires, and land slides. These seven hazards affect millions of Tanzanians, causing loss of life, property and human suffering. These hazards are the cause of disasters recently experienced in Tanzania.

## 3. PREVAILING HAZARDS:

Prevailing hazards leading to Natural Disasters can be categorised in five major classes namely:-

### (a) DROUGHT:

For the last three years drought has been a serious hazard occurring in many Regions of Arusha, Kilimanjaro, Mwanza, Mara, Tanga, Tabora, Dodoma, Singida, Lindi, Morogoro and Iringa severely affecting 1.5 to 3 million people. Drought can occur in any part of the country.

### (b) FLOODS:

Floods are another important hazard which has in recent years affected about 20 million people in a number of Regions in Tanzania. Most susceptible were Lushoto and Korogwe Districts (Tanga Regions), Mtwara Region, Kilosa District (Morogoro Region) Kilwa District (Lindi Region) and Kyela (Mbeya Region).

### (c) DISEASES:

Human epidemics have become an important hazard to human life. The most commonly epidemics becoming most hazardous in Tanzania are Sylvatic Plague (Lushoto District), Aids, Cholera, Malaria, Meningitis and Tuberculosis.

(d) **CROP PESTS/DISEASES:**

Crop pests and diseases are quite hazardous to the economy, people and the nation as a whole. The most important crop pests and diseases are:-

- Army worn and Locusts;
- Cassava Meal-Bug;
- Banana Weavils;
- Rodent pests.

Pests attack on crops have led to serious loss of crop yields and consequent increase in vulnerables suffering from both poverty and lack of food requirements necessary for their well-being.

(e) **TROPICAL CYCLONES, SEVERE STORMS, WILD FIRES & LANDSLIDES:**

Tropical cyclones, severe storms, and wild fires are other category of hazards which inflict loss of life, property and sufferings to the people. Many houses are damaged (deroofting) or completely destroyed. These hazards are becoming so common and costly to the extent of causing concern to the people. Severe weather accompanied by thunder, lightning, strong winds and heavy precipitation cover the entire country of 25 million people out of whom about 5 million people suffer annually. Tropical Cyclones do affect areas along the Coast South of Dar es Salaam.

4: **RECENT NATURAL DISASTER:**

Tanzania has experienced recently a number of natural disasters especially droughts, floods, sylvastic plague, rodent pest and human epidemics. These disasters have affected many people and inflicted losses of untold magnitude. The figures shown in the table below gives some details:

**RECENT NATURAL DISASTERS** (Table 1)

DISASTER/ TIME	LOCATION	DEATHS	AFFECTED POPULATION	RENDERED HOMELESS	SEVERELY AFFECTED	ESTIMATED LOSSES(US\$)
1. Tropical Cyclone "Alibera" of 1989/90	Dar es Salaam, Coast and Southern Tanzania	7	3 million	500,000	300,000	-
2. Landslide	Mtwara Region (S. of Tanzania)	NIL	300,000	50,000	30,000	-
3. Floods	Lushoto ,Korogwe (Tanga Region) Mtwara, Morogoro, Lindi.	37	2 million	500,000	70,000	5 million
4. Droughts	3/4 of Tanzania	NIL	20 million	Devastation of crops	1.5 mill	4 million
5. Sylvastic Plague	Lushoto	-	250,000	NIL	25,000	1 million
6. Rodent Pests of crops	Mtwara, Lindi Lushoto	NIL	833,500	NIL	83,350	2 Million



## **5: MITIGATION ACTIVITIES:**

Mitigation efforts against natural disasters impact on human life in Tanzania involves Risk assessment and national plans for natural disaster reduction, information and enabling legislation:

5.1 Comprehensive National Assessments of Risks from Hazards has led to improvement of meteorological and hydrological forecasting and assessment of adverse weather conditions and other natural calamities on food availability to the people. Consequently deliberate efforts have been made in a number of important areas namely:-

- i) Capacity building of the Directorate of Meteorology with UNDP assistance in order to improve the - Analysis of meteorological and hydrological data on tropical cyclones, severe weather, drought, floods to determine frequency of accuracy of extreme events in order to reduce risks: ensure safety and avoid loss of life.
- ii) Rapid exchange of information on prediction of movement and intensity of tropical cyclones as a basis of early warning systems.
- iii) Improve and upgrade link with RSMC la Reunion Tropical Cyclone. Centre to enhance monitoring and early warning of cyclones.

Improvement in forecasting of natural hazards and assessment of food situation have created awareness of the gravity of the matter on social economic and even political welfare development and the need to provide for plans like irrigation land use planning, afforestation, as a national plan to combat desertification.

5.2: Mitigation plans at national and local levels involving long term prevention and preparedness and community awareness. Tanzania has embarked on a number of mitigation plans at both national and local levels. Most important plans are:-

- ( i ) National plan to combat dessertification which is being carried out in the entire country. Afforestation being the most important component of it.
- (ii) Irrigation projects both large and small-scales aims at improving agricultural production to reduce or mitigate problems of food shortage on the national economy.
- (iii) Adoption of land use plans already initiated in areas like Maasai District Lituhi Mbinga District and Kondoa District. The aim of these plans is to mitigate drought impact through improved and husbandry and increased crop production.
- (iv) Control of crops pests like rodents.

PRESENT PLAN FOR NATURAL DISASTER REDUCTION (Table 2)

	TITLE OF PROJECT	TIME SPAN COVERED	AGENCIES, INSTITUTION AND ORGANIZATION INVOLVED	IMPLEMENTING AGENCIES	FUNDS AVAILABLE FOR IMPLEMENTATION
1	Pilot Project in Flood Forecasting and Drought Monitoring	10 Years (1990-2000)	Directorate of Meteorology and Water Research Division	Meteorology Department in Dar es Salaam.	Government Budget of shs
2	Irrigation Programme (187,066 ha.)	20 Years (1980-2000)	The Government of Tanzania, FAO GTZ, JIKA.	Government of Tanzania and FAO	TAS 5,606,1205 million US\$ 11.22 million).
3	National Plan of Action to combat Desertification	20 years (1990-2000)	The National Environmental Conservation Commission (NECC)	NECC	TAS 2 Billion
4	Land Use Masasi, Kondoa, Dodoma, Ifithi, Great Ruaha, Southern, Integrated plan & Forest Reserve Conservation	20 Years (1990-2000)	Government of Tanzania	National Land Use Planning Commission (NLUPC)	TAS 124.8 million (US\$ 249,600)
5	Plague & Rodents Control Programme	10 years (1990-2000)	SNV - Netherland Government Sokoine University of Agriculture (MOROGORO)	Sokoine University	Canadian Dollars (CAD) 326,230

B.4 DISASTER MITIGATION ACTIVITIES (Table 3)

(a) IDENTIFICATION OF HAZARD ZONES: HAZARD ASSESSMENT

	TITLE OF PROJECT	STATUS	PARTICIPATION INSTITUTION		COST OF PROJECT	SOURCES OF FUNDING		IMPLEMENTING AGENCIES ADDRESS	
			INTERNATIONAL	LOCAL					
1	Mombo Irrigation project to rebuild changed course	10% Underway	Government of Tanzania		TAS 174 million	Government		Ministry of Agriculture & Livestock Act.	
2	Kitivo Irrigation Project (Repair of Canal)	10% Underway	Tanzania Govt. & ADS		TAS 900 million	Govt. & ADS		Ministry of Agriculture & Livestock Act.	
3	Environment & Social determinants of plague in Tanzania	Underway about 0% through	Sokoine University Agric. Morogoro (SUA) Tropical Pesticides Research Institute Arusha; and Ministry of Health		CAD 326.230	International Research Centre Canada (IDRC) CAD 240.040 & Tanzania Govt. CAD 86.190		Ministry of Agriculture Tel. 051-27211-6 Dar es Salaam. Sokoine University of Agriculture (SUA).	
4	Strengthening of The Directorate of Meteorology	10% Underway submission Proposals to Govt. & SADCC or Funding	Meteorology Department UNDP		US\$ 2 million	Government & UNDP		Department (Directorate of Meteorology)	
5	AMSS & Data-Processing System with Display and Plotter for NMC Dar es Salaam	10% Underway submission for funding to Government & and UNDP	- do -		US\$ 1 million	Government & UNDP		- do -	
6	Establishment of flood forecasting committee and research in Drought	- do -	- do -		-	- do -		- do -	

5.3: Ready Access to global Regional, National and Local Warning Systems and broad dissemination of Warnings:-

Through its Crop Monitoring and early warning systems the Government is able to successfully disseminate to the people information on preparedness plans. Such information like the need to adopt drought resistant crop; preservation of food to avert famine is now given to the people several months ahead. The situation is expected to improve even further as weather forecasting strengthening is realized.

5.4: **PRESENT NATIONAL PLAN FOR NATURAL DISASTER REDUCTION:**

The present national plan for natural disaster reduction involves control measures of desertification, afforestation, irrigation schemes and crop pest or rodent control as well as land use management plans as shown in the table below:-

## (b) MONITORING AND PREDICTION AND WARNING: (Table 4)

1	Studies on the Ecology and biology of rodents and their fleas in relation to plague outbreak	Underway	SUA	TAS 3 million	EEC & Ministry of Agriculture	SUA Rodent research Unit
2	Food situation surveys	On going	Government & NGOs	-	-	Government & NGOs
3	Crop Monitoring and early Systems	- do -	Government & FAO	-	-	Government & FAO

## (c) LAND USE AND RISK MANAGEMENT:

1	Dodoma Land use Management Project Drought Management	On going Project	Tanzania Government	TAS 34.6 (for 1994/95)	LUPC Shs. 1.5m/= SNV	Dodoma Regional Authorities
2	Masasi Dist. LUP resettlement Programme for flood disasters (1992) affected areas	On going Project	Tanzania Government	TAS 7.5m/=	Tanzania Government	Masasi, RDD, Kondoa District
3	Kondoa Distr. LUP. Drought Management	On going 1992/93, 1994/95	NLUPC Kondoa District council	TAS 24m/= (1994/95)	Tanzania Government	Dodoma, RDD, Kondoa District
4	Great Ruaha Landuse Management	On going	Tanzania Government	TAS 2.2m/=	Tanzania Government	NLUPC Local authorities
5	Southern Zone Regional Physical - Plans (Mtwara, Lindi, Ruvuma)	On going	NLUPC Regional Land advisory Committee (RLAC)	TAS 48.5m/=	Tanzania Government	NLUPC Local Authority
6	Integration of Forest Reserves and Wildlife Conservation areas and other lands uses	Not going on for lack of money	NLUPC	TAS 3m/= (1994/95)	Tanzania Government	NLUPC Box 2420, Dar es Salaam Tel. 35086, 28309
7	Studies on similtaneous control of Rodents and their focus, using rodenticides and epidemic insecticides	Nearing Completion	*Tropical Pesticides Research Institution *Sokoine University of Agriculture (Rodent Research Unit)	-	TR TPRI	TPRA, SUA

**5.5 LEGISLATION INTRODUCED AND ENACTED IN RELATION TO NATURAL DISASTER REDUCTION:**

Legislation related to natural disaster reduction are wide in scope and variable in nature according to type and category of activity be it irrigation, afforestation, or wild life conservation activities. We have both main and subsidiary Laws depending on the level of jurisdiction whether national or local. The aim of these laws is to facilitate implimentation of natural disasters reduction measures. Some of these laws are:-

(a) **Natural Resources Ordinances (Cap. 259):**

Provides for the conseration and improvement of Natural resource like water; grazing lands; soils;

(b) **Forest Ordinance (Cap. 38):**

To protect forests in reserves.

(c) **Water Utilization Act Number 42 of 1974**

This makes provision for the various uses of water including water for Irrigation.

(d) **Public Health (Cap 336)**

Aims at keeping the public healthy particularly in the urban areas (which have high possibility of epidemic outbreak).

## 6: EARLY WARNING:

Warning Systems in Tanzania (WST) consist of Weather/Meteorological forecasting; prediction of crop production and advice on the necessary, measures to take. This important service is provided for by the Ministry of Agriculture and Livestock development in collaboration with Meteorology Department (Ministry of Works and Communication). The WST is responsible for advising the government and the community on what mitigation measures to take like:

- Use of drought resistant and early maturing seeds
- When to plant and in what zone to plant
- In case of hazardous pest infestation what control measures to be taken.

However WST need to be strengthened through provision of soft and hardwares particularly in Meteorology forecasting technology.

## 7: INTERNATIONAL COOPERATION

International Cooperation continues to be necessary for the success in the mitigation effort against natural disasters impact on the community. This cooperation is all necessary as disasters know no boundary of countries and as such the need arises for countries to share knowledge, skills and even resources in disaster mitigation. Tanzania has continued to usefully enjoy such cooperation particularly in three fronts:

### 7.1: Information:

The Disaster National Relief Coordination Committee receives a lot of publications manuals brochures and news letters on IDNDR related subjects like:-

- i) Stop Disasters News letter the UN 1990 - 2000 IDNDR
- ii) Combat Desertifications in the Southern African Region - UNEP (1989) by Michael B.K. Darkar 1989;
- iii) Our Planet UNEP (1992);
- iv) Flooding Canada, Water BOO - by Taane Andrews, of Ecosystem Sciences and Evaluation Directorate Economics and conservation Branch Ottawa, Canada, 1993;
- v) Enhancement of the International response Capacity with Regard to Environment Emergencies, EUNCUEA, November 1993.

This is to mention but a few of the documents constantly received.

**7.2: IDNDR Meetings and Planned:**

International Cooperation also enabled meetings and conferences to take place to deliberate on themes related to IDNDR issues. The conferences sometime went beyond Natural Disasters to man made ones. Four important conferences were held in the Southern and Central African Region. The Conferences included the following:-

- i) The Regional Disaster Management Workshop by International Federation of Redcross and Red Crescent Societies, April 4 - 8 1993 in Harare Zimbabwe.
- ii) Emergency Intercountry Meeting for Southern African Countries held on 11 - 15 October 1993, Banket, Mazvikadei Club, Zimbabwe.
- iii) Joint TPHA/ECSAPHA, Scientific Conference (on both Natural and Man Made Disasters) 25 - 29 October 1993 in Arusha Tanzania.
- iv) A National Workshop on Disaster Management for Africa (UN-DMTA) April Arusha Tanzania.

**7.3: Partnership and Cooperation in IDNDR Matters:**

Another very important area of International Cooperation is in the areas of partnership So far Tanzania is in partnership with various Regional and International, bodies in the managaement, some Disasters are:-

- i) UN - Internationdal Decade for Natural Disasters Reduction (IDNDR) Secretariat (on Yokohama conference.
- ii) UNDR - on strengthening of the Disaster Relief Cooodination Department in matters of informations communiations network and Disaster preparedness plans;
- iii) WFP - on Food arid to the vulnerable people;
- iv) FAO - on Crop Monitoring and Early Warning Systems;
- v) WHO - on Medical Assistance in dealing with disasterous epidemics;
- vi) ECALCO - East and Central African Locust Control Organization
- vii) UNEP - United Nations Environmental Programme
- viii) World Meteorological Organization (on World Weather Watch, Operational Hydrological Forecasting and Drought Monitoring)



## **8: OVERALL EVALUATION AND FUTURE PROGRAMME OF IDNDR ACTIVITIES:**

Casual evaluation of some of the mitigation projects show that some achievement has been realized in areas of health particularly in the immunization programmes; afforestation and irrigation with achievement slightly above 50% mark. Not much progress however has been made in the search for a cure of aids nor immunization programme against malaria parasites.

8.1: Likewise, Land Use Planning is progressing rather slowly due to difficulties in land demarcation due to shortage of equipment and skilled manpower. Although afforestation programmes are picking up steadily, their impact will depend on the use rate of alternative renewable sources of domestic energy other than firewood. Crop pests and rodents control has not registered much achievement due to shortage of money.

8.2: General outlook at the efforts made so far in the IDNDR indicates that achievement of some significant progress needs a revamp in several fronts mainly:-

(a) **Financing:**

Financing is very much needed apart from supporting the on going disaster mitigation projects, in supportive projects, like exploring and encouraging use of alternative renewable energies like solar, biogas and hydropower.

(b) **Technical skills:**

Financing is very crucial in enhancing the use of science and technology as a definite way of realizing fully, mitigation efforts. Thus financing is very much required in the areas of Disaster management mitigation, formulation and implementation of preparedness plans. This entails training of technical staff imparting of knowledge to community by way of seminars and conferences to ensure effective communal involvement in disaster management. This is very important indeed.

(c) **Awareness by Community and Authorities:**

Equally important to the need for technical skills in the realization of IDNDR objectives comes awareness of the importance of disasters in the economy and social welfare. Elimination of poverty as a means of reducing vulnerability and enhancing mitigation against the impacts of disasters on their social welfare and the need for mitigation need not be underrated.