CONDUCTING STUDIES AND SURVEYS ON EXISTING MARKETS OF 30 UPAZILA

National Agricultural Technology Program – Phase II Project (NATP 2)
Hortex Foundation
(Hortex Foundation as a Strategic Partner of the Department of Agricultural Extension (DAE))
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(For 1st Part: 12 Upazila)

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ABBREVIATIONS

AEO	Agricultural Extension Officer
BARC	Bangladesh Agricultural Research Council
CCMC	Commodity Collection and Marketing Center
CIGs	Common Interest Groups
CP	Collection Point
DAE	Department of Agricultural Extension
DoF	Department of Fisheries
DLS	Department of Live Stock
E	East
FGD	Focus Grup Discussion
GDP	Gross Domestic Product
GoB	The Government of Bangladesh
HQ	Headquarter
HVCs	High Value Crops
KII	Key Informant Interview
MoA	The Ministry of Agriculture
MoFL	The Ministry of Fisheries and Livestock
mt	Metric Ton
N	North
NATP	National Agricultural Technology Program
PIU	Project Implementation Unit
PMU	Project Management Unit
PO	Producer Organizations
PPP	Public-Private Partnership
PRA	Participatory Rural Appraisal
RE&D	Research, Extension and Development
RNF	Rural Non-Farm
ROF	Request for Quotation
PRS	Poverty Reduction Strategy
SAAO	Sub-Assistant Agriculture Officers
SDGs	Sustainable Development Goals
SPSS	Statistical Package for the Social Sciences
UAO	Upazila Agriculture Officer
UP	Union Porishad
WB	The World Bank Groups

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

Bangladesh agriculture is currently passing through a state of transformation from subsistence farming to commercial agriculture. Rapid urbanization alongside population growth, industrialization beside shrinking agricultural land, increased agricultural productivity together with agro-technological changes and steady mechanization, improvement in domestic communication alongside development in trade and commerce-al have contributed, directly or indirectly, to the transformation of subsistence farming to commercial agriculture.

More importantly, increased agricultural production leading to near self-sufficiency in food grain production has shifted emphasis on crop diversification. Crop diversification indicates a shift in priority from grains (rice, wheat etc) to high value crops (fruits and vegetables). Ensuring food and nutritional security for everyone especially rural and urban poor is a fundamental requirement of the Government of Bangladesh (GoB). It involves the physical availability of food at all times and its access to all at affordable prices. Agriculture sector in Bangladesh includes crops, fisheries, livestock and forestry sub-sectors would continue to play a significant role in food and nutritional security of the people as well as for the overcome economic growth of the country, despite its declining economic contribution to GDP over the last couple of decades.

The rural non-farm (RNF) sector accounts for 40 percent of rural employment, and more than 50 percent of rural income. Almost the entire RNF is driven by agricultural sector and sub-sectors through the backward and forward linkages significantly contributed to GDP and rural household income. Therefore, agriculture sector and sub-sectors and RNF economy are sources of livelihood for the rural population. Although, considerable progress has been made in overall poverty cut down, however, near about 22% of the population, a majority of whom are the inhabitants of the rural areas, still living below the poverty line.

Therefore, mobilizing economic performance of the agriculture and rural non-farm sectors are a prime concern for the eradication of poverty from the current level to diminution. Although quiet, the Government has realized the need for strengthening the agricultural technology system by bringing necessary institutional reformation, improvements in system of management and supply chain development for increasing the incomes of the poor for reduction of rural poverty as envisaged in Poverty Reduction Strategy (PRS) as well as SDGs of the GoB as well to fulfill the food and nutritional security initiatives as per perspective plan of Bangladesh 2010 – 2030.

For fulfilling this targeting strategy, it requires substantial investment in agricultural systems in a sustainable manner. But, the GoB lacks adequate financial resources and has requested assistance and initiatives from different development partners and stakeholders, as well as to increase public/private investment in agricultural sectoral reform of the appropriate technology associated approach for strengthening to help for achieving the SDGs objectives.

With a view to enhancing agricultural production and ensuring food and nutritional security, the target of agriculture sector is that food deficiency will be eliminated and the country will attain self-sufficiency in food production enabling to meet nutritional requirement of the population.

To meet such demand of revitalizing the agriculture technology system in Bangladesh requires policy and institutional reforms as well as investment in institutional development. In contrast, past experience suggests that building and strengthening institutions, especially in the case of agricultural research, extension and development service, is a long-term process and there is a need for a gradual and phased system approach to building institutions those are efficient, productive and sustainable.

To strengthen farmers market linkages, the Horticulture Export Development Foundation (Hortex Foundation) started implementing of market studies and surveys for selecting purchase/sale points of selected traders/ common interest groups (CIGs) of farmers in a target market or selected commodities production zones; design of commodity collection and marketing centre (CCMC); and collection point for necessary infrastructural renovation works of existing markets and establishment of new CCMC and/or niche market with good post-harvest management facilities (i.e. packaging, sorting, short-term storage facilities, smooth transportation) as well as adequate waste management where producers/farmers (CIGs and non-CIGs), processors and traders come together and doing their business.

1.2 SELECTED TARGET UPAZILAS AND COMMODITIES

In the NATP 2 program, the Hortex Foundation is supporting as a strategic partner of the DAE under a partnership agreement for providing technical assistance to PIU-NATP 2-DAE in carrying out value chain development, marketing and crop marketing post-harvest management activities in 22 districts, 30 cluster Upazila on 600 Common Interest Groups (CIGs) including 15000 grass root level GIGs farmers for marketing of 15000 metric ton (mt) of agricultural commodities.

This current assignment is focusing on conducting studies and surveys on existing markets of 30 Upazila. Table 1 shows the selected value chain cluster upazilas for selected commodities for their vertical expansion. Among 30 Upazila, six crops namely brinjal, bitter gourd, sweet gourd, tomato (summer and winner), banana and aromatic rice are selected for vertical expansion. However, the horizontal expansion of other crops also selected for their marketing and value chain analysis. This current study is expected to ensure the participation of small and marginal farmers (CIGs and non-CIGs) and agri-business community improved their marketing systems as well as ensures better prices by using CCMCs and or niche market facilities. Requirements and satisfaction of demand and price, employment and increase produce quality and safety along with better management of environment is to be emphasized.

Table 1.1: NATP-2 Value chain cluster Upazilas for selected commodities (vertical expansion).

Brinjal-6 clusters	Bitter Gourd – 5 clusters	Tomato-6 clusters		Sweet Gourd-5 clusters	Banana – 5 clusters	Aromatic Rice-3 clusters
		Winter	Summer			
1.Raipura, Narshingdi	1.Kaligonj, Jhenaidha	1.Chandina, Comilla	5.Bagherpara, Jessore	1.Sadar, Bogra	1.Shibgonj, Bogra	1.Birgonj, Dinajpur
2.Shibpur, Narshingdi	2.Modhupur, Tangail	2.South Surma, Sylhet	6.Jhikorgacha, Jessore	2.Boraigram, Natore	2.Polash Bari, Gaibanda	2.Chirirbondar, Dinajpur
3.Sadar, Jessore	3.Belabo, Narshingdi	3.Mirrersorai, Chittagong		3.Delduar, Tangail	3.Kapasia, Gazipur	3.Nakla, Sherpur
4. Islampur, Jamalpur	4.Sadar, Naogaon	4.Godagari, Rajshahi		4.Sadar, Kishoreganj	4.Sadar, Khagrachari	
5.Sreemongal, Moulovibazar	5.Mithapukur, Rangpur			5.Savar, Dhaka	5. Muktagacha, Mymensingh	
6.Parbatipur, Dinajpur						

1.3 RATIONALE OF THE STUDY

In Bangladesh, small, medium, even large farmers are vulnerable to the exercise and influence of market power by rural traders, wholesalers, retailers, and processors. With limited control over the pricing of agricultural inputs-outputs, associated with inadequate market information, farmers are poorly rewarded for the efforts and risks they experienced. In addition, poorly developed infrastructure and inadequate quality control habitually result in a significant reduction in product quality and gross returns as well as increasing wastage of products. To ensure the fair price of high-value crops (HVCs) to the farmers, proper and profitable marketing channel is essential. For such marketing, farmers should be empowered to adopt a modern production system, appropriate technologies, adequate post-harvest management, identify market opportunities; and systematic and proper-plan harvest the benefit of effective marketing. An efficient marketing system for integrating the stakeholders can improve the existing chaotic situation in the current marketing channels. Therefore, concern stakeholders will be able to reduce the cost of doing business, increase bargaining power, and improve access to technology, information and capital, and by doing so be capable to innovate their production and marketing processes in order to gain higher price as well as provide a higher quality of commodities to their consumers.

The horticultural (vegetables, fruits and flowers) marketing channel is characterized by a large number of actors and outlets, including large wholesalers, small wholesalers, commission agents, retailers, processors and exporters as well as a number of other smaller actors, each contributing to a specific stage in the marketing system. Its management implies managing the relationship between the actors, responsible for the efficient production and supply of target commodities from farm to

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post-harvest processing table through reliably satisfying consumers requirements in terms of quantity, quality, product safety and price. Identification of marketing channel and recognizing the complexity of the factors that explain the lack of effective linkages among those actors allow for designing appropriate institutional mechanisms and measure that will provide a unifying approach to solve the problems and ultimately uplift to the higher development of the marketing system.

Traditionally, fresh produce marketing system is quite complex and risky due to its perishable nature. Farmers generally sell produces just immediately after harvest; even in the production zone due to they are seeking cask money and have no storage facilities. Multiple actors such as local collectors, local traders, local market *Aratdars* and their agents, urban wholesalers and their commission agents, rural and urban retailers constitute the important components of the marketing channel. In absence of an adequate organized system for the collection and distribution, a smaller part of the fresh vegetables and fruits directly reaches to the local market, while the bigger part passes through several categories of traders known as middlemen. Farmers sell theirs produces to *Faria* and *Beparies* / selected agents (traders who assemble vegetables and fruits from Farmers, production zones, local markets, and send the same to distant bigger markets). *Farias* are smaller rural traders who purchase from Farmers and sell them to *Beparies* / selected agents or local retailers. The commission of intermediaries varies by region and from crop to crop. The margin between the trader's price and the retailer's price could be as high as 150% during peak season and reached more than 200% during the off-season. However, the wholesalers and their agents mainly determine the market price of fresh fruits and vegetables. The prices of high value crops (HVCs) in retail and wholesaler markets fluctuate substantially from time to time and also from year to year based on supply and demand situation. The inefficient marketing system, seasonality, poor transportation, underdeveloped infrastructure, insufficient post-harvest handling and short time storage facilities are one of the main risks farmers and growers face day to day. Mostly farmers cannot anticipate future prices at the time of planting. At the same time, due to perishable nature of the most vegetables and fruits cannot be stored more than few days, farmers/growers have limited scope to postpone sales in situations of unfavorable market prices.

Another major issue is post-harvest handling of farmer's fresh vegetables and fruits. There is significant lack of modern facilitation in local rural markets regarding storage and refrigerate transportation. The traditional post-harvest handlings, marketing system of vegetables and fruits is one of the major interferences for the increased production. Distress sale during harvest period, defective packing, handling and carrying system, lack of appropriate transportation facilities such as covered and refrigerated van/truck, lack of efficient market management system, non-availability of accurate up to-date market information, lack of physical facilities of the small market such as sanitation, safe water for product wasting, drainage, fresh market waste management, latrine, loading and un-loading space, approach road, link road, etc. are the major obstacles for marketing of fruits and vegetables in Bangladesh. Processing of agro-commodities in general is very weak sector in this country; only 0.5% of the horticultural produces are being processing for local and foreign markets. However, recently processors are expanding processing industries using horticultural crops as raw materials, namely PRAN, Bombay Sweets, Ahmed Food Products, Square Consumer Products, Bengal Consumer Products Eurasia Food, etc. produce different types of processed products including quality potato chips, biscuits, chanachur with improved packaging and are engaged in marketing through the retailer sector all over the country and also in foreign markets. At present more than 500 super stores are operated in the country and mainly cater to the emerging urban middle class populations. In these super stores, currently sell mainly a range of processed products mostly dominated by imported items and sales of local fresh produce including vegetables and fruits, poultry, meat and fish are comparatively small. Although the super store segment is still small and in growing stage. A lot of small-scale industries are manufacturing low quality processed products in terms of quality packaging and food safety; therefore, consumer prefers their inclination to imported products. Processed foods (jelly, juice, tomato sauce, ketchup, moodles, honey, pudding, etc.) are imported from Bhutan, India, Pakistan, Malaysia, Thailand and Austria. Most importantly, locally available fresh frozen vegetable is not producing in any food process industry in the country, however export of frozen vegetables and fruits has been started very recently.

Meanwhile, the production system is almost the absence of any direct linkage between the exporters and the primary producers. Most of the producers are produced through middlemen. Usually, orders from foreign buyers are received before a few days of shipment and passed on to the middlemen. They collect the produce from farmers/local markets and arrange to deliver the same to the exporters on the day of shipment. The transportation used is mainly on bus top and or heavily loaded truck/van. Neither cooler system is used nor any standard post-harvest handling practice is followed. As a result, post-harvest handling losses are enormous; sometimes more than 30% and produce quality is remaining poor. Compare to near economy countries (like as Thailand, Malaysia, Indonesia, and Vietnam), Bangladesh packaging industries use poor quality packaging materials, generally consisting of bamboo basket's and second handed paper cartons. Hortex Foundation and some very few organizations use international standards cartons for exporting purpose. In recent years, foreign buyers are also strictly restricted for ensuring food safety regarding quarantine and sanitary and phyto-sanitary (SPS) measures of the pest and disease infestation. Therefore, food safety and post-harvest management are also equally important for public health measures.

1.4 OBJECTIVES OF THE STUDY

The main objective of this study is to strengthen farmers market linkages through establishing/improving purchase/sales points (CP) of selected traders/CIGs in existing markets or selected commodities production zones; design of commodity collection & marketing centre (CCMC) and either renovation or establishing new CP/CCMC with good post-harvest management, packaging, transportation as well as short-term storage facilities. Moreover, such places should have adequate waste management facilities.

The specific objective of this current assignment is:

1. To assess the infrastructure in existing markets of 30 upazila and policy support from the upazila market management committee, market leash holder for selection and renovation of niche markets/collection points for post-harvest management and marketing of horticultural produces.

2. To identify potential niche-markets (specific market shed where vegetables, fruits are trading) within the targeted existing government markets of the CIGs, including relevant trade flows, procedures and regulations.

3. To identify potential existing collection points using by reputed traders and CIGs in targeted existing markets or production zones of selected commodities under vertical expansion and horizontal expansion, including relevant trade flows, procedures and regulations.

4. To assess the feasibility of the establishment of rental CCMC on privately owned physical facilities in existing markets.

5. To explore the current consumer preferences in terms of the price-quality mix, volume sold, price pattern, potential traders, marketing channel, waste management in existing markets.

CHAPTER 2

METHODOLOGY FOR CONDUCTING SPECIFIC STUDIES AND SURVEYS

2.1 GENERAL OVERVIEW

Methodology is the systematic step of action, which involves sample, sampling, and collection of reliable data from concern interviewee, data synthesis and analysis as per specific objectives. It is an integral part of any study or surveys. Due to existing markets infrastructural observation and site selection for CP/CCMC/Niche market, experts are visited 30 cluster Upazila.

For conducting studies and surveys on existing markets of 30 Upazila an articulated and coherent methodological approach is used which is allowing for very focused and a deep understanding of the existing markets by using CIGs farmers for marketing their agricultural commodities. The structured and semi-structured surveys questionnaires are presented and agreed with concerned team members of Hortex Foundation (*See Annexes*). The following systematic steps will be used for collecting quantitative and qualitative information and necessary data.

1. Review relevant project documents and other documents for conducting studies and surveys;
2. Develop market assessment formal and informal questionnaires for consultation, discussion and interviews (i.e. FGD, KII) with CIGs farmers and ‘’key informants’’ incorporating appropriate questions/checklists for information items;
3. Secondary data on the list of existing markets should be collected from concerned Upazila Nirbahi Officer/ Upazila Engineer during the field visits.
4. Target markets of CIGs to be identified in consultation with concerned Sub-assistant Agriculture Officers (SAAO), Upazila Agriculture Officer (UAO) from DAE and CIGs executive committee’s members.
5. Conduct a semi-structured interview with market leaseholders, CIGs/PO farmers, traders and spot visits to existing target markets of CIGs to identify niche markets, collection points, privately owned physical facilities;
6. Ensure participation of officer, Local Business Facilitator, consultants from Hortex Foundation and DAE in all market assessment largely as observers;
7. Finalize the sample size in consultation with program management;
8. Draft report and present in a national workshop;
9. Finalize report after incorporating feedback from participants in a workshop, concerned technical team members of the Hortex Foundation.

2.2 WORK PLAN

The work plan aimed to identify the tasks that would be involved in this study and surveys. It also gave attention to developing task scheduling and an appropriate expert scheduling for performing the respective activities. For fulfilling most of the objectives, a team consists of three members are formed. Among them, one experienced agricultural engineer is included where as others are former DAE officials who have vast knowledge and experiences regarding DAE activities as well as horticultural produces in marketing systems. The team members figured out the work plan as follows:

- Each cluster Upazila would be visited
- Selection at least three market by team.
- Consultation with Upazila DAE officials, market leaseholder and or market management committee or personnel.
- Conduct structured/semi-structured surveys through LBF (Local Business Facilitators).
- During field visits, trying to consultation as much as possible with farmers / retailers / traders / shop owners / wholesalers in the concern market.
- Compilation of collecting information and crosschecked with survey sheet.
- Preparation of Status Report (on going)
- Data synthesis and analysis
- Final Report writing
- Workshop presentation of the findings
- Incorporate necessary comments/suggestions.

Table 2.1: Major events for conducting this studies and surveys.

Date	Descriptions /Events
29/05/2018	Issued of Request for Quotation (ROF)
12/06/2018	Late Date of ROF Submission
21/06/2018	Issued Purchase order from Hortex Foundation
21/06/2018	Sign of Agreement for Service
26/06/218	Discussion Regarding Surveys Questionnaires
26/07/2018	Submission of Inception Report
27/07/2018	Request and Received the Payment for 1st Part: 12 Upazila
16/07/2018	Starting Field works for 1st Part: 12 Upazila
09/08/2018	End of Field works for 1st Part: 12 Upazila
20/08/2018	Status Report for 1st Part: 12 Upazila
1st Week, September 2018	Request the Payment for 2nd Part: 12 Upazila
2nd Week, September 2018	Starting Field works for 2nd Part: 12 Upazila
4th Week, September 2018	End of Field works for 2nd Part: 12 Upazila
2nd Week, October 2018	Status Report for 2nd Part: 12 Upazila
3rd Week, October 2018	Payment Request for 3rd Part: 6 Upazila
3rd Week, October 2018	Starting Field works for 3rd Part: 6 Upazila
4th Week, October 2018	End of Field works for 3rd Part: 12 Upazila
3rd Week, November 2018	Draft Report
4th Week, November	National Workshop
1st Week, December 2018	Final Report

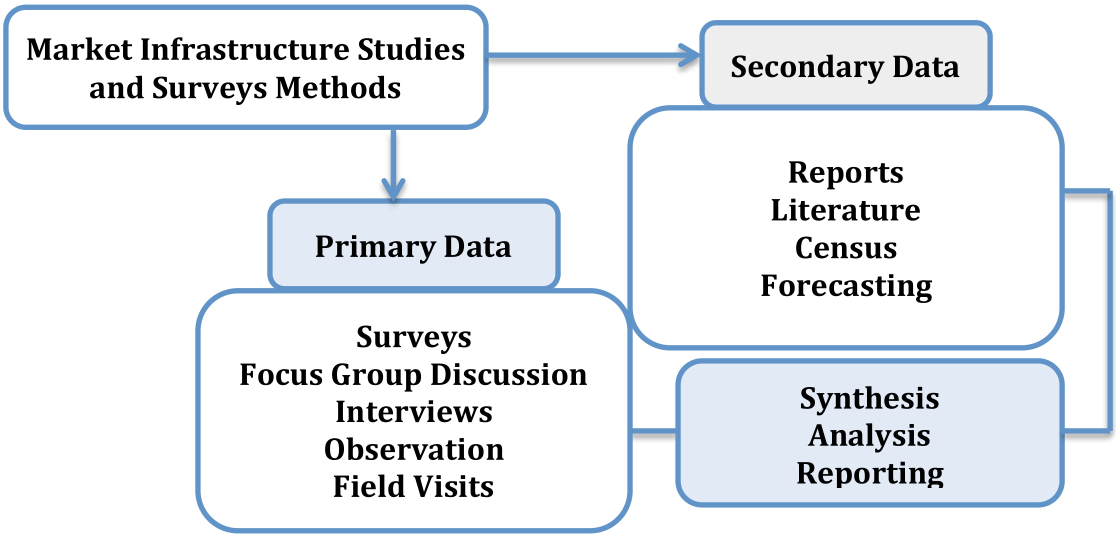
2.3 TOOLS AND TECHNIQUES

Depending on the sets of objectives for this study, a holistic data acquisition approach is applied. The approach to applying the methods may also vary, customized to suit the purpose and prevailing circumstances, without compromising the integrity, accuracy and reliability of the data. There are two main types of data that find themselves working with – and having to collect.

Quantitative Data: These are data that deal with quantities, values or numbers, making them measurable. Thus, they are usually expressed in numerical form, such as age, size, amount, price, and even duration. Therefore, quantitative data is overall seen as more reliable, focused and objective oriented.

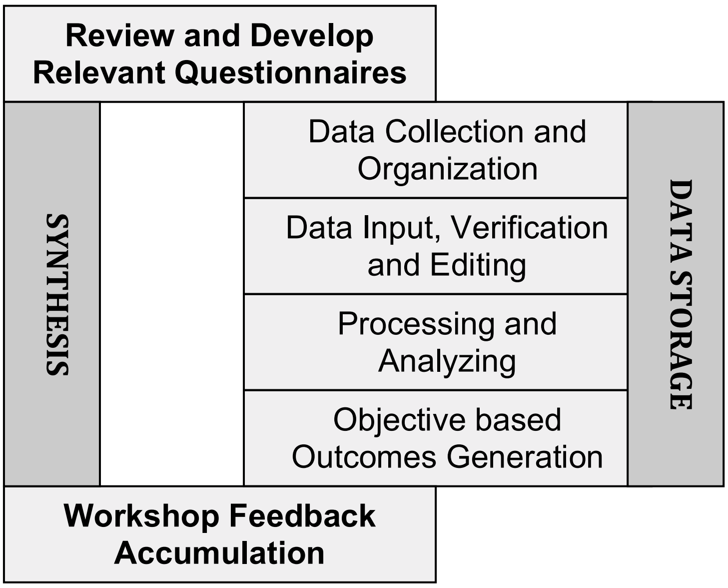
Qualitative Data: These data, on the other hand, deals with quality, so that they are descriptive rather than numerical in nature. Unlike quantitative data, they are generally not measurable, and are only gained mostly through observation. Narratives often make use of adjectives and other descriptive words to refer to data on appearance, color, texture, and other qualities.

The most basic classification of market infrastructure research is primary and secondary data acquisition techniques. Most of the objectives for this study is revealed by using the techniques fit within six categories: (1) secondary research, (2) surveys, (3) focus groups discussion, (4) interviews, (5) observation and (6) Field visits.



2.4 DATA ANALYSIS AND REPORTING

A structured and semi-structured participatory rural appraisal (PRA) data acquisition method is applied for gathering relevant information and data. Except the objective five, for revealing and identification of other objectives, appropriate site and location inspection is essential for this study. The selection of CP/CCMC/Niche market, it is necessary to discuss, interviewed and observed potential markets as well as concern key personnel and stakeholders who directly or indirectly relevant with this procedure.



All the collected information (quantitative and qualitative) processed and analyzed in the light of the scope of the study as well as fulfilling the specific objectives. Data processing includes coding, entry, validation, and storage of data and output generation. The SPSS 17 is used for data entry and validation as well as analysis and synthesis purpose. The above flow diagram is used for data synthesis and output generation purpose. Collected information and outputs would be used for final report preparation purpose. Such materials would be presented in a national workshop and be gathering expert's feedback for finalizing the report.

CHAPTER 3

FACTS AND FINDINGS

3.1 INTRODUCTION

For revealing and achieving objectives 1 to 4, field visits and markets infrastructure assessment and observation work was conducted in 12 Upazila. The following Table 3.1 shows the field visits scheduling for conducting studies and surveys on existing markets of 30 Upazila (1st Part: 12 Upazila).

Table 3.1: Field visit for markets infrastructure assessment and observation of suitability for implementing CP/CCMC/Niche market.

Date	Upazila and District Name	Concern Person(s)	Comments/ Remarks
16/07/2018	Shibpur, Narshingdi	Dr. Haque, Mr. Gayen & Mr. Das	Completed
16/07/2018	Belabo, Narshingdi	Dr. Haque, Mr. Gayen & Mr. Das	Completed
16/07/2018	Raipur, Narshingdi	Dr. Haque, Mr. Gayen & Mr. Das	Completed
25/07/2018	Kapasia, Gazipur	Mr. Gayen & Mr. Das	Completed
29/07/2018	Sadar, Kishoregang	Dr. Haque	Completed
29/07/2018	Chandina, Comilla	Mr. Gayen & Mr. Das	Completed
30/07/2018	Modhupur, Tangail	Dr. Haque	Completed
31/07/2018	Delduar, Tangail	Dr. Haque	Completed
01/08/2018	Islampur, Jamalpur	Dr. Haque	Completed
02/08/2018	Nakla, Sherpur	Dr. Haque	Completed
07/08/2018	Muktagacha, Mymensingh	Dr. Haque	Completed
09/08/2018	Saver, Dhaka	Dr. Haque, Mr. Gayen & Mr. Das	Completed

3.2 ASSESSMENTS FOR COLLECTION POINTS (CPs), COMMODITY COLLECTION AND MARKETING CENTERS (CCMCs) AND NICHE MARKET

The following parts are in-brief description and assessment of the local markets in the respective Upazilas. Such descriptions tried to figure out the in-depth assessment of the markets for the implementation of newly built or renovated and/or rental basis of CCMCs. Moreover, it is also observed that there would be any possibility to select any sheet or any part of the market considered as a Niche market.

3.2.1 District: Narshingdi, Upazila: Shibpur

In general, Narshingdi district is known as the vegetable bowl (i.e. production zone) of Bangladesh. Nearly 100 different types of vegetables comprising both of local and foreign origins are grown in Narshingdi district. In this study, Shibpur Upazila is considered for brinjal as the vertical crop in the cluster. During the last winter season more than 250 hectors (ha) land was cultivated and had been produced more than 3000 metric ton (mt) of brinjal. During the field visit, it is observed that there are several vegetable production zones, namely Pal Para, Kharamara, Brahmondi, Kunder Para and Barokanda, etc in Shibpur Upazila. As per the priority of the CIG farmer groups, any two places could be used as collection point (CP). Land after land they are producing summer vegetables like teasle gourd (kakrol), bitter gourd (korala), cucumber, sweet gourd (pumpkin), string bean (borboti), brinjal, etc. However, during winter brinjal is cultivated much more extended than summer.

During field visit, a rental CCMC is identified in Kharag Para Bazar (C&B Bazar) which is beside the Dhaka-Sylhet highway, which is 45 -50 square meter (m^2) in an area. The geographical coordinates of this CCMC is 23°59'41.0'' N and 90°45'37.4'' E.

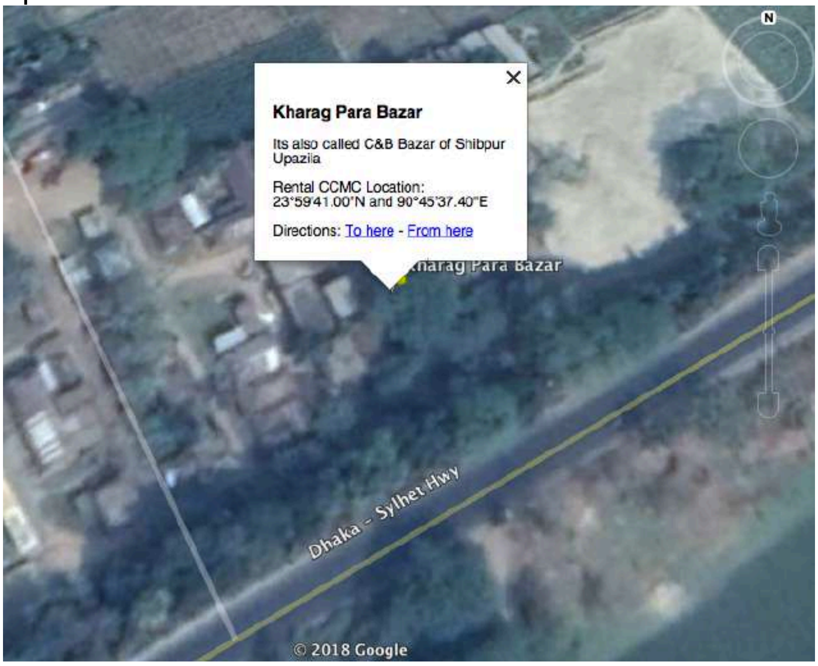


Fig. 3.1: The location of rental CCMC at Shibpur Upazila.

The CCMC is just rented and is not well facilitated with essential accessories like aeration system (ceiling fan and or exhaust fan), floor carpets weighing machines, cartoons, etc. The CIG-farmer Md. Afaz Uddin informed us that the CCMC is very hot in this summer season, however they are happy to use it for their business purpose. It is observed that growers were sorting and packaging teasle gourd (kakrol), however, they would be producing brinjal during the winter season.

Fig. 3.2: A potential place for establishing CCMC/Niche Market at Shibpur Upazila.

There is a potential place for the CCMC and/or Niche Market is to be established in Pal Para Bazar at Shibpur Upazila (Fig. 3.2). The exact geographical location is laid between 24° 0' 30.6" N and 90° 44' 32.5" E. The place is having well road communication as well as it is in the bank of the Arial Kha River. It is a running hut (Bazar). Some LGED constructed sheds are unused in the hut; therefore, with the permission of the appropriate authority and leaseholder any unused sheet will be renovated for establishing the CCMC and/or Niche Market.

3.2.2 District: Narshingdi, Upazila: Belabo

Belabo Upazila is an extensively vegetable producing area in Narshingdi district. The vertical expansion crop for this Upazila is bitter gourd. It is revealed that the last couple seasons the bitter gourd cultivated area was reduced. However, more than 65 ha of land was cultivated and was producing more than 200 mt of bitter gourd last season. In the Baroicha Bazar of Belabo Upazila, a place with an area of 65 -70 m^2 is selected for rental CCMC purpose, which is located between 24° 3.0' 7.33" N and 90° 52' 11.79" E. This bazar is growing both sides of the Dhaka-Sylhet highway.

Fig. 3.3: A privately owned place – sorting and packaging the teasle gourd (kakrol) for exporting purpose.

Just opposite of the current rental CCMC location, there is one abundant unused sheet, which may be used for renovation purpose for establishing potential niche market in this location. This location is very much vital place due to communication. It is observed that some exporters privately rented a shop for processing teasle gourd (kakrol) for exporting purpose.

Recent years, vegetables can be identified as a significant one for this economy for its noteworthy contribution in raising the foreign exchange earnings and occupies an important position among the items exported from Bangladesh.

3.2.3 District: Narshingdi, Upazila: Raipura

Like as Shibpur, Raipura Upazila is also an extensive brinjal producing area in Narshingdi district. The vertical expansion crop of this Upazila is brinjal, which is an appropriate selection for this purpose. More than 400 ha of land was cultivated and was producing more than 6000 mt of winter brinjal in this Upazila.

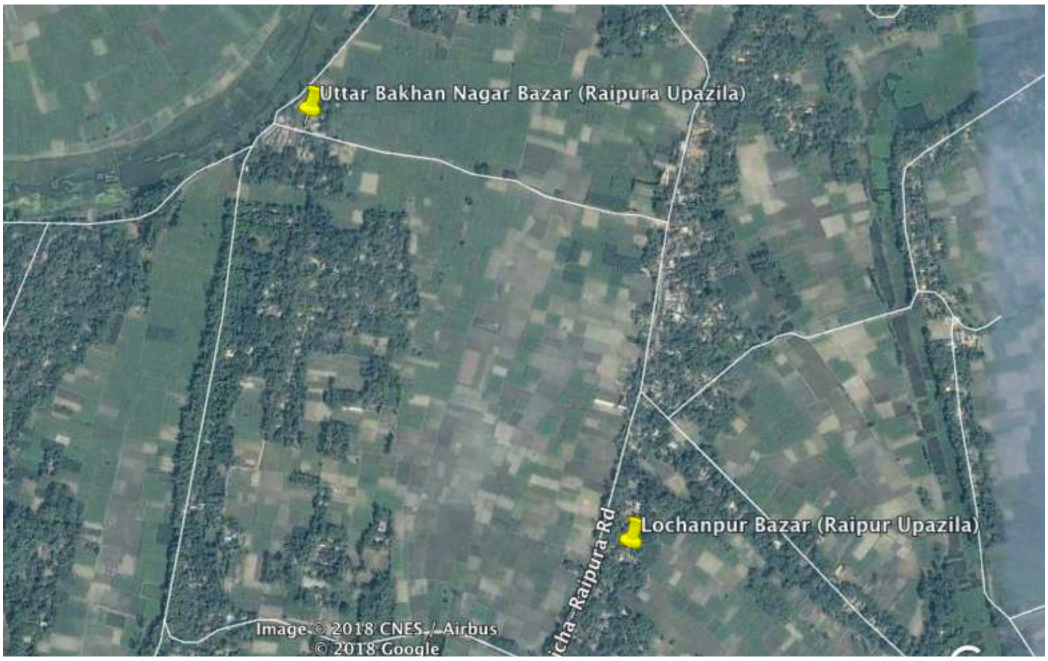


Fig. 3.4: A rental CCMC is located in Lochanpur Bazar and a potential place for constructing CP/CCMC in Uttar Bhakan Nagar Bazar at Raipura Upazila.

In the Lochanpur Bazar, an area of 40 m^2 of semi-constructed sheet is selected for rental CCMC purpose. However, it is not well facilitated in regarding of aeration, space arrangement as well as floor mat and cartons. However, it is observed that some growers carried their teasle gourd (kakrol) for marketing purpose. The CIG farmers informed us that they are cultivated brinjal during winter season. Some of them complained that last season they did not get desirable price due to excessive production compare with market demand. They were little bit frustrated regarding such issues.

Around 2 km far from the Lochanpur Bazar, there is another bazar named Uttar Bakhan Nagar, which is a potential place for constructing collection point (CP) as well as CCMC. The geographical coordinates of the location is 24° 1' 54.08" N and 90° 51' 42.49" E It is also in the bank of the river Arial Kha. Previously, it was also an established bazar in that area, however, due to urbanization affects day by day this bazar is loosing its reputation, said Mr. Shohel Rana, Secretary of the bazar management committee.

The DAE personnel's in the Upazila level as well as in the district level are fully agreed for extending every kind of necessary supports and cooperation's to the Hortex Foundation for establishing any kinds of market and marketing infrastructural arrangements in the concern potential / selected places in near future.

3.2.4 District: Gazipur, Upazila: Kapasia

Kapasia Upazila is about 20 km away from the Gazipur district headquarter (HQ). This Upazila is selected for the banana as vertical expansion crop; however, there are some other crops like as brinjal, sweet gourd and aromatic rice are equally increasing popularity among farmers, which considered as horizontal expansion crops. The geographical location of this market is 24° 6' 40.70" N and 90° 34' 0.70" E.

After meeting and interview with the UAO and other DAE personnel's, it has prevailed that the area and production of banana is gradually in an increasing trend. Banana is sold in the northwestern parts of Kapasia Upazila HQ market. In the HQ market, around 50 decimals area is used for vegetable marketing where around 10 decimals are used for banana marketing. This HQ market is government-controlled leaseholder market where a niche market can be established. It is well connected by the river Sitalaksha and other sides are well connected with road communication.

Previously, a CCMC is established in Chandpur bazar, geographically it is located between 24° 2' 44.73" N and 90° 34' 26.67" E. This CCMC is established with all facilities however there is no electricity connection. Local LBF informed that it has already been informed to the Hortex authority. The location of the CCMC is very nice, if electricity is supplied, it will be running properly.

3.2.5 District: Kishoreganj, Upazila: Sadar

In the Kishoreganj district, the Sadar Upazila is selected for the vertical expansion of the sweet gourd production. During field visit in this Upazila, it has been revealed after discussion and interview with DAE personnel's that this Upazila is no more suitable for sweet gourd production. After rigorous discussion in the weekly meeting with DAE officials/staffs, the UAO and AEO concluded with that if winter tomato is selected as a horizontal expansion crop then it could be a feasible solution for establishing collection point and/or CCMC/Niche market in this Upazila.

Fig. 3.5: A potential unused sheet could be used as niche market/CCMC with required renovation) in the Kathalia Bazar of the Baulai Union.

From the survey's information, it is figured out that around 10 CIGs farmer groups use the Kathalia Bazar for their crops marketing purpose. Majority of the CIG-farmers informed that they are growing winter tomato, however, they are afraid about marketing and price of the produces. The adjacent Union name is Danapatali, which is also a winter tomato growing area. There are some other potential areas namely Eakubganj Bazar, Gabtali Bazar, Jaliya Bazar and Kaliyakanda bazar which would be used for constructing collection points. Baulai and Danapatali both unions are more than 15 km far from Upazila HQ. Due to the rapid urbanization effects in the Sadar Upazila, the crop diversification is dramatically changed. The previously cropped area as well as suitable and favorable lands converted to housing and market areas.

3.2.6 District: Comilla, Upazila: Chandina

Chandina Upazila is one of the vast vegetable growing areas in the Comilla district. The vertical expansion commodity for NATP-2 value chain cluster crop is winter tomato. After discussion and interview with the UAO and AEO, it is visible that the area and production both are in increasing trend all through the other crops production are fluctuating the main tomato growing areas. Chandina municipality area, Borkoit ,Etbarpur and Barera where the most CIG-farmer groups are located. Along with winter tomato, there are several vegetables showed potentiality regarding, as horizontal expansion crops like as brinjal, bitter gourd, sweet gourd, etc.

During a discussion with DAE personnel's, it is revealed that Nimsar Bazar under Burichong Upazila is very much adjacent around 5 km far from Chandina Upazila HQ. However, it is around 25 km far from Burichong Upazila HQ as well as besides the Dhaka-Chittagong highway. It is a big market for processing; large-scale wholesaling as well as retailing of vegetables and fruits comes from local areas and outside of the district. Most of the CIG-farmers of Chandina Upazila used to bring their agricultural commodities to the Nimsar bazar for trading purpose. It is a government-owned market and managed by market management committee under the supervision of the Upazila administration. Around Tk. 50 million per year revenue is collected from the Nimsar bazar.

In contrast, Chandina upazila is having some market places including Chandina municipality market, which is only the government-owned, and regulated market. However agricultural commodities are sold in this market only for household consumption purposes. As per the comments and suggestions of the local DAE personnel's, Nimsar Bazar is the most suitable place for the facilitation of the Niche market. Meanwhile, it is located in other Upazila, which is not included in NATP-2. In the viewpoints of decentralization of local farmers/growers empowerment and enhancing local growth centre mobilization, Chandina municipality market is suggested for establishing CCMC/Niche market.

3.2.7 District: Tangail, Upazila: Modhupur

Modhupur Upazila under Tangail district is very much diverse in nature regarding agricultural commodities production. The total amount of cultivatable land in the Upazila is about 28,300 ha. At present, pineapple is cultivated in around 7000 ha of land, banana in around 4500 ha, jackfruit in around 2000 ha and mango, litchi, olive, papaya and guava in around 2000 ha of land every year, according to the DAE sources. Besides, ginger and turmeric are cultivated in around 2000 ha, vegetables in around 1000 ha, rubber in around 2800 and cotton, cassava and coffee in around 800 ha, and crop seeds in around 1600 ha of land. Due to population pressure, intensify land use and accelerate urbanization significantly climbed up of the deforestation activities in Modhupur Gazari forest.

The value chain vertical expansion crop for this Upazila is the bitter gourd, however, banana, pineapple, jackfruits and spices are equally important crops, which are considered as horizontal expansion crops in this Upazila. A rental CCMC is already established in Kuragacha Bazar under Kuragacha Union, which is in the northwestern side and around 7 – 8 km far from Modhupur Upazila HQ. The CCMC is approximately 80 - 90 m^2 area for trading operations. The UAO along with the LBF demonstrated the places and production zones of 20 – 30 ha of land for bitter gourd cultivation as well as almost 7/8 CIG farmer groups are inhabited.

Fig. 3.6: A former UP member wants to donate his cultivable land for newly constructed CCMC in Shalika area under Golabari Union in Modhupur Upazila (In the arrow marked place, Kbd. Mahmudul Hasan and the concern farmer Md. Mozibur Rahman).

Interestingly, it is observed that in the Shalika area under Golabari Union a former UP member, as well as a large farmer wants to donate his cultivable land of around 4/5 decimals for establishing newly constructed CCMC/Niche market. Shalika is newly establishing growth centre, which is around 5 – 6 km far as well as in the Northwestern side from Mohupur Upazila HQ. The area is well located beside the Modhupur – Jamalpur highway. Moreover, the UAO is ensuring his kinds of initiatives to manage a piece of land in the Mohupur Upazila HQ markets due to lots of lands in this area is government-owned properties.

3.2.8 District: Tangail, Upazila: Delduar

Delduar is one of the progressive Upazila in Bangladesh in terms of food safety issues which under Tangail district. The main vegetables cultivated in this Upazila have included amaranths, Indian spinach, ash gourd, sweet gourd, sponge gourd, common bean, red amaranth, water gourd, snake gourd, okra, brinjal, potato, radish, cucumber, and chili pepper. In recent years, farmers are growing their interest in lemon cultivation instead of vegetable production.

Out of 14500 ha cultivable lands, vegetables are producing in around 600 ha of lands and lemon is cultivating in around 800 ha of lands. The sweet gourd and banana covered 40 ha and 80 ha of lands respectively. More than 90% lemon is cultivated in Fazilhati and Lauhati Unions.

The sweet gourd is considered as a vertical expansion crop for this Upazila, however, the reality is totally different here. The lemon is replaced with the sweet gourd in terms of volume production and area coverage. The lemon is considered as a perennial orchard crop and provided production around 4 – 5 years with a single cultivation and transplanting.

Fig. 3.7: Lemons baggage's are in beside the road. A rental CCMC is established in Putiazani Bazar of Deldur Upazila (Marked place indicated the CCMC location).

During discussion and interview with the Upazila DAE officials, the AEO Ms. Niyanta Barmon pointed that the River Dolashawary, a branch of Jamuna River is another cause of shifting the vegetable cultivation to lemon cultivation. After completing local markets visit, it is concluded that Shilimpur bazar under Atiya Union and Lauhati Bazar under Lahati Union have equally potential in this Upazila where CP/CCMC might possibly be implemented.

A rental CCMC is already established in the Putiazani Bazar under Fazilhati Union of Deldur Upazila. The geographical coordinates of this place is 24° 13' 9.71" N and 89° 55' 56.36" E. It is around 6 – 7 km far from HQ beside the Lauhati-Delduar local road. With an area of 60 – 65 m^2 the CCMC is just rented and is not well facilitated with essential accessories like aeration system (ceiling fan and or exhaust fan), floor carpets weighing machines, cartoons, etc.

3.2.9 District: Jamalpur, Upazila: Islampur

Islampur Upazila under Jamalpur district is famous for brinjal production. In major cities of Bangladesh, retailers convinced the consumers with the name of *"Islampuri Begun"* when selling brinjal. For this Upazila, the value chain cluster vertical expansion crop is brinjal. Last winter season more than 1500 ha of land is cultivated and produces more than 23000 mt of brinjal whereas peak supply comes during December to April.

Fig. 3.8: A potential location for rental CCMC establishment in vegetables market of Islampur Upazila Bazar.

After meeting with DAE officials, the LBF carried to a site, which is suitable for selecting rental CCMC. The site is located in the middle of Islampur Upazila vegetables market. The location is suitable in terms of market access and for trading purpose. However, it is not fully constructed yet, the owner is waiting for a mutual agreement with the DAE personnel and the LBF (Fig. 3.8). In fact, it is a commercial place and during the trading time, it becomes a too much crowded and busy area. Near Juta Patty, it is around 200 m far from vegetable marketing place, there is an unused government empty plot which could be a better solution if the DAE officials make initiatives to arrange that plot for establishing newly constructed CCMC rather any rental one in this Upazila.

During the field visit, it is revealed that Porar Char Moddo Para is a potential place for constructing CP/CCMC. It is located 4 – 5 km to the Northeastern direction from Upazila HQ and beside the Islampur-Jamalpur highway. The President of CIG farmers group Mr. Jahan Ali informed that you came in wrong time. The surrounding areas namely Kander Char, Mohiskura, Gongha Para, Bot Char, Ahmedpur etc all kinds of vegetables are passing through Porar Char Moddo Para. This is a huge production zone approximately 100 – 150 ha of land area. He also informed that farmers are interested in brinjal cultivation due to higher profit, relatively fast-growing capacity, low-risk involvement, east technological adoption, etc.

During visited in the Degreer Char Molla Para, the President of CIG farmers group Md. Shahzada Molla informed that their area is one of the vital places in Islampur for the production of winter brinjal. It is 13 – 15 km to the Northeastern direction from Upazila HQ as well as very much near to Defla Bridge. Degreer Char consists of 19 numbers of Para belongings of around 90 – 100 ha of lands mostly producing winter brinjal. Therefore, it is also a potential place for establishing CP/CCMC. Both places are well road communication and farmers loaded truck/van in the spots.

3.2.10 District: Sherpur, Upazila: Nakla

Nakla Upazila under Sherpur district is a known rice growing area in this region. This area is selected for the vertical expansion of aromatic rice production. In general aromatic rice is cultivating during aman season. However the cropping intensity in this Upazila is over 192%. During the last aman season, around 13000 ha of land is cultivated for aman rice production in which only 15 – 20% lands are utilized for aromatic rice production. Common aromatic rice verities are cultivated in this Upazila namely Tulsi Mala, Kalijira, Kataribhog, Chinigura, etc. The prospect of producing more export-quality aromatic rice in this region is very bright," says Md. Anwar Hossian, SAAO of Loikha area of the Urfa Union. A farmer from Dorpot bazar in Ranishimul named Md. Bellal Hossian claimed that aromatic rice could produce 2.7 tonnes per hectare to sell for around Tk 1.22 lakh. Aman would produce around 3.6 tonnes per hectare, which sells for approximately Tk. 86,000. Therefore, aromatic rice cultivation is increasing rapidly in this area.

Fig. 3.9: A rental CCMC establishment in the adjacent Ganakpoti Bazar (left) and a suitable location for establishing CCMC (unused BS quarter of DAE) in the Dorpot Bazar under Ranishimol area (right) of the Nakla Upazila.

A rental CCMC is established in near the Ganakpoti Bazar (Geo-reference: 24°58'20.35" N and 90°10'24.86" E) which is beside the Nakla – Sherpur highway. The shed area is around 100 – 120 m^2 , however it is not ready yet for operation. While this

CCMC would be useful before harvesting the next Aman season. There is a potential place is identified in the Dorpot bazar (Geo-reference: 25° 0'16.15" N and 90°12'46.69" E) under Ranishimol area Which is an unused BS quarter of the DAE. It would be needed essential renovation for using as a collection point (CP)/CCMC due to this area is growing considerable amount of aromatic rice as well as current rental CCMC is around 7 – 8 km far from here.

3.2.11 District: Mymensingh, Upazila: Muktagacha

Muktagacha Upazila is one of oldest and famous area in Mymensingh district due to Zamidar (Landlord) Bari and special types of sweets named “Monda”. The cultivable land of this Upazila is around 25000 ha. Still now, rice is the predominant crop in this Upazila. From last decade, rice cultivable area is converted to fish farming. Like all seasonal vegetables, farmers are growing banana and pineapple in the parts of Modupur Gazari forest areas of this Upazila. Recent years, banana and pineapple cultivable lands are converted to lemon production. Farmers are more interested to cultivate lemon due to maximum and quick return. The market demand is higher than other citrus fruit. They can supply it all over the country. The lemon grower can utilize their land properly with low investment for the cultivation of lemon.

The value chain cluster vertical expansion crop is banana for this Upazila. Banana and lemon are intensively cultivated in the Dattagaon, Ghoga, Dulla Union. Interestingly, more than 95% CIG farmers are selected from these areas. In these three Unions, banana and lemon are cultivated around 185 and 150 ha, respectively.

Fig.3.10: An aerial overview indicated the target markets during assessment for establishing CCMC/Niche market in Muktagacha Upazila.

In the visit day, after meeting and interview with the DAE officials, the UAO Ms. Nargis Akter explained the agricultural commodities marketing scenarios in this Upazila and highlighting three markets, namely Kalibari bazar, Gabtali bazar and Rasulpur bazar. However, from surveys questionaries' another two markets are revealed, namely Rajabari bazar in Katalia under Dattagaon Union and Binnakuri bazar under Dulla Union. Both markets are around 20 km far from Upazila HQ. After physical examination and assessment, some unused shed is identified in the Gabtali bazar (Geo-reference: 24° 42' 38.18" N and 90° 9' 40.72" E), which might possibly be established as a CCMC after necessary renovation works. Moreover, a collection point would be feasible at the Rajabari bazar (Geo-reference: 24° 40' 10.35" N and 90° 8' 49.93" E) due to considerable numbers of CIG farmers are inhabited in the Dattagaon Union.

3.2.12 District: Dhaka, Upazila: Saver

Savar Upazila under Dhaka district is one of the most rapid urbanization areas in Bangladesh. The total cultivable land is around 16000 ha, however, every year agricultural cropped area is converted to residential and commercial industrial areas. Meanwhile, vegetable production is an important activity among farmers of Savar Upazila. They are producing a huge amount of Chinese vegetables and supplied directly to supermarket chin shops and the restaurants in Dhaka city. The vertical expansion crop for this Upazila is the sweet gourd. However, it is reported that approximately 35 different vegetables including several gourds, leafy and fruits vegetables as well as all types of Chinese vegetables are produced in this single Upazila.

Fig.3.11: A discussion session with the UAO Mr. Shahidul Islam at his office regarding the target markets assessment for establishing CCMC/Niche market at Savar Upazila.

Fig.3.12: An aerial overview and surrounding landscape of the rental CCMC established at Horindhora Bazar, Savar Upazila.

Recently, a rental CCMC is established at Horindhora Bazar (Geo-reference: 23°46'59.19" N and 90°15'3.67" E) where more than five CIG farmer groups are inhabited. Moreover, farmers from the areas of Vakurta, Mosurikhola, North Matka and South Matka also utilized this CCMC. In contrast, it is revealed from survey information that Hemayatpur bazar is the most suitable place for establishing the CCMC/Niche Market. In terms of market access, a considerable number of farmers from Savar Upazila are carrying their commodities directly to the Kawran bazar, Gabtali bazar and Mirpur bazar in Dhaka city. Considering such issues, a costly commercial place like Hemayatpur bazar is not a cost-effective option for establishing the CCMC/Niche Market.

It is observed that vegetable areas are converted into the recent settlement. There are no other crops except vegetable fields. A CIG farmer from Vakurta named Md. Awal complained about ternary industries wastewater, which is directing disposal to the river Dhaleshwari and surrounding water bodies. Therefore, farmers are worried to use such water bodies as a source of irrigation.

Vakurta area is called the vegetable bowl of Savar as well as for Dhaka city. In a question regarding vegetable cultivation, some other farmers namely Md. Manik from Horindhora, Hazi Abu Siddque from North Matka and Md. Shaheen from Vakurta responded that vegetable crops are attractive because: (i) they are cash crops; (ii) they are considered more profitable than staple crops and less risky as compared to the production of pulses and mustard; (ii) they have relatively short production cycles as compared to many field crops; and (iv) they are suitable in some highland areas, particularly after irrigation has become available.

3.3 CURRENT MARKETING PRACTICES AND LINKAGES

Marketing of the horticulture crops is a complex and risky issue due to its perishable nature. Among the respondents from these 12 Upazila, more than 65 percent of farmers sell their produce right after harvesting or near the production zone. About 30 percent of respondents sell their produce in local daily market. The used head load and rickshaw puller and or van for carrying purpose. Except for Savar Upazila, none other send their produce directly to wholesale markets. In a rapid respond during street survey, about 28 percent of consumers informed that they bought from farmers, 35% of the retailers and 30 percent of the traders in a single marketing day.

There are two types of trading flow mostly observed. Due to seasonal variation; it does not reflected the target vertical crops, however, it would be similar for any vegetables. The trade flows are:

Producer >>> Trader >>> Retailers >>> Consumer

Producer >>> Trader >>> Wholesaler >>> Commercial Agent >>> Small Retailers >>> Consumer

Fig.3.13: Illustration shows the general trade flow for for vegetable crops.

Multiple actors such as local collectors, local traders, local market *Aratdars* and their agents, urban wholesalers and their commission agents, rural and urban retailers constitute the important components of the marketing channel. The commission earned by intermediaries varies with regions as well as among targeted cluster crops.

In absence of an adequate organized system for the collection and distribution, considerably a smaller part of the vegetables and fruits directly reaches to the local market, while the bigger part passes through several categories of traders known as middlemen. However, such scenarios would be uplifted after establishing the CCMC or Niche Market.

3.4 POST-HARVEST MANAGEMENT AND QUALITY ASSURANCE

Fresh vegetables are highly perishable and post-harvest loss estimated between 25 – 35 percent, however, during monsoon it climbed up to 45 percent in Bangladesh. In general, the post-harvest technology did not receive adequate thrust for contributing on economic development.

In the field level, farmers and traders used some types of weeds and grasses for packaging and transporting vegetables to the wholesaler or any local market. In the response of post-harvest management questions, farmers showed very little knowledge regarding the appropriateness of such management issues. Similarly, traders/processors also showed lack of knowledge on modern post-harvest practices and most of them do not have any awareness or motivational demonstration. Even though, processors are working on the bare floor for exporting teasle gourd (kakrol) (see Fig. 3.3). In some places, it is revealed that farmers/traders are putting small irregular shaped vegetables in the bottom of the bamboo chipped baskets, and comparatively good quality one is spread in the upper layers of the baskets to attract the attention of the buyers.

In the response of quality and food safety issues, there is lack of knowledge and information relating to safety and quality assurance issues at all levels including farmers, traders, consumers and also the personnel of government agencies in Bangladesh. Use of pesticides and plant protection agro-chemicals are a general picture in all Upazilas. However, It is observed that farmers from Shibpur, Belabo, Raipura, Modhupur, Delduar, Islampur and Savar Upazilas having considerably little more knowledge regarding organic farming and organic vegetables due to some private sectors exporter made contract with them regarding the purchase of entire produces with higher prices. Government mechanisms relating to fresh produce safety are limited or non-existent in the local level production system. In contrast, the DAE officials tried to overcome such liability by explaining the natural ways of insects and pests control programs. However, it is true that the country lacks the fully developed infrastructure for standards relating to technical procedures, conformity assessment of quality and safe of produce.

3.5 WASTE MANAGEMENT ISSUES

In general, our society does not conscious regarding waste management issues, even though it is in terms of cities or rural areas. In the response of waste management questions, majority respondents (i.e. farmers, traders, consumers, market leaseholders) are showed negative attitudes, however, market leaseholder claimed that they cleaned that market place after trading. They answered that they knew about composting and biogas from fresh kitchen waste and cowdung.

Fig. 3.14: Waste management scenario in local market - Banana Niche Market in Rasulpur, Muktagacha Upazila.

The waste manage is concerned with collection, transportation, disposal and treatment of solid waste. Wastes from the fresh vegetable market are the sources for bio-fertilizer after composting properly. Therefore, local fresh market waste is not burden for us. It would be wealth after composting systematically. However, every stakeholder regarding this study do not concern about waste management issues.

CHAPTER 4

SUGGESTIONS AND RECOMMENDATIONS

The following suggestions and recommendations are made after conducting studies and surveys of existing markets of 30 Upazila (1st Part: 12 Upazila):

- Facilitated all rental CCMCs with necessary operational utilities, like aeration system (ceiling fan and or exhaust fan), floor carpets weighing machines, cartoons/baskets, etc.

- Make an action plan regarding potential / suitable places identified in this study for implementing CP/CCMC or Niche Market.

- Monitoring and ensuring better services and efficient marketing through sorting, grading and packaging of produces at the CCMC.

- Establish CP/CCMC or Niche Market in concern Upazilas where any types of CP/CCMC or Niche Market are not feasible yet.

- Take positive initiatives and necessary actions for running the well-established CCMC in Kapasia Upazila.

- Prioritize the CIG farmer groups for establishing newly/renovated CP/CCMC or Niche Market.

- More involvement of local DAE officials is essential in terms of acquisition existing sheds /structures in a local market for constructing or renovating purpose for establishing CCMC or Niche Market.

- Need model approach/training and visible demonstration regarding post-harvest management procedure among CIG farmers groups.

- To further reduce post-harvest and transportation losses, proper packaging system needs to be developed for use by CIG farmers groups.

- Take positive initiatives regarding waste management issues like campaigns, advocacy and demonstration of waste to wealth program through composting as well as biogas generation.

ANNEXES

The structured and semi-structured surveys questionnaires are attached hereafter

PART A: Questionnaire for CIGs and non-CIGs Farmer

(Sample Size: Please use 10-15% of your total number of CIGs members. Please use 80% farmers from CIGs for survey)

Sample No: ………………………………	Date: ....

1) Name of the Respondent: ....
2) Age of the respondent: .... Gender of the respondent: (1) Male, (2) Female. 3) Address:

4) How much land do you cultivate for following crops?

Brinjal (ha)	Bitter Gourd (ha)	Tomato (ha)	Tomato (ha)	Sweet Gourd (ha)	Banana (ha)	Aromatic-Rice (ha)

5) What share of your production do you and your family sell and not consume yourself?
a) Sell nearly everything, b) Sell most, c) Sell about half, d) Sell less than half

6) Are there any existing collection points (CPs) in your growing area(s)/production zone?
a) Yes b) No c) we want

7) If the answer of the question no. 8 is 'Yes' then indicates the numbers and location?

8) Do you sell your commodities in on-farm areas or you carry your productions to market for better price?
(a) Sell nearly everything, b) Sell most, c) Sell about half, d) Sell less than half

9) Do you attend any post-harvest management or vegetables / crop protection measures during marketing?

10) What is your cropping pattern?

11) Is your business profitable during the whole year?

12) If we facilitate some collection points with some post-harvest processing equipment's and short-term storage, sorting, packing and assembling facilities, are you willing to use those collection points?

13) Please suggest us THREE collection points and locations which would be more suitable for CIGs as well non-CIGs farmers.
(a) (b) (c)

PART B: Questionnaire for Traders

[1. Fariya / 2. Bepari / 3. Local Retailers / 4. Wholesalers]

Sample No: ……………………………… Type of Traders: ………………… ……..	Date: ....

01	Name of the Traders:
02	Address:
03	Market Name: Catchment Area *(Surrounding area covered by the Traders if he/she is acted as middleman.)*
04	Shop Name / Trading Location:

05	**General Characteristics of Traders in Market**
5.1)	When did you start your trading business? (a) <1 yrs (b) between 1-5 yrs (c) > 5 yrs (d) No answers
5.2)	In what type of trading activities are you involved (a) Purchase from traders, sell to consumer (= Retailing) (b) Purchase from traders, sell to traders (= Wholesaling) (c) Purchase from farmers, sell to traders (= Collecting/Middleman, Fariya/ Bepari)
5.3)	Please provide the type of products in which you are operating? (a) Fresh leafy vegetables (b) Fruits and Vegetable (Tomato, Papaya, Banana Green hot chili/ brinjal/ okra/ pumpkin/ snake gourd/ Beans, any others etc) (c) Any others (Write all)
5.4)	Please indicate the three most important in terms of quantities commodities traded normally by you? (a) Name: …………………….. Amount: ……………kg (per market day/ per day/ per week) (b) Name: …………………….. Amount: ……………kg (per market day/ per day/ per week) (c) Name: …………………….. Amount: ……………kg (per market day/ per day/ per week)
5.5)	Please indicate the five most important in terms of production commodities cultivated normally in you area?
06	**Volume and Flow**
6.1)	Please provide an estimate of the number of customers to whom you have sold the selected commodities during the today's market/past week? (a) <50 (b) between 50- 100 (c) 100 - 150 (d) > 150
6.2)	Please indicate that the above question answer is high / lower / normal compare to any other marketing days?
6.3)	Please indicate the following commodities traded by you during the today's market/past week? (a) Brijal (Amount) ……………kg (per market day/ per day/ per week) (b) Bitter Gourd (Amount) ……………kg (per market day/ per day/ per week) (c) Tomato (Amount) ……………kg (per market day/ per day/ per week) (d) Sweet Gourd (Amount) ……………kg (per market day/ per day/ per week) (e) Banana (Amount) ……………kg (per market day/ per day/ per week) (f) Aromatic Rice (Amount) ……………kg (per market day/ per day/ per week)
6.4)	Please indicate the following commodities come to market more/less in terms of amount compare to past week? (a) Brijal high / lower / same (b) Bitter Gourd high / lower / same (c) Tomato high / lower / same (d) Sweet Gourd high / lower / same (e) Banana high / lower / same (f) Aromatic Rice high / lower / same
6.5)	Please indicate, if the sales volume of the selected commodities is higher/lower/same compare to past week then what is the effect/ affect on unit price of the selected commodities? (a) Sales volume is [ ] [higher/lower/same] - unit price is [ ] [high / lower / same] (b) Sales volume is [ ] [higher/lower/same] - unit price is [ ] [high / lower / same] (c) Sales volume is [ ] [higher/lower/same] - unit price is [ ] [high / lower / same] (d) Nothing changes on sales volume.
6.6)	Please mention, How do you decide the commodities price in your trading area/market?

6.7)	Who would control the commodities price and quality in your trading area/ market?

07	**Constraints / Limitations and Waste Management**
7.1)	How much fee/Toll do you pay for per marketing day?
7.2)	Do you have trade licence? How much do you pay for that? Yes/No, If Yes, Amount:
7.3)	Do you have cleaning/washing/short-term storage and watering facilities in you market?
7.4)	How do you handle your spoilage / rodent of the selected commodities?
7.5)	Who is responsible for cleaning and managing your spoilage / rodent items?
7.6)	Do you concern about insect/pest intensification in your market or in your trading center?
7.7)	What is the precaution measure in rainy days? In your market, do you have a well drainage system?
7.8)	Do you hear/learn by chance, about fresh market waste to composting (Waste 2 Wealth) program, Food safety and sanitary and Phyto-Sanitary Standard? If the answer is yes, then mentions from whom do you hear/learn.
7.9)	Do you hear/learn by chance, about Food safety and sanitary and Phyto-Sanitary Standard? If the answer is yes, then mentions from whom do you hear/learn.
7.10)	Please mention five most important activities you desire from market management authority.

PART – C: Street Interview of Farmers / Traders / Consumers who comes to market

01	Name of Interviewee:	Date: / /

02	Address:
03	Market Name:
04	Marketing time: Morning / afternoon / day-long /weekly
05	What are the purposes to come in the market? (a) Sell and buy for personal purpose (= Farmers /Growers) (b) Buy and sale for business purpose (= Retailing) (c) Buy for collection purpose (= Middleman / Wholesale) (d) Buy from farmers and sell to traders (= Wholesale) (e) Buy for personal consumption (= Consumers) (f) Buy for custom requirement (= Agro-process industries)
06	Please provide the information regarding your commodities you carry for sell or buy. (a) Only sell (kg) (b) Only buy (kg) (c) Both (kg)
07	(a) Please provide the information regarding number of commodities with name and amounts. 1) Amount: 2) Amount: 3) Amount: 4) Amount: 5) Amount:
08	How much do you sell or buy for any marketing day's?
09	Do you get your expected price for sell or do you buy with comfortable price?
10	If you are a farmer, please let us know that you are (a) CIGs or (b) Non-CIGs farmer
11	If you are a trader, please let us know how do you collect / buy your trading commodities? (a) from on-farm (b) from existing farms collection points (c) from other markets (Backward supply) (d) from other traders (Input Supply)

A. General Information for selecting any commodity Collection Points (CCs)

SL	Information / Description	Amount / Comments
01	Population density (nos.) of the area	
02	Potential catchment area(s) (km^2 / ha) or Nos. of villages /Union Nos. of CIGs involved	
03	Purchase power of the local consumers	
04	Information about market place/land a) is it govt land / govt lease / locally organized in abundant place / private property / cooperative society b) Is it in rural /peri-urban /urban / rural growth center / urban growth center /Upazila HQ c) Old / Newly establish place(s)	a) b) c)
05	Information about access to local growth center / Upazila HQ	
06	CIGs / non-CIGs interviewed regarding the selection of new collection points and/or selecting existing CPs (majorities opinion would be considered) (a) No. of groups (Old / new) (b) Total number of members (c) Percentage of members (CIGs) use	(a) (b) (c)
07	Indicate FIVE potential targeted commodities (highest to lowest) come to this CCs / CCMCs in a particular marketing day. Please indicate the volume / amount in the comment box. (a) (b) (c) (d) (e)	Amount (a) (b) (c) (d) (e)

B. General Information for selecting any Commodity Collection and Marketing Centers (CCMCs)

SL	Information / Description	Amount / Comments
01	Population density (nos.) of the area	
02	Potential catchment area(s) (km^2 / ha) or Nos. of villages /Union Nos. of CIGs involved	
03	Nos. of Collection Points included in the CCMCs	
04	Information about market place/land d) is it govt land / govt lease / locally organized in abundant place / private property / cooperative society e) Is it in rural /peri-urban /urban / rural growth center / urban growth center /Upazila HQ f) Old / Newly establish place(s)	a) b) c)
05	Information about access to local growth center / Upazila HQ	
06	CIGs / non-CIGs interviewed regarding the selection of new CCMCs (d) No. of groups (Old / new) (e) Total number of members (f) Percentage of members (CIGs) use	(a) (b) (c)
07	Physical environments and including production zones	
08	Indicate FIVE potential targeted commodities (highest to lowest) come to this CCMCs in a particular marketing day. Please indicate the volume / amount in the comment box. (a) (b) (c) (d) (e)	Amount (a) (b) (c) (d) (e)

C. Checklists for Market Operating Requirements / Policies for targeting Niche Market in the existing targeted markets

- Interview potential traders / lease owner / CIGs farmers for the selection of a shed / location inside the targeted market for renovation to establish CCMCs.
- Appropriate dimension (more or less 1800 ft^2) of the selected shed /location as well as observing physical environment of the targeting place.

SL	Information / Descriptions	Yes	No	Comments
01	Market Control Authority(ies) If the answer is "Yes" then who is the Authority(ies)			
02	Market fees /Tolls			
03	Leases of market place (duration)			
04	Use of market by farmers / Traders			
05	Trading facilities (place /walkway etc)			
06	Conduct with customers			
07	Assistance and or services			
08	Weighing equipment monitoring			
09	Allocation & arrangement of Traders types			
10	Timing of operations (unloading / loading)			
11	Pitch size / identical licence plate			
12	Utilities			
13	First Aid / safety			
14	Cleaning of market areas			
15	Refuse / Waste Management			
16	Quarantine facilities			
17	Sanitary and Phyto-Sanitary (SPS) standards			
18	Food safety measures			
19	Establish or renovate for assemble, sorting, grading, washing of target product for niche market			
20	Based on above criteria, do you think this market is suitable for establishing / renovating for niche market?			

D. Checklists for Market Infrastructure, Access and Commodities price variation in a targeting CCMCs market

D1. Following Information could be tabulated:

SL	Facilities	Size /Capacity (Nos. /m^2)	Contraction / Types of materials	Utilization rate (% of capacity used on an aver. Day)
01	Market Yard (Paved Area)			
02	Road and Parking			
03	Permanent /semi-permanent structure			
04	Traders sheds or stalls			
05	Commodity Assembly points			
06	Fruits and vegetable areas			
07	Fish/meat/Poultry			
08	Grain			
09	Clothing and household belongings			
10	Washing / Cleaning			
11	Grading / sorting area			
12	Unloading / loading			
13	Weight scales / Moisture meter			
14	Storage area			
15	Live poultry /Livestock area			
16	Canteen /Hotel			
17	Latrines			
18	Refuse / waste storage area			
19	Drainage facilities			
20	Is it suitable CCMCs for considering to establish or renovate for niche market?			

D2. Following Information could be tabulated:

Types of Vehicle	Number of Vehicles (All survey days)				Average daily	
Trucks (5t)	Bringing Goods	Taking goods	Empty	Total	Total vehicles	% total
Trucks (<5t)						
Pickups						
Vans						
Handcarts						
Rickshaw						
Any other mode						

E. Seasonal price variation: Monthly Variation of the Target major commodities sold in the market

*E1: Seasonal price variation: monthly price variation in **Wholesalers level**.*

Month	Brinjal	Bitter gourd	Tomato	Sweet gourd	Banana	okra	Beans	Potato	Aromatic Rice	Rice
Jan.										
Feb.										
Mar.										
April										
May										
June										
July										
Sept.										
Oct.										
Nov.										
Dec.										

*E2: Seasonal price variation: monthly price variation in **Small Traders level**.*

Month	Brinjal	Bitter gourd	Tomato	Sweet gourd	Banana	okra	Beans	Potato	Aromatic Rice	Rice
Jan.										
Feb.										
Mar.										
April										
May										
June										
July										
Sept.										
Oct.										
Nov.										
Dec.										

*E3: Seasonal price variation: monthly price variation in **Retailer level**.*

Month	Brinjal	Bitter gourd	Tomato	Sweet gourd	Banana	okra	Beans	Potato	Aromatic Rice	Rice
Jan.										
Feb.										
Mar.										
April										
May										
June										
July										
Sept.										
Oct.										
Nov.										
Dec.										

*E4: Seasonal price variation: monthly price variation in **Farmer's sell point level**.*

Month	Brinjal	Bitter gourd	Tomato	Sweet gourd	Banana	okra	Beans	Potato	Aromatic Rice	Rice
Jan.										
Feb.										
Mar.										
April										
May										
June										
July										
Sept.										
Oct.										

Nov.										
Dec.										

E5: Total cultivable area (ha) in your location / Upazila

Month	Brinjal	Bitter gourd	Tomato	Sweet gourd	Banana	okra	Beans	Potato	Aromatic Rice	Rice
Jan.										
Feb.										
Mar.										
April										
May										
June										
July										
Sept.										
Oct.										
Nov.										
Dec.										

E6: Cultivable area (ha) covered by CIGs

Month	Brinjal	Bitter gourd	Tomato	Sweet gourd	Banana	okra	Beans	Potato	Aromatic Rice	Rice
Jan.										
Feb.										
Mar.										
April										
May										
June										
July										
Sept.										
Oct.										
Nov.										
Dec.										

E7: Total production (kg/tons) in your location /Upazila

Month	Brinjal	Bitter gourd	Tomato	Sweet gourd	Banana	okra	Beans	Potato	Aromatic Rice	Rice
Jan.										
Feb.										
Mar.										
April										
May										
June										
July										
Sept.										
Oct.										
Nov.										
Dec.										

E8: Total production (kg/tons) of CIGs in your location

Month	Brinjal	Bitter gourd	Tomato	Sweet gourd	Banana	okra	Beans	Potato	Aromatic Rice	Rice
Jan.										
Feb.										
Mar.										
April										
May										
June										
July										
Sept.										
Oct.										
Nov.										
Dec.										

Problems identified and faced by the LBF during survey would be condusted

i)
ii)
iii)
iv)

Please mention your suggestions and opinion to overcome these problems

i)
ii)
iii)
iv)

Thank you for your Kind cooperation.

Signature of the interviewer
Date: