

# Strategies for Sustainable Development for a City

K.Kumarasivam Young Environmentalist Internship Report 2010

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## Introduction

Singapore is an island city-state that is highly economically developed, but at the same time, it has been facing the challenges of lacking natural resources. The Brundtland Report(1983) defined the Sustainable Development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs, such definition is especially meaningful to the island-state like Singapore. In order to achieve environmental sustainability in the midst of pursuing economic development, the government has chosen the 5Es approach, they are Engineering, Economics, Education, Enforcement and Engagement.

Singapore Environment Council (SEC) is a non-governmental organization initiated by the Singapore Government in 1995, but it has been positioned as an independently managed, non-profit, non-government organisation, and institution of public character that nurtures, facilitates and coordinates environmental causes in Singapore.

In promoting greater awareness of the importance of sustainability, SEC plays an important role in educating and engaging the local communities especially the business community and schools.

## Building Green and Sustainable Communities

During my internship, I was given the opportunity to find out how SEC creates awareness through workshops, seminars, roadshows. I visited their road show and talks in the school, eco-shopping mall, eco-hotel in Sentosa, Lifestyle cancer patients care centre and also exposed to Eco-office Label auditing. I have gained new and detailed insight from the site-visit and was given the chance to interact with people from different background during my visit.



Due to the increasing awareness of the sustainable development and the need of promoting green practices among business sector, SEC has involved in the administration or development of eco-labelling schemes, such as Eco-office label, Singapore Green Label, the Singapore Environmental Achievement Awards. These are useful tools for SEC to encourage business group especially industrial players to “Go Green” through such voluntary basis environmental

initiatives. Participants or applicants of such schemes are required to pay certain amount of application fees. In other words, SEC is self-sustaining through administrating and developing eco-labelling schemes.

The voluntary eco labeling schemes serves for certain purposes and interest groups, but it can be very useful and powerful tools for promoting sustainable development in urban areas. It has potential demand in Malaysia if it is administered by a reputable and credible environmental organization together with an auditing body. The administrator must adopt a holistic approach to prevent it to be seen as “Green-washing”. Above all, it must gain endorsement and recognition of the community.

## (1) Schools:

SEC has designed a Green Audit Program for the primary schools, secondary schools and colleges. Today, 70% of the schools in Singapore have taken part in the program. Participating schools can download a Green Audit Manual from the website. The schools will set up a working group which involves a small group of students and teachers.

This working group is required to do the auditing themselves first. The students section comprises the list of questions on the auditable subjects. The teacher's section gives advice on how to conduct the surveys and quantify the results. Teachers are expected to submit a brief school report on overall environmental friendly activities undertaken by the school. For example, talks, field trips, adoption of parks and etc. SEC will send their staff to check the results, some creative ideas has come up from such program such as the setting up of recycling shop in the school or do composting with the canteen.

There are 6 awards in Green Audit Program. It is conducted every two years. Cash Prize for Lotus Award, Sustained Achievement Award and re-certification of Sustained Achievement Award. The track record of the audit will be published in the website.



For energy conservation, SEC has developed a Project Carbon Zero. This project encourages students to reduce energy consumption at home by 10% within 4 months (May-August). Three prizes are given to: (a) Top 3 students in every schools ;(b)Top 3 Students in all participating schools ; (c)School with most students reduced energy by 10% . The SEC and the National Environment Agency will reward every student who reduces energy consumption at home by 10% or more.



## (2) Society:

There are four incinerator plants in Singapore, 90% of their solid waste are incinerated. In recent years, the government found that ashes from the incineration can be utilized for land reclamation. However, the greenhouse gases generated from the incineration still emitted into the atmosphere directly.

In order to reduce the pollution caused by the plastic bags, SEC has launched “Bring Your Own Bag Every Wednesday” since June 2008. However, it has not been developed into a mandatory policy, as it is still a voluntary program, the response of the general public still far from the expectations. The commitment of the state leaders is the decisive factor of the result of a campaign. In Penang, the “No Plastic Bags Days” is entering another stage, it has been developed into a condition which must be complied by the retailers who wish to get their license renewed.



Environmental concerns are always related to health issues. In a visit to the Lifestyle Village in Aljunied, I met some voluntary in the cancer patients care centre. They talked about the benefits of becoming organic vegetarians; they also praised Consumer Association of Penang(CAP) for aggressively promoting healthy lifestyle and our Health Minister for being vocal vegetarian.



From the interaction with the community activists in such a highly commercialized country, I found that environmentalists all over the world are actually asking: How much resources are left for human world's extraction, production, consumption, recycling or disposal? How much longer can we sustain if we continue our consumerism consumption patterns? (Website sharing : <http://storyofstuff.com> )

### (3) Business Community:



Business community is an important element in urban development. Without the commitment of the business group working towards environmentally-conscious and sustainable development, any green agenda can only be considered half-way done. During my internship, I was given the opportunity to take part in the process of Eco-office auditing. This is an auditing tool developed for the business group to take green initiatives in their working place. The selected auditing firm is Envirosolution, they developed the audit mechanism for SEC. The applicant which I visited is Singapore Youth Olympic Games office. The one-time off auditing is conducted by one auditor. There will not be another audit in the following two years after the applicant is certified.



There is no quantifiable parameter or standard for Eco-office Label, it depends on the needs of the applicants, and there is flexibility for them to deal with their own environmental initiatives. The baseline for application is 6 months. During the presentation, the applicant elaborated how much energy, water or papers have been saved through their activities. For example: staffs are encouraged to print on both side, bring their own mugs to meeting to reduce disposable cups. The auditor looks into the how the applicant is committed to energy conservation, water conservation, waste recycling, paper saving etc, and also do on-site observation.



The applicant was required to justify how decisions are made, such as: papers or laptop for meeting? They also talked about their constraints, for example: as a tenant of the building, they found it hard to persuade their owner to modify the building.



The auditor is also very concerned about how the company engaged the involvement of the staff and how are they going to promote green ideas to the community. This is to make sure that the green message can be spread to other places, not only confined to a few planners. During the sharing session, the applicants told me that in order to make eco-office successful, there must be someone with high rank post from the management becomes the green champion to set an example.



SEC is the administrator of Singapore Green Labelling Scheme (SGLS). It was launched in 1992 by the Ministry of the Environment and is solely managed by SEC to endorse consumer products that have minimum impacts on the environment. The scheme applies to most products, except food, drinks and pharmaceuticals. It does not apply to services and processes.

Many consumer products in the market whether directly or indirectly, through their manufacturing processes, usage, or disposal, have an impact on our environment. They may cause pollution or deplete our natural resources. However, there are products which have less undesirable effects on our environment. For example, recycled paper or appliances which conserve energy. Labelling these environment-friendly products helps consumers identify them from those which are less so when making purchasing decisions.

This label is recognized as a member of the international Global Ecolabelling Network(GEN), allowing SGLS to be recognized worldwide. Therefore, such credibility and competitive application fees have attracted manufacturers overseas to apply for the label.



#### (4) Green Construction

Shopping malls and hotels are important buildings in the modernized urban cities. Not only the foreigners but also the local citizens spend most of their after-work time in these places. Most of the developers see development as buildings construction; however, from the show cases in Singapore, it shows that how much role a developer of a shopping mall or a hotel can actually play in promoting urban sustainable development. I visited the first eco-shopping mall- City Square Mall and eco-hotel – Siloso Beach Resort at Sentosa Island. This has given me a contrast comparison of different “Green Construction”.

City Square Mall is the first commercial development to be accorded a Building and Construction Authority Green Mark Platinum Award. In their building, I saw their efforts in utilizing the advantages of technology to help conserving energy and water.



They have built a roof top garden as part of cooling system, eco-playground which equipment made of wood sourced from forest product producers certified by the Forest Stewardship Council, LED lighting for façade, Solar panels harness solar energy to power cool breeze at the Fountain Plaza. However, some sceptics think that approaches which are highly depending on technology is not holistic, as an “eco-shopping mall” , they should look into the human aspects, for example, shop lots in the City Square Mall should stop giving free plastic bags.

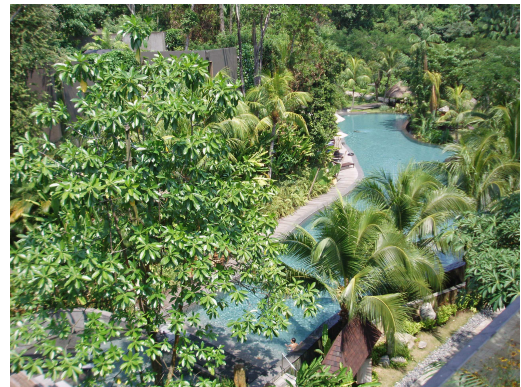




The Eco-hotel- Siloso Beach Resort has given me a deep impression. The developers took the ideas from Taiwan's eco-village. The construction demonstrates the symbiosis of the natural and the human activities.

During the construction, more than 200 trees are remained and preserved in the compound and even the buildings. Spring water are treated to be the water for the swimming pools, cleaners do waste separation in the hotel rooms, the heat generated from the air conditioner system are utilized to heat up water for the guest rooms. They also plant fruits, herbs, gardening plants for their own used. Wild squirrels are running around the open space restaurant.

Not only the management has thought of how to construct and develop, they are also taking a holistic approach such as the use of materials, purchasing, formulating internal policy on energy, water and waste management, and also demonstrated how the cultural is incorporated and how staffs are included in the common goals.



I was told that the construction of Siloso Beach is not meant for any grants or award initially. However, they have been certified as Eco Hotel by German TUV Rheinland certification institute in 2009 by chance. Maintenance cost of the resort is high but it caters for certain group of people. For example, European companies are required to submit their sustainability report or CSR report, if they organised their overseas seminars or conference in eco-hotel, it will add merits to their image and reputation.





## Conclusion:

The internship at SEC has given me the opportunity to learn about how to engage different community to get involved in the environment initiatives especially the business groups. From the implementation of different kinds of green projects catered for various groups, it has provided me some new ideas and inspiration that can be recommended to the Penang state government in my work.

I found that Green labeling or certification scheme is a tool to induce or recognize the involvement of the business group in the environmental initiatives. Back in Penang, I proposed to the Penang Water Supply Corporation (PBA) to develop some incentives mechanism for water-saving products or for communities which are doing great job on water conservation. Unfortunately, I was told that only the Suruhanjaya Perkhidmatan Air Negara (SPAN) has the capacity to do testing for the water-saving devices. Nevertheless, PBA has accepted my proposal on the Water Efficiency Excellence Certification (WEEC) scheme and now working on it.

Apart from it, I shared the information of the School Green Audit programme with an officer in-charge-of Local Agenda 21 from Majlis Perbandaran Seberang Perai(MPSP), he likes the idea very much and immediately drafted a proposal to raise funding for the programme. This idea has also been adopted by the member of State Executive Council, he is now seeking for approval from the State Executive Council, hopefully this will become a state-wide program soon.

Prior to this, the local governments have actually been promoting environmental programs in the schools such as Recycling Banks, water-saving, making garbage enzyme etc. Green Audit Award is a suitable program for our schools to integrate all the scattered efforts of the local governments into one cash-award-winning program to attract more schools to take part in the green initiatives actively.

Some of the assessment tools in the eco-labeling schemes and community projects are also very inspiring. In Penang, we can use them as useful assessment tools for the performance of the task forces in the Eco-town project.

SEC is a non-governmental organization, their main task is to promote awareness and encourage participation of the communities. However, if they want to achieve progressive changes, they need to work together with certain policy research-based organizations or policy-making agencies to bring the findings and conclusion of their voluntary programs to the policy level, such as No Plastic Bags Every Wednesday. With the combination of “carrot and stick” , they can actually achieve better results.

During the internship in Singapore Environment Council, site visits are important for me to know more about how people think and how they achieved their results practically through different approaches. Due to the unexpected circumstances, I was unable to visit certain places such as the incinerator plants. In order to maximize the learning opportunity during the internship, I hope that in the future, the hosting organizations can give ENSEARCH or the intern some options of the site visits, so that both ENSEARCH and the intern are able to make preparations in advance.

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