

**INDIA**

**SECOND NATIONAL REPORT ON IMPLEMENTATION OF THE  
UNITED NATIONS CONVENTION TO COMBAT  
DESERTIFICATION**

*SUBMITTED TO  
UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION (UNCCD)  
SECRETARIAT, BONN, GERMANY  
30<sup>TH</sup> APRIL, 2002*

**MINISTRY OF ENVIRONMENT & FORESTS  
GOVERNMENT OF INDIA**

## **1. Summary of the National Report**

1. India became a signatory to the UNCCD on 14<sup>th</sup> October 1994 and it came to effect in March 1997. One of the obligations of all developing country Parties to the Convention is preparation of a National Report on the status of implementation of the UNCCD.

2. The National Report, the second in respect of India deals about the progress made since the first report. The Ministry of Environment and Forests as the national focal point for CCD, has prepared the National Action Plan (NAP) which is characterized by the following features:-

- ❖ Water is a diacritical element for building people's confidence and satisfaction level, reclamation of degraded lands for sustainable biomass production ultimately leading to a better quality of life and enabling conditions through empowerment of the local communities.
- ❖ Bottom up approach and project planning, evaluation and monitoring by Panchayat Raj Institutions (grassroot level elected local self governments) in which women have at least 30% representation would be followed. Capacity of the PRIs and CBOs constituted by them, like self-help groups and user groups, etc would be built up on all aspects of land development including rehabilitation of degraded areas, encompassing technical, financial group dynamics, equity, gender, etc.
- ❖ Convergence of resources and services. All resources available under different schemes will be channeled through Panchayats. Thus, a single window service will be available to the communities.
- ❖ Gaps in all the ongoing schemes of different departments will be identified and resources will be provided to fill them up for generating good impact at the ground level.

- ❖ The first five-year period will be experimental and include pilot projects and activities.
- ❖ Concurrent and continuous monitoring will be done and mid-course correction will be effected as the experiences are gained.
- ❖ The problem faced by the farmers will be reported to R&D institutions for finding solutions. Thus both lab-to-land and land-to-lab flow of information will be ensured.

3. The National Action Programme for Combating Desertification was presented before COP 5 and the likely donors. The donors are examining the same. At home, it was also presented before the Parliamentary Consultative Committee on 5<sup>th</sup> November, 2001. This Committee comprises of elected Members of Parliament, which advises the government on important policy matters. On the advice of this august body, as a first step, to disseminate the importance of combating desertification and land degradation, publications have been made in the local dialect for educating the public.

#### 4. TPN2 Workshop in Hyderabad

The Ministry of Environment & Forest (MOEF), Government of India and the UNCCD Secretariat organized a Workshop in collaboration with Central Arid Zone Research Council of Agricultural Research (ICAR). The Government of Germany and the Global Mechanism (GM) co-sponsored the Workshop. The experts of TPN2 member countries, regional and national institutes, NGO's and other agencies gathered to participate in the First TPN2 Workshop from 18-21 December 2001 at International Crop Research Institutes for Semi Arid Tropics (ICRISAT), Hyderabad, India.

The participants had intensive discussions on the overall framework of the TPN2, regional and country case studies on agro forestry, and soil conservation practices and techniques in dryland and/or degraded land areas. They also deliberated on the policy and research gaps in such areas, resource mobilization and partnership building and the TPN2 information network development. The discussions were highlighted by Power

Point presentations. The participants broke into the four working groups on Day 3 to discuss the following:-

- (i) multiple benefits of agro forestry and soil conservation,
- (ii) promotion of participatory approach and strengthening of the stakeholders network,
- (iii) resource mobilization and partnership building and
- (iv) (iv) key areas and elements for refining and finalizing the regional study on dryland agroforestry and soil conservation.

In addition, participants made a field visit to the experimental sites of CRIDA and ICRISA and exchanged information and views on the research activities undertaken on the inter-cropping techniques of agroforestry, crop/plant improvement, agro-meteorological impact, soil erosion assessment and conservation issues through agroforestry techniques.

#### 5. National Workshop for NAP

The first national workshop on the NAP to Combat Desertification was held in Bangalore from 18-19<sup>th</sup> February, 2002. This was jointly organized by the Ministry of Environment & Forests, Government of India and United Nations Development Programme (UNDP). Senior officials from various States participated presenting the initiatives taken by them in combating desertification. The experiences shared by the States would be taken into consideration while formulating the action plan during the Tenth Five Year Plan.

6. NGOs under RIOD India were contacted regarding the field of activities taken up by them. It is proposed to organize a Regional Workshop for GOs and NGOs shortly to review and chalk out action plan for implementation of NAP.

7. Recently, the new National Water Policy 2002 was announced reiterating the importance of optimal use of water resource. In view of the vital importance of water for human and animal life, for maintaining ecological balance and for economic development activities of all kinds, and considering its increasing scarcity, the planning and

management of this resource and its optimal, economical and equitable use has become a matter of utmost urgency. Concerns of the community need to be taken into account for water resource development and management. For water resource planning, traditional water conservation practices like rainwater harvesting including roof-top rainwater harvesting would be further encouraged.

#### 8. Tenth Five Year Plan Approach

The Planning Commission in its Approach Paper to the Tenth Five Year Plan has set certain monitorable targets for the next five years which are central to the attainment of the Tenth Plan objectives. These are:-

- Reduction of poverty ratio by 5 percentage points by 2007 and by 15 percentage points by 2012;
- Providing gainful high-quality employment to the addition to the labour force over the Tenth Plan period;
- All children in school by 2003; all children to complete 5 years of schooling by 2007.
- Reduction of gender gaps in literacy and wage rates by at least 50% by 2007.
- Reduction in the decadal rate of population growth between 2001 and 2011 to 16.2%;
- Increase in literacy rate to 75% within the Plan period;
- Reduction of infant mortality rate (IMR) to 45 per 1000 live births by 2007 and to 28 by 2012;
- Reduction of Maternal mortality ratio (MMR) to 2 per 1000 live births by 2007 and to 1 by 2012.
- Increase in forest and tree cover to 25% by 2007 and 33% by 2012.
- All villages to have sustained access to potable drinking water within the Plan period;
- Cleaning of major polluted rivers by 2007 and other notified stretches by 2012.

9. To fulfill its obligations and commitments, the Government of India is launching a new scheme for combating desertification for the Tenth Five Year Plan. Under this

scheme, financial assistance will be provided to the affected States specifically to address the problems of land degradation in the arid, semi-arid and sub-humid areas of the country.

## **2. National Plans and Strategies available in other social and economic areas**

‘Growth with Social Justice’ has been the basic objective of the development planning in India since independence. The Government of India had initiated a number of measures for the protection and conservation of our natural resources and ecosystems right from the inception of the first Five Year Plan in 1950-51. Over the last few decades, a large number of initiatives have been taken to strengthen programmes and schemes, policy outlines and institutional framework in the sectors of agriculture, rural development, environment and forests, social welfare, poverty alleviation, which have a direct bearing in improving the economy and protection of our resources. The Constitutional Amendment of 1992 has vested more power and role to the local communities.

In addition to the land-based programmes, a variety of programmes/schemes being implemented in the social sector by the Department of Family Welfare, Department of Education, Department of Women and Child Development, Ministry of Social Justice and Empowerment, Ministry of Rural Development, etc are relevant in the context of community development/uplift and rehabilitation in the dryland region of the country.

These programmes can be broadly divided into four main areas:-

- ❖ Programmes for social awareness, security and empowerment of women and weaker sections of the society, and poverty eradication;
- ❖ Programmes for infrastructure development and employment generation;
- ❖ Programmes on health, nutrition, sanitation and safe drinking water; and
- ❖ Programmes of literacy and pre-school.

## **3. National Plans or Strategies in the field of combating desertification developed prior to the UNCCD**

3.1 A number of policies have been framed and programmes developed for combating desertification in the country since the early fifties and many of the

programmes are still being continued. Different Ministries service these programmes. Some of the major ones are:-

- ❖ Afforestation Programme;
- ❖ Drought Prone Area Programme (DPAP);
- ❖ Desert Development Programme (DDP);
- ❖ National Watershed Development Programme for Rain-fed Areas (NWDPRRA);
- ❖ Indira Gandhi Nahar (Canal) Project;
- ❖ Soil and Water Conservation in the Catchment of River Valley Projects; and
- ❖ Development of Ravine Areas.

3.2 To provide research support to the programmes, the Government of India has established a network of national level research institutes. These are:-

- ❖ Central Research Institute for Dryland Agriculture, Hyderabad,
- ❖ Central Arid Zone Research Institute, Jodhpur,
- ❖ Central Soil Salinity Research Institute, Karnal,
- ❖ Central Soil and Water Conservation Research Institute, Dehra Dun,
- ❖ Indian Grassland and Fodder Research Institute, Jhansi,
- ❖ National Research Centre on Agroforestry, Jhansi,
- ❖ Water Technology Centre at Indian Agriculture Research Institute, New Delhi under the Indian Council of Agricultural Research (ICAR).

3.3 A network of forestry research institutes under the Indian Council of Forestry Research and Education (ICFRE), Dehra Dun is conducting research on problems related to rehabilitation of degraded lands and increasing productivity of forests. These institutes are also engaged in training field staff in different disciplines.

The specific schemes and research efforts are supported by institutional, policy and legislative measures.

#### **4. Scientific and Technical desertification control activities**

4.1 Technology packages for dryland areas have been developed by different research institutions of the Indian Council of Agricultural Research (ICAR) and the Indian Council of Forestry Research and Education (ICFRE) for combating desertification and for mitigating the effects of drought. In addition, it has been found that many of the traditional practices are still relevant and need to be reviewed, improved and incorporated in the programme. The technology packages can be broadly categorized as follows:-

- ❖ Technologies for conservation of soil, water and vegetation.
- ❖ Technologies specifically to control land degradation in different bio-climatic regions:
  - Arid
  - Semi-arid and Dry Sub-humid
- ❖ Technologies for management and reclamation of degraded lands:
  - Mine spoils,
  - Alkaline/saline soils,
  - Water logging,
  - Industrial effluents.
- ❖ Traditional technologies for combating desertification.
- ❖ Technologies for mitigating the effects of drought.

#### **4.2 National Action Programme for Combating Desertification – a new Central Scheme:**

The latest initiative in the support of combating desertification is the launch of a new Central sector scheme for implementation in the affected States during the Tenth Five Year Plan. This is in pursuance of the National Action Programme. Under this scheme, the affected States can take up specific activities for mitigating drought through the participatory process. The tentative allocation for the next five years (2002-2007) is Rs 100 crores.



## **5. Implementation of the recommendations of the Committee on Science and Technology.**

- The Committee on Science and technology has identified a roster of 31 experts. From this list, the composition of the group of experts is being considered for chalking out the work programme and the mandate.
- From the benchmarks and indicators identified to monitor desertification in the country, district-wise information had been collected involving Indian Meteorological Department, Central Ground water Board, Forest survey of India, Indian Council of Agricultural Research and Crop Research Institute for Dryland Agriculture, Registrar General and Census Commissioner of India, Ministry of Agriculture and ministry of Environment and Forests.
- Traditional knowledge and practices have their own importance having stood the test of time and have proved to be efficacious to the local people. Such traditions are increasingly being revived and encouraged.
- Survey and evaluation of existing networks, institutions, agencies and bodies have not been undertaken.
- Mapping of land degradation as well as support to drought monitoring and early warning system are to be taken up during the first year of the Tenth Five-Year Plan (2002-03 to 2007-08).
- No nomination for independent experts has been done so far.
- Some success stories on innovative technologies and best practices have been documented along with traditional knowledge and this will be ready before the next COP.

## **6. Established and functional National Coordination Body (NCB)**

6.1 The Ministry of Environment and Forests is the nodal agency for subjects concerning deserts and desertification as per the Allocation of Business Rules issued by

Government of India. As such, it functions as a National Coordination Body. An inter-sectoral and multi-disciplinary National Steering Committee (NSC) was established in July 1999 with Special Secretary to the Government of India, Ministry of Environment and Forests. Secretaries of the Ministries of Rural Development, Health, Water Resources, Social Justice, officers of the Departments of Agriculture Research and Education, Women and Child Development, Directors of premier national research institutes, Director General of Indian Meteorological Department, and representative of UNDP are members of the NSC.

6.2 A National Policy and Coordination Committee (NPCC) under the Chairmanship of Secretary, Ministry of Environment & Forests is being set up with representatives from related Ministries, Departments, State Governments, Academic Institutions, NGOs, etc to lay down policies and promote co-ordinated involvement of all concerned institution/organization on behalf of the Government of India.

6.3 A Desertification Cell in the Ministry of Environment & Forests has been established under the national Afforestation and Eco-development Board (NAEB). This would be further strengthened to comprise of a multi-disciplinary team including agriculture, forestry, environment science, geo-hydrology, rural development and social sciences.

## **7. Institutional framework for Coherent and Functional Desertification Control**

Endowed with monsoonal rainfall in erratic and uncertain amount, intensity and distribution within the rainy season and between the years, drought and famines are recurring features in India. In the 1990s, it was increasingly recognized that people's participation was central to the sound efficacious and tenacious planning process. This marked a definite departure from centralized planning to a decentralized system with strong inputs from securing people's involvement. Many initiatives have been taken to associate people with the planning and implementation of the schemes. Consequently, there ensued the process of restructuring of schemes to manifest the revised trends. All the programmes concerning land degradation now follow:-

- Sectoral to integrated approach;
- From governmental programmes to people's programmes – the role of the government being that of a facilitator.

## **8. National Action Programmes as part of the National Economic and Social Development and Environment Protection Plans:**

The National Action Programmed to Combat Desertification (NAP) has been prepared for implementation in a phased manner synchronous with the national perspective plan and Five-Year Plans, long-term priorities and strategies. While the first phase of the short-term strategy would cover a Five-Year period (2002-2007), the first phase of the long-term strategy would cover the next 15 years (2007-2022) and the second phase would cover the period 2022 – 2037.

NAP under the CCD would be integrated with the long term strategies and priorities of the country for sustainable natural resource management.

## **9. Coherent and Functional Legal and Regulatory Framework**

In India, there are various legislations aimed at conservation and management of natural resources and preservation and protection of the environment, a few of the important ones being:

- The Environment Protection Act, 1986 is an umbrella Act under which action for conservation and protection of lands and the environmentally critical ecosystems, viz., wetlands, rangelands, watersheds, irrigation command areas, etc can be initiated.
- Forest Conservation Act, 1980 which controls diversion of forest areas for non-forestry purposes.
- Wildlife Protection Act, 1972, amended to cover Biosphere Reserves; and
- The Mines Act, 1952

## **10. Effective participation of actors in defining national priorities**

The importance of inter-sectoral collaboration has been increasingly recognized. The integration of JFM into watershed development programmes of the Ministry of Rural

Development is one example. The new National Agriculture Policy 2000 also highlights the importance of social forestry and agroforestry in the maintenance of ecological balance and augmentation of biomass production in agricultural systems. The Ministry of Agriculture and Cooperation and the Ministry of Rural Development have jointly prepared the Common Guidelines for the implementation of their respective watershed development programmes: National Watershed development Programme for Rainfed Areas, Watershed Development Programmes for Shifting Cultivation Areas of Ministry of Agriculture, Drought Prone Area Development Programme, Desert Development Programme of Rural Development Ministry. These guidelines provide framework on implementing strategy, programme content and components, principles of watershed development, institutional arrangements, capacity building, financial aspects, monitoring and evaluation, etc. The guidelines consolidate lesson learnt and experiences gained to facilitate the programme planning, implementation, monitoring, etc. These changes in the policy environment will greatly facilitate efforts to integrate more systematically management of forests into the treatment of organically linked landscapes wherein multiple livelihoods map onto a mosaic of resources, of which the forest is only one component, albeit an important one.

### **11. Effective Support from International Partners for Co-operation**

Consultation with multi-lateral, bi-lateral agencies and international donors is proposed to be held sometime during the year.

### **12. Adequate Diagnosis of Past Experiences**

A mechanism for monitoring and evaluation of ongoing programmes to improve their contents and implementation already exists – both in-house and through independent agencies. Based on the findings, various programmes for land-based development have been reviewed from time to time. It has also been found that traditional knowledge for natural resources conservation and management have proved to be of great importance to the people and the focus is now on reviving such systems and practices with suitable modifications, wherever necessary.

### **13. Established Technical Programmes and Functional Integrated Projects to Combat Desertification**

The integrated area development programmes such as the Drought Prone Area Programme (DPAP), the Desert Development Programme (DDP) and the National Watershed Development Projects for Rainfed Areas (NWDPA) are important in the context of addressing land degradation and desertification. A new programme solely to address land degradation and desertification is being finalized in the Ministry of Environment and Forests for implementation during the Tenth Plan. NGOs would play an important role to enable village communities and their organizations and Panchayats.

### **14. Action Programmes Implemented in Compliance with Priority Fields set out in the Convention**

The National Action Programme (NAP) for the country has been prepared. Two workshops, viz., Asian Regional Thematic Programme network on Agroforestry and Soil Conservation in Arid, Semi-arid and Dry Sub-humid Areas (Hyderabad, 18-21 December 2001) and National Workshop on UNCCD (Bangalore, 14-21 February, 2002) have been held.

### **15. Linkage Achieved with Sub-regional and Regional Action Programme**

India has been an active participant in all the Thematic Programme Networks particularly 15.1 TPN – 1 on Desertification Monitoring and Assessment hosted by China. The Space Application Centre, Ahmedabad is the Technical Coordinator for establishing TPN-1 network in India.

TPN – 1 envisages establishment of a National network consisting of the organizations/institutions in the country concerned/involved in the monitoring, assessment and combating desertification. The interaction with the National Organizations such as NBSSLUP, CAZRI, NATMO, CRIDA, NRSA, IMD and the academic institutions (Raajasthan University, Jammu University and JNU) has been initiated. SAC/ISRO is the National Focal Institution for coordinating the National

Network. The indicators and benchmark for desertification monitoring and assessment (amenable to satellite remote sensing), data base designs and standards have been finalized through the working group on TPN-1.

The other important activity under TPN-1 is the desertification status mapping. Evolving and standardizing the methodology for desertification status mapping in arid, semi-arid and dry sub-humid zones for both cold and hot desert is the important element. A hierarchical classification system for desertification status mapping has been evolved and will be finalized shortly after having a brain-storming discussion with the other experts.

A pilot study on desertification status mapping has been initiated at the behest of the Ministry of Environment & Forests. The pilot project covers representative sites watersheds in arid, semi-arid and dry sub-humid zones in both hot and cold deserts of the country. IRS-LISS III data is being used. The work on development of methodology has been initiated. The methodology evolved for desertification status mapping will be finally harmonized with the one being evolved at the regional level.

A small expert group meeting was held at TPN-1 host institution, Beijing, China during November 26-30, 2001. Experts from China, India, Japan, Switzerland and FAO participated in the discussions. The main objective of this meeting was to recommend the set of indicators, benchmarks, classification system and other standards for desertification status mapping which can be adopted at the regional level. The indicators and benchmarks were discussed and finalized. The classification system and other standards for desertification mapping were also finalized. The scale of mapping at the regional level will be 1:2.5 – 5 million whereas at the national level, it could be 1:2,50,000/50,000.

15.2 TPN-2 on Agroforestry Management and Soil Conservation in Arid, Semi-arid and Dry Sub-humid areas has been established and the Central Arid Zone Research Institute (CAZRI), Jodhpur has been functioning as the host institute. The website has also been established wherein different agroforestry models in different agro-climatic zones are made available for dissemination of technology.

## **16. Effectiveness of Measures in Local Capacity Building**

A lot remains to be done in terms of capacity building, particularly at the grass-root level.

Under the new central scheme for combating desertification, capacity building and training will be given a sharp focus along with entry point activities to elicit active participation of the local people.

### **17. Partnership Agreements Applied**

Every endeavour would be made to develop meaningful partnerships with regional and neighbouring countries in technology transfer and sharing of experiences. Under TPN 2, India as a host country is working on sharing experiences on agroforestry technologies – both scientific and traditional knowhow.

### **18. Adopted Financial Mechanisms**

The Ministries of Agriculture and Cooperation, Environment and Forests, Rural Development and Non-Conventional Energy Sources would continue to be the major actors in the sphere of sustainable renewable natural resource management and desertification control in the Centre and their counterpart technical line departments in the States. The sources of funding available to these agencies for implementing their sustainable development programmes including desertification control are the national and state budgets, dedicated sectoral funds and external assistance.

### **19. NAP Financing**

The ongoing programmes of individual Ministries would continue to be funded from their respective Plan Budget funds. In addition, a new programme solely for combating Desertification will be funded by the Ministry of Environment and Forests. This will be a central sector scheme.

### **20. Technical Cooperation Developed**

For mapping the status of desertification in India, institutions such as India Meteorological Department, National Bureau of Soil Survey and Land Use Planning have already furnished the following maps and reports:-

- India Aridity Anomaly Chart
- Severity of degradation : Water Erosion
- Severity of degradation : Wind Erosion
- Agro-Ecological regions : India
- Agro-Ecological Sub-regions: India (2 nos)
- Bio-Climatic regions: India
- Bio-Climatic Types: India
- Census of India - 2001

## **21. Operational Mechanisms for Monitoring and Evaluation**

All programmes for land development have an elaborate mechanism for monitoring and evaluation. In the new National Programme for Combating Desertification also, monitoring and evaluation would continue to be an integral part of the scheme. The process of monitoring and evaluation is two-pronged – one inbuilt in the scheme and another concurrent M & E through independent agencies/consultants.