

# CCRC Development Prospectives

## Educational Museum

- Murals showing the food web of Bhitarkanika
- A map of the world showing the migration of turtles and birds as well as the global distribution of mangroves
- A microscope, some images of the meiofauna of Bhitarkanika
- A model showing biodiversity in the sanctuary
- A long chart depicting human dependency on the nature

## The development of human capital

- Education programs on biodiversity
- Microcredit loans in combination with education programs about basic economic principles
- Encouraging wealthy villagers to invest the loan capital so that money flows into rather than out of the system
- Suggestions for small scale investments
- Hosting of scientists to give natural history lectures about the region so that community members can serve as educated guides for ecotourists
- Training (especially for women) in cottage industry arts and crafts activities
- Consideration of a village level commercial activity that could be profitable and require minimal investment, such as the production of charcoal or the cultivation of a specific crop that might provide for the entire region
- Training of local people in scientific methodologies and laboratory techniques that could be used to make a living

## Sustainable Energy

- Wind
- Solar
- Biogas
- Micro-hydroelectric
- The sewage treatment/Biogas idea
- Cookstove programs

## Health

- Education materials about nutrition
- Information available about birth control procedures
- The running of clinics such as eye and vaccination clinics
- A general awareness of rural health programs sponsored by the government and facilitation/hosting of these programs in the local villages

## Ecotourism

- Development of the museum in accordance with the need
- Facilitating the use of local guides and boats for eco-tours
- Promotion of the area in local media with documentaries and educational materials at the local tourist offices
- Coordination with the local forestry department in order to streamline permit procedures
- Promotion in international guidebooks

## Scientific Studies

- Hosting of scientists for long term studies of the area
- Training villagers to take samples and to take part in ecological monitoring, which can also provide them with a livelihood
- Linkages with universities (both domestic and international) for field studies in the area, as is common practice for many universities in the United States (where students do not have the opportunity to study tropical environments and ecology)
- Provision of electricity for laboratory equipment, providing a space where onsite laboratory work can be done

## **Agriculture**

- Soil testing throughout the region and the creation of a small soil-testing laboratory that can be used by trained individuals to do soil tests and make suggestions for farming practices and fertilizer use
- The testing of microbes in the soil for the possibility of bio-fertilizer cultures
- Promoting a better understanding of which crops are viable in the region and the provision of seeds for the planting of alternative crops
- Guides in gardening
- Perhaps the development of village gardens, if individuals cannot keep their own
- Demonstration of the types of crops that can be grown on the campus of the CCRC

## **Education**

- Promotion of the local school system, perhaps with the aid of the government to provide incentives for education
- Improved transportation to the schools
- Development of educational materials on biology and mangroves
- The mangrove museum
- Computer literacy program for young people

## **International Cooperation**

- MAP - Mangrove Action Project, USA
- IPCC - facilitation of monitoring and possible adaptations to climate control
- UNEP - hosting of conference and the execution of the GPA's 2006 mandate for coastal ecosystem management in Southeast Asia
- Sea Turtle Conservation Project
- Ramsar Sites
- IUCN - The World Conservation Union
- WWF - dolphins, turtles, crocodiles, migratory birds
- Nature Conservancy Agencies both national and International
- University ties and promotion of research into mangrove biology
- Wetland conservation projects
- Promotion to birdwatchers and ecotourists

## **Aquaculture**

- Reclamation of unused prawn and fish ponds
- The creation of a fish-stock and dissemination of hatchlings from a pond on the campus
- Linkages with local universities dealing with biotechnology and aquaculture
- Investigation into fish-feeds and methods of disease prevention that can be easily utilized by the community
- A better understanding of the conditions preferred by many fish and prawns that use the natural ecosystem of Bhitarkanika to grow, so that these conditions can be better replicated for aquaculture

## **Animal Husbandry**

- Survey of the already existing village resources
- Promotion of goat, cow, chicken, and dog farming in a sanitary manner
- Education by farming experts about the best practices
- Education about investments that might improve yield and facilitation of the use of microcredit in order to obtain these things

## **Connectivity**

- Road system, by showing an increased demand for transportation to the area
- Creation of a demand for telephone systems in the area and village exchange
- Securing transportation of any goods manufactured by the local people to the market where they could be sold

## **Conservation**

- Education about wise use of the surrounding forest (which types of fish to catch and what type of wood to cut)
- Amelioration of relationship with the forest department so that the local people can be careful and conservative in their use of the natural resources instead of hastily working outside the law
- Development of planting programs for mangroves destroyed by cyclones and by human use
- Presentation of conservation goals in conjunction with alternative livelihoods
- An examination of local religious ties and conservation ideals and presentation of conservation goals within the local context
- Bio-prospecting