

Revitalizing Rural Areas through Modernized Sericulture

- A Case Study in Fergana Region, Uzbekistan -

**Makoto IIKUBO^{*1)}, Yoshiko KAWABATA¹⁾, Masaaki YAMADA¹⁾, Siaw ONWONA-AGYEMAN¹⁾,
Umarov Shavkat RAMAZANOVICH²⁾, Javkochdiev KAHHOR³⁾, Salmanova MANZURA⁴⁾,
Vyacheslav APARIN⁵⁾ and Tsutomu ARIE¹⁾**

Abstract: This study investigates the potentials and limitations in the collaboration with our university, non-governmental organizations and companies. Fergana is one of the poorest and highly populated regions in Uzbekistan with a high unemployment rate. A wide gap exists in the standard of living between this area and the cities. Therefore, there is an urgent need to eradicate poverty in this area. In addition, development assistance and investment after the collapse of the Soviet Union were concentrated in the urban areas and did not extend to rural areas. Historically, the silk industry developed and thrived for a long time as the stopping point of the Silk Road in this area. However, in recent years, the region is unable to come up with internationally competitive lines of silk thread of quality due to timeworn machines or obsolete traditional technologies. There is a need for the environmental improvement of the farm village mainly in the sericulture business in this area for the revival of the traditional industry and poor population. It was against this backdrop that Tokyo University of Agriculture and Technology (TUAT) began the grass-root technical cooperation project in Fergana Basin from 2009, financed by the Japan International Cooperation Agency (JICA)^{A)}, in order to revitalize local silk production as a model case in Uzbekistan. At the moment, high quality cocoons are produced in the Fergana region after the implementation of our project. And domestic consumers and international tourists can purchase excellent silk products made from these projects. From these results, the potential and limitation in the collaborations are discussed.

Key Words: Fergana, ODA, Rural development, Silk products, Uzbekistan

1. Introduction

Uzbekistan is located along the ancient Silk Road of Central Asia. The Fergana Region is one of the poorest, highly populated areas of Uzbekistan with a high unemployment rate. There is wide gap in the standard of living between this area and cities. Therefore, eradicating poverty in this area is one of the top priorities of the government. In addition, development assistance and investment after the collapse of the Soviet Union were concentrated in the cities and did not extend to rural areas. In the past, the silk industry in this area had developed and was known for a long time as the stopping point of the Silk Road. However, in recent years, the area is unable to come up with internationally competitive lines of silk thread of quality due to timeworn machines or obsolete traditional technologies in this country. The incomes by the silk industry continue to decrease as exports, mostly to China in the form of cheap cocoons and sericulture farmhouses, have dramatically

decreased now. Therefore the succession of the traditional industry has become difficult. It is important to improve the condition of the farm village mainly via the sericulture business in this area by reviving the traditional industry and the existing poor population.

The predecessors of Tokyo University of Agriculture and Technology were founded in 1874 as the Meiji Interior Ministry's Agricultural Training Institute and Sericulture Experiment Section. In 1890, the Agricultural Training Institute was expanded and integrated to Secondary Department (renamed Practical Applications Department in 1898) of Agricultural College of the Imperial University (today's University of Tokyo), which later incorporated itself into Tokyo Imperial College of Agriculture and Forestry in 1935^{B)}. Later, the Sericulture Experiment Section became Tokyo Imperial College of Sericulture in 1914. After World War II, both Imperial Colleges of Agriculture and Sericulture merged into Tokyo University of Agriculture and Technology in 1949, with its Faculty of Agriculture and Faculty of Textile. Around that time, cotton textile took over from silk threads and

* Corresponding Author: iikubouz@gmail.com

(Received, September 14th, 2013; Accepted, November 27th, 2013)

3-8-1, Harumicho, Fuchu, Tokyo, 184-8588, Japan

1) Tokyo University of Agriculture and Technology

4) Business Woman Association of the Republic of Uzbekistan

2) Uzbekistan Sericulture Research Institute

5) Ministry of Geology of Republic of Uzbekistan

3) Ministry of Agriculture of Republic of Uzbekistan

fabrics as the number one export of Japan. Finally in 1962, the Faculty of Textile changed its name to Faculty of Engineering. The university became involved in international cooperation programs or a globalized outreach to developing countries, and as a result it launched a grass-root technical cooperation project in Fergana Basin in 2009, financed by the Japan International Cooperation Agency (JICA), in order to revitalize local silk production as a model case in Uzbekistan.

The outcomes of this project were as follows:

- 1) Self-sufficiency system of silkworm eggs in the Fergana region was established.
- 2) High quality cocoons were produced in the Fergana region by transferring the production technology of success to the Fergana region.
- 3) High quality silk products were produced together with non-governmental organizations.

Yamada (2012) reported that the Uzbek tradition of cocoon production in the Fergana region could be successfully revived and improved in our project. In this study, the potential and limitation in the ability to produce high quality silk products and sales and the collaboration with the universities, non-governmental organizations and companies were discussed.

2. Materials and Methods

The grass-root technical cooperation project in Fergana Basin was financed by the Japan International Cooperation Agency (JICA) from September 2009 until August 2012. This study takes a form of action research, through implementation of the projects regulated by JICA's project cycle management (PCM)^{F)} with supervision of JICA Global Plaza office. These authors conducted semi-structured interviews, questionnaires and observations to identify beneficiary needs and to evaluate project performance with reference to the project design matrix (PDM) of each project. The image of our Uzbek Silk Project is shown in **Figure 1**.

Part of high quality silk products was developed with Business Women Association of Uzbekistan^{C)} (BWA) of Fergana Branch. BWA is an NGO organization to promote the self-reliance of women in Uzbekistan.

3. Results and Discussion

3.1. Developing handicrafts made of traditional silk ikat ('Atlas')

The beautiful Atlas or the "king of silk" ikat weaving technique has been inherited through generations among local women in Uzbekistan. These vibrant textiles are created using a resist-dyeing process with tie-dye on the warp, weft or



Fig. 1. Image of the Multipurpose Uzbek Silk Project.

both threads prior to being woven (Zernickel, 1997). Silk (Atlas) and mixed silk (Adlas) are traditional textiles widely used for clothes and in the household. Atlas and Adlas are traditional bright colors to color combinations of the latest fashion. After the end of former Soviet regime, however, the traditional silk industry of Uzbekistan has declined.

However, there is a problem in terms of sewing and designing quality silk products made by Atlas. Therefore, in this project, we decided to co-develop with BWA products using traditional silk Atlas and Adlas in order to increase the income of rural women. As it was not successful initially, we had to re-create the prototype many times.

At first, we discussed the target purchaser group with BWA. Many foreign tourists visit the Islamic historical sites in Uzbekistan after independence, and they prefer handmade products and also purchase high price products compared with the locals. Most of them are particular about the quality of products, so we had a description in the BWA for quality control and ordered the prototype samples of foreign tourists' taste. After many discussions and modifications, it was finally launched in Uzbekistan. However, sales were not good.

Next, we contacted the Uzbekistan office of the Japan External Trade Organization (JETRO), which is a government-related organization that works to promote mutual trade and investment between Japan and the rest of the world^{D)}. JETRO, in cooperation with the Ministry of Economy, Trade and Industry, has developed One Village, One Product Markets at both Narita International Airport and Kansai International Airport, based on the One Village, One Product campaign^{E)}.

Thanks to the advice from JETRO, we were able to further improve the quality of the products and started marketing them in One Village, One Product Markets at both Narita International Airport, Tokyo and Kansai International Airport, Osaka from February 2011^{F)} (**Fig. 2**). The goods were selling well in this shop presumably due to improved product targeting for Japanese customers. In spite of the fact that we are amateur sellers, there are new products and the market is growing in Japan (**Fig. 3**).



Fig. 2. Products sold at our products in One Village, One Product Markets, at Narita Airport, Japan.



Fig. 3. New Products from our Project.



Fig. 4. Rural workshops on handicrafts.

3.2. Training on handicrafts

Many Uzbeks believe in Islam and many rural women stay at home in Fergana region. Women hesitated to work outside as required by Islamic culture in many cases. Under these circumstances, our aim was to assist women to become self-reliant by making extra income from work that can be done at home. We organized rural workshops on handicrafts in 2010 and 2011 collaborated with BWA^G (Fig. 4).

In these workshops, BWA was able to test the technique of sewing. Our initial objective to create jobs for rural women was materialized after the workshop as many women began to show interest in the handicrafts industry.

3.3. Handicraft contest

As we were novices in product development, and BWA was not able to produce high quality products to target Japanese customers, we planned a handicraft contest using Atlas in Japan. It was decided that work which won a prize in this contest could apply for approval to be commercialized in



Fig. 5. Poster of Handicraft contest.



Fig. 6. Poster of 300 creative designs for handicraft contest.

Uzbekistan (Fig. 5). It was also intended to promote the spread of the Atlas in Japan.

A contest was held in Japan that received almost 300 creative designs (Fig. 6). Twelve winner exhibitions were mounted at the malls Iias Tsukuba, Iias Sapporo and Uzbekistan Embassy in Tokyo.

We were overwhelmed by the number of entries and decided to exhibit the products of all entries to the people of Uzbekistan and Japan. The products of all entries in Gunma Prefectural Government, in Maebashi and the Ikuo Hirayama International Caravan-Sarai of Culture (ICSC) in Tashkent are shown (Fig. 7).



Fig. 7. Leaflet of Exhibition of Handicraft Contest in Tashkent.

Women engaged in sewing began to produce new works based on the products of the contest winners. However, the spread of Atlas in Japan did not progress as expected. So, we decided to do an exhibition at the museum along with the Japanese enterprises dealing with Atlas. We conducted our exhibition of Atlas in Science Museum of Tokyo University of Agriculture and Technology^{H)} and Setagaya Life Craft Center^{I)} with Kanno textile^{J)}. Kanno Textiles is a company that has created a product using the Atlas in Japan. The Ambassador of the Republic of Uzbekistan to Japan made a courtesy call to the President of TUAT and visited exhibition of Atlas in Science Museum of Tokyo University of Agriculture and Technology with Tomioka Mayor and President^{K)}.

Our activities which were given publicity in TV-news, newspapers, and websites both in Uzbekistan and Japan, facilitated the spread of Atlas. By organizing the contest and the exhibition, we were able to receive numerous inquiries about Atlas. We have just begun a new grass-root technical cooperation project in Urgench from 2013, financed by JICA, with the aim of promoting the Silk-Road Silk Industry in Uzbekistan - Developing a Technology Transfer Model to Increase Sideline Income of Remote Villages. Through the new project, we intend to spread further the use of Atlas.

4. Conclusion

Uzbek tradition of cocoon production could be successfully revived and improved with international technical cooperation in the Fergana region. The authors tried to expand the traditional silk Atlas in this project by collaborating with the BWA on product development. This promotion was achieved with the help of JETRO and other companies. Then,

by organizing a contest and exhibition, which were publicized on TV and news, our Atlas products were further made more popular than before.

Notes (web links valid as of 10 September 2013)

- A) Japan International Cooperation Agency, <http://www.jica.go.jp/english/index.html>
- B) History of Tokyo University of Agriculture and Technology, <http://www.tuat.ac.jp/en/outline/history/index.html>
- C) Business Woman Association of Uzbekistan, http://bwa.uzorg.net/about_eng.html
- D) Japan External Trade Organization, <http://www.jetro.go.jp/en/jetro/>
- E) One Village, One Product Markets, <http://www.jetro.go.jp/en/events/ovop-market.html>
- F) Sell our products in One Village, One Product Markets, http://www.tuat.ac.jp/~jica-uz/atlas/silk_products.html
- G) Rural workshops of handicrafts in 2010 and 2011, <http://www.tuat.ac.jp/~jica-uz/atlas/bwa.html>
- H) Exhibition in Science Museum of Tokyo University of Agriculture and Technology, http://www.tuat.ac.jp/~museum/old/CONTENTS/2011/silkroad_paper.pdf
- I) Exhibition in Setagaya Life Craft Centre, <http://www.setagaya-ldc.net/program/198/>
- J) Kanno textile, <http://kannotextile.com/>
- K) Courtesy call of the Ambassador of the Republic of Uzbekistan to Japan, <http://www.tuat.ac.jp/en/news/20130415160748/index.html>

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