Recreating Spaces for Exotic Experience of the Urban Dwellers: Eco-regeneration of the Saweni Beach of the Fiji Islands

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Abstract

Over the years, Saweni beach of Fiji has felt the destructive forces of human intrusions. People who visited Saweni for relaxation and fun eventually removed mangroves, cut trees for fire wood, and left piles of garbage among the bushes. In an attempt to get rid of the garbage, they also set fire to it, burning down large areas of the forest cover. Unauthorized structures were put up close to the beach which has led to soil erosion. Most of the sea grass beds and the corals have died under the sediments, eliminating the very reasons that drive tourism. However, Fijians have had a tradition of environmental protection. Tribe-specific worship of plant and animal species such as Baka, sharks, and turtles has led to the protection of these species from extinction. The Fijian houses which are called the 'Bure' are made up of environmentally friendly materials. Land and sea ownership, through taboos and marine protected areas have led to sustainable natural resource management. In this context, an attempt has been made to recreate the Saweni Beach of the Fiji Islands as a space for exotic experience of the urban dwellers of Fiji. It applied eco-regeneration as an approach to environmental rejuvenation.

This paper examines the regeneration of the Saweni beach of the Fiji Islands as a place of recreation and relaxation for the urban dwellers. The regeneration of this vastly destroyed natural resource situated in the second most populated city of Fiji has the additional value that it can become a place of tourist attraction. Furthermore, this area acts as a protective barrier to the neighboring community against cyclones, which are frequent today due to climate change.

The research has employed action-research as a method. The author was involved in the regeneration activity together with the people. They were taught how to engage in the activities, guided to implement them and records were maintained.

It concludes that by means of action-research, dilapidated and run down spaces can be rejuvenated. It is noted that through this action research, respect for traditions and the involvement of villagers has been recreated through education and awareness. Almost 4600 mangrove seedlings and 500 native trees have been planted, the beach area is kept clean by the community. Many are willing to invest resources to convert Saweni to a site of exotic experience, recreation and relaxation for the locals as well as the tourists.

Keywords: Eco-regeneration, Saweni Beach, Exotic Experience, Fiji.

Introduction

Culture and Traditions of the Fijian community

Fiji is an Island nation in the Pacific Ocean comprised of almost 320 small islands. Of these, only 110 islands are inhabited. The two largest islands are Viti Levu and the Vanua Levu. Viti Levu has Suva as its capital city and Lautoka as its second largest city. The total population of Fiji is just above 880,874, and the population of Lautoka city is almost 52,000. The total land area of Fiji is approximately 18,300 sq. km. The Fijian demographic comprises of Fijians, Indians, Chinese and Europeans.

The Fijian community depends on food resources gathered from the wild and through farming for daily consumption. Wild food such as wild yams, giant taro, duruka, and coconuts are sold in the market places. In addition, they depend on tree crops such as bread fruits, plantains, bananas, as well as papaya, and mangoes during their season. The main source of income for Fiji, apart from the sugar cane industry is through tourism.

Traditionally, Fijians are environmentally friendly. Each village has a common ownership to their surrounding land, water, and coastal resources. Land is given away for cultivation to the members of the village, who carefully consider the importance of sustainability and income generation. The villagers also engage in fishing to provide their daily household consumption. At most times, the income generated by each household of a village is pooled together as common property to be shared within the clan, thereby ensuring that the needs of the whole village community is well looked after.

A traditional calendar guides the villagers to identify the land or marine resources which are available for consumption during a particular time of the year. For example, during the month of January, there is an abundance of spine foods, rabbit fish, shell fish, bivalves (kaikoso) and trochus (vivili). July is considered as the month of abundance for Octopus (kuita). Overharvesting is prohibited in the village.

As the village is a closely-knit network, traditional authority and protocols are well maintained. From time to time, no fishing is allowed within the traditional fishing grounds. This generally takes effect with the death of a chief or with a special ceremony. Such periods are beneficial as they allow the natural resources to regenerate. Even the dwellings of the villagers referred to as ‘Bure’, which is the traditional home of the Fijians, is made of environmentally friendly material, where the floor is carpeted with woven mats. Very little furniture is used inside the bure.

Unfortunately with colonization, and with the inward movement of Asians, and European communities, the rudimentary traditions of the Fijian community has changed. Today, destruction of forest cover, and dumping of garbage is a common site in many areas of the country (Perera and Mersky, 2015). In this context, this paper examines the ways in which action research initiated by the author has transformed the Saweni Beach to an exotic place for tranquil spatial experiences. Its objectives are as follows:

1. To ascertain the success or otherwise of the action research at the Saweni Beach.
2. To identify the mechanisms by which scientific knowledge was shared by the participants.
3. To ascertain how the eco-generation process can be duplicated elsewhere.
4. To formulate strategies that can be recommended to repeat the process of eco-regeneration, as has been accomplished at the Saweni Beach, Fiji.

Theoretical Framework

This action research is guided by the theoretical framework of eco-regeneration. There are a number of terms that relate to eco-generation such as beig 'eco-friendly' or 'environmentally–friendly', often used interchangeably. Yet another term refers to 'going green'. While it's a great moment as humankind can no longer deny the existential crisis posed by climate change, it's equally important to understand what 'eco-friendly' and eco-generation actually means to adopt it holistically as a 'way of life’.

Research shows that 'eco' originates from the Latin root 'oeco', meaning 'household'. It's often used to indicate 'habitat', 'home', or 'Earth', so 'eco-friendly' means Earth-friendly. According to the dictionary, being eco-friendly means being 'designed to have little or no harmful effect on the environment. Therefore, products, goods, events, and eco-friendly services do not cost the planet. When thinking about products, it means considering everything from where the product is sourced and made to the journey of how it's delivered to the consumers. If any part of that process harms the planet, it is not entirely eco-friendly.

It is noteworthy that ‘eco-friendly, environmentally-friendly, green & sustainable are four terms often used interchangeably. like eco-friendly or earth-friendly, environmentally friendly means that the product or item is not ecologically harmful. Similarly, the term 'green' implies much more than colour. It describes anything that benefits the environment or minimizes the impact on the planet. It can also involve using recycled materials, using fewer resources, or outfitting products with eco-friendly packaging. The term sustainable is defined as something that does not compromise the ability of future generations to meet their needs (The United Nations). Generally, everything we do has some impact on the next generation, but what we can do is choose more sustainable products.

`Being, ‘eco-friendly’ however means being so in and out. Most truly eco-friendly manufacturers are open about their commitment to producing an environmentally friendly product. They will clearly state which ingredients are present, where they sustainability source their ingredients, and what they do to give back to the environment.

Eco-generation is the practice of intervening with environmental situations where the natural ecological balance has been lost. Destruction of such ecological balance that happen everywhere can be repaired and the damages minimized by actions of groups of people who can employ techniques and methods to re-insert the plants, fertilizer and other aspects that may no longer exist. Eco-generation therefore requires careful understanding of the ecology of a place and how the process has been damaged and how that can be re-introduced. Ecological restoration, and ecological regeneration are similar terms all of which mean to infuse natural ecological balance to places where that has been lost.

Review of Literature

Literature related to the issue of creating exotic experience of the urban dwellers through eco-regeneration is almost non-existent. However, some research that examine the creation of exotic experiences in landscapes do exist. For example, Wijetunga (2003) present the work of Geoffery Bawa, who has transformed a wilderness in to an exotic environment through a landscaping intervention. Mush has been written about this project. Robson ( ) also presents the entire work of Bawa in which similar other projects have been presented.

Action research that have employed eco-regeneration however has happened in many places on earth, although often not talked about and written about. In this connection, Hodson, and Marvin (2010) stand out. They show how urbanism as a practice contribute to ecological the regeneration of ecological enclaves. Similarly, Gómez-Baggethun & Barton (2013) articulate how to classify and value ecosystem services for urban planning. Benayas et al. (2009) add to these through a discussion on enhancement of biodiversity and ecosystem services by ecological restoration. Producing a meta-analysis, they show that ecological restoration is happening around the world.

In contrast, Escobedo and Nowak (2009) offer insights into the spatial heterogeneity and air pollution removal by an urban forest. They argue that creating urban forest can contribute tremendously to eco-regeneration. Vos et al. extend this argument when they point out that improving local air quality in cities is a matter of planting a tree or not. Indeed, although not directly on eco-regeneration, there are many studies that contribute to our understanding of ecology and the role of plants and animals. For example, McKinney (2008) offers insights into the effects of urbanization on species richness by producing a review of plants and animals. Groot et al. (2013) also articulate the benefits of investing in ecosystem restoration and show that more and more people are beginning to recognize these benefits. Overall, although there

are few studies that actually examine action research that does get involved in eco-regeneration, studies related to them exist. Among them, this research certainly contributes to filling a gap of knowledge about the ways in which eco-regeneration can be done with small involvements from communities and people,

Research Methodology

Prior to the commencement of regeneration activities, a survey of the area was carried out. The study area consists of a long beach stretch with mangrove cover present only at the two extreme ends. There is a resort built close to the beach, which however is rarely occupied by tourists. In most of the research, the students were involved in order to allow them to learn from this practical experience. Following the survey, the key environmental issues were identified, root causes were analyzed and possible remedial measures were sought. Once the plan of actions was established, the Government officials were consulted.

First, the Department of Lands, and then, the department of Environment, thereafter, the Taukei Land trust was consulted. Land of Fiji primarily belongs to the native Fijians. According to the Department of Land website: 58.215% of the land is generally native land, i.e., they belong to the native Fijians and their families. They are mostly owned by families. 25.61% of land in Fiji is leased out by the native Fijians to the outsiders. Only 8.055% is free-hold and is available for purchase by the outsiders. Crown land, unlike most countries, is only 8.12%.

After obtaining permission from the relevant Government officials, the Village chief was consulted to ensure that the researchers are allowed to work within the area of Saweni (Fig 3). For this purpose, a kava ceremony was conducted. Kava is a root crop, which once powdered, can be made into a ceremonial drink. It is through the presenting of Kava to the Chief of the village, that permission is granted for the outsiders such as the students and the staff to work in the area (Fig 4).

Fig 3: The students, the Author and the Village leaders.
Behind is the typical Bure of Fiji,
Source: author

Once permission was granted by the Village Chief, with the participation of the community, a program was set in place, comprised of awareness creation, education of the youth on environmental principles, cleanup programs, mangrove planting and planting of native and valuable trees.

For success of any program in Fiji, traditions have to be respected. Therefore, traditions were followed to the utmost. In any Fijian village, following protocols is also of the highest importance. Even the clothes one wears at a meeting matters to the success of the program. The community would only act if the Headman and the Chief of the village would provide permission and accept the plans. Even though the plans may be scientific, yet agreement needs to come from the Chief. Even the Government officials request that permission is first obtained from the Chief of the village.

One of the main difficulties that faced was the identification of the owners of the study site. Fortunately, land was owned by the state: crown land as it was adjoining the beach. Once this was cleared by the District Officer of Lautoka the research activities began. Even though traditionally, Fijians live in close village communities, volunteering for community service is not a habit. Therefore, workshops and training programs were carried out in order to generate enthusiasm for the voluntary services. Once understood, most of them were willing to participate.

The Case Study Site

Fig 1: Fiji Islands
Source: Google map

Even though mentioned and noted in the world map, Fiji Islands may be represented almost by a dot due to its minute size (Fig: 1). Indeed, these islands have raised their voices loud in many of the climate change forums as they are more seriously affected by climate change.

The Saweni beach of Viti Levu is a picturesque area within Lautoka, the second largest city of Fiji. It is surrounded by a range of mountains with breath taking views. Moreover, it is the only beach in the vicinity of Lautoka which is of easy access to the common man, where people go daily for recreation or relaxation. Most of the other beach areas around Lautoka city fall within the village areas which are generally prohibited for use without the permission from the village chief. Therefore, almost 1000 visitors come to Saweni beach during the weekends to have a family picnic or a swim in the sea. In fact, Saweni beach is their only place for relaxation and enjoyment.

Moreover, no authority has claimed ownership of the Saweni beach. As a result, over the years, the beach has become extremely polluted. Mangroves are disappearing, making the eco-system to lose its ecological balance. This is because most of the mangroves and associated areas have been removed for fire wood. Fishermen have also removed parts of mangroves to allow boats to be carried from the sea to the roadside. As a result, today, the mangrove cover has diminished to a large extent as seen in the Fig 2, creating a serious imbalance in the ecology of this beach.

Fig 2: Dwindling mangroves and the increase in Garbage and unauthorized constructions
Source: Author

According to Tuiwawa et al. (2014) and Aalbersberg and Berno (2010), among the mangrove species generally found in Fiji are the red, black and the white. Of these, the red mangroves are the most prevalent at Saweni beach.

The visitors to Saweni beach vary in nature. During the week days, few families arrive at the beach in the afternoon. However, in the night, a large number of people come to enjoy the beach and some even spend the entire night there. Those who eat at the beach leave large volumes of garbage among the bushes (Fig. 2). In an attempt to clear the garbage, at times the villagers set fire to the garbage piles, burning even areas of forest cover. Today burning of forest cover is a common habit of the Fijian community as a way of getting rid of the unwanted plants. During this process many of the medicinal plants such as Noni, Kura, and mile-a -minute are destroyed(Cambie and Ash, 1994).

There are no regulations in Fiji on buffer zone management. As such, people construct houses and hotels at close proximity to the beach (Fig 2).This results in high levels of beach erosion. With the increasing impact of climate change visible through the heavy storms, and intense cyclones, the coastal erosion is likely to accelerate. The sea level rise at present in Fiji and is between 6 mm to 11mm per year (IPCC, 2011).

Outcome of the Action Research

Action 01: This involved an initial introduction the eco-regeneration as planned.

As a start, all who participated were taught how to plant mangroves.

Action 02:

The mangroves were collected by the Forestry department. Red mangroves were planted most, as they are the species which are common in the area and are locally available. Three seedlings were planted together always such that the survival of at least one of them can be expected (Fig.5). In a day, almost 2000 seedlings were planted.

Fig. 5: Mangrove planting at Saweni beach.
Source: Author

Action 03: Beach Cleanup

Alongside the mangrove planting, a beach cleanup was done with the cooperation of the Lautoka City Council, which is the local municipal council responsible for the management of garbage. At least 40 to 60 persons participated at each of the cleanup campaigns. The village community also participated at each of the cleanup programs; thereby they were trained in leadership skills, as well as were empowered to carry out this responsibility in the future on their own.

Action 04: Planting of Valuable Trees in the Terrestrial Environment

Native and trees of economic value were planted in the terrestrial environment. All the participants were given the opportunity to place a small plaque with their names beside the trees that they have planted, as a way of remembrance. Apart from the native plants, other more valuable trees such as mahogany, teak and citrus fruit trees were planted in the area and the ownership of the trees was given to the people of the village. This was expected to ensure their survival. As most of the Fijian community enjoy planting, this was a huge success indeed (Fig: 7).

Action 05: Clearing the Garbage

The places which were covered with garbage were cleaned up and were covered with sand bringing back the beauty of the beach area. Colorful boards, typical of Fiji were placed on the beach requesting the visitors to keep the beach clean (Fig: 6). Receptacles were placed for the disposal of garbage. Large numbers of glass pieces were found on the beach, as well as in the terrestrial environment. All of them were removed to ensure that the beach became a safe place for children to play.

Fig: 7: The community enjoyed the planting of trees. Their enthusiasm for Community work enhanced through this project
Source: Author

Action 06: Involving the Key Stakeholders

The media support for this project was immense, as this was almost the first project of this kind carried out in Fiji, especially in the city of Lautoka. Through the media, messages were sent to the public that the Saweni beach has been cleaned up to be used as a family leisure site. All the visitors were requested not to leave even a trace of garbage behind. In fact, the general public was repeatedly encouraged to participate in mangrove planting.

Action 07: **Recognition of the Participants**

Recognition of the Participants was crucial to make people sense of ownership of the site, and therefore certificates were awarded to all the participants. As all the institutions: the governmental, the non- governmental, academic, business, the embassies, the village, media and the public were involved in the activities. It became a big success.

Fig: 5: The US Ambassador to Fiji at the Mangrove planting event
Source: Author

Discussion

Today, urban spaces are valued not only in terms of their property values, but also in terms of their values to the general public. Saweni beach is one such example. Saweni beach became an extremely valuable resource for the western division of Fiji as it provided a space for recreation and relaxation to the city dwellers. Unfortunately, it was neglected by all as no one claimed ownership of it. In Fiji, clear ownership of the land is important. When one is unsure as to whom it belongs to, people do not attempt to take care of the place. Hence, over the years, with thousands of people visiting the Saweni beach, it became a place filled with dirt and unpleasantness. In fact, there were many stories that people who went to Saweni for a swim never returned.

One of the major difficulties the author faced was her inadequate knowledge of the traditions of the community. In Fiji, traditions are well respected, and time is not considered as a barrier, as Fijians generally say that they work on "Fiji time". As an environmentalism it was also the responsibility of the author to ensure that the homes of the plants and animals living within the intertidal zone were well protected, and their homes were undisturbed during the project.

The project disseminated adequate scientific knowledge to all the participants, to ensure that it can be duplicated elsewhere. With the enthusiasm created for voluntary work, today such work is seen among the youth, the women's groups and the church congregations. Most of the monitoring work of the project was done by the Environmental Science students of the Fiji National University.

Success of the program also lied in the fact that the village authorities were consulted. Their approval of the program was of importance. They expect all institutions to respect their views. Unfortunately, though the Fijian community has the tradition of environmental protection, with colonization and with the influx of foreign communities, the valuable traditional practices have been diluted to some extent. As Perera and Mersky (2015) point out, today, the usage of packaging materials and dumping of waste is on the increase.

Conclusions

At present, Saweni beach is the center of attention of most people in Fiji. Many investors are also keen to develop a tourism industry around the Saweni beach. Hotel projects and Eco parks are on the pipeline to be realized. An environmental management plan is being developed to ensure that the marine environment is well protected, and the mangrove belt is enhanced to be an effective wind barrier during heavy cyclones.

The project took away the fears of the people to visit Saweni for relaxation. As city dwellers, they require a space for recreation and trees to sit under to watch a beautiful sunset. Today, this is possible for the people of Lautoka. The greatest lesson is that nothing is impossible even in a foreign land when the vision for a positive change is shared with great enthusiasm, commitment and dedication.

This paper thus concludes that in as much as theoretical and data gathering research are useful in dealing with certain issues, action research could also be employed to both examine and issue and provide immediate relief and interventions.

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