

CHAPTER 1

INTRODUCTION

1.1 Background

Biodiversity is part of our daily lives and livelihood. The welfare of the mankind, including of our future generations, is strongly linked to the conservation and sustainable use of it. Forests, mountains, oceans, estuaries, rivers, lakes, deserts and agriculture and many such varied ecosystems provide us with food, fodder, textiles, medicines, dyes, and scores of products needed for sustaining life. The ecosystems also perform a variety of other functions necessary for maintaining life. These include release of oxygen, watershed conservation, moderation of climate etc.

We have ethical reasons as well to conserve the earth's biodiversity. Man is just one of the millions of species that live on the earth and has no moral rights to devastate the earth's ecosystems for his selfish needs. Most human societies have, in their tradition, values attached to conservation and moderation in uses of biodiversity.

The term biodiversity broadly exists at three major levels: i. Ecosystem level, such as forests, grasslands, deserts, mountains, coastal and marine areas. ii. Species level: The earth has several million species ranging from microbes to giant trees, whales and elephants. iii. Genetic level: Within a species itself there exists genetic variations. For instance rice plant has several thousand varieties existing in India itself. Altogether the earth's biodiversity harbours billions of genes.

Threats to biodiversity: Today, due to reasons such as immoderate use of natural resources by humans and increasing levels of environmental pollution and developmental pressures, the earth's biodiversity is seriously threatened. Many ecosystems are disrupted, scores of species and varieties have disappeared forever and more are facing extinction. Carbon dioxide level in the atmosphere is at its highest in 20 million years. Other green house gases are on the increase too causing rise in earth's temperature. Polar glaciers have started melting and so too the ice caps of the Himalayas sending ominous signals towards the future of life. The Arctic temperature is at its warmest in the last 400 years. The likelihood of sea level rise in the coming years could be a major threat to coastal areas and islands.

The recent years have witnessed wild fires raging through vast stretches of the world's forests- in South East Asia, Amazon, in the Rocky Mountains of USA and in Australia. The incidence of floods, cyclones and droughts has increased all over the world. As natural ecosystems like forests are overused, seas over-fished and polluted, agriculture impoverished of thousands of traditional varieties, developed through millennia by indigenous farmers, there is rising global awareness on the need for conservation and sustainable use of bio-diversity.

India became a signatory to the Convention on Biological Diversity (CBD) in 1992. The CBD came into force on December 29, 1993. So far, over 174 countries, including India, have ratified the CBD. The main objectives of the CBD are:

- The conservation of biological diversity
- The sustainable use of biodiversity
- The fair and equitable sharing of benefits from the use of biodiversity

Article 6 of the CBD requires parties to prepare National Biodiversity Strategy and Action Plan (NBSAP). These NBSAPs are to serve as the main instruments for implementation of the CBD at a national level.

The Ministry of Environment and Forests (MoEF) of the Government of India formulated the NBSAP project accordingly. The Joint Director, MoEF is the National Project Director. The project is funded by the Global Environment Facility through the UNDP. An NGO Kalpavriksh is entrusted with the coordination of the Technical and Policy core Group of the NBSAP. The administrative execution was entrusted to Biotech Consortium India Limited (BCIL). NBSAP aims to produce a series of planning documents dealing with:

- Conservation of biodiversity
- Sustainable use of biodiversity
- Equity including in decisions regarding access to such resources and the benefits accruing from them. Conservation and benefit sharing
- Ethical, cultural, scientific and economic aspects of biodiversity conservation
- Raising awareness of the importance of biodiversity so that the society at large will have an important part in the implementation.

The end result of this exercise, will be a series of action plans at local, state, inter-state eco-regional, and thematic levels, each independent and also culminating in a national plan.

1.2 Outputs of the process

- 18 local or sub-state action plans, spread over 15 states (including of Uttara Kannada district)
- 33 State and Union Territory action plans (including of Karnataka)
- 10 ecoregional action plans cutting across states (including of Western Ghats and West Coast)
- 13 national thematic action plans
- also subthematic review papers, and concept /methodological notes
- a national action plan built on all of the above

1.3 NBSAP : A participatory process

The NBSAP process involves a range of stakeholders such as farmers, fisher-folk, *adivasis*, scientists, academics, governmental and non-governmental sectors, students, politicians and several others. It seeks the active participation and involvement of grass-root level people, NGOs, academics, scientists, government officers, politicians, and all

other segments of the Indian society. Participation of women is much emphasised during the NBSAP process.

1.4 Scope of the Strategy and Action Plan (SAP) for Uttara Kannada

Under the NBSAP Uttara Kannada district was chosen as one of the 18 Substate sites. Uttara Kannada is a vast district of 10,200 km² with tremendous diversity in its ecosystems, which include forests, coastal and marine areas as well as agricultural ecosystems. All these major sectors of biodiversity have been briefly covered in this SAP. This SAP, in short, deals with:

- General aspects on the biodiversity of Uttara Kannada
- SAP for forest biodiversity
- SAP for domesticated biodiversity
- SAP for coastal and marine ecosystems
- SAP on general themes

Various thematic and sub-thematic areas such as a. Access to biodiversity and benefit sharing; b. Culture and biodiversity; c. Education, research, awareness and training; d. Policies, institutions and planning; e. Biodiversity-based livelihoods and the role of Non-timber Forest Produce in commerce and livelihood security etc. have been integrated into the various chapters. Care has been taken to address the gender equity concerns wherever applicable.

1.5 Objectives of the SAP

- To present a picture of the status of existing biodiversity
- To prepare local level strategy and action plans for documentation, conservation and sustainable use of Uttara Kannada's biodiversity, covering forests, domesticated, marine and coastal and cultural.
- An attempt to know the threats and concerns posed to biodiversity and explore ways to reduce such threats.
- Action plans are proposed for conservation of biodiversity. and also suggest agencies that might take up such projects
- To highlight major concerns regarding the biodiversity situation in the district
- To raise awareness regarding biodiversity and its conservation
- To involve local people in biodiversity conservation and sustainable use

1.6 Methodology used

As the district represents vast area with different ecological regimes, such as marine, coastal, inner coastal, the Western Ghats as well as the eastern plateau, the SAP makes an effort to review present known status of biodiversity. Since the efforts made in this direction, through the last two centuries, are yet not harmonised we have no claim to the completeness of the SAP. The SAP is just a beginning to understand, conserve and sustainably use biodiversity. It has to pass through more scrutiny from all sections of the

society, and evolve appropriately to meet the objectives spelt out. The SAP needs to be regularly updated and constantly reviewed. The SAP is the outcome of a participatory process in which farmers, forest dwellers and women have contributed, along with government officers, NGOs and scientists. The key features of the methodology used are given below:

- Meetings with NGOs at Sirsi to introduce the theme and seeking their participation
- Formation of Local Advisory Committee (LAC) involving district administration, NGOs, scientists, and women
- A public meeting at Sirsi to introduce the SAP
- Meeting with the district administration (presided by the Deputy Commissioner) at Karwar.
- Meeting on methodology at Kumta.
- A district level meeting involving officials from Agriculture, Horticulture and Veterinary department was also arranged at district level, on domesticated biodiversity was conducted at Sirsi.
- Sample survey on agricultural biodiversity by the Department of Agriculture was conducted in 11 taluks. A questionnaire was prepared for this purpose and distributed to farmers. Data was collected from 200 farmers in the district, covering primarily rice; fruits, spices, vegetables, sugarcane and banana varieties were included. Other methods used are regional meetings at taluka levels and collecting information from farmers who are already engaged in germplasm collection of spices.
- Biodiversity Mela was arranged at Sirsi to show the diversity of cultivated crops, as well as their wild relatives, as well as to increase biodiversity awareness.
- A district level meeting on forest biodiversity was conducted at Yellapur involving Forest Department, NGOs, scientists and stake-holders.
- Meeting on cultural biodiversity involving Forest Department, NGOs and the village communities was conducted at Siddapur.
- Meetings on coastal and marine ecosystems involving fishing community, Fisheries Department and NGOs at Kumta and Honavar.
- Sensitisation of public through articles and news items on NBSAP.
- Participation in meetings on biodiversity, collection of secondary information as well as relevant scientific papers.
- As the Karnataka Government is keen on implementation of the strategies proposed in the Karnataka State Strategy and Action Plan (KBSAP), two more meetings and one workshop were conducted as late as February, 2003. These meetings were, admittedly, after the submission of the Executive Summary at Delhi during December, 2002, during the Final Workshop.
- Summary of the draft action plan, translated into Kannada, was circulated for comments. The people were sensitised through the media.