

Needs Survey under the Governmental
Commission on the Projects for
ODA Overseas Economic Cooperation
in FY2015

Summary Report

Cambodia

Survey on Needs for Assistance
in Energy Waste Disposal, Vocational Training
and Agriculture, in Cambodia by Using
Techniques Developed by Japanese Small-and
Medium-Sized Enterprises

March, 2016

IC Net Limited

The content of this report is a summary of the Needs Survey under the Governmental Commission on the Projects for ODA Overseas Economic Cooperation in FY2015, which is commissioned by the Ministry of Foreign Affairs of Japan in the FY 2015 and was carried out by IC Net Limited. It does not represent the official view of the Ministry of Foreign Affairs of Japan.

Summary

Introduction

This survey is intended to identify local development needs in the Kingdom of Cambodia (hereafter “Cambodia”) in the fields of Energy Waste disposal, Vocational training, and Agriculture (food processing) by using the techniques developed by Japanese SMEs for responding development needs, and examine the feasibility of formulating Official Development Assistance (ODA) projects and deploying the Japanese SMEs in the country.

1. Members of the Survey Team

The following team members implemented the survey according to the schedule shown below:

(1) Team Members

Name	Title/Survey Area	Affiliation
Masato Onozawa	Leader/Waste Management 1	IC Net Limited
Akiya Seko	Waste Management 1	IC Net Limited
Ken Araki	SME Promotion	IC Net Limited
Atsushi Koyama	Agriculture (Food Processing) 1	IC Net Limited (Bansho Inc.)
Toshihiro Tsuchiya	Vocational Training and Industrial Development 1	IC Net Limited
Toshiki Mizuno	Vocational Training and Industrial Development 2	IC Net Limited
Keiko Oda	Agriculture (Food Processing) 2/ Project Coordinator	IC Net Limited
Chisaki Hirabayashi	Waste Management 2/Project Coordinator	IC Net Limited

(2) Field Survey Schedule

	Period of Field Survey	Note
First field survey	August 17 to October 3, 2015	
	October 19 to November 5, 2015	Supplemental survey on food processing
Second field survey	November 27 to December 19, 2015	

2. Survey Methodology

This survey consists of the following five periods: three study periods in Japan, and two field survey periods in Cambodia.

1) First study period in Japan (August 2015)

The survey team carried out initial data collection and a review to elaborate the assumptions for

resolving the development issues of Cambodia by applying the products and technologies developed by Japanese SMEs.

2) First field survey (September to October 2015)

The survey team met the personnel of the Embassy of Japan, the JICA Cambodia Office, Cambodian government officials, representatives of associations, the private sector, and NGOs to investigate the current situation of the designated areas for data collection and analysis.

3) Second study period in Japan (October to November 2015)

Based on the findings from the first field survey, the team reviewed the validity of its assumptions, and compiled a tentative list of the products and technologies by SMEs for addressing the development needs of Cambodia.

4) Second field survey (November to December 2015)

The survey team analyzed the applicability of the short-listed products and technologies based on the data collected through the second field survey. The team also collected the supplemental information to complement the first field survey.

5) Third study period in Japan (December 2015 to February 2016)

The survey team compiled the information collected during the periods above and prepared the final report.

Chapter 1: Current Situation of Cambodia

Cambodia became independent from France in 1953. It suffered for many years in the Indochina conflicts followed by a civil war. Since 1993, Cambodia has been a constitutional monarchy headed by the king, and its economy operates under the capitalist system. The Cambodian economy has grown steadily at a rate of 7% per annum, one of the highest growth rates in Asia. The thriving production of clothes and shoes for exports as well as tourism and other service industries propel the economic growth. Because of the strong economic growth, Cambodia has reduced its poverty rate to 18.9% in 2012 from 47.8% in 2007. Meanwhile, economic disparity between urban and rural population has increased, while 90% of the population under the poverty line resides in rural areas.

The Government of Japan praises the success of the Royal Government of Cambodia (RGC) in the country's development and poverty reduction. As its basic policy for supporting Cambodia, Japan upholds the RGC's vision of building "a Cambodian society which is substantial progress in political stability, security and social order; a prosperous nation with long-term economic growth, sustainable and equitable development, enhanced livelihoods of people, and reduced poverty incidence."¹ Japan also endorses the effort of the RGC to accomplish its strategic development objectives based on its Rectangular Strategy². Based on the strategy, Japan has set the following three priorities for its

¹ County Assistance Policy for Cambodia (April 2012)

² The Rectangular Strategy, the primary development plan of the RGC, focuses on the four objectives of growth, employment, equity, and efficiency. As of 2016, the third version of the strategy is being implemented.

assistance to Cambodia: strengthening of economic base; promotion of social development; and strengthening of governance.

The survey covered the following three areas that pertain to Japan's Country Assistance Policy for Cambodia.

- 1) Neither the Country Assistance Policy nor the Rolling Plan covers waste management.
- 2) The priority in vocational training and industrial development is to support human resource development to promote investment and trade for strengthening economic base. The support in this area focuses on the development of human resources with technical background and mid-level management to make local industry more diverse and add more values to its products and services.
- 3) In the agriculture (food processing) sector, Agriculture is considered as the key industry in Cambodia. Therefore, improvement of the productivity and quality of rice as Cambodia's main agricultural product; rehabilitation and development of irrigation facilities; improvement of irrigation skills in the Western and Eastern regions; and development and diversification in farming are focused.

Chapter 2: Waste Management

2-1 Description of the current situation and development needs of the concerned development issues in the surveyed sectors

The main development issue for waste management in Cambodia is the inadequate quality of services related to solid waste management. The issue is one of the important urban problems in Cambodia. Because of the economic development in recent years, the amount of solid waste disposed is increasing rapidly. By contrast, the lack of effective measures to reduce waste is a concern to the environment as well as society and the economy as a whole³. Air and water surrounding the dumping sites have deteriorated, a shortage of land for such sites are issues for administrators, and the ever-increasing piles of solid waste compound the cost of waste collection. According to the law, the Ministry of Environment has jurisdiction over solid waste management. Local governments assume administrative responsibility of solid waste management while part of their waste management tasks may be outsourced to the private sector. Major cities including Phnom Penh have entrusted the private sector to carry out the part of their responsibilities for solid waste management with a long-term contract. However, the quality of the waste management services is unsatisfactory⁴.

The RGC issued a strategy to promote recycling to reduce solid waste. However, most households and industries do not support the strategy. The contractors do not invest in refuse treatment facilities that the government requested. Solid waste is not reduced while waste pickers recover a portion of

³ Based on the interview on September 15, 2015 with the Senior Manager of the Solid Waste Management Division of the Ministry of Environment, as well as a few JICA documents (2005)

⁴ The Municipality of Phnom Penh has asked CINTRI Ltd., to meet the service standards that the company established with its approval but does not adhere to.

valuable materials, such as aluminum, PET bottles and cardboard paper, for selling them to the informal sector. As a result, used plastic accounting for approximately 10% of the total volume of the waste disposed is not recovered and disposed to dumping sites without any refuse treatments. By law, proper disposal of hazardous wastes is the responsibility of emitters, not necessarily all have been properly processed. For example, some industrial wastes, such as chemicals and acid, and other discharges that are difficult to treat or separate, including grease, construction wastes, and composite materials, are disposed without proper treatments at emitters' premises or dumping site. The Red Cross Society of Cambodia collects and treats infectious medical wastes disposed from most medical facilities and overall treatment has been carried out properly. .

2-2 Sectoral analysis on the effectiveness of the products and technologies developed by the Japanese Small and Medium-sized Enterprises (SMEs)

Japanese SMEs specializing in waste management can deliver a variety of services including collection, transportation, treatment, and disposal. They can recommend and carry out the most suitable services for waste treatment and disposal. They can also integrate human resources, know-how and technologies that meet the requirements for handling and treating waste materials. For instance, composting technology using biomass requires the most suitable method that matches the volume and characteristics of organic materials. The SMEs can provide integrated waste management services by recommending the most appropriate method to local governments in Cambodia while linking them with the agricultural sector that would purchase compost materials produced. With relevant national and local government officials and NGO members, the survey team discussed the possibility of Japanese SMEs to set up operations in Cambodia. Those whom the team members met expressed a keen interest in having Japanese SMEs in the country.

If local governments of Cambodia carry out composting of biomass, the source materials should be food waste and agricultural products from major food markets and farms. Because of the large quantity of the materials, the windrow composting method⁵ would be the most suitable approach. The method uses the aerobic bacterium process for composting. The process requires continuous and sufficient agitation to expose the materials to oxygen. A common practice is use human labor for agitation.

In addition, it is necessary to separate plastic from any waste material because of the composition of waste disposed in Cambodia. To fulfill a long-term objective of reducing the volume of improperly disposed construction waste, it may be sensible to introduce refuse paper and plastic fuel (RPF)⁶ or

⁵ Windrow composting is the production of compost by piling organic matter or biodegradable waste, such as animal manure and crop residues, in long rows known as windrows. It is suitable for producing a large volume of compost. The rows are generally turned over to improve porosity and oxygen content, reduce moisture, and redistribute cooler and hotter portions of the pile. The control parameters of the method include the initial ratios of carbon- and nitrogen-rich materials, the amount of a bulking agent added to assure air porosity, the pile size, moisture content, and turning frequency.

⁶ RPF is a kind of RDF produced from industrial wastes derived from paper, wood and other dry organic materials. The source materials of RPF are more consistent than those of RDF because the production facility collects them from industrial sources, not municipal waste.

refuse-derived fuel (RDF)⁷. The technology is meant to recover energy from unused wastes that would be otherwise disposed to dumping sites. It is also a viable option to resolve problems of ever-increasing plastic in wastes.

Cambodia has high expectations for Japanese SMEs that provide the services and technologies above.

2-3 Possible applicability of the SMEs' products and technologies to the future ODA projects in the surveyed sectors

Many Japanese SMEs can provide the comprehensive waste management services mentioned above and precise technical proposals tailored to the needs of their customers. In any waste management proposal for Cambodia, promptness, consistency, and responsiveness are critical. To form such a proposal to address the needs on waste management in Cambodia, it would be desirable to work with the country's local governments through an ODA project.

It will be necessary to introduce a mechanized composting facility because of the massive volume of organic materials, most of which are food waste, for composting by the local governments. The prospective products to mechanize a composting facility are a small riding loader and a snowplow. They are small and simply designed and require less maintenance than similar products produced outside Japan.

Among many products and technologies for plastic recycling, the promising methods include recovery from plastic, RDF, and RPF. Japanese SMEs specializing in waste management reviewed a proposal to use the products above and the technologies and plan to implement a further study. The technologies require the installation of a plant, of which plant makers tend to own related technologies. However, the SMEs own and operate plants for their business, and can provide the know-how for managing the business.

Any selected products and technologies must be easy to maintain and use and appropriate for Cambodia. The proposed technologies have a proven record of success with tailor-made services for the needs of customers.

2-4 Possibility of business development by utilizing the SMEs' products and technologies in the surveyed sectors

The challenge of Cambodian waste management is related to the inadequate service quality. The solution lies in improved service and not just introduction of advanced technology. As explained, Japanese SMEs have delivered quality waste-related services to meet a variety of customer needs. Thus, the introduction of such technologies as composting of biomass and plastic recycling technology would be the provision of not only a recycling plant or facility but also a package of services including

⁷ RDF is a fuel produced by shredding and dehydrating municipal solid waste (MSW) with a waste converter technology. RDF consists largely of combustible components of municipal waste such as plastics and biodegradable waste.

management.

The first important factor for success is to identify the location of business. According to the survey, the city of Siem Reap is among the prospective sites because it relies on tourism and value the aesthetics of its scenery highly. The survey also revealed that the city government of Siem Reap has high expectations for Japanese SMEs to establish operations there. In any case, newcomers are likely to start waste management business in Siem Reap City because the city's waste management services are less developed than in other cities in Cambodia.

Any waste management firm must work with national and local governments because its business is also a public service. Foreign waste management firms may find it difficult to start operating without a local partner that is familiar with the business. Through their experience and networks, local partners can help foreign firms build relationships with public authorities, learn and adapt to unfamiliar local business practices, and address problems.

SMEs specializing in waste management exist all over Japan, and no region in Japan would benefit significantly from the expansion abroad of any of those SMEs. Setting up operations overseas is a viable option for such SMEs because the market for traditional waste management in Japan is shrinking for such reasons as population decrease and relocation abroad of major manufacturers.

Chapter 3: Vocational Training

3-1 Description of the current situation and development needs of the concerned development issues in the surveyed sectors

The number of foreign companies in Cambodia has increased recently because of external environment changes such as ASEAN market integration, wage growth in China, Thailand, Vietnam and other neighboring countries, and dispersion of risks from investing in just one country.

However, Cambodia's manufacturing sector remains at a low level because, as of 2014, it employs 24.3% of the country's workers and produces 27.1% of the country's GDP⁸. The economic development of Cambodia relies on two major industries: the garment industry and tourism. Cambodia needs to reduce risks to its economy by diversifying its industries and develop human resources because its industrial structure is vulnerable to any changes in the external economic conditions. According to Japanese companies in Cambodia, the Cambodia-Japan Cooperation Center (CJCC), and the National Employment Agency, human resources are in high demand in labor-intensive industries such as sewing, automobile parts assembly, and automotive engine wiring. By contrast, the demand for managerial positions is low. Large companies provide training for their employees to meet their requirements while SMEs cannot. The survey team developed a hypothesis that Cambodia needed human resource development in the ICT industry for open source software development and the woodwork processing industry in rural areas to improve employment opportunities. However, according to the National Institute of Post, Telecommunications and Information Communication Technology and private firms, it would take time for the country's ICT industry to conduct system

⁸ Key Indicators for Asia and the Pacific 2015, Asian Development Bank

development on its own. Furthermore, according to vocational schools, the opportunities for vocational training in woodwork processing have decreased because of stricter forest regulations than before and low market demand.

Accordingly, the survey team had to change the original hypothesis, and continued the needs survey in other sectors such as machinery, tourism, garment, architecture, silk, electrical and electronic engineering, and employment for people with disabilities. The sectors of automobile mechanics and garment present higher possibilities to introduce Japanese SMEs' products and technologies in vocational training.

3-2 Sectoral analysis on the effectiveness of the products and technologies developed by the Japanese SMEs

3-2-1 Machinery (Automobile mechanics)

The survey team interviewed organizations such as the National Technical Training Institute (NTTI), public and private vocational training schools, and Japanese private firms specializing in machinery. On machinery, the team found high needs in auto repair and inspection. The team identified the following needs for training:

- Updating training materials to meet the latest technical requirements in the automobile industry
- Providing training of trainers to upgrade their skills and knowledge

As the number of automobiles increases in Cambodia, inspection and repair services are required, and the market of second-hand and rebuilt parts is expanding.

In addition, the automobile recycling system needs improvement. It is becoming more important than ever to dispose unnecessary items properly, recover usable parts, and separate scrap materials from disposed automobiles. To establish such auto-related services in Cambodia, mechanics and engineers equipped with proper skills and knowledge are needed. However, the overall capacity of the automobile industry in Cambodia does not meet the demand for expanding such services. Thus, it is necessary to develop human resources skilled in automobile inspection, repairing, and recycling. In the automobile industry, Japan has rich experience in human resource development with the national qualification systems and useful automobile inspection tools. Those Japanese systems and products will help develop human resources in the automobile industry in Cambodia.

3-2-2 Garment industry

The garment industry, accounting for 88% of Cambodia's total export in 2012, is one of the country's major ones. It plays a vital role for the Cambodian economy because of its size and the number of people it employs. The Garment Manufacturers Association in Cambodia (GMAC), a group of businesses for promoting the industry, provides a variety of services to garment companies and their

employees and develop and maintain the competitiveness of the industry. One of the GMAC services is human resource development through training. The GMAC will open a new training center in the Phnom Penh Special Economic Zone in September 2016. The training center is to be equipped with training equipment and training programs on pattern-making and equipment maintenance to meet the growing needs of the industry. The training, aiming to improve the productivity and capacity of garment workers, may provide the workers with more sophisticated techniques so that they can add more value to their products and meet market demand. Japan had produced a large amount of clothes for export and its garment industry has rich experience in product design and human resource development. In Japan, vocational qualifications are examined and maintained based on the national qualification system. In addition, Japanese garment equipment has a good reputation in the global market for its durability and advanced technology. With their technologies and products, Japanese SMEs can help improve the garment industry in Cambodia.

3-3 Possible applicability of the SMEs' products and technologies to the future ODA projects in the surveyed sectors

3-3-1 Machinery (Automobile mechanics)

The survey team proposes the use of the OBD2 Scan tool for human resource development. It is now necessary to use a scan tool for inspection and repair of automobiles because they use advanced electronic control technologies. According to a Japanese automobile repair company in Cambodia, most local repair shops often fail to spot breakdowns in an automobile because they have no skills to diagnose it with scan tools. Developing human resources that can use scan tools will improve service quality. As for the automobile recycling system, in Japan, the recycling rate of automotive parts is 90%, and the training system for commercializing used and rebuilt parts has been established. Training courses on automobile inspection and repair with a scan tool and those on automobile recycling with used and rebuilt parts will contribute to industrial development in Cambodia.

3-3-2 Garment industry

The products and technologies of Japanese SMEs that can improve the capacity of garment workers from cutting and sewing to more sophisticated techniques in Cambodia include the following. The apparel computer-aided design and manufacturing (CAD/CAM) system can help build the capacity of garment workers in pattern making. Japanese SMEs with the apparel CAD/CAM system have user-friendly products. By using the system, garment workers can learn all aspects of the pattern making process such as pattern input, pattern expansion, and marking pattern output. The system also enables fast and efficient operation.

3-4 Possibility of business development by utilizing the SMEs' products and technologies in the surveyed sectors

It is necessary to increase the demand for Japanese products, improve their recognition, and disseminate knowledge and technologies to Cambodian personnel and technicians to enable product usage. Japanese SMEs are recommended to use ODA schemes in the initial stage of their business development in Cambodia because it is difficult for them to perform the tasks mentioned above without sufficient information and networking, especially with public agencies. In this stage, Japanese SMEs can analyze the possibility for the Cambodian side to introduce their products, and seek partners and local distributors. Subsequently, they can verify the adaptability of the products in the Cambodian market and train personnel to improve product recognition. Simultaneously, they can conduct networking and marketing activities, and prepare to launch full-scale sales promotions to expand their future business in Cambodia.

Chapter 4: Agriculture

4-1 Description of the current situation and development needs of the concerned development issues in the surveyed sectors

The key issue in the development of rice farming in Cambodia is the low per-unit added value of rice. The Rectangular Strategy Phase III, which is the national development strategy of Cambodia, emphasizes the necessity of increasing the added value of rice, stating that “Enhancing the value-added of milled rice production and export” in the beginning of the section on agriculture.

Two problems of the low added value of rice are identified. First, some of the paddy produced is unofficially exported to Vietnam and Thailand without being milled in Cambodia. According to the Cambodia Rice Federation, approximately two million tons of paddy produced in Cambodia is exported to Vietnam and other neighboring countries annually. The second issue is the low value added of the broken rice. The long grain rice is easily damaged during the milling process because of its shape, and approximately 20% of the brown rice is broken. The majority of broken rice is used as livestock feed and no further value is added to it.

Although rice is the dominant crop in Cambodia, mango, pineapple, vegetables, and guava production volumes have increased in recent years. Mango is cultivated in approximately 65,000 ha, of which 40,000 ha is located in Kampong Speu Province. Mango prices often fluctuate from a high of 2000 riels/kg to a low of 100 riels/kg, averaging between 600 and 800 riels/kg. Mangoes are fed to cattle when prices are extremely low. The situation could become much worse after the recently planted mango trees start bearing fruits in a few years and lead to further excess in supply.

4-2 Sectoral analysis on the effectiveness of the products and technologies developed by Japanese SMEs

Recently, a number of Japanese machine manufacturers have developed a rice flour milling machine using a new technology called “jet milling,” which mills rice by using jet stream wind. The rice particles injected in the jet stream accelerate and collide with other rice particles and are crushed. The rice flour thus produced is less damaged by starch during the milling process and has smaller particles compared to the rice flour produced by a traditional milling stone. This fine and less starch damaged rice flour allows bread and cakes to rise more easily; therefore, Japanese manufacturers believe that it has the potential to create new markets in Europe and the United States. This high-quality rice flour has potential for the Cambodian rice milling companies who seek to increase the value added of rice. Most of the Cambodian rice milling companies interviewed during the survey showed interest in this type of rice flour.

Several issues on vegetable and fruit processing were identified during the survey, such as poor thermal efficiency of drying machines and an inability to measure the appropriate sugar content of mangoes for dry processing; consequently, immature and overripe mangoes were wasted during processing. Local needs were identified with regard to technologies, products and knowledge of Japanese SMEs on various aspects of vegetable and fruit processing including frozen and freeze-dry processing.

4-3 Possible applicability of the SMEs' products and technologies to future ODA projects in the surveyed sector

In addition to the requirement of rice, vegetable, and fruit processing, introduced by the above technologies, “air stream milling” for rice flour, and frozen and freeze-dry processing for vegetables and fruits can fulfill the potential needs of the local markets in Cambodia. Therefore, it is desirable that the feasibility survey be implemented for both rice flour milling technology and frozen and freeze-dry processing with the private sector for using Japanese technologies in the ODA project to analyze raw materials and study the feasibility of applying this technology to meet market demand for processed products. Subsequently, the verification survey with the private sector for disseminating Japanese technologies is desirable for both rice flour milling technology and frozen and freeze-dry processing to produce samples with a trial machine or similar technologies for assessing the possibility of full-scale production and market acceptance. Moreover, for accelerating growth in the rice-milling sector, the Two Step Loan is proposed to strengthen the capacity of the Rural Development Bank, which provides credit to rice milling companies for acquiring machines and provides working capital.

For rice production, a technical cooperation project is proposed for accelerating the production of high-quality rice seeds suitable for higher value exports.

4-4 Possibility of business development by utilizing the SMEs' products and technologies in the surveyed sectors

The number of people who are allergic to the gluten contained in wheat is growing in Europe and the United States. According to a market research company, the gluten-free market of wheat substitutes is projected to grow to USD 7.59 billion by 2020. Rice flour is considered a leading raw material alternative to wheat and, if it takes half of the market share, the estimated market size is USD 3.8 billion. However, this estimation covers the total value of the final products such as bread, cake, and pasta. Because of the assumption that the ratio of raw material is 40% and the cost of sales is 30%, the value of the rice flour market will be USD 456 million. Moreover, if Cambodian high-quality rice flour aims to take 10% of the market share, its market size will be USD 45.6 million. According to Food and Agriculture Organization of the United Nations (FAO) statistics, the export price of US wheat flour was USD 545 per ton; therefore, this target price implies that 83,670 tons of the high-quality rice flour should be produced. A medium sized milling machine with a production capacity of 500 kg/hour, producing rice flour for 8 hours a day and 200 days a year, will produce 800 tons per year. Therefore, 106 machines are required to produce 86,730 tons. A single machine costs 100 million yen; therefore, the expected sales are 10.6 billion yen.

In Japan and the Western countries, frozen and freeze-dry vegetables and fruits are either consumed or used as raw materials for secondary processing of confectionery and processed foods. In frozen food processing, hygiene management, inspection of contamination, and residual pesticides are important as products are for direct consumption. In Japan, the issue of contaminated Chinese frozen products, which pose a threat to human health and life, was publicized in the media. The experience of complete hygiene management and inspection control of Japanese frozen food manufacturers indicates that they are capable of producing frozen products for both Europe and the U.S., which mandate strict specifications and high food standards. Furthermore, in recent years, the number of consumers that are concerned about food safety is growing in Asian countries such as China, Malaysia, Thailand, and Vietnam, which will lead to the growth of frozen and freeze-dry markets in Cambodia.

Kingdom of Cambodia, Needs Survey on Waste Management, Vocational Training and Industrial Development, and Agriculture Fields

Research Company and Counterpart Organization

- Name of Research Company : IC Net Ltd.
- Survey Site • Counterpart Organization : Phnom Penh City, Battambang City and other/ Ministry of Environment, Ministry of Labor and Vocational Training, Ministry of Agriculture, Forestry and Fisheries, Local Governments.

Concerned Development Issues

- Quality of waste treatment services, Treatment technology corresponding to the characteristics and property of the waste
- Insufficient qualified human resources, Quality of automotive service and used parts, sophistication of the technology in garment industry
- Low value added of rice, Absence of high quality vegetables and fruits processing technology

Products, Technologies, etc. of SMEs, etc.

- Waste Treatment Services, Small Loader, Plastic to Fuel Technology, Solid Recovered Fuel Technology
- Machinery maintenance (automobile), Scan Tools, Maintenance Information Services, Apparel CAD/CAM
- Rice milling machines, Management of vegetable and fruits processing

Proposed ODA Projects and Expected Impact

- Pilot implementation in cooperation with local counterparts (all sectors), Implementation of vocational training
- Community based and customer-centered waste treatment service, Access to new markets (gluten-free, frozen and frozen-dried fruits and vegetables, Automotive related services and sophisticated sewing technology)
- Increased employment opportunities by sophistication of the existing industries, Increased opportunities of vocational training

Future Business Development of SMEs, etc.

- Expansion of sales channels and new added value through collaboration with public institutions
- Improvement of products and service awareness through the ODA project implementation

