Green business case studies from Asia and the Pacific region
Introduction

For young green entrepreneurs all over the world the way from their first idea until getting the business up and running is often arduous and some may give up their dreams because of lack of support and motivation.

Starting a business is challenging, but what about a green business then? Many aspiring entrepreneurs see this as an additional hurdle on their way to their own business. When thinking of “green” many imagine higher costs, high-technology, complicated processes, strict laws, more work and no benefits. But the real picture looks different. Young entrepreneurs have to be shown that they can see for themselves that the “green” in the business is not a disadvantage but can be understood as a synonym for a set of many positive features such as “better quality products and services, happier employees, more efficiency, support to and from the people and the society, economic development, environmental and social sustainability for the future for the business and its living environment, cost savings, potential for higher profits, etc.”. These and many more positive attributes fit under the umbrella of a green business. If the aspiring entrepreneurs realize that green represents an advantage in every way, it becomes an additional motivation to start a business, especially when one can see the vast green business opportunities across all economic sectors and in every country.

The question remains how to best communicate this to the young entrepreneurs who would like to start a green business. How can we inspire existing entrepreneurs to make their businesses even greener and sustainable? This collection of case studies was prepared by the International Labour Organization regional Office for the Asia and the Pacific (ILO ROAP) as an answer to these questions in a practical way. It contains a set of green business case studies and best practices from various sectors and countries that can help new and existing entrepreneurs to become green or even greener. These case studies are presented to inspire existing and future entrepreneurs to learn about innovative and efficient ways of becoming greener. The case studies provide examples of green practices, green policies, green products and services and ways to implement decent work principles and provide benefits for the local communities. Moreover, they illustrate the link from “green” to “profitable” and answer questions such as “how going green can increase your competitive advantage”, “how you can make green principles your unique selling proposition”, “how green ideas can reduce your costs and make your business more efficient”, etc. Challenges associated with starting and running a green business are analyzed and light is shed on practical solutions.

The case studies are an inspiration and can stimulate the creativity of young entrepreneurs to find their own and innovative ways to go green.

Disclaimer:

The case studies have been collected from various sources (direct interviews, internet, ILO materials, and others) from different countries throughout the Asia Pacific Region and are mostly secondary data. All copyrights stay with the original sources as indicated in the case studies. The ILO does not claim any copyrights on the materials presented in this document. Furthermore, the content of the presented materials does not reflect the opinion of the ILO and the ILO is not responsible for the content in any way.
# TABLE OF CONTENTS

## Introduction ............................................................................................................................................. 2

## TABLE OF CONTENTS ......................................................................................................................... 1

### CREATIVE INDUSTRY ................................................................................................................................. 3

- Case Study: Coffee Paste (coffee grind residuals as paint) ........................................................................ 3
- Case Study: LOEBIS JIN BABEKU (Bag and Accessories Creations Made from Secondhand Jeans) .......... 6
- Case Study: Ijo Design (greeting cards made from recycled materials) ..................................................... 9
- Case Study: Ndopart Vector Design (Online Design Service) ................................................................. 13
- Case Study: Q-Sukses (creative and green management consulting) ....................................................... 16
- Case Study: Tarum Bali Sejahtera Natural Production in Bali ............................................................... 19

### SRI LANKA .................................................................................................................................................. 22

- Case Study: CKT Apparel (Pvt) Ltd. ........................................................................................................ 22
- Case Study: MAS Active (Pvt) Ltd. Asialine ......................................................................................... 26

### ENERGY ..................................................................................................................................................... 30

- Case Study: Rural Community Microhydro Project ................................................................................ 30
- Case Study: Biogas Digester Production ............................................................................................... 34
- Case Study: Sawdust Briquettes ............................................................................................................ 37
- Case Study: Coconut Shell Charcoal Briquettes .................................................................................... 39
- Case Study: Energy Efficiency Consultant .......................................................................................... 42

### CHINA ....................................................................................................................................................... 45

- Case Study: HiMin Solar ......................................................................................................................... 45
- Case Study: ZKenergy Science & Technology ....................................................................................... 50

### INDIA ......................................................................................................................................................... 53

- Case Study: Rice Husks for Rural Electricity ......................................................................................... 53

### FOOD, AGRICULTURE AND FORESTRY ............................................................................................... 55

- Case Study: Organic Rice Farmer Salamun Budiono ............................................................................ 55
- Case Study: Deni Ardini (Online Business for Traditional Food) .......................................................... 58
- Case Study: Confiture Michele - A Jam Lovers Paradise ..................................................................... 60
- Case Study: Bali Rungu Organic Farming .............................................................................................. 63
- Case Study: Juice Ja Cafe, Bakery & Store - Bali ................................................................................. 66

### CHINA ....................................................................................................................................................... 69

- Case Study: Wang Lei Korean Pine Cultivation Specialized Cooperative Society, in Benxi County of Liaoning Province .................................................................................................................. 69
- Case Study: Yong’an Lvyi Bamboo and Bamboo Shoot Processing Factory, Fujian Province ............ 71

### SRI LANKA ................................................................................................................................................ 73
Case Study: Kelani Valley Plantations PLC, Halgolle Estate ............................................................ 73

TOURISM ........................................................................................................................................... 78

INDONESIA ....................................................................................................................................... 78

Case Study: Hester Basoeki Green Garden Guest House ................................................................. 78
Case Study: Tourism and Reef Conservation in Pemuteran Village, Bali ........................................ 82
Case Study: Candirejo Village Tourism ............................................................................................ 86
Case Study: Songa Adventure White Water Rafting ........................................................................ 89
Case Study: Eco Geko Experiential Tours and Volunteer Vacations - Bali .................................. 93

CHINA ................................................................................................................................................ 96

Case Study: Uncle Zhaxi: Sustainable Tourism in Tibetan Villages (Ganzi, Sichuan) ...................... 96
Case Study: Boxue Ecological Village (Haikou, Hainan) .................................................................. 99
Case Study: Respect for Local Communities and Ecological Development (Nanling, Guangdong) ..... 104
Case Study: Lao Zhang’s Farmhouse tour in Jingyuan County of Ningxia Autonomous Region ...... 109

SRI LANKA ........................................................................................................................................ 111

Case Study: Heritance Kandalam Hotel .............................................................................................. 111
Case Study: Cinnamon Lodge – John Keells Holding PLC ............................................................... 116

THAILAND ......................................................................................................................................... 121

Case Study: The Family Tree, Hua Hin, Thailand ............................................................................. 121

TRANSPORT ...................................................................................................................................... 126

INDONESIA ....................................................................................................................................... 126

Case Study: Cahaya Bike Repair and Sales Shop ............................................................................. 126
Case Study: Al Madina Student Shuttle Service ............................................................................... 129
Case Study: Anugrah Sehat Bike Rental (Mr. Djoko) ....................................................................... 132

WASTE MANAGEMENT .................................................................................................................... 136

INDONESIA ....................................................................................................................................... 136

Case Study: “Green and Clean” Waste Bank Initiative ................................................................... 136
Case Study: AV Peduli ......................................................................................................................... 139
Case Study: ALIT Skill Store - Success Story of a Newspapers Seller Boy at Tunjungan Plaza Surabaya142
Case Study: EcoBali Recycling - Sustainable Solutions to Waste Management .......................... 149

CHINA ................................................................................................................................................ 152

Case Study: Beijing Zhizhixin Cheng Renewable Resources Co., Ltd - Waste Paper Recovery Enterprise ............................................................... 152
Case Study: Huaxin Environmental Protection Development Co., Ltd – E-Waste ............................. 154
Case Study: Beijing Lianhe Ding Sheng Renewable Resource Recovery Co., Ltd - Community Recovery Enterprise ................................................................................................................ 157
Case Study: “Garbage King” - Waste Recovery Station ................................................................. 160
CREATIVE INDUSTRY

INDONESIA

Case Study: Coffee Paste (coffee grind residuals as paint)

Background

Coffee Paste is a creative applied arts enterprise in Surabaya, which has built its business concept on the up-cycling of waste products to very high quality items by creating artful objects from coffee grind.

Enjoying coffee has become the hobby and indulgence of many people in Indonesia, especially, in the big cities. Many coffee shops have emerged that offer not only a delicious coffee sensation, but also provide a place for social gatherings, meetings, and discussions. Coffee is enjoyed in public gathering and in the comfort of the private home. The coffee culture was first brought to Indonesia in the Cultivation or Cultuurstelsel era (1830-1870) during the Dutch colonial period in Indonesia. First commercial plantations were established in the Dutch colonies of Java, Sumatra and parts of eastern Indonesia. These areas still represent centers of coffee production in Indonesia and the plantations have been vastly extended.

In front of this backdrop, it is valid to say that Indonesia is a considerable coffee-producing and consuming country. In addition to the plentiful coffee production, the final products are processed and sold at a variety of prices reaching all people, the lower, middle, to the top end of the market. However, it must be realized that together with the coffee that Indonesia drinks and exports, the high production and consumption of coffee in Indonesia produces immense amounts of pulp, these large scale coffee grinding activities are polluting the environment.

Idea and startup phase

The environmental problems caused by large scale coffee processing and consumption galvanised the founders of Coffee Paste to start their own business idea. The vision of the founders was that coffee grounds would no longer be discarded randomly and pollute the environment. The idea was hatched to create a business for the productive use of this coffee grind “waste”, namely as paint for decorative and every day porcelain. Thus creating art and useful items from waste. However, when it came to the realization of the idea and start up the business, several difficulties had to be overcome. From taking part in an entrepreneurship incubator program at the Institute of Technology Sepulu November (ITS) in Surabaya the founders got initial training and expertise on how to open a business. This strongly supported their vision and actual steps in becoming self employed entrepreneurs.

One key issue was how to finance the start-up and the initial investments needed. Seeking funding for the initial phase of the research and startup, the founders decided to submit a proposal with a detailed business plan to a competition of business ideas by PKMK (Entrepreneurship Student Creativity Program) from the Directorate General of Higher Education. The proposal was well received and earned them a start up fund provided by PKMK of IDR 6,000,000 (approx. USD 600). Once the funding was received the founders began their coffee research.
Product development and growth

The products offered are decorative products made from coffee grounds, including various porcelain such as plates, saucers, mugs and also photo frames with an emphasis on the art and environmentally friendly aspects in their products. The next big issue was the technology and techniques that had to be developed to make the coffee grounds stick well on media like porcelain and glass. Then, upon successful product development and startup, the owners faced the challenge of how to introduce their products to the public. They started marketing the products to event organizer as give aways for events, as gifts and souvenirs for tourist attractions, especially the batik motives, as well as birthday presents and congratulation gifts.

When the first business success appeared and the public started to gain interest in the products the founders quickly realized the need to set up a team to handle the operations in production, marketing, finance, and human resources. They regard constant employee training as essential and an important factor supporting their sustainable company development.

With regards to support for SMEs, many factors need to work together in order to support the advancement of SMEs in Indonesia. The founders of Coffee Paste believe that in terms of the public sector, the government should provide guidance and assistance with capital interest-free loans and coaching programs for creative entrepreneurs who are also creating jobs and therefore help solve the country’s unemployment problem.

Why is it green and sustainable?

The idea behind the product is to address the impacts of environmental pollution. While previously, the coffee ground residuals resulting from coffee production and processing were discharged into the environment, Coffee Paste suggests a new alternative to transform the pulp from the process into products that are of high value. Thus reducing waste and the negative impact on the environment. The second aspect of the business is the art approach, where the business is able to transform a visual design idea into a tangible medium. The third aspect is the conservation of traditional cultural heritage, namely Batik, which represents part of the design palette. Batik is regarded as one of the core artistic heritages of Indonesia, strongly intertwined with the culture and history of the country. It is hoped the products will become a medium for a stronger consciousness of the people towards their environment and their cultural heritage. It is the idea to introduce the Batik motif to the general public at large in a different form, so that people get to know the art not only through the Batik clothing fashion.

Challenges

The founders realized that the challenge of doing business is certainly very different than the challenges faced as employees. In business when one challenge is completed, the next challenge is already there and responsibility cannot be shifted to other parties. SMEs must by dynamic and growth oriented, innovative and flexible. “Business as usual is not an option for start ups” say the founders.

In particular, the founders saw their biggest challenges in the product development. They tried within the framework of small scale research the optimal combination of the coffee with various types of glue that would create a dough mixture not eliminating the color and structure of the coffee. After trial of many glues that they had ordered online, they decided to stick to a local glue manufacturer from Surabaya, the city of
their own location. This is was advantageous since shipping costs for the glue could be reduced and also by applying local procurement a contribution to local economic development and a reduction of environmentally malign transportation of the materials could be achieved. After finding the right combination of glue, they faced a new problem, namely how to work with the coffee grounds to shape the designs they wish. Furthermore, start up financing was a big issue, which could be solved through a grant from PKMK.

The founders also mention that an entrepreneur must be able to recognize and understand the market. This includes apt branding taking into account market segmentation and creating the right products for that segmentation. Not only that, the challenge of creating a good USP is crucial. The founder’s ability and vision is demanded to make their business a benchmark in the field.

Lessons Learnt

The founders said that they got a lot of tips about how to be successful from their entrepreneurship incubator program, in seminars they attended, books, TV programs, radio, etc., However, in their opinion one has to be selective about which of the tips are really practical and suitable for the particular situation. For the founders, learning by doing seemed more important and therefore they put more emphasis on action. They advised from their experience that even though thorough planning is important, applying the actions right away and trying is just as important. “The best plan is the one that is followed by successful implementation”.

TIPS

- “SMEs must by dynamic and growth oriented, innovative and flexible.
- “Business as usual is not an option for start ups”.

Photos

Source: Coffe Paste 2012 – www.coffeepaste.biz.com
Case Study: LOEBIS JIN BABEKU (Bag and Accessories Creations Made from Secondhand Jeans)

Background

Loebis Jin Babeku is a fashion enterprise specialised in the up-cycling of used jeans and other fashion fabrics to create new products. In their business concept the founders try to combine waste reduction measures with creative product development. Recycling and upcycling are the key words of this endevour.

The fashion world and our society create a constant need for adolescents to always appear fashionable, trendy and up-to-date with the clothing they wear. The fashion industry hereby serves this need by always providing new suitable products. Various models and types of clothing that fill the latest trends of interest are continously purchased by the teenagers and the amount of clothes produced and sold is enormous. This constant renewal leads to the fact that when a trend has gone out of fashion old clothes are mostly not used anymore. Clothes consequently tend to be stored in a closet or even thrown away as waste because of being outdated, not matching the right size, being ripped and torn, or showing faded colors. Waste of clothes is piling up more and more in our society, which poses various social and environmental problems in Indonesia. Mountains of fabric waste are taking away space in landfills, oil based colorings can dissolve and wash out into the groundwater and rivers, posing a threat to the environment and people’s health and therefore harming the society at large. Basically, selling, renting or donating second hand clothes, which are still in good shape is an alternatite option and can even be a source of income. Clothes which are torn and cannot directly be worn anymore usually get thrown in the garbage. When attempting to create a new product, even pieces of fabric can be used and with some creativity one can re-make the used clothing into new customer goods with an even higher selling price.

Idea and startup phase

Recycling and up-cycling of waste materials was the idea behind creating the business. When looking for suitable products, they came across the option of taking advantage of used clothing to make the bags and other consumer products. For them bags represent a key fashion item, which more than only serving as a storage device are also used to support the whole individual appearance even to indicate social class. Along with the development of fashion, accessories have always been part of the lifestyle and bags closely follow the trend. New items and innovations are in high demand such as bags made of jeans that appear as new creations, girly and casual.

Regarding the raw material for the new products, Jeans are a type of cloth made of cotton, coarse and durable. This popular material has originally been used for workers and has become a huge and never ending trend all over the world. Jeans are acceptable among all levels of society and every age from children, adolescents, adults and senior citizens both male and female. The jeans fabric is a universal fabric.

The business opportunity arises by leveraging the used pants/skirts made from jeans into new bags with a girly and casual style. Besides being able to save the big portion of costs of raw materials, this effort also contributes to the reduction of waste.
Product development and growth

Following the ITS Program of Student Entrepreneurial Creativity in 2012, the owners raised venture capital by applying for a grant with the PKMK (Entrepreneurship Student Creativity Program) from the Directorate General of Higher Education. In order to obtain such assistance, a full business proposal consisting of a business plan had to be submitted. The capital then was used to purchase the first raw materials, the sewing machine, for promotion and labor costs. Originally the founders started making sewing bags from jeans at home but could not expand to bigger production or a diversified product range. Over time, with the growing success, more products were developed apart from handbags, also jeans trousers, skirts, patchwork jeans, and other fashion accessories all made of used jeans, such as wallets, handphone cases, pencil cases, pouches, brooches, hair ribbons and more introduced into the product range. These are offered to the fashion shops and directly promoted to retail customers through online marketing and met great interest from the customers. Although made of second hand “waste” materials, the products are guaranteed to be clean and the business owners campaign for upgrading the image of recycled and up-cycled consumer products. There are a few additional applications to beautify the look of the products such as patchworks, embroideries and painting. The advantages of the products are the practical and fashionable appearance and the uniqueness of the goods, since every piece is unique and handmade and therefore of special value to the customers. However, as of today the production of jeans bags is still limited, but demand is growing. Therefore, the owners have decided to improve their production management and enhance marketing while keeping stable financing as an imperative. Furthermore Loebis is now in the process of expansion and exploring new ways to market their products of recycled jeans fashion inlcuding a coordinated sales network system to deliver to fashion retail shops regularly.

Why is it Green?

The Jeans bags are products contributing to environmental sustainability. Most users of jeans are not aware under which conditions they are produced using pesticides for the raw cotton plants and chemicals for the processing of the product. This way of production with chemicals can interfere with the health of the workers, especially the organs, lungs, make washouts and contribute to the pollution of rivers and ground water. At the end of the life cycle, decomposition when stored in landfills releases the chemicals again, which had been locked within the coloring and bleaching. Bags made out of jeans help on the one hand businesses reduce their immediate waste by providing the cut aways for new products as well as private users when giving away their second hand jeans for a new product. At the same time the idea of using recycled jeans materials can also incite other jeans manufacturers to further investigate the options for using recycled material.

Challenges

The main problem that the founders had to face from the beginning was the issue of human resources, especially to find skilled people able to perform the work and live up to the quality standards of the products. For some time they were not able able to find employees who matched their needs. Recycling bags are always handmade bags and cannot be mass-produced because all pants/jeans that are procured as materials come from different models and therefore the end products are unique as well. To solve this initial problem they used quite an unconventional approach. They invited housewives from their
neighbourhood to help produce the bags, however their skills in sewing turned out to be not good enough to keep a stable quality. Therefore they turned to outsourcing some of the production and for the highly demanded models they use special bag stitchers, which have very good skills. However, such outsourcing options do only pay with amount of around min 50 pieces for one model.

**Lessons Learnt**

For people who are interested in becoming self employed entrepreneurs the founders and owners of Loebis Jeans bags suggest that previous experience and a knowledgable background are of advantage. In their opinion the success of a business lies in the details of the products and also the management and operations. Decisions may never be rushed and a solid team is needed in order to conduct the tasks properly.

**TIPS**

- “Previous experience and a knowledgable background are definitely of advantage.”
- “Success of a business lies in the details of the products and also the management and operations.”

**Photos**

Source: Loebis 2012
www.loebis.com
Case Study: Ijo Design (greeting cards made from recycled materials)

Background

The Indonesian government has a blueprint for the development of the idea-based industry that is divided into two stages. The first phase, from the period of 2010-2015, called the reinforcement phase is targeted to grow by about 11%-12% annually. While the second phase, from the period of 2016-2025, called the acceleration phase is expected to grow around 12% -13%. This is supported by the execution of government programmes such as cluster development and the one village one product (OVOP) plan. Industries that are based on ideas, technology, art, and intellectual property already have a lot of potential industry centers, for example, Bandung, Jakarta, Yogyakarta, Solo, Pekalongan, Bali, and more.

Handicrafts can be defined as products that are produced either completely by hand or with the help of tools. Mechanical tools may be used as long as the direct manual contribution of the artisan remains the most substantial component of the finished product. Such products can be utilitarian, aesthetic, artistic, creative, culturally attached, decorative, functional, traditional, religiously and socially symbolic, and significant. The Handicraft Industry is one of the important productive sectors. Furthermore, handicrafts are hugely important to provide opportunities for employment even with low capital investments and can become a prominent medium for foreign earnings.

Indonesia is a country of rich culture, history, and traditions. The Indonesian handicrafts industry is a labor intensive, cottage based and decentralized industry. Most of the manufacturing units are located in rural and small towns, and there is a huge market potential in all Indonesian cities and abroad. The handicraft industry is a major source of income for rural communities employing millions of artisans including a large number of women and people belonging to the weaker sections of the society. In Indonesia the production of craft products are done on both a large and small scale. Because of low capital investment, people can easily start on a small scale.

Idea and startup phase

Ijo Design is a newly established design company offering “green”, stylish, and affordable greetings and wedding cards to consumers wanting to create a personalized message. The company is privately owned and operated by Mr. Ariani Hamzah and Mr. Rachman Shaleh as a business partnership, each have a 50% share. Located in the Keputih area of Sukolilo, Surabaya, East Java, Ijo Design caters to middle- and upper-class consumers who follow a green and creative lifestyle. After the company was established the founders quickly looked how they could expand their business to e-commerce. This additional business channel allows them to reach a broader customer base as well as to expand the level of customer service and personalized services.

Ijo Design’s mission is to design and produce artistic greeting and wedding cards and engage in special efforts to attract and maintain customers. The company follows its strict short, medium and long term goals laid down in its business plan.

The owners have planned their pillars for success, firstly, by offering products that provide quality and value to the consumer while meeting needs for an expression of personal style. Secondly, by providing
personalized customer services such as personalized promotions in an atmosphere of professionalism and hospitality, customers are retained to generate repeated purchases and referrals. Thirdly, by establishing a visible, accessible and welcoming store and website they can position themselves as the premier choice for the products and services within the marketplace and beyond. Forthly, by providing the customers with top-notch personalized customer service in an atmosphere of professionalism and hospitality.

Product development and growth

Ijo Design sells greeting cards and wedding cards made of recycled and non-toxic materials. The product prices range from IDR 2,000 – IDR 35,000. The uniqueness of the products derive from the fact that recycled and non-toxic materials are used with a green production system. Furthermore, the products show various and attractive designs, adopted from foreign designs, but with a touch of local culture. Semi-custom to fully-custom made designs according to the customer preference are also offered. The company is not just selling products, but also provides services such as free seminars (in exhibition events) on interpersonal skill development and marriage preparations.

In terms of marketing, the company targets the following segments (1) the youngsters at college age who are sensitive to art and design, as well as having idealism about associated environmental issues, (2) parents, who care about the issue of environmental conservation, who have children who are getting married, (3) Children of primary and secondary school, along with their parents.

Ijo Design also collaborates with wedding and event organizers who organize exhibitions for child-related products such as books and children’s food. They try to bundle their products with wedding packages, where they provide certain types of wedding cards for every wedding package option as well as with certain children products, where every purchase of the particular product will get a promo for a particular type of greeting card.

Furthermore, Ijo Design uses exhibitions and craft fairs to promote their products. Additionally, they offer free seminars about interpersonal skills development to promote their products. They are also very active in online media marketing such as publishing interpersonal skills development articles on Kompasiana (online citizen journalism) and kaskus (online bulletin board/forum), and actively participate in the discussion forum. Content on self development, interpersonal skills, and wedding preparation is displayed on their own website and on their facebook page, where they created a network of partners and potential/actual customers.

Communication, distribution, and sales channels comprise the company's point of exchange with their customers that play an important role in the customer experience. For Ijo Design these are their own website and webshop, their store, social media, and exhibitions to raise awareness among customers about the company’s products and services, make the products available for purchase, and for interaction and networking. The Ijo Design website plays a key role in the marketing and sales process.

Third party courier services (TIKI and JNE) are used to deliver the products to the customers. Post-purchase customer support is facilitated by the website, email, and other means of personal communication.
Why is it green and sustainable?

Ijo Design strives to make environmentally friendly choices and to reduce energy and waste all the time. They only use paper and envelopes that are 30-100% post consumer recycled. They support vendors that minimize their environmental impacts. Their printer uses solar power, purchases carbon offset credits, and supports animal causes. Their clear sleeves are biodegradable, sustainable, and compostable. Moreover, they are big advocates of reuse—from shipping boxes and packing material to discarded magazines that they use to bind stacks of cards. They also only buy products (like the soap at the sink) that have not been tested on animals. Moreover, Ijo Design uses a percentage of all sales to support local no-kill animal shelters. All cards begin as an original handmade collage, drawing, or print in their studio in the Keputih neighborhood near the Institut Teknologi Sepuluh Nopember Surabaya. Then the cards are printed at a solar powered print shop in Bratang, Surabaya.

Challenges

Greeting cards are frequently produced and sold by big national and international companies, supermarket chains, stationary shops etc. Commonly they follow standardized design patterns and slogans. They tend to be affordable and readily available. Ijo Design faced the challenge of how to penetrate the market of greeting cards and distinguish their product from the mass of products. Special handmade designs, recycleable materials, green practices and most importantly the feeling of the image are the strategies that Ijo Design has chosen. By building their image, they engage in many activities far beyond greeting card sales, namely seminars, discussions and consultancies in life planning.

Lessons learnt

The founders have realized that in order to differentiate themselves from the competition the company needs a brand with a tangible feel of a certain lifestyle, which most other greeting cards do not have. Hereby the green factor takes a special role and it is remarkable that in their company presentation and their website they strongly emphasise the green practices they conduct, not only when producing the products, but also in daily operations. They regard their green approach as one of their main marketing elements.

TIPS

- “Creatively branding your product is the way to differentiate it from the competition.”
- “Being green gives a competitive advantage.”
Photos

Source: Ijo Design 2012
Case Study: Ndopart Vector Design (Online Design Service)

Background

Ndopart is a start-up vector graphics firm that serves small- to medium-sized companies. The firm is based in Surabaya, East Java and operates from a small, downtown office. Ndopart is a sole proprietorship owned and operated by Muhammad Ali Mudzofar. Mr. Muhammad Ali Mudzofar started out as a hobby blogger. He states that he likes writing about his thoughts and the things he could do.

Idea and startup phase

On his blog he started to share vector drawing tutorials using Corel Draw and became the first in Indonesia to do so, as other tutorial providers were giving vector tutorials using photoshop, which is not exactly a vector software. That was how Mr. Ali’s blog traffic quickly increased. Through this, he became known as a vector handyman. Initially this was just a hobby, but then a friend of Mr. Ali advised him to seriously cultivate this hobby and change it into a business. Following this good advice and with the support of his friend Mr. Ali decided to try starting his own business. Mr. Ali always really liked drawing so the idea came up spontaneously following his very own interest. Soon he started to receive many orders that he could not just refuse and therefore he became more serious about developing vector craft on a daily basis and in a professional way.

Mr. Ali tried to make many portfolios to attract customers and to increase his capabilities. “You need to explore what has never existed” Mr. Ali suggests. He also promoted his products by giving away surprises (vector giveaways) to the people. The idea is that if you want to receive, first you have to give and from there your income will start. If it turned out the responses to the free vector tutorials were good amd many orders did come in and even if the responses were not good, the useful feedback was used for Mr. Ali to improve the quality.

In the initial phase Mr. Ali created vector tutorials that made people become more interested in learning about vectors. Some were giving up on trying to make their own vectors and placed orders with Mr. Ali, others were successful and made their own vectors without ordering. Since Mr. Ali wanted to build portfolio, he made many free vectors for close friends and also for a famous blogger (oom.com). The work was highly appreciated and was put in his blog post. People consequently became more acquainted with the work of Mr. Ali, especially also through backlinks from other blogs.

Product development and growth

Ndopart provides vector design services for personal and corporate branding purposes and covers the following products:

1) Real Vector. Type of Vector with a high degree of detail and similarity with the real motif.

2) Cartoon Vector. Type of vector with a cartoon style but still resembles the original motif.
3) Lineart Vector. Type of one/two-color (or based on demand) vector, typically used for printing purposes to save costs due to limited number of colors.

The pricing of the projects is typically estimated as a project-based cost. The project cost will be estimated by the approximate number of hours needed to complete the project. Generally, Mr. Ali charges IDR 200,000/hour for his services.

The majority of services are provided at Mr. Ali’s office space. This office is modern, practical, and sleek. This is very important because the office of a graphic designer is to a large degree a piece of their portfolio and reflects their work. Therefore, a decent amount of investment has been made to develop a proper appearing business office.

Ndopart is targeting small- to medium-sized companies. These client companies typically started with their original grassroots visual communication elements. Now that they have matured into a larger company, they can no longer rely on the original grassroots corporate identity. These companies are in need of a professional firm like Ndopart to expand their identity and take them to that same level as their competitors and be able to compete.

The market segments are targeted in a number of different ways. It must be noted that graphic firms generate visibility and sales not only through advertising, but much more through networking and client referrals. The methods used for the target market segment strategy will be:

- Networking: The networking is based on leveraging Mr. Ali’s personal and professional relationships that he has developed after spending years in the industry. Ways of networking include sending out business cards to all acquaintances announcing the opening of Ndopart, periodically meeting with people to catch up as well to continue to network which means to find out who this person knows within the target companies that Ndopart will try to turn into customers.

- Client referrals: A lot of business is derived through referrals. Some of the referrals come through the Chamber of Commerce and some of the referrals come from customers. Recognizing that referrals will be a good source of new customers, Mr. Ali is in constant contact with the Chamber. In addition, Mr. Ali is investigating the possibility of doing a project pro bono for the Chamber. This will be done to let the Chamber view an example of Ndopart’s work. It will also provide a reason for the Chamber to recommend Ndopart. Mr. Ali is working very hard to satisfy all of his customers. By making sure that he exceeds their expectations, he is increasing the likelihood that he will receive referrals from satisfied customers.

- Targeted customer acquisition: This is the research and strategy to attract a chosen company to become a customer. Mr. Ali has puts together a list of 20-30 companies that would be excellent customers. Once these companies have been identified, he will devise a strategy to target these companies as customers by initially determining what value Ndopart can offer them. Eventually, the goal is to be able to meet with the decision makers of the company and present them with a portfolio of Mr. Ali’s past work as well as the proposed value Mr. Ali can offer them.

**Why is it green and sustainable?**

In his business Mr. Ali does not need to use tangible materials such as paper or paint to produce his work. Secondly, he does not need a vehicle to deliver the products. He simply uses the internet and computer technology to produce and deliver his work, sitting in a single room. The customers are sending their orders
via email, they are negotiating the price also via email and chat. The money is transferred via internet banking. The completed work is sent via e-mail again.

In sum, the business does not rely on gasoline or any means of physical transportation, the only energy the business consumes is the electricity to power his computer. By only using the internet Mr. Ali can save a lot of time and effort.

**Challenges**

The biggest challenge as an artist lies in overcoming boredom especially when working uninteresting/standard designs as orders. Working in a room without any company can enhance the feeling of being bored or even lonely. In dealing with this feeling and preventing a burnout, Mr. Ali usually engages in balancing activities such as going to painting exhibitions, attending art exhibitions, and other activities with his friends.

**Lessons learnt**

Mr. Ali recommends people should start their business from the heart. In his case, initially, his parents and other people were pessimistic about his plans, nevertheless, he kept going because he enjoyed the work he did it.

“Doing something we like will make us keep going and going.”

Furthermore, Mr. Ali has learnt the imperative to be consistent. Being consistent and delivering good quality products and services will make people take the business serious.

“You should not be satisfied with your current state of skills, and do not be money oriented. Your product quality cannot be compromised.”

This means if your client is bargaining and you offer him a low price, but you also provide him with low quality work because of the cheap price, then you should get ready go out of business.

**TIPS**

- “Be consistent in your business, keep up the highest quality standards in products and services.”
- “Never intentionally degrade the quality of your own work just because of money.”

**Photos**

Source: Mudzofar 2012
Case Study: Q-Sukses (creative and green management consulting)

Background

Heru Sriwidodo, founder of Q-Sukses Management Consulting is an environmental activist. Raised from a farmer family, Mr. Heru always used to make the environment around his residence green with many kinds of plants and if possible even renewable energy sources. In one of the places he used to stay, Mr. Heru built solar power, wind power, and micro hydro generators.

Meanwhile, Mr. Guntar, now CEO of the company was exposed to the idea of sustainability when he took his graduate degree at Institut Teknologi Sepuluh Nopember Surabaya. Inspired and assisted by Dr. Maria Anityasari, Guntar developed a Sustainable Manufacturing Capability Maturity Model (SMCMM). This model can assist companies in adopting sustainability initiatives in gradual steps according to their own ability, from ad-hoc into best-practice conditions with continuous improvement.

Startup phase and business profile

Due to his strong background in environmental sustainability, Mr. Heru founded PT Q-Sukses Manajemen Indonesia (Q-Sukses), a consulting services firm that helps organizations transform its people to reach the intended business goals. By utilizing an organization's culture, knowledge, and technology while applying sustainable approaches. Q-Sukses offers a diverse line of services derived from its customers’ specific needs which take the form of training, coaching, focus group discussions, outbound experiential learning, employee performance exploration (nature and nurture talents), knowledge management programme, performance management programme, executive reporting (business intelligence), and change management roadmap development.

In its People Transformation Programme, Q-Sukses sees its mission based on 2 main elements. Firstly, assisting people in identifying their hidden resources and releasing these to their full potential in order that the person may achieve everything that they desire in life - physically, emotionally, financially and professionally. Secondly, enabling them to recognize the path they want to take and the aims they wish to fulfill, and then to equip them with the knowledge, skills, and means by which they will accomplish these aims.

When Q-Sukses delivers its training and seminar programme, they present the following competitive advantages:

- Full exploration of personal and team talent
- Whole-brain, whole-body involvement
- Attractive multimedia presentations
- Variety to appeal to all learning styles
- Partner-based and team-based learning projects
- Problem solving exercises and activities
- Real-world, contextual learning experience
- Insightful games and experiential learning (with performance measurement)
Why is it green and sustainable?

Q-Sukses has specialized in providing advisory services for green-initiative implementation for some of its customers. PT PJB UP Brantas (Government-owned Hydro Power Installation Company) in East Java is one of Q-Sukses clients who have built micro-hydro, solar, wind power, and biomass installations. The installation is made for educational purposes, along with outbound game installation built there. Another Q-Sukses' client, PT PJB UP Cirata (also government owned hydro power installation company), has been aided by Q-Success in designing a renewable-energy initiative roadmap which in turn gave birth to the so-called Cirata Green Energy Campus (C-GEN Campus). In 2012, SWA magazine has selected PT PJB UP Cirata as one of the most green companies (top 25) in Indonesia.

PJB Cirata C-GEN Campus is a place of learning, research, and application of green energy technology and sustainable asset management. All of them are presented in an inspiring learning experience, fun, holistic, and effective. The audience of this programme are students, private sector and government, research institutions, and the public in general. C-GEN Campus aspires to build a community of practitioners, researchers and innovators in the field of green energy, inviting participation and providing various forms of appreciation.

Challenges

As a consulting firm, one is selling a special and intangible product, which is often not clear for the clients. Trying to sell terms such as “outbound experiential learning” to clients is not easy. People like to buy what they can see, touch, feel. Consulting firms therefore need to develop well targetted marketing strategies making their intangible product somehow tangible by well describing the actual outcomes and benefits for the client.

Lessons Learnt

Q-Sukses Management Consulting has achieved a market niche, providing consultancy services to companies with a focus on sustainability and green approaches. In their approach they focus on the high potential of the people in the company as the agents of change. Successful and sustainable approaches in a business can only be achieved if the staff fully understands and supports the concept and its implementation.

TIPS

- “The potential for change lies with the people and can only be realized through the people.”
Photos

Source: Sriwidodo 2011
Case Study: Tarum Bali Sejahtera Natural Production in Bali

Background

Tarum is a green business engaged in the production of natural colours to be used for dying textiles and other materials as well as the production and colouring of various products for clothing and interior design. The business was set up in Gianyar, Bali.

Idea and startup phase

Tarum's early concept came about with Bapak Made's concern about the many synthetic colors used in Bali, coming from outside of Indonesia and the resulting negative impact of the process waste on Bali’s environment and people. In 1998, Tarum had the idea to make the creation and process using coloring from natural dyes.

From there, they collected data and resources for reference, both from Bali and from outside of Bali.

Product development and growth

Bapak Made and his expanding local team soon realized that they needed to be flexible to meet the varied demand of buyers who were both supporting the Tarum initiative and wanted new colors and products. They realized that they could not survive by the old modes of production, where there were many drawbacks in terms of processing time and high prices and with a limited variety of products, colors and creations.

Tarum then tried to find a way to accommodate and develop for the needs of buyers from outside of Indonesia and within Indonesia. After several years of trying, in 2001, they found new source materials for the process of natural colors.

They started to use leaves as a color.

Some of the advantages of using leaves as a coloring agent are:

- No need to cut or kill the trees, harvesting multiple times.
- Trees benefit from pruning reducing leaves during some periods of time.
- Relatively easy to find, cultivate or can be grown in cooperation with farmers.
- Does not compete with food needs.
- Extracts are easy to make.
- Leaf waste is easily composted and returned to the soil.
- Raw materials are a sustainable supply and can readily be replanted.

Preparation of the materials includes gathering, drying and cooking leaves to create dye extracts, usually 4-5 hours per batch.
"Currently Tarum has made more than 500 colors of various leaves materials."

Tarum is promoting buyer / partner employment with the concept of "Green" environmental sustainability in marketing its products. This will create a new market and a different approach.

Tarum's process and commitment to environmental responsible processing and dying is a longer and more expensive process and may result in dye batch variances. These matters are accepted and appreciated by Tarum's growing international audience of 'green' buyers and wholesalers.

Tarum's team of 25 people came from the Blahbatuh village and the close surrounding area in the Gianyar Regency of Bali, therefore local employment was created.

For 2013, production capacity per year is:

- coloring yard goods - approximately 3000 meters
- coloring clothing - 3500/5000 pieces
- weaving - 1000 meters
- looming shawls or scarves - 1000 pieces
- creating interior carpets or rugs 5-10 pieces
- creating cushions - 250-350 pieces

The capacity may also be influenced by weather conditions. Tarum is expecting to double its capacity by 2014 compared to 2012.

Today, Tarum’s market in Bali includes the Tarum showroom/factory and a number of retail locations.

In addition, Tarum exports to North America, Japan, Canada, France, and The Netherlands.

**Why is it green and sustainable?**

By using natural ingredients for the color creation, Tarum cuts out the use of any chemicals or hazardous materials. The colors are purely made from leaves in an environmentally sustainable process. The leaves are harvested from the trees several times a year and in a way that the health of the trees is never put at risk. The residual waste from the leaves can after processing be composted and serve as the basis for organic fertilizers.

Furthermore, the business contributes to social sustainability by providing jobs to the local community.

**Challenges**

When starting the business of natural textile dying, the founders soon became aware that the buyers, national and especially international, demanded many different products and colours and that this demand was not fullfilable with the conventional dying methods. In order to overcome these contraints and
increase its competitive advantage, Tarum investigated the potential of new and innovative dying methods and developed their own system after extended research.

Another challenge arose when they realized that the outcome of the colour production and the product dying varies due to its handmade and natural nature. However, since the product is so unique, the customers are more than willing to accept this variance and see it as an indication of the natural production process.

Lessons learnt

For Tarum the environmental sustainability aspect of the product is its main unique selling proposition. The business has realized that based on this feature, it can sell this special product at a higher price and even reach wide international markets. The natural production process leaves its traces in the variance of the product’s appearance, which becomes an indication of their originality for the customers.

Photos

Sources:
CV. Tarum Bali Sejahtera 2013
SRI LANKA

Case Study: CKT Apparel (Pvt) Ltd.

Background

CKT focuses on the production of knitted garments for the export industry. The Agalawatte factory of the Hirdaramani Group, more famously known as “Mihila” holds the distinction of being both the First Carbon Neutral Apparel Factory in Asia and the First Custom-built Green Apparel Factory in the World. The 135,000 square foot factory has been built on 8.5 acres with an investment of US$ 6 million. The CKT Apparel green factory is an integrated facility to handle knitted products with a capacity to produce over half a million pieces per month while generating over 1,200 employment opportunities for youth.

Green product development

Altogether, the cluster operates 75 lines and several leased units with a total capacity of 1 million pieces a month while boasting an in-house Textile Laboratory to ensure color fastness and washing plants at some of the outlets. The product range is specialized in knit garments, including men’s, women’s and children's t-shirts, polo shirts, fleece tops, polar fleece, pants and lingerie. The technology used in the manufacturing process is the Tuka Tech, Gerber Automatic Spreading System, Microsoft Dynamics ERP, and Automatic Cutters. The factory has secured several sustainability standards including GSV C-TPAT, ISO 14001-2004, OHSAS-18001-2007, LEED Gold, USG BC and Fair Trade Certification.

Why is it green and sustainable?

The significance of this factory is that it is committed to reduce the carbon footprint in the production process and to conserve resources. Among the key features are conservation of energy, generation of renewable energy, conservation of water, waste management and setting up of a biodiversity refuge and community development project. The factory has achieved a 48 per cent reduction in its carbon footprint by reducing energy consumption over the recent past.

Renewable energy:

CKT Apparel (Pvt) Ltd. generates solar power used for lighting and heating within the office premises as well as in the factory production lines. During holidays (when the factory is closed), the electricity generated using solar energy is added to the national grid through an import-export metre installed on the factory premises by the Ceylon Electricity Board. This is the first apparel factory to commence net metering with solar power. The factory also funds a mini hydro power project. In addition, training programmes are conducted for electricians, technicians, etc. in renewable energy and energy saving opportunities together with the guidance of NERD (National Engineering Research and Development).
Energy Saving:

The factory has been able to save nearly 50 per cent of the total energy demand compared to that of a conventional factory of similar capacity, through an evaporative cooling system, prismatic sky lights replacing conventional factory lighting, LED task lights, solar water heating, solar-powered street lighting and renewable energy via solar panels where the excess power generated is exported to the national grid.

Water saving:

Water saving at the factory is also at a noteworthy level, where the water consumption is at least 60 per cent less than that compared to similar conventional facilities. There is an in-house wastewater treatment plant of which the treated water is recycled for washing and cleaning purposes. There is a rain water harvesting facility within the premises. In addition to such installations, awareness programmes and social and educational events such as art competitions have been conducted in parallel to international occasions such as the World Water Day and Earth Day. This would keep employees, their families, and neighboring communities exposed to activities focusing on water conservation and keep them aware of the latest developments in the greening initiatives, elsewhere in the country and the trend worldwide.

Waste control:

The generated waste is very well managed within the factory premises with reduction, reuse and recycling: thereby generating zero waste to landfills. The wastage of food is at a minimum or negligible as all employees are very conscious of waste as they are educated on such aspects.

Clean transportation:

In order to contribute to clean transportation, the factory always encourages group transportation, mass transportation, pooling of vehicles, cycling and changing the supply chain schedule aimed at greening the operations.

Biodiversity refuge:

The factory is facilitating the protection and enhancement of the small forest patch located behind the factory premises and promotes the growth of biologically diverse wood species and aquatic flora and fauna-rich wetland as given below;

- 146 plant species.
- 23 birds.
- 18 butterfly species.
- 11 reptile and 7 amphibian species (assessment has been done by IUCN).
Efforts at achieving green jobs with decent work

Community development:
The factory has been conducting its ‘Ran Aswanu’ programme, aimed at empowering local farmers and promoting organic farming activities. Apart from providing seeds and organic fertilizer to groups of farmers from the area, the project also involves running workshops on organic farming techniques and developing an informational booklet on organic farming which is distributed free of charge. In addition, the programme provides a guarantee to buy back produce at market rates for consumption within the factory. In addition, educational seminars at schools help develop awareness and engender a commitment to sustainability.

Occupational health and safety:
Employees are benefitted through a range of healthcare facilities and subsidized service provisions for medical services such as surgeries and checkups. The Hirdaramani Group, together with Revival and Ms. Michelle Jones, a wellness and nutrition Consultant from Australia, conducted a workshop for the staff on the importance of balancing their home, work and family life in a landscape where stress is impossible to avoid. There is an in-house medical centre where there is a nurse available fulltime.

Career development:
The active assessment process is specifically designed to identify leadership potential amongst middle management, enabling them to move up higher in the management structure. Thereafter, identified individuals and their teams are sent to leadership and team building trainings through ‘outward-bound’ programmes as well as regular programmes held onsite.

Working culture:
The Hirdaramani Group is committed to creating a healthy and conducive environment for employees. The Hirdaramani Group is an equal opportunity employer with a large number of female employees in its cadre. There are education programs and awareness programs targeted at empowering and strengthening women. In addition, counseling services are available and the workers are able to discuss any personal or work-related matter and can expect to redress their grievances and expect support in times of need. In addition, the workers are entitled to following benefits:

- Worker’s welfare policy (transport/ medical/ over time / maternity etc.).
- Bonus schemes.
- Promotions.
- Environment related policy.
- Health and safety policy.
- Worker participation in decision making (there is a Workers’ Council and members are elected by employees themselves).
Lessons learnt

Besides environmentally sustainable practices throughout their operations, CKT Apparel also puts a particular emphasis on the assurance of decent work for all their employees. The company provides a working environment guaranteeing occupational safety and health and as well as social security, health insurance and it is giving the employees the possibility to participate in the company’s decision making process through a worker’s council.

Green business does not only mean environmentally sustainable, but also has to follow the principles of decent work and provide to its employees the best possible work environment.

Case Study: MAS Active (Pvt) Ltd. Asialine

Background

MAS Holdings is one of the Sri Lanka’s largest apparel manufacturers, employing more than 40,000 people in 28 facilities. Asialine is one of the facilities of MAS Active (Pvt) Ltd., located in Embilipitiya, where the key focus is being in harmony with the environment and serving the local community through provision of secure employment. Similar to the textile industry elsewhere in the country, the workforce is dominated by women where 1389 of the total of 1648 are women.

Green product development

The MAS Fabrics division comprises has an integrated supply chain for lace, elastics, intimate apparel accessories, moulded bra cups, textile printing and a portfolio of related services that strengthen the region as a hub for intimate apparel and sportswear sourcing. MAS Holdings is renowned for its progressive management culture and people centric work environment, and is regarded as an industry benchmark for championing the cause of women empowerment.

The company provides innovative design-to-delivery solutions in intimate apparel and sportswear through its focused divisions, namely MAS Intimates and MAS Active.

Why is it green and sustainable?

MAS Holdings has embarked on a number of sustainable business initiatives in order to promote green practices, which are also in place at Asialine. From its inception, the continuous focus at Asialine has been to promote cleaner production, attaining high levels of energy efficiency, and material efficiency. The safety and comfort of workers while at work also has been a major priority.

Energy saving:

The factory has made an effort to save energy by adopting energy saving measures such as prismatic sky lights replacing conventional factory lighting wherever possible (e.g., inside the store rooms), LED task lights, replacing clutch motors with servo motors that consume less energy, etc. Use of sensor lights for places where no continuous lighting is required (e.g., stores, toilets, corridors, common rooms, etc.) has been very effective in saving electricity. In addition, the facility has adopted a Mass Operating System (MOS), which has lead to enhanced energy efficiency as well.

An evaporation cooling system has enabled the factory to drastically reduce energy consumption of air conditioning, and also has been able to provide a comfortable environment for workers where their levels of comfort have not been compromised. Worker satisfaction and energy saving have both been ensured.
Water conservation:

The following measures have been adopted to conserve water and to ensure the efficient use of water in day-to-day operations:

- Use of fixtures that ensure higher water efficiency.
- Use of sensor taps wherever appropriate (e.g., urinals, wash basins at toilets etc.).
- Reuse and recycling of wastewater for gardening.
- Conducting awareness raising programmes on water conservation among workers, so that they can pass the message of to their communities.

Pollution prevention

Air Quality:

Since the operations are all connected with fabrics, the potential to generate fine particulates in the air is higher. This can harm the workers resulting in health problems in the respiratory system. It is therefore mandatory for those workers who are engaged in fabric cutting operations to wear masks to prevent breathing in dust particles. The factory routinely monitors both ambient and indoor air quality together with the supervision of the Labor Department and the National Engineering Research and Development Centre (NERD).

Wastewater:

The wastewater generated on the factory premises is treated at a wastewater treatment plant and the treated water is reused for gardening purposes only. In addition, cooling water streams are recycled from condensers and boilers.

Solid Waste:

The bio-degradable component of waste is being used to produce biogas and residual waste is handed over to the local authority. However, MAS Holdings has adopted LEAN manufacturing processes together with 6S (5S+Safety). Lean manufacturing is a production control technique for eliminating waste from manufacturing while achieving more value by applying fewer resources more effectively and efficiently through the continuous elimination of non-valued added activities or waste.

Conservation of Natural Resources

Tree planting campaign:

Asialine has initiated an annual tree planting campaign and has planted about 80 trees so far in the factory premises. The important feature of this initiative is that the ownership of trees is given to respective departments of the factory. This campaign has been extended to the community level as well, by planting trees in Middeniya city under the “Harith Miththeniya” initiative. The Factory organizes this tree planting
programme together with the participation of the Middeniya Police, Local Authority, Divisional Secretariat, and local organizations.

Recycling raw materials:

The recycling of raw materials is practiced wherever possible in order to minimize waste being dumped to landfills. e.g., pieces of fabric and cardboard, polythene: sold to recyclers at a nominal price; thread corns are given back to the supplier free of charge.

Efforts for greener jobs with decent work:

MAS Holdings has provided its workforce with satisfactory levels of decent working conditions. In addition to maintaining basic workplace standards (e.g., a limit on working hours and overtime, age limits, safe working conditions), MAS Holding provides its workers, over 90 per cent of whom are women, benefits including free transport and a decent breakfast to start their day, insists that managers eat in the same canteen as everyone else and provides onsite health care services. The sustainable manufacturing policy is focusing on the following objectives, through the effective application of tools, initiatives and mechanisms.

- Respect and abide by local laws and strive to adhere to international standards on environmental sustainability.
- Conservation of energy and water through effective energy and water management practices. Develop and implement a Waste Management System maximizing resource reduction initiatives and minimizing landfill.
- Innovate and develop eco-products.
- Minimize and control pollution from gaseous emissions through effective emission management practices.
- Monitor and reduce the carbon footprint and work towards a carbon neutral future.
- Promote a culture conducive to sustainable manufacturing among the work force through awareness programmes.
- Establish an "Eco Culture" within the organization and the communities.
- We encourage our customers and suppliers to follow greater environmental sustainability.

Empowering women:

A programme called “MAS Women Go Beyond” was launched to empower employees and impact communities by championing the cause of women’s empowerment in society. The programme also focuses on ensuring employees’ career advancement, strengthening their work-life balance and rewarding excellence. Under the programme, all 18 apparel manufacturing Strategic Business Units (SBUs) are required to develop the Go Beyond programme into a three-point framework which includes:

1. Supporting career advancement in information technology, english language and leadership;
2. Initiatives that strengthen the work-life balance of employees by acquiring skills and knowledge in the areas of health, hygiene, sports and handicrafts; and
3. Quarterly and annual programme to reward excellence of high-achievers plant-wise and to create role models for others to emulate. A certification programme focusing on hygiene, health and personality has also been developed.

**Lessons learnt**

MAS Active Asialine is actively promoting green jobs and decent work, including occupational safety and complimentary health care services. Furthermore, it strongly emphasises women empowerment. This includes programmes for the empowerment of the female employees as well as projects involving the community and the society as a whole.

The business even promotes work-life-balance for its employees and supports their capacity with green skills within the business and as well with skills trainings to be used in their general life such as hygiene, health and personality development.

Direct support to the community and their involvement is also reflected in the environmental protection programmes such as the tree planting campaign and water conservation efforts.

*Source: ILO - From Green to Greener: Good Practices and Training Needs for Green Jobs in Sri Lanka 2012*
Case Study: Rural Community Microhydro Project

Background

Energy is one of the primary needs for a rural community. Along with the cost of fossil fuels that continue to increase and the difficulty of supply due to remote locations, rural communities often face challenges in managing their access to energy, and especially electricity.

The wish of local people in the villages of Biting and Balekambang in Seloliman Mojokerto to gain access to electricity from PLN is constrained by the villages’ geographically remote location and the hilly terrain. On the other hand, these conditions provide the potential to use water as an alternative energy source for electricity generation by utilizing micro-hydro technology.

With joint funding from several international organizations, national and local communities built a micro-hydro power plant with a capacity of 30 kW. In the beginning, people were able to use the electricity for free, but with the increase of population and electricity equipment used, an organization called the Paguyuban Kali Maron (PKM) was formed. This organization manages the income from the inhabitants’ payments of electricity, which generally is below the PLN rate. With the presence of electricity small household industries started to emerge turning into productive small enterprises. An increase in economic activities could be seen in the area.

Idea and Startup Phase

Micro-hydro is a hydroelectric power system that can provide a source of energy for a limited amount of users. In many cases, when the preconditions are fulfilled, micro-hydro is used to power small villages like Biting and Balekambang in Seloliman. It is an autonomous system that can provide power to remote areas not serviced by other forms of power generation.

Micro-hydro is basically considered an environmentally friendly form of energy generation. Electricity is generated by channeling water from a stream or river into a cylindrical installation equipped with a turbine. The water channeled through the cylinder causes the turbine to rotate, thus creating electricity through a generator.

The micro-hydro project (MHP) Kali Maron is located in the Seloliman village, District of Mojokerto, East Java. It has a capacity of 30 kW and has meanwhile been interconnected with the PLN grid. MHP Kali Maron was a project funded by the German Government and Pusat Pendidikan Lingkungan Hidup (PPLH) Seloliman. The project was implemented by the Mandiri Foundation with full technical support from GTZ Mini Hydro Power Project (MHPP). The MHP first operated in 1994.
Product development and growth

The MHP was recently upgraded in 2001. The upgrading was supported by GEF-SGP and GTZ MHPP. PPLH Seloliman implemented the socio-economic component of the upgrading, while PT.Heksa Prakarsa Mandiri provided services for the mechanical and electrical components. GTZ MHPP provided supervision of the upgrading.

The interconnection with PLN was then initiated by GTZ MHPP in 2002 and the management of MHP, Paguyuban Kali Maron (PKM) agreed with the initiative. To finance the project, PKM utilized a fund provided by GTZ MHPP. The total interconnection cost amounted to 159 million IDR of which 51 million IDR was a grant. The remainder of 108 million IDR is in a revolving fund that has to be paid by PKM. The revolving fund of GTZ MHPP is managed by Kopenindo (Indonesian Renewable Energy Cooperative).

In the presence of PKM as a community organization, funds collected have been used to build a new microhydro station on the same river which then was interconnected with PLN. The community can now gain a bigger income when feeding the excess electricity into the PLN grid, which they then can use for the construction and the improvement of public facilities and services.

Why is it green and sustainable?

Micro-hydro schemes produce power from streams and small rivers. The power can be used to generate electricity, or to drive machinery. Micro-hydro can bring electricity to remote communities for the first time, replacing kerosene for lighting, providing TV and communications to homes and community buildings, and enabling small businesses to start. Micro-hydro therefore reduced the need for diesel powered generating devices.

A major reason for installing micro-hydro was to provide a more pleasant life with increased employment opportunities in rural areas, and to discourage young people from drifting to the cities. Along with these direct benefits the hydro power project has also resulted in improved environmental protection of the surrounding area. The villagers no longer need to cut down trees to burn for cooking and can use electric powered stoves instead. In addition, the watershed forest is now a protected area as it holds the water resource for the hydro power.

The social effect of this project is obvious for the local community. The community can organize themselves better because they have the obligation to manage their small power plant professionally in order to be eligible to sell electricity to PT.PLN (Persero). Income from the MHP is quite big for the community (small hamlet of around 60 households). They can invest their income in health infrastructure, access infrastructure, and also farming infrastructure.

Challenges

The challenges facing micro-hydro power exploitation are part of the larger picture of general barriers for the uptake of renewable energy and independent power producers in Indonesia. These generic barriers can be summarised as the lack of clear-cut policies on renewable energy and associated requisite budgetary allocations to create an enabling environment for mobilising resources and encouraging private sector
investment, and the absence of low-cost, long-term financing models to provide renewables to customers at affordable prices while ensuring that the industry remains sustainable.

Specifically for small hydro, large scale implementation is hindered by: 1) lack of access to appropriate technologies in the mini-, micro- and pico-hydro categories, which due to the need of small heads and high volumes or very high heads and low volumes pose special technical challenges, and 2) lack of local capacity to design and develop small hydropower schemes for areas sometimes considered too remote. Generally, lack of specialization to undertake feasibility studies, detailed studies that would include detailed design and costing of the schemes to make a meaningful impact on utilization of small-hydro sites is another issue.

However, the Indonesian government has issued a policy for PLN to purchase power generated from microhydro power plants through interconnection. In addition, 80% of technology equipment can be locally manufactured through local workshops, which represents a connected business opportunity for the local people.

**Lessons learnt**

This project illustrates one possible future way to link livelihoods of communities with environmental management. Since micro-hydro power, if constructed well and environmentally benign, has little or no environmental impact, and often watershed conservation follows their installation, the possibility that communities could sell this power to the grid is quite interesting. It will be interesting to follow up on this project as it takes shape. In particular, it will be interesting to note what happens if the community does indeed remove all local tariffs for power use due to the revenues from the power sales. One might anticipate that this would cause the over-use of power, since it would cost nothing to users. However, it appears that for the time being, villagers will still pay for their power.

The project makes use of an existing policy framework that allows for the sale of power by small-scale producers to the grid. However, this project may very well assist in reducing barriers for community-based micro-hydro schemes wishing to participate in this opportunity. It is believed that this is one of the first projects in Indonesia to take advantage of this, and therefore it is likely to encounter some challenges along the way. Learning from these challenges could help make this policy more widely usable for communities in other areas of the country. It may also serve as an example to encourage other countries to implement similar policies.

The project also addresses barriers of fear among community members. Three decades of centralized government have left communities with passive attitudes. Embarking upon a self-organized power generation project was not an easy step to take. It will take a continuing effort to maintain the organization and build the sustainability of this new venture. Many lessons are still left to learn, but already the community and local organizations have seen the value of working together to overcome unfavorable institutional arrangements and cultural barriers.

**TIPS**

- “A micro-hydro project can only be realized with the commitment of the right public and private partners.”
- The community needs to take ownership and 100% identify themselves with the project.”
Photos

Source: SGP 2003, GTZ 2003
Case Study: Biogas Digester Production

Instructions

1. Read the case study.
2. Answer the questions given in the right column.
3. Analyse and discuss the success factors and lessons learnt.

Background

World oil prices have led to an increase in fuel prices in the country. This condition is a concern for several communities which have started to innovate to create alternative energy made from organic materials which is more affordable. Indonesia has abundant natural resources which can be used as a bio-energy feedstock. One of these is methane-biogas produced from livestock sewage as a fuel substitute for kerosene, firewood and LPG.

Basically, alternative fuels such as biogas are suitable for the development in remote or rural areas. Potential target market is the middle-lower community level where the territory has not been electrified and/or has limited oil supplies. Moreover, in rural areas where there are lots of farm animals such as cows, goats, sheep, buffalo, and so on, the business opportunities of biogas energy from animal waste have a big potential.

Biogas is defined as a gas mixture of methane (CH4), carbon dioxide (CO2) and other gases produced from the decomposition of organic materials such as animal waste, human waste, straw, husks, and leaves which ferment inside a bio-digester. One of the communities which has successfully implemented biogas is KPSP (Cooperation of Dairy Cattle Ranch) Setia Kawan, located in Nongkojajar, Pasuruan, East Java. The organization had built 883 biogas digesters by 2012 while the data on the number digesters in Indonesia in the same year was 4177 units.

Idea and startup phase

Dairy cows produce about 30 pounds of manure each day. This amount is very disturbing to the environment and health, as methane is a strong GHG. The KPSP Setia Kawan built a biogas digester unit to process dairy waste in to alternative energy. Based on the data collected during this experience, there are huge opportunities to start a green buisiness for as biogas digester construction.

Within the framework of this initiative many small entrepreneurs obtained a business opportunity to engage as independent biogas digester builders. One of the builders who was trained by KPSP is Mr. Wahyudi, is now a specialist in the development of biogas digesters and is a successful green entrepreneur.
Product development and growth

Most people never think optimistically about the development of biogas digesters as a potential lucrative business. In 2008 the economic crisis hit Indonesia and economic conditions deteriorated. These conditions created the idea to develop a digester biogas business.

With loans from KPSP Setia Kawan, the capital used for production and operation was raised. As cash flow went well he started to increase the production capacity and always looked out for new markets. The result, Mr. Wahyudi now is widely recognized as a successful skilled person in digester development.

Why is it green and sustainable?

The environmentally friendly biogas is converted from methane generated from cow dung decomposition into a useful energy source. With an improved and efficient digester structure, the potential free methane is captured.

Bio-slurry is also an abundant resource to use for organic fertilizers and for plant fertilization such as chrysanthemums, chili peppers, apples, sugar cane, etc. The use of organic fertilizer products also has a positive impact on the environmental and incomes.

Challenges

In the biogas energy business, the difficulties most often experienced by entrepreneurs relates to setting up biogas production equipment or known as the bio-digester. Making biogas digesters requires high precision and good planning, it is important to reduce the risk of gas leakage and contamination that can pose a risk to human health.

Lessons learnt

The number of livestock in Indonesia is one of the keys to successful biogas development in the country. The larger the animal waste produced, the greater the chances of success in developing business opportunities in animal waste biogas digester production. Most importantly, one must continue to increase ones knowledge and skills in this area so that the biogas production process can run smoothly and the risk of loss can be avoided.
Photos

Sources:
http://www.kpsp-setiakawan.com
Case Study: Sawdust Briquettes

Background

According to Agus Setiawan, owner of PT Baratec Jaya and distributor of sawdust briquettes in Bandung, West Java, this type of briquette is environmentally friendly. Sawdust briquettes are made from sawmill waste, which is no longer used. Apart from the waste that is recycled, sawdust briquettes are smokeless. Thus, the surrounding air of the house is cleaner. Another advantage is that sawdust briquettes based on raw materials from hardwood have a high calorific value of around 7000-8000 calories, while charcoal from wood produces 6500 calories. With these calories, sawdust briquettes can generate high heat. In addition, the briquettes are also a low risk fuel because they are not easily flammable. Sawdust briquettes are now in high demand for export markets, especially Japan and the Republic of Korea.

Idea and startup phase

The abundance of unused wood waste has interested people to develop alternative fuels such as wood briquettes made from wood sawdust. Utilization of sawdust briquettes can reduce people’s dependence on fossil fuels such as kerosene and LPG, as well as the direct consumption of wood and harm to the forest ecology can be reduced. Basically sawdust briquettes are a solid bio-fuel made from residual organic materials after having undergone some compression with pressure.

The target market for sawdust briquettes is to be found particularly among the middle to lower class who live in remote areas. In addition, the culinary business that recently began using alternative fuels such as charcoal briquettes to reduce their dependence on fuel oil.

Product development and growth

Sawdust briquettes are typically used as home heating fuels. Within a month Mr. Setiawan was able to produce as much as 40 tonnes of sawdust briquettes. Then, the product was sold to Korea and Japan for IDR 5,000 per kilogram. The turnover obtained was IDR 100 million per month. A big portion of the population in Korea and Japan use sawdust briquettes as fuel for barbecue cooking and in restaurants.

Another feature of sawdust briquettes for grilling lies in the distinctive smell. The smell of burning wood briquettes smells like bacon. These characteristics must be maintained by careful quality control. Each month Mr. Setiawan can export 200 tonnes at IDR 3,000-4,500 per kilogram.

Why is it green and sustainable?

One of the challenges faced by the world today, namely climate change, is directly linked to the emissions of greenhouse gases from burning fossil fuels such as coal and oil.

What is needed urgently is not merely more sources of energy, but those that provide clean and green energy.

These environmentally friendly briquettes are converted from 100% sawdust into a useful energy source. The emissions are more environmentally friendly than fuel products and may even be characterized as carbon neutral. Since the raw material is waste, not a single additional tree is used to produce the briquettes.
Challenges

Up to this day the national demand is lacking, which only amounts to about 20% of total demand. The remaining 80% are accounted for by export markets. The business is also trying to promote the local market. The strategy encompasses expanding the marketing reach to local and national target groups, as well as introducing alternative fuel products to all levels of society, both rural communities, the middle and upper class urban residents.

Lessons learnt

In order to run an alternative energy business such as sawdust briquettes, the important thing is to maintain the quality of products to guarantee customer satisfaction and customer loyalty. It is also important to develop apt knowledge and skills in the field of this energy in order to optimize the productivity of the business so that it can continue to evolve with the growing needs of the consumers.

The sustainable production of sawdust briquettes can support rural development through decentralized processing and production, shorter transport distances, use locally available and renewable resources, and a potential for short-term efficiency improvements (improved stoves, kilns, etc). It can also yield a health-dividend due to reduced levels of smoke, cleaner combustion, and easier handling.

Photos

Sources:

http://www.surabayapost.co.id/?mnu=berita&act=view&id=a77d299ee00dfee2de17de8fcd02c69a&jenis=d41d8cd98f00b204e9800998ecf8427e

Case Study: Coconut Shell Charcoal Briquettes

Background

For some people coconut shells may be a waste and useless, but who would have thought that coconut shells processed into briquettes could penetrate export markets? It has become clear that the benefits of a coconut shell briquette business can be of good value. Coconut shell briquette is a good choice as it has 7340 calories of energy to produce heat more than ordinary wood charcoal briquettes. In addition there are other uses coconut shell briquettes are commonly utilized for.

The coconut shell briquette market is characterized as mainly an export market (80 per cent), while the remaining (20 per cent) are accounted for by the domestic market. Export destinations for coconut shell briquettes include middle eastern countries, Japan, and Australia, where coconut shell briquettes are used for various purposes. In the Middle East for example, coconut shell briquettes are used for Shisha, in Japan they mainly serve the purpose of cooking in restaurants.

Since 2008 Novi Setiawan has been running a coconut shell briquette production business in Bantul, Yogyakarta. In order to be able to reach the export markets, the briquettes are made with strict standards. One of these standards is to ensure that the raw material coconut shell briquettes are completely free from coconut husk fibers. The shell should be completely clean of fibers. From the sale of these briquettes Novi has a turnover of IDR 97 million (approx USD 10,000) per month.

There are at least seven stages in the production process of a coconut shell briquette. First is the burning of the shell. In this stage, the shell should not be broken into too small pieces, ideally are two to four sides. After this the coconut shells are crushed and the raw material is mixed with a liquid adhesive made from tapioca starch slurry using a 1:4 ratio. The mixture then is moulded using a press machine to form squares with the size of 20 cm x 20 cm and a thickness of 2.5 cm or according to buyers’ requests. Finally, briquettes are oven dried so not to become moldy.

Idea and startup phase

The increase in fuel prices that has occurred recently turned out to provide a significant impact on lower class communities. The jump in oil prices has encouraged people to look for other alternatives turning away from fossil fuels, to the use of renewable fuel options. For instance, the use of coconut shell charcoal briquettes (bio-brikets) shows considerable potential if developed as a fuel substitute for kerosene and LPG used for cooking and other purposes.

The abundance of coconut shell waste and the high energy content of the waste have made people interested in developing alternative fuels such as bio-brikets (charcoal briquettes. Utilization of coconut shell charcoal briquettes in fact seem to be a good way for people to reduce their dependence on fossil fuels such as kerosene and LPG, as well as to decrease the use of wood.

The market segmentation for coconut shell charcoal briquettes lies particularly with the middle class who live in remote areas. In addition, the culinary business that recently began using alternative fuels such as charcoal briquettes to reduce their dependence on fuel oil and LPG gas.
Product development and growth

Most of us never think about the lucrative potential of a coconut shell charcoal business. Even if people are running a similar business it is often not professionally undertaken and therefore experiencing limited success.

However, these assumptions never existed in the mind of Novi Setiawan. From the beginning he saw the potential for a lucrative business using coconut shell charcoal. Since the beginning he practised professionalism in his coconut shell charcoal business. With loans from banks, he could use the capital for production and operations. As cash flow went well he started to increase production capacity and always sought new markets. The result is that he is now widely recognized as a successful entrepreneur for coconut shell charcoal. Moreover, he has successfully refined the coconut shell charcoal process into a business making high-value products.

Why is it green and sustainable?

The environmentally friendly briquette is converted from 100% coconut shell charcoal into a useful energy source. Coconut shell charcoal is compressed into cylindrical-hollow briquettes. Biomass fuel is regarded as carbon neutral because the plant will capture CO₂ when growing and once burned this CO₂ is released but not more.

With the improved and efficient production technique, the volatile matter is reduced to the minimum leaving high fixed carbon content in the charcoal which provides a longer lasting burn, less odor, less smoke and a high heat combustion capacity. Furthermore it does not emit sulfur gas.

Coconut shell charcoal briquettes can burn as long as 2 to 3 hours with minimum ash residual, representing less than 5% of its original weight. This coconut shell charcoal briquettes are very safe to use. They are cheap and offer a good value when comparing its heat efficiency to any other fuel product available in the market. The briquettes are more completely environmental friendly than fossil fuel products. Furthermore, they are a renewable source of energy, not a single tree or a branch has to be cut to produce the products.

Challenges

Up to this day the national demand is lacking, which only represents about 20% for local demand. The rest (80%) is dominated by demand from the export market. The reasons for this can be found in the lack of socialization and promotion in the local market, the availability of coconut shell charcoal briquettes is less widely known. However, fuel briquette charcoal is still consumed in more secluded areas which are facing issues of regular supply of conventional fuel or LPG.

In order to overcome this challenge and increase the local market share, marketing strategies developed for the international market were also used for the local market. The strategy emphasised the standardized production and the safe and environmentally friendly qualities of the product. Furthermore, it supports the introduction of alternative fuel products to all levels of communities, both rural communities facing difficulties in getting supplies of conventional fuel and urban middle and upper class customers who can use it for cooking and barbeques.
Lessons learnt

In order to run an alternative energy business such as coconut shell charcoal briquettes well, the important thing is to maintain the quality of the products to achieve consumer loyalty to the alternative fuel product and the supplier. In addition, it is important to develop knowledge and skills in the field of renewable energy in order to optimize the productivity of the business and achieve development in line with the growing needs of the consumers.

The sustainable production of coconut shell charcoal briquettes can support rural development through decentralized processing and production, short transport distances with low risk, locally available and renewable resources, and potential for short-term efficiency improvements (improved stoves, kilns, etc). It demonstrates health and environmental benefits due to reduced levels of smoke, cleaner combustion, and easy handling. To be environmentally beneficial, highly efficient kilns and renewably-sourced fuels are required.

TIPS

▪ “A good product and service quality offered on a continuous basis is a key pillar of customer loyalty”.
▪ “The sustainability of a business is linked to long term benefits on its surroundings”.

Sources:


Case Study: Energy Efficiency Consultant

Background

Mr. Chayun Budiono is an entrepreneur in the field of energy efficiency and renewable energy. Before deciding to pursue the field of consultancy in 1991, he worked at a state-owned enterprise.

His interest in the field of energy efficiency has been there since he attended college at ITS Surabaya. Chayun confirms that green energy is not yet widely used in Indonesia even when national energy needs increase up ten percent each year.

"Indonesia’s human resources in the field of energy efficiency and renewable energy are still lacking. The majority of the people do not really understand the concept and purpose of renewable energy including officials as decision-makers," says Mr. Chayun.

Idea and Startup Phase

While he worked at the state-owned company, Mr. Chayun always remembered the inspiration that he had received from his parents, 'a servant in a large corporation or a king in his own company'. Seeing a business opportunity in the field of energy efficiency consultancy which looked promising, he decided to quit his job and began to pursue his own energy efficiency consulting business.

The value added that his business aims to provide are benefits to providers and managers of commercial buildings such as hotels, offices, shopping malls, hospitals, and industry in the form of technical advice on operating cost reductions in energy (electricity, gas, coal, gasoline, etc.).

The company was established in 1995 and operates in the field of energy efficiency consulting and renewable energy. Mr. Chayun explains that Indonesia’s energy mix is concentrated on coal, petroleum, and natural gas.

"Moving towards the future, the external costs of fossil fuels are growing, the external cost of green energy on the contrary is getting lower," says Chayun.

In the mid to long term fossil energy resources will be exhausted. Thus, the lack of institutions engaged in the green energy field in Indonesia will become a problem.

Product development and growth

Starting a business and being an entrepreneur requires hard work and the will to never give up. In the beginning when the company was formed convincing a client of a company or industry that energy efficiency was a direct benefit for the company was difficult, due to the fact that at that time in the early 1990s the price of fossil fuel was still cheap. Consequently most managers of commercial buildings and industry were not interested in energy efficiency strategies.
However, this changed. At present in face of the current developments regarding energy price increases and shortages together with an enhanced awareness of environmental sustainability, a great need for energy efficiency programmes has grown. Being efficient and environmentally friendly has become a trend among big business now. Such practices not only make the company look better supporting their image creation and marketing efforts but they are able save money. This imperative of being green for big and increasingly also small companies means that opportunities for energy consultants will continue to grow over the next decade.

**Why is it green and sustainable?**

Green business planning leads to more environmentally friendly practices an companies implement strategies for the future. Now it is the time for companies to review their business strategies to change from stagnant to more dynamic and sustainable new business models.

Energy consultants provide expertise and advise companies how to cut costs by becoming more energy efficient. As an energy consultant you can analyze your clients’ energy bills to track the patterns of energy use. You can also help them design the most efficient way of energy use to run their factories, office buildings, refrigerate them or run their equipment. The transition of companies to a more efficient pattern of energy use directly impacts the reduction of overall energy use in the economy. At the same time this can even be improved by using renewable energy, therefore not only reducing the total energy use but also dropping the portion of fossil energy use within the energy mix.

**Challenges**

Saving energy has become a global issue along with the diminishing resources of the earth, climate change and the rising costs of energy. Many countries around the world have tried a variety of methods and technologies to save energy. Saving and energy conservation efforts have attracted the attention of managers and the commercial building industry who wish to reduce energy costs thereby increasing company profits.

The biggest challenge was to explain to potential clients the need for energy conservation in a time when there was zero awareness of such requirements. Mr. Chayun predicted the future and could describe that if a company wanted to run profitably in the long run, energy efficiency if not then but in the future would be an essential issue. Mr. Chayun saw business opportunities in the energy saving business and successfully developed a method to support businesses. The man who has been engaged in activities of saving and energy conservation for over 30 years argues that 'if the price of fossil fuels continues to increase, consultants for energy efficiency solutions will be desperately needed '.

**Lessons learnt**

In general, working at a state-owned company is the desire of many people in Indonesia. The main reason is comfort and financial security, even though one may not get very rich. However, this does not apply to Mr. Chayun, his interest in the field of energy efficiency and the potential business opportunities eventually have led him to resign from the civil service and become a green entrepreneur in the field of energy.
The business was initiated by Mr. Chayun himself and by now he employs 30 people in his company, which he founded 17 years ago. One thing that has been demonstrated is that energy efficiency has become an increasingly important issue linked to environmental sustainability and fossil fuel prices.

**TIPS**

- “When choosing a career path, let your interests in life inspire you.”
- “Keep in mind that by founding a business you do not only give yourself a job but with a good chance you will be able to provide employment to other people as well.”

**Sources:**

- Hantoro 2012
CHINA

Case Study: HiMin Solar

Background

HiMin is an enterprise engaged in the whole production chain of solar energy utilization and is able to provide customers with the best solution to hot water systems at international standards. It has perfectly combined multiple technologies, such as hot water supply with solar energy and cooling & heating with solar energy. It has also developed the core competitiveness in the future development of distributed solar energy technologies, such as power generation with solar energy and seawater desalination with solar energy.

Idea and startup phase

HiMin was started by only one person in a small bungalow and its story is inspiring and encouraging to today’s entrepreneurs. HiMin’s founder was first working in the oil & gas industry and it was his interest that led him to the solar energy industry. The company has been following the path of independent research and development ever since the first product was made.

HiMin Solar (HiMin hereinafter) is a typical case about the development of a Chinese private enterprise in the field of renewable energy. It started from a manual workshop. After 10 years of hard work, it gradually grew into an enterprise in solar energy utilization with global influence and designed and built top quality energy saving buildings on its own.

Product development and growth

Continue to Innovate and Promote “Made in China”:

HiMin’s founder once got a call from a leader in the solar energy industry. He was told that a private enterprise in solar energy went bankrupt and HiMin should merge with it. He replied: “How could I merge it if I can’t even merge myself?”

Here’s the reason: the home appliance and auto industries were comparatively mature in China so there were great chances to merge enterprises with fine facilities but poor management. The solar energy industry was an emerging industry so there was no technology to import from abroad or reference to look for from China. In the first 10 years of operation, HiMin would reform its production lines every year. Sometimes a production line would be out of date after it was just freshly built. Reform or even a new line would be needed. Developing the solar energy industry is like building a house on the desert, and innovation, instead of merger, is the key.

With its spirit of not “merging” itself, HiMin completely sticks to independent innovation and has built a whole set of independent solar industrial systems. It fills the gap in this market, breaks the traditional
monopoly of foreign countries, contributes to the global solar energy industry and builds up the reputation of “Made in China” in the renewable energy industry.

Brand Concept: Reliable in the World, Confident in China:

HiMin defined its corporate value as “I would never seek for short-term profits at the expense of future development”. In its advertising slogan, it stated a clear and strong concept for brand marketing: “Who says no solar energy water heater in shopping malls? Our products can compete with branded fridges and air conditioners!”

With the firm determination not to be looked down upon by consumers, HiMin, then a start-up, abandoned its manual-workshop production model and switched to mechanized production of products. Although the costs were raised, the sales increased by nearly 10 times.

Why is it green and sustainable?

Green enterprise positioning played an important role in HiMin’s success in beating a large number of small-sized enterprises. While other enterprises were content with hundreds of thousands yuan of profits and tried to expand the production, HiMin started to take the role of a green industry leader. For example, it founded the Solar Energy News in 1996 and has published about 300 million copies of the newspaper by now; it has held tens of thousands of science presentations on solar energy in hundreds of cities, counties and towns every year since 1997; and since 2000, it has devoted itself to legislation on renewable energy and the establishment of national standards on production. These efforts, though seemingly unrelated to its primary business, have improved HiMin’s status and image in the industry.

Challenges

In the 1990s, solar energy heaters were mostly made in small workshops, and sold only in water heating shops, for they were shut outside by large shopping malls. These products left no good impression on the public and came no way near branded home appliances. Despite such harsh conditions, HiMin still decided to “build a brand”, a business strategy that seems to be common nowadays but was highly challenging at that time.

Lessons learnt

The success of HiMin Solar is based on a strong marketing concept with the pillars of innovation and product development and strong brand positioning. In order to compete with the vast national and international competition HiMin, instead of merging with other unsuccessfull companies, trusted its own potential for innovation, research and development for the future. Being a dynamic and independent enterprise aiming at becoming an industry leader is the key.
TIPS

- “A good product and service quality offered on a continuous basis is a key pillar of customer loyalty”.
- “Becoming an industry leader can promote your business”.

Source: ILO – Green Business Option 2012
Case Study: SunGrow Co., Ltd.

Background

SunGrow Co., Ltd is a high-tech enterprise focusing on the development, manufacturing and sales of renewable energy conversion products, such as solar energy and wind energy. It is in the core part of the manufacturing line of the DRE industry.

SunGrow mainly produces photovoltaics, small blower inverters and controllers, large blower converters, feeding energy-saving load lines, power supply systems, etc. It also provides solution design and technical services.

In over 10 years, SunGrow has grown from a small factory with a few dozen people to a R&D and manufacturing enterprise with leading products of photovoltaics and wind power in China. It is also one of the few enterprises in the photovoltaic & wind power generation industry that have mastered multiple core technologies and hold proprietary intellectual property rights.

With foreign investment, SunGrow transformed into a joint venture in 2007. By now it has absorbed several rounds of strategic investment and is just about to go public on the stockmarket.

Idea and startup phase

“Seize the Opportunities Brought by Major National Programmes”

In its infancy, SunGrow managed to seize the strategic opportunities of major national programmes, such as the Lighting Programme and the Power to Rural Areas, to start in the photovoltaic inverter industry. These national programmes, funded by the government, set to meet the basic demands for electricity in remote areas not covered by the power grid, and encouraged the application of small photovoltaic and small wind power in remote and pasturing areas. In its infancy, SunGrow saw the business opportunity and transformed itself into a manufacturing enterprise of small photovoltaics and wind power inverters. As these two major national programmes proceeded, SunGrow made its first pot of gold for the development of the enterprise.

Product development and growth

“Always Take Technical Innovation as the Driving Force for Corporate Development”

SunGrow invests not less than 10% of its sales income in R&D every year, even as a start-up. That’s why it can take the lead in competition. By now the enterprise has a R&D team mainly consisting of doctoral and master degree level staff. It owns more than 30 patents in invention and utility models and has drafted many national standards. Now a national post-doctoral mobile research station has been established in Yangguan of Hefei, rarely seen in private enterprises. So opportunities are not the privilege of state-owned enterprises; the key is the attitude of entrepreneurs.

“Strong Awareness to Seek for Government Support”
SunGrow has undertaken over 10 national science & technology projects. Among them, the control contravariant system won the first prize at the Provincial Scientific and Technological Progress Awards in 2004 and was included in the major promotion project of national science and technology achievements in 2005. The company has accumulated rich human resources and technologies through these projects.

“Active Participation in Major National Programmes”

SunGrow has participated in many national demonstration programmes, including the Qinghai-Tibet Railway, New Guangzhou Baiyun International Airport, Beijing Olympic Games venues, Shanghai World Expo and NDRC’s 100KW grid-connection programme. Through these programmes it has built its own brand and image and established close connections with stakeholders in the industry, such as competent departments, upstream and downstream enterprises and developers.


Why is it green and sustainable?

The business helps to drive innovation in the renewable energy field and contributes to renewable energy technology for solar photovoltaic and wind turbines which are becoming more readily available for a wide range of customers in rural areas. At the same time it helps to promote renewable energy across the country, especially by participating in national green growth programmes.

Challenges

In its infancy phase SunGrow had to realize that when only focusing on low-tech products the market potential was limited and required an immense critical mass to break even and make a profit. Therefore instead of getting stuck in the low tech market, the founders of SunGrow aimed at not limiting themselves to inverters made with traditional small photovoltaics and wind power, but had their eyes on the forefront of global development of DRE. With capital operation, it grew and expanded quickly and developed products that were larger in scale, better in quality and more suitable for grid-connection of DRE, seizing the major opportunity for another round of corporate development.

Lessons learnt

The initial key to success for Sungrow was linked to the ability to grasp opportunities to participate in major national programmes on renewable energy and tap government support. Furthermore, they did not stay in the trap of the low tech product market but soon realized that innovation and the development of new and more sophisticated products for the future was the way to boost their growth and build a sustainable business foundation.
Case Study: ZKenergy Science & Technology

Background

Zk energy Science & Technology is a world leading solution provider of full permanent magnet wind-solar systems and complete equipment and a major manufacturer of core equipment with proprietary intellectual property rights.

Idea and startup phase

ZK energy Science & Technology started as a technological enterprise specialized in the production and application of small blowers. With its foundation in manufacturing, ZKenergy extended its business from the production line down to the service line and successfully upgraded the enterprise.

ZK energy has built production bases in Yiyang and Huaihua of Hunan and Baotou of Inner Mongolia, and leads the world with its annual production capacity of 300,000 sets of wind-solar systems. Now it has won strategic investment and is about to go public.

ZK energy has an even shorter history and took less than 10 years to grow from a small private enterprise to a world leading enterprise. It is a typical case of entrepreneurship and fully shows the great market potential of DRE.

Product development and growth

ZK energy has been making efforts to build a most excellent R&D team and develop the most advanced technology in China since its foundation. Through its hard work, it has mastered technologies in power generation by full permanent magnet wind-solar with proprietary intellectual property rights, smart controlling and remote monitoring management, thus developing international competitiveness and taking a leading position in the domestic market.

Though located in the central area of China, ZK energy has strong awareness of brand marketing and public relations and knows how to promote itself. The enterprise has participated in many major projects, such as the wind-solar streetlight programme around Dian Lake in Kunming. With the road around the Dian Lake open to traffic, the project and the brand of the enterprise were widely covered by many domestic mainstream media, including Xinhua Net and Economic Daily, and helped build a good image.

ZK energy has developed itself into a world-renowned distributed energy enterprise, cooperation with the United Nations Industrial Development Organization (UNIDO), and has won international awards including the Special Golden Award in the 35th Geneva International Exhibition of Inventions. Based on this, it has extended its marketing and customer service network to over 20 foreign countries and regions.

Now ZK energy has obtained CE1-4 Certification, the ISO9001 Certification and the 14001 Certification for its products. By complying with international standards and competition rules, it has won the chance to enter the international market and more importantly has improved its product quality, setting it apart from domestic competitors.
Lessons learnt

The success of ZK energy is closely linked with its ability to develop independent innovation and its drive in tackling difficult problems in science and technology. Furthermore, the company has a strong brand awareness and communicates this to its customers with a long term and internationally oriented vision. In order to support its brand and promote exports, Zk energy actively obtains apt and internationally recognized certification and focuses on diligent quality control.

Source: ILO – Green Business Option 2012
Case Study: HEEE BIOMASS

Background

HEEE Biomass is a science and technology enterprise specialized in equipment research and development, and manufacturing for mass methane project design, construction and overall contracting. It started as a small local methane research institution with a focus on the service line of products. Now HEEE has grown into a leading enterprise in China in the utilization of distributed biomass-energy methane projects.

Green product development and growth

The leaders of HEEE had a profound understanding of the industry and forward-looking market awareness. When the country was still promoting household methane, HEEE had already started to focus on the R&D of mass methane projects, which was the development direction for the next generation of distributed biomass energy. So when the market just took shape, it won a few major national demonstrative projects with its 20 years of experience in this field, then expanded quickly in the market and has become the leading enterprise in the industry.

Ever since the 1990s, HEEE has been in close cooperation with methane research institutions and companies in European countries with advanced methane technologies, such as Germany and Denmark. Since 2000, it has been undertaking the design and construction of five large and medium size methane demonstrative projects supported by UNDP and GEF. It also compiled the Guide to Methane Project Development in Livestock and Poultry Farms. Through these international projects, HEEE has gained rich project experiences and beat its competitors.

Leaders from the NDRC, the Ministry of Science and Technology and the CPC Beijing Municipal Committee have inspected HEEE and its major demonstrative projects. As the initiator and Director-General, HEEE assisted the Ministry of Science and Technology in establishing a strategic alliance for the biomass gas industry technological innovation. Through such cooperation, HEEE has won opportunities to participate in research and demonstrative projects, including the 863 project and the 973 project, gradually gaining an edge over competitors.

Lessons learnt

For HEEE Biomass the key factors of success were strong leadership and vision. The management could anticipate market developments and gained a market share at a very early stage of the mass biogas market in China. It linked to national programmes and demonstration projects, which helped its quick expansion.

Moreover, the company has cooperated with programmes at the international level, through and the business has increased its experience and developed know-how that represent a crucial competitive advantage through the international exchange.

Source: ILO – Green Business Option 2012
INDIA

Case Study: Rice Husks for Rural Electricity

Background

Energy has become a primary need for rural communities in India and around the world. However, along with the cost of fossil fuels which continues to increase and the difficulty of access due to the remote location of many rural areas, rural communities often face difficulties in getting access to electrical energy.

Idea and startup phase

Manoj Sinha is one of the renewable energy entrepreneurs in Bihar India. In the place where he was born there were a lot of people who did not have electricity. During his schooltime he well remembers having to study at night only with the light from a candle. After high school he left Bihar to continue further studies and obtain a degree in electrical engineering and business. With experience and knowledge came the idea of utilizing husk power systems as a business that brings electricity to remote villages in India.

Together with four friends, Mr. Sinha decided to provide a clean source of energy, which is renewable and affordable. Bihar has recognized that rice husks are abundantly available and have not been productively used before. In order to generate electricity, piles of rice husk are put in gasifiers and used to fuel internal combustion engines. The byproduct of this process is rice husk ash which can be sold for use in concrete.

Product development and growth

Market opportunities for the generation of clean electricity in poor rural India are estimated at US$ 2 billion. Mr. Sinha and his colleagues now use this figure as a benchmark for the growth of their business. They aim to develop their business to bring clean electricity for villagers in India and plan to build 2000 new micro rice husk power plants that will serve millions of customers by 2014. In order to expand their business and raise awareness of their activities, Mr. Sinha will attend a global investment forum, where he will deliver presentations on the Husk Power business model to a group of international investors. He hopes that the new investors will support the business growth.

Why is it green and sustainable?

Husk power schemes produce power from rice husk combustion. The power can be used to generate electricity, or to drive machinery. Husk power can bring electricity to remote communities for the first time, replacing kerosene for lighting, providing TV and communications to homes and community buildings, and enabling small businesses to start.

A major reason for installing husk power was to provide a more pleasant life with increased employment opportunities in rural areas, and discourage young people from drifting to the cities. Along with these direct
benefits the husk power project has also resulted in improved environmental protection of the surrounding area. The abundant rice husks are no longer disposed as unused waste.

The social effects of this project are seen in the benefits for the local community. The beneficiaries from new business opportunities such as the suppliers of the rice husk and providers of husk ash can invest their incomes in health infrastructure, access infrastructure, and also farming infrastructure. Operators or employees come from the same hamlet; therefore the project opened employment opportunities for local people.

Challenges

The challenges faced by husk power in general are vast and most of them are part of the larger picture of general barriers for the uptake of renewable energy and independent power producers. These generic barriers can be summarized into the lack of clear-cut policies on renewable energy and associated requisite budgetary allocations to create an enabling environment for mobilizing resources and encouraging private sector investment, and the absence of low-cost, long-term financing models to provide renewables to customers at affordable prices while ensuring that the industry remains sustainable.

Lessons learnt

This project illustrates one possible future way to link livelihoods of communities with environmental management. Since husk power has little negative environmental impact, the possibility of selling this power is quite interesting. This project will be interesting to follow up on as this sale takes shape. The project makes use of an existing policy framework that allows for the sale of power by small-scale producers to the community. It is believed that this is the first such project to take advantage of this, and therefore it is likely to encounter some challenges along the way. Learning from these challenges could help make this policy more widely usable for communities in other areas of the country.

Photos

Source:

Case Study: Organic Rice Farmer Salamun Budiono

Background

Mr. Salamun Budono is an organic farmer in East Java, who uses local wisdom, traditional and modern techniques in order to achieve high quality crops with a minimum of environmental impact. He has become a role model for other farmers in his community and beyond to also engage in organic farming.

East Java is home to vast fertile lands, which generally are used for agriculture of various kinds. Rice is one of the main crops cultivated in this region. Mr. Salamun, before becoming an entrepreneur had participated in organic rice field farming and had the chance to work and learn about organic production and cultivation methods. His family owned a fertile piece of land of 2400 m$^2$ with the feature of high water inflow, optimal for the cultivation of rice.

Idea and startup phase

"TRY, TRY, PARTICIPATE"

One day the destiny of Mr. Salamun Budiono was changed, it was the day when he inherited from his parents this very 2400 m$^2$ sized fertile land, a land of suitable size and features for rice cultivation. At that time, in 1998, he had to make the fateful decision whether to sell the land or put it to productive use himself. Due to the fertility and the high rain input of the land, it was ideal for rice growing so Mr. Salamun decided to cultivate the land. He became an organic farmer, a “trying” organic farmer as he called himself. He planted the first set of crops at the beginning of the raining season the very same year.

The decision to use an organic approach was supported by some friends in his community, who had already experienced with organic farming or were interested in it. However, at that time in general organic farming was still smiled at by most of the farming community. Nevertheless, since he had already experienced organic rice farming in other places in the region, where the System of Rice Intensification (SRI) was already used and had developed an interest for these alternative farming methods, he decided to give it a try. Mr. Salamun made the decision to take over this system and apply it to his field. Still he admits that organic farming may be unusual and even “scary” for farmers, as they have to change their the complete pattern and also their personal habits.

Product development and growth

Starting being a farmer with organic farming methods was not easy from the beginning as Mr. Salamun first had to experiment with the new farming techniques and develop the optimal cultivation for his land. After 1 year that he had already worked with organic farming, the Governmental Department for Agriculture (DINAS) started to promote organic farming more strongly in the region and encouraged more farmers to
enage in organic farming using the SRI method. Mr. Salamun much appreciates the efforts and the programme of the DINAS for the promotion of organic farming because it represents official recognition of the benefit of organic farming. This new policy of the DINAS encouraged more farmers to shift to organic techniques, which helped to increase the quality and also encouraged more cooperation among the farmers. Mr. Salamun’s field constantly improved over time with many young grains produced, healthy and long rice plants, and diminishing rat and other pest plagues. He started selling the products at local markets and meanwhile already reached regional customers who especially enjoy organic food. To reach more customers, get access to new markets and stay on top of developments in techniques Mr. Salamun joined the Organic Food Association.

Why is it green and sustainable?

“TANDUR (Planting Backward) to TAJU (Growing Forward)”

The organic farming techniques used by Mr. Salamun encompass the concept of SRI as well as old farming techniques and local wisdom about rice farming. An important element is the understanding of cycles of the crop and also the environment. Dry season with draughts, rainy season with times of flooding, risks of landslides as well as cycles of pests such as bugs, birds, rodents, etc. Pesticides are avoided to the maximum possible degree. Furthermore, times of rest are allowed for the ground to regain its fertility and assemble nutrients.

Challenges

The biggest challenge was the adaptation to a completely new pattern of cultivation, which also requires changes in the daily habits of the farmers. More time has to be invested. The second challenge was the general perception of rice farmers in the region that organic farming was not profitable and much higher yields could be achieved by farming using pesticides, chemical fertilizers and other techniques such as non-stop cultivation. As one of the pioneers in organic farming in his community Mr. Salamun first had to prove himself and his cultivation techniques to be successful to earn the honour and respect from the other farmers. Mr. Salamun also decided to join the Organic Food Association, which allowed him access to additional resources and information and an exchange with other organic farmers throughout Indonesia.

Lessons learnt

Without doubt it can be said that Mr. Salamun has become a role model for farmers in his community and beyond who would like to engage in organic sustainable farming. His inspiring story has been spread all over Indonesia by the Organic Food Association and inspired many other people. As a pioneer in one field, it may take time until the public/community recognizes the value of his work. It may also take time until the additional effort pays off, but young entrepreneurs should not let a rough starting phase put them off.

TIPS

- “Farmers should not be scared of using organic cultivation techniques but need patience to see their full benefits, which may take time”.

56
Photos

Source: AOI 20120 - www.organicindonesia.org
Case Study: Deni Ardini (Online Business for Traditional Food)

Background

The increase of social status, work and income goes hand in hand with the demand for more time efficiency. The number of upper middle income groups in the cities like Jakarta, Bandung, Surabaya, and Semarang is constantly increasing. Along with the increased of business, the demand for service systems delivering quickly and accurately is rising.

Changes in the behavior of these groups have inspired many people to provide business systems online that provide products quickly and accurately, without having to queue in the process of payment and obtaining goods. By using ICT support, businesses can offer their products online, so that customers only choose the product that will be purchased at a price that has been set. Trend changes in society have also inspired Mr. Ardini Deni, who has just turned 23 years of age to develop an online business especially for traditional foods.

Mr. Deni is aware that a lot of people around his home are producing traditional food and a lot of customers are interested, but it is difficult for them to find traditional dishes, because these kinds of food are sold mostly only in the traditional markets which is not convenient for middle and high class groups to enter. After a long period of careful observations, Mr. Deni built an online business especially for traditional food. "My goal is that traditional food can be prepared and marketed widely, like any other food " says Mr. Deni.

Idea and startup phase

Traditional food from local raw materials is not only in great demand by the public, but it can also be an alternative to conventional food for a non-rice diet. The main logistical problem lies with the traditional food makers, most of whom are home based and do not know how to sell their product.

Based on this fact Mr. Deni developed the idea to bring together buyers and sellers through an online market. But Mr. Deni was facing several problems in the realization of the idea. Some of the problems were: how to start a business, where to obtain the traditional pastries, how to package it, and which method of payment use. With a strong belief Mr. Deni finally started an online business with the name "Warung Mpok Nini" (web.boleholebekasi.com).

Product development and growth

Mr. Deni is aware that the cakes are still sold in simple and limited models, such as “Cucu Cake”, “Gemplong Cake” , and “Combro”. As more and more bookings arrived, Mr. Deni thought about how to develop new products based on local raw materials and a bigger variety. Therefore also "Biji Ketapang, Geplak, and Kembang Goyang" were introduced. For business support, Mr. Deni partnered with manufacturers and provided guidance to producers on how to produce cakes in more and more delicious ways. Mr. Deni also plans to develop a wider marketing network through cooperation, or by building branches in other big cities, so that products can be delivered quickly.
Why is it green and sustainable?

The most important things in the development of an online business for traditional foods are (1) to preserve the traditional culture, especially traditional food, and (2) follow green principles in procurement by sourcing locally grown organic food (3) improve the traditional pastry home industry using local raw materials, particularly cassava, bananas, rice, and tubers (4) follow green principles in distribution, (5) all of the traditional cakes are handmade. Mr. Deni’s online business is a green business because by making traditional cakes using locally sourced organic raw materials, the carbon footprint is kept low due to short transport needs. Furthermore, by sourcing raw materials which are not contaminated with chemical fertilizers or pesticides, water and ground pollution is reduced and safety for the consumer’s health guaranteed. Besides this, the traditional cake production systems show minimal water pollution and waste.

Challenges

The advantages of an online business lie with the marketing system, which is not limited to time and place. Along with the large number of requests, the major challenge faced by this business is how to improve the logistics and ensure goods are delivery quickly and accurately. In this regard Mr. Deni is building networks in various big cities. Secondly, obtaining financial support for the expansion of the business is an issue. Thirdly, developing the diversification of products, such as organic rice and other organic foods is envisaged.

Lessons learnt

Deni is aware that customer satisfaction is the key to success, and satisfied customers will come back again to buy. Therefore maintenance of customer satisfaction is very important. Because online business is ICT based, then innovation becomes indispensable. Innovation will help the delivery system or the transaction system.

TIPS

- “When choosing a career path, let your interests in life inspire you.”
- “Keep in mind that by founding a business you do not only give yourself a job but you will be able to provide employment to other people as well.”

Photos

Source: web.boleholehbekasi.com
Case Study: Confiture Michele - A Jam Lovers Paradise

Background

Confiture Michele is a joint venture between Michèle, a French Expat living in Bali and Ni Wayan, a Balinese lady, two friends passionate about jam. They are located in Ubud Bali and run their own store as well as an online business.

Confiture Michèle makes homemade jams, cooked with local tropical fruits, palm, unrefined local cane sugar and love. In their jam making, they follow traditional French recipes, using mostly organic ingredients and paying particular attention to the selection of the fruits which are mainly grown locally in Bali.

Idea and startup phase

Michèle started the adventure in 2011, making jam at home as a hobby.

As the demand grew, she started to produce a range of different flavours with ginger, vanilla, cinnamon, cardamom and red chili that became very popular around Bali. They were stocked at local shops in Bali Buddha, Cafe Moka, Pizza Bagus, Intercontinental Hotel and more.

Confiture Michele’s products are all natural, low sugar, gluten free and do not contain any additional preservatives or artificial flavorings.

The jams are made with love containing only natural ingredients and some of the fruits come from Michèle's own garden.

Product development and growth

Recently, Confiture Michèle has taken a step further by opening a small shop in central Ubud, where Ni Wayan regularly teaches traditional cooking classes, and Michele is often invited to cook crepes for private events.

"Confiture Michele" a place not to be missed when visiting Bali.

Michele promotes jams through the shop, a website, various social media and also holds events such as offering free tastings for customers when visiting their shop. With the business expansion, they started to diversify their products and now also offer French style crepes, jams, chutneys, home made kombucha, and traditional rice crackers. As a special service they offer crepe parties at the customers’ homes, in hotels or at other private events.

Confiture Michée sells both retail at the shop and at their partner locations and wholesale by order through their website.
Why is it green and sustainable?

Confiture Michele emphasises the health and environmental aspect of its products. Firstly, all the jams are made without any preservatives or flavour enhancers, so are a healthy treat for the customers. Secondly, the raw materials, i.e. fruits, sugar and pectine (from apples) are grown organically without the utilization of chemical fertilizers or chemical pesticides, therefore helping to conserve the natural environment. Furthermore, the fruits are mainly grown and sourced locally in Bali. This guarantees short transport distances and minimises the emissions of green house gases and other hazardous pollutants from transport.

Lessons learnt

Michele has made her hobby a profession, the passion she had and the know-how were the perfect ingredients for a successful green business. The business strictly sticks to their organic principles which represent the extra Unique Selling Proposition for their products.
Source: Confiture Michele 2013 -
http://www.confituremichele.com/index.html
Case Study: Bali Rungu Organic Farming

Background

Bali Rungu (which means Bali Cares and Care About Bali) is a Balinese owned and managed organic farm situated in Ubud Bali. It was established in 2005 and promotes environmental sustainability, conservation of the natural and cultural resources, local social and economic empowerment and decent work.

Idea and startup phase

In 2005 Bali Rungu started when Gede Green, a young poor village man who perceived he had no future, returned from a permaculture course at the new Permaculture School (Yayasan Permakultur Aceh) in Aceh and started adapting his family's farm land to ‘modern’ techniques. After a year of ‘in the field experiments’, Gede produced and started selling a variety of vegetables. He wasn't able to keep up with demand and borrowing from foreign investors, purchased 2.2 hectare of farm land in his village.

Gede is very serious about his project, and he is motivated to show people in his village about healthy food and to show others about learning, change and new ideas as long as those ideas are about making healthy things for a lot of people.

Product development and growth

In 2006, Bali Rungu started to supply mulberries to restaurants, bakeries, hotels, and market/home delivery buyers.

By now, Gede Green is selling over 50 varieties of vegetables, fruits, and herbs to restaurants, hotels, bakeries (with a programme to grow specifically to demand), home deliveries in or near Ubud, Ubud Organic Farmers Market every Saturday and Wednesday and Delta Dewata Supermarket in Ubud.

Bali Rungu Organic Farm grows on two different properties. First, a 2.2 hectare farm purchased in May 2007; and second, 30 are of historically non-chemical family land.

A small number of items are seasonal and new items are always being added through seed testing and seed saving. Gede is actively looking for new buyers to expand in Bali in 2010.

Bali Rungu Organic Farm now employs men and women from Desa Mayungan, providing better employment and working conditions while they learn about organic farming.

Why is it green and sustainable?

Fertilizers, sprays, compost and mulching:

Bali Rungu practices organic and permaculture techniques for fertilizing the land. This includes green manure, composting, mulching, and crop rotation. Chemical fertilizers are never used at Bali Rungu.
If needed, a spray is made from local leaves, fruits, or organic soaps and oils. Some of the recipes are from the old people in the village. This has been a trial-and-error process. One of the sprays is now being sold for trees.

Green plants are inspected frequently and predators removed by hand. Healthy plants usually do not attract predators so composting, mulching, green manures, and composted cow manure only from organically fed cows help keep plants healthy and returns nutrients to the soil. Sometimes an infested plant is not removed so that it weakens and predators go to only that plant. Weeds are either composted or burned off site. Companion planting is used. Due to a lack of materials for mulch, as with other farms, rice straw may be used. All of this is a very labor intensive, manual process.

Water:

Only clean, pure rain water or spring water is used on the farm. The farm has two sources of underground spring fed water (coming directly out of the land, approximately 15 meters below the farming surface). No other water enters the farm. Chemically laden subak (sawah) water is not available and is never used.

Seeds & seed saving:

Seeds from Bali Rungu's seed saving programme are used on the farm. An extensive seed saving programme is in place so that seeds become stronger as the seeds acclimatise to the farm soil. About 2% of the plants do not produce seeds which requires purchase of new organic seeds. However, for example, seeds from cherry tomatoes started from non-organic tomatoes in 2005 have been successfully grown into generations of organic seeds.

Others:

Smoking and chemical soaps are not allowed on the farm. Where plastics are used for staff food or orders, all residues are removed. All staff regularly remove any plastic that may blow into the farm from surrounding village temple land.

Gede is looking for funding (donations) and resources for a local NGO to train people about recycling in village schools with the hope that this will influence the village adults as well.

Challenges

Organic certification in Indonesia is, at this time, expensive and it is out reach for all but cooperatives or corporate Indonesian farmers. Bali Rungu sells "organically grown and self-certified" products ensuring that nothing chemical is used in the growing process. Until expensive certification is obtained, this is the most complete and honest guarantee that can be given by Bali Rungu. Bali Rungu welcomes visitors for inspection any time. Please contact Gede to arrange your visit so he will be in Mayungan.
Lessons learnt

In order to protect the organic farm and keep all products strictly organic, any hazardous materials are kept out of the area. The organic feature is the absolute unique selling proposition of the products and the importance of this is strongly communicated internally to all employees and externally to the customers, the local community and the general public. It is crucial for all stakeholders to share a common vision and in order to achieve this, trainings are not only given to the employees but also an educational programme for the local community is in place. Organic is being lived throughout the whole enterprise to the last detail.

Photos

Source:

Bali Organic Project
2013http://www.baliorganicproject.typepad.com/

Indonesia Organic 2013
Case Study: Juice Ja Cafe, Bakery & Store - Bali

Background
Juice Ja's home-style café was Ubud's original - and perhaps even Bali's first - healthy, nutritious food café. The business remains committed to the same originality and commitment, the same as when their doors opened over 10 years ago. The cafe offers fresh cooked organic meals as well as organic bakeries and jams and chutneys.

Idea and start-up phase
Although Juice Ja Cafe started as a little shop with home baked specialties and healthy drinks, they recently grew up to a new open air, friendly location, now on Jl Dewi Sita, with table space now accommodating 60 guests on two floors, and expansion is planned again soon.

Green product development and growth
Juice Ja Café is a haven for health-conscious eaters. Luscious salads, generous sandwiches and crepes with exotic fillings are served daily by our friendly staff, as well as homemade cakes, cookies and frozen yogurt.

The customers can sit relaxed, on cushions, on the patio and watch Ubud go by, sipping on fresh green coconuts or one of the other numerous healthy drinks like Tumeric Root with Lemon and Honey or Green Juice (apple, cucumber, parsley, lemon, ginger and lettuce) while snacking on fresh baked cookies, muffins or mulberry pie.

The founders have designed Juice Ja's décor to be a place where you can relax and come back to. The menu reflects the owners way of eating - with healthy ingredients and a lotta love. The cafe’s funky and friendly interior with reclaimed wood tables and décor welcomes the guests to enjoy breakfast, lunch, dinner or snacks from the extensive menu. Offering soups, salads, crepes, burgers, sandwiches and Indonesian dishes, enjoy and relax in the community environment.

The cafe sees itself and the customers as a family. The staff remember visitors by name and even the drinks they tend to order. The business uses its own organic produce from their farm outside Ubud. They wash their produce in safe water and never use taste enhancers like MSG. At the same time the cafe also offer free wifi to its guests.

The cafe keeps expanding its menu with specials and new items. In the friendly and cozy environment, with the smiling and friendly staff, the guests are reminded of home made food with a special heart.

The cafe has also long specialized their healthy drinks selection with pure extracted juices (first wheatgrass store in Bali), health cocktails, blender juices, lassies, and milkshakes (including a non-dairy Date Banana Soy Shake). Extras available: wheat germ, protein powder, spirulina, ginseng, and royal jelly. If you're looking for more standard drinks, choose from a wide selection of coffee, teas, cold drinks, beer, wine and liqueurs.
Appetizers include humus with raw vegetables and "Very Garlic Babaganoush". Salads are plentiful and the Tofu Sesame Salad is always an excellent choice, lightly pan fried tofu marinated in soya sauce served with crunchy grated carrot, mixed leaves, a ginger sesame dressing and crunchy toasted baguette. The Mung Bean Burger is superb and comes, as all burgers, should with crunchy fries. Sandwiches are substantial and wholesome- try "Fresh Vegetables & Feta" or "Marinated Tempe on Brown Bun". Entrees, available all day long, include chicken and fish, vegetarian (Stir Fried Green Beans & Tofu), and pasta ("Fusilli Primavera"). Indonesian dishes include nasi campur, satays, curries, and soto ayam.

The cafe’s Bakery and Desserts Menu includes Juice Ja's Famous Carrot Cake (proclaimed by customers as "the best in Bali"), Mulberry Mango Crumble, Passion fruit Chocolate Crepe, and Coconut Macaroons. The cafe also offers specials, such as the new daily selection of "Muffin of the Day" with plenty of new creations.

Further organic products encompass Jaga Jagat Jams and Chutneys. Jaga Jagat is an artisanal manufacturing company of hand made jams, chutneys, sauces, liqueurs, nut butters and salad dressings. JagaJagat products are made in small quantities, so their quality can be guaranteed. They use locally grown ingredients, mostly from their own organic farm and local unbleached cane sugar or palm sugar and no preservatives or colorants. With a special quick-cooking process, the fruits retain their full freshness. JagaJagat Jams are low sugar. They contain more than 65% fruit and less than 35% sugar.

Beyond the cafe, Juice Ja also wholesells its products in bigger quantities for resale in restaurants, hotels, gift shops, and food outlets.

Why is it green and sustainable?

Juice Ja Cafe has a strong commitment to environmental and social sustainability. Juice Ja creates everything as organic as possible and recently started its own organic farm to supply fresh produce for the restaurant.

Committed to an organic Bali, they also support a number of local cottage industries who provide the nuts, seeds, coconut oil and organic beauty products that are on sale. The business is committed to supporting local businesses.

"We like to work as much as possible with local farmers and local products."

Water bottle refills are available and Juice Ja is committed to recycling, eco friendly cleaning, and teaching others, especially the guests, the staff and the local community about eco practices.

Lessons learnt

Organic is the Unique Selling Proposition of the business. All food is healthy and produces/cultivated under sustainable conditions. However, in order to run a successful restaurant or cafe, many other aspects must be taken into account such as great service, a comfortable interior, special offers and extras such as free wifi, etc.

Regarding the quality of the products and ingredients, the cafe owners have gone a step further towards vertical integration and have introduced their own organic farming as a source for the food produces. This
way they can directly conduct the quality control and will be 100% certain that all products comply with their strict criteria. At the same time they create green jobs for the local community.

Their efforts in supporting other local businesses is remarkable as well. They have realized that fruitful cooperation with local partners can enhance their efficiency and provide them with a bigger variety of organic food products to be served to their guests.

Source:
Bali Organic Project 2013 http://www.baliorganicproject.typepad.com/
Case Study: Wang Lei Korean Pine Cultivation Specialized Cooperative Society, in Benxi County of Liaoning Province

Background

Wang Lei, a shrewd and capable 42-year-old woman in the countryside, lived in the mountainous area of Benxi County of the Liaoning Province. After she got married, the couple started their own business and Wang Lei was known near and far as a very capable woman. Most people thought that she would choose to enjoy her wealth and stop for a rest. However, she wanted to realize her dream to help other people in the country to have a better life.

Idea and startup phase

With the implementation of the collective forestry reform, farmers got forestland and hoped to make use of the land to improve their lives. The government issued favourable polices to promote the forestry industry and help the forest farmers. Wang Lei saw the opportunities to realize her dreams. She noticed that there was a rich resource of Korean pines with promising economic value and market potential. In 2010, Wang Lei made a brave decision. She sold part of her property and, with eight other forest farmers in her neighbourhood, raised over 1 million yuan and established the Wang Lei Korean Pine Cultivation Specialized Cooperative Society of Benxi County of Liaoning Province. The cooperative society, by means of contraction or forestland circulation, obtained the management rights of over 500 mu of forestland and dozens of plain land for Korean pine grafting and seedling.

Product development and growth

Wang Lei grew fast-growing and high-value economic plants under the Korean pines or between the pines. In this way, she could not only get the long-term benefit of the Korean pines but also get benefit in the short term. On hearing this, Wang Lei decided to make a change to the management pattern of the cooperative society. While growing Korean pines, she developed the under-forest and glade cultivation system. They first grew medicinal and edible plants (such as aralia data and acanthopanax) and economic plants. In the first year, they earned more than ten thousand yuan. Later they made use of the glade to grow slack season pother and also obtained considerable profit. Seeing her success, dozens of forest farmers nearby asked to join her cooperative society.

After several years’ effort, Wang Lei’s cooperative society involved over 130 country households and covered more than 1,000 mu. Farmers in the cooperative society can earn 20,000 yuan and the enterprise got a profit of over 50,000 yuan. In the busy season, there were more than 200 temporary workers. The cooperative society was supported by the local government, who granted the society 30,000 yuan to support the establishment of the cooperative society and later help Wang Lei get a low-interest loan of 50,000 yuan from Rural Credit Cooperatives. Wang Lei attached great importance to technology. She applied for a “special technology expert” from the government forestry section; there were free technology and management training for the cooperative society; there were also three technicians for the managing
the forest trees and the economic plants and providing technological guidance for the farmers. Wang Lei made it a goal that in the next three years she would enlarge the cooperative society to a Korean pine cultivation base of 1,000 mu so as to obtain benefits from both the Korean pines and other forest trees.

**Why is it green and sustainable?**

Wang Lei’s prior aim when starting the cooperative was to improve the lives and the business of the farmers from her community and open opportunities for them to benefit from a fruitful collaboration. Moreover, she recognized the high economic value of Korean pines and also watched their non sustainable exploitation in the region. She, therefore wanted to implement a sustainable cultivation system for Korean Pines in order to obtain a profit for the cooperative and its members and help preserve the natural environment and at the same time the economic basis for the future generations to come.

**Challenges**

At the beginning, Wang Lei tried to persuade other forest farmers living around the cooperative society to join them. However, unexpectedly, Wang Lei found that even though many people were interested in her ideas, few agreed to join her. What was the problem? Why did they show no enthusiasm in joining her? Is there anything wrong with the way she approach them? Or are they not satisfied with the cooperation terms? Wang Lei was wondering. She couldn’t find the answer. Finally, an old man told her where the problem was. The problem was that most of the farmers knew that, though Korean pines are famous for their economic value, it takes quite a long time for them to grow. Farmers might have to wait for ten years, or even dozens of years, to get benefits. This was why farmers were reluctant to join Wang Lei’s Korean pine cooperative society. Knowing where the problem was, Wang Lei consulted experts from local forestry technology sections.

**Lessons learnt**

First of all, entrepreneurs should make constant improvements and innovations, and if absolutely necessary even change the original business plan. Secondly, promotion and application of practical technologies is an effective means of increasing the benefit of ecological forestry enterprises, and thirdly, specialized cooperatives are important for agricultural and forestry enterprises to integrate resources, enlarge scale and reduce the cost.

Source: ILO – Green Business Option 2012
Case Study: Yong’an Lvyi Bamboo and Bamboo Shoot Processing Factory, Fujian Province

Background

Yong’an of Fujian Province is rich in bamboo and is known as “a county of bamboo”. Many local forest farmers earned a living by making bamboo products and succeeded. 47-year-old Xu Ailan was among them.

Xu Ailan was a lively woman farmer in the mountainous region of Yong’an of Fujian Province. She, her husband and two children made a living in the city by casual labour. They had several mu of fields and grew some mao bamboo. They sold some grown bamboo and fresh bamboo shoots for a living.

Idea and startup phase

In 1999, seeing that many other farmers sold bamboo products in the city and earned some money Xu Ailan became interested. The Yong’an District is mostly mountainous and has relatively few rivers and farming fields. The traffic was extremely inconvenient. As her husband often went to other places for work, she thought they might buy bamboo products and bamboo shoots from others and sell them in the urban areas. They could also sell their own bamboo products and bamboo shoots. Therefore, they stopped casual labour and put in 20,000 yuan to sell bamboo shoots and bamboo products. She bought things from other farmers and her husband sold these goods to shops or restaurants in the city. They were good at dealing with others and were always well-informed. Therefore, their business was growing very well.

Product development and growth

In 2002, they earned some money and rented a workshop in the suburbs of the city. They invested 10,000 yuan and established the “Lvyi Bamboo and Bamboo Shoot Processing Factory”. They hired some experienced farmers and bought fresh bamboo shoots from farmers in the neighbouring areas. Then they made them into bamboo shoot pieces, dried bamboo shoots and bagged bamboo shoots, and sold them to supermarkets, big hotels and peddlers from other places. However, after the business had started struggling due to fierce competition, in 2004 she participated in the Guangdong Trade Fair and learnt that bamboo products were very popular with European traders, who favoured colored, high quality and environmentally friendly bamboo products. Start foreign trade? Xu was very reluctant about this, since she didn’t have suitable technologies and market channels. On a second thought, she figured since nobody had tried this field, this might well be a good business opportunity. Anyway, there was the market. She made a decision and began to collect information about bamboo products. She learnt that in Anji of Zhejiang there were factories specialized in bamboo products. So she hired an experienced technician to spend half a year training workers, and was also responsible for the quality control of the products. She contacted a trade company in Xiamen to deal with European traders. Finally in 2006 Xu Ailan succeeded in exporting coloured bamboo curtains to Germany and got over 400,000 yuan. This opened the market. The bamboo curtain was environmentally friendly and practical that could be used in the office, household, hotels and restaurants. There was a growing market demand for bamboo curtains. In a few years, the Lvyi Bamboo and Bamboo Shoot Processing Factory developed into a modern enterprise with independent export and import.
businesses specialized in natural bamboo shoots and coloured bamboo products. Its capital reached over 5 million yuan and became one of the leading enterprises of bamboo and bamboo shoot processing. Around 2004, in Yong’an, the collective forest ownership reform was launched. Since then, the state-owned forest was shared by forest farmers. This became a good opportunity for Xu’s business. In 2006, she set up the “New Hope Bamboo Shoot and Bamboo Farmers’ Specialized Cooperative” and attracted over thirty farmers to join them. By sub-contracting she established a bamboo and bamboo shoot based covering over 500 mu; and transformed and expanded the workshop to 3,000 m², thus forming a business model of “linking enterprises with a production base and forest farmers.” This business model helped the Ailan’s business grow fast and more specialized. Bamboo shoot & bamboo processing and bamboo curtain manufacturing were divided. With the improvement of technologies, manufacturing of the colored bamboo curtains applied digital painting techniques that made the products more competitive in the market and generated over three million yuan for the cooperative.

Why is it green and sustainable?

The bamboo is cultivated according to sustainable principles and represents a renewable and environmentally friendly raw material for many different purposes.

Regarding the social sustainability, Xu Ailan now has become the chairperson of the Yong’an “Woman Entrepreneurs’ Association”. Though she is already in her fourties, she is always in a rush and full of energy. She often takes part in various trade fairs at home and abroad to get more information about the market. She introduces her experience to others so that they may also improve their life. Her town fellows often say that she is “a phoenix from a humble place.”

Challenges

After two years of doing business, the competition in the local market increased and the couple found that though they worked for 15 or 16 hours every day, their business was going down. They were very worried. Xu decided to find a solution and after she had visited a trade fair, she saw the opportunity in the export market. However, she also faced the challenge of lack of know how and no export channels. In order to overcome these hurdles, Xu Ailan hired experts to train the production staff and to help move into the foreign markets.

Lessons learnt

In principle it is very important for entrepreneurs to make use of local resources to choose suitable projects for their business. Furthermore, one must realize how to develop a competitive edge over the other players in the market. The key is to find new markets and remain updated with new information. One must venture into new markets and create new products. The dynamics of keeping products in an advantageous position and promoting the development of the company comes from constant technological innovations.

Source: ILO – Green Business Option 2012
SRI LANKA

Case Study: Kelani Valley Plantations PLC, Halgolle Estate

Background

Kelani Valley Plantations (KVPL) comprises 27 estates. All 13 of the black tea factories have received the HACCP (Sri Lanka) ISO 22000:2005 (Switzerland) accreditations. In 2008 the company obtained the Global GAP (New Zealand) accreditation for all 19 of its tea plantations.

Green product development

The Halgolle Estate of KVPL is one of the plantations that is actively engaged in biodiversity conservation. The Estate is located on the southeastern edge of Kegalle District and the western boundary of Nuwara Eliya District, with a total land area of 1,196 ha. The land allocated for tea cultivation is about 266 ha. Tea production was 800,000 kg in 2011 with a turnover of Rs. 308 million. There are about 680 permanent employees who are all between 18 to 60 years of age.

At present, Halgolle Estate has a land extent of about 750 ha that consists of natural and semi-natural habitats that support a rich biodiversity. The land has a unique topography with a collection of a number of ecosystems and habitats in a single location. The Estate starting from 300 ft above MSL which progressively covers up to 4000 ft above MSL with lush tea plantations, unusual rock formations, water streams, Patana grasslands and borders with a magnificent sky view.

Why is it green and sustainable?

Conservation of natural resources:

Halgolle Estate has a Plantation Management Plan aimed at nature conservation. Higher elevations of land are retained for conservation of biodiversity. In addition, cinnamon cultivation, that was grown under shade, has been abandoned and thereafter natural succession of natural flora has been promoted. Public awareness of biodiversity conservation is conducted through a participatory approach together with the active participation of Deutsche Bank, Unilever Sri Lanka, school children, national and international organizations, etc.

Renewable energy options and energy saving:

Total energy saving is obtained by fuel switching and efficiency improvement and changes in personnel behavior. The Calliandra is used as firewood for boilers. In addition, technical measures have been taken to optimize firewood efficiency in the driers; the efficiency of the driers is monitored regularly at predetermined periods. Periodic maintenance is carried out for better performance. Solar energy is used to
make hot water available for the workers at the hot water bathing places. The heat is recovered and is used for withering of green leaves. Annual energy auditing is carried out with proper house-keeping measures in place, mainly focusing on promoting energy conservation and improving efficiency. Use of energy efficient motors in driers has also helped improve production process. In addition, there are capacity building and training programmes for technical staff on renewable energy. These programmes are well scheduled and targeted at dryer operators and boiler operators. Moreover, circulars and memos are sent regularly focusing on increasing the efficiency of these driers and boilers; e.g. stock turnover rates of firewood in sheds, increasing surface area of firewood etc.

Water conservation:
The KVPL has already taken initiatives for water conservation at the estate level. Improving landscapes and enrichment of catchment areas implies that they have already recognized the importance of clean water resources. For instance, the planting of bamboo along streams/river banks; maintaining of chemical free zones/buffer zones 10 meters away from the stream, have proven very effective in protecting water resources. In addition, all tea processing centers are installed with effective wastewater filtering systems. Installation of water meters in every tea processing centre has enabled the Company to make certain that proper monitoring of water consumption is carried out. Moreover, annual water quality monitoring is done where potable water usage is high, for instance, water quality monitoring at the starting point of “We Oya” & “Ketagal Oya” and “Olu Ella” (the 5th highest waterfall in Sri Lanka).

Moreover, major agricultural practices are implemented after carrying out a detailed and comprehensive Environment Assessment studies. The Halgolle Estate has adopted adequate measures to reduce soil erosion following Good Agricultural Practices (GAP) such as the construction of terraces, appropriately-designed drains and planting of live hedges, which will conserve the fertile top soil layers during heavy surface runoff resulting from heavy storms. In addition, planting of low and high shade too has helped to reduce soil erosion by intercepting the rain water.

Biodiversity conservation & enrichment:
The Halgolle Estate has formulated management plans for biodiversity conservation, enrichment and research. Detailed studies on unique and environmentally sensitive areas in Halgolle Estate including flora, fauna and watersheds have been carried out together with the participation of IUCN and biodiversity experts. The following have been carried out/prepared:

- **Inventory of flora and fauna in each division of the plantation.**
- **Identification of conservation status of species.**
- **Identification of different ecosystems and habitats in each plantation.**
- **Identification of biodiversity-rich plantation.**
- **Management plans for high priority conservation areas.**
The above detailed study covers the key habitats categorized into several ecological zones that are found at Halgolle Estate, viz.:

- Wet zone lowland rain forest.
- Wet zone sub-montane rain forest.
- Wet zone rock outcrop.
- Wet marshy grassland.
- Stream & waterfall habitats.

Reforestation of areas with native species, habitat enrichment and establishment of animal corridor/conservation education trails have been successfully done with the financial support of interested stakeholders.

Solid waste management:

KVPL has focused on reducing the generation of solid waste throughout all its operations at all the plantations and offices. As an initial step, improving the awareness among the staff and work force on importance of proper waste management through various programmes across the production sites, stores and offices have been carried out in a regular basis. All the waste materials are collected separately depending on their nature such as biodegradable, glass, plastic and hazardous waste etc. In addition, agro-chemical cans and bottles are disposed through CEA approved channels.

Giving back to the society and efforts of making jobs greener:

Under the social policy of KVPL, four main components have been taken into account, viz.; Living Environment, Health & Nutrition, Community Capacity Building and Empowerment of Youth. In addition, Halgolle Estate has a well-established Worker Housing Cooperative Society – WHCS, and all its decisions are taken and adopted by the workers themselves, the management involvement is to only provide leadership and guidance to it.

Improving the living environment:

There is a vision for “A Home for Every Plantation Worker” in order to create a Contented Family Life for all the plantation workers. There is an on-going project to construct new houses for workers, in addition to improving the existing condition of houses, improvement of sanitation, electrification, other infrastructure projects, e.g., access roads, playgrounds, etc.
Caring for health & nutrition:

The Health & Safety committee of the Estate includes an Estate Medical Assistant (EMA), Midwife, Welfare Officers & other welfare staff. This committee is responsible for day-to-day preventive and curative health measures. In addition, immunization coverage, nutritional programmes, post and antenatal clinics and special projects such as medical camps, clinics for TB, cataract removal clinics, etc. are organized by the committee.

Community capacity building

A preschool and a nursery school have been built by the Estate. There is an Estate Worker Housing Cooperative for:

a) Micro financing

b) Skill and personality development programmes such as computer classes, English classes and promoting technical education for obtaining NVQ certificates.

Empowerment of youth:

In order to empower the youth, child development (ages 5-18) monitoring programmes have been devised. Also, special projects such as vocational training, bridal dressing and beauty care, sewing etc. are promoted among the teenagers and youth providing opportunities for the second and the third generations.

Occupational health and safety policy:

In addition to the above, there is an occupational health and safety policy which specifically state the following:

- Providing a safe place of work/safe systems of work, with effective control of the occupational health and safety risks to employees, associates, service providers and customers, in so far it is practical to do so.
- Adhering to all relevant national occupational health and safety legislation and requirements.
- Providing and communicating appropriate information, instructions and training, thus ensuring that all employees are aware of their health and safety obligations.
- Periodically setting and reviewing policy objectives and targets for operational performance and risk assessment, with audit programmes to ensure continuous improvement.
Lessons learnt

Standardisation plays an important role in food and agriculture. Consumers want to know exactly what they eat or drink and what impact this might have on their health. In this case the plantations have received the HACCP (Sri Lanka) ISO 22000:2005 (Switzerland) and the Global GAP (New Zealand) accreditations. Standardisation helps customers and business partners to easily assess businesses and their products against various criteria such as green, organic, sustainably cultivated, etc.

Kelani Valley Plantations has a strong programme covering the support of the living environment, health & nutrition, community capacity building and empowerment of youth. The youth component is an especially important element for sustainable empowerment and strengthening of the local communities and the society at large.

Additionally, the company is strongly concerned with occupational safety and health and reflects this in its occupational safety and health policy.

TOURISM INDI\NS\EIA

Case Study: Hester Basoeki Green Garden Guest House

Background

The Hester Basoeki Garden Guest House is a small scale accommodation situated in Cinangneng Village, which lies in the region of Bogor, West Java. The guest house was established in 1994. The whole concept of the Guest House revolves around eco-friendly community based tourism, which envisages to provide a real benefit to the local people and help contribute to local economic development.

Cinangneng Village is surrounded by hills, rivers and paddy rice fields. When Hester Basoeki first invested in a small piece of land in this area in 1991, there was no business idea behind it. The village was far away from popular tourist centers and still kept its old traditions and customs. On the contrary, Mrs. Basoeki was merely looking for a place where her family and friends could retreat from their busy daily life. From the beginning, even for private use, she took care to involve the local community and even kept the original owner to manage the land. In the beginning she was of the opinion that the place was neither interesting nor viable for a tourism business venture. This should change. Mrs. Basoeki had already worked for over 10 years as local tourguide for Dutch tourists and was acquainted with the tourism sector and the market as well as the needs and wishes of foreign as well as domestic tourists.

Idea and startup phase

“GOING BACK TO THE VILLAGE ”

The idea to find a way of providing visitors with considerate and un-touristy programmes to experience village life in a manner that is not possible for normal “travel agency tourists” came to Mrs Basoeki during her thousands of hours of riding on buses as a tourguide. “I wanted to show the visitors a genuine way to experience Indonesia or West Java in particular where more than 70% of the population live in villages” she explains.

Mrs. Basoeki soon realized that the area where she had bought the small land, even though a normal village, had many things to offer, which could be interesting for visitors, just as she was enthralled everytime when visiting the place. Attractions such as the natural beauty and the culture of the people did not have to be artificially created, but were the intrinsic value of the area. The idea came up to give visitors and especially the city youth a chance to experience a new and different holiday concept and get an insight into and respect for the village, its people and its culture. Mrs. Basoeki started by building a small development for the family in 1991 and in 1994 initially opened only 1 room to visitors. She realized that community based village tourism was a niche market and this started to bear fruit.
Product development and growth

In 1998 the financial crisis and political unrest hit Indonesia and had a negative impact on traditional tourism, the former Ministry of Culture and Tourism started to promote a new concept nationwide: Community Based Tourism. By then Mrs. Basuki had already realized this concept for the previous 4 years and now not only got the confirmation of the validity of her concept but also saw a fresh boost as community based sustainable tourism gained momentum in the country. She used the momentum from that time to develop new products and packages all based on the traditional assets of the village and started expanding. These products included educational activities that help visitors understand the processes involved in the local agriculture and the Sundanese culture of the people as well as the hard working life in the village. Visitors can also enjoy the beatiful nature and simply relax from the busy city life. She offers overnight stays and 1 day package tours, for individuals as well as for groups.

The guest house has become a popular destination for school field trips and academic researchers. Additional interest from printing and broadcasting media have grown enormously and the visits by journalists, some of them very well known have resulted in numerous positive articles and television reports on the Garden Guest House and the programmes of “Kampoeng Wisata Cinangneng”. The press reports and radio/television broadcasts have among other things contributed to the steadily increasing number of guests from 2000 until today. The owner also aims at reaching international markets and has extended her marketing strategy to a more global approach using online marketing in the form of a website and social media.

“SMALL IS BEAUTIFUL”

Even though her guesthouse grew in popularity and is now attracting national as well as international visitors, Mrs. Basoeki has wisely chosen to limit the expansion to a viable level. With 18 years of its existence, the Hester Basoeki Guest House has now 40 employees, all from the local village. She still keeps its number of rooms/visitors limited in order to preserve the tranquility of the place.

Why is it green and sustainable?

The message is always passed to the tourists that their payment adds to a support fund for the local community for social services, keeping the village clean, taking proper care of garbage, conserving the environment, and cultural events etc. In turn the guests enjoy the feeling of being welcomed in the village and doing something beneficial. They often get invited to join ceremonies, festivals and the homes of the villagers. Likewise the local community plays an integral part in the life of the Guest House. E.g. they supply the workers for the guest house including security personnel of the whole compound. Thus local employment creation is facilitated.

The Hester Basoeki Garden Guest House has successfully formed a framework within which the guests, the villagers and the guest house can live in harmony with each other, learn from each other, and most importantly support each other and the cultural and natural environment they live in and take holidays in respectively. A philosophy the visitors can take home with them when they leave the Garden Guest House Cinangneng in Desa Cihideung Udik-Ciampea-Bogor.
**Challenges**

The business’ success at the same time poses the biggest threat and challenge to the endeavour. More and more people have heard of the Guest House and the Village Tourism concept and want to experience such holidays.

Mrs. Basoeki had to expand to a certain degree, which is still healthy for the business and beneficial for the local economy and the environment, but at one point she had to make a decision of whether to continue the growth and risk the very asset of tranquility and originality of the place or to limit the expansion, therefore also limiting her profit and saving the charm of the guesthouse. She made a wise decision and preserved what the guest house stood for from the very beginning, being an integral part of the community and not a disturbing factor.

**Lessons learnt**

The success of the Garden Guest House is closely tied with the involvement of the local community. Villagers are involved in managing the tour packages which gives them the feeling of part of the ownership of the process, instead of just being objects of tourism, they become the subjects. The advantage for the local people beyond their income derives from the learning experience in managing a guesthouse and tours. Furthermore, they feel proud of being part of the stakeholders and are able to present the inherent beauty of their village to the visitors. Engaging mainly young people from the village gives a perspective to the youth, helps prevent rural exodus and contributes to the sustainable livelihood of the young generation for the future.

For young entrepreneurs, Mrs. Basoeki’s advice is not to be afraid to start a business on a small scale as she started in 1994. By her engagement, a common village, in this case Cinangneng, could transform into a very attractive tourist destination. Sustainable tourism is an achievement only possible due to sincere cooperation and living together in harmony with the people who own the village. Environmental, social and economic sustainability and business success can go together for the benefit of all stakeholders and do not rule out each others.

**TIPS**

- “Young entrepreneurs, do not be afraid to start a business, even on a small scale”.
- “Use the networks around you and keep up good and sincere relations and cooperation with all stakeholders, especially the local community”.

180
Photos

Source: Hester Basoeki 2012 - www.kampoengwisatacinangneng.com
Case Study: Tourism and Reef Conservation in Pemuteran Village, Bali

Background

Pemuteran village is located in the sub district of Gerokgak, district of Buleleng. This sub district covers the largest area with 356.57 km² or about 26.11% of total area of the Buleleng district. The Gerokgak sub district has the longest coast line in Bali. This village is located next to the West Bali National Park, which is the habitat for the Bali Starling (Leucopsar Rothschild). Pemuteran Bay faces Menjangan Island, which is also part of the National Park and a famous diving spot in Bali. Pemuteran also has the largest shallow water coral reef ecosystem in Bali.

The large areas of shallow water attract fisherman. During the 1998 economic crisis, the area was also the target for fisherman who wanted to achieve an easy catch with large yield. Destructive fishing at that time using explosives and cyanide severely damaged the coral reef ecosystem, and decreased the fishmen’s catch in the following years. It was a gloomy time to come for the fishermen community at Pemuteran.

A tour guide called I Gusti Agung Prana came to Pemuteran some 20 years ago to build a small guest house. There were neither visitors nor investors at that time interested in this small fisherman village at northern part of Bali. Nevertheless, he had a vision and intention to share his knowledge to the local community at Pemuteran about tourism and coral reef protection.

Thomas J. Goreau (USA) and Wolf Hibertz (Germany) from Global Coral Reef Alliance then became interested in assisting Mr. Agung to rehabilitate the bay ecosystem. They were introduced by Yos Amerta, the chief of Gabungan Pengusahawan Wisata Bahari (gahawisri) Bali. Together they conducted a rehabilitation project using a Biorock mechanism, which was funded by the private sector and assisted by the local community. This technique stimulates and accelerates the growth of baby coral by flowing low voltage electricity through iron wires placed in the sea bed. The electricity current stimulates the accumulation of carbonate calcium and sea water containing magnesium hydroxide on the iron, which formulates a good foundation for coral to grow. By this technique, coral reef grows six times faster compared to its natural growth.

This success boosted the popularity of Pemuteran village and attracted tourists to come. This situation was then optimized by Mr. Agung Prana and the community of Pemuteran village to strengthen their commitment to implement the sustainable tourism concept. Pemuteran is now known world-wide not only for its beauty, safety, and comfort for tourists, but also for its coral reef rehabilitation initiatives which allow tourist to participate in conservation.

Idea and startup phase

“Harmony with Nature”

The initial idea developed by I Gusti Agung Prana was how to actively involve the local community to conserve the coral reef ecosystem and to benefit from tourism development. In 1990 I Gusti Agung Prana visited several temples in Bali, such as Pura Pulaki, Pura Kerta Kawat, and Pura Melanting, which are the prominent temples in north Bali. Mr. Agung believed that the nature of Pemuteran has its own luck, because it is located between sea and hills. According to Agung, “...the place represents the concept of
“Nyegara Gunung” which in Bali means the combination between sea and mountain. Nyegara Gunung is a spiritual concept of the Balinese about the interconnection of energy between sea and mountain.

Based on his belief and skills, Agung started to develop a small guest house. It was easy for Agung to be accepted by the local community in the beginning. With a community and cultural based approach, slowly but certainly he was accepted. Gradually, Mr. Agung started to educate the local community to change their fishing technique so that it would not damage the sea ecosystem. “I convinced the fisherman to protect the habitat of the fish by using the correct fishing techniques. Many of them used bombs to get high yields in a short time, but I told them, that if the fish do no longer have houses, what would they (the community) eat then?”. Together with the local community, Mr. Agung also established the Karang Lestari Foundation which aims to protect and recover the beauty of the coral reef ecosystem in Pememuteran.

The success of the Pemuteran community based rehabilitation initiative started at the same time with the paradigm shift of tourism, where tourists demand more environmentally friendly vacations. The increasing interest of tourists to visit has increased the business opportunities for the Pemuteran local community. The Taman Sari Hotel flourished and was followed by other guest houses and facilities offering ways to enjoy the coral reef such as glass bottom boats, snorkeling, and diving. All were developed by the concept of equilibrium “Harmony with Nature”.

**Product development and growth**

The innovation of tourism products is in line with the tourist demand. Tourists come to Pemuteran for its tranquility, swimming, snorkeling and diving, and visiting the coral rehabilitation; continued by a visit to West Bali National Park. The product is also adjusted to elderly and children by using trained local guides and glass bottom boats. Mr. Agung is now the owner of the 4-star Taman Sari resort and spa, whose staff are totally from the local communities. The latest product offered in Pemuteran is spiritual and health tourism; featuring its unbeatable tranquility. Yoga enthusiasts are one of Pemuteran biggest fans these days.

As an illustration, to build an accommodation with 2 bedrooms, it requires IDR 50 million of investment. The building uses local materials and uses standards for its hygiene and facilities. It is assumed that if 20-30 tourists stay for 2-3 nights in the room which costs 200,000 – 250,000 Rupiahs per night, then the income for the local community would be IDR 8,000,000 (20 x 2 x 200,000) up to Rp 18,000,000 (30 x 3 x 200,000). Deducted its operational cost of IDR 5 million per months the net income ranges between IDR 3 to 13 million per month. At the moment, Mr. Agung is working together with communities at three villages: Pemuteran, Kerambitan, and Mengwi; which involves 27 people. This business aims at creating jobs and increasing local community income from tourism; while at the same time protecting the environment and reducing the pace of land conversion (from agriculture into commercial).

**Why is it green and sustainable?**

The development in Pemuteran embraces the three principles of sustainable tourism, which are community participation, environmental protection, and economic benefit. The involvement of the local community is one of the key success factors in sustainable tourism development. The communities who previously damaged the coral reef ecosystem have transformed to conserve the reef and benefit from tourism. The
conservation project has become a strong added value to attract tourists. It has successfully educated not only tourists but also the local people about the importance of natural conservation. Tourism in Pemuteran strongly delivers the message about the importance to live in harmony with nature.

Several awards that were received by Mr. Agung Prana and the Karang Lestari Foundation have helped to disseminate and market Pemuteran both at the national and international level. In 2003, Agung was nominated to receive UNEP’s Sasakawa Environmental Prize. In the same year, the documentary film of “Reef Reborn” produced by the international film maker for New Zealand National Heritage was screened in many places worldwide promoting the Pemuteran success story. The Karang Lestari Foundation also received the Kalpataru Award from the President of Indonesia as the highest award in Indonesia for environment. In 2005, the foundation also received the Excellence for Best Conservation Effort in Kuala Lumpur from the Deputy Minister of Malaysia; as well as the Gold Award for Best Environmental Project from PATA in Macau. In 2012, the foundation has also received the Equator Prize from UNDP.

Challenges

In the preliminary stage, the main challenge was to give an understanding and to make local people believe that conserving the coral reef can be profitable. In addition to that, changing the behavior of local people to become environmentally friendly required a long time and investment. One of the solutions was to establish networks with various institutions, including education institutions to help provide trainings for the local community. Trainings needed to be provided continuously until the local community could conduct a good quality service.

In the product development phase, another challenge was to look for funding and to convince financial institutions to help developing a tourism business in Pemuteran village. Marketing the product also needed a considerable effort, because Pemuteran could not compete with other areas in Bali which have developed as tourism spots such as Kuta and Sanur. Various publications at national and international level for the success of the project have positively accelerated the promotion of the area.

Lesson learnt

Opportunities are not always easy to find, but can be created. Even something that looks uninspiring and not maintained can be developed into a high value product with strong intention and will. This has been proven by I Gusti Agung prana, a Balinese man who pioneered sustainable tourism development in Pemuteran village, Bali. The Biorock coral rehabilitation project has succeeded not only to rehabilitate the coral reef ecosystem in Pemuteran Bay, but also to encourage the community of Pemuteran village to directly participate and furthermore to transform into coral conservationists. Now the local community believes that the Nyegara Gung concept has brought charm and luck for the locals.

TIPS

- “Opportunities are not always to find, but can also be created.”
- “Get the local community on your side and try to work together for improving the environment and the livelihood of the people.”

Source: Indecon 2013
Case Study: Candirejo Village Tourism

Background

Candirejo village is located in Borobudur District, Magelang Regency, Central Java Province. It is one of the villages that lie in the foothills of Menoreh. Situated only 3 kilometers-away from the Borobudur Temple, this 366.25 ha village covers some area of Menoreh’s hills and land, including paddy fields, rainfed fields, yards, buildings, moors, etc.

Candirejo village has natural and cultural resources that have potential for tourism development, which was the reason for its designation as a tourism village in 1999 by the Government of Magelang. The community of this village is very eager to move forward and improve themselves. Culture, which has been an integrated part of their daily life, could be developed to support ecotourism development in the village. Other potentials such as handicrafts from Pandan leaves or bamboo, farming systems and heritage sites are also attractive.

This village could also be an integrated part of the Borobudur tourism development area, as it will not only give economic benefits for its local government, but also lengthen the tourists’ stay in Borobudur.

Upon completion of several community meetings, the community decided to use their natural, artistic, and cultural resources to establish community-based tourism. They also engaged in partnerships with the Patrapala Foundation and Indecon to help facilitate and increase the community capacity in tourism.

Idea and startup phase

The existence of Borobudur represents a big opportunity for surrounding communities to economically benefit from the tourism sector. Nevertheless, the increasing number of visitors to Borobudur -- up to 3 millions per year, has not yet translated into a significant impact for the surrounding village economies. As the head of the village, Mr. Slamet believes, his village has the potential to be developed as a tourism village. Facilitated by Patrapala and Indecon, by today the community could successfully achieve this dream.

Together with the village members, Patrapala and Indecon drafted a tourism development plan, which was later supported by JICA-Japan. This participatory planning includes the village area profile, natural and cultural tourism potentials, visitors management planning, product development, and targeted visitors.

Product development and growth

In 2000 a tourism management plan for Candirejo was carried out through a participatory process between the local NGO, Patrapala and Indecon. Some tourism products were developed including homestays, village tour, visiting home industries, organic and intercropping farms, trekking the Menoreh Hill to view the sunrise at Borobudur temple from above. Essentially, these products developed aimed at providing an authentic experience of the daily life in Candirejo and a tranquil village atmosphere. These types of products were dedicated for international and domestic visitors who appreciate the harmony of village life.
A series of meetings and trainings was completed in order to increase community awareness and capacity in providing good service for visitors. Training included tourism guiding, hospitality, cleanliness and food presentation, etc. As for tourism management, the community established a tourism cooperative to manage daily operations. A profit sharing mechanism was agreed on by members of the cooperative as well as the village government.

Candirejo village also collaborates with tour operators from Yogya, Surabaya, Jakarta, and Bali. Evaluation on service and implemented activities in Candirejo include regular records on the number of visits. Any new product and activity development is based on direct evaluations from visitors. The number of visitors to Candirejo village has been increasing ever since it was first opened in 2003. In the last three years, visitors reached 1.796 international and 1.282 domestic visitors in 2009; 1.872 international and 1.077 domestic visitors in 2010; 3.063 international and 632 domestic visitors in 2011.

**Why is it green and sustainable?**

The community of Candirejo village has agreed to develop ecological and cultural friendly tourism products. Their vision is to create Candirejo as a role-model of community-based ecotourism that respects local socio-cultural and environmental values and sustainability to improve community welfare. In line with that, the community has also agreed to conserve and perform local culture to support tourism activities. The village has dedicated several annual events to support its tourism marketing. Moreover, communities who are members of the village tourism cooperative have agreed to set visitor quotas and targets also taking into account carrying capacity, as a result of the annual evaluation meeting. Hence, the number of visits targeted for next years could be predicted based on the data from the end of the previous year.

The most favorite tourism activities are experiencing village daily life activities, such as going to the traditional market and visiting home industries (crackers and handicrafts). Active participation by the community is the key of Candirejo’s success in managing its tourism. Nonetheless, a lead-figure who applies transparency in management is also one of the crucial factors to keep the sustainability of tourism activities in Candirejo. Government acknowledgment towards Candirejo village tourism development was given through the Kalpataru Award to the head of the Candirejo village as an environmental founder.

** Challenges**

The community participatory process in developing tourism is not seen as a constraint because at the end, tourism became one of the alternative choices to increase local income. One of the biggest challenges is product marketing. In the planning process, it was projected to be able to take tourists from Borobudur temple to Candirejo village, but in fact, it was quite challenging as most tourists did not plan a head to lengthen their stay after visiting Borobudur temple - their itineraries had been set by tour operators. Therefore, the cooperation members tried to engage tour operators in Jogja, Jakarta, Surabaya, and Bali, to link up with their products. This method has been successful that it was named as “Rambutan Marketing”, a local gimmick for the personal approach to create business relationships by bringing local fruits (rambutan is a Candirejo local fruit) and offer them to prospective business partners.

Another challenge is how to increase society’s visits to the village, which was done by implementing reservation mechanism, so that any unconvenience of rejection could be avoided.
Lessons learnt

One of the keys of Candirejo’s success is a management discipline in accordance with SOP (Standard Operating Procedure) that has been agreed together, including transparency in benefit sharing among cooperative members and projection of visitors. The other key to success is building partnerships beyond business, which is more casual and social. Meeting business partners regularly in the big city.

TIPS

- “Try to build partnerships beyond business, as in the Rambutan Marketing.”
- “Follow the principle of Standard Operating Procedure (SOP).”

Photos

Source: Indecon 2013
Case Study: Songa Adventure White Water Rafting

Background

Known as one of the extreme water sports, white water rafting tourism has long been developed in Indonesia. In the 1990s rafting became popular as adventure tourism for adventurous people to increase their adrenaline levels. Ayung River Rafting in Bali and Citarik River Rafting in West Java are examples of rafting operators that have developed a good image for serving their customers with safety and satisfaction.

Business opportunities for rafting operators are growing in certain areas such as West Java, Sulawesi and North Sumatra. Most of the area is good for rafting and close to the main city. The management have in depth knowledge and experience of outdoor activities, river rafting management and environmental sustainability principles to become a trustworthy green rafting operator.

The markets for rafting tourism includes individual foreign and local tourists from main cities and also groups such as private companies, clubs and community groups. Most customers chose rafting as a new and interesting experience for their holiday.

Idea and startup phase

“FROM HOBBY TO BUSINESS ”

Songa was started in 1999 by a group of young and energetic people who like adventure. They also shared and still share the interest of contributing to the education of the people, nature conservation, and local economic development through green tourism. In that year they conducted a white water rafting tour in several rivers in East Java as part of a holiday trip. At the same time the tour was a feasibility survey for their business. In the late 1990s, white water rafting had started to become popular in Indonesia, mainly, after the success of the pioneer white water rafting operators in Ayung River in Bali, as well as Citarik and Citatih Rivers in West Java.

The founders believed that the opportunity was also there to develop a similar concept in East Java. Initiated by Agus Wijono, Didik Hendrianto and Imam Santoso, about 10 people agreed to start up the green business in white water rafting together. This initiative was realized after they had finished the feasibility survey and had come to the conclusion that Pekalen River in the Probolinggo district was suitable for white water rafting tours for all ages. Their initial capital amounted to IDR 17 million, with different share portions. With the start up capital they bought one rubber boat as investment to start up and rented additional rubber boats when they needed to serve more clients. In the first year, Mr. Agus Wijono went to Bali, participated in several tours and learnt from them how to manage and operate a white water rafting tour.

When they had finished the preparations and drafted the itinerary for the rafting tours, they started to promote their product through friends and community networks at first. The business grew fast and the number of visitor kept on increasing every year. In year 2011 there were 29.000 visitors, who purchased a white water rafting tour.
Vision and mission of Songa

Songa is a word from the Maduran language and means river. Actually, there is a big community of Maduran people living near Pekalen River. The vision of SONGA is to “become the great and professional nature and education tour operator in Indonesia”. To reach their vision, they follow a threefold mission: (1) Conduct education, training and human resources development activities; (2) Conduct effort and pioneer activity in nature conservation; (3) Create economic value for local empowerment.

To motivate the venture, SONGA has committed to share their value to the nature, and mankind. Below is the elaboration of the letters making up SONGA into the statement of commitment to share values of life:

1. **S – Spiritual**, the spiritual element is a base to create, work, and worship. This is the reason why integrity, honesty, and conformity with conscience are a must.

2. **O – Optimize**, hard work and optimizing of the resources in SONGA (human, nature and equipment) are required.

3. **N – Nurturing**, the existence of Songa and its associates shall increase value for itself, others and the environment surrounding SONGA.

4. **G – Greatness**, uphold the values of grandeur, persistency and strong determination to reach the goals. SONGA strives not only to gor but to become the best.

5. **A – Action**, realize the plan and dreams by real action.

Since the beginning, SONGA adventure has committed to green tourism development. As a pioneer in rafting operations in East Java, SONGA always maintains its adventure tour products with educational and recreational aspects.

Product development and growth

SONGA Adventure has chosen downstream Pekalen River for its activities, which is characterized by medium level stream currents, in order to minimize risks.

They rent land near the river bank from the community and utilize it as a place to receive guests and prepare for the tours using simple tents as home base. The number of visitors in the first year was encouraging and showed a good profit. Therefore, the shareholders agreed to raise additional capital and made a contract with the community to rent the land for a period of 10 years.

In preparing rafting tour packages some important things that will affect financing and pricing of the package are considered. Those include the safety of the tourists, the number of the people who will be involved in one tour, starting point, break point, the dangerous points and finishing point and land transportation between the starting and finishing points and the base camp.

Once the product and the prices had been fully developed, the next step was to promote their green tourism product to friends and own network. In order to attract friends in first marketing the products, they used a barter system. One was given free ride for a successful referral.

The number of visitors for the first and second year continued to increase, therefore, the founders conducted a visitor satisfaction survey by asked for feedback from the tourists.
Based on visitor feedback, they developed product diversifications such as outdoor management training activities (outbound) and built a simple guesthouse made of bamboo. The 1.5 hectares of land are now being leased for 10 years from the community. Toilet facilities, parking space and a small restaurant were developed in the third year. In consequence, the number of visitors further increased due to the diversity of the activities and the broad market segment.

The visitors also demanded Songa adventure rafting to open a new rafting route upstream of the same river. The challenging currents and higher levels of difficulty of the headwaters of Pekalen river are attracting many adventure tourists and more experienced rafters. In the fifth year the new route was officially opened, including the opening of the new management office. In 2011 the activities in the two routes of the same river were visited by 29,000 tourists, for one day trips or weekends with a combination of other outbound activities.

**Why is it green and sustainable?**

Starting from the early establishment of the company, the founders of Songa committed to conserve Pekalen river. Songa is working with local communities to maintain the environment in the headwater areas by tree planting and conducting clean river programmes to minimize impacts from tourism activities.

Songa is also strongly committed to involving the local community surrounding the area, not only as employees, but opening job opportunities through cooperation such as transportation management, food and beverage supply for the resort.

Currently, about 95 per cent of employees in Songa come from the local community surrounding Pekalen River. By 2011 the total number of permanent employees had risen to 115 people, with 40 people working as rafting guides who are specially trained. The rest work as security, rescue teams, kitchen staff, front office, office management, and gift shop personnel. Songa also employs about 100 free lance. which are hired to help out, especially in the holiday season. In addition, besides the fixed salary, employees also enjoy the incentives of each tour. The large number of employees and partners has incited the owners to form a cooperative. The cooperative assists in providing access to loans for members, and also provides basic needs for the family members. The founders provide opportunities for the local people to develop souvenir businesses, supported with a start up capital provided by the company. Currently, the employee cooperative is also able to provide soft loans to its members. This is one of the strategies in providing incentives for employees, who mainly come from the communities surrounding the Pekalen River.

**Challenges**

One of the biggest challenges when founding the company was obtaining permission from the local government. Considered as high risk adventure tourism, the local government firstly hesitated to issue the business license, because it believed it would adversely affect the local government.

After the founders could demonstrate the big market potential, their measures for human safety and environmental conservation and support for the local communities, the government finally provided full support. They issued a business license and helped by improving the quality of the roads leading to the
start, finish and Songa base camp. This certainly represents a major impact on the number of visitations, visitor satisfaction, as well as benefit to the local community in supporting their day-to-day activities.

**Lessons Learnt**

The lesson to be taken from Songa Adventure is that commitment and patience will earn good results. Entrepreneurs also need to conduct regular evaluations and develop new products, in order to improve management and increase the number of visitors. Community involvement is a key element in maintaining business continuity. Formation of an employees cooperative provides added-value to Songa Adventure managers and employees.

**TIPS**

- “Commitment and patience are the essences of a good business?”
- “Always strive to improve your management and your products.”
- “Community involvement is essential.”

**Photos**

Sources: www.songaadventure.com; direct interview 2012
Case Study: Eco Geko Experiential Tours and Volunteer Vacations - Bali

Background

"Selamat datang ke Bali nyata". Welcome to the REAL Bali!

Located in the ancient Kingdom of Pejeng, Swallow Guesthouse has been sharing the sacred culture of the spiritual Balinese people since 2006. It now offers affordable Eco Geko Experiential Tours and Volunteer Vacations to its customers.

Idea and start-up phase

Ten years ago, Suzan Badgley, a professor of English in South Korea, was inspired during her second visit to Bali to help support Wayan, an English speaking tour guide and visionary.

Wayan wanted to build a bird house and cultivate the nests carefully as to not harm the eggs and to increase the population that is presently threatened around the world. She, too, had a dream to live part time in this little paradise. They worked together to formulate their dreams.

After five years of waiting for the birds, the project has become a home for international guests. The large bird house has two separate suites, SUNRISE (for 2 people) and SUNSET (for up to 5 people). The swallows do continue to fly around the rooftop after their feedings above the rice fields. They keep the home free of mosquitoes as do the ducks and frogs.

It is a lovely and quiet house set literally in the middle of the ricefields: green in every direction! The house has been beautifully built and decorated. It is private and peaceful, which regularly attracts photographers/artists/poets.

The owner Suzan is eager to accommodate, friendly and knowledgeable, and knows a lot about Bali and its customs. Moreover, the guesthouse offers a big variety of organic and healthy food cooked by Putri the chef.

Product development and growth

The guests at Swallow Guesthouse enjoy learning about history, real Balinese culture, traditional cuisine, and handicrafts with local people in their village. The Guest house has now expanded these cultural experiences and linked with local NGOs, family and local community operated businesses and village chiefs to offer Eco Geko Experiential Tours and Volunteer Vacations.

ECO Culture Adventure Tours Swallow House Bali:

The tourist can learn to make coconut oil, try a chocolate massage, and snorkel with the manta rays, and enjoy healthy locally produced organic food from the surrounding gardens and rice fields. Furthermore,
they may trek or bike in the rice fields, take photos of historical and cultural events, learn to cook and visit Hindu ceremonies.

They can witness how tourism and modernity create both pro and con affects on an ancient civilization and are invited to take a step to make a positive influence.

Who and what:

The tour programme is for small groups (2-8), for families, university students, ESL learners and adult lifelong learners or those with interest in SE Asian Culture, education, history, organic, natural medicine, religion, sustainable living, community and environmental project development.

The guesthouse accommodation includes breakfast, access to potable water, western style toilets, hot water shower and internet access. Rate based on twin occupancy. A 10-day package is available including accommodation, meals and many, many real hands-on experiences with the local people.

Example of an eco tour experience:

Explore Ubud, the health and cultural centre of Bali, bargain at the craft market & local shops, watch long-tailed Balinese Macaques in the Monkey Forest Sanctuary, enjoy traditional healthy organic Indonesian cuisine and watch a cultural dance performance.

Trek through rice fields to Pesalakan Farmer’s Organic Co-op to assist in the cacao bean processing, visit a chocolate factory to learn how cacao is further processed into raw cacao powder and cacao butter, and sample real organic chocolate. Enjoy a spa treatment, massage, swim and jacuzzi in support of the Bali Hati Foundation.

Volunteering English conversation with the students at Pesalakan middle or junior high school. Have a chance to learn various cultural activities from the students such as the art of puppeteer, herbal medicine, dance, gamelan. Gather organic spices and prepare lunch. Visit Sai Land a family operated organic coffee and spice farm and learn how Coffee Luwak is cultivated. Try grinding coffee the old-fashion way!

Permaculture activities include: fruit and vegetable planting, mulching, weed clean-ups, making organic pesticides, garden beds, composting, and garden landscaping.

Bath with locals at Terta Empul, the holy water spring and temple created by Indra, the King of the Gods in Bali Hindu mythology. Scenic drive north through the rice terraces to the sacred location of Kunung Kawi, down 300 stone steps to discover the 11th century King’s sacred ceremony and meditation area.

Exploring the special areas and tribal villages in the surrounding hills and islands near the beach village of Padang Bai. Visit the ancient capital city of Klungkung and engage in a study project at the Kertha Gosa or Royal Court of Justice. Explore four beaches, swim and relax in the late afternoon in Padang Bai.
Why is it green?

From visiting the historic and sacred places in Bali to the villages and homes of the locals, the hands-on volunteer experiences for the tourist assist community sustainability, organic farming, permaculture, environmental and waste management projects.

Lessons learnt

During the hectic tourism development in Bali, this sanctuary has chosen a different way. Located in a quiet area with some distance to Ubud and far away of the fuss of Kuta, the business has developed a unique selling proposition and experienced its success.

As a green entrepreneur you have to discover ways to make your business special and offer a different experience than the mass market.

Photos

Source: Eko Geko Experiential Tours and Volunteer Vacations - http://www.swallowhousetrading.com/home
Case Study: Uncle Zhaxi: Sustainable Tourism in Tibetan Villages (Ganzi, Sichuan)

Background

Famous for its unique natural scenery and mysterious traditional culture, the mountainous areas in Southwest China have been attracting a large group of tourists, so it has been one of the most important strategies for the central and local governments to promote the development of the regional economy, transform the industrial growth model, and expedite the exchanges with foreign countries. However, the fast development of the tourism industry, and the construction of roads and infrastructure and consumption of wild animals have posed a major threat against the beautiful ecological environment and traditional culture in the local areas.

Located in the autonomous state Ganzi in western Sichuan, Danba County contains the Jiaju village, a Tibetan village with picturesque sceneries and the most traditional Tibetan appearance, and is reputed as the “Fairy World” in the Tibetan residence of Sichuan and Tibet, and was recognized as one of “China’s Most Beautiful Villages” by Chinese National Geography in 2004.

Located at the foot of snow-covered mountains and surrounded by stream valleys, Jiaju covers an area of about 5km² with over 150 households of Tibetan villagers. The village winds up from the Dajin Stream Valley and stretches to the foot of the snow-covered mountain. In the 1980s, because of inadequate arable land in these mountainous areas, it was difficult for villagers to sustain themselves by growing grains. This village once explored some methods to throw off poverty and set out on a road to prosperity. For instance, local villagers attempted to exploit the mica ores in the mountains, but the mine shop was closed because of the existing potential safety hazards and environmental pollutions; and planted apple trees, for which they had to face the fluctuating market.

For the past few years, the simple and unaffected folk customs and tranquil lifestyle have been attracting more and more tourists.

Idea and startup phase

In 2000, the village pioneered in developing tourism under the leadership of the local government. As an asphalt road was built to connect the village to the outside world, a small number of villagers in Jiaju took the lead to receive tourists.

Uncle Zhaxi was one of them. He had just retired from a government post, took the initiative in starting a private business and managed the Tibetan residence tavern business. At the very beginning, his biggest challenge was that he failed to adapt to the service industry, was inexperienced in running hotels, and was even embarrassed to charge clients because he had never done any business before.

After surmounting difficulties encountered in the beginning, he began to earn returns by carefully managing the tavern. Especially after the village was recognized as one of “China’s Most Beautiful Villages” by Chinese National Geography in 2004, the number of tourists has significantly increased, and the business performance of the tavern has also improved dramatically: the revenue from travel receptions increased...
from about 20 thousand yuan in 2001 to 100 thousand yuan in 2007. Moreover, many tourists have become his friends, and two walls of the tavern are covered with the photos sent by his customers.

### Product development and growth

“Establish systems and respond to challenges”

The promising future had not yet unfolded itself, vicious competition, environmental deterioration, shortage of water resources, among other problems in the village became increasingly severe, and tourism development in Jiaju was pushed to a crossroad. Where is the future of Jiaju?

After attending a series of ecotourism trainings and exchanges held by environmental protection organizations, villages began to realize that the environment played an important role in tourism development and they should never allow the current economic development of Jiaju damage the happiness of future generations.

Under the leadership of major businessmen including Uncle Zhaxi, Jiaju has established the Jiaju Tourism Society which is composed of all the travel reception households in the village and coordinates the contradictions between travel reception households as well as between reception and non-reception households. The society has drawn up rules and regulations in such aspects as the capacity of tourists that a household is allowed to receive and the maintenance of community environmental sanitation.

Uncle Zhaxi also sets an example to conform to the rules and regulations of the society, limiting the number of beds to 30. If the tourists exceed the limit, he would advise them to turn to other households.

However, Uncle Zhaxi also faces certain dilemmas. Most tourists are happy to follow his recommendations and stay at a reception household as advised. In cases when the service or standards of the accommodation is unacceptable, some tourists then hold Uncle Zhaxi accountable, which is upsetting. He believes that the local tourism industry will only last if it can cater to a large amount of people, and therefore when his own reception house is full, he recommends other households.

Uncle Zhaxi believes that by doing so, other reception households will help non-reception households participate in travel reception in different ways, so as to achieve common prosperity for all.

“Get support from the government and sustain the development”

The successful example set by Uncle Zhaxi and other households has attracted more households to become involved in the reception of tourists. At present, among the over 160 households in the villages, one third are capable of receiving tourists, and the rest can also receive benefits from the ticket revenues.

To help villagers improve their reception quality, Danba Tourism Administration and many other authorities have also adopted a number of supportive measures: organizing reception households to attend trainings related to tour guide interpretations, services and sanitations; improving infrastructure such as water supply, power supply and roads; inviting architecture experts to design villagers’ residence renovation plans; providing low-interest loans for villagers to help them renovate housing into spacious and bright guest rooms with a strong Tibetan flavor.

Nowadays, many tourists come to Jiaju to experience the Tibetan culture. “Tourists are particularly interested in Jiaju’s history and legends, so we explain to enhance their understanding of the Tibetan
culture.” Villagers said, “A majority of the young villagers serve as narrators and performers, and many of them have received professional trainings.”

Villagers pay more attention to the future development than the short-term benefits. Uncle Zhaxi said, “To attract more tourists to stay, we will build more comfortable guest rooms; hire professional Tibetan cooks to prepare more diverse and exquisite Tibetan food; continue to collect, sort out and narrate folk legends in the village, so that tourists will enjoy lasting picturesque sceneries, diverse delicious food and more and more stories.”

Why is it green and sustainable?

As pioneers, Uncle Zhaxi and his partners, in face of the returns and problems of start-ups, chose to establish a society to promote industry self-discipline and standardization and avoid vicious competition and damage to the ecological environment. Their practice of achieving mutual benefit between communities and protecting the environment has laid a vital foundation for their long-term profits.

Challenges

He recalled, “The work did not go well in the very beginning, because nobody had ever engaged in receiving tourists, and no one was willing to do it”.

Also, on the downside, the tranquil fairy world became boisterous as tourists continued to flood in. Villagers rushed to build houses to increase the reception capacity. As a result trees in the surrounding mountains were excessively cut down. Tourists brought not only economic development to this Tibetan village, but also certain environmental problems which challenged the environment and traditional folk customs that featured the harmony between man and nature.

Lessons learnt

In many areas of Southwest China, due to the lack of complete and rational tourism plans and that of the ecotourism consciousness and skills among local community residents, tourism development has exerted obvious negative influences on the local traditional culture and fragile ecological system.

To some extent, this case also reminds us that the contradiction between ecological deterioration and local community culture is one of the risks that ecotourism entrepreneurs should pay special attention to and try to avoid. If we are blinded by the market and profits, and deviate from the development principle of environmental sustainability and respect for the local culture, it will be nearly impossible to achieve final success.

Source: ILO – Green Business Option 2012
Case Study: Boxue Ecological Village (Haikou, Hainan)

Background

Boxue Village is located in Yongxing Town, Xiuying District, Haikou City, Hainan Province. It has only 300 residents, who are traditional farmers and mainly live on planting lychee, wampee and other tropical fruits. There are stone houses boasting a history of over 200 years in the village and verdant forests around it. Under the influence of the market economy, almost all the young villagers have left to work in other places. On most days, you can only find the middle-aged, the elderly, women and children in the village, giving a sense of forlornness.

Idea and Startup Phase

In 2008, Chen Nan, the first university graduate of the village who now works for the media, went back to Hainan for an interview and stayed there for a month. What impressed him the most were not the scenic spots or hotels, but the reality of “a rich tourism island with poor islanders”. To him, in the over two decades since Hainan became a province and a special economic zone, the tourism industry has become its main industry, but more and more residents on the island have been marginalized and unable to enjoy the development benefits and profits, which was true in his hometown Boxue Village.

In 2009 Chen Nan visited Taiwan and there he found a village called “Taomi Ecological Village”. In this village, villagers built guest houses and rented them to college and university students, and the economic benefits brought about by nearby colleges and universities helped the operators to alleviate financial pressures; some used guest houses for developing tourism, attracting more and more visitors from other places of the island and other parts of the world to experience ecotourism and ecological holidays here. One fifth of the villagers were engaged in ecological industries, and the others kept running traditional agriculture, but enjoyed the benefits indirectly from ecological industries because ecotourism had appreciated agriculture.

“An ecological village can directly become a tourist and vacation destination. The rural lifestyle is more and more embodying the ‘beauty’ and ‘happiness’ that present-day people dream of. As long as the nest is well built, hens will be attracted to lay eggs here.” After careful consideration, Chen decided to transfer the experience in Taiwan to Boxue Village, his hometown, hoping to help the villagers to gain true benefits and share interests with the entrepreneurial actions of ecotourism.

Chen Nan went back to his hometown Boxue Village and invited some villagers to discuss how they could realize common prosperity and asked all villagers to vote to set up the Boxue Ecological Village Development Council. The council is a multi-purpose cooperation platform aiming to integrate resources in the village and seek cooperation with the outside world. The government, the society, enterprises, non-profit foundations and individual citizens can all contribute their wisdom and strength to the platform to build a “place with dreams”.

“We expected to organize the capable villagers in this way to do something!” Chen said, “We aimed at transforming Boxue Village from a traditional village to a tourism education base integrating organic agriculture, ecological conservation and the leisure experience, which is dedicated to creating a lifestyle
that is sustainable and represents an effective and feasible way of solving the gradual degradation of the social, ecological and spiritual environments. With dreams, people will have a future and will not be marginalized.”

In terms of the development pattern, Chen and villagers prepared the development and planning blueprint for the village, i.e., the “3-circle development mode”.

The first circle is the “homestay-farmhouse” tourism. The ancient village would be renovated and become the innermost circle. The houses made of volcanic stones which have a history of hundreds of years in the village would be renovated into “guest houses” with distinctive features and a taste of “homestay-farmhouse tourism” to attract those who are interested in experiencing the villages in the volcanic areas in Haikou to come and enjoy their vacations.

The second circle is the sports leisure tourism. Surrounding the ancient village, a 3km-diameter mountain biking lane would be built and made into a star cycling lane in the suburbs of Haikou to attract cycling fans to relax and exercise here and to drive up consumption. In the orchards at both sides of the cycling lane, farmers are encouraged to build farms with self-employment so as to enjoy the fruits of economic development to the greatest extent.

The third circle is the outer area of the cycling lane, which is open to cooperation and investment for tourism or real estate projects. It is discussible as to whether to invite farmers to participate by shares with their lands or to rent lands from farmers.

Entrepreneurs hoped that they may take the road of independent development instead of the usual mode of introducing developers, so as to stimulate the villagers’ awareness of independent development and their initiative.

At the end of 2009, Chen Nan wrote a letter to Wei Liucheng, then secretary of CPC Hainan Provincial Committee, and to all its standing members, in which he illustrated his dream and concepts of building “Boxue Ecological Village” and the designed development path.

After Mr. Wei received the letter, he forwarded it to relevant leaders in Haikou, which won Boxue Village certain government recognition in its later development.

The villagers finally succeeded in making “Boxue Ecological Village” the “pilot civilized ecological village” in 2010, receiving some capital from the province, the city and the district. Following the instruction of Chen Ci, secretary of CPC Haikou Municipal Committee, governments at the municipal and district levels allocated 600,000 yuan to help Boxue Ecological Village dig a deep-water pumped well, build a reservoir, and install the water pipes to households and into the fields, solving the problem of water shortages for domestic and production purposes. In June 2011, the inauguration ceremony was held for Boxue Ecological Village Culture Room upon its completion with the 200,000 yuan-donation from Xiuying District People’s Government.

Besides seeking government support, the entrepreneurs in Boxue Village also received some small amount of funds from non-profit funds, social venture projects and opportunities for talent training; and by cooperating with some citizens’ groups like Hainan Cycling Association, that opened new market channels and expanded the sources of potential clients.
In 2011, the entrepreneurs mainly sought to interact and cooperate with the financial institutions in Hainan. Chen Nan expressed that they expected the financial institutions in Hainan to provide better targeted products for the farmers to build restaurants and guest houses in the ecological village.

Product development and growth

Boxue Ecological Village has developed a series of tourism products.

Model 1: Home of Scented-rose Wood – a distinctive product of rural leisure holidays

The first “pleasure-in-farmhouse” product launched by Boxue Ecological Village is Home of Scented rose Wood, which is named after local specialty scented-rose wood. It has also made “volcanic village cuisine” featuring black goat hotpot and pheasants raised in lychee gardens its specialties. There are also fresh vegetables harvested from the volcanic soil. In winter, the specialty is hotpot, which is simple, easy to make and full of the rural flavor.

To run the Home of Scented-rose Wood, a fresh college graduate has returned to Boxue Village to serve as the general manager. Before assuming the post, he worked in the cafés and restaurants in Suzhou and Shanghai to accumulate experience in business operations and management in the catering industry.

While developing local cuisines, Boxue Village also developed local guest houses in the ancient village. Villagers invited professional designers to build guest houses and yards with distinctive local characteristics, and to show local volcanic stones culture, most of the guest houses and yards are decorated with volcanic stones. The total investment amounted to about 750,000 yuan.

Themed on the concept of “birds’ migration”, guest houses are built mainly to attract customers from North China and provide residence services. The guest houses include the following types:

The phase 1 lodging in the Home of Scented-rose Wood includes two main rooms and eight guest rooms in five categories, namely:

- 2 wide-bed guest rooms: each may accommodate 5-6 persons, rent by day, 120 yuan for a night, suitable for student groups, families and other small groups;
- 2 first-grade standard rooms: 158 yuan for a night, rent by day or by month, and the monthly rent is 2,000 yuan/ room;
- 2 first-grade big-bed rooms: 158 yuan for a night, rent by day or by month, and the monthly rent is 2,000 yuan/ room;
- 1 high-grade standard room: 228 yuan for a night, rent by day or by month, and the monthly rent is 2,500 yuan/ room;
- 1 high-grade standard room: 258 yuan for a night, rent by day or by month, and the monthly rent is 3,000 yuan/ room;

A public kitchen is provided for customers who rent the guest room(s) by month to cook independently or together. Customers may plant their own vegetables in the fields, or buy vegetables from the villagers to experience the life in a lychee garden.
Model 2: Cycling tourism - a sports leisure product. In 2010, the first rural mountain biking lane in Hainan Province was launched in Boxue Ecological Village and put into use. The project cost nearly 100,000 yuan which was all raised and borrowed from villagers. A 4km track was developed on the land voluntarily donated by villagers. Relying on themselves, the villagers worked together to complete the track within a short period of 3 months.

The biking lane is 3.5 meters wide and runs through a primitive lychee forest, a natural secondary forest, a modern lychee garden, a wampee garden, a tangerine garden and a chayote garden. Cyclists can feel the primitive forest and rustic landscapes and the simple folk customs here.

After the completion of the single-lane track, Boxue Ecological Village won the right to hold the first session of the 2010 Hainan Cycling League, an event hosted by Hainan Cycling Association. A fashion cycling event to be held in such a poor village was covered by provincial media and the central media branch in Hainan, immediately attracted great attention, and made the single-lane track and the village known to more people. On November 13, 2011, Boxue Ecological Village undertook the mountain biking race of Hainan Cycling Championship which was hosted by Hainan Department of Culture and Sports.

Model 3: 100% natural honey – an ecological agricultural product

Boxue Ecological Village has great honey resources, based on which it has developed a series of “100% natural” honey products including lychee honey, longan honey and flowers honey. To open market channels, entrepreneurs opened an online shop on Taobao (http://boxuecun.taobao.com/) and seized nationwide opportunities to exhibit organic food to sell their products and build up product reputation.

After more than 2 years of hard work, the brand of Boxue Ecological Village has been initially set up, which began to attract due attention from the local government. Xiuying District People’s Government provided the village with financial, HR and material support. The district government invested 200,000 yuan to renovate a rural cultural activities center and to renovate the village square. It will be a new chapter in the infrastructure construction of Boxue Ecological Village, following which a group of hardware projects like ancient village restoration and conservation, honeybee museum, Boxue reading bar, family hotels and rural restaurants will be launched in succession.

Why is it green and sustainable?

“Set eyes on long-term development, make further progress”

In November 2010, Chen Nan took the lead to set up Haikou Rural Ecotourism Association. In the future, it will serve as a platform with Boxue Ecological Village as the base to organize training sessions for Haikou operators in the ecotourism industry, to cultivate talent for Boxue Ecological Village and other ecological villages in Haikou. It is planned to invite experts in rural ecotourism, managers in star rated hotels, media operators and professionals from the cycling association, experts in biodiversity and honeybees, architects, planners, artists and writers to give lectures to local farmers. In the meanwhile, trainings on and certification of family hotel businesses, ecological tour guides, homestay-farmhouse tourism and ecological handicrafts were launched for the farmers.
Challenges

With the development blueprint drawn, the greatest challenge became the lack of capital. Entrepreneurs did not have large amounts of capital, nor were they willing to introduce developers from outside, under which circumstance they studied policies and tried everything possible to obtain government support, while searching for sponsorships through a number of channels.

Lessons learnt

In this case, the most prominent element is how to find the distinct features of tourism products and make product features more distinct while marketing and competing for support in a variety of forms.

In terms of product features, entrepreneurs kept firmly to two points: first, the features of the village being “ancient” and “ecological”; and second, the honey with distinctive local features, centering around which a series of products were developed.

In terms of product marketing, entrepreneurs extended their product information to groups that might be interested in their products via public events (such as the cycling race), media publicity and the Internet, among a variety of forms.

In terms of competing for support, entrepreneurs have not only realized the active participation of villagers in democratic forms, but also grasped policy orientation and opportunities and won government support, which has laid a solid foundation for the entrepreneurship.

Source: ILO – Green Business Option 2012
Case Study: Respect for Local Communities and Ecological Development (Nanling, Guangdong)

Background

Located on the border of Guangdong and Hunan, Nanling is the largest state-level forest park in Guangdong Province, and a place with the highest altitude in Guangdong. It is also the watershed of the Yangtze River system and the Pearl River System. Nanling boasts biodiversity, having the largest area of primitive forests and the largest reserve of species in Guangdong. It used to be a reserve for the South China Tiger, and is the habitat for macaques and black bears. It also has a forest farm built in 1908, which accommodated over 30,000 people in its heyday. But due to industrial restructuring in China, i.e., from chopping trees down, planting trees, conserving the forest for ecological protection, its population has shrunk to more than 2,000 now.

Idea and startup phase

The following is taken from a speech made by Chen Xujun, ecotourism developer in Nanling and famous expert in the ecotourism industry.

“As a tourism developer, I believe that ecotourism is a way of travel which is most closely combined with sustainable development I have ever seen. However, ecotourism in China has become a “slogan” and “label”. Everything is said to be ecological. I once saw a business advertisement in Sichuan, in which it stated “ecological hotpot”, and that confused me for quite a while; in the north of Tianhe River, there is a real estate project named “ecological building”. Is it because especially more trees are planted there or environmentally friendly and energy-saving materials are used? Neither. It is called that way because it catches the attention of everybody, so every commodity is said to be related to ecology.

The Chinese people, should truly discuss why “ecological” is often misused. The fake and shoddy will drive out the authentic, and it is called “bad money drives out good”: when there is too much counterfeit money circulating, real money will be driven out of the market.

Against such a background, in the summer of 2004, I came to Nanling as the managing director of Nanling Zhongheng Ecotourism Development Co., Ltd., determined to overthrow the “mainstream” mode of development. I expected to build a huge regular triangle amidst the 273-km2 mountain in Nanling, with the three angles representing nature conservation, community development and economic efficiency respectively.

Product development and growth

Relocate local people or not?

In the development contract signed with the local government, it expected to relocate the local people from Hexi District to Hedong District, so that an area of 500 mu in Hexi District would be open for our development, but would completely separate us from the local people. However, after conducting the field
survey, we decided to turn down the offer and retain the atmosphere of the community. Why? As we have traveled to many places in China, we find that many developers are good at transforming miracles into decay and have forcibly occupied many advantageous resources. By ringing mesh wires, building up high walls and great yards, and raising many guard-dogs, they drive out the former residents. Developers and local residents fail to straighten the relations between each other, and residents react against developers.

Such a traditional development philosophy does nothing good for the local people, tourists or developers. As the project in Nanling will last for 50 years, if neighbors of the scenic spot remain poor wretches in such a long period of time, and do not keep abreast with our development, we will be in great danger. On the other hand, a tourism product with relatively profound connotations must consider the social connections of the local community itself.

Build the highway or not?

As stipulated in the contract, the government required us to build a highway to the highest mountains in Guangdong as well. By then, they had completed about 10km of the total length of 17km, but we decided to cancel this project after we arrived.

Because the construction was at the expense of forests which had grown for hundreds of years, we felt that we could not do that. For one thing, there were political risks. Though the incumbent administration asked us to build a highway, what if its successor values the scientific outlook on development and require us to protect the environment? For another, there were business risks. To some extent, driving up the highest mountain does not constitute being close to nature. Man should walk up towards the mountain top, not reach it by helicopter or car. We should never hold the attitude of “I come, I conquer” to the great nature. We will keep the completed part, and reasonably handle the rest.

Build new buildings or not?

We decided not to construct new buildings for both community development and nature conservation reasons. We simply changed a shabby hostel into a hotel where a majority of people could live comfortably. Even the dormitories for workers on Ruyang Forest Farm are now renovated into a youth hostel with a tasteful pub, and a terrace will be constructed so that everybody could drink tea and wine, and chat there.

How to handle relations with the community?

We Chinese people attach great importance to “proper time, place and people”, but I think the order should be inverted. “Proper people” are something we can be most certain about; “proper place” can be understood and known with the help of our own wisdom; and “proper time” can only be awaited.

From the perspective of probability, the order should be “proper people, place and time”. When implementing this project, our top priority was to integrate it into the community, seek its sympathetic response and spur its development at the same time.

We figured out some methods to spiritually mobilize this community and found a breakthrough point - “Nobody says no to happiness”. In 2005, by cooperating with the Consulate General of France, we introduced, to Nanling, an exchange program of the China-France Culture Year. By so doing, we reformed the conventional practice of holding the culture programme only in urban concert halls, art galleries and exhibition halls; instead we introduced the culture programme to the folks, fields, mountain streams and wild forests. Specifically, the Consulate General of France paid to invite 4 French artists to stay in Nanling for two months and conduct artistic creation together with the local people. Our requirement was that
Nanling should be viewed as the focus point of the stories, not just a place for artistic creation, and the artistic creation should embody the unique characteristics of the land.

They called to organize an art troupe, delivered lectures, played old movies, got aquatinted with the museum and library of this community, held a community summer camp, collected the oral history about the community, and offered local education of loving Nanling and their native land for children in Nanling. All of these were activities to stimulate the community confidence and vitality. In the past, children in our community would hide themselves at the sight of foreigners, but now they would take the initiative to go up and say “hello” to foreigners at the sight of them.

I also invited some journalists to collect the oral history. The first group was to collect stories from those aged above 70 years old: why they came and settled in Nanling; their love stories; their family stories; what Nanling was like during the “Culture Revolution”; what the “Great Leap Forward” was like; what the “Cultural Revolution” was like; what Nanling was like after the reform and opening up... By telling and listening to the stories, confidence can be expressed. Their grandchildren are unwilling to listen to their nagging, so now they pulled the journalists to visit the places where they used to work and cook. This has reshaped their confidence and also enhanced our understanding of this land. Besides, we collected local buildings, old photos, old articles, and will build a museum to display all these items. I pay great attention to collecting the oral history, because I am sensitive to culture and interested in buildings.

I believe that one should go beyond “tourism” when undertaking a tourism project.

One should be able to “fall in love” with sociology, anthropology, architecture, art, education, medical treatment, etc.

How to spur the development of the community?

We have established a special community development department to take charge of community communication and supportive affairs, which endows our product with much profounder connotations.

Take our family hotel project for example. Not all tourists want to dine in a restaurant. We can diversify the product structure and levels to meet the requirements of our target customers, providing them different experiences. I am always convinced that “nobody says no to happiness and benefits”. In real practice, we didn’t lecture about it: what has to be done when running a restaurant, the do’s and don’ts... We held several meetings, at which we sat together and chatted. “Now that you have the desire for the enterprise, what scale would you like it to be? What cuisine would you cook? Are you good at it? Do you focus on clients in Guangzhou, Shenzhen, the local place or Dongguan? Do you know their tastes?” Finally, we decided together the development direction of the restaurant and helped decorate the house, make purchases, deal with the publicity and marketing, as well as collect suggestions and advice for improvements.

Why pay attention to the cooperation with social organizations?

I hold that an enterprise has diverse social roles. On the one hand, it follows the development law of the commercial economy such as efficiency and product development; it is a social entity and has to play its social role; on the other hand, it can cooperate with NGOs and seek mutual innovation. For example, they can cooperate with artists and scholars to inject new connotations and elements into the product.
How to conduct self-positioning?

It especially focuses on how to shape enterprises’ sense of social responsibility. Winner of Nobel Prize for Economics Friedman once said, “The social responsibility for starting an enterprise is to make profits”, to which I disagree. I think a qualified entrepreneur should remember three points: seek wealth properly, get it justly and use it soberly. Products have to meet the spiritual needs of man, just as some buildings would move visitors to tears. I had this feeling in the Roman Pantheon and Greek Acropolis.

A vacation land should be a great spiritual site, not just a scenic spot, just as India and Nepal can both please tourists’ senses and touch their heart. City dwellers like us find our eyes impaired by ugliness, noses irritated by sinister air, and souls occupied by excessive materialism.

A great entrepreneur must have three traits, namely innovativeness, rationality, dedication and cooperation. He must have such an insight and the capability of changing the commonness into miracles, because every piece of land is extraordinary. By analyzing it meticulously, one can figure out stories, biodiversity and usable and protectable aspects from it. However, many tourism products in China are changing miracles into decay, and the pure quantity economy has been spoiling a competitive product. Why do I go against “creation with a large sum of money”? Because the message beneath it is to disregard the wisdom and never carve products exquisitely.

Why is it green and sustainable?

The tourism development in Nanling follows sustainable principles regarding the natural and social environment. For the latter, the local communities are being well respected and actively participate in the planning, implementation and operation process of the tourism project. The local community is given the opportunity to benefit from the overall tourism development by being made the main subjects of tourism and the tourism activities. They offer local food and other local products, as well as eco-tourism activities which brings them an additional income. When it comes to the natural environment, conservation is put in the forefront, before profits.

Challenges

How to deal with governmental officials?

In practice, an entrepreneur can never deter the government, and has to come into contact with them, because they are close stakeholders. Government officials seek political achievements, GDP figures and quantity.

I have once told the officials of Shaoguan, where Nanling is located, “as we are in the most backward area in Guangdong, despite catching up with them barefoot, we cannot keep up with Guangzhou, Dongguan and Nanhui. If you compete with them in GDP according to the game rules in the Pearl River Delta, you have no chance to get promoted. Wouldn’t you like to learn from those officials who prefer environmental protection to GDP, and are responsible for future generations? Such officials have got promoted. It says so in the People’s Daily.”
How to straighten the relations between planners, developers and the government?

It’s not a matter of winning or losing. When doing any business, you should consider the stakeholder interests as much as possible: how would they think? What interests do they desire? All these can be done through repeated consultation, compromise and reform of your thoughts... It’s easy for one to stick to one thing, but difficult to give it up, and persuade someone to give up on something. In China, the needs of architects, builders and consumers should be taken into consideration simultaneously.

On the contrary, when the foreign planner first came, he rolled up his pants and went into the river together with us. After spending 15 minutes in the middle of the river, he said, “I just want to feel and perceive the land”. Every second in China they used to perceive the site. Ridiculously, domestic planners are always on the plane, and spend much shorter time than foreign planners on perceiving the site. You can see their different attitudes, as determined by their dedication to the project. If I were a consultant, I would ask to read the local county annals, visit communities, and prepare a long list of materials I need them to collect for me. Skills are necessary, which you can attain after seriously doing something.

Lessons learnt

How can entrepreneurs position the ecotourism development in Nanling? An ecological and sustainable project is just like a love triangle between nature, community and commerce as well as a social practice --- how to give a declining community more choices in the new economic situation. Despite the good market reaction, if they would like to keep it in the long term, entrepreneurs should steadfastly and earnestly keep going. It is enough to do little things one by one. “Proper time” can be awaited, so they should firstly deal with the “proper people and place”--- complete the tasks at hand before talking about anything else.

Source: ILO – Green Business Option 2012
Case Study: Lao Zhang’s Farmhouse tour in Jingyuan County of Ningxia Autonomous Region

Background

Zhang Qiang was a new college graduate who majored in marketing. His hometown was in the Liupanshan Mountain. This was a quite remote place with inconvenient transport that was quite backward. Zhang Qiang’s family was quite poor and he would not be able to finish college without student loans and part-time jobs. After graduation, he was employed by a local company. He cherished the job very much and worked very hard, trying to learn as much as possible. After two years, he became the best and highest paid salesman in the company.

Idea and startup phase

During the Spring Festival of 2008, Zhang Qiang went home and he found that great changes had taken place in his hometown. The government encouraged the development of local ecotourism and the Laolongtan Forest Area near his village became a famous tourist spot of Ningxia. In Laolongtan, the local community became better off because some people took advantage of their own hilly land and forestland to offer farmhouse tours for tourists. They sold local food and provided farmhouse accommodation, which turned out to be very popular. The change in the hometown inspired Zhang Qiang. He thought: “Indeed, I have earned some money in these years by working for my company, but this cannot completely change the life of myself and my family. Why don’t I start my own farmhouse with the money I have earned over the two years and the sales skills I have got? Starting my own business promises a brighter future than working for others.” He told his idea to his family and received much support. After the Spring Festival, he decorated his old farmhouse and invested over 10,000 yuan to purchase furniture and other necessary articles for his business. After a month’s preparation, his business started. He called his business “Lao Zhang’s” and put up a notice beside the highway near the entrance of the village.

Product development and growth

Unexpectedly, his business didn’t go well at first. After some time of anxiety and confusion, he calmed down and thought over why his business failed so far. He found out that there were two reasons. Firstly, he had no stable customers. Secondly, his business was not diversified enough and had no unique features. Having found out the problems, he took immediate actions and called at the tour agencies in the city, trying to persuade them to make his farmhouse a destination on their package tours. In the meantime, he bred chicken and rabbits in the hills for his family. Tourists could choose one from them to eat. In addition, Zhang Qiang bought wild herbs and mushroom from farmers, packaged them and sold them at a relatively higher price. With these efforts, Lao Zhang’s Farmhouse became more and more popular and many customers arrived. They spoke highly of Zhang’s business that was finally established.
Why is it green and sustainable?

In spite of this, Zhang was not satisfied. In 2009, he used what he earned to build several wooden cottages in the forest and transformed them into fully-equipped and agreeable guesthouses. This service was very popular with tourists and brought Zhang much profit. In 2010 his business got a profit of over 300,000 yuan. He became a star entrepreneur; he was received and praised by local leadership. Now Zhang Qiang has an ambitious plan. He wants to seize the opportunity of collective forest ownership reform and establish an integrated tourism enterprise which can offer services of farmhouse stays, forest tours and environmentally friendly experiences.

Challenges

Zang had to face a difficult time when starting up his business, the lack of customers and income made him almost give up his dream. He realized that he just could not offer anything special to the tourists. However, by rethinking his business plan and developing unique products, Zhang was able to turn his business around.

Lessons learnt

Conducting market research is indispensable before starting the business and is the first step to the road of success for any enterprise. Beyond the initial market research, entrepreneurs must make constant analysis and judgment on the market changes and come up with new products and services to meet the needs of consumers. Entrepreneurs should make full use of their knowledge and experience when managing their business.

Source: ILO – Green Business Option 2012
SRI LANKA

Case Study: Heritance Kandalam Hotel

Background

Heritance Kandalama is an architectural intervention of the world renowned architect Mr. Geoffrey Bawa. It represents a unique Green Philosophy that makes visiting this Hotel a unique opportunity for tourism. The Heritance Kandalama, which is LEED\(^1\) certified, has won awards as one of the most eco-friendly hotels in the world and by far it is well conceived that this is the most environmentally friendly hotels in Sri Lanka.

Product development and green business initiatives

Green architecture

The entire hotel is built upon a raised platform resting on columns, allowing surface runoff and spring water to flow freely from the mountainside into the Kandalama Lake. The most distinguished feature of the hotel is its natural landscape. Native plants and the ground characteristics have not been disturbed at all. No fauna and flora have been introduced from outside. The interior design has accommodated utilization of maximum amounts of natural light and ventilation thereby enabling energy conservation to its maximum.

Environment conservation

The Heritance Kandalama is committed to conserving and protecting this unique natural and cultural environment for the benefit of future generations. Protection of bio-diversity and ecosystems through well-protected sanctuaries and non-invasion of natural ecosystems and habitats, non-interference with components of the natural ecosystem is strictly observed.

The ancient lake and the forest next to the Hotel remain in their near-pristine natural state, unpolluted irrespective of the presence of this Hotel.

Biodiversity protection & conservation forests

Heritance Kandalama has enriched the forest cover through reforestation and conservation. Land use planning is carried out to retain the original state of the environment. In order to prevent deforestation the hotel has invested in creating a conservation forest of over 200 acres. This includes parts of the land within the hotel premises and a dedicated forest conservation of 198 acres. The hotel itself supports the natural environment with least disturbance and even has allowed primates to use green spaces of the hotel. No plants have been introduced by the hotel even for landscaping; only plants that are native to the area have been used, which is essential in retaining the natural habitats of the wildlife. There is no disturbance to the wildlife caused by day-to-day operations of the Hotel, which by itself has organically transformed to become a part of the natural ecosystem paying host to a number of species.

\(^1\) LEED stands for Leadership in Energy and Environmental Design and encompasses various rating systems for the design, construction and operation of green buildings, homes and neighborhoods. It is issued by the U.S. Green Building Council (USGBC).
Conservation forests act as a carbon sink and has recorded impressive biodiversity indicators:

- 128 species of native flora;
- 183 species of birds;
- 19 species of reptiles and amphibians;
- 17 species of mammals;
- 64 species of butterflies;
- Dragonflies and a large number of land snails.

Environment education

The hotel has a large number of visitors that consists of students from schools and universities, researchers, environmental NGOs, community-based organizations, policy makers, journalists and the general public including the villages and all other interested parties visiting the Eco Park for environment and conservation education programmes.

Eco Park

The Eco Park demonstrates good practices in waste management and resource conservation while educating the general public and guests. It includes, a waste separation centre, a sewage treatment plant, a plant nursery and herbal garden, an eco museum, a library and recycled waste paper making with elephant dung. A total of over 1.75 million visitors have visited over the years.

Energy, water and waste management

Saving energy:

The hotel keeps checklists; monitoring records are maintained and audited through internal audits as per Environmental Management Systems which have been certified for ISO 14001 and Earth Check Silver certification. Targets are been set and revised and monitoring is done for continuous improvement. Monitoring of performance is done through comprehensive forms filled on a monthly basis. The Hotel has joined the Responsible Tourism Partnership and Sri Lanka Sustainable Energy Authority Greening Sri Lanka Hotel program and the methodology was also adopted to improve the data collection and analysis.

Heritance Kandalama received a special certificate from the Ministry of Environment, Tourism and Energy for ‘Exceptional Contribution to Environment Conservation demonstrating continued efforts in Optimizing Energy Efficiency and Natural Resources Sustainability in Sri Lanka hotels industry in 2010’.

Renewable energy:

The dendro power plant is one of the notable initiatives that the Hotel has embarked on recently. Dendro power is the generation of energy from sustainably grown fuel wood. This source of energy derived using sustainably grown fuel wood can be effectively used to replace the use of fossil fuels for electricity and/or steam generation and can also deliver numerous environmental and socioeconomic benefits. The amount of carbon dioxide emitted is drastically reduced due to less use of fossil fuel. Valuable foreign exchange spent to import fuel is saved. Furthermore, the community can derive financial benefits by supplying wood, Gliricidia, to be used as the raw material. Apart from this benefit, abandoned and fallow lands are fertilized naturally when Gliricidia is grown as a mixed crop as the nodules in the roots of this tree nitrogenize the
soil. The leaves provide fodder for livestock which will again raise the income for the villagers and increase the milk supply in the area thus contributing to better public health. The leaves if not used for livestock can be used as mulch to fertilize the soil, prevent erosion and prevent drying up especially in the dry zone.

Water saving:

The Hotel is surrounded by the 1700-year old reservoir, which supplies water to cultivate over 12,000 acres of rice paddy farms. The lake water has never been used for the Hotel even during the construction period, thus avoiding any conflicts with lake water users. Water for hotel operations is obtained from deep tube wells, and safe and sustainable rates of extraction has been established. In addition, rain water is harvested from a maze of gutters. Notably, 100 per cent of wastewater is conscientiously recycled and reused resulting in the prevention of water pollution and at the same time reducing the fresh water use.

Waste reduction, recycling and reusing:

The purification process at the wastewater recycling plant ensures that effluent discharged out of the system is clean enough to use for gardening purposes. The dried sludge, treated to ensure its safe use, is a good organic fertilizer that can be used together with compost which makes 100 per cent natural fertilizer by combining with garden waste and other natural materials. Our purification processes are regularly checked by scientists from the University of Peradeniya, to ensure compliance with the highest possible standards.

Almost all the waste is recycled and turned to a resource. No waste is dumped. Home grown concept of a 7R principals for zero dumping of waste, viz., Reuse, Recycle, Reduce, Reject, Replace, Repair, Reclaim recycling & conservation System is in operation and this creates zero waste. This is made possible with the hotel’s policy of least packaging or appropriate packaging. Hazardous waste is handed over to CEA-certified collectors.

Helping local communities

The hotel has invested in infrastructure to facilitate the provision of electricity for over 750 families, access to safe drinking water for over 600 families and has built a 6.5-km access road for public use. This has created new opportunities for the villagers to exploit, and has resulted in an array of positive impacts in boosting basic services to drive economic activities in the village.

Economic benefits for the community:

The hotel provides career opportunities for more than 220 employees from local communities on a full-time permanent basis. The hotel makes special efforts to train and recruit unemployed youth from the surrounding villages and also gives the first preference to neighboring communities when outsourcing operations for goods and services.

In addition, the hotel provides opportunities for local craftsmen/women to sell their crafts and other produce. Also, the hotel regularly invites traditional artists from the local communities for cultural shows and events held at the hotel. The artists are thus encouraged to develop and promote traditional Sri Lankan art forms while earning a decent livelihood.

Helping Schools in the neighborhood:
There is a network of 39 schools (in Dambulla Educational Division) that the hotel supports regularly. Programmes and seminars have been conducted for teachers and students on environment-related themes and has initiated a number of environmental projects for school children to participate in, such as tree planting, bird watching and reporting instances of injuries to wildlife (injured animals are been treated by the hotel and released to the wild), preventing soil erosion and also street cleanup. One of the special areas where awareness campaigns were carried out was converting waste into resources. A large number of schools have been provided with classrooms, books, desks, chairs and other school equipment. These schools benefit each year from our broad-based CSR activities.

**Gender equality**

The hotel promotes empowerment of minorities and women, and recruitment is done only at the age of statutory employable age. Career development is purely based on performance and talent. The ratio of basic salary of men to women is equal and the company was one the first to sign the United Nations Women’s Empowerment Principles. These principles comprise actions that advance and empower women in the workplace, marketplace and community, and communicate progress. The Women’s Empowerment Principles - Equality Means Business, an initiative by The United Nations Development Fund for Women (UNIFEM) and the United Nations Global Compact were launched at the UN on 8 March 2010.

**Lessons learnt**

Even though the Heritance Kandalam is a big resort, there are many elements of its strategy for environmental and social sustainability that can be implemented in small and micro businesses as well. Environmental protection, community involvement and education does not depend on the capital involved, but can be implemented in small steps and according to the possibilities of the small business. Better to start right away with green sustainability on a small scale for your budget than waiting with pending plans to implement measures when the budget is bigger. Do not waste green time, act now!

**TIPS**

- “Acting green does not depend on a big budget, start small and grow the green activities within your business”.
- “Do not waste any green time, act now!”
Photos

heritancehotels.com 2012, Hotels Unique 2012
Case Study: Cinnamon Lodge – John Keells Holding PLC

Background

The Cinnamon lodge is located at Habarana on a land that extends over 27 acres of resplendent beauty, shielded by over 1700 tall trees, surrounded by three nature reserves - Ritigala, Minneriya and Kaudulla. The hotel has 142 rooms and employs a total of 159 permanent employees. This might increase up to about 300 depending on the seasonal variation. All the employees whether permanent or not are above age 18 and below 60 years.

Sustainability Policy of John Keells Group:

1. The Group will strive to conduct its activities in accordance with the highest standards of corporate good practices and in compliance with all applicable regulatory requirements and conventions.

2. The Group monitors and assesses the quality and environmental impacts of its operations, services and products whilst striving to include its supply chain partners and customers, where relevant and to the extent possible.

3. The Group is committed to transparency and open communication about its environmental and social practices in addition to its economic performance. It seeks dialogue with its stakeholders in order to contribute to the development of global best practice, while promoting the same commitment to transparency and open communication from its partners and customers.

4. The Group strives to be an employer of choice by providing a safe, secure and non-discriminatory working environment for its employees whose rights are fully safeguarded and who can have equal opportunity to realize their full potential. All Group companies will abide by national laws and wherever possible will strive to emulate global best practice governing the respective industry groups, seeking continuous improvement of health and safety in the workplace.

5. The Group will promote good relationships with all communities of which we are a part and enhance their quality of life and opportunities while respecting people’s culture, ways of life and heritage.

The Environmental Policy of the John Keells Group:

The John Keells Group is committed to promoting sound environmental practices within our key businesses, through the establishment of policies and practices that enable us to conduct our operations in a sustainable and environmentally sound manner. We will strive to continuously identify all potential impacts on the environment and manage such impacts whilst using our resources in a sustainable and efficient manner.
John Keells Energy Management Policy:

The strategic focus on sustainable energy usage continued to drive our energy management and conservation efforts during the year under review. To this end the Business units have focused on driving continuous improvement programs in all sustainable energy management processes across the various businesses with the objective of optimizing usage and improving efficiencies. The Group energy management policy continued to be reinforced through these efforts and we are now a step closer in our journey towards achieving our goal; Minimizing the impact of energy related environmental damage and enhancing the Groups’ competitiveness through energy costs savings by embracing lean energy management practices.

Group Biodiversity Conservation Policy:

The Group Biodiversity Conservation Policy reads as follows. “The Group shall seek to conserve, and where possible, enhance biodiversity of the locality through the adherence of local and Governmental laws and the implementation of best practices relating to conservation and protection of biodiversity in areas where operations of the Group are carried out. The Group understands and acknowledges its responsibility in conserving and protecting the biodiversity of the areas it carries out operations, not only for the purpose of ensuring sustainable business, but to take care of the planet and preserve its diversity, beauty, resources and strength for future generations.”

Green ideas and products

A village adoption program concluded its five-year plan for integrated development in the village at Halmillawe, a hamlet located in the North Central Province about 20 km from Habarana), Before doing so, it also concluded the training program on fabric painting as requested by the women previously trained in sewing. The Puttalam-based NGO, Wilpatha Kantha Ithurum Parishramaya, which has acted as the animator of the women’s empowerment initiatives at Halmillawe, partnered the John Keells Foundation in this initiative. Cinnamon Lodge, with active participation of Chaaya Village, another Hotel in the John Keells Group, continued to support the village as part of the community development initiatives.

Another similar initiative is where Cinnamon Lodge Habarana plans to soon include dishes made of ‘organic’ food in their fine-dining restaurant menu. The hotel has visited and discussed with several farmers in the region, methods of cultivation that will ensure fresh vegetable produce that can truly be labeled ‘organic’. Eleven farmers who have given a commitment to adhere to the principals of growing organic food, consequent to a series of visits that involved inspections, dialogue and assurances, have been selected, and will be the main source for the hotel’s requirements.

Cinnamon Lodge organized a program to celebrate World Children’s Day for the benefit of 50 students of Palugaswewa; repaired the air-conditioners of the Palugaswewa School Computer Centre; donated 100 exercise books to students of Hiriwadunna school; facilitated a visit by teachers and students of Ibbagamuwa Education Zone benefiting 35 persons; organized a geographical quiz contest for students to commemorate World Tourism Day; donated school requirements to children to commence schooling at Meegaswewa School, which was previously closed due to insufficient students.
Cinnamon Lodge provided snacks and tea for a blood donation campaign for the villagers of Habarana. The HIV/AIDS Committee of Cinnamon Lodge collaborated with the Foundation’s HIV/AIDS Awareness Campaign by holding several community outreach programs.

Cinnamon Lodge planted 100 trees to commemorate the World Environment Day; participated in the rehabilitation activities of the Habarana Lake. Cinnamon Lodge launched the Detha Saviya farm project; donated discarded linen items to an Elder’s Home in Dambulla and to the Jaffna Army Camp; donated used cutlery, crockery and furniture to the Habarana Police Station.

The John Keells Hotels Group continuing with the HIV/AIDS workplace policy which was inaugurated on the 1st of December 2009, conducted various activities to educate the employees and community at large. The Cinnamon Lodge team during the past year covered over 9,000 personnel through the HIV/AIDS programs carried out.

The Butterfly Garden at Cinnamon Lodge, Habarana, launched in 2008, continued to attract many visitors, including guests of Cinnamon Lodge and Chaaya Village, Habarana as well as schoolchildren of the area. During the year under review, the facility was given a facelift with the introduction of over 300 plants and paved pathways which attracted positive feedback from the visitors to the garden. The hotel garden team maintains the facility under the supervision of the Keells Hotels - Nature Odyssey focal point. This together with the increase in tourism following the end of the ethnic conflict have resulted in improved visitor numbers, with the Garden attracting approximately 100-150 visitors per month during 2010/11, while the total number of visitors since the project began has exceeded 4000. The project has helped visitors appreciate butterflies in a natural setting, while offering these precious insects a habitat to thrive in. The project also helps Cinnamon Lodge, Habarana, to reinforce its position as a green hotel.

The butterfly garden created by the Group’s naturalists at the Cinnamon Lodge continues to serve as an ideal habitat for local butterflies. The main objective of this project is to conserve and protect such species whilst simultaneously creating awareness about the significance of butterflies in protecting biodiversity amongst guests, employees and villagers, which in turn would help to protect such species. This 5 acre butterfly garden was setup under the expert guidance of consultant lepidopterist, the renowned Dr. Michael van der Poorten and butterflies numbering over 30 varieties of species have been observed in the facility.

The Cinnamon Lodge, Habarana also continued with the Compost Project during 2010/11, selling packs of compost to its visitors and guests, as well as those of the neighboring Chaaya Village, Habarana whilst retailing packs through some of the Keells Super outlets. Whilst the hotel itself uses the compost to produce organic herbs and vegetables, it is also engaged in providing compost by tractor loads to certain buyers, thereby reducing the usage of inorganic fertilizers in gardens and farms. Sold in attractive packaging and at a relatively negligible cost, the compost is made up of the garden waste collected from the two Keells hotels in Habarana, along with farmyard manure, crop residue, dolomite and top soil.
Why is it green and sustainable?

The Cinnamon Lodge utilizes solar and biomass as renewable energy particularly for lighting and water heating. The power generation is about 47,400 kWh for three employees’ quarters. There are some training programs on renewable energy and energy saving for employees.

The notable environmental performance indicators for Cinnamon Lodge are as follows:

- Conversion of incandescent bulbs to CFL – a saving of 26,400 kWh per annum.
- Installation of solar panels (6 units) and Ecogens (43 units) at Cinnamon Lodge - a saving of 194,400 kWh per annum.
- Production of compost at Cinnamon Lodge (April 2010 to March 2011) has been 4,500 kg.

Utilization of subsurface or groundwater at Cinnamon Lodge has not been an option ever. Adhering to John Keells Group’s policies, the Hotel continuously aims to reduce the use of water, energy and production materials used in operations and continuously work on reducing operational activities that pollute water, land and air and create noise levels which have a significant impact on the biodiversity of the area of operations.

Skills Development at John Keells Group:

The John Keells Group continuously invests in improving employees’ skill capacities to enable them to be ready for challenging opportunities and thereby strive for superior performance, which includes programmes in sustainability, resource conservation as well as work place rights, ethics and other related issues. The Group’s employees have spent a total of 336,400 hours of training; this is a 32 per cent increase in comparison to last year’s training hours. 30 hours on average has been spent by an employee on learning and development activities. These include business focus training, capability building, induction, development interventions carried out for employees to take up potential roles. More robust training hours capturing mechanisms will be introduced at non executive levels in the coming year to ensure all training done are captured accurately. Such training makes them more and more secure in their current or future affiliations, which make them robust which lead to higher levels of job satisfaction.

As part of the ongoing human resources initiatives in the hotel sector in the Group, a three year plan has been formulated in line with “Building People, Systems, Processes and capabilities”, which will be rolled out in the next few years. The Leisure group is planning to conduct an employee survey on an annual basis, with the view of making the John Keells Leisure Group the most preferred employer.

In addition to above, the John Keells Group has the following policies:

- Policy on Child Labour

The John Keells Group’s standard on the minimum age for admission to employment is more stringent than the applicable statutory definitions as well as the ILO conventions.

- Policy on forced or compulsory labour
No employee of the John Keells Group is made to work against his/her will, or subjected to corporal punishment or coercion of any type related to work.

- Policy on equal opportunities:

  The John Keells Group is an equal opportunity employer. Accordingly, the group is committed to hiring, developing and promoting individuals who best meet the requirements of available positions, possess the required competencies, experience and qualifications to carry out assigned tasks and have the potential for growth within the organization; and has put in processes and systems that ensure the same.

- Anti-corruption Policy:

  The John Keells Group places the highest value on ethical practices and has promulgated a zero tolerance policy towards corruption and bribery in all its transactions.

- Policy on Health and Safety

  Through practices which are on par with international standards, we strive to provide a feeling of safety to our employees, customers and visitors who are involved in any business or transaction with the John Keells Group.

- Policy on Social Responsibility:

  The John Keells Group believes in wider societal needs than our own and meaningfully enriching the lives of communities of which we are an integral part. We abide by the values of ‘doing the right things, always’ by ensuring that through our actions we demonstrate our commitment and respect for all our stakeholders, including the communities and the environment in which our businesses operate.

Lessons learnt

In order for the John Keells Group to guarantee environmentally and socially sustainable practices in all its undertakings, the company has developed comprehensive policies, which are well communicated to the external stakeholders and well as to the management and the staff.

The Keells group takes great concern in the proper skills development of its employees in order to achieve better performances and equip them well for handling opportunity challenges and to always be on top of things regarding sustainability, resource conservation as well as work place rights, ethics and other related issues.

Case Study: The Family Tree, Hua Hin, Thailand

Background

“The Family Tree is planted for our family and the world family to celebrate, share and sustain the crafts, culture, colours and creativity of Thailand. By nurturing the Family Tree, we hope to see the fruits of a fairer, greener world.” (July 2010)

The Family Tree is a ‘family social enterprise,’ located in the charming coastal town of Hua Hin, Prachuab Khirikhan province, Thailand. The Family Tree offers a unique collection of arts, crafts and other treasures, handmade by over 40 different community groups, social and environmental projects and inspired, independent artists from all around Thailand. The shop is operated according to the principles of Fair Trade. The team donates at least 10% of profits to tree planting and youth work.

Although the Family Tree shop opened in 2011, the story of the Family Tree started many years before. The family who planted the Family Tree are Premruethai Tosermkit, a Thai; Peter Richards, an Englishman and their children, Louie and Rose.

Premruethai, a Thai citizen, is from an ethnic group called the ‘Kuy’, who have their own distinct language and culture. She was born in Sawai, a tiny village in Srisaket, North-eastern Thailand. Most people in her village are rice farmers. Many arts and crafts are practiced in Sawai. Premruethai grew up with a deep love for natural-dyed silk and weaving, which were practiced by her grandmother, mother and many other ladies in the village. As she grew up, she also realized that debt was a serious problem for many families in the village and was determined to help local families.

Peter moved to Thailand in 1998. He has a keen interest in culture and language and spent a decade working in tourism, including assisting Thai colleagues to establish community based tourism (CBT). Peter’s role was helping to market CBT projects.

In 2006, Premruethai and Peter helped 30 ladies in her village to establish ‘Tae Moh Hai’ meaning ‘Our Friends’ Hands’ in the Kuy language. Premruethai coordinated training for the ladies, in natural dying, weaving, cutting and sewing. Peter and Premruethai helped Intrepid Travel to produce bags in Sawai village, as part of a campaign to ‘say no to plastic.’ Premruethai and Peter based themselves in Sawai, to be close to the women’s group. They helped to lead youth work at the local Buddhist temple.

However, despite some success selling silks and bags, the couples’ work made very slow progress. Without full time commitment and consistent marketing, Premruethai and Peter were not able to generate much work or income for the community group.

In 2010, Premruethai and Peter decided to take a break in the beach resort of Hua Hin, a popular destination for families, and seniors. They discussed how to turn their efforts into a viable, social enterprise which could support good work across Thailand. They also noticed that many visitors in Hua Hin were educated, curious travelers on one and two week holidays. It struck them that the town’s success catering for tourists’ international tastes was actually giving visitors little chance to appreciate authentic Thai arts, crafts and culture. The seed of the Family Tree was planted.
Idea and startup phase

“Celebrate and share local Thai crafts...in the heart of the tourist area of Hua Hin”

Naresdamri Road is a scenic street, leading from the iconic fishing pier to the now equally iconic Hilton Hotel, past rows of wooden shop-houses. Most visitors to Hua Hin will visit this street for a stroll at one time or another during their holiday. This ‘golden mile’ is also one of the most expensive places to do business in Hua Hin.

Premruethai and Peter pooled their savings and rented and decorated a modest shop in Naresdamri road, alongside Swiss, Spanish, French and Italian restaurants! They chose a fresh, modern look, painted in white and blue, in line with Hua Hin’s relaxed, seaside location. This style contrasted with many other craft shops which had chosen a more classic ‘wood and antique’ style. They also asked a graphic artist friend to design an eye-catching logo, so that the shop could start with a clear brand.

After investing all of their savings in the location the couple did not have much money left to buy stock. They contacted ThaiCraft, one of Thailand’s oldest Fair Trade organisations, to request help from the producers. The proposition was 3 months stock on consignment, to help the shop get started. Subsequently, the shop would pay for stock based on payment terms proposed by the producers. Fourteen different Fair Trade producer groups agreed to help the Family Tree to get started!

Now the real challenge began. With the shop opened, would enough tourists in this mainstream destination actually be interested in an authentic Thai proposition? Hua Hin was set to be a litmus test for the potential to offer Fair Trade and Responsible Tourism products to a huge range of visitors who had never heard of them.

Product development and growth

The Family Tree opened in July 2011. By November, as promised, all producers in the Fair Trade network had been repaid. During the first year of trading, horrendous floods and political protests crippled the high season. Nevertheless, visitors to Hua Hin were keen to buy authentic, handmade, Thai products. In addition, at least half of the people buying products were interested in who made them and how. Customers also appreciated the social and environmental mission of the Family Tree, in particular a project in partnership with Buddhist Monks to plant 84,000 trees.

Well educated, mainstream tourists were responding positively to the chance to really learn something about Thai arts and artisans in a space which was trying to explain and teach, not only to sell. During the first year, Premruethai and Peter were not yet able to draw salaries, but they were able to buy enough stock to fill the shop.

By the second year, word of mouth recommendations were beginning to create a buzz, and the shop had several regular customers in the expat community. The Family Tree rose to number 1 on Trip Advisor for shopping in Hua Hin. Premruethai was able to take a modest salary and employ 2 junior staff. The shop also made enough money to donate a total of $3,000 USD towards the tree planting project. The Family Tree made a profit for 10 months of the year. It was a promising start.
Why is it green and sustainable?

First and foremost, the Family Tree sources products very carefully from a diversity of community enterprises, women’s groups, artists with special needs, environment and social projects, etc. Over 85 per cent of the products on sale in the shop come from these kinds of producers. The remaining 15 per cent of the products are still made in Thailand, and chosen for their popularity with customers. The goal of the shop is to move towards 100 per cent of the products being Fair Trade or supporting a good cause. This includes exceptional, individual artists who are keeping Thai arts, crafts and creativity alive.

The shop promises to donate at least 10 per cent of the profits to social and environmental projects, in particular the Greener Tomorrow tree planting project which they initiated in partnership with a network of Buddhist Monks and Laypeople. In practice however, since opening the shop, more than 20 per cent of the profits have been donated.

The Family Tree team feels proud that information provided in the shop helps visitors to Hua Hin to appreciate Thai arts and culture.

Finally, the shop itself uses super efficient LED lighting, does not use air-conditioning, and recycled materials discarded by the previous owner when decorating the shop.

Challenges

Main challenges faced by the team are the seasonality of the destination – the high season is only 4-5 months long - combined with relatively extremely high rent due to the prime location. At the moment, Peter is working on diversifying markets, so that the shop does not only rely on retail trade through the shop-front. A start has been made, offering Fair Trade wedding favours in partnership with Creative Events Asia.

Another challenge is production capacity. However, because the shop space is relatively small, it is quite easy to replace stock with alternative arts and crafts,

Lessons learnt

Premruethai and Peter have been able to make the Family Tree a success so far because of their passion and enthusiasm to develop a family business which benefits society, their backgrounds, over 10 years of experience in producing and marketing community products, and trust built with community producers over several years. Another important factor is good communication and presentation skills in English.

The location of the Family Tree was extremely important. While Hua Hin is a mainstream destination, the demographic of visitors to the town tends to be older, well educated, professional people. These people are interested in comfort and international standard services. However, they are also curious and well informed, with sufficient disposable income to be able to buy high quality products if they wish.

The Family Tree team has taken great pleasure in confirming that at least half of their customers do care about supporting Thai communities and the environment.

An important strength of the Family Tree, in addition to the products, is the great variety of media used in the shop, ranging from photographs of producers, descriptions of how products are made, poems
celebrating the products, posters, pamphlets, information tags, examples of natural dyes and weaving equipment, musical instruments and a visitors’ book with warm wishes from around the world.

TIPS

- “Do not be afraid to start a business, even on a small scale”.
- “Location is key. An expensive location can be a worthwhile investment”.
- “Use a variety of media to share your message”.
- “Do not expect everyone to care about the social or environmental message. Provide great quality products and great quality information to cater for people who are attracted by the product, people and process”.

Photos
Source and written by: Peter Richards 2012 - www.familytree-huahin.com

http://www.youtube.com/my_videos_edit?video_id=QnVWkJ5h2Ew&ns=1&feature=mhsn

TRANSPORT

INDONESIA

Case Study: Cahaya Bike Repair and Sales Shop

Background

Mr. Darsih, the owner of the Cahaya Bike Repair and Sales Shop started to work after he graduated from elementary school, including a job fixing bikes. He then got acquainted with a professional bike shop named Pandawa Lima in Mataram, where he started to work. For seven years he worked in the shop and he even became the head of marketing. Mr. Darsih gained valuable experience and got to know everythjing about bike repairs and bike sales. Finally, he decided to open his own shop. He realized this idea in 1994 and has ever since worked as his own boss in his business. He built the business with the help of his former partner from Pandawa Lima shop. The partner, who encouraged Mr. Darsih to establish his own workshop and place for bike trading also helped him in finding a location for his workshop.

Idea and startup phase

In the beginning Mr. Darsih handled both the bike repairs and the sales, while his wife helped with the accounts. Furthermore there was one mechanic helping out.

Mr. Darsih decided to open his own workshop to build a solid foundation for himself and his family and to create a new bike workshop in the area for young mechanics to work, therefore creating jobs. Several young mechanics work in the workshop as apprentices in order to become prepared for opening their own workshops. Moreover, there are some teenagers, who had dropped out from school, who also get the chance to learn how to become a bike mechanic.

Start-up costs were incurred for renting the workshop space, purchasing equipment and spare parts, and buying a bike. At that time, the cost of renting the place amounted to IDR 700.000 / year. His friend helped him to rent it for three years. Moreover, Mr. Darsih and his wife received loans from their parents and relatives for buying goods for the shop. He also sold his cow and his Honda Grand motorcycle in order to being able to pay for the spare parts and the new bike which he then sold later. The total of his initial capital in 1994 amounted to approx. IDR 10.000.000 – IDR 15.000.000.

The basic equipment needed for the workshop included:
1. Toolkit set, such as hammer, pliers, screwdriver etc;
2. Air Hand Pump;
3. Equipment for setting up the bike’s spokes;

The support equipment in the workshop includes:
1. Electrical Air compressor;
2. Equipment for washing bikes;
3. Weld and electric drill;
4. And the other supporting equipment;
Product development and growth

Mr. Darsih has registered with the tax office to receive the Nomor Pokok Wajib Pajak (Taxpayer Identification Number). This a requirement to receive a loan from a bank for building a garage. The registration not only helped him to receive a loan from the bank, but also in being eligible for a grant from the government of IDR 5.000.000 distributed by the local municipality. Mr. Darsih received the grant as part of a micro entrepreneur assistance programme by the Government.

Mr. Darsih offers various services for the customers including consultations, bike trading, bike sales and purchase, upgrade, repairs, light and heavy modification, selling bike accessories such as bells, saddles, baskets, and pillions. Sometimes they also take over pedicab (becak) repairs. The repair of bikes usually takes more time than repairing a motorbike, because many components need to be especially customed. This circumstance makes the workshop not able to repair more than 25 bikes a day, which already puts a burden on the mechanics.

The workshop also provides new spare parts which range below IDR 500.000 in price such as inner tubes, tires, wheels, spokes, pedals, saddles, bells, etc. For the expensive spare parts, the workshop usually orders after the customer’s order to reduce risk and keep the amount of money bound in stock low.

The fare of bike repair depends on the extent of damage. Expensive bike usually have a more complex technology. For the children bike repair, Mr. Darsih determines the fare for IDR 15,000. For the small or easy repairs or dult bikes the customers should pay around IDR 25,000 – IDR 30,000. For high-tech bikes, Mr. Darsih asks for IDR 40,000, and for heavy or big repairs the customer should pay IDR 75,000. All fares include a complimentary bike wash service. Compares to the motorcycle repair, where the customer only pays about IDR 30.000 it spends less than 30 minutes, bike repair needs some hours to finish.

Mr. Darsih can achieve an income of about IDR 5.000.000 per month from the bike sales and, especially, from the repair service. From his income, he can meet the family needs, send his children to school until college, and build his own house.

For the last several years cycling has been booming. It has become more than a pure lifestyle activity but is increasingly used for basic transportation. Moreover, cycling has entered many people’s daily lives. People acknowledge the importance of cycling for the environment as well as the importance of sports for health. More people are using bikes, more bicycles are produced, and more people need after sales services for their bikes.

Why is it green and sustainable?

The existence of a bike workshop supports the use of bicycles in the society. The cheap repair prices and repair rates, satisfying service, encourage use for daily purposes. The use of bicycles can help reduce pollution caused by traffic and reduce traffic itself. Bicycles do not take up much space on the road and and represent less of a danger compared to cars and motorcycles. At the same time regular exercise through bike riding strongly improves the health condition of the people and reduces the risk of many diseases, especially heart and motoric illnesses.
Challenges

Weather and seasons are the main challenges in running a bike workshop. During the dry season many customers come to the shop. During the rainy season on the other hand, there are few customers. However, this does not mean the Mr. Darsih and his employees are not busy. They usually check the workshop condition, count the inventory, assemble new bikes using available spare parts and are engaged in other activities, which are hard to conduct during the busy high season.

Mr. Darsih’s main advantage, the good relationship to the customers also becomes a challenge for his business. Many times, even though he has already determined the fare, Mr. Darsih is not strict with the customers paying on time and/or the full amount. Sometimes he even does not earn any profit.

Lessons learnt

Mr. Darsih is willing to share his experience and offered some tips for business starters and small business owners. The first tip is to give the best for the customer until they are really completely satisfied with the service. Because of this, Mr. Darsih usually sits and talks to the customers, discussing in detail what they want. It is considered a free consultation. The second tip is to build a good relationship with the customers, by being hospitable, honest and friendly. The third tip is to make the business easy and comfortable for the customers. Persistence is the main principal to run a business, because the workshop makes many things to do, not only for bike repairs and spare parts, but also the management of the third parties vendors. In sum, above all, one should be keen on fulfilling with the customer needs until they feel satisfied. The most important thing is to have a good relationship to the customer.

TIPS

- “Give the best for the customer.”
- “Build a good relationship with the customers.”
- “Be persistent and do not neglect all elements of running a successful business”.
- “Conduct due diligence in your operations.”

Source: ITS 2013
Case Study: Al Madina Student Shuttle Service

Background

The Al Madina Foundation first initiated a shuttle service in 1999 in Semarang for its own Quran Reading Group, Kindergarten, and later also elementary school. The first car used for this service was a 1987 Daihatsu, which cost the owner IDR 8.5 million from his own pocket. Meanwhile Al Madina School with its shuttle service is a well established foundation and education institution and its service is much appreciated by the parents and children.

Idea and startup phase

Initially, the Al Madina Foundation simply used to manage a Quran Education Activity (Taman Pendidikan Quran/TPQ), which was held every afternoon. This activity started in 1999 and in 2000 the idea came up to use the classroom, which was unoccupied in the mornings, for a kindergarten class. The parents requested the Foundation to run a shuttle service for students. Later in 2001, an elementary school under Al Madina Foundation was opened as well and the shuttle service became an essential element of the school service. During that time the foundation already operated 3 vehicles to provide the needs of the shuttle service. They used 1999 Suzuki Futura models back then.

The initial goal of running this shuttle service was to help a) parents who do not have any transportation to drop off and pick up their children at school and b) parents who are unavailable to do drop off and pick up the children due to their work.

Moreover, parents really care about the safety and security of their children and therefore they were looking for a transportation method, which fulfils both. Parents tend to regularly inspect the vehicles’ condition which their kids travel in. The parents do not want dirty and smokey vehicles or a lot of exhaust pollution.

Product development and growth

Every day, the drivers pick up the students and take them to school early at 07.00 am. However, since playgroup, kindergarten, and elementary school end at different times, the driver has to manage the drop off times individually.

The selection of the students who can take part in this shuttle service is solely based on the distance between their house and school, no discriminatory factors are applied.

The setting of the shuttle service fee refers to the cost that would be spent for the same distance if a public transport such as motorbike taxi (Ojek) was used. Therefore the shuttle service fee for the Jatingaleh route amounts to IDR 250,000/child and the fees for the Pamularsih – Karangayu route and the Gunungpati route come to IDR 300,000/child. Meanwhile, the school fee is set at IDR 200,000 per month per child.

In comparison, the shuttle service run by other kindergarten schools in Semarang city, namely Hidayatullah Kindergarten and Al Azhar Kindergarten both charge IDR 450,000/child, which is equal to the school fee.
Regular maintenance of the vehicles is done once a week, in order to keep the cars well run and meet parents’ requirements such as cleanliness, safety and low pollution levels. In case of safety, these cars are used especially and only for shuttle services. Moreover, there is another car ready for backup, in case one of the regular cars is under repair or maintenance.

The drivers are recruited only after passing a diligent test. Lately, there seems to be a notion that this shuttle service has a good financial prospect and, therefore, people have offered to provide their cars for rent for this usage. However, since the owner wants to keep the standards high, he plans to invest in a newer and bigger minibus himself, which can serve the purpose better. A car in this category costs around IDR 125.000.00. Since there is no specific extra permit needed to run this shuttle service, no additional charges apply.

**Why is it green and sustainable?**

The shuttle minibuses can carry up to 15 students. Therefore they represent a mass transport device. Compared to motorbikes or motorbike taxis, the minibusses achieve a much smaller per passenger rate of emissions.

At the same time they help reduce the traffic congestion and pollution compared to other means of transport. With the use of more eco-friendly vehicles with state of the art emission filters, or even hybrid or electric engines this positive impact on reducing environmental hazard could be expanded even more.

**Challenges**

Until today, the owner of the Al Madina Foundation does not receive any significant benefit from the shuttle service due to the parents’ limited economic condition leading to low fees.

The operational and investment costs have not been covered completely yet. At the same time, when it comes to holidays, the shuttle service fee is still collected, only reduced by 10 per cent, since the foundation still needs to pay the drivers’ monthly salary, which is part of the operational fixed cost. For 2013, the owner has the plan to raise the shuttle service fee in order to cover fully the operational and investment costs.

**Lessons learnt**

The Al Madina shuttle service has been able to establish itself as a reliable partner for many parents, who are willing to trust it with their children. The emphasis on strict standards of operation together with reliability, safety and security has become a Unique Selling Proposition for the business. Even though the shuttle does not achieve a big monthly profit on its own, as a support service for the school it still has a big value in better promoting the school. More parents may decide to choose this school as it offers an affordable, safe and secure transport service and therefore the overall income of the foundation might still be bigger than without the shuttle service.
TIPS

- “Standardization can be a Unique Selling Proposition.”
- When evaluating a business, which is part of a business network, the single income as well as all connected incomes must be taken into account.”

Source: ITS 2013

Al Madina 2013 – www.almadina.or.id
Case Study: Anugrah Sehat Bike Rental (Mr. Djoko)

Background

Mr. A. Djoko Purnomo used to work for the Central Java Regional Development Bank as Director of Pension Funds. In his retirement preparation period, for 3 years, Mr. Djoko started looking for activities that would keep him busy after his planned retirement. Because of his hobby in sports, especially cycling, Mr. Djoko had the idea to buy and then rent bikes. In his mind, he believed, even if nobody would be interested in renting them, he would just use them for himself and for his family.

Idea and startup phase

Mr. Djoko saw a good business opportunity in providing bikes for rent due to the facts that (1) the interest in cycling as a lifestyle is growing, (2) the Tembalang area where Djoko lives is located nearby Diponegoro University and therefore many students live there, (3) students generally do not have sufficient funds to own a bike, but have a strong desire for cycling due to lifestyle and health purposes (4) there is a “car free day” event that is routinely organized by the Semarang City Administration.

In June 2011, Mr. Djoko bought a few bicycles at a total price of IDR 20,000,000, without telling his wife and son. He just told his wife, after the bikes had been sent to the house.

“If no one else will rent these bikes, the bikes will be shared out. At least cycling makes people healthier”, that is the way Mr. Djoko’s formulated his mission to help people around him to become healthier.

Product development and growth

Target customers:

Originally, the service was only intended for the Tembalang campus area, but due to numerous requests from Mr. Djoko’s network, he decided to expand his business and soon received interest from a broader segment.

Currently, customers of Mr. Djoko’s bike rental consist of two main groups. The first is individual tenants and the second is corporate tenants. For corporate tenant groups, Mr. Djoko provides 2 kinds of bicycles, namely VIP bicycles for corporate executives and regular bicycles for the staff. VIP bikes are not rented to general tenants. As rental requirement tenants are only asked to leave an identity card for security.

Due to this high demand, Mr. Djoko has increased the number of bikes. While at the beginning he owned 15 units, Mr. Djoko added another 30 units to a total of 45 bikes. Due to demand from his business partner, Mr. Djoko added more bikes over time and constantly has increased the stock from 45 to 65, 75, 85, 95, and the last stock of 105 bikes occurred in 2012. Now the total value of Mr. Djoko’s bikes amounts to approx. IDR 200,000,000.
Bike maintenance:

For after-sales care, Mr. Djoko is collaborating with a bicycle workshop, but for day-to-day and in the field, Mr. Djoko relies on his 2 employees for customer service. Due to the fact that Mr. Djoko wants to focus on customer service he has not installed his own bike workshop.

However, next to his home, Mr. Djoko has built a garage. While this garage is not redesigned for the special purpose of a bike rental business, Mr. Djoko has purchased all bike maintenance tools, including a high pressure water pump that he needs for the regular bike maintenance. The high pressure cleaner helps Mr. Djoko to clean his bikes within seconds.

Business networking and marketing:

Mr. Djoko engages in active marketing through networking and social media. Most of the marketing work is done directly by Mr. Djoko himself through his network which is growing continuously.

Mr. Djoko’s network was mostly built throughout his career in BPD supported by his friendly character, and his ability to serve people well. These days his bicycle rental service is mostly used by corporate customers, primarily for social activities that involve a lot of mass participants. His corporate clients include among others, PT Samudera Indonesia, PT PLN, PT Pharos, Samsat of Central Java Province. In fact there are some routine activities, e.g. every 3 months Samsat organizes a leisurely bike activity (fun bike) which in every event involves 50 bike bicycle units. Mr. Djoko generally does not charge a high rate, even only a small amount of bikes are ordered, as long as the cost of transportation is cover on the behalf of the hirer.

Mr. Djoko’s marketing throughout the years, has already carried fruits and his service is known beyond the borders or Semarang. For instance, there was a customer from Jakarta, contacting Mr. Djoko via email, asking to meet at Semarang airport and rent 1 bike for sightseeing. Although it was only 1 unit, Mr. Djoko fulfilled the request and delivered the bike with the rental fee and delivery charges amounting to IDR 100.000.

Investment costs and Income:

The great demand of his service represents an opportunity that incited Mr. Djoko to purchase the bikes on credit. Only the first 15 bike purchases were made in cash, the following 90 units were leased with installments ranging over up to 18 months.

Currently, the monthly income of the bike rental business amounts to more than IDR 10million/month.

Operations:

For the business vehicle Mr. Djoko chose a Daihatsu Grand Max Pick Up because its back end is flat and it has a carrying capacity of 25 units per trip. Its loading configuration, front-rear-top is 10-10-5.

For loading, transporting and unloading the 25 units, in general 2 hours per delivery for in the city orders are spent. Mr. Djoko also offers an entourage service, accompanying cyclists, carrying spare bicycles, medical supplies, and room in the car for those tired or down for a break. If problems with bikes occur, replacement bikes are readily available so that participants can still continue the bike ride.
Rates and Negotiations:

The rental services are based on hourly, daily, weekly, monthly rates or rates negotiated for special activities. Different rates are given based on time, location, and type of bike. Although there are published rates (See Annex), Mr. Djoko is also open for negotiation. For instance, the Bethany Church wanted to borrow 50 bikes, but they asked for a certain discount due to a limited budget of only IDR 15,000 per bike, Mr. Djoko drectly agreed. Mr. Djoko believes that if someone only has limited funds, one should not refuse them a bike for rent.

Legal considerations:

There are no special permits needed to open a bike rental business. However, for inter-agency cooperation, Mr. Djoko requires a Taxpayer Identification Number from the local Tax Office.

**Why is it green and sustainable?**

The rental business provides incentives for people to try and use the bikes in their everyday lives. Anyone can start cycling without having to invest in an own bike. By putting efforts in marketing around campus and promoting the service to students Mr. Djoko introduces cycling lifestyle already at an early age expecting that in the future, these student will become mature persons who will be using bikes regularly and educate their own children as well. This promotes the creation of a healthier and liveable environment.

**Challenges**

One challenge was how to raise the capital for his business bikes in order to being able to meet the high demand. Mr. Djoko solved this problem by leasing the bikes and paying off the amount over an 18 months installment period.

Another problem he has to cope with is the risk of fraud and theft. Throughout his business so far, Mr. Djoko has lost 2 of his bikes through theft by “customers” using a fake identity. This happened when his employes were in charge and he was not personally present. However, due to the rather small loss, and the fact that its main customers are corporate tenants, Mr. Djoko chooses not to insure his bikes.

**Lessons learnt**

Maintaining customers’ trust, providing direct services, wholeheartedly, is absolutely necessary in business. Entrepreneurs must be careful to observe the markets and actively building a network will continuously enhance the customer base. Moreover, services should provide solutions to customer problems and needs. The key to a successful entrepreneur is not the capital but the character. The character will build trust that will attract and maintain customers.

**TIPS**

- “Character and trust build a sustainable business.”
- “In business we sometimes have to sacrifice our time.”

Source: ITS 2013
Annex

Rates:

<table>
<thead>
<tr>
<th>No.</th>
<th>Basis</th>
<th>Tariff (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Daily, Monday-Thursday</td>
<td>2.500 / hour</td>
</tr>
<tr>
<td>2</td>
<td>Daily, Friday-Sunday</td>
<td>3.000 / hour</td>
</tr>
<tr>
<td>3</td>
<td>Monthly</td>
<td>Call</td>
</tr>
<tr>
<td>4</td>
<td>Event, 1 unit</td>
<td>50.000 / day</td>
</tr>
<tr>
<td>5</td>
<td>Event, 2 unit</td>
<td>90.000 / day</td>
</tr>
<tr>
<td>6</td>
<td>Event, 3 unit</td>
<td>120.000 / day</td>
</tr>
<tr>
<td>7</td>
<td>Event, 4 unit</td>
<td>150.000 / day</td>
</tr>
<tr>
<td>8</td>
<td>Event, &gt; 5 unit</td>
<td>35.000 / unit / day</td>
</tr>
</tbody>
</table>

Bike transportation to the location is excluded, but mentioned below:

<table>
<thead>
<tr>
<th>No.</th>
<th>Location</th>
<th>Tariff (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Semarang City</td>
<td>100.000 / trip / haul</td>
</tr>
<tr>
<td>2</td>
<td>Central Java Province</td>
<td>250.000 / trip / haul</td>
</tr>
</tbody>
</table>
WASTE MANAGEMENT

INDONESIA

Case Study: “Green and Clean” Waste Bank Initiative

Background

The Waste Bank Initiative is a social entrepreneur initiative which started as a community project in Surabaya and has meanwhile spread to 10 major cities in Indonesia. It is officially endorsed by Unilever Indonesia and aims at facilitating social entrepreneurs to engage in waste management.

The volume of waste in Indonesia is closely linked to population growth, welfare enhancement and lifestyle. From the total amount of waste on average only 60-70 per cent are transported to final processing (TPA), while the rest ends up in open areas such as unused land, rivers and the sea or is burned. The increasing amount of waste has raised many serious and complex problems, especially in urban areas which will deteriorate in the future if no proper waste management is installed.

Surabaya is the second largest city in Indonesia after Jakarta. As a city with a high population density, the volume of trash generated is comparably high and has become a serious problem to the environment and quality of live of the people. Waste is still not properly managed and big landfills remain the preferred solution. One of the biggest is the Benowo Landfill West Surabaya which also represents the home of many people working as waste pickers/scavengers making a living from collecting valuable items for sale of personal use on the landfills. Research shows that 80 per cent of the waste going to the landfill is domestic/household garbage that is not sorted, the remaining 20 per cent is residual waste, factory waste and waste from home industries (DKP Surabaya 2012). The problem of the large volume and the large share of domestic waste demands a reduction of waste on the side of the households. Surabaya does not have enough spare land to store the amount of garbage and overusage and landfill mismanagement have already resulted in an accident on the Benow Landfill with numerous casualties in 2002.

Idea and startup phase

"Think Big, Start Small, and Move Fast".

Given the vast and complex waste problems that occur it was important to look for alternative solutions so a new programme on waste management for the city of Surabaya was started. It started as a social entrepreneur initiative encouraging the people of their community to collect and separate the garbage and in return receive remuneration in the form of points that can be cashed out forming a garbage bank system. This initiative does not only work as a social business endeavor creating jobs but moreover it stimulates their “suppliers” to engage in waste management activities in a proper way and realize the opportunity for business and an additional profit by managing waste. The waste management sector in Indonesia needs commercialisation, as it’s a sector with big opportunities for social and environmental entrepreneurs. This initiative has created the basis for a market for entrepreneurs who engage in waste management and hereby serve their community. The community based initiative for environmental sustainability and waste management first started in the year 2001.
Product development and growth

In 2004 the Unilever Indonesia Foundation became aware of the community project and recognized the potential concept with a big opportunity for replication. With the support of the Unilever Foundation the project was extended. The strategy was to implement and support a pilot that will form the foundation of the model for replication in 10 major cities in Indonesia.

The Green and Clean initiative encompasses environmental, educational and entrepreneurial aspects. In its implementation the programme strongly involves the communities, NGOs and the government. The goal of the programme is to support efforts of communities and social entrepreneurs in improving the quality of the urban environment with mentoring on an ongoing basis tackling the waste management issues faced by all major cities in Indonesia.

The programme is following the paradigm that waste can be transformed into something beneficial hereby achieving a shift away from the negative stigma of garbage. This is achieved by capacity building, awareness raising and socialization to the communities that only if garbage is sorted in order to be processed properly the environmental hazard of waste can be reduced. As key instrument for this community waste management program is the Waste Bank System. This waste management tool, in addition to reducing potential household waste production, also contributes economically to the community.

With the waste bank programme a system was created that is very similar to a financial bank. Which we introduced with system 3, there is a registration desk, table and desk recording of weighing. Administration book we make nearly similar to the bank. Trash money refunded to residents who became the bank’s trash and money saved and usually waste money will be returned again towards the holy days.

Why is it green and sustainable?

This programme envisages a significant contribution to environmental sustainability through waste reduction and also local economic development as it is driven by community participation. The programme, which started out as social entrepreneurial initiative is trying to achieve a better waste management all over Indonesia by giving commercial incentives and creating a market for other social entrepreneurs, engaged in collecting and sorting waste for additional income. New raw materials are created which represent the basis for recycling and upcycling activities for entreprenerus engaged in creative industries making innovative use of the garbage. Therefore the waste is not only separated but also efficiently reduced when entering the value chain again.

Challenges

Even though the idea of creating a waste bank quickly spread through the community. The scale of operation still stayed small and was limited to the home community of the founders, who realized that in order to spread the concept beyond the initial area they would need additional support. Univer Foundation took the role of facilitator and scaled up the simple concept of a waste bank to a more professional and comprehensive scale. The support from the Unilever Foudnation as well as other private sponsors and the city government of Surabaya were crucial.
Another challenge is the promotion and socialisation of the idea and how to stimulate other social entrepreneurs to engage and partner with the waste bank. The programme used various kinds of media for promotion and a strong communication. An online website and blog are essential. Furthermore, directly reaching the people is achieved through socializing events such as open house, participation in fairs etc.

**Lessons learnt**

The Waste Bank System has become "the gateway" Programme for the Community Centre in Surabaya as it represents the basis and the "red thread" of the pillars on which this Community Centre is based. The Waste Bank System also has become the leading instrument in community waste management programmes in many cities. In 2010 the Ministry of Environment of the Republic of Indonesia initiated a nationwide Waste Bank Programme under its RENSRTA (2010-2014) which has given additional momentum to the Clean and Green Initiative and the experiences and achievements from this initiative can be more easily carried to many areas of Indonesia.

### TIPS

- "Think Big, Start Small, and Move Fast."
- “For a social entrepreneur support from the public and private sector is essential.”

**Photos**

Source: Community Centre Surabaya 2012 – http://communitycentresby.blogspot.com
Case Study: AV Peduli

Background

AV Peduli are young ecopreneurs who engage in creative product development, waste management, educational and non profit activities. The founders, all in their mid 20s, aim at realizing a vision of innovative green entrepreneurship with a special focus on youth engagement. AV Peduli has already won several national and international awards, among them the Satyalencana Wirakarya Award from the President of the Republic of Indonesia.

Two of the currently most pressing issues in Indonesia, namely a high unemployment rate, especially, among the youth and environmental degradation have inspired the founders at an early stage of their lives. With a background in law, the founders aimed at contributing something beneficial to the sustainability of their country and the people addressing exactly these pressing issues.

Idea and startup phase

“YOUTH AS THE AGENT OF CHANGE”

As the students at the Law Faculty or Airlangga University in Surabaya the founders of AV Pedui got a first exposure to the reality of the working world that would lie ahead of them. But they did not want to choose to settle for a secure job with the prospect of a high income and a career. The founders of AV Peduli chose a different direction and decided to become ecopreneurs. Ecopreneurship for AV Peduli means the interlinkage between environment, economy, education, social aspects, and health. Their initial idea was to directly tackle the issues of waste management and therefore increase environmental sustainability in their home region and beyond. At the same time their aim is to engage young people in interesting and creative activities that help protect the environment and contribute to the well being of the society. The eco-business idea was to make creative products out of waste by upcycling the materials.

Furthermore, from the beginning the AV Peduli team aimed at educating and empowering people about proper waste management, i.e. collection, separation, reuse, recycling and apt disposal.

Product development and growth

The young founders started their activities with creative products from waste and soon became the fresh faces in the NGO/ecopreneur scene in Indonesia. Their activities all based on youth engagement include campaigns for environmental sustainability using new kinds of media such as social networks, various events, and workshops involving people who are interested in learning by doing. They support all of their initiatives with a media campaign, creating videos, songs and even painting promoting environmentally sustainable aproaches in order to reach even more people. The Unique Selling Proposition of their business is carried by creating trendy, artistic and useful consumer goods from waste. These range from fashion accessories such as handbags made from coffee sachets or hats made from plastic bags to interior design products made from water bottles or old newspapers and many many more. These products are marketed
mainly online but also through live presentations at green bazars and eco-markets and direct distribution by fashion boutiques.

Furthermore, AV Peduli produces compost from organic waste which can be used as organic fertilizer and teaches farmers and households to do so themselves. The development of the products is based on continuous scientific research and aims at creating artistic yet useful consumer goods. AV Peduli sees itself as an innovation driven eco-enterprise and creativity is a core asset for them. This creativity they do not only uphold internally but also try to communicate to their partners such as waste banks.

Regarding financing, AV peduli is constantly looking for alternative options such as prizes and partnerships. Such partnerships have successfully been initiated with the local and national governments, with various companies within their respective CSR programs as well as with other NGOs and community initiatives.

**Why is it green and sustainable?**

AV Peduli can be regarded as a role model in green entrepreneurship due to the fact that their activities combine environmental, economic, social, health and educational aspects. With their artistic products from waste they support the reduction and upcycling of garbage. The same is achieved by producing compost from organic waste to be used as natural fertilizer. In their educational activity AV Peduli communicates its philosophy to the people and especially empowers the young generation to become agents of change towards more sustainable practices by reaching out to schools and youth communities. They encourage other young people to also become ecopreneurs and offer coaching.

AV Peduli also supports non profit programmes such as the planting trees project which has so far coordinated the planting of 70,000 trees in Indonesia.

With all their activities in business and social programmes, their cooperation with partners and encouragement for others to become ecopreneurs, AV Peduli also seeks to create green jobs, especially for the youth.

**Challenges**

When AV Peduli started as a small initiative of a group of law students it had a great vision but little resources to realize its vision on a large scale. They needed strong partners in order to help upscale their programme. Unlike many other green-social initiatives which operate only community based and stay on a small scale with a geographically limited effect, AV Peduli managed to successfully reach out for the public, run a campaign to communicate their work to the world, take part in competitions, conferences etc. All this made them gain the interest of partners from the public and private sector supporting them in extending their activities and spreading their vision nationally and internationally.

**Lessons learnt**

The founders of AV Peduli have a strong personal vision for their ecopreneur activities. This has up to now given them amazing strength to implement the programmes and activities. This personal philosophy is also strongly reflected in the initiatives and has already inspired many other people. They regard the youth as
the agents of change, and being young themselves they perfectly communicate this philosophy to other young people. Communication is their strongest asset. Creative promotion campaigns support their business as well as non profit activities.

In the 7 years of their existence AV Peduli has been nationally and internationally recognized for their activities and has been awarded with many prizes. The founders see recognition as an important factor in spreading the message and communicating the eco-vision behind the initiative to a wider audience. They see themselves as role models and hope to be able to inspire other young people to become ecopreneurs.

**TIPS**

- “Youth are the Agents of Change.”
- “Innovation and creativity are the essence of ecopreneurship.”
- “Communication is the way to share the vision with the world.”

**Photos**

Case Study: ALIT Skill Store - Success Story of a Newspapers Seller Boy at Tunjungan Plaza Surabaya

Background

ALIT is a Non Governmental Organization active in assisting street children in Surabaya and other parts of Indonesia. The organization was established by five Indonesian student activists in the 90s, one of them Yuliati Umrah.

The Vision of ALIT is to develop an equality for all children to achieve their rights. Their mission is to promote the condition of marginal children such as street children, children from poor areas in the city and remote areas through family based economical empowerment development, improvement of children participation, and advocacy to the local and national government.

ALIT has developed and is reaching out to communities in several areas all over Indonesia and internationally. They are working together with many parties in running their mission such with the Indonesia government, other NGOs, international organizations, universities, press, UN, and some private groups.

Several intervention programmes have been designed and implemented by the ALIT team either directly to the community or indirectly through a collaboration with some partner institutions of ours. One of the programmes was the support of newspaper selling children in Surabaya.

The economic crisis of the late 1990s in Indonesia had strongly affected the lives of the young children aged between 8 and 12 when their parents lost their jobs. At the same time many traditional settlement areas were eradicated at that time for city development. These children, in order to survive were forced to sell newspapers in front of the Tunjungan Plaza Surabaya, where they suffered from severe abuses from the local security guards.

They experienced abuses almost every day. When they could not sell enough newspapers that day, that meant no bonus and they had to come home with the fear of their parents being angry since they did not bring enough money to cover the following day. When they did not get many buyers for their newspapers, they had to sneak inside the biggest mall in Surabaya and look for more buyers for their newspapers. If the security officers at the plaza caught them, they had to suffer harsh punishments from the officers. The light punishment was a bawl out, medium ones were hair being pulled out or given a hit on the face, and the severe ones were being knocked around or electrified with an electric stick.

The excuse of the security guards for such abuse were that the presence of the newspaper children ruined the good image of the plaza. They were considered as thieves, selling illegal stuff, and of course they disobeyed the sign mark on the wall which aid “No Sandals are Allow” since they even did not wear any foot wear at all.

“We just want to be heard.”

And they were heard. Ms. Yuliati Umrah, back then still college student together with herefreind who were reformation activists started to organize and protest against the abuses of these kids on a Sunday when the mall was crowded with visitors.
The management of the building held a press conference and announced to give these kids funding so they could continue their studies. Many nongovernment organizations for children like them were born after the protest. Many of these NGO got their funding from the government projects for helping these kids.

However, the fact is that things did not work out as expected. As the money never reached the children and families in need and so the cycle of misery started to repeat. The best solution, so it seemed for Ms. Yuliati Umrah was to look for new economical resources and involve their parents to participate in solving the problem instead of separating these kids from their families.

Idea and startup phase

One day Ms. Yuliati Umrah took a walk with the children, who had dressed up in their best clothes, through the mall. That day, there was a crafting exhibition event.

There were many stands exhibiting crafts such as candle glass, multifarious stuff made of banana fronds, dried flowers made of fish scales, various carvings, and other wall accessories which were priced pretty expensive.

Mrs. Yuliati bought a candle glass and a small crafted basket made of banana frond, which made the children curious. Later at lunch she told them why she was interested in the objects and explained that she was wondering how to make them and the children responded and wanted to see the things and also get to know how to make them.

Then Ms. Yuliati had the idea to invite the children to her house to search the internet together about how to make these things. The children were excited and they all went to Ms. Yuliati’s house.

They found a lot of information and knowledge on the internet about how to make stuff similar to what they had seen at the exhibition and they learned how to make crafted things from unused waste materials and also found and learned many ways of how to recycling the unsold newspapers. All of them were so happy about this information and know how.

The next day, they gathered all the unsold newspapers and told the agent that they were going to pay for the newspapers once they had the money. They started doing some little experiments of newspapers cravings based on the information they got from the internet. The result was a beautiful basket made from the old newspapers. They used the newspapers, since the material was readily available and easier to find in the city than banana frond. Next, they started to make many other things from the newspapers such as recycling papers, gift boxes, photo frames, guest books, etc. Ms. Yuliati’s campus friends and her also donated some things like tools and additional equipments the kids needed to make the cravings.

They did it for months; the kids kept selling newspapers in front of discotheques at night until dawn and started to practice making the cravings during daytime in Ms. Yuliati’s house.

Ms. Yuliati brought their products to her college and sold them there to her friends and lecturers. Many of them liked the products but still were only willing to pay small prices not enough for the kids to cover their daily needs.

For some time, Ms. Yuliati and her friends tried to keep supporting the children in keeping up their spirits and keep trying to make a business from the crafts. However, not all of them could stand living this way.
Some of these kids turned to criminality, acting as a pimps in front of the discotheques, selling drugs, or stealing on the busses, some of them even got arrested. Ms. Yuliati still kept up her support and realized that all she could do was convince them that there must be something in return when they kept trying hard.

**Product development and growth**

After two years of working on the crafts, the group tried to join a craft exhibition. They had had to admit that they were much less professional than other artists. Those other artists were great, highly skilled and well supported because they had many foreign or elite buyers. The children’s shop was just visited by journalists who were interested in their hard life as children in the streets instead of their products. The good news was that they were often covered by the media. The group of young artists got more popular and named themselves as ALIT.

Entering the fourth year, some friends from the Netherlands and Australia participated in their work. These friends liked to participate by providing the tools, materials, books, and trainers for the crafts. And so the children got more excited about art and wanted to make new inventions since then. It had been three years since then and ALIT needed to go “back to school” but with better supporters and investors. The kids were still working in the streets. They provided umbrellas, bike driving, were polishing shoes, singing in the streets, or selling newspapers. Many orders at that time came from Ms. Yuliati’s ongoing-married college friends, who voluntarily offered their wedding parties to become “promotion” stands for these kids’ products.

Most people who saw the products thought that these kids’ products were unique because they created something extraordinary and out-of-the-box of the usual craving patterns. They made the products freely based on their imagination.

Slowly, these kids’ products started to be seen by people. In the eighth year, they received their first big order. A Singaporean bank tendered us to make bank merchandise in hundreds of units. They were amazingly happy for that.

Ten years later after the start the kids had turn into 18-20 year old adults and it was time to open a real store. They named it ALIT Skill Store. The kids named the store themselves. The name was unique and much easier to remember other than if they had named it with art shop or craft center, of which there were already many.

One day, they held an official opening for their new store. It was attended by many Surabaya city officials and the Indonesia Women Empowerment Minister, Mrs. Meutia Hatta. They were all being hailed for having survived through the economical crisis in Indonesia independently and even giving wider business opportunities to many other people.

**Lessons learnt**

A big dream of becoming a successful entrepreneur one day can carry an individual or a group of individuals through even the hardest and most difficult conditions as long as their spirit is still alive.
Many young people have great potential but they need extra support to be able to materialize this potential. At the same time the support must not stop after the business has opened, but has to continue until the business is stable and growing by itself.

Source: Yayasan Arek Lintang 2010
Case Study: Bali Recycling - CV Peduli Bali

Background

Bali Recycling operates an integrated waste management system that focuses on reducing, reusing and recycling. They provide collection services, operate a Material Recovery Facility and offer HazMat and battery recycling services.

Idea and startup phase

Although officially established in 2011, the history of CV. Peduli Bali (or Bali Recycling) can be traced back to the mid 90's. Back then a group of local Indonesians tried to bring awareness and action to the growing problem of garbage on this small island by establishing the Wisnu Foundation environmental organization. Although not all their efforts were successful, some actions did plant the initial seeds that would eventually lead to practical measures that would foster solutions for Bali’s environmental woes including CV. Peduli Bali.

The name, Peduli Bali is an acronym for Perusahaan Daur Ulang Limbah Bali or Waste Recycling Company of Bali. It is a tribute to one of the first recycling companies in Bali, PEDULI 93 that no longer operates. Peduli Bali also translates into English as ‘Care for Bali’.

Product development and growth

CV. Peduli Bali is built on a foundation of sustainable actions. They analyze processes and create real solutions that help us reduce waste and pollution and preserve our island’s environment. This approach benefits the organization, the community and the business partners on many different levels. As the amount of materials they reclaim, jobs they create and services they provide increases, the business is able to realize positive social, environmental and economic change. It is an approach that will create an organization that has the foundation needed to flourish into the future.

“Our goal is to build a truly 'Zero Waste' system where waste is not waste but merely materials on the way to being used again and again.”

The business has developed special goods, such as upcycled glass products emerged as a reaction to the huge numbers of glass bottles in the waste stream. The goal of upcycling is to prevent wasting potentially useful materials by making better use of discarded materials. Glass bottles become beautiful vases, drinking glasses, carafes, bowls and plates. Upcycled glass can be purchased in quantities with your logo and design and retail at many stores in Bali.
Why is it green?

Zero waste is a philosophy and a design principle for the 21st Century. It includes ‘recycling’ but goes beyond recycling by taking a ‘whole system’ approach to the vast flow of resources and waste through human society. Zero waste maximizes recycling, minimizes waste, reduces consumption and ensures that products are made to be reused, repaired or recycled back into nature or the marketplace.

Once you see that your trash is not really waste, you begin to understand what is possible and how much we can reduce, reuse and recycle and help protect the environment. Waste is a key starting point for all other environmental issues. Everyone creates it and everyone can and should help do something positive towards solving the problem. From the kid going to school to the executive at a big corporation, from the poor farmer to the rich socialite, everyone is affected and everyone can do it.

If our societies are unable to handle the relatively ‘easy’ issue of waste, how will we ever really tackle the more complex environment issues facing us today such as global warming, deforestation, marine resource depletion, energy issues, etc.? So no more excuses, no more ‘throwing away’ responsibility and time to start.

Challenges

The biggest challenge to the business and to the environment and society as a whole is the mindset of the people, who still regard waste as something to be disposed, wherever, whenever. Many people still do not see the value of waste and regard recycled products made from waste as inferior.

Lessons learnt

When the people start to realize that waste is a resource which can be the basis for beautiful and high class products, they will treasure the resource waste as what it is. From this not only the environment and the society will benefit but also businesses like CV Peduli Bali. It is the mission of green businesses like CV Peduli Bali to help change the mindset of the people and raise awareness about proper waste management.

Photos
Case Study: EcoBali Recycling - Sustainable Solutions to Waste Management

Background

EcoBali Recycling was founded in the year 2006 and is a comprehensive recycling company that aims at promoting responsible waste disposal and sustainable lifestyles in Bali. EcoBali Recycling is legally known as "PT Bumi Lestari Bali".

Idea and product development

The founders had various environmental and social concerns which have led to the establishment of EcoBali Recycling. Most of all the improper disposal of waste in Bali poses a big problem to the environment and the people and has a negative impact on the economy. Moreover, pollution, land degradation, water contamination and health issues are direct negative consequences of improper waste management practices.

The founders state their goals as: (1) achieve a cleaner environment, (2) encourage "Best Practices" in waste management, working towards a "zero waste" concept, (3) increase awareness on waste management problems among businesses and individuals in Bali, (4) promote sustainable solutions in order to promote sustainable lifestyles, (5) strengthen links among stakeholders (producers, consumers, recycling industries, etc.) in order to facilitate the implementation of available solutions and spread information.

Product development and growth

EcoBali Recycling has specialized in a number of services regarding waste collection, awareness raising and education.

Waste collection:

EcoBali Recycling currently reaches out to households, villa complexes, factories, small hotels, various businesses and schools. EcoBali services operate in the areas of Southern Bali including Kuta, Legian, Seminyak, Umalas, Canggu, Seseh, Sanur, Renon, Jimbaran and Ubud. EcoBali Recycling also operates its own sorting and material recovery facility in Kerobokan. In the sorting centers, the waste is further separated according to categories and then sent to various recycling plants (mostly in Surabaya). The residue (waste that cannot be recycled) is then disposed of in sanitary government landfills.

EcoBali collects and sorts more than 15 tonnes of non-organic waste each month and recycles up to 11 tonnes per month.

Composting systems:

EcoBali actively promotes composting as a great solution to manage bio-degradable waste. 50 per cent of the waste produced daily is bio-degradable and should not be considered waste but as a great resource.
The business provides composting systems for kitchen and garden waste. Together with Kompos Bali they have developed beautiful and effective composting bins made of recycled materials. They also provide full installation including bins, starter kit, training and manuals.

Support to events:
EcoBali gives support to events by providing either bins or/and information sessions.

Current programmes:
"Promoting recycling of post consumer beverage cartons in Bali" (cartons used for milk, juices, tea, coconut milk, etc.) in collaboration with Tetra Pak Indonesia.

The programme focuses on collaboration with collectors, hotels, schools and communities in order to spread awareness on waste disposal best practices in general and recycling of beverage cartons specifically. One of the programme’s goals is to create a collection network of Tetra Pak cartons to establish a viable and sustainable recycling system. Awareness sessions, collection and distribution of information materials and tools are provided to stakeholders involved.

In partnership with the Bali Hotel Association, the number of hotels participating has reached 30 and the number of schools 16 with more than 5000 students involved.

The company also provides support in developing educational programmes in schools to promote waste separation and environmental awareness. It offers sessions for teachers and students including information materials.

Ecobali Recycling promotes waste separation and recycling in households, factories, small businesses, hotels, schools and communities to minimize waste disposed.

Why is it green?
Waste separation, composting and recycling is one of the solutions to reduce the amount of waste disposed of in landfills. A realistic outlook of possible reduction could be:

- Households: reduction of 40 %
- Hotels: reduction of 30-40%
- Offices: up to 80% according to type of business

It has become clear that most waste is a resource and not junk. Recycling allows recuperating materials that can be transformed into new items with 3 main advantages:

- Reduce the amount of waste that needs to be disposed in landfills.
- Reduce the quantity of new raw materials utilized.
- Reduce the quantity of energy used in the extraction/manufacturing process.
Furthermore, composting allows for the transformation of most of the bio-degradable waste into great fertilizer and reduces methane greenhouse gas emissions.

**Challenges**

The biggest challenge in any waste management effort is lack of awareness and education on environmental best practices for the people and the businesses in Bali. This also covers sustainable waste management, sustainable energy and water management, etc.

**Lessons learnt**

For a business engaged in green waste management, as explained above, the awareness of the people and all other stakeholders is important. If there is no awareness and no demand for sustainable waste management, there will be no green business. Due to the fact that this awareness is still low, the business has made it one of its goals to raise this awareness. It sees it not only as a benefit for the environment and the people, but also as a means to increase its green business opportunities.

Sources:

CHINA


Background

Waste paper and plastics account for the largest proportion of the recyclables produced by residents in China. Among all the recyclables, the recovered waste paper makes up about 50 per cent. China is a big consumer of paper and has to import a large amount of paper every year due to its severe shortage of paper pulp. Reasonable recovery and effective recycling of waste paper will ease the pressure caused by the shortage of paper pulp and help protect the forest resources in China.

Idea and startup phase

Beijing Zhong Zhi Xin Cheng Renewable Resources Co., Ltd was founded in September 2007 and was one of the first enterprises in Beijing to specialize in the recovery and packaging of waste paper. Its business scope includes the recovery of waste paper, classification of recovered waste paper, compacting of classified paper and packaging the paper with the packer.

Product development and growth

The company recovers and processes about 10 tonnes of waste paper every day. Since China is a large consumer of paper, it has huge market demands for recycled paper. What’s more, the recovery of waste paper is not subject to seasonal fluctuations. The amount of recovered waste paper at communities accounts for more than 50 per cent of the recyclables in communities in Beijing. Many community residents have the habit of storing waste paper for sale, which makes the recovery of waste paper more convenient.

The company has set up waste recovery stations in some communities in Changping District, and the waste paper recovered at these communities will be transported directly to the company for classification and further processing. Since the company’s plant is located in the Dong Xiao Kou Waste Recovery Market, many booth owners specialized in waste paper recovery will deliver the waste paper they recover to the company for further processing. Now the company’s plant can process about 10 tonnes of waste paper every day, and has 20 staff members, 10 of whom are responsible for the Recycling and Waste Management classification of the recovered paper and the compacting and packaging of classified paper, with the rest engaged in quality control, management, accounting and driving. However, this number does not include those recovering the waste paper in the city.

If the government changes its policies concerning the renewable resource industry in the future, such as adopting the tax exemption policy again or increasing the rebate rate, the company will expand its operations, increase the number of packers and set up more recovery sites in pilot districts and counties of Beijing.
Why is it green and sustainable?

By recovering and recycling waste paper the company helps to reduce the pressure caused by a shortage of paper pulp thus reducing the need for forest exploitation. At the same time an opportunity for a side income is provided for local communities and households providing the waste paper. Instead of having to sell the paper in the street, the households can build sustainable cooperation with the company and directly utilize their waste collection centers.

Challenges

Like any other recycling sector, the recovery of waste paper also faces immense challenges. The recovery price of waste paper fluctuated sharply before and after the Beijing Olympic Games, and the unstable recovery price has made it more difficult for the enterprises. For example, for the whole year of 2008, the average recovery price of waste paper was 1.8 yuan per kilogram, but the price dropped to 1 yuan per kilogram after the Beijing Olympic Games. The recovery price of waste paper also fluctuated in the beginning of the financial crisis in 2008. Another challenge is that enterprises engaged in the recovery and recycling of waste paper will depress the recovery price due to the poor capital turnover and postpone the payment, which was made once a month before, but once in every two to three months now. One more challenge lies with the vicious market competition and the tax policy for renewable resources. The whole waste recovery market in China has a low barrier to entry, and individuals and family-run units that haven’t registered with the government can move freely from community to community to recover waste paper without paying the value-added tax. The whole market is in vicious competition. For registered enterprises, the tax exemption policy for the renewable resource industry was canceled in 2008, and was substituted by the policy of tax rebate. But the tax rebate rate has declined year by year, from 70 per cent in 2008 to 50 per cent in 2009 to zero in 2011.

Lessons learnt

The largest contributor to the successful operation of waste paper recovery is the comparatively huge market demand. Meanwhile, the source of waste paper is quite big and there is huge potential for the recovery of waste paper at communities. The waste paper enjoys a comparatively high recovery rate and requires simple storage conditions. Many residents and enterprises have the habit of storing waste paper for sale. And prior to 2008, the government adopted the tax exemption policy for the resource recycling industry. All these factors have created a favorable environment and opportunities for waste paper recovery enterprises.

Source: ILO – Green Business Option 2012
Case Study: Huaxin Environmental Protection Development Co., Ltd – E-Waste

Background

The official recovery and processing of electronic waste in China was not available until 2009, and in particular after the implementation of the old-for-new home appliance subsidy scheme, the government started to set up pilot sites for the treatment of electronic waste in some cities including Beijing. Now the recovery of electronic waste is mainly conducted in two modes: first, through demonstration programmes on the recovery and treatment of electronic waste carried out in some cities, including the old-for-new home appliance subsidy programme, large home appliance chain stores such as Suning and Gome will sell the replaced home appliances to enterprises with the qualifications for the treatment of electronic waste. Second, waste collectors and recyclers of electronic waste at communities will purchase the electronic waste directly from the residents, and then sell them to second-hand home appliance markets or to waste recovery markets for disassembly.

Huaxin Environmental Protection Development Co., Ltd is a comprehensive environmental protection enterprise, engaged in the development and innovation of environmental protection technologies, development and manufacturing of environmental protection equipment, integrated supply of environmental protection systems, operation of and investment in environmental protection programs, construction of circular logistics systems and the provision of relevant technical support. Huaxin electronic waste recovery and treatment programme is a national model programme on the recovery, treatment and recycling of waste home appliances recognized by the National Development and Reform Commission, a key programme of Beijing, and part of the city infrastructure construction programme for the Green Olympic Games campaign in 2008. The phase II base, completed in early 2011, has the treatment capacity of 2.4 million sets per year for electronic waste such as TV sets, washing machines, refrigerators, air conditioners and small home appliances.

Idea and startup phase

In 2008 it started electronic waste recovery and disassembly. The country’s 12th Five-Year Plan places the resource recycling industry in a key position, including the recovery and recycling of electronic waste. Meanwhile, the No. 551 document of the State Council specifies that the government shall refund the tax collected from the renewable resource industry. Another key reason for Huaxin to set up the electronic waste disassembly programme is because the obsolete appliances have increased year by year in both terms of category and quantity, and the recovery of electronic waste has a comparatively large market demand.

Huaxin has established its recovery channels through the cooperation with large appliance dealers such as Gome and Suning, and self-employed individuals engaged in the recovery of waste appliances. The company plans to set up direct recovery channels at communities in the future. It resolves the recyclables and the toxic electronic waste in closed disassembly workshops, and delivers the disassembled recyclable metals and plastics to downstream recovery and recycling enterprises, and the toxic and hazardous matters to enterprises with qualifications for the disposal of dangerous waste, so as to prevent the discharge of poisonous and hazardous matters.
Product development and growth

Since Huaxin started to engage in the disassembly of electronic waste in 2009, it has invested about 130 million yuan in disassembly lines. Its business scope mainly includes the recovery and disassembly of refrigerators, TV sets, washing machines, air conditioners and computers, disassembling over 800,000 sets in 2009, over 1.8 million sets in 2010, and over 1.8 million in 2011. The recovery of the recyclables is labor intensive, and the recovery of electronic waste is no exception. The community recovery and the old-for-new home appliance subsidy programme involves a large number of personnel. Huaxin has about 80 staff members directly engaged in the disassembly of electronic waste, including those responsible for the research and development of disassembly technology. Besides personnel directly disassembling the electronic waste, there are also dedicated staff members for the scientific research on the electronic waste disassembly technology. Huaxin has its own R&D department and therefore needs a large number of talented people specialized in automation and high polymer chemistry. Since the disassembly technology plays a key role in the industry, there will be a lot of job opportunities.

Huaxin plans to expand in the following two areas in the future: first, in-depth processing and production of disassembled materials, and making full use of materials such as precious metals and plastics extracted from disassembled electronic waste; second, expanding the market, setting up disassembly bases in places without standard disassembly of electronic waste and copy the practice in Beijing in other places of the country.

Why is it green and sustainable?

The electronic waste has strong positive and negative values. For one thing, they are potential threats to the environment. Without proper treatment, poisonous materials such as lead, mercury, cadmium and hexavalent chromium will pollute the environment and harm human health. For another, electronic waste contains a lot of recyclable resources such as ferrous metals, nonferrous metals, precious metals and plastics. Therefore, the recovery and standard disassembling of electronic waste is of particular significance to our country which suffers from a comparatively small per capita resource amount and shrinking mineral resource.

Challenges

There are also some challenges threatening the development of Huaxin. A large quantity of electronic waste goes to some unofficial recovery channels due to poor enforcement and inspection in the sector. As with other recovery sectors, the recovery and treatment of electronic waste also faces taxation problems. Regulations on the recovery of renewable resources do not provide these enterprises with reasonable support and guarantees. Though the existing tax policy is to refund the tax collected from these enterprises, no refunding has been made in recent years. In some cases, the self-employed individuals engaged in the recovery do not need to pay the tax, which is not fair for registered and certified enterprises. Another big challenge is the shortage of talent. The enterprises are in urgent need of improving the disassembly technology as soon as possible. But the industry is in extreme shortage of R&D talent due to the lack of education in the past.
For entrepreneurs, the electronic waste recovery industry is highly profitable but also has strict requirements on technology. Therefore for entrepreneurs with certain know-how and technical capabilities should consider opportunities in the e-waste sector.

**Lessons learnt**

A major reason for the success of Huaxin is because it was the first enterprise with standard electronic waste recovery and disassembly when the government started to integrate and regulate the recovery of electronic waste for standard disassembly. Another key factor is that China generates a large quantity of electronic waste every year and the figure continues to grow year by year, so there is a potential market for the recovery of electronic waste. The government plans to scale up the recovery and treatment.

Source: ILO – Green Business Option 2012
Case Study: Beijing Lian He Ding Sheng Renewable Resource Recovery Co., Ltd - Community Recovery Enterprise

Background

According to incomplete statistics, Beijing generates 18,400 tonnes of waste every day, and the figure grows by 8 per cent year on year. While the amount of waste continues to increase, the waste treatment capacity is lagging behind. Currently the designed daily capacity of Beijing municipal waste treatment plant is only 10,400 tonnes, with the actual daily capacity of 17,400 tonnes. The refuse dumps are much overloaded, and all the existing landfills will be fully filled in within four years.

Despite the fact that departments including environmental sanitation departments are encouraging residents to classify the waste, and set up different trash cans for different types of waste, the residents are not enthusiastic about waste classification due to the mode of waste removal (all the waste is gathered for landfill or burning). As a result, no substantial progress has been made in waste classification and reduction.

The existing waste disposal ways of residents

Since domestic waste contains articles for daily use, such waste is disposed of in a closed system for the sake of environmental protection and sanitation. The process is shown as follows:

In principle, the waste transportation and treatment process indicated in the red dashes is conducted in an enclosed system, excluding personnel engaged in waste collection and classification. Theoretically speaking, the process includes the following steps: residents put the waste in different trash cans according to the category of waste; community cleaning staff gather the waste from the trash cans and move them to the community transfer point or waste storage room; environmental sanitation personnel transport the waste to the waste transfer station and from which the waste is transported to end treatment facilities for further processing.

Statistics show that there are about 170,000 personnel engaged in classifying and collecting waste in Beijing, who are commonly known as waste collectors. Generally they are not staff members of property management companies or materials recovery companies. Most of them are self-employed migrant workers, collecting the recyclables at communities, subdistricts or refuse dumps. The process is shown as follows:
As it is shown in the above chart, waste collectors collect the recyclables with value from trash cans, trash towers, transfer stations and refuse dumps at communities or subdistricts, and sell them to recyclers to gain profits.

Generally, waste collectors do not work in a fixed location, but rather move from place to place to collect waste, such as communities or refuse dumps. They carry plastic bags with them to collect the waste that can be sold. But there are some people who organize some waste collectors to contract all the waste in a community, transport them to the suburban area on a regular basis, sort out the waste that can be sold and sell them to waste recovery stations, and leave the rest on the ground. Such waste classification is conducted in a disorganized way and mainly for personal interests. The dumping of the unrecyclable will cause secondary pollution to the environment.

**Startup phase and product development**

In cooperation with government departments such as the Beijing Waste Management Department and scientific research institutions, the company has set up a production line for waste liquor package paper with the daily capacity of 15 tonnes, and engaged in the removal and transportation of some recovered waste.

To ensure a clean environment for all the communities, the company is responsible for transporting all the waste in the trash cans to community transfer stations. The process is standardized, with staff workers all in uniforms and all the vehicles for waste transport of the same model and equipment, so as to ensure that no waste is leaked or left out in during the removal and transport process.

The company shall arrange vehicles dedicated to environmental sanitation to transport the waste from community transfer points to classification stations. These vehicles are clearly marked with signs of “Recyclable”, “Unrecyclable” and “Kitchen Waste”, to enhance the residents’ awareness of waste
WASTE MANAGEMENT - CHINA

The company ensure the regular removal and transport of the above three categories of waste.

Relevant authorities shall build waste classification stations in appropriate locations as the model for community waste classification. The classification station shall be equipped with sewage pipelines, odor reduction facilities and waste classification platforms. The company is responsible for the classification of all sorts of waste and demonstrating the practice and results of waste classification in the station so as to guide the residents in waste classification.

Why is it green and sustainable?

The company is involved in waste classification helping a lot of recyclables get efficiently recycled. At the same time it conducts waste collection and transportation in a clean and organized way, preventing any further pollution and complying with decent work principles. It helps to keep the communities' environment clean. Furthermore, by running a promotion campaign for waste classification and separation supported by the special design of their transport vehicles and classification stations, it supports the awareness raising among the communities on the importance of waste classification and separation.

Challenges

First, residents’ neglect of waste classification will increase the operation costs of the whole system. Second, for property management companies, the contracting of waste collectors will change the original waste removal and transport mode and might change the original interest pattern; for the company, the recovery price keeps fluctuating and in case of low prices, the profits will be insufficient for normal operation.

Lessons learnt

The company practices standardization in their management and operations. Furthermore, it also works to classify waste in order to help the community to implement proper waste disposal and separation.

In waste management it is very important to uphold high safety and health standards, both for the own employees and the community. Since waste collection and disposal deals with potentially hazardous substances and it is a service directly provided to the community with a lot of interaction with the local people, it is essential to communicate a feeling of comfort and safety. Occupational safety and health must also always be guaranteed through proper training, proper equipment and standardized procedures.

Source: ILO – Green Business Option 2012
Case Study: “Garbage King” - Waste Recovery Station

Background

Job hunting poses a huge challenge for fresh graduates for it seems that college graduates have outnumbered the jobs in the market. Confronted with such a situation, a small number of Chinese college students turned to another alternative — starting their own business. The renewable resource recovery industry, though it is equal with traditional waste collection in the eyes of most people, in fact is in urgent need of talents with theoretical and technical know-how.

Idea and startup phase

In September 2006, eight college graduates in Shenyang, Liaoning, gave up their promising jobs and entered the waste industry. Many people did not show approval of their decision. But they persisted and tried to build a new image of “garbage king” with new concepts and dedication.

On September 9, 2006, Wu Mingxuan, Lv Mingjiang and Wang Yu, all graduates of the Northeastern University, founded the Zhuo Chuang Waste Materials Recovery Station in Shenyang. They have invested more than 200,000 yuan in the station and Wu Mingxuan even gave up a job in a department of Shenyang municipal government.

On January 12, 2007, Wang Xinyu and Lu Haochen, graduates of Shenyang Jianzhu University, gave up their job with a monthly salary of thousands of yuan, invested 120,000 yuan and founded a waste purchase station.

Product development and growth

There are a total of eight waste purchase stations scattered in Zaohua Village and nearby areas in Yuhong District. To increase their market share, the three college students introduced a membership system. Now they have a total of 64 members working as purchasers moving from one place to another. They will be rewarded with certain incentives when the waste they have purchased reaches a certain amount. They can take a rest in the station when they wander about the streets, or have their three wheelers fixed for free at the station. On festivals and holidays, these college graduates will give them some free food.

For the sake of fairness and integrity, an electronic scale is used at these recovery stations, to be as precise as possible when purchasing the waste and to protect the interests of those who deliver the waste.

According to these entrepreneurs, in the last four months since their opening, their purchase stations have shown little difference from traditional waste purchase stations. But they are about to conduct rough processing of some renewable resources, and have contacted a metal company in Shenyang and a college professor, and hoped, with their help, to try the in-depth processing of these resources. This is where their future development will go.

A plate has been put on the door of the station recently, reading “Shenyang Training Base for Floating Purchasers of Renewable Resources.” The purchase station has reached an agreement with the Renewable
Resource Management Office of Shenyang, on the provision of training to floating purchasers on a regular basis.

**Why is it green and sustainable?**

Wu Mingxuan, Lv Mingjiang and Wang Yu introduced a fair collaboration system for waste collectors where the purchasing station takes over the reimbursement. The waste collectors are registered as official cooperation partners and are provided with support for facilities like resting areas, tricycle repairs, making their hard work easier. They also offer trainings to the waste collectors for proper waste handling and occupaional safety and health. They also guarantee fair and exact payment for the waste delivered.

Their services help to keep the communities clean and provide valuable resources for recycling and upcycling activities reducing exploitation of natural resources.

**Challenges**

It is well known that to start up a business, college graduates have to overcome many obstacles in regards of funds, equipment and experience. It is even more difficult for them to engage in the waste purchase industry, where they did not have any network beforehand.

Besides the pressure associated with the job, they had to do almost everything themselves, including painting the walls, wiring, clearing the chimney and starting a fire in the stove. Until now, Lv Mingjiang and Wang Yu still sleep on an adobe kang. They dress like nearby residents and you can hardly identify them as college graduates except for their eloquence.

**Lessons learnt**

These college graduates have encountered unknown difficulties in starting their own business. But it is a comfort to see that the business is growing much faster than we expected. In many large and medium-sized cities, hundreds of tonnes of waste are generated every day; and the renewable resources wasted per year are worth hundreds of millions of yuan. In this sense, this industry is of huge potential and as it has little competition, small investment and low risks, it is a good career choice for college graduates.

Source: ILO – Green Business Options 2012