

## CASE STUDY

The succeeding pages present for your examination and discussion an actual, on-going initiative on green jobs. A facilitator will be provided to your group to direct the discussions and assist you in completing the assigned tasks within the time provided.

### Instructions:

1. Read the case study provided your group. (15 min)
2. Assign a facilitator and a rapporteur within your group. Discuss among yourselves, using as guide the questions indicated below. (30 min)
3. Write your responses to these questions on the flip charts provided. (5 min)
4. Choose a member of your group to present your outputs in plenary. Each group is given a maximum of 10 minutes to give a brief description of their case, then present their discussion results.

Total time: 1 hour 45 min

### Guide Questions:

1. What is the social/economic (labour) challenge or issue in the case?
2. What environmental factors greatly affect/are affected by this challenge/issue?
3. What are the probable impacts of this challenge/issue on specific stakeholders?
4. How are these impacts responded to?
5. How could these responses be enhanced or strengthened to ultimately lead towards green jobs?

## INTRODUCTION

Sustainable green building is basically the practice of conceiving a design, followed through by construction and operation, and even reusing buildings in an ecologically-friendly and resource-efficient manner. The focus is on the promotion of practicing sustainable site development, efficient usage of energy, improvement of water management and air quality, and lastly the utilization of green materials ultimately leading to the preservation of cultural heritage.

Green or “sustainable” buildings use key resources like energy, water, materials and land more efficiently than buildings that are just built to code. With more natural light and better air quality, green buildings typically contribute to improved occupant health, comfort and productivity. During the construction process of a green building, Jim Scull Construction utilizes the LEED System, a Green Building Rating System developed by the U.S. Green Building Council. LEED encourages the adoption of sustainable green building and development practices while providing guidelines and requirements for buildings. The benefits of green buildings include lower energy and water bills, reduced greenhouse gas emission, and less exposure to mold, mildew and indoor toxins. There are a number of advantages in this avenue; if buildings require less energy, this leads to reduced demand for power plants. Moreover, improved quality of effluents from buildings helps the government to maintain cleaner water resources. Practices incorporating improved and sustainable resource management help businesses to reduce wastes generated at job sites, which help relieve the need for landfills.

The main point of sustainable green buildings is that this lessens the negative impacts usually associated with the building construction business. The goal is to minimize the effects on the natural ecology and the ecological services the present environment provides. This is the best way that construction business can contribute to the protection of the environment.

Although the concept of sustainable green building was not warmly accepted at first, the construction business industry is now realizing that the costs of erecting green structures are deemed competitive compared to the traditional. Moreover, the accessibility to green-oriented building materials, information and technology is accelerating the acceptance of green buildings.

The building and construction sector employs more than 111 million people around the world. At a country level, employment in this sector directly accounts for 5-10% of total employment.(UNEP\_ILO, 2008) Hence, the way buildings are designed, built and operated along with how building components are manufactured and energy is used are likely to affect employment significantly. There are many channels through which green buildings generate employment:

- (1) Construction of new green buildings
- (2) Retrofitting old buildings
- (3) Increased production of green building materials

- (4) Increased production of 'green' appliances
- (5) Employing more renewable energy in the total energy mix
- (6) Other green aspects like Recycling, Waste management

The possibility of some new jobs comes through increased investment in the construction phase. Some jobs need to be redefined in terms of training and skill requirements; however, most jobs in the green building construction will be performed by people who are already working in the conventional building sector.

The estimation of employment effects by increased production of green building materials is difficult as there is no clear definition of what exactly is green. In general, green building products are those which are made with salvaged, agricultural and waste content, conserve natural resources, avoid toxic or other emissions, reduce environmental impacts during construction, operation, renovation or deconstruction, save energy and water, and contribute to a safe and healthy indoor environment. It is not clear as to which products will be demanded more for a green building and which products will these replace. The entire supply chain must be carefully analyzed to estimate the employment effect. There will however be no significant additional jobs as jobs created through increased production of certain materials will replace the already existing jobs involved in producing non-green materials.

There is a tremendous increase of building construction activities in the Philippines due to increased population in urban areas. The rapid expansion of the property sector is triggered also by the demand for new and premium office space required by the business outsourcing industry. Economic prosperity of the Overseas Filipino Workers (OFW) sector also stimulated the accelerated development of more residential condominiums in city centers. The associated environmental impacts of these developments are the fast depletion of energy and water resources, solid waste generation, increased transport emissions and loss of urban spaces.

## **RESPONSE**

Sustainable green building, in general, works under a holistic framework, incorporating environmental laws, initiatives and policies into developing an effective policy development tool matched with a consensus-driven green building rating tool.

To date, there are a number of ongoing legislative actions in the Senate, led by Senators Manny Villar and Miriam Defensor-Santiago. Senate Bill No. 3144 entitled "An Act Promoting the Creation of Green Collar Jobs" provides a strategic initiative for its implementation and for other purposes, a precursor to the next act entitled "An Act Authorizing Higher Education Curriculum Development and Graduate Training in Advanced Energy and Green Building Technologies." Meanwhile, the congress is also playing its part with regards to setting up policies. Rep. Anna York Bondoc filed the House Resolution 704 pertaining to the urging of the house representatives to become the first green government building in the Philippines; and House Bill 6397 as an act to establishing a green building standard for planning, design, construction, operation or

maintenance practices, renovation, expansion and retrofitting of government building projects in the country.

Local government units likewise, have been active in the development and application of sustainable green buildings. The City of Makati is currently crafting a resolution encouraging the design, construction, restoration, operation and maintenance of building and other structure to meet minimum standards of green building. Quezon City has passed an ordinance requiring the design, construction or retrofitting of buildings, other structures and movable properties to meet minimum standards of a green infrastructure, providing incentives therefore and for other purposes.

To assess and mobilize Filipinos to adapt and sustain green buildings, a rating tool has been designed and employed by the Philippine Green Building Council (PhilGBC) - BERDE, short for Building Ecologically Responsive Design for Excellence. The task is simple. In light of the environmental situation in the Philippines, taking into consideration the massive accumulation of solid waste, excessive energy consumption in urban areas, and persistent air and water pollution, there is a need to raise awareness on an alternative that can alleviate the negative impacts of human existence to the environment. One of those alternatives is Green Buildings. To reiterate, green buildings reduce our carbon footprint, optimize water consumption, reduce material input and waste generation, preserve our cultural heritage, and lastly, to preserve the site's natural ecology. The objective of BERDE is to measure the performance of a green building in terms of the following parameters: sustainable site planning, water efficiency, energy efficiency and renewable energy usage, conservation of material and resources, and safe indoor environment quality within buildings. The results obtained by using this rating tool will not only be used to assess the green building capacity and condition, but will also be used as a basis for determining and formulating policies in the government.

As part of mainstreaming the green building concept, the Quezon City Local Government Unit is the first among LGUs to approve an ordinance giving incentives and tax exemptions to green buildings built within Quezon City.