People's Republic of Bangladesh

Preparatory Survey on BOP Business on Improving Maternal and Child Nutrition through Locally-Developed Foods

Report

(Summary)

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Japan International Cooperation Agency (JICA)

Nissin Foods Holdings Co., Ltd.

Alliance Forum Foundation

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1 Overview and Objective of the Proposed BOP Business

1.1 Overview

The proposed BOP business aims at contributing to solve two challenges Bangladesh faces today. The first is maternal and infant malnutrition. The second is inadequate food aid and nutrition during the times of natural disasters. The team jointly formed between Nissin Foods Holdings Co., Ltd ("Nissin") and Alliance Forum Foundation ("AFF") proposed to contribute to these issues by creating a new nutritiously balanced food using Nissin's food technology. The team aims to accomplish this by creating nutritional food 1) adopted to the local food culture, and 2) capable to consume without cooking so that people can stock them up in case of disasters. This report summarizes the findings of the study and the feasibility of the proposed BOP business.

1.2 Challenges in Bangladesh

In Bangladesh, the number of people suffering from malnutrition reaches as high as 42 million, roughly 30% of the population¹. Malnutrition is especially serious among children under 5 years old. Among them, 41.3% is malnourished, which is higher than Sub Sahara Africa (24.6%), and the average of low income countries (28.3%)². Malnutrition not only leads to inadequate growth, but also to a high rate of deaths among maternal and lactating mothers and infants. UNICEF Bangladesh office calls attention to this situation by terming it "Silent Emergencies". The Bangladesh government, international organizations, and NGOs are trying to improve the condition by providing nutritional food and supplements. However, such aid cannot be a permanent solution to the cause. Once the program ends, the situation could worsen again.

A lack of food aid after natural disasters is also an issue. Bangladesh experiences severe cyclones and floods almost every year. Every time after disasters, a large number of victims suffering from a lack food are reported. For example, after Cyclone Aira in 2009, 3.9 million became the victims. Among them, 500 thousands were in need of emergency assistance. Though the number has been declining due to the government's effort in strengthening the early warning system, there is still a room to be improved. For example, even with the number of aids provided by the government, international organizations, and NGOs, food aid hardly reaches to areas which became isolated after the road connection was cut off by flooded water.

The founder of Nissin, Momofuku Ando, gave up his then- job to start a food company after seeing so many Japanese suffering from malnutrition in post-World War II. He created

¹ WFP, UNICEF, IPHN, Bangladesh Household Food Security and Nutrition Assessment Report 2009

² World Health Organization, Global Database on Growth and Malnutrition

the first instant noodle ("Chicken Noodle") which is conservable and easy to cook by just pouring hot water. Chicken Noodle was recommended for maternal and lactating mothers by the Ministry of Health and Welfare of Japan when it came out because of the high nutritional content. Since then, the Nissin Group has been contributing to support people's food needs by creating instant foods, biscuits, corn flakes, dairy products and others. The Nissin Group also actively participates in assisting disaster victims by providing food aids. The Group established a system that promptly delivers its products to disaster affected areas by keeping a certain amount of running stock. Nissin aims to contribute solving the problems in Bangladesh by using its know-how on establishing a business financially feasible as well as socially committed.

1.3 Objective of the Research

A feasibility study (F/S) was conducted to verify the developmental impact and business feasibility of the proposed BOP business. Based on the F/S, a business plan was created for a proposal. The following is the list of particulars verified in the F/S.

- 1. Dietary habits and nutritional status of maternal and lactating mothers, infants and young children, and lower income households
- 2. Market, competitors and logistic channels
- 3. Site and cost of factory
- 4. Acceptance level of the trial product among target population
- 5. Level of damage caused by past disasters and current risk management system
- 6. Possibility of partnering with NGOs and government institutions
- 7. Development impact and business feasibility of the proposed BOP business based on the conditions verified above

2 Conclusion: Feasibility of the Proposed Business

2.1 Feasibility of the Proposed Business

Based on the results of F/S, the team found out that the proposed BOP can contribute to solving the situation of malnutrition and lack of food aid after disasters. However, the timing of the start of the business has to be carefully planned since the size of the instant noodle market in Bangladesh is still small. A business model using NGO grass-roots distribution channel had to be modified as well.

The current size of the instant noodle market in Bangladesh is about 0.2 billion packets per year. Nissin sets its target market share as 70-80 million packets per year which represents almost the half of the current market size. This is unrealistic to achieve under the presence of a strong market leader, Nestle S.A., which provides nationally popular instant noodle "Maggi". Thus, a further growth in the market is necessary for Nissin to provide its nutritional instant noodle sustainably.

Still, the result of F/S implied that the instant noodle market is growing faster than what the data suggests. If the market grows faster than the projected rate, the year of reaching the target share is likely to accelerate as well. Therefore, in order to assess the right timing of entering into the market, Nissin will continue paying a close attention to the trend of the instant noodle market. In detail, Nissin will observe the market trend by collecting the following information.

- 1) Collect data on the market size of packaged instant noodles in Bangladesh once a year
- 2) Visit Bangladesh regularly to observe the instant noodle market
- Collect information on the progress and direction of important governmental policies (Ex. Policies on energy, infrastructure, and SEZ development) (The information will be collected if Nissin can obtain a precise assessment on the launching year)

The following chapters explain the business model, product design, and business schedule Nissin likely to adopt if the estimated target year to launch its business in Bangladesh becomes clear.

2.2 Business Model

The business model was modified from the proposed version based on the result of market research, consumer research, pilot sales, and disaster management research conducted in F/S (Figure 1). The proposed BOP business aims to contribute to fight against 1) malnutrition and 2) hunger during disasters by partnering with local NGOs. To contribute to the issue in 1), Nissin plans to teach mothers on the importance of having

nutritiously balanced intake by hiring saleswomen who visits remote villages where not many retail shops are located. Saleswomen will open a pop-up-store of Nissin products in public areas, such as in front of schools or community buildings. Saleswomen will teach mothers on what is nutrition, and why it is important to take nutritiously balanced food besides promoting Nissin's products to customers gathered in the area. A partner NGO is expected to train saleswomen on nutrition and assist their sales activity by acting both as a sales advisor and mentor. To contribute to the issue in 2), a pilot project will be jointly conducted with a NGO actively promoting disaster prevention including educating the importance to stock emergency food at the Hatia island, a highly disaster affected area at the Bay of Bengal. Nissin plans to create a noodle product edible even without cooking in hot water so that it can also be promoted as emergency food stock. The NGO will teach the importance of stocking foods which may indirectly increase the demand on Nissin's product. If the pilot project proves the effectiveness of Nissin's product as emergency food stock Nissin will expand its promotion to other disaster prone areas.

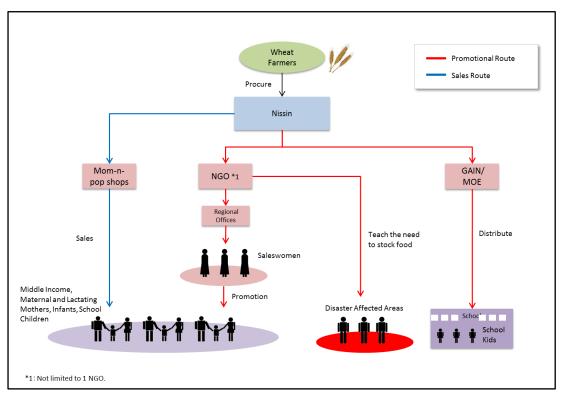


Figure 1 : New Business Model

1. Ingredients

Instead of rice, the team proposes to use wheat flour as the ingredient of the nutritional instant noodle. Though rice is considered as the staple food in Bangladesh, rice noodle

is still a new idea to many Bangladeshi who are usually conservative on their food choice. The cost of using rice is also as high as the wheat flour if processed into rice flour. Thus from the perspective of food culture and cost, wheat flour is a more competitive choice.

Nissin plans to procure the flour from a local company, most likely to be ACI Pure Four Limited which is the choice of other foreign food companies, such as Nestle and Thai President Foods, as well. The quality of the flour shall be determined after considering Bangladeshi customers' taste. As it is explained in later chapters, Nissin plans to enter into the Bangladeshi market in two phases. In phase 1, Nissin plans to produce noodles using existing factories in nearby Asian countries. Thus, Nissin intends to cooperate with its local partners in the country for flour procurement.

2. Target Customers

The main target customers of the proposed BOP business are narrowed down according to three categories: income, segment, and area. The income shall be between 5,000-20,000 Tk/month. School kids should be added to the target segment in addition to maternal and lactating mothers and infants since they are the main consumers of noodles today. Nissin should start entering into the Bangladeshi market from Dhaka and Chittagong districts where 60% of the national population resides.

Category	Target
Income	 Monthly income between 5,000-20,000Tk who eats instant noodles the most likely to become the main target. Among BOPs, the transition from stick noodles to instant noodles usually happens after reaching an income of 5,000Tk/month. 56% of the population falls under the category of 5,000-20,000 per month income range.
Segment (Characteristics)	 It is effective to promote to school children together with maternal and lactating mothers, and infants. School kids seem to be the main consumers of instant noodles. Preferences of children affect parents' choice of food. Mothers showed a high interest in children's nutrition.
Area	 To reach the target share, it is more effective to start from Dhaka and Chittagong districts. > 60% of the population resides in Dhaka and Chittagong districts. > Household expenditures are higher in Dhaka and Chittagong districts than the rest of the country. > The number of maternal and lactating mothers is

 Table 1 : Main Target Customers

about the same in urban and rural areas.	about the same in urban ar	nd rural areas.
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3. Promotion Strategies

Other than usual sign advertisement, TV commercials, and free samples, Nissin plans a special promotion combining nutrition education with product promotion for its main target customers. For maternal and lactating mothers, and infants, Nissin plans to form a partnership with a NGO with experience of conducting nutrition education programs. The partner is not limited to one NGO. Partner NGOs will be selected according to different areas since local reputation is an advantage when introducing new ideas affecting dietary habits, especially in conservative rural areas. The following summarizes the process of the promotion.

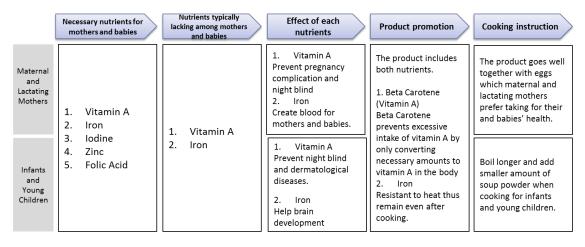


Figure 2 : Promotion Process

(Source: Study Team)

Saleswomen will first teach about nutrients necessary for healthy growth of children and mothers. Then they will introduce the nutrients typically lacking among Bangladeshi, such as Beta Carotene (Vitamin A) and Iron. They will also educate about health and development problems caused by the lack of such nutrients. Finally, Nissin's product which is fortified by Beta Carotene (Vitamin A) and Iron will be introduced. During customer research, the team discovered that many mothers try to improve children's health by feeding vegetables, fruits, and eggs recommended by government health officers or NGOs. However, most mothers have little knowledge on nutritional content of foods recommended to take. Having proper knowledge on nutrition—how it works and why it's important—helps consumers understanding the effectiveness of Nissin's product. Therefore, supplementing the knowledge about nutrition through saleswomen is important.

At the end of the promotion, saleswomen will introduce various ways to cook instant noodles depending on consumers' preference. In the customer research we discovered that many maternal and lactating mothers consciously take eggs for the health of their own and babies'. Therefore, Nissin plans to develop a product with a taste that matches with eggs. Saleswomen will be asked to effectively convey this message to encourage maternal and lactating mothers try the product. As for infants and young children, we occasionally observed mothers boiling noodles longer to make them softer when cooking for infants. Soup powder is also added only for a small portion since small children are sensitive to salt and spices. Such cooking method will also be introduced during the promotion in order to appeal to customers that one noodle product can meet different demands of a family.



Infant eating noodles at customer research



Infant eating noodles during pilot sales

Nissin plans to partner with Global Alliance for Improved Nutrition (GAIN)³ in order to promote the product to school children. The team has discussed about the plan with GAIN for three times in Tokyo and Bangladesh. GAIN is about to launch a school meal program with the Ministry of Education of Bangladesh. GAIN prefers to provide warm processed food in the program. Though the procurement company has been already selected, GAIN mentioned the food can be substituted with Nissin products once or twice a week if the cost is incurred by Nissin. This alliance enables Nisshin to advertise its products to children in the school meal project but also to health conscious parents through the Bangladesh National TV channel, on which the Ministry of Education holds a program.

³ GAIN is an international NGO conducting projects around the world to improve the nutritional status of vulnerable people.

4. Logistics

In the proposed BOP business, Nissin aims to distribute its products through a commercial channel collaborating with mom-n-pop shops⁴ and large scale retailers. A large scale distributor having the capacity to organize a team of "distributor and sales operator⁵" will be the partner. However, such large scale distributors are still limited in Bangladesh. Thus, forming a partnership with an ideal distributor becomes the key to success.

Nissin has already started negotiation with a potential distributor to understand the condition of partnership. Stock management and customer management will be largely dependent on the partner who has local knowledge. However there are some inventory control methods particular to instant noodles, which should be instructed by Nissin.

5. Logistics at Emergencies

As in the business model, Nissin aims to encourage consumers to stockpile its product in case of emergency, rather than utilizing NGO's food aid distribution channel to directly provide emergency foods to the victims. This strategy is based on the government's policy shifting from providing emergency food assistance to encouraging household-level food stocking. Nissin will accomplish this goal by partnering with a NGO which runs a household-level disaster prevention program at the Hatia Island. While the partner NGO instructs residents in the disaster prone areas the importance of emergency stock foods, Nissin will explain how edible its product is without cooking, as well as how effective a source is to support energy and nutritional needs during disasters.

Since stocking emergency food supply is a voluntary action, residents in disaster prone areas are expected to get Nissin products through a commercial channel. Thus logistic channel is no different to that of the times of non-emergency. However, since the Hatia island is in a remote area at the Bay of Bengal, Nissin products is not likely to reach to the area during Phase 1. Therefore, the joint promotion with a NGO to residents in disaster prone area is expected to start from Phase 2.

2.3 Product Design

Based on market research, consumer research, and pilot sales, the product design was defined as below.

⁴ Small scale kiosk type retail shops which are usually run by a family.

⁵ Sales operator specializes in promoting goods and taking orders from mom-n-pop shops. The order will be passed to the distributor.

Category	Details
Ingredients	 Though rice was the proposed ingredient at the start, we discovered that wheat flour is a more viable choice. There is no big difference between the price of rice and wheat flour since rice assumes additional cost if processed into flour.
Product Format	 Instant noodle is the best choice because of its fast-growing market. Nissin's also possesses the highest advantage on food processing technology in the instant noodle market. Children who typically lack nutrition are the main consumers of instant noodles. Instant noodles are regarded as highly nutritious. Instant noodle goes together with eggs which maternal and lactating mothers consciously consume for their own and the babies'. health Instant noodle can be arranged to suit the preference of infants and young children if cooked longer to make noodles softer or adding less soup powder to minimize spices. Considering the target customers' purchasing power, packaged instant noodle is a better choice than cup noodles which are typically more expensive.
Cooking Style	 Frying is the standard style of cooking noodles in Bangladesh, thus Nissin will apply the style to its product design. There are still many people in Bangladesh who cannot read, thus introducing a soup noodle style by putting a cooking instruction on the packet is not feasible.
Taste	 Though the taste will be limited to one kind at the beginning, since an interest in different varieties of taste were shown during the research, in the long-run, Nissin will diversify its product range. Difference between Indian and Bangladeshi Masala should be noted during the product design.
Characteristics	 Beta carotene (Vitamin A) and iron, nutrients typically lacking among maternal and lactating mothers, and infants shall be added to the product. Iodine which is also typically lacking among target customers is difficult to add since it is sensitive to heat. Whether nutrients should be kneaded into the dough or added in the soup powder shall be determined in the future. The product shall be edible even without cooking so that people can use it as stock food in case of disasters.

Table 2 : Overvie	w of the Product Design
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Price • Nissin will target 15-17Tk/packet, the typical rang packaged noodles in Bangladesh.

At least in the beginning, products will not be differentiated according to different segments of customers. This is to achieve a better financial return by adopting a single production line. We did find that a mini-size packaged noodle "Maggi Jr." is popular among lower to middle income households in rural areas. However, cost-wise, it is better to give a discount on the normal size packet as a launching promotion, rather than adding another product size. Besides, Grameen Danone Foods Ltd.⁶ which introduced different product lines between rural and urban areas, seemed to find that dealers purchasing lower-cost Grameen Danone products in rural areas to sell in urban areas. This case implies that having multiple lines of products according to different segments is not necessarily a wise option.

2.4 Proposed Schedule of Business

If the instant noodle market grows as projected, Nissin will most likely to launch its business according to the schedule shown in Figure 3 below. Since it is Nissin's first time to enter into the Bangladeshi market, the business launch will be divided into two phases.

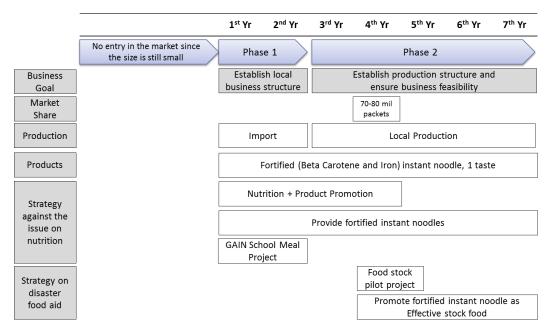


Figure 3 : Business Schedule

(Source: Study Team)

⁶ A joint venture founded between Grameen Bank and Group Danone in 2006. Grameen Danone produces a fortified yogurt called "Shokti Doi" (Energy Yogurt) aiming mainly to improve nutritious condition of children.

Phase 1: Establishing Local Operation System

The instant noodle market in Bangladesh is growing along with the growth in population and the purchasing power of the middle-income households. Therefore, an early entrance into the market is anticipated. At the same time, the presence of the competitor, especially Nestle S.A., is too strong that "Maggi" has become the standard of instant noodles. Although Nissin found that their products could also be well-accepted among Bangladeshi consumers, a possibility of establishing a strong logistic system to make such potential customers a repeater is still not clear. Thus, a further negotiation with local potential partners on cooperation is necessary in this stage. Promotion wise, Nissin plans to utilize saleswomen who can teach about the importance of nutrition together with product promotion, in addition to usual commercial advertisement on TV and sign boards, free sample, and limited-time discount.

In the first phase, products will be produced in other Asian countries where Nissin already possesses production factories. Still, the products will not be sold as expensive "import product". The product will be designed especially for Bangladeshi customers. The 138% import tax will be incurred by Nissin as well. Therefore, from the customers' and retailers' point of view, the product is no different to locally produced products. By creating an environment almost the same as the second phase where the local production starts, Nissin can precisely understand how acceptable its product is and how the product and strategy should be modified if necessary.

Phase 2: Establishing Local Production System and Securing of Financial Viability

Based on the sales growth in Phase 1, Nissin will shift to Phase 2 by establishing a local production factory in order to secure financial viability. A factory is planned to open in the industrial area of Gazipur where production sites of competitors like Nestle S.A. and Cocola⁷ are. Since Gazipur is a popular industrial area, Nissin can find laborers comparatively easier than other areas. Gazipur also has a good access to the market in Dhaka and Chittagong districts through the Dhaka-Chittagong Highway.

In Phase 2, Nissin will also gradually increase local employment in the administration department. At the same time, it will transfer authority to local staffs from Japanese staffs to ensure operational efficiency. Through such actions, Nissin aims to lower the operation and production cost while expanding market areas to ensure profitability of the proposed BOP business.

⁷ Local noodle manufacturer, having the largest share in stick noodle market.

2.5 Contributions to Solve Challenges Bangladeshi Face

Mothers and infants in Bangladesh are suffering from stunting⁸ and wasting⁹. Though malnutrition is a result of many different causes, in Bangladesh, unbalanced diet is one of the significant reasons. According to Demographic and Health Survey 2011, a smooth transition from breast feeding to baby foods is hardly observed. This caused a significant drop in nutritional status especially among infants between 6 to 12 months since birth. Maternal and lactating mothers are trying to consume more nutritional foods, such as vegetables. However, such actions are done by giving up some staple foods most likely because of their limited household budget. Such actions could have been prevented if mothers had better knowledge on nutrition. Nissin's nutritional instant noodles and the proposed promotion method conducted by NGOs and saleswomen can improve this situation especially in the areas listed below.

1. Complementing Knowledge on Nutrition

In the proposed BOP business, Nissin plans to build partnership with NGOs, at least in the first 4 years, to transfer knowledge in nutrition to mothers in combination to the sales promotion. Saleswomen are expected to teach about necessary nutrients for maternal and lactating mothers, and infants and young children. As a result of this knowledge transfer, we aim to raise Bangladeshi mothers' knowledge in balanced diet.

2. Supplementing Nutrients Typically Lacking among Mothers and Children

Nissin plans to fortify the instant noodles with Beta Carotene (Vitamin A) and Iron.
Beta Carotene will turn into Vitamin A after consumed, but only for the necessary amount the body claims. Thus it prevents excessive intake of Vitamin A while protecting them from pregnancy complication, night-blind, and dermatological diseases. Iron helps mothers body create blood required for the health of pre-born babies and themselves. It also helps infants' brain growth by creating hemoglobin. Additionally, instant noodles are high in calories which contribute to mothers and babies who also typically lack in energy intake.

⁸ Stunted growth reflects a process of failure to reach linear growth potential as a result of suboptimal health and/or nutritional conditions. On a population basis, high levels of stunting are associated with poor socioeconomic conditions and increased risk of <u>frequent</u> and early exposure to adverse conditions such as illness and/or <u>inappropriate</u> <u>feeding practices</u>. (Source: WHO, <u>http://www.who.int/nutgrowthdb/about/introduction/en/index2.html</u>, accessed in Dec, 2012)

⁹ Wasting or thinness indicates in most cases a recent and severe process of weight loss, which is often associated with <u>acute starvation and/or severe disease</u>. Provided there is no severe food shortage, the prevalence of wasting is usually below 5%. Usually a high rate of wasting can be observed during disasters and non-harvest season. (Source: WHO, <u>http://www.who.int/nutgrowthdb/about/introduction/en/index2.html</u>, accessed in Dec, 2012)

3. Product Design Encouraging Consumption

In the proposed BOP business, instant noodle, a popular dish among Bangladeshi, are used to first increase their appetite. Instant noodles also have various ways to cook, thus can be easily arranged to fit to maternal and lactating mothers, and infants and young children whose food preferences tend to change. For example, mothers can cook instant noodles by breaking them into pieces and boiling longer so that babies can easily digest. The amount of soup powder can be adjusted as well to avoid babies taking too much salt. The taste can be changed by adding different spices instead of using soup powder so that maternal mothers can eat them even during they suffer from hyperemesis. Nissin also plans to design the product that matches with eggs, which maternal and lactating mothers regards effective for their own health and the babies'.

3 Area of Potential Cooperation with JICA

Based on the product and the business model designed through the research, we propose to work in two fields with JICA in order to prompt resolving the issue of malnutrition: 1) work together in spreading the knowledge on nutrition, and 2) prepare a hygienic environment for school meals. The detail method of cooperation is proposed in the following paragraphs.

As explained in the chapters above, in the proposed BOP business, saleswomen play the role to disseminate the idea of balanced diet. This is because there is a strong relationship between the level of nutritional knowledge and demand in nutritional foods. Still, there is a limit in the number of saleswomen Nissin can organize. Furthermore, based on the pilot sales, one saleswoman can visit only 2-3 public spaces per day. If Nissin is the only agent promoting mothers to acquire better knowledge on nutrition, the coverage will obviously be narrow. Therefore, government-organized nutrition promotion utilizing Community Support Groups (CSGs)¹⁰ is desired. CSGs are consisted with representatives of the residents and organized under Community Clinics $(CCs)^{11}$. The purpose is to clarify and implement health services needed in the community. Although combining the nutrition promotion with a particular product of Nissin may be difficult if organized under the government, having a better knowledge on nutrition indirectly increases the needs of fortified foods.

JICA is currently conducting "Safe Motherhood Promotion Project (Phase 2)" which aims to strengthen cooperation between maternal and child health providers by assisting systematization of CCs, Community Groups (CGs), and CSGs. Especially, the recognition of CSGs which work closely with residents and contribute enhancing their health knowledge is so high that the Government of Bangladesh instructed to organize three CSGs at each CC all over the country. In Phase 1, JICA developed a Trainer's of Training (TOT) Program to raise community facilitators (most of the time taken by local NGOs) who can assist organizing CSGs. In Phase 2, JICA helps the implementation of TOT at the same time assisting communities to determine the type of health services to be implemented. CSG members are ordinary residents who typically do not possess any knowledge on health issues. As a result, although they know health needs, it is difficult for them to give priorities. Union Coordination Committee Meeting (UCCM)¹² invented by JICA through "Participatory Rural Development Project Phase 2 (PRDP-II)" assist this process. UCCM is attended by Union assembly members, village representatives, local

¹⁰ The government of Bangladesh instructs to form 3 CSGs under 1 CC.

¹¹ There are a total of 10,723 CCs nation-widely in Bangladesh providing primary health care. The level of service provided depends on each clinic, but ideally, at least one clinical nurse should attend. ¹² Union is the smallest regional unit consisted with several villages.

NGO representatives, and CSG representatives. Attendants report on their projects and present local issues to be discussed. Based on local knowledge, attendants decide on priority issues to be funded by taking comprehensive and par anomic views. We propose our local NGO partner to raise the issue of a lack of nutritional knowledge among residents at UCCM and recommend CSGs to work as the volunteer educating on nutrition to residents. Local NGO partner is most suitable to make this proposal since they have access to both UCCM and CSGs.

At the proposed BOP business, Nissin plans to select a NGO partner which is locally rooted and has an experience in nutrition project at the target areas of Dhaka and Chittagong. The selected NGO partner will first teach the current nutritional condition of mothers and children, and the negative damage it can cause to the health and growth of them. After receiving the understanding on the gravity of the issue among UCCM attendants, the partner NGO will propose to conduct a project to enhance community mothers' knowledge on nutritious diet by appointing CSG members to become the agent. In past examples of CSG projects, there is a case that a female volunteer held a session on the need of regular check-up during pregnancy in the courtyard by inviting women in the neighbor. This so-called "court yard session" contributed to enhance the number of patients getting regular check-ups during pregnancy. Nissin plans to utilize this court yard session method to teach nutritional diet as well. CSG members will be trained on nutrition knowledge by our partner NGO.

If the knowledge on nutrition enhances among Bangladeshi, naturally the demand on nutritional foods will increase. Nissin intends to meet the demand by providing fortified instant noodles and contribute to solving the issue of malnutrition. Reaching out to larger number of Bangladeshi by educating residents on nutrition via CSGs will not only benefit Nissin's BOP business, but it will also benefit the society as a whole by providing a healthier diet to maternal and lactating mothers, infants, and school kids.

Secondly, collaboration between JICA is also expected in the school meal program. In the proposed BOP business, school meal is regarded as an important promotional tool targeting the main noodle consumer, school age children. As explained in the paragraphs above, currently GAIN is working together with the Ministry of Education to start a new school meal program. Nissin has confirmed that it is able to provide its product through this school meal channel if cost is incurred by the company. However, in order to conduct Nissin's school meal program nation-widely, there is another challenge. According to GAIN, not all schools in Bangladesh have access to safe water. The Ministry of Education originally wanted to provide cooked hot meals, however, due to the limit in water access and unavailability of well-equipped kitchen in some schools, GAIN decided to provide processed foods that require no cooking. Although Nissin's nutritious instant noodle does not require a full cooking facility, it does require clean hot water.

JICA has already launched water treatment projects in Chittagong and Kulna districts, and expanding the project to other districts as well. None are particularly intended to increase safe water access at schools, still, if the clean water access in urban areas is promoted, indirectly, schools will benefit as well. As such schools increase, the number of Nissin's promotional site increases as well. Furthermore, if an access to clean water increases, hygiene education can be combined with nutrition education by teaching the importance of hand wash. GAIN says if hand wash is promoted without arranging stable access to clean water, students have to line up for a long time just to wash their hands. As a result, meal time will be extended, which inevitably shortens the classes in afternoon. Thus, most schools end up not teaching the importance on hand-wash. If JICA can increase students' access to clean water, students' health will be promoted holistically by combining hygienic education and nutrition education.