REQUIREMENTS OF TECHNICAL EXPERTISE IN THE SOCIAL ENTERPRISE AND ECONOMIC DEVELOPMENT (SEED) PROGRAMME.

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ABSTRACT

Technical knowledge advise has convinced the farmers on their's benefit from the Social Enterprise and Economic Development (SEED) program 2011. Most of the 12 farmers with fertigaton of chilli project were lacking in the knowledge of fertigation and cropping schedule. Fertigation should be applied during the day to optimize the photosynthesis potential of the crop to maximize the chilli yield, do not fertigate in the evening. Since the chilli was planted under the plastic rain-shelter, the maximum production of chilli has to coincide with the wet monson season of october until end of december when chilli production outside is impossible and the price of chilli is double.

The catfish farming activities could be expended through the expension of spawning activity and the production of fish pellet. The facilities for the hatchery system has to be improved by using fibre tanks for the spawning process and better fencing system around the nursery pools to prevent the predators from invading the pools. This improvement will increase the catfish harvest , reduce the operational cost and sustain the income.

For traditional cake business, the technical knowledge requirements were mainly on production facilities and ingredients to achieve the standard of GMP and halal certification. Better packaging and branding will improve the daily sale outside the festive season to sustain the income.

Keywords: Technical knowledge, Fertigation of chilli, catfish farming, traditional cake business.

1.0 INTRODUCTION.

Social entrepreneurship refer as social business in helping poor community similar to when Mohd Yunus the founder of Grameen Bank has proven its success in giving loan to the poor in starting a business. The social business must be self-sustaining business that is, it generates enough income to cover its own costs. Part of the economic surplus the social business creates is in turn invested in expanding this business and apart is kept in reserve to cover the upcoming uncertainties. Social entrepreneurship also addresses social problems and needs such as poverty eradication that are unmet by private sectors or governments and generally it works with, not against the market forces. The social entrepreneur aims for the value in the form of large-scale, transformational benefit that accrues either to a significant segment of the society. In Malaysia, social entrepreneurship is a new area that needs to be ventured by scholars and practitioners of general entrepreneurship. However, University Malaysia Kelantan (UMK) has set a clear benchmark quoting that entrepreneurship is entangling about nothing else except mind setting, be it in the business or social venture. With this understanding UMK students are encourage to take part in the actual community social economic development programme such as this Social Enterprise and Economic Development (SEED) programme.

The purpose of the Social Enterprise and Economic Development (SEED) programme is to make a sustainable economic change in a village through the transformational leadership principles. This requires initiatives to make sure that the whole village economy benefit from the change instead of an individual population. Realizing this goal requires the close cooperation between institutions inside and outside the village. For the SEED programme 2011 in Kampong Seri Tujuh, Tumpat, Kelantan, close cooperation between Staff and students of University Malaysia Kelantan and other participating universities, Community of Kampung Seri Tujuh, Tumpat , and other government agencies were needed. The farmers and entrepreneurs were willing to work with us when they can see the benefits from this programme directly or indirectly. The direct benefits could be derive by improving the distribution channels, increase market visibility, introduce additional products, and increase in the production capacity. Indirect benefit could be the knowledge and technology transfer to improve the production system and product quality. Three groups of students were assigned to three different groups of farmers or entrepreneurs in Kampung Seri Tujuh. The first group with five students were assigned to the group of twelve farmers producing chilli using fertigation under rain-shelter. The second group of eight students

were assigned to farmer with catfish farming and the third group of six students were assigned to traditional cake entrepreneur. The students were given two weeks to work with the farmers to understand and prepare a business plan to improve the business with the farmers or entrepreneurs. After the programme the students has to monitore the progress of this business and help them if the needs arise.

2.0 CHILLI FERTIGATION PROJECTS.

Chili fertigation project in Kg Tujuh Masjid is established in February 2010. The project was initiatied with the aim to help the villagers in high technology agricultural practices and help increase the villagers economy. This project was inline with the government vision for the 9th Malaysia Plan (RMK-9) which welcomes private sector involvement in developing the agriculture production system especially in food crops.

The project has 12 units of 6meters x 30meters Rain Shelter and operated by 12 farmers. All the Rain Shelters are equipped with micro-irrigation system for the farmers to grow crops using fertigation. The whole infrastructure was developed by Lembaga Kemajuan Kenaf dan Tembakau Negara (LKTM) to discourage farmers from growing tobacoo . For the start, a complete fertigation system was provided such as fertilizer, seed and others to grow chilli.

Capsicum annum is the scientific name for red chili from the family of *Solanaceace*. The species are native to America and Mexico, where they have been cultivated for thousands of years, and now are being cultivated worldwide. Chilli is very popular in Malaysia and mostly used to cook the traditional malay spicy food. The types of chlli available in Malaysia such as "cili besar" (Capsicum annum) and "cili padi" (Cpsicum frutescens) have different usage and methods of production. The hybrid Chili, is more efficient to irrigate and fertilize, produces longer and larger types of chili in red and green colors. Chili is not only used as spice, but it is also an attractive decoration for food.

The application of nutrients through irrigation systems is called fertigation, and this is a new technology to farmers in Tumpat, Kelantan. This technique can reduce fertilizer application costs by reducing labour requirement. Fertigation also improve nutrients application efficiency by applying direct to the plants root and apply the fertilizer when the plant needs (precise fertilizer application and scheduling). Pest and disease must be controlled using pesticide because the Rain Shelters are not insect proof.

2.1 SWOT Analysis.

STRENGTH	WEAKNESS
• Has suitable environment • Get support from governmental agencies	• The Rain Shelter allocated to each farmer was small about 100ft x 20ft and could accommodate <400 chilli plants. • Some farmers fertilize manually by hand or don't the fertigation system. • Some farmers fertigate the chilli once a day and in the evening – wrong scheduling. • Farmers not sensitive to price fluactuation - chilli are expensive during wet moonson season.
OPPURTUNITY	**THREAT**
• High market demand. • Increase in demand for processing • Encouragement and incentive from government	• Imported chili from Thailand, Indonesia, China and India is cheaper. • Local chilli production especially during dry season grown in the field. • Pest and virus attack especially during wet season

2.2 Recommendation for Chilli Fertigation Project.

Technical advise was given during the discussion with farmers and should be practices immediately.

a) Fertigation should be applied 4 – 5 times a day at 2 hours interval from morning to evening and about 5 – 10 minutes each application. This will give an optimum potential for plants photosynthesis to give higher yield.

b) The local chilli production in Malaysia planted outside in the field is high during dry season and the price is low. During wet season it is impossible to plant chilli in the field due to the pest and virus attack and the price is high. So chilli should be planted under the Rain Shelter and harvested during wet season when the price double. During dry season chilli should not be

planted here to avoid threat from open field chilli production. During dry season, Japanese cucumber or sweet melon should be planted to get higher return.

c) Group farming through registered company, cooperative or loose group was also suggested since all the twelve farmers are using the same infrastructure.

3.0 CATFISH FARMING BUSINESS.

The catfish farming business is run by Mr. Mohd Nasir bin Abdul Rahman. His business entity is sole proprietorship. The main activity in his business are spawning, rearing, storing and selling the catfish. His business has been established for eight year. However, during those periods he had undergone two times of bankruptcy due to flood that happened during the monsoon season in November 2010 and Mac 2011. He has attended several courses organized by government agencies and non-government organizations. As a result, he is now able to do spawning, formulate fish pellet, formulate hormones and know how to minimize his operational cost.

3.1 SWOT Analysis.

STRENGTH	WEAKNESS
-Reasonable price -Minimum labour requirement.	-Promotion - Signboard There is no signboard that will direct people to his place. -Networking -Improper hatchery place Mr. Nasir does the spawning process by using conventional method; his hatchery is made up by plywood and the area of the hatchery is small.

OPPURTUNITY	THREAT
-Strategic location -Pioneer	-Predators Hatches fries can be easily attacked by predators like praying mantis, toads and others.

3.2 Recommendation for Catfish Farming Business.

a) Upgraded the cages above the flood level so that fish cannot escape during flood.

b) Increase the number of cages to increase the monthly catfish production from 0.5 tons to one metric ton, thus increase the monthly income to >RM 2000 a month.

c) Replacing the conventional hatchery system with fibre tanks for the spawning process, and introducing the better fencing system by using net around the natural nursery pools to prevent the predators from invading the pools, thus increase the fries production.

4.0 TRADITIONAL CAKES BUSINESS.

The traditional cakes business is run by Zubaidah bt Yusof. Her business entity is sole proprietorship. The main activity in her business are making and selling malay traditional cakes such as tart, doughnut, currypuf, malay fruits salad (rojak buah) and other local cakes. She make her products from her own house and market her cake products through the local retail shops. Zubaidah has attended several courses in cakes making and entrepreneurships. Based on this experiences she started this business with initial investment of RM3000 for equipments and raw materials.

4.1 SWOT Analysis.

STRENGTH	WEAKNESS
-Knowledge in traditional cakes making.	-Promotion - Improper place for cakes production. -Networking -Improper packaging of the cakes

OPPURTUNITY	THREAT
-Local populations like her products such as the pineapple tart. -Pioneer	-Other traditional cakes producers.

4.2 Recommendation for the Traditional Cakes Business.

a) With the advise and help from the SEED programme , she moved her traditional cakes production to the small & medium scale industry (SME) factory nearby rented at RM120 per month from LKIM.

b) With the help from our creative technology expert, new packaging design was given for her pineapple tarts. The new packaging is small contain 10 pices of tart for daily consumption.

c) Puan Zubaidah was very pleased with the business plan given by the SEED programme to help her to get Bank loan fer her business expension.

5.0 CONCLUSION.

a) SEED programme 2011 has benefited the participating farmers and entrepreneurs through the technology transfer from University . Technical experts play their role through farmers field school concepts to transfer the technologies.

b) The students learned and practiced the transformational leadership principles to make a sustainable economic change in the village.

c) SEED programme 2011 has also improved the socio-economic level of the farmers and helped to eradicate poverty.