AN ECOVILLAGE RESPONSE TO NATURAL DISASTERS IN SRI LANKA AND INDIA

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Sri Lanka

In 2004 the Indian Ocean tsunami devastated 13 coastal districts, caused the death of 40,000 adults and children and displaced more than a million people in Sri Lanka. The Sarvodaya Ecovillage Network immediately stepped in to help. Sarvodaya works with 15,000 villages in every district in Sri Lanka, focusing on self-help activities: developing village capacity to negotiate and resolve their own issues. They committed to build over 700 houses and initiated programmes in 12 priority areas including health, water and sanitation, child-based, gender-related, environment and peace building. See: http://www.sarvodaya.org/activities/tsunami/tsunami-to-deshodaya/background and http://www.sarvodaya.org/activities/tsunami/project-plans

The Damniyamgama Eco-village Project: 55 families (about 220 people) were resettled in this new village from three tsunami devastated villages of coastal Kalutara. The ecovillage model features a community striving to create cooperative lifestyles in harmony with the local environment using social and ecological tools such as consensus decision making, inter-generational care, alternative economic models, whole systems design, permaculture practices, renewable energy systems, and alternative modes of education that offer positive visions and real-life solutions for humanity and the planet.

Situation of the residents before they moved into Damniyamgama

Villages on the urban coastal belt are often populated by low-income groups of skilled, semi-skilled labour and small businessmen like fish vendors, small shop keepers etc. Their housing is dense, ramshackle, shanty-like and under serviced by municipal authorities. As a result these people were living in an environment that is dirty, disease prone and unhealthy. Some of the houses were built illegally on coastal/rail track or river reservations. The majority –almost half the adult population- had dropped out of school before completing 8th Grade. 10 of the residents have had no formal education at all, which is a surprising level of non-schooling in a country that prides itself on its social indicators of literacy and primary school attendance.

Due to years of bad environmental practice, they resorted to their familiar practices of waste dumping around the shelters, using outdoor spaces as toilets and littering in common areas and roadsides. Mosquito and fly larvae bred easily in the very crowded environs of these camps and young children were exposed to diseases caused by poor sanitation.

Waste management is a serious environmental concern in Sri Lanka that people often ignore. Through a series of educational seminars and demonstrations, the community was made aware of the importance of waste separation, reuse of organic material as compost, maintaining a clean, and litter free environment, importance of home gardening with produced compost, the benefit of segregation, and recycling of non-biodegradable wastes like plastics, glass and metal.

None of the interviewed residents had attempted compost making, organic gardening or realized the benefits of sorting garbage in their earlier neighborhoods. Many residents said that the first environmental awareness they received was through Sarvodaya

officials who worked in the transit camps after the tsunami.

In Damniyamgama long term community participation is ensured through a village self-help society, established by Sarvodaya, and its waste management committee. This committee has instituted a weekly waste collection schedule, programmes to improve home gardening, a citizen committee for waste management, and regular meetings on maintenance of the home composting system, as well as encouraging self employment ventures through this programme such as commercial-level mushroom cultivation and recycled paper manufacture .

They requested the skilled masons and carpenters and unskilled labourers to work on the site for daily wages. But it was difficult to motivate a community which had by now become used to a disaster dole and handouts from donors. As an incentive Sarvodaya introduced a bus service to bring workmen from the transit camps to the project site and take them back in the evening to their transit camps.

During the first year five awareness workshops were held covering the importance of environmental conservation; the how and why of waste recycling; compost making; and the benefits of organic farming. An art competition on environment for young children, led to an exhibition that attracted nature groups like the Young Zoologists Association, which led to an ecology education course for youth and interested adults on birds, animals, plants and reptiles that are important to the local ecology.

Now the new village demonstrates its eco-friendly concepts through features like the installment of a solar panel for every household (for lighting), improved fire wood cooker which is energy efficient, a natural wastewater treatment system, rainwater harvesting for drinking purposes, composting of organic waste and reuse/recycling of solid wastes. Organic farming and home gardens are encouraged.

Every householder at Damniyamgama is required to become a member of the Sarvodaya Shramadana Society. The full membership meets once a month with attendance of over 80%. A 25-member executive committee meets every two weeks; and 9 members are responsible for such areas as: environmental awareness; employment opportunities and water management; child welfare; women's organizations and common area management; legal aid and community problem solving; youth and sports facilities; cultural programs; waste management and organic gardening; and religious activities.

They built a community centre which is the venue for Society meetings, seminars, short workshops, awareness and training programmes and meetings of subgroups like youth group/ mothers' group etc. The centre, in addition to being an architecturally pleasing building designed for thermal comfort, also hosts the library, IT centre, a cooperative bank and a preschool. A cultural centre was also established with dance and music lessons for youth from Damniyamgama and 10 other villages.

Today every family uses a toilet. The children have become used to toilets, washing afterwards with soap, to stop throwing litter along the roads, to keep the house and garden clean and free of vector-breeding places. “Even though we realized the negative impacts of the way of life before the tsunami, there was no one to show us the way, or guide us,” said Kumudini Perera from House No 27. "Even kitchen waste, which we earlier threw in to the river, is now turned in to something useful. There are no flies and mosquitoes here. There is no smell of rotting garbage,” said K. Kularathna from House No 22.

Many women commented that it is a good village to raise children in, because of cleanliness as well as the overall cooperative atmosphere. Men who participated in the survey felt that this village is better governed (due to the Society) than neighboring tsunami relocation sites.

Exemplary Ecovillage Response in Auroville, India

Auroville is a model ecovillage located just back from the coast in South Eastern India. 5000 people from 40 some countries live in the community. The tsunami in 2004 inundated the coastal villages in the region and swept away many if not most of the

houses. In response an Auroville Tsunami Rehabilitation Centre was set up to feed, assist and care for the local people. They also set up a Knowledge and Coordination Centre; and Paalam community groups (with a leader, youth, women, and teachers) in each of the 20 villages where Auroville volunteered to help with Trauma Counseling, Livelihood Projects, and Ecological Restoration.

The Rehabilitation Centre was asked to share its knowledge base on settlement planning, shelters, ecological restoration, waste water and solid waste management, and alternative building materials & technology with the NGOs working in the tsunami-affected villages. They asked architects to come up with housing designs that would be environmentally, climatologically, and culturally appropriate and aesthetically pleasing; and nine designs were approved that the villagers could choose from.

Auroville holds a UNESCO Chair on Ecological Building and Architecture. Satprem of Auroville's Earth Institute showed the kinds of buildings, vaults and domes that could be created using compressed earth blocks stabilized with 5% cement, which are most attractive and beautiful and can be built in a few days or weeks. “Earthquakes don't kill people,” he said, “badly-designed, badly-built buildings do.” Satprem showed examples of buildings that have emerged from earthquakes with little or no damage – mostly built long ago using traditional materials and techniques - along with modern buildings of cement and steel that had collapsed completely.

The Aurovillians suggested that good settlement planning should include open and shaded areas (which are also wind breakers); street layouts (for ventilation, social interaction, and livelihood activities should be lighted); primary schools, health centres, shops, marriage halls, cyclone shelters, etc; rainwater harvesting, solid waste management, and lighting. Homes and other buildings should be placed so as to allow for easy expansion. In the prototype house designs, toilets were either incorporated or indicated for future expansion; safety criteria were observed, and appropriate building materials and construction techniques were vital.

Along the coast low-lying areas even 2.5 kilometres inland were affected by the tsunami, while some places right on the coast were untouched because they were protected by a ridge of high land. Sand bars, mangrove trees, and coastal vegetation help to protect coastal areas. Maps were used to show the extent of salt-water intrusion into river mouths, where the ecology and even the geography of the land had changed. In response they chose land for permanent shelters that was at higher elevations, not in drainage areas, and not on aquifer recharge areas, etc.

Auroville also led ecological restoration efforts: protecting the coast by creating mangrove forests at river mouths, with sand dune ecosystems, and by planting indigenous fringe forests. Education and the participation of the community are crucial elements in the success of such projects: the people need to own and agree to protect the planted areas. See: http://www.tn.gov.in/tsunami/digitallibrary/ebooks-web/78%20AUROVILLE'S_%20EFFORTS%20_IN%20_THE%20_TSUNAMI%20_RECOVERY%20_PROCESS.pdf

Before and After: Ecovillage Development in Auroville, India


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