

Roundtable Discussion on Dairy Value Chain in Bangladesh

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Venue: Hotel Century Park

**Organized by
Renaissance Consultants Ltd. and Practical Action-
Bangladesh
30 April 2017**

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ABOUT

On 30 April, 2017, a roundtable discussion was organized at Hotel Century Park to discuss about the problems and opportunities currently present in the dairy and milk sector of Bangladesh, and what can be done to mitigate such problems and grasp the opportunities to grow this value chain. The discussion was organized by Renaissance Consultants Ltd. (RCL) with support from Practical Action-Bangladesh. Experts from both the private and development sector participated to share their professional knowledge on the issues as well as learn from other experts in this field.

The discussion was moderated by **Ms. Parveen S. Huda**, who is the lead consultant and Managing Director of RCL. **Ms. Hasin Jahan**, the Country Director of Practical Action-Bangladesh presided over the discussion.

Overall, it was a very stimulating and engaging discussion that lasted around 3 hours. A plethora of quality information was discussed, based on which action points and research can be taken as future steps.

RCL and Practical Action-Bangladesh would like to thank all the participants for their valuable time and contribution to this discussion.

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LIST OF PARTICIPANTS ATTENDED

Sl. No	Name	Designation	Organization
1	Shammi Huda	Director	Naafco Group (including Naafco Agrovet Ltd)
2	Fahmi Mursaleen	Propreitor	Firm Fresh Initiative
3	Zunaed Rabbani	Capacity Building Director	Cultivating New Frontiers in Agriculture - CNFA
4	Shah Md. Sadaruddin Shibly Sumon	Head of Supply Chain and Milk Sourcing	Grameen Danone Foods Limited
5	Shakeb Nabi	Country Director	Christian Aid
6	Shamema Akther Shamme	Gender specialist	Plan BD
7	Dr. Md. Harun-or - RashidHarun	Asst. General Manager, Operation	Pran Dairy
8	Md. Shahidur Rahman	Senior Manager	Milk Vita
9	MD. ANISUR RAHMAN CHOWDHURY	Livelihood and Private Sector Coordinator	Oxfam
10	Md. Shafiqur Rahman	ULO	DLS
11	Md. Obaydul Islam	General Manager	Oogro Dairy
12	Md. Moniruzzaman.	Deputy General Manager	Oogro Dairy
13	Saeed Ahmed	Chief Human Resources Officer, & Chief Executive Officer-	Meena Sweets
14	Syed Akthar Hasan Uddin Ellis Uddin	MD	MAAR Ltd
15	Monir Hossain	National Sales Manager	Akij-Farm Fresh

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16	Md. Sayeed Ur Rahim Mahadi	Technical & Country Liaison Officer	Bangladesh- Renewable World
17	Taufiqur Rahman	Chief Business Officer	DBL Group (Ex. BRAC Dairy)
18	Nabi Khan	CBO	DBL Group
19	Hasin Jahan	Country Director	Practical Action
20	Mirza Kholil Zibran	Project Manager	Practical Action
21	Syed Bari	V C	MD
22	Parveen S Huda	Moderator	RCL
23	Sakib Alam	Logistics	RCL
24	Anjaleen Haider	Co-ordinator	RCL
25	Arif Syed	Rapporteur	RCL
26	F.H.M. Rakiba	Documentation support	RCL
27	Shah Newaz	AGM- Marketing	Arong Dairy
28	Sifat Rahman	Executive Business Development	Enroute Int. Ltd

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BACKGROUND

The economy of Bangladesh is based primarily on agriculture, and livestock is an essential component of the rural economy and the livelihood of the subsistence farmers. The country has a sub-tropical monsoon climate and 84.4% of its population is living in rural areas. Dairying is the most ancient occupation established in the rural setting of Bangladesh, and it is a good source of income to the small and marginal farmers. The feeds required for milk production can be met from their limited land resources as most of the animals are ruminants and the majority of their food can be derived from forages, coarse roughages and agricultural byproducts not utilized by human beings, without incurring additional cost. Dairy animals, comprising cows, buffaloes and goats to a limited extent, are the major livestock and hold a very important place in the national economy of Bangladesh. Apart from their role in milk production, they contribute a huge quantity of organic manure, which is one of the major inputs in Bangladesh agriculture. Dairying is a subsidiary occupation of almost all farmers of Bangladesh. More than 60% of the families involved in dairying consist of small and marginal farmers and even agricultural laborers. Most of the small-farmers and landless laborers are under-employed and there is also surplus labor in the rural areas. Therefore, the supply of such labor for dairy development or the involvement of rural farmers in the dairy industry would not only create employment but raise the standards of living of the rural people. It should be noted that a lot of the labor for dairy production actually come from women of the household.

However, the development of the dairy sector from marginal scale to mass production in Bangladesh has been unsatisfactory due to several problems. The main problems concern breeding, feeding, management, diseases and marketing. The dairy sector has also not received adequate attention in respect of information and research with present policies and issues. National milk production can only meet 13% of the current demand for milk consumption. The demand for milk is growing at a faster rate than supply because of the rapid increase in population, creating a widening imbalance between demand and supply. This has resulted in high price of milk which makes it unaffordable for households with lower income.

The dairy industry of Bangladesh holds great potential for sustainable development of the country. The government alone cannot ensure growth of this industry. Support is needed from all the operators (farmers, collectors, milk traders, dairy processors) and supporters (livestock health workers, input suppliers, and government and non-government institutions) of the dairy value chain. An ecosystem needs to be created where all the stakeholders can smoothly interact, support and collaborate with each other. There is a need to have knowledge of the existing demand, its growth over time, and the existing supply possibilities. There are also many types of information needed for proper functioning of

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markets. In the light of such knowledge gaps, it would be necessary to take policy measures for providing strong institutional support to increase domestic production and reduce the imbalance between supply and demand of milk.

DISCUSSION POINTS

The following discussion points were the prime agenda for the Round-Table:

1. Existing problems in the dairy sector value chain of Bangladesh
2. How we can work together to develop this specific opportunity
3. Challenges: for large firms, and for small firms
4. Problems in terms of Quality Assurance and Supply Chain
5. Problems in terms of Distribution, controlling of Price, and Marketing
6. What the Role of the Government can be: its involvement in the Development of Dairy sector in terms of technical and economic policies

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INTRODUCTION OF THE PARTICIPANTS

Ms. Hasin Jahan: “Good Afternoon everyone. I am Hasin Jahan. I am with Practical Action, and I am the Country Director. I feel respect for everyone who came today, especially as it is not easy to beat the traffic and come here at this hour (after office rush hour). I believe that the issue that we are discussing about today, it is of a common interest for every one of us. I believe that after today’s discussion, we will have some points to ponder based on which we can start our journey. Therefore, coming together in this roundtable discussion is the start of a long journey. And I am welcoming this beginning!”

Ms. Shamema Akhter Shamme: “Good Evening everyone. I am Shamema Akhter Shamme. I am working as Gender Specialist in Plan International Bangladesh. I had the opportunity of directly working on this issue in a previous organization (Oxfam) where there was a big project on dairy. And I have the experience of working on both social and economic frontiers.”

Mr. Syed Akhter Hasan Uddin: “I am Syed Akhter Hasan Uddin. A lot of you know me by my nickname Ellis. I am in the agro-processing business. My products are fodder. I often run after people who have cow dung. So my interest in cattle is on both sides: to feed the cattle, and also take away the remnants of the cattle.”

Mr. Fahmi Mursaleen: “I am Fahmi Mursaleen. I am what is known as a “farmer to the rich”. Why am I farmer to the rich? Because after about 35 years of experimenting with different types of agriculture, starting with Magur fish to Rui fish to cows, goats, sheep, I have finally settled down in proper agriculture, which is to grow plants. I grow vegetables, which other people do not have (grow). That is why I am farmer to the rich. Basically because I cannot afford to grow it in competition with other people who can do it much better, so I focus on growing those which other people do not do. He (previous speaker) takes cow dung from him (next speaker), uses it, and is supposed to supply to me, so that is basically our link.”

Mr. Syed Fazle Bari: “My name is Fazle Bari. I have been in milk powder trading for a long time. I think that the time has come that we should not depend on imports. And we should develop the infrastructure locally and understand and help the growth of this business.”

Mr. Shammi Huda: “I am Shammi Huda, and I am the director of Naafco Group. Our primary business is pesticides and fertilizers. Nowadays we are also involved in farming sector, such as cows, chickens, shrimp, etc. We have a herd of 90+ cows, which are now in Mymensingh (previously they were in Slyhet – longer distance from Dhaka) This allows us to be in quick touch with Dhaka. Plus, we have a huge market in Gazipur. I came here to have an idea on purposes milk can be used for.”

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Mr. Md. Obaidul Islam:“My name is Obaidul Islam, and we have come from Oogro Dairy.”

Mr. Md. Moniruzzaman:“I am Moniruzzaman (also from the same company Oogro). One of the part of our business is dairy. We have started this in last two years in a small scale.”

Mr. Mirza Kholil Zibran:“I am Mirza Kholil Zibran. I work at Practical Action, in the food and agriculture program. Practical Action has been working in different sectors, but we started working in the livestock sector in the last ten years. The participatory approach that we had, we work with dairy products, dairy chicken, etc. and for the improvement of the value chain.”

Mr. Zunaed Rabbani:“My name is Zunaed, and I am in charge of a network of agro-input retailers. We work in 81 upazillas and 19 districts. Most of our retailers are involved with seed fertilizers and pesticides, but some of them also want to get into input for dairy products such as fodder, artificial insemination, and I am just trying to find out from this discussion whether we should get involved or not.”

Mr. Saeed Ahmed:“I am Saeed Ahmed, and I am in Gemcon Group. In our group, we have many products where milk is required. We have our own source. We also have our own organic tea garden where for fertilizers; we use cow dung. For that, we have our own dairy. Over there (in Panchagor – extreme North of Bangladesh) we involved the community through “Shomiti” (cooperative), where the majority members are females. To empower them, we make them members (of the cooperative). After they become the members with some registration fee, and start to save. And then we give them a loan against that saving only for buying cows. After buying the cow, we do not take back that loan in cash. What we do is, the milk that that cow is producing, we take a share of that, and tell them to keep the rest. This also applies for cow dung (taking this instead of money to pay off the loan). This cow dung, we apply in our tea garden. So, we are involving the community, at the same time empowering them, and training them.”

Mr. Shah Newaz:“Hello everyone. I am Newaz. I am from Aarong Dairy. I work there as AGM-Marketing.

Dr. Md. Harun-or-Rashid Harun:“This is Dr. Harun. I am a dairy specialist. I have been working with different organizations of dairy in our country. I have worked with Gemcon Group from 2003-2008. Then I work with ACI. Then I switched over to Pran Dairy. Pran Dairy now process more than 200000 liters of raw milk daily. We are also doing flavored, sweet milk. Now we are focusing on making a milk processing plant for marketing milk in the market. I have been working in dairy sector for more than 15 years. There is a huge opportunity in developing this sector. We know that a lot of development has already happened in poultry sector. So we have a big opportunity.”

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Mr. Sifat Rahman: “I am Sifat Rahman. I have come from Enroute International Ltd. Enroute International Ltd. has a big portfolio, in which one part involves doing consultancy in the development sector. So through that we have a huge interest in livestock and dairy sector. And hopefully we will know something valuable (from this round-table).”

Mr. Monir Hossain: “I am Monir Hossain. I have come from Akij Group. This year I have joined in the dairy milk section. Previously I used to do marketing in water and soft drinks. So I am hoping to learn a lot from you.”

Mr. Md. Shahidur Rahman: “I am Shahidur Rahman. I have been working at Milk Vita for a long time. Milk Vita is the largest milk processor and producer in Bangladesh. Today Milk Vita produces 2-2.5 lacs (0.2-0.25 million) in liters of milk daily, and make other (milk based) products. Dairy Value Chain is a process of production, processing, quality assurance, and marketing. I work in all four lines and have a good amount of experience. But I still hope to learn a lot by coming here. Milk Vita is the oldest government institution in this sector.”

Md. Shafiqur Rahman: “This is Shafiqur Rahman. I am from DLS- Department of Livestock Service. This department will not fit with this topic, but I have some other experience. At this moment, I am a consultant for American Dairy Ltd. This is a huge private organization developing in the livestock sector. So I have been working there for three years. And last year, side by side, I worked with Land O'Lakes. It was a dairy development project (Bangladesh Dairy International Project). This project worked at extreme rural level with three partners: BRAC, PRAN, and MDF- a sister concern of Akij. This project is still going on. But I have finished my tenure. As a government officer, after my duration I am back to the pavilion (working with Government). But I have some experience regarding dairy development, especially the people who work in the field and rural level. And I just would like to remind that Dr. Harun who is working with Pran missed one big item that Pran is producing cheese in huge amount. And best quality cheese I think. Because the milk is being collected directly from the farmers. There is no middle man. Our last effort was to reduce the middleman.”

Mr. Shah Md. Sadaruddin Shibly Sumon: “I am Sadaruddin. I am from Grameen Danone Foods Limited. We work on a social business platform, the idea developed by Dr. Younus. We are the first organization to do this (type of business) based on this concept (social business). We plan to provide nutrition through yogurt, which is affordable. And to reduce poverty through empowerment. We are working at a small scale behind this, with 500 farmers. I am more into supply chain management, and from this meeting I have one expectation: I would like to know at small scale what would be the optimal profitable farm size for a farmer.”

Mr. Md. Anisur Rahman Chowdhury: “Good Evening everyone. I am Anisur Rahman Chowdhury. I have been working with Oxfam for the last few years as livelihood and private

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sector coordinator. Oxfam is currently working with milk project which engaged 5000 rural farmers in several districts. We have been working with forward marketing and backward marketing with farmers, and also with service providers. Before that I worked with Practical Action in different value chains. I have experience of around 15 years of engaging myself in different value chain which starts from milk, beef, banana, and more. Thank you, and I am here for learning from all of you that I can use it for development of rural farmers. “

Mr. Taufiqur Rahman:“I am Taufiqur Rahman. Currently, I am not directly involved in dairy. But I have worked in dairy and livestock sector for a number of years. I was COO of Bengal Meat from 2006-2009. Then recently I just left Aarong Dairy as director of Food Enterprises. And I have joined DBL Group. And I just wanted to refresh all my dairy days.”

Mr. Nabi Khan:“My name is Nabi Khan. And I have also been working for DBL Group. DBL is basically in readymade garments industry with a turnover of around 365 million dollars. We have the intention to get into dairy business. My panel objective is to learn what is happening in the dairy sector. And I am sure I would be able to learn a lot.”

Mr. Shakeb Nabi:“I am Shakeb Nabi, and I work for an NGO called Christian Aid. And we work on several value chains here. I see lots of private sectors individuals, so it is a good opportunity for us to learn.”

FINDINGS FROM THE DISUCSSION

The following findings were uncovered during the interactive discussion.

Challenges and barriers to in the dairy sector of Bangladesh

Institutional challenges	<ul style="list-style-type: none">• According to Milk Vita which is a government organization and the first dairy entity in Bangladesh, dairy sector growth is not happening at a satisfactory rate. This is primarily because of false rumors and allegations against the organization’s milk producing
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	<p>techniques. News circulating Facebook and other media claim that Milk Vita use shampoo and oil in their production process. This has severely hampered milk consumption in the country as consumers after hearing this kind of news are afraid to drink or use milk in their daily life. Hence, there is a fall in the production which ultimately results in a slower rate of development.</p> <p>Milk Vita is the government's brainchild organization through which the price of milk is controlled in the country. If Milk Vita falls (shuts down), then there will be an absence of authority figure in this industry. This will create an imbalance of the price-demand-supply mechanism; a situation which importers of milk would gladly capitalize on. Despite ensuring a tight quality control, Milk Vita is suffering heavily from this issue, which in turn is affecting dairy sector in nation-wide scale.</p> <ul style="list-style-type: none">• In case of powder milk, it costs Tk 200 per kg of import whereas it costs Tk 370 per kg of local production. This significant price difference has always favored imports over local milk and thus farmers do not always get the fair price for their output.• Developed countries like Denmark and New Zealand all give subsidies to their milk producers so that a chunk of their production cost is minimized. This helps the industry to ensure fair price for their milk and the dairy sector to grow. <p>Lack of subsidy by our government in our country for the dairy sector is therefore another significant barrier to development.</p> <ul style="list-style-type: none">• Bangladesh is not totally a liquid milk consuming nation. More than 50% of total milk supply in our country is used as powder milk to produce other final products such as sweets and biscuits. Liquid milk is still expensive because of lack of methods to lower cost of production. This is why consumers and sweets and biscuits producers prefer imported powder milk. <p>The institutional challenge here is to develop the dairy sector we need to develop the liquid milk aspect and the consumption of it in the country.</p>
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	<ul style="list-style-type: none"> • Lack of proper infrastructure is affecting transport of milk to the market and chilling centers in time. • There is a lack of a strong set of governmental policies to protect the milk industry at home from foreign trade and imports. • There is a scope of dumping by India if our dairy sector's development reaches a formidable level. • There is a professional jealousy between important government bodies in the dairy sector. • Bangladesh government allows radiation level of 100PPM in imported milk. This raises the question: are we actually consuming rejected milk? Because this tolerance level is much lower in other countries – for example 50PPM in Pakistan.
<p>Farming and production input</p>	<ul style="list-style-type: none"> • Farmers are not interested to implement technology for milk production. The prime reason for this is most farmers are illiterate, and they fail to understand the technical expertise needed to employ better technology. • Farmers usually do not take dairy activities as their primary business, which is why the scope of “learning by doing” has been slow. • It is expensive for farmers to produce milk. For one liter of milk, it takes around Tk 50, which is sold to the local market for Tk 40-42. As a result, farmers do not get a fair price for their products. In the dairy sector it is very difficult to break-even, let alone make profits. • Milk production has lean period and peak period. During peak period demand for milk is low. At such time, not all the milk that the farmers produce is bought. • Proper and adequate source of good quality fodder is something that the dairy sector of Bangladesh is lacking. This is important as good quality fodder results in a lower cost of production and

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	<p>better quality milk. The local fodder sources are sometimes too expensive for the farmers to afford.</p> <ul style="list-style-type: none"> • Artificial insemination in some areas of Bangladesh is not up to the mark. • Small scale production of milk will not attract big industry buyers like PRAN or ACI. • At policy level, the financial services and credit policies for the farmers are not being utilized properly. There is no livestock insurance for our farmers. In private sector there is an insurance arrangement. But grassroots level farmers are deprived of this. • There is no fixed or dictated price of milk set by the government. This is why farmers are losing.
<p>Women as farmers</p>	<ul style="list-style-type: none"> • Women are still not recognized as farmers. The entire value chain of dairy sector in our country is managed and controlled by the women farmers. • There are a lot of models but they do not put enough concentration on the social and cultural barriers women face as farmers of milk production. • Women do not have the business mindset, for example how they will increase production and become more profitable.

The aggregate demand of milk

As per WHO, we should take minimum 250ml milk per day. This is the need for all healthy human beings. As per the population of Bangladesh, every day we require 4crore of liters, if we each consume 250ml milk per day.? The catch is, we do not always consume 250ml of milk per day, nor we can produce 4 crore of liters for the whole population. According to statistical data, we consume on an average 100ml of milk per day.

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We process 10% of the total milk produced, package it, and give it to the consumers. The rest 90% goes to sweet shops and others processors of milk based products. In terms of meeting the demand, we are more than 65% behind. In organized way, 7-8 lacs (0.7-.08 million) liters of milk are being processed via scientific process daily. And the rest go to consumers in an unprocessed or locally processed form.

Success story: Integrated approach by BRAC

BRAC started giving cows free in asset transfer mode. Then they started producing milk, and after a few years they started producing enough milk which did not have any demand in local market. Sir Fazle Hasan Abed had taken an initiative. BRAC Dairy was started in 1998. We did not have good local infrastructure that the milk produced in the morning gets into the factory by the evening, especially northern side. Then he established BRAC Dairy. It was very small- 500liters per hour dairy processing plant. I do agree that at that time milk price at local market was very low. It was sold at 8-9Taka at local market and bought at 11-12Taka. The milk revolution in that region had already started. Because farmers were getting enough money.

The agro input prices in our country were very high. Then as slowly BRAC took over the local market, milk price started to increase. Then to fulfill the local market demand, new farmers started producing milk. But at one stage, due to government intervention that they would keep the price of milk reasonable, commercially it is not viable. Neither for the producer nor for the consumer. Because if 1-liter milk is processed I would get 3-4% on it. That is the reality. But who would do business with this margin? So what happened is after the growth the demand started to decline slowly. The main reason for this is the prices of our agro inputs were very high. Fodder was not available. So what they did to support the farmers was they started to establish feed mills. They established AI (artificial insemination) organization. So the integrated approach that BRAC does is with their own farmers. If you are a supplier to BRAC, then you would get a very low rate for AI services. So overall proper commercialization of milk was done by BRAC. And slowly as the inputs started getting integrated then they started to become profitable.

Success story: Model of organic manure from Kazi and Kazi Tea

The tea garden that Kazi and Kazi tea has, it is an organic tea garden. This tea garden needs lot of cow dung. At first they tried forming their own dairy and use its milk and cow dung, but they could not meet the demand. So to involve the community they introduced a model. They wanted to involve the people around the tea garden, and empower their families. They

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made Shamitis (cooperatives), where the members are all women. Then they asked them to submit 10 taka monthly. After a certain amount, say those who has accumulated 2000Taka, they give them 10 times more loan to buy cows. So when they started, they saw that the locally bred cows were not giving much output. So gradually their money submission increased and they bought high breed cows with higher milk yield.

Now within 10 years it is a totally different picture! After they give them the money the question comes is, how do they get it back? What they do is ask them to give them a certain portion of the milk produced, and keep the rest for their families. This pays back the loan. At the same time, the cow dung that they need, they would take it and subtract it from the loan in terms of per kg price. So, when the total loan is returned, the cow belongs to the women. Earlier the condition of the cows was not good so they had to struggle. But now it can be seen that there are 1-3 cows per household, the price of each is around 1-1.5 lacs (0.1 – 0.15 million) in Taka. The women are very clear and confident about what they are doing. There are many success stories about them, for example some have built houses, some have spent for their children's education, etc. - life changing stories. One of them said that she is an entrepreneur: she buys tejpata (bay leaf) gardens. She employs 100 workers per day for her garden. The change is: a housewife, now she is employing workers, and she that started initially from cattle. Most loans they return back within 1-2 years.

So this reflects financial change, empowerment, life condition of family, at the same time Kazi & Kazi Tea getting the milk, cow dung, etc.

Success story: Land O'Lakes model

Land O'Lakes has worked with three partner companies with this three-dimension project model. They developed some kids who would go on farm and work. To work on farms, they have to consider 127 parameters. They went and trained them in these parameters by hand. The first parameter is nutrition. According to Oogro Dairy's calculation, cost of food behind their cows is 22 lacs (0.22 million) per year. On an average 1 lac (0.1 million) per cow. This food consists mostly of concentrated cow food. But do we know how much concentrated food is required for the cow? 10% Mega Joule energy is needed according to body weight, and for every liter 5 Mega Joule energy. If you fill up the rest of the amount with grass then the benefit will be 10 times better. In terms of fertility, next generation longevity, life time will be higher. Interestingly, if grass is used then total cost falls below 1 third.

The ultimate message is, if you can manage the cow properly, then the production can be doubled by lowering the cost. This is still in theory and confinement. If we plan to do this in Bangladesh, then we have to follow the model. The small scale version of this model is this

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fodder will be prepared by one guy in the village and sold to farmers. Farmers will sell their milk in milk collection centers prepared by Pran, Akij, etc. dairies. Costs will be shared by government or donors. Because production and processing cannot happen side by side. At the same time farmer training should be continued. Land O'Lakes has done this in 80 places in Bangladesh with 3 processing companies.

Success story: Pran Dairy

Pran Dairy established dairy hub in Bangladesh in 2010. They have better doctors, artificial insemination, technology, etc. in helping the farmers for managing the dairy farm. Before starting the dairy hub, a woman farmer used to sell milk for 28 Taka per liter max. Middlemen were involved, which they eradicated with the help of government. Now they are the owners of one or two cows. They have established 100 training centers in 100 villages. The women sell milk here where they get up to 60 Taka per liter. Pran has successfully trained the women involved in milk production. So, it is a big success story. Directly they are working with more than 30,000 farmers, and indirectly double of this figure.

Success story: Solar Milk

In a hatchery that there is a need for water 24 hours. Some hatcheries suffer from frequent load shedding problems. Those hatcheries needed to be backed up by solar power. From this idea it started and there already two hatcheries with installed two solar powered systems. The main goal was to engage the private sector. So, Rahimafroz was engaged.

So in this way if we can promote this concept in solar milk chiller then it would be beneficial. In India and USA the innovations they had in last three years there are different solar chiller models there. Some technology is already there, and promoting those we can start working on this on trial basis. So the development sector personnel here, if we can take an initiative then it would be a successful model.

Opportunities and prospects in the dairy sector of Bangladesh

Is it always feasible to establish a collection point? Or is it a better opportunity to set up a small processing unit? This can actually reduce a lot of decentralization that we are seeing. So, should we just collect the milk from the rural areas? Or should we add more value at the producing sub-centers? Is Pran actually thinking of having a smaller cheese processing unit,

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so that the value addition can be there, and women can actually add value to the milk that she is producing right there in her community.

If there is no processing or marketing with distribution then after setting chilling center, we should set up the complete solution for the farmers. After we get the milk, we have to process it. So, for that we need to set up processing unit. The size depends on the volume of the raw milk and the demand of the market.

To ensure service at big scale, there is DLS (Department of Life Stock) and local private service providers. It is seen at upazilla that there are lots of cattle which cannot be serviced only by one or two personnel from the government. Therefore, the local provisions should be strengthened. The government should also think about the standard which a private entrepreneur can use to develop.

Few days back a new DG (Director General) was appointed at DLS who is very willing to work with private sector. Side by side, World Bank is investing a huge amount in Bangladesh to work with the dairy sector. The amount is maybe more than 400,000 crore Taka. This is a significant opportunity through which development can occur in the dairy sector.

Quality Assurance and Supply Chain

If we talk about quality milk, we should concentrate more on the people and the process. If we are being dependent on third party who may not keep the quality in check, then we need to implement a higher form of supervision. Raw milk is a perishable item. If it is not chilled within 4 hours, then it is expired. Maybe we have a fault in design as we are failing to chill it within 4 hours. If I am a third party and I concur expired milk, then I would want to dispose of this milk in some other way. And this other way involves doing something unethical. We know that those who make local "chana"(cottage cheese) and other sweets they only buy warm milk, not chilled milk. Only dairy industry people buy chilled milk. We also know that when big dairies like Pran reject 2000 liters of milk then it gets sold elsewhere. So this is a quality control issue.

About Shokti (Grameen Danone Yogurt). The social business that they are doing, they are focusing not on financial profitability but on expansion. Which is why, they are concentrating more on quality, that the product we are giving to our kids does not compromise quality in any way. The challenges are there. Yesterday, there came some milk from my chilling center. From this, 300liters of milk have expired. So what should I do with these? From ethical point of view and considering food safety we should pour it down the drain or go for something which is not harmful. So in terms of quality assurance we should be very strict here and the commitment should be high.

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Another thing is the cold chain. Their yogurts have to be kept in temperature 2-5-degree C up to consumer. So we should all focus on protecting the quality of our products till it reaches the consumers. Quality is something that if not mentioned can destroy a generation. So this should be taken very seriously.

Shakti is not in break even. A lot will say that in dairy business coming to break even is tough. Due to their business being a social business they are not being able to do so to that scale. There are limitations here. They cannot go for TVC (TV Commercial) because the ultimate impact will be on our product (increase price).

Distribution and Pricing

BRAC does not have a fix strategy. Aarong Milk is following the same as Milk Vita. But what made Aarong Milk different is the quality. They have tried to ensure the quality at collection level. Quality is something that is very important.

When working with Land O Lakes, the production started to increase. When production rises, farmers suffer the most, if no one buys their milk. Because that means the whole milk is a waste. So when we are talking about dairy value chain, we have to think end-to-end. That if production is increased then what will happen?

ACTION POINTS

Necessary corrective actions which need to be taken are explained as follows.

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Institutional actions	<ul style="list-style-type: none">• Bangladesh government must give subsidies for small scale farmers so that they can produce without worrying about the cost of production and get a right price for their output. This will also act as an incentive for the farmers.• It doesn't matter how many byproducts are developed. From production to consumption, if there is a hamper in the process then the other end gets hampered too. We have to promote the message of why we should drink milk - that milk affects brain development in kids directly. If this message is not promoted, then milk consumption will not happen. In turn, our farmers will suffer the most. Liquid milk consumption awareness should be raised in the country. This will ensure increased production and in turn will start the development of the dairy sector.• Infrastructure needs to be improved so that transportation of milk along the supply chain can happen efficiently. The completion of Padma Bridge can be the start for bridging the supply chain gap.• A strong set of policies needs to be developed by the government to protect the local dairy industry from trade and imports, especially from a powerful neighbor like India.• We need to have a governing board that controls the price of milk and supports the development of the sector.• DLS is needed to play a role in mitigating professional jealousy.• During low demand of milk in the market, the surplus milk should be bought and stored in chilling centers. This will ensure a stable source of income for the farmers.• Researches from universities should be included as they may provide a vital role as well.
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	<ul style="list-style-type: none"> • Governmental intervention is necessary to ensure that fodder is obtained from cheaper sources which our farmers can afford. • Livestock insurance should be made affordable to farmers. • Price margin should be lowered within the farmer and the farming and the consumer. • There should be a pricing mechanism to ensure fair prices and profits for the farmers. • A selfless leadership and a solid commitment towards development is needed by the governmental bodies. • Government, private sector, and development sector should work in combined efforts. Then it is possible to develop the value chain and also the dairy sector in Bangladesh. • Big entrepreneurs with strong commitment need to come into this sector. Previously, lots of entrepreneurs came but they all left after working for few days. Dairy business is a long term business. We can do lot of seminars and roundtable discussion. Actually, we need to implement actions according to these suggestions. • Media should also be involved to promote the positives of the milk and dairy sector. • There are lots of small pockets of experiments which are giving proof that this can be a fantastic model but the question is: Do we collect all these models and see which has the most potential for scale-up? Otherwise with these small projects, we cannot do a massive change in the dairy sector.
<p>Farming and Production input actions</p>	<ul style="list-style-type: none"> • Farmers need to be trained hands-on on the better production methods of milk using better technology. Classroom training will not work.

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	<ul style="list-style-type: none"> • There should be more production of milk to attract industry buyers. At least 200-500 kilos which makes the whole value chain economically viable. • There are lots of fodder substitutes which can be tried. Those are cheaper and nutritious too. • When will a farmer be willing to do a farm on small scale in terms of profitability? That means, if the farming is dedicated. Every farmer is doing it as part time. But the question is, can we do it professionally? For that, we need education. We have to understand that to do a farm what is the minimum cost and minimum earning and if I can survive with my family at the end of the day. We need to work on a model like this which is missing.
<p>Actions for women as farmers</p>	<ul style="list-style-type: none"> • Women farmers should be formally and equally recognized as farmers in the value chain. • Cultural and social barriers for women farmers should be minimized. • Women farmers should be trained to have a proper business mindset. • Just do not think of the women. Think of the adolescent girls as well. They both rear and care for the cow as the man in the family goes for other work. Amul model successfully disseminated how cattle should be raised amongst the farmers, which we are failing to do. We need to train these women. Not those men who are busy doing other farming works. And, they need hands-on training.
<p>Quality Assurance actions</p>	<ul style="list-style-type: none"> • We have to think about how we can introduce digital testing method for quality which can be very cheap and easy to use. Public sector, private sector, and NGO sector, all three should create a model where work will be done at community level. But the problem is, there is a big trust issue between these three sectors. Because of this, we are failing to unite

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	ourselves. We should come out of this and put some policy recommendation. Or create a combined model and proceed forward.
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CONCLUDING REMARKS

As discussion as above, it can be seen that there are lots of difficulties and constraints present in the dairy sector of Bangladesh. However, problems are always opportunities in disguise and as such necessary highlighted action points need to be executed to alleviate the problems so that the development of the dairy sector in Bangladesh can happen smoothly, supported by the government, private sector, and the development sector.

In future steps, RCL and Practical Action-Bangladesh would recommend more detailed tools as remedies to the issues discussed.

Our hosts Practical Action and RCL thanked the participants profusely for their active participation in the Round Table and declared the end of the program followed by networking dinner.