

Pearl Culturing Industry and Regional Employment Generation

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Abstract

Myanmar pearl industry is one source that is generating income especially in terms of foreign currencies for the country and at present, this industry is making progress since the early 2000s; especially production of pearls is on the increase year by year. Pearl culturing, however, needs a large number of general workers, mostly unskilled, as the production process is of a different nature. It is seen that the pearl industry is giving employment opportunities to the vicinity where pearl farms are established. About 30% of the total population of approximately three thousand from three villages is now employed in this industry. Apart from this, through the establishment of a small scale industry producing import substituting raw materials for the pearl culturing business have resulted in generating employment for vulnerable children and orphans of training schools under the Social Welfare Department in Yangon. It is thus seen that there is a linkage between some type of industries' employment demand and securing social protection and welfare of vulnerable children especially orphans exists, thus producing a secured future for these children.

Key words: employment; skilled; semi- skilled; unskilled; pearl culturing

1. Introduction

Pearl Culturing Industry now plays a vital role in the nation's economy as Myanmar's South Sea Pearls are being recognized and are in demand by other countries. This industry has supported much to the economy especially the regional economy (Myeik Archipelago) such as creating job opportunities and other income generating activities.

Myanmar Pearl production is increasing and has been earning foreign exchange through sales of pearls at emporiums held yearly. As Myanmar Pearl Enterprise (MPE) is conducting this business as a joint venture with private companies and based on a product sharing contract, besides the revenue received from sales of pearls, it also benefits from transfer of technology from private foreign companies which is also a necessity to boost pearl production.

As both public and private pearl farms are established in Myeik Archipelago, this industry had absorbed labor from those areas. It was seen that more than 30% of the total population of 3000 from the surrounding villages have been employed in these pearl farms mostly as general workers or unskilled labor. Most of the initial stages of pearl culturing needs a large number of general workers and the local people can acquire permanent jobs here. Only a small number of technicians, managers, foreign experts are from other regions.

Apart from creating employment for the local people, this pearl culturing business has also led to the establishment of a small industry in Yangon. This small industry produces equipments required for pearl culturing business and these locally produced equipments can now

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substitute those that have to be imported before. Then this small industry is also supporting both income and welfare to the orphans in Yangon, by offering jobs to the youths in these orphanages.

In this case, the Pearl Culturing Industry has become vital in generating employment opportunities both for the local populace and for children under the care of Social Welfare Department.

2. Brief Overview of Pearl Culturing Industry

At the very beginning of pearl production in Myanmar, pearl farms used wild oysters that were fished from Myanmar seas where these oysters were the main resources to produce pearls in pearl culturing industry. This method of producing pearls had disadvantages such as requirements of boats, divers, fuel-oil, etc. and also had some risk because it is needed to understand the changing conditions of tides, etc. Of these, divers from this region became essential as the industry was depending much on wild oysters.

Then, in 1983, seventy percent of wild oysters at Pearl Island farm were found dead unexpectedly and the production of Myanmar pearl industry declined due to that reason. (Nilar Win Maung, 2009, p. 4) It showed that depending only on the wild oysters was no longer reliable to produce pearls. Myanmar technicians noticed that artificial oyster breeding was the only way for the survival and existence of Myanmar pearl industry, but the artificial oyster breeding was not successful until 1999 due to lack of technical know-how, such that Myanmar pearl industry still had to depend on these wild oysters till 1999. After this, Myanmar could begin to operate through the artificial oyster breeding process in 2000. Myanmar's production is now based on hatchery operation. In a hatchery operation, oysters are artificially bred and reared in a controlled environment. Myanmar planned for large scale hatchery based pearl culturing operation and to develop a pearl farm in Myanmar.

Myanmar Pearl Enterprise (MPE) under the Ministry of Mines is conducting this business as a joint venture with private companies and as based on a product sharing contract, besides the revenue received from sales of pearls, it also benefits from transfer of technology from private foreign companies which is now a necessity to boost pearl production.

In Myanmar, there are five private companies, both foreign and local owned, working together with MPE in the pearl culturing business. At present, private companies operating in Myanmar are;

- (1) Myanmar Atlantic Company Ltd. Atlantic Company, Australia formed its pearl farm at Escape Bay, Elphinstone Island, forty miles away to the west of Myeik.
- (2) Myanmar Tasaki Company Ltd. (1997), Tasaki Shinju Company Ltd. formed a pearl farm at the southern part of Domel Island
- (3) Myanmar Andaman Pearl Company Ltd. (Andaman Pearl Co., Ltd from Thailand formed its pearl farm at St. Lukes Island, thirty miles from Kawthaung .
- (4) Orient Pearl Company Ltd. A local joint venture company with MPE owned by a Myanmar national established the pearl farm at Zinyaw Island near Pale Kyun.
- (5) Niino Pearl Company Ltd. A local joint venture company with MPE established its pearl farm at Owen Island.

3. Types of Employment and Allocation

(1) Pearl Industry

Pearls are usually produced through seeding the oysters systematically in order that quality pearls can be produced. In pearl culturing operations, artificial oyster breeding is the main activity in the production of pearls. The type of employment in this process, especially in the initial stage of collecting oysters and breeding of oysters are different. The process needs only manual labor and some semi-skilled labor but it usually employs a reasonable large number of workers.

In the Pearl Culturing and Production in Myanmar, there are four stages; such as breeding oysters, Maintaining oysters, Seeding oysters and harvesting pearls are the main stages of the production process as explained above.

In the four stages of the production process, labors or workers, skilled, semi-skilled and unskilled workers (general workers) are being attached to their appropriate process.

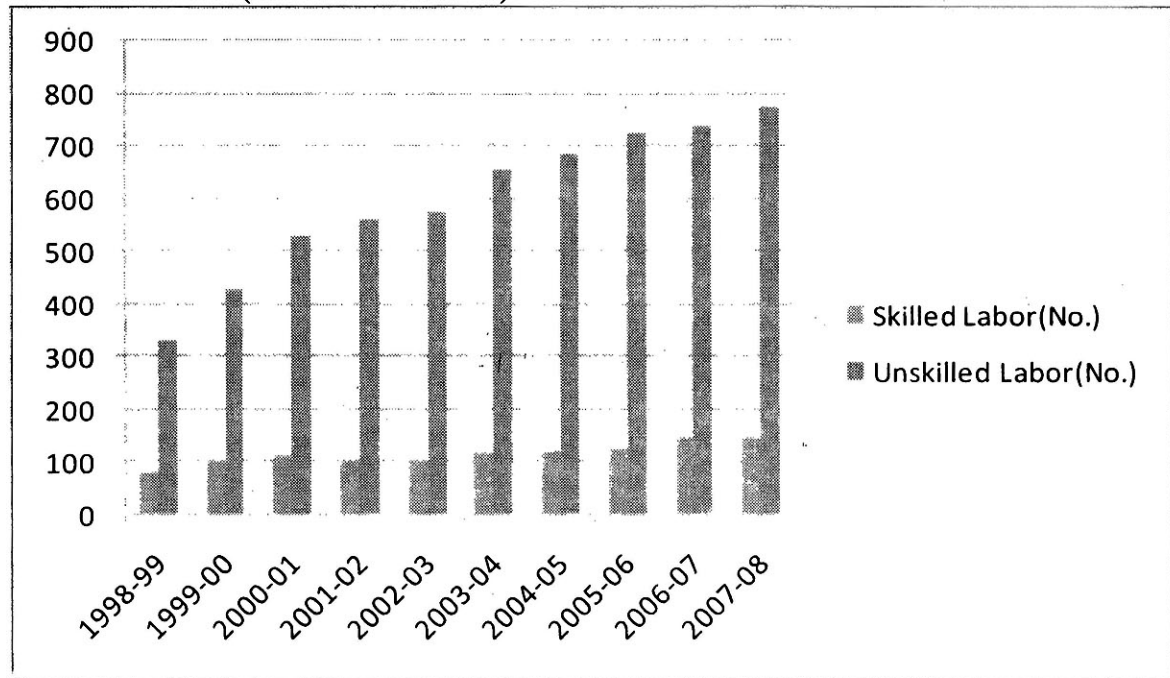
Technicians are engaged in the process of seeding and only a small number of these technicians are required.

Semi-skilled workers and unskilled workers or general workers are engaged in nearly all stages and in this case, each pearl farm shows a larger number of workers in this category. These types of workers are mostly from the nearby islands where the respective pearl farm is established.

Employed apprentice workers from the local areas are attached to the basic stage of putting collectors (ropes where small seedlings of oysters become attached), cleaning spats (small oysters) and oysters supervised by an in-charge who are mostly proficient technicians. Group leaders are selected from among these apprentice workers and they are to manage the oysters maintaining process by themselves.

In the stages of seeding oysters and harvesting pearl stage, firstly trainees are selected among general workers to assist proficient seeding and harvesting technicians. Secondly, the technicians select resting oysters (one time operated) and let trainees seed the oysters. Depending upon the seeding result of the trainees, the trainees are promoted to seeding technician. Thus, those workers from the unskilled category can be promoted to the semi-skilled category depending on their improved ability in the present work.

The people who have basic general knowledge are offered as the staff of cleaning and selection team and those who can communicate with foreign technicians are allotted as in-charge of oyster cleaning and selection team.

Figure 1 Skilled/Unskilled Workers (Myanmar Pearl Industry)**(1998/99- 2007/08)**

Source: Myanmar Pearl Enterprise and Private Companies

Note: Unskilled includes semi-skilled and general workers

Figure 1 shows the total number of Skilled and unskilled workers in Myanmar Pearl Industry. Out of 926 workers in 2007/08, 138 are in the technical and administrative category. Generally, three villages are located near the pearl farms with a total population of 2850 (Zalatt-450, Done- 1000 and Pale Kyun- 1400) and thus approximately about 30 percent of the local populace is being employed. The number of workers in each pearl farm has been increasing year by year as more general workers are required whenever there is an increase in oyster breeding especially in the early stages of the production process. This means if there are more collectors to be put for the spats to become attached to these, more workers are needed.

As pearl culturing is not similar to other productive activities, the types of labor required are also different where the majority of the laborers engaged in this industry comprise of unskilled and semi-skilled laborers with a small number of administrative staff and technicians.

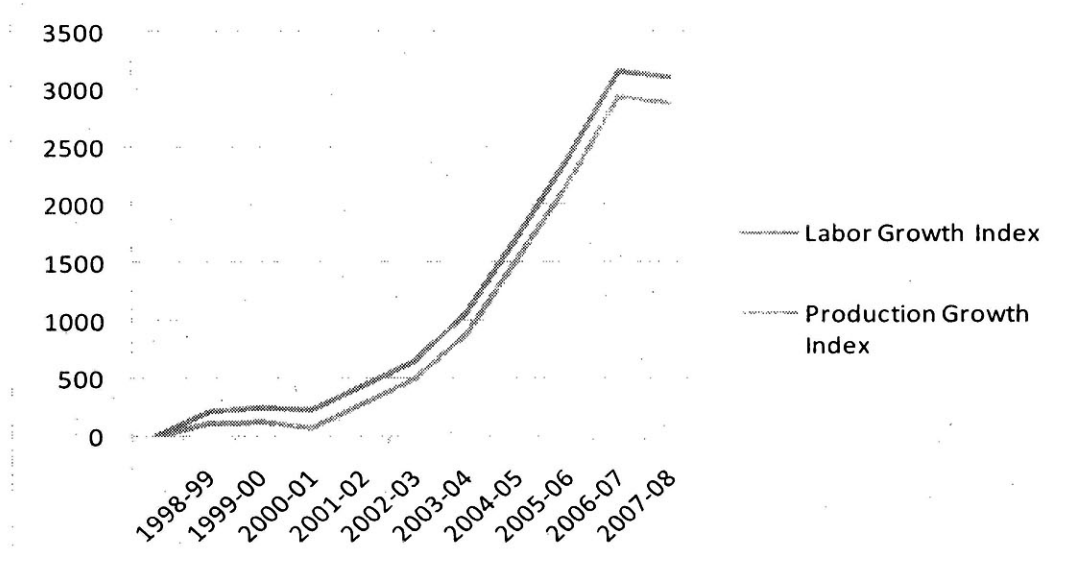
The work force or laborers are attached to the above stages of the production process as the work done in such processes are not the same and needs a larger number of workers in some stages.

It is to be noted that pearl divers, the Salons in Myeik Archipelago, have truly exceptional skill, frequently reaching depths of 100-130 feet (30.5-39.6 meters), remaining under water for as long as three minutes. The Salon divers did not use stones to weigh themselves down. Instead, they prepared for a dive by hyperventilating, sometimes accompanied by singing. Once in the water, they used only the strength of their arms to pull themselves down. In the early years of the establishment of pearl culturing industry, these Salons usually dived for oysters and then sold them to the respective pearl culturing businesses where they would receive only a small amount of income which could not be permanent to earn for a living. But now, these divers are

mostly engaged in the general workers category in pearl farms as permanent workers and earning a regular income more than as they earn as divers.

Figure 2 shows the trends of production growth index and labor growth index where labor generation in this industry increases as production of pearls increases. Although there are some years where production dropped due to unforeseen diseases or natural causes, more workers were still employed because the nature of pearl culturing is different as more workers are needed in the beginning stage of oyster breeding process.

Figure 2 Production Growth Index and Labor Growth Index of Myanmar Pearl Industry (1998/99- 2007/08)



Source: Myanmar Pearl Enterprise

4. Small Scale Import Substituting Industry

As mentioned before, the pearl culturing industry developed with private companies operating together with some on a joint-venture basis with Myanmar Pearl Enterprise.

In the initial years of private participation, the pearl industry had to import most of the materials which was at that time difficult to produce locally. Those materials includes 50Kg Anchors, 24 mm, 16mm and 10 mm diameter of ropes, 32 cm size high density Poly Ethylene floats for rafting works of pearling panels, 5ft tall foam floats for the floating houses for oyster caring works and accommodation for the satellite farm workers, plastic coated net frame and variety of nets for the pearl farms. All those things had to be imported costing the company a lot to be paid in foreign currencies.

However, a Myanmar national has started a small scale industry producing some of these materials with its own effort. This small industry began supplying most of the pearl farming materials that this industry needed since 1997. Actually, this small industry was producing plastic products at first since 1993 and due to its interest and high profits in the present business; it began to expand the industry and to produce pearl farming materials.

Initially, the industry was located at South Dagon but later it was moved to the 9th mile Agriculture Mechanization Compound as it also was producing accessories for the Ministry of

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Agriculture. At present, while continuing to produce such agricultural accessories, it began to supply pearl farming materials needed by the pearl culturing industry.

For the pearl farming materials production, starting from 2001, boys and girls in rehabilitation centres under the Department of Social Welfare were being employed and hired to work in this industry. This shows that this industry is contributing to the social welfare centres by generating income through this process. Orphans from 9th Mile are also employed at this factory.

Those employed in this industry are boys who have completed vocational courses such as welding, steel rod smelting etc. Their basic pay is kyat 15000 with additional bonus or overtime wage of about kyat 20000 per month. For those who have become more skilful, although the basic pay is the same, the additional bonus or overtime wage would be raised between kyat 60000 and kyat 100,000 and these have become permanently employed. Now there are 40 workers permanently employed.

It can be seen that this small industry is providing six types of pearl farming materials and the number produced can decrease in some years and in some it may increase again. This is because the nature of these materials is that they are durables and they can last for at least two or three years. So, for example, for net frame, in 1998/99, the number produced was 29,764, but decreased in 1999/00 and 2000/01. Then it again increased to 49,676 in 2001/02 and so on.

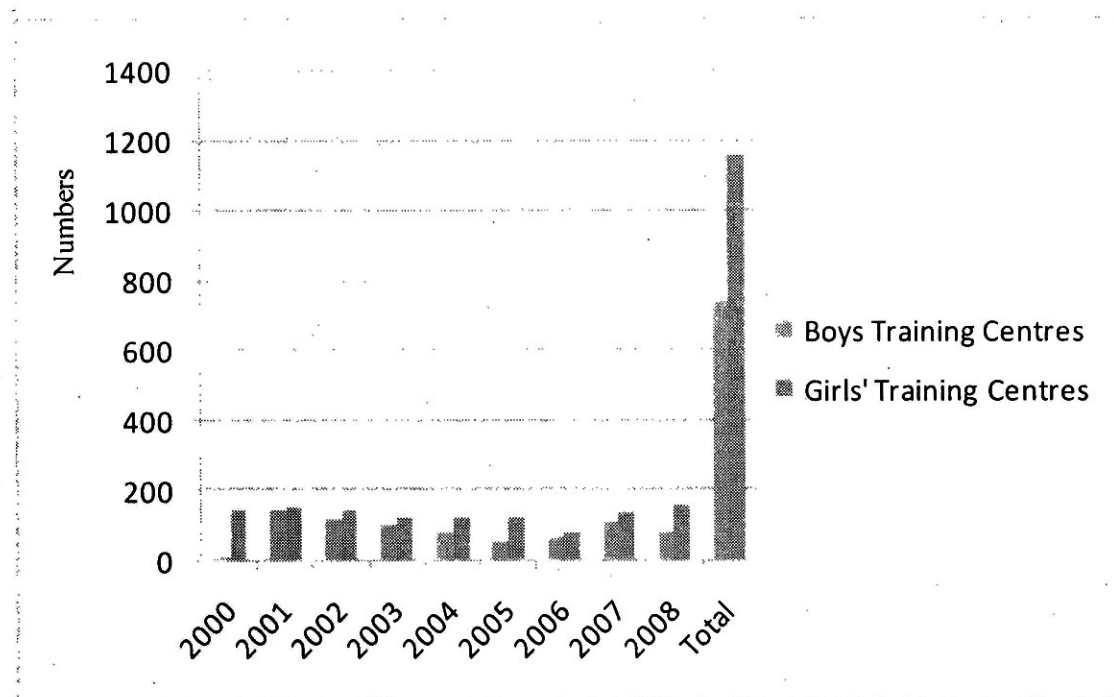
The materials that are produced by those trainees of the training schools for girls and boys under the Social Welfare Department include pockets, panels, floats and frames. Among these, only pockets are made at workshops in the girls' training schools. The others are produced at the factory.

The technicians and authorized persons from the pearling industry demonstrate to the orphans how to make net-pockets and how to attach a net-pocket with frame. Also the industry provides raw materials and all necessities to make these products to the small workshops in those social welfare training centres and then the finished products are taken back to be distributed to the respective pearl farms. As mesh materials for making pockets are provided by this industry, the trainees just have to make the pockets with a per unit rate of kyat 150 for each pocket of various sizes. This is a kind of creating job opportunities for the orphans who want to have proper jobs and earn some income.

Thus, it can be taken that as pearl production is on the increase year by year, more accessories are produced and more people are employed. Therefore, it can be concluded that this pearl culturing industry can give opportunities for employment from the surrounding areas of pearl farms in Myeik Archipelago and also for those in Yangon through the import substituting small scale industry.

5. Social Welfare Centres and Employment

Among various rehabilitation centres under the Social Welfare Department, those who can be offered employment include boys' training centres, girls' training centres and women rehabilitation centres. In these centres, formal education and vocational trainings were given but for those children who were not interested in formal education are given vocational trainings such as live-stock breeding, hair-dressing, cane-work, vehicle-servicing, carpenter works, welding, pumping, building and maintaining battery and sewing are mainly delivered.

Figure 3 Numbers of Trainees with Vocational Trainings (2000-2008)

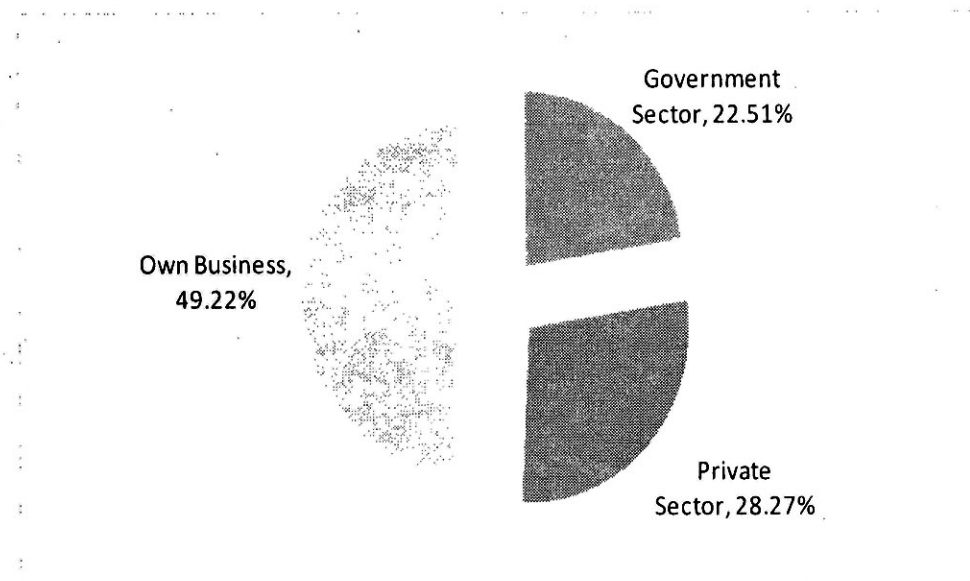
Source: Aye Aye Myat, Unpublished Research Paper, EMPA, 2009

According to Figure 3, there are a total of 1889 trainees engaged in vocational training courses in the above mentioned training centres of Social Welfare Department. A total of 734 children from two training schools for boys, Kabar-Aye and Kyaik- Wine, have been arranged to attend vocational trainings in the nine year period from 2000 to 2008. But the number of children from Kabar-Aye Boys' Training School is 601 whilst for Kyaik-Wine, it is only 133. This is because Kyaik-Wine provided more access to formal education.

The centre for girls' is Malikha Girls' Training School located in Mayangone Township, is the only girls' training centre in Yangon where there are a total of 1155 trainees who had attended and who are still attending vocational trainings such as sewing, knitting, cooking and live-stock breeding etc.

6. Placement in Jobs

In accordance with the objectives of training schools, the Department of Social Welfare has been putting much effort in implementing its objectives where the main goal is that children can stand on their own. As such, a total of 382 children, 356 boys and 26 girls, were on their own and employed in government sector with 86 in number, 108 in the private sector and the rest of 188 who are boys only, are operating their own businesses within 2000 and 2008 period.

Figure 4 Job-placement by Sector

Source: Aye Aye Myat, Unpublished Research Paper, EMPA, 2009

As seen in Figure 4, 28.27 percent of the total number of trainees now working and standing on own businesses is employed in the private sector. Linking to the small scale industry's employment status, it is observed that about 40 boys including orphans are always permanently employed and about 20 girls' are involved in sewing net pockets on a per unit basis at the training school. Therefore it can be seen that more than half (55 percent) of those employed in the private sector are from the training schools under Social Welfare Department. It can thus be said as, the more the pearl culturing industry grows, the more the demand for locally produced inputs and the result will be more employment opportunities to the Myeik region and the orphans, vulnerable children at boys' and girls' training schools in Yangon.

7. Conclusion

Every child must be ensured the best start in life- their future, and indeed the future of their communities, nations and the whole world depends on it. It is not a problem for those children who have been brought up with their parents but for those of orphans, vulnerable children and who were left by their parents faces difficulties in their life. The worst condition they face at their early stage of life, their mental wellbeing will become worse.

As regards Youth Welfare service, the DSW has been carrying out remedial and preventive aspects of services to the children who are in need of protection especially for socially handicapped young persons between the age of 5 to 18 years who are abandoned by natural parents on socio-economic grounds and who are in need of physical, emotional and social development according to the child law.

Youth training schools provide services such as primary and secondary education in normal schools, vocational training within the institutions, training of physical, mental and moral development and placement in family and employment and reintegration into the society.

From the year 2000 to 2008, a total of 10543 children ranging from infant to the age of 18 years are receiving protection and care according to child law. The largest portion or 92

percent of the total is seen in the Training Schools with children between age 5 years up to 18 years and it is found that about 28 percent in this portion are those sent by the court. This shows that social welfare services to orphans and vulnerable children are essential for those children to become good citizens as such DSW is carrying out protection and care according to child law.

DSW has been providing children at all training schools to promote education standard and some achievement have been found a total of 12 boys and 19 girls have passed their matriculation examination during the years 2000 and 2008. A total of 13 boys and 13 girls were arranged to have access to higher education within nine years period. Only a small percentage of the total number of children is found to have passed matriculation examinations.

Children at respective training schools are encouraged to access formal education. As such, all children are allowed to have access to basic education. They are encouraged to complete their basic educational level and at least to complete matriculation level.

On the other hand, vocational trainings were given to those children who would not follow with others in receiving formal education. DSW has provided vocational trainings in appropriate conditions. For girls, sewing, knitting, cooking and vegetable gardening are mostly provided. More provision of sewing machines has to be provided in large scale for individuals so as to get more effective results. In Training School for Boys, trainings mostly given are concerned with electrical, mechanical and vegetable gardening.

Pearl Culturing Industry now plays a vital role in the nation's economy and this industry has supported much to the economy especially the regional economy (Myeik Archipelago) such as creating job opportunities and other income generating activities.

It was found that most of the workers and clerks in the pearl farms are regional workers from the closest islands employed in the respective farm sites of MPE and private companies. As through their experiences and abilities, the regional workers can be promoted to another level in the production process, it can be taken as more opportunities exist for those workers who are at present engaged in this industry. Local general workers gain much modernized knowledge by assisting proficient technicians. On the other hand, the livelihood of these workers will become much better.

In the booming of pearl culturing industry and also because of time constraints, the pearl industry needs materials and workforce locally. Because of this difficulty, the industry also delegates the jobs to vocational schools and let these schools set up small workshops to produce inputs required for this industry. For example sewing of net-pockets and attached with oyster panel (frame) are done at small workshops such as vocational training schools in Yangon. The pearl industry provides raw materials and accepts finished products from them. Also the locals get good income from participating in this small business. Thus, the industry provides employment opportunities to both at the local region and also to the vulnerable children and orphans of another region.

It is thus fulfilling the objective of social welfare programmes to give social protection to those in need of care and rehabilitation so as to stand on their own and to integrate into the society with full confidence.

Finally, it is found out that an industry located in one place not only provides job opportunities to the local people but also to those in another region. This outcome shows that other types of industries may also benefit the local residents and the children under the care of Social Welfare Centres but if certain jobs can be offered on condition that their qualifications meet those jobs, it will be beneficial to both those vulnerable children and orphans. In another

way, it is also contributing partially to the future of those children and particularly their livelihood.

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Acknowledgements

My special thanks to my two candidates who had produced two separate papers which had led me to link the essence of such papers to complete this article.