

Appendix iii

Information Panels

"Designing Sustainable Tourism"

Tourism Design Standards through overlay zoning, NY, USA

- Developed a guidebook series called Smart Development for Quality Communities
- Includes various methodologies and zoning techniques to preserve and enhance the character of villages and downtowns.
- One method is design standards utilizing an overlay zoning district.
- Can be part of local zoning laws, integrated into a site plan review law, or as an additional local law.
- Should be utilized for variances, special use permits and site plan review.
- Supplemental to existing zoning and can preserve and restoreable resources, as well as perpetuate a defined scenic view can lead to an enhanced sense of community.



"High Value, Low Volume"

Limiting access to conserve natural and cultural resources, Bhutan

- Since 1974, a pass strict policy of controlling tourism development.
- All non-Bhutan tourists must come on pre-arranged, all-inclusive package tours.
- Not a individual tourists permitted entry into the country.
- Requires minimum daily expenditures per tourist have been established at US\$200 per day.
- Entered through entry visa requirements and arrangements with authorized tour operators.
- The government slowly grows tourism by opening up new areas as infrastructure is developed so no damage happens to the natural and cultural environs.



"Self-sufficient Coastal Hideaway"

Family-owned hospitality, Cape Conran Wilderness Retreat, SA, Australia



- A small family-owned self-sufficient land and located just for private wilderness property.
- Wanted to blend their lifestyle with their business, to generate energy from natural resources, and the ability to produce healthy and appealing food from local sources.
- Includes an organic vegetable and energy supply, water desalination, availability, marked walking trails, and a focus on local flora and fauna.
- A strategic agreement with the land allowed a maximum clearance of 1 metre of native vegetation to construct the entire site.

"Costs of Maximizing Tourist Returns"

Negative impacts of excluding residents in tourism development, Saly, Senegal



- Since the 1970's, the Senegalese Petite Côte has rapidly been expanding unplanned motor-driven tourism.
- Saly's tourism relies almost entirely on tourism - hotel complexes, nightclubs, bars, restaurants, shops, water sports and game-fishing, seminars and symposiums, and real estate.
- It has significantly modified traditional social structure and spawned an array of new social ills, including prostitution, spread of AIDS, and theft.
- Transformed villages into shantytowns for cheap manual labor and are contaminated with pollutants.
- Focus of development is to maximize private returns with the evident exclusion of most of the local population.
- A new looking at integrating local, rigorous new regulations, of smaller marketing, and workforce training.

Economic Development Alternatives: Case Studies

Economic Development is the process by which a nation improves the economic, political, and social well being of its people. The process can potentially be led by various levels of government, business associations, public/private entities, community groups or simply a group of citizens. Since each community has different priorities and goals, each strategy must be tailored to meet a specific locale's needs.

In an effort to provide economic opportunities for Goa, RPG 2021 has identified various industries that compliment the states existing strengths. The industries shown here; Food Processing, Green Tech and Pharmaceuticals, are just three examples of those recommendations made by the report. All three of the following case studies differ in location and may not represent the most appropriate strategy for Agonda. However, each case was chosen due to its emphasis on promoting these three industries in a sustainable fashion. They demonstrate how job creation does not have to come at the expense of the environment.

Biotechnology

Uttar Pradesh, India

The United Nations Convention on Biological Diversity defines biotechnology or biotech as: "Any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use." Biotech products can range from bio-fuels to pharmaceuticals. The various technologies are typically derived through processes discovered through microbiology, chemistry, chemical engineering, etc. Cities, states and countries have been engaged in a global competition to entice biotech companies and startups to relocate to their specific locale due to the common belief that biotech companies attractive highly skilled workers, provide large salaries, supposedly produce little environmental impact and contribute handsomely to the local tax base.

The government of Uttar Pradesh has set up a Biotechnology Business Park on eight acres of land provided by the Department of Science and Technology. The plant provides facilities for the production of bio-fertilizers, tissue cultures, distillation and vermi-composting. The main facility will house the basic equipment while the surrounding buildings will provide offices for bio-informatics, training rooms and various support facilities. The government provides a series of subsidies and tax breaks to companies and start-ups who locate in the business park. Uttar Pradesh is using a popular economic development strategy known as "business clustering", in which businesses from the same industry locate in close proximity to share in the gains from competition and collaboration amongst each other.

Is biotech sustainable?

Biotech is considered a low impact and preferred industry by the state of Goa. However, the industry can cause large impacts on the environment, especially in the manufacturing and pharmaceutical sectors. The Organisation for Economic Cooperation and Development (OECD); a worldwide industry group, has recently produced a report called, "The Application of Biotechnology to Industrial Sustainability." Within this report, the group documents various ways in which the industry can be designed to promote sustainability. The report cites examples in which new organic processes are being used to replace more polluting synthesis techniques previously used. For more information, please read the report: www.oecd.org

Source: OECD (2011) <http://www.oecd.org/dataoecd/11/42/49691211.pdf>; De Silva, L., Van Pelt, M., D'Amico, L., Silver Valley, California, USA. 2. SubDepartment of Biotechnology, www.biotechnology.3. OECD 3 <http://www.oecd.org/dataoecd/11/42/49691211.pdf>

How does biotechnology relate to Agonda?

The Goa Chamber of Commerce & Industry released a set of Biotechnology Schemes in 2009, <http://www.goachamber.org>. These schemes rely heavily on tax and subsidy incentives to spur new biotech units, as well as to rejuvenate existing units. The RPG-21 Task Force is supportive of a biotech policy but points to the lack of a coherent "road map" for promoting the sector (RPG-21, p. 51). Goa's neighbor, Karnataka, is in the process of developing their own biotech facility and may provide lessons for how Agonda can approach the issue.

Although there are many supporters of biotech development strategies, there are also those that point to the shortfalls. Heavy competition between governments is resulting in huge tax breaks for the biotech companies which ultimately costs everyone in the locality. As discussed in the Uttar Pradesh case study, there are also the environmental effects to take into consideration.



Food Processing

Andhra Pradesh, India

In 2003, a study on the Indian State of Andhra Pradesh's plans for developing a food processing sector was conducted by the Center for Economic Studies and Social Studies in Hyderabad. At the time, government officials had loosened a few key tax policies in an effort to encourage the development of the industry. Researchers found that only a 7 percent value added increase was made from the sale of processed foods in India compared to 23 percent in China, 45 % in the Philippines and 188 percent in the U.K. Additionally, only 2 percent of India's food stocks were being processed within the country. The study concluded that the industry had much potential to grow due to changing tastes and lifestyles throughout the country. Some of the key recommendations made by the researchers included:

- The creation of a state level ministry of food processing industries to provide incentives, access to financing and machinery
- A reduction in taxes until the industry had reached a mature level
- The state should provide training and research
- Improved infrastructure to move goods to markets
- Encouragement to involve small-scale farmers
- Compensation for farmers willing to switch to organic farming methods due to initial yield losses

Since that time the government has responded to some of the key recommendations of the report. Their policies can be viewed on the Ministry of Food Processing Industries web site at www.mofpi.nic.in. There is noticeably little information regarding the recommendation to encourage organic farming processes or any mention of sustainable practices within the industry itself. Is this strategy destined to negatively impact the environment at the expense of the states environment? Andhra Pradesh's strategy may provide valuable lessons for Goa.

Source: Food Processing in Andhra Pradesh: Opportunities and Challenges, by S. Mahendra Dev N. Chudreskhara Rao, CENTRE FOR ECONOMIC AND SOCIAL STUDIES



How does food processing apply to Goa?

"Fruit and vegetable processing should receive an impetus by establishing a chain of enhanced production, quick procurement, preservation and processing which should be backed up by scientific marketing." (RPG-21, p.32).

The RPG-21 Task Force saw great potential for Goa to expand upon the growing food processing industry. While many Goans have left the agriculture industry due to low returns, there is still approximately 15% of the country's citizens employed in the industry. In an effort to preserve farmland in the state and create employment opportunities, the Task Force believes that the Goan government should "coordinate activities in agriculture and horticulture with that of industry" (RPG-21, p.32). To do so, the Task Force recommends encouraging the development of food processing centers combined with comprehensive marketing strategies. Goa is joining the cadre of local governments around the world that are recognizing the importance of maintaining local food networks as a means to retain food security. Preserving local food supplies helps to buffer against the effects of sudden food price spikes and shortages.

Facts:
38% of land in Goa is Farmland
9.65% of Goans are cultivators and 6.85% are agricultural labourers

Source: RPG-21, p.29

Information Technology

Chennai, India

Information Technology Parks

India has established itself as a world leader in both the service and software sectors of the Information Technology (IT) industry. An organization known as Software Technology Parks of India (STPI), has been working in collaboration with the Central Indian Governments Ministry of Communication and Information Technology to promote the approval and success of IT parks across the country. The STPI assisted in the explosive growth of software companies in Chennai from under 10 in 1995, to 1419 by 2006-07. The government of India has been offering tax incentives/breaks, training and equipment to companies willing to locate in the IT parks.

E-Waste

While there is no doubt that the IT parks have helped to expand the industry's presence, there has been little effort to establish sustainable guidelines or recycling programs for companies operating out of the facilities. E-waste is a term used to describe the by-products generated by computer intensive industries. If not properly disposed of, e-waste can cause serious health and pollution problems due to serious contaminants such as lead, cadmium, beryllium and brominated flame retardants contained within computers and electrical devices.

Green Computing Organizations

Recently, efforts to educate consumers and manufacturers on how to best prevent pollution from e-waste and ultimately produce a more sustainable IT industry have emerged. Organizations such as Green Computing Impact Organization, Green Electronics Council, The Green Grid, Climate Savers Computing Initiative, etc., are working with businesses, policy makers and consumers in an effort to educate and create new industry guidelines. Please review their web sites for more info:

- <http://www.climate-savers-computing.org/>
- <http://www.gcio.org/>
- <http://www.greenelectronicscouncil.org/>
- <http://www.thegreengrid.org/>

Source: 1. <http://www.climate-savers-computing.org/> 2. <http://www.gcio.org/>

How does this relate to Agonda?

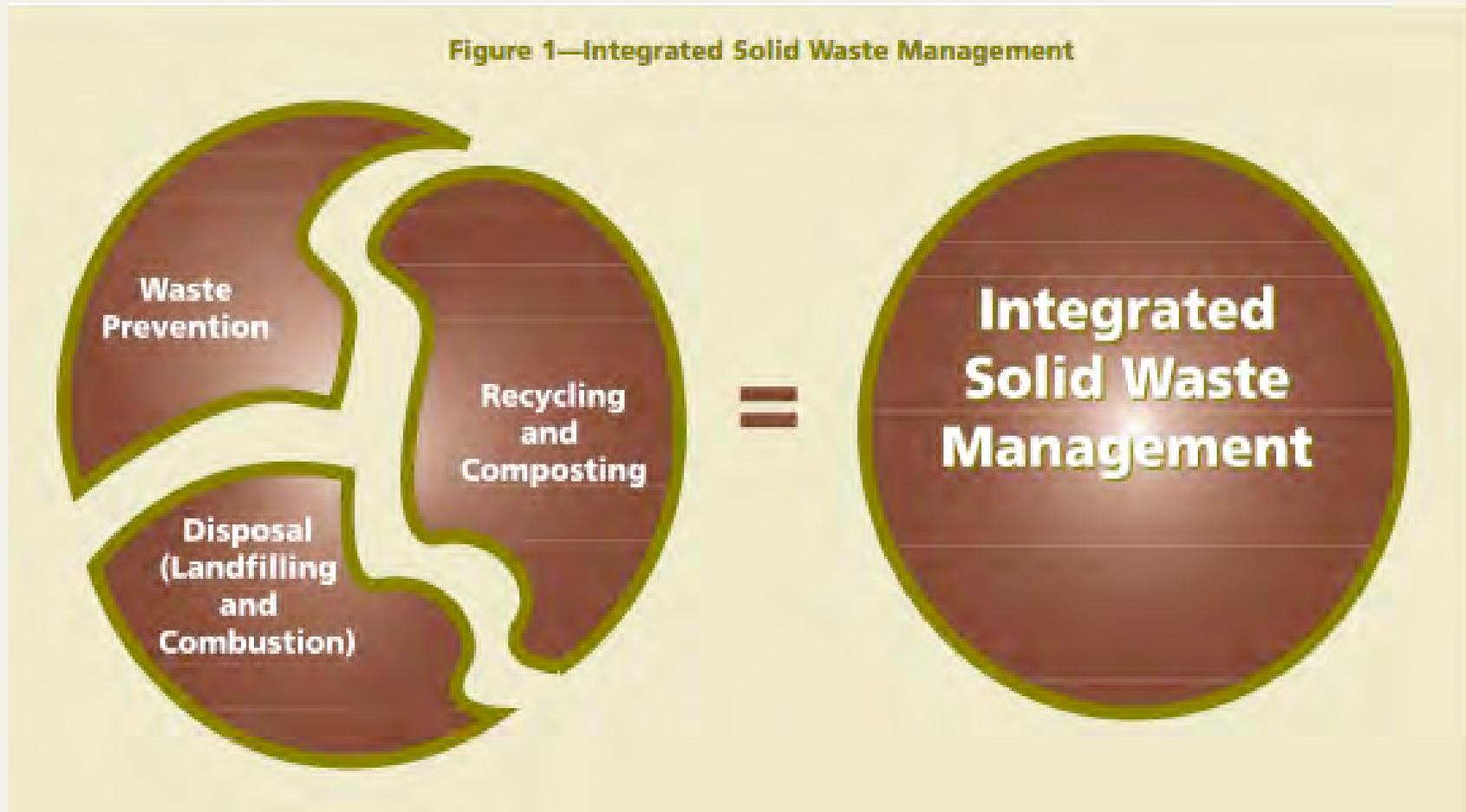
The Government of Goa has fully endorsed the promotion of the IT industry in the state. Various incentive schemes have been proposed and are viewable on the Government of Goa's web site: <http://www.goa.govt.nic.in/ditit/main.html>.

The government recently signed an agreement with Infotech to collaborate on the Integrated Information Infrastructure Project in which a State Official Portal, State Data Center and Integrated Citizen Service Center will be created. In 2006, the government also signed an ambitious agreement to promote broadband access across the state.

Source: <http://www.goa.govt.nic.in/>

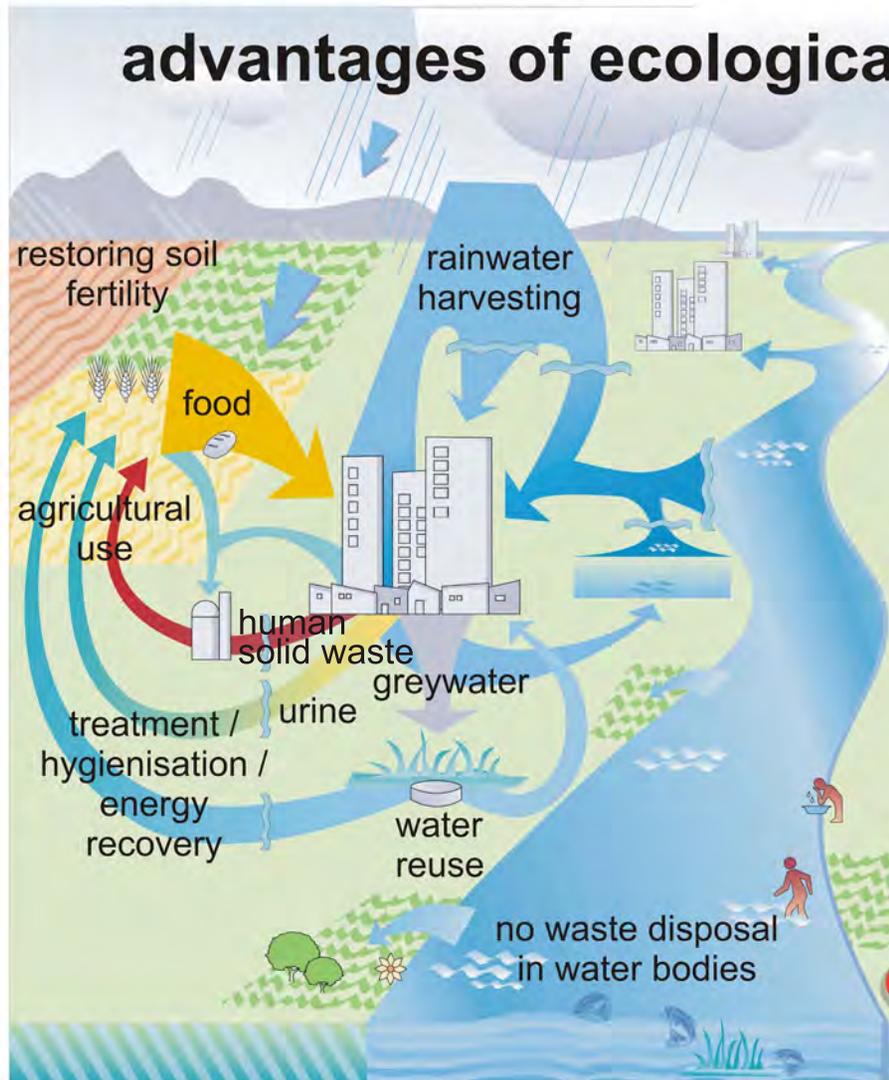


What is Integrated Solid Waste Management?



Source: USEPA

advantages of ecological sanitation (ecosan)



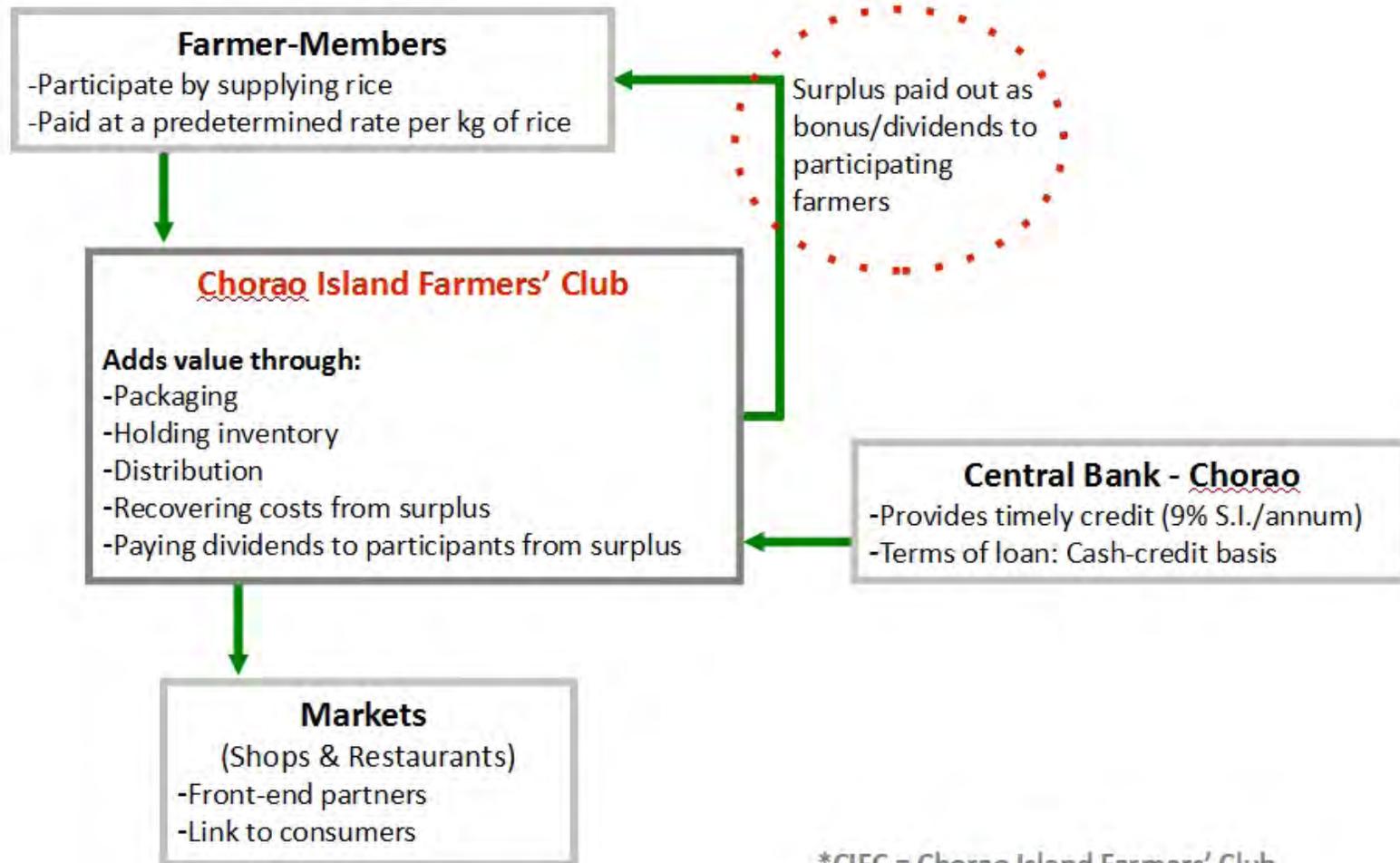
- Improvement of health by minimising the introduction of pathogens from human excreta into the water cycle
- Promotion of safe, hygienic recovery and use of nutrients, organics, trace elements, water and energy
- Preservation of soil fertility
- Conservation of resources
- Preference for modular, decentralised partial-flow systems for more appropriate, cost-efficient solutions
- Promotion of a holistic, interdisciplinary approach
- **Material flow cycle instead of disposal**

Background

- Established **22 months ago** – Feb, 2008
- Created under the **NABARD Farmers' Club Scheme**
- Promoting Bank: **Central Bank** – Chorao Branch
- Associated with **TERI** right from inception
- Members at inception: **22** – landowners, tenants, men & women
- Current Membership: **70+** (and counting...)
- Registering as a **society** under Societies Act (1860)
- Meets at least once a month



The CIFIC* Business Model



What CIFC has learned so far...



Chora Island Farmers' Club

- Working in **coordination as a collective** is important
- If **“value” is demonstrated** – people will join in
- **MUST** have a **core committed group** that will lead
- External agencies can provide benefits, such as ideas & creating linkages
- Timely **access to capital** can partially support various activities (eg. Farmers Club Scheme)
- Ensuring the group is **‘apolitical’ & professional** is critical to short & long term success