

"Project Formulation Survey" under the
Governmental Commission on the Projects
for ODA Overseas Economic Cooperation
in FY2013

Summary Report

Republic of India and Republic of
Indonesia

Acceptability of disaster relief water
purifier Rescue Aqua series in India and
Indonesia

March, 2014

Toyoda Products / Industrial Marketing Consultants

The content of this report is a summary of the project formulation survey, which was commissioned by the Ministry of Foreign Affairs of Japan in the FY 2013 and is carried out by the consortium of Toyoda Products / Industrial Marketing Consultants. It does not represent the official view of the Ministry of Foreign Affairs.

Summary

I . Description of the current situation and development needs in the country (countries) where the survey was conducted.

While seeing a remarkable economic growth in recent years, both India and Indonesia encounter many natural disasters throughout a year and suffer from the consequences. It is vital to secure lifelines such as water, electricity and gas after those natural disasters. Especially, securing and supplying water is a challenge.

Given that both India and Indonesia are facing problems of insufficient infrastructures such as poor city systems and roads, with their second and fourth largest populations in the world accordingly, a simple use of plastic bottles and water tanks is not enough to supply water at the time of disaster. Use of natural water sources such as spring water, rainwater and river water is encouraged as a mean of supplying drinking water at the time of disaster. However, there are many cases when these water sources cannot be used without processing due to contamination such as bacteria, and waste, as well as geological problems.

With this background, there are strong demands for water purifiers that can make safe drinking water from any water source and by simple operation. In this sense, the Rescue Aqua series can substantially meet their needs. We also consider both countries as important potential markets for the future overseas business expansion of Toyoda Products.

II . Applicability of SME's products and technologies and outlook of business development

In this proposal, the Rescue Aqua series-specifically the portable water purifier model Rescue Aqua 911-is proposed to be used as a disaster relief water purifier in the target countries (India and Indonesia). The 911 model is the world first portable water purifier with RO membrane. Adopting nanotechnology that allows pressurized raw water to penetrate through a high polymer membrane (RO) with 0.1 nm micropores, removing bacteria, Escherichia coli, viruses and toxic chemical substances.

As it was designed to be used in severe environments, all the accessories are contained in a double-layer structured case with outstanding shock-resistance, and the body has lightweight and compactness. In addition, on the assumption that lifelines have been cut off, the Rescue Aqua 911 water purifier is designed for manual operation without using a power supply

Through this proposal, we are planning a business expansion based on a 2-phase business model

for now.

<Initial phase>

In the initial phase, efforts are to be made to enhance and strengthen the awareness and brand image of Rescue Aqua series and to reduce cost by increasing supply volume in the target areas through ODA projects. In other words, at the beginning of this business, the focus will be on brand improvement operations in sales and marketing especially toward disaster support organizations, firefighting bureaus, police, medical organizations and defense departments in order to maintain maximum efficiency with a small group of sales representatives.

On the other hand, these business activities such as selecting and having cooperation with local partners are also aimed to establish a foundation for entering into the private sector such as disaster prevention related companies and medical equipment trading companies.

<Mid- and long-term phase>

In the next phase, the business focus will shift to global expansion on a full-scale by adopting a distributor system. During the mid- and long-term phase when business is expected to develop fully, a full preparing for a global expansion will be made, such as tying up with local distributors when big demands come up, starting import operations, making manuals in local languages, acquiring PL (product liability) insurance, conducting survey for keeping industrial properties rights, starting sales operation and after-service preparations. At this point, business development includes a possibility of localization (local production) in the future.

III. Verification of adaptability of the SME's products and technologies to the surveyed country(ies) (Demonstration and pilot survey)

At our first and second local surveys lately, we demonstrated Rescue Aqua series 911 model to introduce its outstanding performance and functions. For India and Indonesia, with a possibility of “Pilot Survey for Disseminating SME's Technologies” (hereafter “Pilot Survey”) and The Grant Assistance for Grass-roots Human Security Projects (hereafter “GGHSP”) in the future, we visited governmental organizations in charge of disaster prevention and disaster relief with a consideration for Pilot Survey and mainly NGOs for GGHSP as potential partners.

<India>

■ Pilot Survey

In order to demonstrate the advantages of the Rescue Aqua series, we visited NDRF, a disaster response agency created by the government of India, as potential partners for Pilot Survey, NIDM who carries out a research and trainings on disaster prevention goods and technology, and PSA, an organization for research and validation of science and technology. We also visited

MHA and NDMA who make a decision on disaster policies and have strong influence in this area, and despite less possibility of actual partnership, we intended to raise awareness of the products among ministries involved in disaster prevention and disaster relief measures and to ensure that future ODA projects proceed smoothly.

■ GGHSP

As a potential partner of GGHSP, we first listed around 50 NGO groups, and then selected groups to be suitable for this project. As a result, we narrowed down the list to CCRD, Oxfam India, SRUTI, SEEDS, and Red Cross, and met with them.

<Indonesia>

■ Pilot Survey

In Indonesia, until now, disaster relief activities have not been carried out jointly by the Ministry of Public Works (which manages regional public works, roads, and rivers), Ministry of Health (which manages the health and sanitation of victims during disasters) and Ministry of Defense (which plays an important role in relief activities). Instead, disaster relief is now handled by the Indonesian National Board for Disaster Management (BNPB), established in 2008. During the last visit, we visited the above two Ministries and BNPB who works as administration role in disaster prevention and disaster relief affairs.

■ GGHSP

As candidates of partnership for GGHSP, we first listed up around 30 NGO groups, and selected groups suitable for this project. As a result, we narrowed down the list to JAKARTA RESCUE, ACT, World Vision Indonesia, and Indonesian Red Cross, and met with them.

IV. Expected development impact and effect on business development of the proposing SME(s) in the surveyed country(ies) through proposed ODA projects

The Rescue Aqua series enable effective and efficient water sources which can provide large amount of drinking and domestic water, as well as water for medical scene after disasters (particularly in hyperacute phases). Ensuring water supply can contributes significantly not only to saving lives, but also to hygiene management at shelters and medical care sites.

Through ODA projects, we will provide not only our products but also information related to water processing technology, hygiene management, and disaster relief based on our previous experience to date as much as possible, and thereby contribute to making India and Indonesia resistant to disasters. In the mid- and long-term, we hope to apply our products to create new industries, to create and promote employment and to establish a safe and secure community.

However, due to a small business size of Toyoda Products, , our fund and human resources , business knowhow and network for overseas expansion are limited. Entering into poverty business in the developing countries seems pretty difficult if we launch the business by ourselves. In addition, there is a limit to what we can purchase from the point of building, operation and management systems just by ourselves. For this reason, we need to find influential business partners and distributors in the concerned areas for now, and collaborate with them in marketing and sales. We have decided to use the ODA program to help promote our future business.

V. Proposals for formulating ODA projects

<India>

■ Outline of Pilot Survey

- Installation of equipment, demonstration experiments, education, and training at NDRF, disaster response agency created by the government of India
- Training program efforts at NIDM, organization promoting disaster awareness
- Provision of equipment and water quality tests at PSA, a science and technology advisory organization of the government of India. Promote industry-academia projects with the government of India and research organizations.

In order to launch the Pilot Survey, we chose a disaster response agency NDRF as our main partner. After providing a certain degree of training at NDRF, they should be able to use the water purifier on site if disaster occurs. Not only the purifier play a crucial role during actual relief efforts, but this will also further demonstrate the acceptability of the water purifier at the site. It can be said that the Pilot Survey is one of the most important processes for expanding sales of the Rescue Aqua series in the private sector in the future.

Furthermore, in order to develop business in the private sector in the future, we also plan to raise awareness of the product within NIDM. The effort to link this to business developments in rural areas will be made by organizing training programs on the Rescue Aqua series at NIDM, since it has a large influence on local governments and local relief agencies. In addition, acquiring technical certification of the product from PSA, an advisory organization science and technology to the government, will enable us to enter into the private sector market smoothly.

■ GGHSP

When natural disasters occur one after another in large scale, there is a limit to the government or state providing relief to all victims by itself. The presence of NGOs should be extremely vital in order to make rescue activities including water supply in India. We thus conducted interviews with NGOs assuming that they might use the Rescue Aqua products for water supply through

GGHSP at disaster sites.

As a result, we selected SRUTI and SEEDS, and demonstrated and discussed about the use of Rescue Aqua series. Both organizations appreciated the product features such as manually operated design, portability, and high purification ability, etc., and hoped to use the Rescue Aqua series through GGHSP.

<Indonesia>

■ Outline of Pilot Survey

- Loaning Rescue Aqua series to BNPB and providing training on what to do in various situations (i.e., floods, earthquakes, tsunamis).
- Joint training of BNPB and government organizations working together during disasters.
- Training, etc. in collaboration with NGOs that have strong ties with BNPB

Since the wake of the two earthquakes occurring from the middle to the end of the last decade, namely the Sumatra Earthquake in 2004 and Central Java Earthquake in 2008, Indonesia has been strengthening its national disaster prevention system by establishing the disaster management law in 2004 and setting up BNPB in 2008. The country also established the Regional Disaster Management Agency (BPBD) to build a systematic disaster management throughout the nation.

Presently, BNPB may be considered to serve merely as an adjustment function, but the country is planning to reinforce its functions and its alliance with the various regional agencies.

For the launch of the Pilot Survey, we chose BNPB as our main partner.

Already we have agreed with BNPB over the joint project. However, given that the Rescue Aqua products are innovative water purifying systems, several trainings including disaster prevention drills are required to ensure the most effective use of the products.

■ GGHSP

There are many NGOs in Indonesia, which perform certain functions in the society by promoting social activities as well as providing jobs. In recent years, with the occurrence of the earthquakes in an unprecedented scale and due to the structural inadequacy of administrative organizations, NGOs become increasingly important in terms of disaster relief. We thus conducted interviews with NGOs in Indonesia assuming that they might use the Rescue Aqua series for water supply through GGHSP at disaster sites.

In the local surveys, we interviewed four organizations: Jakarta Rescue, ACT, World Vision

Indonesia, and Indonesian Red Cross. As a result, World Vision Indonesia and ACT expressed their strong interest into GGHSP scheme. To receive the aid, the NGO organization must meet the requirements of its sustainability (both project sustainability and sound financial ground), and needs to build a mechanism to continue maintaining the products. Because both NGOs operate CSR activity funded by private companies, they carry out IR activities periodically for investors. With this, they have already built the structure to meet the above conditions in activities under GGHSP scheme such as the preparation of periodic business reports and running sound business operations (including financial aspect).

Attachment : Outline of the survey

Project Formulation Survey

Acceptability of a disaster relief water purifier 'Rescue Aqua series' in India and Indonesia

SMEs and Counterpart Organization

- Name of SME: Toyoda Products / Industrial Marketing Consultants
- Location of SME: Kiryu-shi, Gunma Prefecture / Minato-ku, Tokyo
- Survey Site • Counterpart Organization: India : National Disaster Response Force(NDRF)
Indonesia : Badan Nasional Penanggulangan Bencana(BNPB)

Concerned Development Issues

- With numerous natural disasters such as earthquake and tsunami occurred in recent years, securing/supplying water during disasters has become an important issue.
- Various water resources might be used during disasters. Thus there are strong needs for water purifiers that can create safe water from any water sources just by simple operations.

Products and Technologies of SMEs

- The proposing company has developed a disaster relief water purifier "Rescue Aqua series" with a use of RO membrane, which is increasingly being adopted by government organizations in Japan and abroad.
- The Type 911 is a completely new disaster relief water purifier with unique features such as lightweight, compact size, manual operation, and high portability.

Proposed ODA Projects and Expected Impact

- The Rescue Aqua series will be introduced and verified with its effect by the counterpart, as well as other government agencies and NGOs in charge of disaster prevention and disaster related activities for the future application on securing and supplying water at disaster sites.
- In addition to that, providing information and knowhow based on the company's experience such as water processing techniques and hygiene control, etc., is expected to contribute to building more disaster-resistant nations to disasters for both Japan and Indonesia.

Future Business Development of SMEs

- Use of ODA programs such as Pilot survey for disseminating SME's technologies will help to promote the business development of Japanese small- and medium-sized companies in India and Indonesia.