Business opportunities related to the development of retail and agro-food chains in Bangladesh

Poultry
Dairy
Livestock
Aquaculture

May 2013

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Introduction

The Embassy of the Kingdom of the Netherlands (EKN) in Dhaka, within its scope of economic diplomacy, has partnered with Nyenrode Business Universiteit (Nyenrode) in order to stimulate economic relations between the Netherlands and Bangladesh. Strategic aim of the Embassy is to strengthen bilateral commercial ties in a responsible manner and support the improvement of the Bangladeshi business environment with a spill-over effect that improves the lives of the poor. The great number of victims of the disastrous collapse of the Rana Plaza Building last April reaffirms the urgent need for improved legislation, enforcement and greater responsibility of the private sector.

The sustainable development of Bangladesh demands both public and private investments.

Putting theory into practice, Nyenrode will facilitate business-to-business activities in order to link local actors to Dutch parties. Aim of the program is to have a positive impact on the volume of new trade relations, the volume of follow-up investments, employment generated (specifically employment of women), innovation and the provision of widespread general economic information. The foundation of the program lies in the realization that business can contribute to development through its core business, its operations and supply chain, as well as the products and services it produces and through social investment in the communities and regions in which it operates.

Four priority sectors have been identified for the Nyenrode program: agro-food, water, logistics and the IT-sector, with a special focus on outsourcing activities.

The underlying research focuses on the agro-food sector specifically on the development of a number of agro-food chains in Bangladesh. The demand of fourteen Bangladeshi entrepreneurs, frontrunners in their line of business has been identified as well as opportunities and barriers for Dutch entrepreneurs to enter this market. Nyenrode Business Universiteit has identified opportunities that arise for Dutch business. These business opportunities can be found in both the public and the private domain. In the public domain two interesting programs have been identified: FAO improving food safety program and the SAFAL partnership on value chain development in aquaculture, livestock and horticulture. This report further provides an insight into the potential contribution of the Netherlands agro-food industry to the development of food chains in Bangladesh.

This research focuses on a market of 160 million (World Economic Outlook, 2013) consumers that is growing. According to the World Bank, to achieve its goal of middle income status by 2021 Bangladesh will require (I) increased investment, (II) faster human capital accumulation, (III) enhanced productivity growth, and (iv) increased outward orientation.

At present, products offered by retail are only accessible and affordable for a small group. Over the last five years average economic growth has been 5-6%. To achieve the middle income status, an economic growth of 7-8% on the long term is needed (WorldBank, 2013). With such growth rates families will be exposed to new lifestyles through, for example, cable TV and in experiencing such lifestyles they will feel that their children deserve to be exposed to at least the same experience. Furthermore awareness of health, hygiene issues, products, brands and the desire to maintain the right social status will grow. From an economic point of view, modern trade will become a catalyst in improving supply chain when supplies as well as supply chain specialists start investing in up-to-date collecting, sorting, storing and transport facilities. The investments in cold/chill rooms, food
preservation packaging, plastic crates and chilled transport for example help reduce wastage which is estimated to be 35% improving quality which in turn can fetch a better price for all the players in the value chain (The News Today, 2013). Such developments would lead to a more significant role for retail in the Bangladesh of 2021, a country with a middle income status. The government of Bangladesh has a program for the development of the agro-food chains; policy targets for 2020 are ambitious (FAO, 2011). They aim to encourage the development of domestic food production and restrict the import of foreign food products. The development of infrastructure, logistics and agro supply chains, including retail, should according to this policy lead to better foods for local consumers. The development of the food chains may result in an increasing demand for inputs, machinery and technology as well. There is already a demand for technical and managerial training, and the forecast is that public capacity building will also be needed in the coming years. Capacity building is needed to strengthen the skills, competencies and abilities of civil servants so that they can implement the tasks of their organisation.

Bangladesh is a developing country. This does not mean that local business owners are always by definition eager to cooperate with a Dutch partner. Moreover, the competition in this market cannot be underestimated. It is a tough market for Dutch business to enter. The frontrunners in Bangladesh already have international business partners, and small and medium enterprises often do not have the financial means to buy high tech solutions. There are some interesting niches; examples include the import of shrimp/pangasius/tilapia and the export of technologies and seeds. Finally, consultancy services can be sold via donor programs for the development of the agro-food chains.

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Prof. dr. Désirée van Gorp

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# Introduction

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1. Management summary

1.1 Economic situation

1. Goldman Sachs named Bangladesh one of the "Next Eleven". Its per capita income in 2010 was US$ 641 compared to the world average of US$ 8,985. The Next Eleven are the eleven countries – Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, Philippines, Turkey, South Korea, and Vietnam – identified by Goldman Sachs investment bank and economist Jim O'Neill in a research paper as having a high potential of becoming, along with the BRICs/BRICS, the world's largest economies in the 21st century.

2. Bangladesh remains one of the poorest countries in the world; the population is still expanding rapidly even to an expected 169 million people in 2020. 27% of the population was undernourished in 2011 by Food and Agricultural Organization (FAO)'s definition – not having access to adequate amounts of safe, nutritious food to sustain a healthy and productive life. In the early 1990s 38% of the population had no access to sufficient food.

3. The economy is showing an average growth of 6% in recent years and a smaller growth rate is expected for the coming years.

4. Main economic issues / hurdles for economic growth: housing, infrastructure, food production, clean water and power supplies.

5. The garment industry is the backbone of the manufacturing industry. Almost 80% of Bangladesh's population lives in rural areas, with 54% of them (two-thirds of the total labor force) employed in agriculture. The agricultural sector provides 35% of GDP. Bangladesh is the world's fourth-largest rice producer in 2011 (FAO, 2011).

6. Due to Bangladesh's low level of development, economic policy of the government is supported by international donors and oriented towards poverty alleviation by means of considerable subsidies aimed at the agricultural sector. In 2011 investments from DAC donors in Bangladesh amounted US$ 1,239,290,000 (World Bank 2013).

1.2 Institutional setting

1. Bangladesh developed a comprehensive Country Investment Plan for agriculture, food security and nutrition (CIP). FAO supported the government of Bangladesh in the formulation of its National Food Policy and a Plan of Action (PoA) for the period 2008-2015. This policy framework creates a good environment to define a comprehensive investment plan that supports mobilizing additional resources in the context of renewed international commitment to support food security, agriculture and nutrition.

2. Fisheries, dairy, poultry and horticulture are the most promising agriculture subsectors in Bangladesh.

1.3 Retail and consumption of processed food

1. Market share of modern retail in Bangladesh in 2012 is only around 0.5% and hereby one of the smallest market-shares for retail in the world. In developed countries retail has a market share in excess of 80%. It is around 50% in Thailand and many far eastern countries and around 15% in Sri Lanka (News Today, 2013).

2. Market share of the retail sector in Bangladesh is still relatively low. However turnovers are expected to grow yearly with 30% up to 2015.

3. Infrastructure and transport investments will most probably increase in the coming five years, followed by an upward development of the turnover in the retail sector.
4. Development of a modern retail sector will eventually (by 2020) become a catalyst in improving the food supply chains in Bangladesh. The investments in cold rooms, packaging, transport and quality improvement will create a better price for all the players in the value chain. At present products of modern retail are affordable for only a very small part of the population.

1.4 Development of food supply chains

General

1. Developments in processing industry for dairy and poultry are promising.
2. Agricultural sector is dominated by small enterprises.

Dairy

1. Smallholders produce nearly all-local milk; the milk is consumed via the informal milk market (93%) while the formal market (7%) has a small but important and growing market share.
2. Smallholders are well integrated into formal dairy value chains. Currently, fourteen dairy companies buy milk from nearly 300,000 smallholders. These companies provide limited value addition for smallholders in terms of livestock development services.
3. Schemes to promote larger, more intensive dairy farms have been largely unsuccessful due to poor services and market access.
4. The dairy cow insurance scheme and feed mill enterprises play an important role for the development of the supply chain, especially because smallholder dairy producers are prone to higher financial risk.
5. In developed markets, the highest proportion of dairy sales goes through supermarket/hypermarket channels, while in Bangladesh dairy products are distributed via traditional trade channels, independent small grocers and other stores. Expanding companies should tailor their distribution strategies to meet the requirements of a more fragmented retail landscape.
6. Dairying can play an important role for poor rural families, especially for regular nutrition, income and jobs and in integrating farming systems (crop-fish-livestock) to optimize the use of available resources, including for example feed/fodder, land and water.
7. Livestock and dairying enhance the capacity of poor rural people to cope with the annual monsoon floods (floods wash crops and fish away – livestock are kept at home and continue to produce food for home consumption and cash sales).
8. Condensed milk is produced from imported commodities, which, until very recently, were cheaper than fresh milk or locally produced condensed milk. Market shares of imported milk powder are high. Products produced from local fresh milk will increase market shares.
9. Domestic milk prices are no longer controlled. The recent increase in the prices of internationally traded dairy commodities and import tariffs (45%) are fostering foreign investment.
10. Modern, appropriate milk-processing technologies are now available at the plant level in about 20 districts (out of 64), supported by local production of small-scale equipment.

Poultry

1. A considerable proportion of the growing population’s demand for protein is met by the supply of poultry produce at relatively low cost.
2. Poultry sector is employing around 50,000 small holders (who raise fewer than 1000 poultry birds). These enterprises are important for the creation of employment.
3. Owing to their small size, these enterprises are not expected to create much pressure on limited land resources.
4. Small holders depend completely on the local markets to sell their products, and their products seldom reach even the markets of the capital city.

5. Commercial poultry enterprises have the opportunity to reach the consumer market in the capital city. These entrepreneurs could potentially benefit a lot from better storage and infrastructure.

6. Precautionary measures to protect against the spread of diseases are important for the further development of the sector.

Shrimp
1. The highest potential for import of shrimp from Bangladesh relate to the cultured species and not to the wild captured species.

2. Bangladesh exports are traditionally oriented towards the EU market. The main reason that Bangladesh currently increased its popularity among EU buyers is the comparatively low price of cultured shrimp - which is mainly caused by the 10% export subsidy from the Government of Bangladesh - and the limited supply from other countries. The total value of shrimp exports from Bangladesh increased from US$ 370m in 2004 to US$ 423m in 2011 (CBI 2012).

3. To assure future market share on the EU market Bangladesh should invest in the shrimp quality.

4. To increase the shrimp production volume post-harvest losses could be reduced and the productivity of shrimp farms increased.

5. Increasing the efficiency in the shrimp supply chain can reduce post-harvest losses. This includes strengthening the bargaining position of farmers with middlemen and exporters, improving the infrastructure in the supply chain (including cold storage facilities), proper ice factories and transport and by training middlemen and traders.

6. There are potential business opportunities to be identified in the value chain from hatchery to full grown shrimp. Improving the quality of inputs and training farmers in applying Best Aquaculture Practices (BAP) can for example increase the productivity of shrimp farms. Thailand is producing 4-5 tons of shrimp per hectare while Bangladesh productivity is at 150 kg. Currently farmers are not trained well enough for pond preparation management. In order to prepare their pond for optimal shrimp production, access to the technology on how to identify the percentage of water salinity as well as the condition of mud is needed. Lack of capacity, skilled people, also damages the local fish culture. Another problem is the quality of the fry which the farmers grow into shrimp. Low quality fry leads to low quality shrimps and that again results in a low survival rate. The transportation from the hatcheries to the farms makes it often tough for the fry to survive.

Frozen fish
1. Pangasius and Tilapia are most locally consumed as prices in the domestic market are high.

2. Less than 3% of total fish production in Bangladesh is exported. The cultured species with the highest export potential are pangasius (Pangasius Hypophthalmus) and Tilapia (Oreochromis spp.). In 2010 the total value of fish exports was US$ 80m, of which frozen fish contributed almost US$ 35m. The most important markets for frozen fish are the UK, Saudi Arabia, the US and to some extent Italy and China (CBI, 2012).

3. Most of the frozen fish is exported as block frozen items while the highest market value and demand are for frozen fillets. Fish processing techniques and skilled workers to handle fish fillets could contribute to the international market potential of Bangladeshi fish fillets.

4. The lack of supply of Pangasius and Tilapia is mainly caused by the low productivity of fish farms, the post-harvest losses and the strong local demand for fish.
5. Recently CBI (Centre for the Promotion of Imports from Developing Countries) developed three strategies to increase the supply of frozen fish: increase the productivity of fish farms, reduce post-harvest losses and encourage exporters to invest in integrated fish farms.
6. Reduce post-harvest losses by promoting investments in the infrastructure including cold storage facilities and proper transport.
7. Encourage exporters to invest in integrated fish farms to generate a constant supply of fish that does not reduce its availability of fish on the local market. Importantly, this way the quality is ensured because the exporter can control all the inputs and invest in more intensive and better-managed production systems. This would also make the exporters less dependent on the middlemen who dominate the supply chain and are often not quality minded (CBI, 2012).

Fruit and vegetables
1. Consumption of fruit and vegetables is currently 20% below the recommended daily intake.
2. It is foreseen that prices of fruit and vegetables will rise, as it is not possible to increase the production at the same speed as demand due to limitation of land, limited use of modern technology and managerial capacities.
3. Recognized tools for increasing the yield per unit in Bangladesh: use of improved varieties and high quality planting material, introducing new technology of production, better soil management, irrigation, disease management and pest control.
4. Labor productivity in production of fruit and vegetables in Bangladesh is still underdeveloped and lower as compared to rice.
5. Production of fruit and vegetables could create job opportunities in Bangladesh, and improve nutrition standards. The development of this sector can be a challenge due to the fact that growers lack essential knowledge and that possibilities to invest in smart adaptive technologies are lacking.
6. Processing and retail are not yet organized.
7. Investing to reduce post-harvest losses in fruit and vegetables seems profitable and would mean a lot for the development of the supply chain.
8. One of the key challenges is the salinity of surface water, in combination with the irrigation systems.

1.5 Market Entry
Nyenrode research shows that:
1. Dutch companies see ‘lack of market information’, ‘local partnership’ and ‘financial constraints’ as their main hurdle to enter the market in Bangladesh.
2. Dutch companies that indicated to be interested in the Bangladeshi market further indicated to be less prepared on ‘information about competitors’ and ‘local regulations’ and to a certain extent ‘location choices’.
3. Dutch companies distinguish themselves on quality, innovation and services.
4. Dutch companies are not or less able to distinguish themselves on their network in Bangladesh as well as on pricing.

1.6 Demand for products and expertise of agro-food companies in Bangladesh
Nyenrode research shows that:
1. Dutch business partners should realize that finding a partner in Bangladesh is not self-evident.
2. Aquaculture companies in Bangladesh showed interest to develop logistics, innovation and marketing of their relations.
3. Milk processing enterprises from Bangladesh can be critical towards establishing new business cooperation with Dutch dairy partners. The frontrunners in the Bangladeshi dairy sector often already have established international relations. In case they have an additional demand for expertise, this demand will most probably very specific.
4. More advanced dairy companies in Bangladesh showed most interest to cooperate on logistics and supply chain issues.
5. Percentage of Bangladeshi companies in poultry sector willing to establish new business cooperation with Dutch partners is higher than in other agro-food subsectors.
6. Poultry processing companies in Bangladesh are most interested to cooperate on innovation, purchasing, food safety and relation management.

1.7 Doing Business in Bangladesh
According to the World Bank (2013), the ‘ease of doing business’ rank for Bangladesh in the year 2013 is 129 out of 185 economies. A high ranking means that the government has created a regulatory environment conducive to operating a business. Bangladesh (129) ranks higher than India (132) in the ‘ease of doing business’ index. The regional average of South Asia is 121. ‘Getting electricity’ (185) and ‘Enforcing contracts’ (182) scores low in Bangladesh. Bangladesh scores high in the category of ‘Protecting Investors’, namely 25. With regard to ‘Getting Electricity’, in 2012 the Government of Bangladesh hindered getting electricity by imposing a moratorium on new electricity connections from April 2010 to March 2011 due to an electricity shortage. The moratorium led to long delays for customers and has increased the time to obtain an electricity connection. In 2013, Bangladesh impeded getting electricity even more by requiring all customers to meet 7% of their electricity needs through solar energy, making it necessary to install solar panels. ‘Enforcing contracts’ further also scores low. To improve contract enforcement in lower-income countries, the judiciary must be improved.

At present most foreign companies doing business in Bangladesh do have the issue of social responsibility on the agenda. Creating awareness in Bangladesh and developing practical solutions plays an important role in promoting CSR. Developing a CSR policy seems wise for Dutch companies that are active or will become active on the market in Bangladesh. Such a CSR strategy can mitigate risks such as involvement with corruption, and can be developed conform guidelines developed by: OECD, MVO Nederland and the Netherlands Ministry of Foreign Affairs. Annex 3 includes the Nyenrode code of conduct that is recommended to take into consideration when entering the Bangladeshi market.

1.8 Business opportunities
Trade of agricultural products
- Import of shrimp from Bangladesh.
- Export of new seed varieties to Bangladesh (resistant to high salinity, heat, drought, rainfall).

Trade of processed food
- Import of Pangasius and Tilapia from Bangladesh.

Investment of machinery, technology and inputs for food supply chains in Bangladesh.
- Investment in local capacity to test soil and fodder.
- Investment in Bangladesh to produce cost effective irrigation pumps.
- Investment in transport facilities for the agro-food supply chain (for example for transport of semen).
Investment in food supply chains
  o Retail sector is expected to gain a higher market share by 2015, this development may create opportunities for investors in food supply chains.
  o Potential investors should challenge insufficient cold supply chain, sanitary water, warehousing and transport.

Consultancy - capacity building - public finance
  o Consultancy to agriculture financed by donor projects related to sustainable land and agriculture management.
  o Consultancy to agriculture financed by donor projects related to cow breed management and certified insemination system.
  o Consultancy to processing industry, financed by donor projects, related to essential business processes.
  o Government 2 Government: emergency and medical service with vaccination system.
  o Government 2 Government: capacity building related to disease management.
  o Knowledge 2 Knowledge: development of higher agricultural education.

Picture 1.2
2. Bangladesh

2.1 Introduction (Political and Social)
Bangladesh is a country in the south of Asia, it has a surface area of 144 thousand square kilometers (about four times bigger than the Netherlands) and a population of 160 million people which is still growing rapidly. This makes it one of the most densely populated areas in the world. Bangladesh has a young population, 34% is aged younger than 15, 61% between age 14 and 65 years and 5% is aged above 64 years. About 70% of the population is under 35 years. Due to its geographical location the country has a tropical climate; the inhabitants have to deal with natural influences such as monsoons, cyclones, droughts and floods. Bengali is the country’s main language but English is also commonly used. Bangladesh shares most of its border with India, only in the south-east it borders with Myanmar. It also has a coastal border at the Bay of Bengal. The national currency is the Taka. Most of the population is Muslim (90%), the second biggest religion is Hindu (9%). Since 1972 Bangladesh has established a parliamentary democracy. The two main political factions are the center-left Awami League (AL) and the center-right Bangladesh Nationalist Party (BNP). Since the last elections in 2008 the AL is the biggest faction and leads a parliamentary majority. Foreign policy will remain focused on improving economic and diplomatic ties with neighbors, namely India and China. Relations with India have improved in the last couple of years but the Bangladeshi government is careful not to allow improved relations with India to damage its ties with China.

2.2 Economic situation
The economy is showing an average growth of 6-7% in recent years (World Bank, 2013). The population is still expanding rapidly, even to an expected 169 million people in 2020. This demands improvements on a lot of problematic issues such as housing, infrastructure, food production, clean water and power supplies. Bangladesh’s domestic natural gas production can only meet 80% of the country’s energy demand, leading to power outages; petroleum imports have become essential. Although some efforts of improvement are made in the last years the country still cannot meet local demand. Main obstacles are a shortage of gas and the large number of old and inefficient power stations. A number of advances will be made, but electricity supplies are unlikely to improve significantly in the short term. There is great uncertainty about the volume of gas-reserves. Extracting these resources will require significant infrastructure investment. There remains a political preference to retain gas solely for the domestic market, while mismanagement of the gas sector via state-owned companies has contributed to a crippling domestic energy shortage.

Bangladesh remains one of the poorest and most densely populated countries in the world. 53% of Bangladesh’s rural population is classified as poor. Bangladesh’s weak infrastructure and public institutions, regular power outages and notorious and widespread corruption continue to obstruct stronger economic growth. The garment industry is at present the backbone of the country’s manufacturing industry. Related to labor conditions, development and implementation of a CSR strategy is important for further development of the sector. Textile and clothing exporters will continue to benefit from preferential EU import rules over the next years. Almost 80% of Bangladesh’s population lives in rural areas, with 54% (two-thirds of the total labor force) are employed in agriculture and the remainder in the rural non-farm (RNF) sector. Because the majority of the labor force is employed in agriculture this sector plays a key role in the overall economic performance. In 2012 the agricultural sector provides for 35% of the country’s GDP (World Bank, 2013). Due to Bangladesh’s low level of development, economic policy is oriented towards poverty alleviation by means of considerable subsidies aimed at the agricultural sector. Bangladesh is the world’s fourth-largest rice producer. Aided by favorable weather, output has been steadily growing although natural disasters as floods are a huge risk for the agricultural sector.
2.3 Trade and investment relation

2.3.1 Infrastructure
Bangladesh has three major seaports of which Chittagong is the largest and most important; it handles around 80% of total trade (Dun & Bradstreet country report 2011/2012). The port of Chittagong has significantly improved its competitiveness and efficiency relative to other ports in the region in terms of costs, vessel turn-around time and container handling productivity. Officials are expected to exploit Bangladesh’s strategically important location on the Bay of Bengal to extract concessions on trade and aid from both India and China during 2013-17. India has already shown interest in being allowed to use the Chittagong port for its trade.
Bangladesh has 16 airports, including two international airports (Chittagong and Dhaka). Owing to these current public infrastructure investments, capital goods imports have gained in importance.

2.3.2 Trade Environment - Transparency
One of the main obstacles to trade in Bangladesh is the continuing lack of transparency in policy and (trade) regulations. Furthermore continuing policy changes are not improving the conditions for entrepreneurs. Regulations are often unclear, inconsistent and implemented after long delays. In addition, current customs procedures leave significant scope for corruption. This not only increases uncertainty and the cost of trading with Bangladesh, but also ensures inefficient allocation of resources, preventing the country from benefiting fully from trade liberalization. Significant customs modernization is under way to facilitate speedy customs clearance through automation and to improve transparency. Import and export procedures have been further simplified by reducing the number of signatures needed for clearance of consignments and the frequency of inspection of goods.
Furthermore political instability and the violent strikes, together with the recent tragedies in the garment sector have a negative influence on the perception of the country.

2.3.3 Tariffs
Since January 2011 clothes and other finished goods made in Bangladesh (and other least developed countries) have been granted duty-free access to the EU if their imported components do not exceed 70% of the total value (GSP = Generalized System of Preferences of EU). Least developed countries (49 including Bangladesh) enjoy the open-ended Everything but Arms (EBA) scheme. They also benefit from the favorable GSP Rules of Origin scheme. Previously, duty-free access was granted only to goods with a maximum imported content of 30%. Textile exporters will continue to benefit from this preferential EU import rules system.

This change has given Bangladesh an advantage over its main competitors, notably China, Pakistan, India and Sri Lanka, as these countries’ goods are liable for duty in the EU owing to the fact that they are not classified by the UN as least developed countries. Bangladesh also gets GSP benefit in a number of countries like Canada, Japan, Norway, Switzerland, Australia and New Zealand and is now working with the government to get GSP for the Russian market. In addition to this, Bangladesh has a preferential market access in countries like China, India, Malaysia and South Korea. The country’s overall exports grew by 2.1% to 6.3 billion dollar during the first three months of financial year 2013 despite global weakness, particularly in the European Union and the United States which are the country's main export markets.

Bangladesh employs import duties which, designed to strengthen domestic production, provide new opportunities for industrialization, discourage the consumption of luxury goods and ensure a supply of essential goods for consumers. Duty rates tend to change on an almost annual basis in line with the government’s budget; which causes an unpredictable policy environment. Bangladesh also has a system of duty-free (bonded) imports of certain raw materials to be used for producing finished goods for export. A few items, mostly manufacturing inputs, are subject to rates ranging from 0-3%;
basic raw materials are subject to 0-5% as of fiscal 2009/10; intermediate products 12%; and finished products up to a rate of 25%. Ready-made garment manufacturers that are 100% export-oriented can import duty-free through bonded warehouses. Other export oriented industries and indirect exporters can claim a duty-drawback at stated rates. Goods imported by the government for the use of the Defense Services are exempt from import duties.

The South Asian Free-Trade Area (SAFTA) was established in 2006, with the first tariff reductions implemented in July 2006. Full liberalization among members, including a maximum 1-5% tariff band for the non-negative list, will apply from 2016.

2.3.4 Investment Climate
Bangladesh has one of the most liberal investment regimes in the region. Bilateral investment treaties for the promotion and protection of foreign investment exist with a number of countries, including the Netherlands. There are no distinctions between foreign and domestic private investors regarding investment incentives or export and import policies. The government’s eagerness to attract foreign investment is understandable, given the low level of capital mobilization in the country. Despite possessing an attractive investment regime, and relatively low labor costs compared to other countries in the region, Bangladesh has had difficulty in attracting foreign investments. The slow pace of reform implementation, endemic corruption, political instability, continual strike action, poor infrastructure, inadequate legal and judicial system, as well as slow government decision-making has hindered investment. Notably, six large-scale FDI proposals have been on hold for several years because of government indecision, and the country lacks a policy on coal and suffers from a chronic shortage of gas.

2.3.5 Bilateral trade between the Netherlands - Bangladesh
Trade relations between the Netherlands and Bangladesh range from agricultural products (food and live animals) and services (consultancy related to food safety issues) to industrial products (chemicals, machinery, manufactured, other miscellaneous). However, almost 85% of the exports to the Netherlands are garments in the textile and textile articles category. This reflects a poorly diversified Bangladeshi export sector (largely weighted towards Ready Made Garments, heavily exposed to Europe) leaving the country vulnerable to a further slowdown in global growth.

- In 2011 the Netherlands was the 7th export destination for Bangladesh (following: US / Germany / UK / France / Spain / Canada). 3% of total Bangladeshi export has the Netherlands as destination. Fish, crustaceans and mollusks are responsible for almost 10% of this export volume.
- In 2011 0,11% of total Dutch export has Bangladesh as destination. Edible animal products, dairy, honeys are the main agro-food products in this export flow.
- In 2011 the Netherlands was the 3rd largest investor in Bangladesh.
Considering the relative share of Bangladeshi products and services (compared to the shares of for example India) in Dutch total imports and exports it is fair to conclude that there is room for growth in the trade relations.

<table>
<thead>
<tr>
<th></th>
<th>Total (mln. US dollars)</th>
<th>% Netherlands share (mln. US dollars)</th>
<th>% Total NL value (mln. US dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BD</td>
<td>India</td>
<td>BD</td>
</tr>
<tr>
<td><strong>Imports (from)</strong></td>
<td>41.112</td>
<td>586.356</td>
<td>0.5% (219)</td>
</tr>
<tr>
<td><strong>Exports (to)</strong></td>
<td>25.823</td>
<td>441.138</td>
<td>3% (759)</td>
</tr>
<tr>
<td><strong>FDI – inflow</strong></td>
<td>1.136</td>
<td>31.554</td>
<td>10.3% (116.7)</td>
</tr>
<tr>
<td><strong>FDI – outflow</strong></td>
<td>9</td>
<td>14.752</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 2.1 BD total value of trade\(^1\) and investment (WTO, 2012)

<table>
<thead>
<tr>
<th>BD Import products</th>
<th>Global (general)</th>
<th>Netherlands (specific)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manufactures 59.8%</td>
<td>Machinery (31.7%)</td>
</tr>
<tr>
<td></td>
<td>Agricultural products 22.6%</td>
<td>Pharmaceutical products (8.5%)</td>
</tr>
<tr>
<td></td>
<td>Fuels and mining products 10.3%</td>
<td>Edible animal products, dairy, honey (7.1%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Optical, photo, technical, medical, etc. apparatus (7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Electrical, electronic equipment (6.5%)</td>
</tr>
<tr>
<td>BD Export products</td>
<td>Manufactures 93.6%</td>
<td>Textiles and articles (85%)</td>
</tr>
<tr>
<td></td>
<td>Agricultural products 5.2%</td>
<td>Fish, crustaceans, mollusks (9.6%)</td>
</tr>
<tr>
<td></td>
<td>Fuels and mining products 1.1%</td>
<td>Footwear (2.8%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tobacco and manufactured</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tobacco substitutes (1.2%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vegetable textile, woven fabric (0.8%)</td>
</tr>
</tbody>
</table>

Table 2.2 BD key trade commodities (WTO, 2012)

<table>
<thead>
<tr>
<th>Share in world trade (goods only)</th>
<th>Foreign Direct Investment in BD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export of BD</td>
<td>Import of BD</td>
</tr>
<tr>
<td>1. EU 27 (51.2%)</td>
<td>1. China (15.6%)</td>
</tr>
<tr>
<td>2. US (25.7%)</td>
<td>2. India (13.2%)</td>
</tr>
<tr>
<td>3. India (4.0%)</td>
<td>3. EU 27 (9.7%)</td>
</tr>
<tr>
<td>4. Canada (3.5%)</td>
<td>4. Kuwait (7.2%)</td>
</tr>
<tr>
<td>5. China (1.7%)</td>
<td>5. Indonesia (5.1%)</td>
</tr>
</tbody>
</table>

Table 2.3 BD key international partners (WTO, 2012)

\(^1\) Goods and services
### Export destinations for Bangladesh

<table>
<thead>
<tr>
<th>Export destinations for Bangladesh</th>
<th>In million US dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 USA</td>
<td>5.100</td>
</tr>
<tr>
<td>2 Germany</td>
<td>3.700</td>
</tr>
<tr>
<td>3 UK</td>
<td>2.500</td>
</tr>
<tr>
<td>4 France</td>
<td>1.400</td>
</tr>
<tr>
<td>5 Spain</td>
<td>1.200</td>
</tr>
<tr>
<td>6 Canada</td>
<td>993</td>
</tr>
<tr>
<td>7 Netherlands</td>
<td>759</td>
</tr>
<tr>
<td>8 Belgium</td>
<td>742</td>
</tr>
</tbody>
</table>

Table 2.4 The Netherlands is the 7th export destination for Bangladesh (following: US / Germany / UK / France / Spain / Canada) (WTO, 2012)

---

**2.4 Dutch business community BD**

In 2011, 59 Dutch companies were registered at the Embassy of the Kingdom of the Netherlands (EKN) compared to 20 in 2010. The above figures show that Bangladesh is as of yet not a prime destination for the Dutch business community. Various issues could be contributing factors, ranging from geographical market distance to the perceived ease of doing business with Bangladesh, as discussed above. It is as of yet difficult to substantiate this with research in the specific case of the bilateral Dutch-Bangladeshi trade. According to the Bangladesh Export Promotion Bureau, the largest amounts of export to the Netherlands other than RMG exports (Ready Made Garments) were in the frozen food sector (specifically shrimp and prawn). This does not differ from the general trade patterns between Bangladesh and the EU (as well as the US). The volume and direction of bilateral trade between the Netherlands and Bangladesh in the future will depend much upon how well Bangladesh can position itself to attract Dutch exports and investments.
3. Development of food supply chains in Bangladesh

3.1 Institutional setting
Bangladesh developed a comprehensive Country Investment Plan for agriculture, food security and nutrition (CIP). The CIP provides a coherent set of priority investment programs (twelve at this stage) to improve food security and nutrition in an integrated way. It is a comprehensive plan, that builds on the existing framework, reflects the Government’s investment priorities and aims to:

- plan and invest resources in a coordinated way.
- increase convergence and alignment of budget and external sources of funding and
- mobilize additional resources while proposing investments related to strengthening physical, institutional and human capacities in the field of agriculture, water management, fisheries, livestock, agricultural marketing, food management, safety nets, nutrition and food safety.

FAO supported the government of Bangladesh in the formulation of its National Food Policy and a Plan of Action (PoA) for 2008-2015. The PoA identifies relevant actors and suggests a set of policy targets and indicators to monitor progress in the implementation of the National Food Policy. Progress has been achieved in increasing rice production, in reducing the prevalence of malnourishment and in lowering the number of underweight children. The monitoring of the PoA identified several areas that require increased attention by the Government of Bangladesh (GoB) and international donors.

Bangladesh still needs to further increase and diversify agricultural output. To improve the availability of food, investments are needed to intensify and to diversify food production and to increase its sustainability. Support is needed for the adaptation to climate change and to develop agricultural marketing and infrastructure. Specific entry points for action include increasing research and extension capacities. Other priorities are developing programs on crop diversification and increasing funding to livestock and fisheries sectors, facilitating access to agricultural inputs and credit and ensuring that fertilizers and pesticides are used sustainably. Another important food security challenge is to increase the number of people who can access sufficient and nutritious food.

Investments to eradicate income poverty, with a particular emphasis on the most vulnerable groups, and improved risk management, will help increase and stabilize access to food. Among other things, this involves promoting income generation in rural areas by increasing access to markets, strengthening women’s access to productive assets, increasing value-addition, paying special attention to the development of micro-enterprises and reforming technical and vocational training to be more gender sensitive. In addition, safety net programs need to be expanded to the landless, marginal farmers and food insecure people in urban and disaster-prone areas. Diets in Bangladesh are highly unbalanced and diseases impair people’s ability to absorb nutrients from the food they eat. To improve nutrition, investments are needed to promote diversified food consumption. Market entry of enterprises into Bangladesh should be facilitated. With foreign investments food safety can be improved and nutrient deficiencies among women and children reduced. This requires strengthening health and nutrition programs by adopting life-cycle approaches in program design and implementation, and improving their targeting. Most critically, a nutrition focus needs to be mainstreamed within agriculture, health, safety nets and education policies and programs. Lastly, food security governance needs to be enhanced. This involves increasing human and institutional capacities to implement and coordinate food security interventions and to monitor the National Food Policy and its PoA by ensuring that the relevant data are available and easily accessible. The National Food Policy and PoA provide the reference policy frameworks for defining a comprehensive investment plan that is able to mobilize additional resources in the context of renewed international commitment to support food security, agriculture and nutrition. Fisheries, dairy, poultry and
horticulture are the most promising agriculture subsectors in Bangladesh. These sectors should be able to adapt to major weather fluctuations, and could be integrated into the existing agricultural practices.

3.2 Trends and developments in the retail sector

Bangladesh is a new player in the modern food retail. The term 'modern trade' is used to describe the super store business, as it is modern in comparison to the unorganized retail shops and the wet market. Market share of modern retail is only around 0.5% and is one of the smallest in the world. Modern retail can start form a 700 sq. ft. express outlet such as 7 Eleven to a 200,000 Super Center such as Wal-Mart. In between many formats are found and it is generally seen that company's focus on food and daily household requisition in the small formats up to about 10000 sq. ft. thereafter they start adding other departments such as apparels, shoes, consumer durables and furniture. The food based modern retail outlets in Bangladesh have not grown beyond 10,000 sq. ft.

Dhaka's first supermarket, Agora, opened in Dhanmondi, Dhaka in 2000. A couple of years later, competitors like Meena Bazar, Nandan and Shopno entered the market and soon enough, major cities like Chittagong and Khulna were also catered for by other companies. Bangladeshi consumers have learnt to accept fixed prices. Shopping in the supermarket still costs more than common market places. Some new modern consumers prefer to shop in a relaxed mood. There are currently 102 supermarkets across the country. It is the majority of the population who are not in an income bracket that allows them to afford supermarket prices, that keeps the industry from booming exponentially. The way the middle/higher classes shop has changed to reflect their fast-paced consumerist lifestyles, inevitable products of globalization and urbanization. In developed countries retail has a market share in excess of 80%. It is around 50% in Thailand and many far eastern countries and an estimated 15% in Sri Lanka.

Modern trade will also become a catalyst in improving the food supply chains in Bangladesh. The investments in cold storage, packaging, transport and quality improvement will create a more efficient supply chain that delivers better quality products. These investments will result in a better profit margin for the total value chain. As Bangladesh starts to invest in infrastructure and transport growth of the modern retail sector becomes eminent. At least, this pattern has been common in other countries. It is expected that supermarkets will have a turnover of 2.55 billion US dollar by 2021 with a yearly growth of about 30%.
3.3 Trends and developments in the livestock value chain

3.3.1 Introduction
Livestock is an important component of the socio-economic fabric of Bangladesh. This subsector of agriculture is integrated into the existing farming system and linked directly to crop production, fuel supply, nutrition, farmer’s income and welfare. Livestock contributes an estimate of 3% to the agricultural GDP and provides 15% of total employment in the economy. Besides commercial livestock about 75% of people in the rural areas rely on livestock (subsistence farming) to some extent for their livelihood, which clearly indicates that the poverty reduction potential of the livestock subsector is high.

Dairy generates regular cash income, provides nutritional security and creates more job opportunities in production, processing and marketing per unit value added than agriculture and crops. The livestock and poultry population of the country is very high and are mainly reared by small-scale farmers. Despite large numbers of cattle in Bangladesh, due to low yields, the current production of milk, meat and eggs is inadequate and does not meet the demand. The GoB has plans to increase livestock related products by 2.5 to three times by the year 2020 to feed the growing population in the country. Because of this reason the Bangladesh Country Investment Plan (CIP) stresses the importance of livestock development, with a focus on poultry and dairy production. Private companies like Bengal meat and BRAC Chicken in Bangladesh have up-to-date meat processing facilities.

![Picture 3.2]

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef and Veal - modeled</td>
<td>306,4</td>
<td>304,3</td>
<td>311,9</td>
<td>319,7</td>
<td>328</td>
<td>335,5</td>
</tr>
<tr>
<td>Poultry - modeled</td>
<td>170,6</td>
<td>177,3</td>
<td>206,7</td>
<td>240,2</td>
<td>277,1</td>
<td>317,3</td>
</tr>
<tr>
<td>Lamb, Mutton and Goat - modeled</td>
<td>81,5</td>
<td>81,2</td>
<td>83,7</td>
<td>86,4</td>
<td>89,3</td>
<td>92,1</td>
</tr>
<tr>
<td>Pork - modeled</td>
<td>73,5</td>
<td>74,1</td>
<td>75,6</td>
<td>77,2</td>
<td>78,9</td>
<td>80,4</td>
</tr>
</tbody>
</table>

Table 3.1 Market Sizes Livestock Bangladesh, total volume ,’000 tons
Euromonitor International 2013
### Table 3.2.1 Imported Meat, Trade Map (2012)

<table>
<thead>
<tr>
<th>Exporters</th>
<th>Imported value 2011 (USD thousand)</th>
<th>Trade balance 2011 (USD thousand)</th>
<th>Share in Bangladesh’s imports (%)</th>
<th>Trade balance 2011 (USD thousand)</th>
<th>Share in Bangladesh’s imports (%)</th>
<th>Share of partner countries in world exports (%)</th>
<th>Total export growth in value of partner countries between 2007-2011 (%, p.a.)</th>
<th>Ranking of partner countries in world exports</th>
<th>Total export growth in value of partner countries between 2010-2011 (%, p.a.)</th>
<th>Tariff (estimated) applied by Bangladesh (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>451</td>
<td>-451</td>
<td>41.6</td>
<td>26</td>
<td>-13</td>
<td>5</td>
<td>5.7</td>
<td>4</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>442</td>
<td>-442</td>
<td>40.7</td>
<td></td>
<td></td>
<td></td>
<td>52</td>
<td>0</td>
<td>17</td>
<td>n/a</td>
</tr>
<tr>
<td>Malaysia</td>
<td>73</td>
<td>-73</td>
<td>6.7</td>
<td>-37</td>
<td>60</td>
<td>0</td>
<td>28</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>53</td>
<td>-53</td>
<td>4.9</td>
<td>141</td>
<td>49</td>
<td>0.1</td>
<td>-1</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>24</td>
<td>-23</td>
<td>2.2</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td>4.2</td>
<td>3</td>
<td>n/a</td>
</tr>
<tr>
<td>USA</td>
<td>20</td>
<td>-20</td>
<td>1.8</td>
<td>29</td>
<td>400</td>
<td>1</td>
<td>13.3</td>
<td>13</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>18</td>
<td>-18</td>
<td>1.7</td>
<td>-3</td>
<td>29</td>
<td>46</td>
<td>0.1</td>
<td>13</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

### 3.3.2 Poultry

A considerable proportion of the growing population’s huge demand for protein is met by the supply of poultry products delivered at relatively low cost. Poultry micro-enterprises also contribute to the creation of employment opportunities for family members of the entrepreneur. Thus it helps to reduce unemployment in the country. It has been observed that almost every entrepreneur has employed at least two people other than one of their own family members, and more than ten people are employed in some enterprises. Proper planning for the development of the subsector would not only contribute to the food security of the country’s enormous population, but would also play an important role in reducing poverty through employment generation. Owing to their small size, poultry micro-enterprises are not expected to create much pressure on limited land resources. The possibility of risk to the environment, created by the activities of the poultry farms, is low, and waste from poultry farms can be recycled to produce biogas and fertilizer. Therefore, poultry enterprises help to maintain the quality of agricultural lands, and promote the environment to some extent. Generally, micro-enterprises in the country depend on the local markets to sell their products, and their products seldom reach even the markets of the capital city. However, commercial poultry enterprises have the opportunity to reach the consumer market in the capital city.
If necessary precautionary measures are taken to protect against the spread of diseases, as such there is potential for the poultry sector in Bangladesh. Figure 3.1 describes the poultry value chain. The figure presents the different organizations in the chain including the middle man, the production flows and the services produced and gives information on a) profitability of different parts of the supply chain and b) parts of the chain where potential malpractice are probably and where improvements could be realized. The poultry industry in Bangladesh is a significant player in the agricultural complex, with up to 80,000 poultry farms, up to 20 poultry feed factories and another 40-50 parent stock farms and hatcheries operating in the country. The industry employs 5 million people and provides 15% of total employment and contributes to the livelihoods of 75% of the population. Poultry production in Bangladesh has experienced very strong growth recently, driven by the increasing demand for meat as a result of better economic conditions in the country and higher disposable income. To 2016 17 BMI forecast production to rise 17.2% to 232,000 tons as avian flu outbreaks come under control.

<table>
<thead>
<tr>
<th></th>
<th>in tons</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td></td>
<td>198.000</td>
<td>204.000</td>
<td>210.000</td>
<td>218.000</td>
<td>225.000</td>
<td>232.000</td>
</tr>
<tr>
<td>Consumption</td>
<td></td>
<td>138.500</td>
<td>144.300</td>
<td>150.400</td>
<td>156.900</td>
<td>163.700</td>
<td>170.800</td>
</tr>
</tbody>
</table>

Table 3.2.2 Poultry production & consumption. BMI forecasts, 2013

The Breeders’ Association of Bangladesh has made repeated calls for a temporary ban on exports of domestically grown corn so as to protect poultry farmers in the country. Meanwhile, industry sources also have claimed that prices of feed have close to doubled recently.
The price of eggs and poultry in Bangladesh reportedly rose by 20-25% in June 2012 owing to the closure of more than 60% of the country’s poultry farms. As part of efforts to contain the spread of the avian influenza epidemic, which re-emerged in early 2011, the government has enforced the closure of up to 100,000 of 150,000 poultry subsistence farms.

### Table 3.3 Imported Poultry, Trade Map (2012)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>22</td>
<td>-22</td>
<td>100</td>
<td>5 Tons</td>
<td>4400</td>
<td>23</td>
<td>-8</td>
<td>-4</td>
<td>100</td>
<td>10</td>
<td>10</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Australia</td>
<td>15</td>
<td>-15</td>
<td>68.2</td>
<td>2 Tons</td>
<td>7500</td>
<td>37</td>
<td>-8</td>
<td>0</td>
<td>32</td>
<td>0.2</td>
<td>10</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Malaysia</td>
<td>5</td>
<td>-5</td>
<td>22.7</td>
<td>2 Tons</td>
<td>2500</td>
<td>0</td>
<td>52</td>
<td>0</td>
<td>41</td>
<td>0</td>
<td>41</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Singapore</td>
<td>2</td>
<td>-2</td>
<td>9.1</td>
<td>1 Tons</td>
<td>2000</td>
<td>-18</td>
<td>0</td>
<td>-33</td>
<td>41</td>
<td>0.1</td>
<td>-1</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

3.3.3 Dairy

There are more than 80,000 dairy farmers in Bangladesh. Currently most of the dairy cow farms are in the North-West of the country. However, there is also potential in the Kalaroa and the Sadar upazilla. Dairy farming in Bangladesh is practiced as: subsistence dairies, market oriented dairies and commercial dairies. About 68% of village families practice dairying as subsistence to cropping and a family on average produces 8.3 liter of milk in a week. Average daily milk production at subsistence dairies is about 1 liter per cow. The milk is marketed rurally and consumed at home. In Satkhira district, there are 2000 market oriented dairies, small holder farmers with 4-5 cows each. Milk producers in rural areas that are close to cities and towns get a higher price for their milk. Milk production cost is greatly influenced by productivity of the milking animal. The farming systems and areas where the productivity of animals is higher also have significantly lower cost of feeding as compared to the total income generated from dairying. In these areas the share of milk sold to processors is higher. Feed cost is the main component to the cost of milk production. Bangladesh is a milk deficit country and depends largely on dry milk imported in large quantities.
Figure 3.2 Value chain Dairy

Figure 3.2 describes the dairy value chain. The figure presents the different organizations in the chain including the middle man, the production flows and the services produced and gives information on a) profitability of different parts of the supply chain and b) parts of the chain where potential malpractice are probably and where improvements could be realized. Development of the dairy value chain could start with investments in high quality cows. Currently the market oriented Bangladeshi cow produces two liters/day; this could potentially become 20 liters/day. The BRAC institute is mainly involved in breed management. A breeding program, with BRAC as its beneficiary, could be developed to raise a higher quality level. BRAC offers different measurement of semen (e.g. 50 gm, 80 gm, and 100 gm) to farmers through motorcycle transporters who bring the semen in a closed freeze jar (contains four degree cc). These service providers are not employed by BRAC. The quality of the product cannot be guaranteed by BRAC: due to the fact that transporters need to refill Nitrogen gas for their portable freezers. This gas is not easy to access in the markets. Next the quality of the insemination can be improved. BRAC is not delivering the semen to the farmers and the farmers do not have skills themselves for insemination of their cows. The use of high quality feed could improve the productivity of the cows. Besides grass, cows do need supplements to become and stay healthy. Health service should be further developed for the farmers. The smallholder farmers lack the skills to do health monitoring and disease management of the cows themselves. Also the availability of vaccines is not yet sufficient. The milk which is produced is sold to middle men (carry boys) who pick up the milk and sell it to the milk processing companies. Often the middle men have a relatively big influence to bargain a low price for milk. Farmers are fully dependent, so they sell at relatively low prices or they sell directly to local communities. Cutting out the middle men could
create possibilities to introduce a better quality control of dairy products and could increase efficiency of the chain. In addition to these national issues, the commercial Bangladeshi dairy farmers have to compete against imported powder (milk). As a result milk prices can regularly decrease to less than 35 taka (US$ 0.51) per liter.

3.4 Trends and developments in the aquaculture value chain
The fisheries sector represents a significant portion of the national economy. The total production in 2009-10 supplied 58% of the total national animal protein demand. The present per capita annual fish consumption in Bangladesh stands at about 14 kg/year against a recommended minimum requirement of 18 kg/year; hence there is still a need to improve fish consumption in the country (FAO, 2012). The fisheries share in the GDP and value of the agricultural sector amounted to 3.7% and 22.2% respectively. Fish and shrimp are the third largest export item in Bangladesh (after RMG) and contributed 2.7% to the country’s total export. The fisheries sector is a major source of employment; about 10% of the total population (14.5 million) is directly or indirectly engaged in the fisheries sector for their livelihood. Among this group, around 1 million people are employed in the shrimp sector. It is becoming one of the most dynamic sectors of the economy. There are further opportunities to improve productivity of the value chain through adoption of improved technologies. Improvements are required throughout the chain and especially related to the quality of the products, environmental and food safety management. The local chain in Bangladesh consists of the fisherman, Chalani (transporter), Aratdars (wholesaler), Paiker (retailer) and finally the consumer. Both aquaculture and fishery production grows rapidly and total production increased from 1.6m tons in 2000 to more than 3m tonnes in 2010. Between 2000 and 2010 aquaculture production increased by 100% while capture fisheries increased by 60%. Although there is no single explanation for the increase in production, it may be partly due to the GoB’s emphasis on the importance of developing the fisheries sector to increase the supply of animal protein to its population. The most important export market for fishery products is the EU. While the share of the EU has increased, the share of the US has decreased drastically since 2004. The main reason for this shift in export markets is that since 2004 Bangladesh has been confronted with anti-dumping duties in the US, which made Bangladeshi shrimp less competitive in that market. Shrimp accounts for 80% of the total export value. Frozen and fresh fish account for 10%, while the remainder is accounted for by other products such as bivalves, squid and cuttlefish. Important to note is that currently all seafood exports receive a 10% export subsidy from the GoB. This has a large positive impact on the competitiveness of Bangladeshi seafood products.

Graph 3.1: Reported aquaculture production in Bangladesh (from 1950)
(FAO Fishery Statistic, 2012)
According to the EU, there are 75 EU-approved seafood export establishments in Bangladesh. The Bangladesh Frozen Foods Exporters Association (BFFEA) states that there are an additional 20-40 seafood-processing establishments that are currently not yet EU approved. Most seafood companies in Bangladesh are family owned and small or medium sized. EU-approved processing establishments are concentrated in Chittagong and Khulna. Furthermore, as can be seen in Table 2.1, there are a number of companies with processing and production facilities approved by the Aquaculture Certification Council (ACC) or Naturland. Interestingly, in 2011 only 37 exporters did business with the US.

3.4.1 Shrimp

Production
Production and export data for Bangladesh are scarcely available, and if available their quality is questionable. Nevertheless, although the figures differ slightly, data from the department of fisheries and the FAO give some insight into total shrimp production. The combined cultured and captured shrimp production in 2010 was between 168,000 and 184,000 tons. According to the FAO, the total production of cultured shrimp increased from 60,000 to 80,000 tons between 2000 and 2010 while according to the Department of Fisheries the total production of cultured shrimp even reached 96,000 tons in 2010. The two most important cultured species are Black Tiger shrimp (*Penaeus monodon*) and Giant River prawn (*Macrobrachium rosenbergii*). Although the production volume of Giant River prawn has increased and that of Black Tiger shrimp decreased, the latter still represents the largest share of production. Historical data for captured shrimp production is lacking but recent data shows that the total production was 88,000 tons in 2010.

![Figure 3.3 Value chain aquaculture](image)
Figure 3.3 describes the aquaculture value chain. The figure presents the different organizations in the chain including the middle man, the production flows and the services produced and gives information on a) profitability of different parts of the supply chain and b) parts of the chain where potential malpractice are probably and where improvements could be realized.

Over 40 different species of shrimp are captured, of which only two are regularly exported: Indian White shrimp (*Penaeus indicus*) and Speckled shrimp (*Metapenaeus monoceros*). The others are mostly consumed domestically.

**Exports**
The total value of shrimp exports from Bangladesh increased from 370m US$ in 2004 to 423m US$ in 2011. The EU share increased from less than 50% in 2004 to more than 75% in 2011. The US share decreased from almost 50% in 2004 to less than 20% in 2011.

While only 40% of captured shrimp is exported, 98% of Black Tiger and 90% of Giant River prawn is exported. For Giant River prawn the most common sizes are between 13 and 33 count per kg, for Black Tiger shrimp the most common sizes are between 34 and 54 count per kg. The relatively large size of Giant River prawn offers good market opportunities in high-end markets in the US and EU. Exported captured shrimp are much smaller on average. Captured shrimp are often used in the EU and US as an ingredient for salads and other pre-cooked meals. Approximately 50% of Black Tiger and Giant River prawn are exported as individually Quality Frozen (IQF) or semi-IQF and 50% as block frozen. Only approximately 25% of captured shrimp is exported as IQF or semi-IQF and 75% as block frozen. An increasing number of exporters, approximately 20-30%, are investing in value-adding machines, for cooking for example. It is estimated that the total export value is currently divided as follows: Black Tiger shrimp 70%, Giant River prawn 25% and wild shrimp 5%. Within the EU, the largest markets for Bangladeshi shrimp are Belgium, Germany and Great Britain.

**3.4.2 Frozen fish subsector**

**Production**
Total fish production from inland and marine fisheries and aquaculture in 2010 was approximately 2.7 million tons. Between 2000 and 2010 the total production from these sources increased from 1.5 million to 2.7 million tons. Both the production from capture fisheries and from aquaculture increased, but relatively the largest share of the increase originated from aquaculture. The production of cultured fish is concentrated around Dhaka, Chittagong, Rajshahi and Khulna. These four divisions represent 83% of Bangladeshi total fish production.

<table>
<thead>
<tr>
<th>Province</th>
<th>Total production (in tons)</th>
<th>Share of total production (%)</th>
<th>Area under cultivation (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barisal</td>
<td>67,629</td>
<td>6</td>
<td>33,318</td>
</tr>
<tr>
<td>Chittagong</td>
<td>222,747</td>
<td>18</td>
<td>67,658</td>
</tr>
<tr>
<td>Dhaka</td>
<td>419,978</td>
<td>34</td>
<td>97,075</td>
</tr>
<tr>
<td>Khulna</td>
<td>144,914</td>
<td>12</td>
<td>48,458</td>
</tr>
<tr>
<td>Rajshahi</td>
<td>232,053</td>
<td>19</td>
<td>64,435</td>
</tr>
<tr>
<td>Rangpur</td>
<td>78,788</td>
<td>7</td>
<td>29,98</td>
</tr>
<tr>
<td>Sylhet</td>
<td>53,627</td>
<td>4</td>
<td>30,385</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,219,736</strong></td>
<td><strong>100</strong></td>
<td><strong>371,309</strong></td>
</tr>
</tbody>
</table>

*Table 3.4 Cultured fish production in BD divisions in 2010*
Frozen fish has traditionally been the most important export product, but exports of fresh fish have increased rapidly and now represent an equal share to that of frozen fish. As already mentioned, value-added products such as fillets only represent a minor part of the total export value. The total export value of frozen fish in 2011 was more than USD 80m. For frozen fish the most important markets are the UK, Saudi Arabia, the US and to some extent Italy and China. For fresh fish the most important markets are India, China, Germany and Oman. According to exporters and sector representatives, the processing categories exported are whole fish (40%), fillets (5%), slices (20%) and deveined headless and tailless (35%). This indicates that Bangladeshi frozen and fresh fish is currently mostly destined for low-value market segments. Although it is not clear how many companies exported frozen fish to the EU, in 2011 there were only 12 companies that exported fish to the US. It is uncertain if these are the same companies that exported frozen fish to the EU. The companies that exported frozen fish to the US in 2011 are listed below: Anraj Fish Products Industries, Blue Water Seafood, Fresh & Green Frozen Foods, Fresh Foods Limited, Frozen Foods Limited, Kuliarchar Cold Storage, Masala Traders, Rosemco Foods Limited, Rupsha Fish and Allied Industries, Sat & Co Limited, Seamark Limited and Ser & Co Limited.

<table>
<thead>
<tr>
<th>Exporters</th>
<th>Imported value 2011 (USD thousand)</th>
<th>Trade balance 2011 (USD thousand)</th>
<th>Share in Bangladesh's imports (%)</th>
<th>Import growth in value between 2007-2011 (% p.a.)</th>
<th>Import growth in value between 2010-2011 (% p.a.)</th>
<th>Exporter ranking in world exports</th>
<th>Share of partner countries in world exports (%)</th>
<th>Total export growth in value of partner countries between 2007-2011 (% p.a.)</th>
<th>Tariff (estimated) applied by Bangladesh (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>9305</td>
<td>649430</td>
<td>100</td>
<td>38</td>
<td>-25</td>
<td>100</td>
<td>9</td>
<td>100</td>
<td>21</td>
</tr>
<tr>
<td>India</td>
<td>7112</td>
<td>80453</td>
<td>76.4</td>
<td>48</td>
<td>-17</td>
<td>7</td>
<td>3.4</td>
<td>21</td>
<td>n/a</td>
</tr>
<tr>
<td>Pakistan</td>
<td>595</td>
<td>-575</td>
<td>6.4</td>
<td>304</td>
<td>-55</td>
<td>49</td>
<td>0.3</td>
<td>11</td>
<td>n/a</td>
</tr>
<tr>
<td>Netherlands</td>
<td>486</td>
<td>38932</td>
<td>5.2</td>
<td>304</td>
<td>-55</td>
<td>7</td>
<td>3</td>
<td>4</td>
<td>n/a</td>
</tr>
<tr>
<td>USA</td>
<td>416</td>
<td>66824</td>
<td>4.5</td>
<td>17</td>
<td>-65</td>
<td>3</td>
<td>5.3</td>
<td>6</td>
<td>n/a</td>
</tr>
<tr>
<td>Germany</td>
<td>209</td>
<td>59757</td>
<td>2.2</td>
<td>19</td>
<td>1.7</td>
<td>19</td>
<td>1.7</td>
<td>11</td>
<td>n/a</td>
</tr>
<tr>
<td>Thailand</td>
<td>126</td>
<td>2332</td>
<td>1.4</td>
<td>46</td>
<td>-38</td>
<td>9</td>
<td>3.2</td>
<td>6</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Table 3.5 Imported Fish and Aquaculture, Trade Map (2012)
3.5 Trends and developments in the fruit and vegetable value chain

Consumption of fruit and vegetables is currently far below the recommended daily intake. Vegetable production provides only 40g of the recommended daily intake of 200g per person and fruit production provides only 34g toward the daily requirement of 75g per person (Care & Solidaridad, 2012).

Only people from a high-income group generally consume litchi, orange, apple, pear and grapes. Furthermore retail and processing of fruit and vegetables are not yet organized.

Picture 3.2

Purchasing fruit and vegetables directly from the grower at a fair price and eventually cut out middlemen would increase the efficiency of the supply chain. Next cold storage and smart logistics have to be introduced to secure the quality of the crops until consumption.

Local vegetable and fruit production is underdeveloped. Increasing production could contribute to a better nutrition and to development of the rural economy. At present the productivity in horticultural crops in comparison to rice is lower in Bangladesh.
Figure 3.4 Value chain fruit & vegetables

Figure 3.4 describes the fruit and vegetable value chain. The figure presents the different organizations in the chain including the middle man, the production flows and the services produced and gives information on a) profitability of different parts of the supply chain and b) parts of the chain where potential malpractice are probably and where improvements could be realized.

Considering the nutritional need of people, the daily requirement of vegetables for a person is 220g (Rashid, 2009). This suggests the need of about 11.051 thousand tons of vegetables in the country for the year 2010-11. Based on the projected population and daily requirement of vegetables for a person, a supply of about 13.985 thousand tons of vegetables will be needed for the year 2031 (table 3.6). As probably it is not possible to increase the production of vegetables up to that level due to a limitation in land availability and other practical reasons, prices will rise. Efforts should be made to minimize the gap between the present level of production and demand through research efforts leading to an increase in yield per unit area. As with all other crops, the well-recognized tools for increasing the yield per unit area are use of improved varieties, high quality planting material and modern technology of production covering optimal soil management, plant density, plant nutrients, irrigation, disease management and pest control (Siddique & Azad, 2010).
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (million)</td>
<td>142,6</td>
<td>151,41</td>
<td>171,71</td>
<td>191,6</td>
</tr>
<tr>
<td>Production of vegetables (thousand tons)</td>
<td>2047</td>
<td>2047*</td>
<td>2047*</td>
<td>2047*</td>
</tr>
<tr>
<td>Demand for vegetables based on nutritional requirement (thousand tons)**</td>
<td>10408</td>
<td>11051</td>
<td>12533</td>
<td>13985</td>
</tr>
<tr>
<td>Production and demand gap for vegetables (thousand tons)</td>
<td>8361</td>
<td>9004</td>
<td>10486</td>
<td>11938</td>
</tr>
</tbody>
</table>

Table 3.6 Projected demand for vegetables in Bangladesh on the basis of projected population by the year 2030-31 (Considering the level of production same as of 2006-07; **Considering 220 g/head/day)

More than 90 vegetables and 60 fruit varieties can be grown in Bangladesh. Only a few are grown commercially. This is largely due to the fact that on average growers lack essential knowledge and that means to invest in smart adaptive technologies are lacking.

Development of the value chain will be a major challenge. With relatively small investments post harvest losses could be reduced. Further improvements can be realized by using seeds that are customized to the local environment and climate. These seeds can be grown in nurseries to the level of seedlings. Growers can purchase these seedlings that have a higher survival rate in the field.

The salinity of surface water, in combination with the irrigation systems, is something else that must be dealt with. Seed varieties and plants that could grow in saline soil could probably provide a step forward for horticulture in Bangladesh. Other challenges to deal with are heat, drought, heavy rainfall and the lack of credit to invest in horticulture.

To realize a more protected horticulture growers need technology and training. Expertise related to soil quality, using (organic) fertilizers, crop rotation and mechanization possibilities should be improved.

![Picture 3.3](Photographs copyright of Bangladesh Positive Light Photography)
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>4887</td>
<td>-3583</td>
<td>100</td>
<td>7828 Tons</td>
<td>624</td>
<td>25</td>
<td>-13</td>
<td>79</td>
<td>100</td>
<td>19</td>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>India</td>
<td>4497</td>
<td>-4497</td>
<td>92</td>
<td>7550 Tons</td>
<td>596</td>
<td>24</td>
<td>-13</td>
<td>75</td>
<td>13</td>
<td>2.1</td>
<td>9</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>290</td>
<td>-290</td>
<td>5.9</td>
<td>149 Tons</td>
<td>1946</td>
<td></td>
<td>233</td>
<td>11</td>
<td>2.8</td>
<td>27</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pakistan</td>
<td>59</td>
<td>-59</td>
<td>1.2</td>
<td>98 Tons</td>
<td>602</td>
<td>193</td>
<td>110</td>
<td>11</td>
<td>35</td>
<td>0.2</td>
<td>27</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>41</td>
<td>-41</td>
<td>0.8</td>
<td>31 Tons</td>
<td>1323</td>
<td>-11</td>
<td>15</td>
<td>28</td>
<td>2</td>
<td>12.3</td>
<td>24</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.7 Imported Fruit, Trade Map (2012)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2365</td>
<td>13261</td>
<td>100</td>
<td>5751 Tons</td>
<td>411</td>
<td>-14</td>
<td>-34</td>
<td>1113</td>
<td>100</td>
<td>4</td>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>India</td>
<td>2330</td>
<td>-2330</td>
<td>98.5</td>
<td>5722 Tons</td>
<td>407</td>
<td>-16</td>
<td>-36</td>
<td>1485</td>
<td>20</td>
<td>0.9</td>
<td>16</td>
<td>23.8</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>29</td>
<td>-29</td>
<td>1.2</td>
<td>26 Tons</td>
<td>1115</td>
<td>-8</td>
<td>-12</td>
<td>-36</td>
<td>21</td>
<td>0.9</td>
<td>-2</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>6</td>
<td>9199</td>
<td>0.3</td>
<td>3 Tons</td>
<td>2000</td>
<td></td>
<td>42</td>
<td>0.2</td>
<td>9</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.8 Imported Vegetables, Trade Map (2012)
4. Interviews in the agro food chain in Bangladesh

To analyse the agro food value chains in Bangladesh, Nyenrode Business University carried out a market research on location in the country. A total of 14 prominent companies have been visited in the framework of this research, and 14 of their representatives have been interviewed in this regard. These participating companies are frontrunners in their field and active in different part of the value chain, from producing, manufacturing, logistics to marketing.

4.1 Set up of the interviews in Bangladesh

When speaking of food security for Bangladesh, the focus of policy makers and NGO’s is often on “small-holder” or “subsistence” farmers. This is typically a farmer that tries to provide for the own livelihood by the food that is harvested from their small plot of land, but often no surplus is produced. Therefore, there is little to no connection to local markets. The purpose of this study is to identify the demand for expertise and products of large scale and small investor farmers, processing industry and retail, as well as to see if these Bangladeshi companies are willing to develop cooperation with Dutch companies. This cooperation could be developed business 2 business or via a public private partnership. Dutch companies need commercially viable counterparts in Bangladesh in order to get business going.

![Figure 4.1 Models of farming systems](source: Brugger, J.A., G. Escobar (2002))
A subsistence farmer often lacks the assets (capital, land, knowledge) to be successfully involved in such a form of cooperation. Therefore the focus of this research is on enterprises that have assets and are connected (and oriented) towards national (or even international) markets. In the value chain these are the small investor farmers, larger farmers and the frontrunners in processing, logistics and marketing.

The fourteen surveyed companies in the agro food value chains represent the following four subsectors:

1. Livestock Dairy.
2. Livestock Poultry.
3. Aquaculture.
4. Fruit & Vegetables.

These companies received three questions related to the following business processes:

- Purchasing.
- Operational logistics.
- Supply chain management.
- Efficient use supplies.
- Use of water, energy and raw materials.
- Use of ICT.
- Innovation.
- Food safety.
- Relation management.
- Marketing.
- Selling on local markets.
- Selling on international markets.
- Create fair, safe and motivating labor conditions.

**Question 1:** With regard to supply chain standards in Bangladesh and available expertise, innovation and technology, to what extent has your company managed to organize the essential business processes. (Scale 1 to 10)

**Question 2:** To what extent could new industry expertise, innovation, methods, practical know-how, technology, machines and modern appliances help the company to manage the essential business processes. (Scale 1 to 10)

**Question 3:** Would you be interested to meet Dutch companies which are either specialized agro supply chain consultants, or providers of inputs, machines, technologies or other services that can help the company to improve the management of the business processes. (Yes or No)

Enclosed the questionnaire in appendix 2.
4.2 Results of interviews the agro-food value chain

The red bars in graph 4.1 indicate the opportunities that the representatives of the companies interviewed see to improve their business processes. The representatives have been asked to what extend new industry expertise, innovation, methods, practical know-how, technology, machines and modern appliances could help their company to improve different essential business processes. Next, the green bars indicate the willingness to set up new business contacts with Netherlands companies. In aquaculture and poultry sector Nyenrode found most willingness to set up new business contacts with Dutch companies.

![Graph 4.1](image)

**Graph 4.1**

Nyenrode Business University interviewed 14 frontrunners. Most of these companies already have international business contacts and are only interested in new contacts in case they see a clear added value. Some of these Bangladeshi companies have some further demand to cooperate with Dutch companies; this demand is very focused and specific and will be elaborated on in the following paragraphs.

**Optimize purchasing**

![Graph 4.2](image)

**Graph 4.2**

Companies interviewed in the dairy and fruit & vegetables sectors showed no willingness to cooperate with a Dutch partner on the optimization of purchase. In poultry and aquaculture Nyenrode research found some willingness to cooperate related to purchase issues.
Optimize operational logistic processes with suppliers and clients

Companies interviewed in dairy, fruit and vegetable sector indicated operational logistics as one of the business processes they manage the worse.

Graph 4.3

These companies interviewed also have a high willingness to cooperate with Dutch companies on ‘operational logistics’. Companies interviewed in fruit and vegetable sector were keen on developing a partnership on ‘operational logistics’. Companies in the poultry sector showed lesser interest to cooperate on ‘operational logistics’ with a Dutch company.

Optimize supply chain management (incl. quality of distribution)

In the poultry sector the companies interviewed valuated supply chain management as their business process that has the lowest level of development. The dairy sector showed a relative high score on willingness to cooperate with a Dutch partner on supply chain management.

Graph 4.4
Sustainability: efficient use supplies, water, energy and raw materials

Graph 4.5

None of the 14 companies were interested in cooperation with a Dutch company on the efficient use of supplies, water, energy and raw materials. Companies interviewed in the fruit and vegetable sector also indicated that they do not see so many opportunities to use supplies, water and energy more efficiently. It could be that the companies interviewed do not give priority to sustainability because enforcement of environmental policy is weak in Bangladesh and they most probably do not see the direct economic benefits of producing more sustainably.

Efficient use of ICT for process management

The companies in Bangladesh indicated that they are capable of using ICT for process management, they valuated the use of ICT as the business process they manage the best.

Graph 4.6

The 14 companies interviewed had no specific interest to cooperate with Dutch companies on ICT related issues.
Innovate product assortment

The companies interviewed indicated innovation as business processes where they could realize major improvements. Product innovation is also the business process with the highest overall score in willingness to cooperate with a Dutch company.

Graph 4.7

Comply with food safety regulations

The 14 companies indicated they are very capable of complying with current food safety regulations. This is interesting as a lot of analysis on value chains in agro food points out that this topic must be improved. The companies interviewed showed very low willingness to cooperate with a Dutch partner on food safety.

Graph 4.8
Optimize relation management system

Companies active in the dairy sector indicated that their relation management system is not so well developed. Companies active in Aquaculture are interested to improve their relation management to serve national (and international) markets.

Graph 4.9

Optimize marketing strategy

Again the current valuation of a business process does not really show a big difference between the surveyed sectors. All the sectors score within a 3% range of the average 65%. The average amount of opportunities on developing an adequate marketing strategy is 78%. Of all the business processes the Bangladeshi companies think this is the one with the highest amount of opportunities. The Fruit and Vegetable sector has a rating of 83%, Aquaculture 80%, Poultry 79% and Dairy 75%. The Dairy sector has the lowest score but this 75% still means it is one of the business processes with the highest opportunity score in the Dairy sector.

Graph 4.10

Although developing an adequate marketing strategy is the business process with the highest opportunity rating, it is not one of the main processes where the Bangladeshi companies think they need a Dutch partner. Bangladeshi companies in the dairy and fruit and vegetable sectors are not interested at all. Companies active in poultry and aquaculture showed some interest.
Optimize selling on local markets

Companies in the dairy sector indicated that their selling processes on local markets are not so well developed, and there are good opportunities to realize improvements here.

![Graph 4.11](image)

These opportunities aren’t followed by a high willingness to cooperate with Dutch companies to develop selling channels in Bangladesh. The Bangladeshi companies interviewed do not see an added value of Dutch enterprises on this topic.

Optimize selling on international markets

Selling on the international market is the least valued business process. Developing this process seems especially important for Aquaculture.

![Graph 4.12](image)
Create fair, safe and motivating labor conditions

The Bangladeshi companies involved in the survey do not see any opportunities to improve labor conditions.

Graph 4.13

The 14 companies interviewed had no specific interest in a conjunction to a Dutch partner in this field.

Picture 4.1 (Photographs copyright of Bangladesh Positive Light Photography)
5. Interviews with Dutch companies – market entry Bangladesh

Nyenrode Business University carried out a market entry survey in the Netherlands. 16 companies interested in the Bangladeshi market were questioned about relevant aspects related to market entry. To understand the needs of the Dutch companies and perceived challenges, the team designed a questionnaire. This questionnaire consisted of 13 multiple choice questions and to get deeper insights the choices were required to be measured on a scale from 1 to 10.

The companies interviewed delivered products or services to the following supply chains:
- Livestock Poultry: 9 companies.
- Livestock Dairy: 6 companies.
- Aquaculture: 6 companies.
- Fruit and Vegetables: 6 companies.

The Dutch companies looking for business to business (B2B) relations indicated that ‘trade relations’ and ‘turnkey projects’ are their preferred business structures.

Picture 5.1 (Photographs copyright of Bangladesh Positive Light Photography)
Why is your company interested in the Bangladeshi market?

First the companies were asked if they were interested in doing business in Bangladesh.

The main driver for companies looking for private clients in Bangladesh is market expansion, followed by the aim to contribute to the development of Bangladesh.

The main driver for companies looking for public assignments in Bangladesh is the aim to contribute to the development of Bangladesh, followed by market expansion.

Graph 5.1
How does your company distinguish itself from its competitors on the Bangladeshi market?

The Dutch companies looking for public assignments rated quality, innovation and service as their competitive assets. These companies also indicated that they cannot really distinguish themselves on the markets via their networks.
With regard to entering a new Bangladesh market, to what extent is your company prepared for the following?

At first the companies were asked if they were interested in entering or further expand their activities on the Bangladeshi market. Five companies indicated to be more interested to acquire public assignments, for eight companies B2B relations are more important. Three companies are interested in both market segments. They were asked to rate their degree of preparedness on eight different areas.

Companies interested in the public sector rate their knowledge about the donor programs as their best-prepared subject. These companies also indicated that they have not so much information on their competitors, the market and about local regulations. For the agro-food sector Nyenrode identified two main public programs that could be of interest for the Netherlands private sector: 1) The FAO improving food safety and 2) the SAFAL partnership on value chain development in aquaculture, livestock and horticulture.

The companies interested in developing business with private sector rate their marketing strategy as most prepared. Information about competitors seems to be their least prepared area.

Graph 5.3
What are the hurdles and risks delaying your entry into Bangladesh?

We asked the companies interested in Bangladesh what they see as hurdles and risks to enter the Bangladeshi market. For the companies looking for donor projects lack of market information, local partnership and financial constraints have been indicated as the main hurdles.

In the private sector lack of market information is indicated as the main hurdle.

Graph 5.4

Picture 5.1 (Photographs copyright of Bangladesh Positive Light Photography)
6. Doing business in Bangladesh

6.1 The ease of doing business

A part of how to do business in Bangladesh is related to ‘the ease of doing business’ as measured by the World Bank in *Doing Business. Measuring Business Regulation* (2013). According to the World Bank, the ‘ease of doing business rank’ for Bangladesh in the year 2013 is 129 out of 185 economies. Change in rank in relation to the year 2012 is minus 5, as Bangladesh ranked 124 in 2012. Bangladesh ranks higher than India. India scores an average of 132 as Bangladesh scores 129 out of 185. Regional average of South Asia is 121. Globally, Bangladesh stands at 95 in the ranking of 185 economies on the ease of starting a business.

<table>
<thead>
<tr>
<th>Topic Rankings</th>
<th>DB 2013 Rank</th>
<th>India DB 2013 Rank</th>
<th>Regional Average South Asia DB 2013 Rank</th>
<th>DB 2012 Rank</th>
<th>Change in Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting a Business</td>
<td>95</td>
<td>173</td>
<td>86</td>
<td>89</td>
<td>-6</td>
</tr>
<tr>
<td>Dealing with Construction Permits</td>
<td>83</td>
<td>182</td>
<td>111</td>
<td>83</td>
<td>No change</td>
</tr>
<tr>
<td>Getting Electricity</td>
<td>185</td>
<td>105</td>
<td>128</td>
<td>185</td>
<td>No change</td>
</tr>
<tr>
<td>Registering Property</td>
<td>175</td>
<td>94</td>
<td>121</td>
<td>175</td>
<td>No change</td>
</tr>
<tr>
<td>Getting Credit</td>
<td>83</td>
<td>23</td>
<td>96</td>
<td>80</td>
<td>-3</td>
</tr>
<tr>
<td>Protecting Investors</td>
<td>25</td>
<td>49</td>
<td>82</td>
<td>24</td>
<td>-1</td>
</tr>
<tr>
<td>Paying Taxes</td>
<td>97</td>
<td>152</td>
<td>115</td>
<td>95</td>
<td>-2</td>
</tr>
<tr>
<td>Trading Across Borders</td>
<td>119</td>
<td>127</td>
<td>131</td>
<td>120</td>
<td>1</td>
</tr>
<tr>
<td>Enforcing Contracts</td>
<td>182</td>
<td>184</td>
<td>136</td>
<td>182</td>
<td>No change</td>
</tr>
<tr>
<td>Resolving Insolvency</td>
<td>119</td>
<td>116</td>
<td>103</td>
<td>116</td>
<td>-3</td>
</tr>
</tbody>
</table>


The lowest ranks for Bangladesh are ‘getting electricity’ (185) and ‘registering property’ (175), which means registering and transferring property. ‘Enforcing contracts’ (182) also scores low. With regard to ‘enforcing contracts’ *Doing Business* has measured the efficiency of the judicial system in resolving commercial disputes before local courts. Access to reliable and affordable electricity is vital for businesses. Globally, Bangladesh stands at 185 in the ranking of 185 economies on the ease of getting electricity. In 2011, the GoB decided to stop providing new gas connections to industries due to the shortage of gas in domestic use and electricity generation. This decision is still valid. Bangladesh scores high in the category of ‘protecting investors’, namely 25. India scores 49 and the regional average of South Asia if 82. Investor protection matters for the ability of companies to raise the capital they need to grow, innovate, diversify and compete. *Doing Business* measures the strength of minority shareholder protections against directors’ use of corporate assets for personal gain - or self-dealing.
6.2 Business Etiquette

Part of doing business is related to business etiquette and cultural differences. What are local manners? The success of doing business in Bangladesh partly depends on how foreign entrepreneurs are capable of adapting to the Bangladeshi business culture. Although there are no official regulations for this, it can help to pay attention to the following aspects.

- An adequate personal contact is very important for maintaining business contacts. To realize and maintain this personal contact, meetings outside the office, lunches/dinners, are highly appreciated.
- Hierarchy is important in Bangladeshi society and differences in age and status are observed through language conventions. Individuals with higher status are not addressed by personal name; instead a title or kinship term is used.
- Be on time, even if you have to wait for a while.
- It is common use to shake hands. Men do not shake hands with women, unless the woman takes the initiative. Otherwise it’s acceptable to nod.
- Always use the right hand when shaking hands and accepting business cards, as the left hand is considered as unclean. Bring a lot of business cards, as these are commonly exchanged.
- Do use titles wherever possible, such as “Professor” or “Doctor”. If your Bangladeshi counterpart does not have a title, use ‘Mr.’, ‘Mrs.’, or ‘Miss’.
- If you are not certain who is in charge, the best advice is to turn to the eldest person within the company.
- Usually, business meetings start off with small talk. Sometimes, in these first meetings, the actual business is not even discussed. It is important to establish a personal relationship before embarking on business related talks.
- Agendas are not set and negotiations can take a long time.
- Bangladeshi do not like to say ‘no’, instead they use expressions such as ‘maybe’ or ‘that might be difficult’ or ‘we shall try’.
- It is not common to bring personal gifts, however, presents given to business acquaintances is appreciated.
- In same-sex conversation, touching is common and individuals may stand or sit very close. The closer individuals are in terms of status, the closer their spatial interaction is.
- Face and self-esteem is an essential part of Bangladeshi culture, therefore any individual criticism in business situations must be done carefully and with sensitivity.
- When invited to a meal, do not start eating until the oldest person at the table begins.
- Don’t refuse any food or drink offered to you during business meetings as this may cause offence.

6.3 CSR and doing business in Bangladesh

Dutch companies should consider preparing a strategy related to Corporate Social Responsibility (CSR) before entering the market in Bangladesh. Such a strategy can be developed conform guidelines developed by: OECD, MVO Nederland and the Netherlands Ministry of Foreign Affairs. Please find enclosed the Nyenrode code of conduct (annex 3). The sources mentioned in annex 3 can be found at: http://www.nbbt.org. Developing such a strategy and working accordingly can avoid involvement with for example corruption issues.
Annex 1: Sources

Articles

Websites
- Sustainable Match 2013: PRAN Dairy. [http://www.youtube.com/watch?v=FxcAug9f1_s](http://www.youtube.com/watch?v=FxcAug9f1_s)
- Sustainable Match 2013: Lalteer Seed, [http://www.youtube.com/watch?v=TZxMTzryO3c](http://www.youtube.com/watch?v=TZxMTzryO3c)
Reports
- Dun & Bradstreet country report 2011/2012.

Persons interviewed for market entry survey
- Bosmans N, Dienst Landelijk Gebied.
- Boudewijn R, Ecorys Academy.
- Brouns B, projectadviseur PSI Bangladesh, NL EVD Internationaal Agentschap NL.
- Buisman J, informatie specialist, Team Digitale Media en Informatie, Agentschap NL.
- Canrinus AA, CAH Vilentum Dronten.
- Grunstra D, Froconsur BV.
- Hak J, Qua ter nes BV.
- Haringsma H, Unilac Holland BV.
- De Jong M, AgriWorks.
- Van Middelkoop M, Incluvest.
- Neeve S, Ministerie EZ.
- Van Oorschot A, Tindercapital Bangladesh Limited.
- Penduff J, ISA HENDRIX GENETICS.
- Rothuis A, IMARES-Wageningen UR.
- Schipper E, Control Union Certification.
- Schouls A, BanglaDutch Developments Ltd.
- Schrijver R, VetEffect.
- Van Tilburg S, Ministerie EZ.
- Ybema M.S, Sustainovate AS.

Companies visited for research agro food value chain
- ACI Godrej Agrovet Private Ltd (ACI Group): Hatchery DOC, Breeding farm, Feed mill for poultry, fish, cattle and shrimp feed.
- LAL Teer Livestock Ltd (Multimode Group): Animal breeding, Production of milk, Production of meat, Animal feed.
- Shushima Feed & Hatchery Ltd (SMAH Group): Hatchery DOC, Feed mill for poultry and fish
- Paragon Agro LTD (Paragon Group): Hatchery DOC, Breeding broiler and layer chicken, Table eggs, Feed mill for poultry, floating fish, sinking fish, shrimp and cattle beef fattening.
- Bengal Meat: Slaughterhouse, Boner room for cattle beef, sheep and goat, Processed chicken, Life stock and fodder.
- PRAN Dairy Ltd (PRAN-RFL Group): UHT milk and flavored milk, Fresh milk and flavored milk, Ghee and butter oil, Juices, Dairy hubs.
- Kazi Farms Ltd (Kazi Farms Group): Hatching DOC, Breeding broiler grand parent chicken, Feed mill for poultry broiler and layer.
- Rangpoor Dairy (Food Products Ltd): UHT milk and flavored milk, Fresh milk and flavored milk, Ghee and butter oil, Candy products.
- C.P Bangladesh CO (CP Group): Poultry feed production, Poultry feed breeding, Chicken meat processing, Ready to cook and eat chicken.
- AFTAB Feed products (AFTAB Group): Processed chicken, Processed chicken products.
- Golden Harvest Agro (Golden Harvest Group): Seafood and fish processing and freezing, Vegetables processing and freezing, Processing of ready to cook and eat frozen snacks.

Picture 7.1
Annex 2: Questionnaire used for interviews in Bangladesh

<table>
<thead>
<tr>
<th>Name and contact details Company</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name and position interviewed Company Representative</td>
<td></td>
</tr>
<tr>
<td>Short description of Company, supply chain and activities</td>
<td></td>
</tr>
</tbody>
</table>

The answers for question 1 & 2 are a numbers on a scale from 1 to 10
The answers for question 3 is Yes or No

<table>
<thead>
<tr>
<th>QUESTION 1</th>
<th>SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>With regards to supply chain standards in Bangladesh and available expertise, innovation and technology, to what extend has your company managed to:</td>
<td>1 - Not Optimal 10 - Optimal</td>
</tr>
<tr>
<td>a) optimize the purchasing</td>
<td>a)</td>
</tr>
<tr>
<td>b) optimize its operational logistics process with suppliers and clients</td>
<td>b)</td>
</tr>
<tr>
<td>c) set up adequate supply chain management - (o.a this concerns the quality of distribution)</td>
<td>c)</td>
</tr>
<tr>
<td>d) sustainability: efficient use supplies, water, energy and raw materials</td>
<td>d)</td>
</tr>
<tr>
<td>e) efficiently use ICT for process management</td>
<td>e)</td>
</tr>
<tr>
<td>f) innovate its product assortment</td>
<td>f)</td>
</tr>
<tr>
<td>g) comply with food safety regulations</td>
<td>g)</td>
</tr>
<tr>
<td>h) develop an efficient relation management system</td>
<td>h)</td>
</tr>
<tr>
<td>i) develop an adequate marketing strategy</td>
<td>i)</td>
</tr>
<tr>
<td>j) optimize selling on local markets</td>
<td>j)</td>
</tr>
<tr>
<td>k) optimize selling on International markets</td>
<td>k)</td>
</tr>
<tr>
<td>l) create fair, safe and motivating labour conditions</td>
<td>l)</td>
</tr>
</tbody>
</table>
### QUESTION 2

<table>
<thead>
<tr>
<th>SCALE</th>
<th>1 - No Difference</th>
<th>10 – Significantly Better</th>
</tr>
</thead>
</table>

To what extend could new industry expertise, innovation, methods, practical know-how, technology, machines and modern appliances help the company to:

<p>| | |</p>
<table>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
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</tr>
<tr>
<td>c)</td>
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</tr>
<tr>
<td>d)</td>
<td>sustainability: efficient use supplies, water, energy and raw materials</td>
</tr>
<tr>
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<td>efficiently use ICT for process management</td>
</tr>
<tr>
<td>f)</td>
<td>innovate its product assortment</td>
</tr>
<tr>
<td>g)</td>
<td>comply with food safety regulations</td>
</tr>
<tr>
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<td>j)</td>
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</tr>
<tr>
<td>k)</td>
<td>optimize selling on International markets</td>
</tr>
<tr>
<td>l)</td>
<td>create fair, safe and motivating labour conditions</td>
</tr>
</tbody>
</table>

### QUESTION 3

<table>
<thead>
<tr>
<th>YES OR NO</th>
</tr>
</thead>
</table>

3. Would you be able to invest and interested to meet Dutch companies which are either specialized agro supply chain consultants, or providers of inputs, machines, technologies or other services that can help the company to:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>optimize the purchasing</td>
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</tr>
</tbody>
</table>
Annex 3: Code of Conduct Nyenrode

Bangladesh Trade and Investment Program
Conduct Guidelines regarding Corruption and Transparency (Code of Conduct)

Introduction
The Embassy of the Kingdom of the Netherlands (EKN) in Dhaka, within its scope of economic diplomacy, has partnered with Nyenrode Business Universiteit in order to stimulate economic relations between the Netherlands and Bangladesh. Strategic aim of the Embassy is to strengthen bilateral commercial ties in a responsible manner and support the improvement of the Bangladeshi business environment with a spill-over effect that improves the lives of the poor. The partnership aims to increase sustainable bilateral trade and investment in four identified sectors: food(safety), logistics, water and the IT-sector, with a special focus on outsourcing activities. The focus of sustainability will be on employment generation (specifically targeted at women) and introducing clean (and where applicable innovative) technology.

Informing Dutch companies, entrepreneurs, stakeholders and cooperation partners about the risks of doing business in Bangladesh, especially with regard to integrity issues and corruption, is an intricate part of stimulating responsible business, and therefore it is an important component of the Bangladesh Trade and Investment Program. Nyenrode Business Universiteit has as such developed Conduct Guidelines to which not only Nyenrode itself must adhere, but is also provided to all cooperation partners of Nyenrode with the request to comply with it in their daily practice. Corruption risks will be considered and dealt with throughout all activities undertaken in the framework of the program.

The Conduct Guidelines
Nyenrode Business Universiteit, within the framework of the Bangladesh Trade and Investment Program, values ‘doing what is right’ and demands of its cooperation partners, in whatever legal form, to read and voluntarily apply the following guidelines in order to ensure good business practices. The Conduct Guidelines of the Bangladesh Trade and Investment Program are primarily based on the internationally accepted ICC Rules on Combating Corruption (2011) published by the International Chamber of Commerce (ICC).

The ICC Rules are intended as a method of self-regulation by business against the background of applicable national law and key international legal instruments. Their voluntary acceptance by Enterprises will promote high standards of integrity in business transactions, whether between Enterprises and public bodies or between Enterprises themselves. These Rules play an important role in assisting Enterprises to comply with their legal obligations and with the numerous anti-corruption initiatives at the international level. They also provide an appropriate basis for resisting attempts at extortion or solicitation of bribes.

The Conduct Guidelines for the Nyenrode Trade and Investment Program dictate compliance with Part I (the Rules) and Part II (policies to enact in order to support compliance with the rules) of the ICC Rules on Combating Corruption:

Part I: Rules
1. Article 1: with regard to Prohibited Practices. Specifically, enterprises will prohibit the following practices at all times and in any form:
   - Bribery.
   - Extortion or Solicitation.
   - Trading in Influence.
   - Laundering the proceeds of the corrupt practices mentioned above.

2. Article 2: with regard to Third Parties. Specifically, with respect to third parties enterprises should:
   - instruct them neither to engage nor to tolerate that they engage in any act of corruption;
• not use them as a conduit for any corrupt practice;
• hire them only to the extent appropriate for the regular conduct of the Enterprise’s business; and
• not pay them more than an appropriate remuneration for their legitimate services.

Part II: Policies

3. Articles 3-9 to be applied/enforced with regard to:
• Business Partners.
• Political and Charitable Contributions and Sponsorships.
• Gifts and Hospitality.
• Facilitation Payments.
• Conflicts of Interests.
• Human Resources.
• Financial and Accounting.

Please refer to annex: ICC Rules on Combating Corruption, for details on the above rules and policies Nyenrode demands its partners to comply with.

The underlying Conduct Guidelines are in line with the Netherlands Embassy policy regarding integrity and corruption issues. Please refer to the brochure Eerlijk zakendoen, zonder corruptie. Praktische tips voor ondernemen in het buitenland published by the Rijksoverheid NL (July 2012) as well as the Reporting Guidance on The 10th Principle Against Corruption published by the United Nations Global Compact and Transparency International (2009) for further information. These reports serve as useful guides in favor of ethical business practices omitting corruption and Nyenrode stresses the importance of reading these guides

Appendices:

Herewith I declare to:
1) Have read the Conduct Guidelines and the appendices referred to in the code;
2) Comply with these guidelines in all activities related to the cooperation with Nyenrode Business Universiteit.

Name

Signature Date