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☐ Declaration

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Editorial Note

After the successful publication of three consecutive issues of the Bangladesh Tariff Commission (BTC) Journal on Tariff and Trade we feel encouraged to publish the fourth issue. In this issue we covered four articles named “Export Related Compliance: Bangladesh Perspective”, “Belt and Road Initiative of China: A New Hope in the Region”, “How Tourism Endanger the Environmental Stability? A Case Study on the Sea-beach area of Cox’s Bazar in Bangladesh” and “Feasibility of Economic Integration between Bangladesh and Macedonia”.

I am hopeful that these timely demanded articles covered in this issue will help to increase the understanding among the stakeholders and indeed help them to take constructive activities towards development of trade and investment.

In our previous issues most of the articles were written by the BTC officials. It is our pleasure to inform that we are able to publish the research work of outside researchers from this issue. BTC welcomes any kind of advice as well as constructive criticism from the readers to improve the quality of the journal.

I avail myself of this opportunity to express my heart-felt thanks and gratitude towards the Chairman of the Commission Mr. ATM Murtozaa Reza Chowdhury ndc, Advisors, Journal Committee members and the contributors for their continuous support and co-operation in maintaining the standard and quality of the articles.

Mohd. Khalid Abu Naser
Editor in Chief
Editorial Board, BTC Journal

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Export Related Compliance: Bangladesh Perspective

Md. Abu Musa[1]

ABSTRACT

Compliance provides a competitive advantage and facilitates access to export markets with the aim of one standard and one certificate which is globally recognized. In LDCs export related compliance is a crucial issue which is closely involved with employment generation, poverty reduction, economic growth and overall socio-economic development. Absence or deficiency of export related compliance may cause serious relegation of export because of non-confidence of the importing countries. This writing is an initiative to search out information about this issue.

Key Words: Benefits, Compliances, Export, LDCs.

A. Introduction

In the modern world of trade compliance is one of the burning issues. In the developing countries, especially in LDCs export related compliance is a crucial issue which is closely involved with employment generation, poverty reduction, economic growth and overall socio-economic development. Absence or deficiency of export related compliance may cause serious relegation of export because of non-confidence of the importing countries. Complete or inclusive export related compliance might ensure public confidence in the reliability of activities that impact on health, welfare, security and the environment and thus significantly increase volume of export of the respective country. It identifies competent certification bodies for the implementation of government policies and regulations. It is an essential tool for decision making and risk management of industrial organizations by which they can save time and money by selecting an accredited and hence competent supplier. Compliance provides a competitive advantage and facilitates access to export markets with the aim of one standard and one certificate which is globally recognized.

B. Definition of Compliance

In accordance with Wikipedia, generally compliance means conforming to procedures, standards, laws, rules, regulations and other conditions. Regulatory compliance describes the goal that companies or public agencies aspire to their efforts to ensure that human resource are capable of taking steps to comply with relevant laws, rules and regulations. Due to the increasing number of regulations and need for operational transparency, organizations are increasingly adopting the use of consolidated and harmonized sets of compliance controls. This approach is used to ensure that all necessary governance requirements can be met without unnecessary duplication of effort and activities from resources. International compliance means compliance the international standards produced by the International Standardization Organization (ISO) and International Electro-technical Commission (IEC) in the electro-technology area. In order to obtain better understanding of 'compliance', I would like to quote some definitions or meanings of "compliance" from different famous dictionaries and other relevant sources:

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Oxford Advanced Learner's Dictionary: C*ompliance (with) means (i) the people of obeying rules or requests made by people in authority; (ii) procedures that must be followed to ensure compliance with laws.*

The New Oxford Dictionary of English: Compliance means the action or fact of complying with wish or command; (ii) compliance (with) means the way in which the state maintains order and compliance; (iii) the state or fact of according with or meeting rules and standards.

Webster's Encyclopedia Unabridged Dictionary of the English Language: Compliance means (i) the act of conforming, acquiescing or yielding; (ii) a tendency to yield reality to others, especially in weak and subservient; (iii) conformity, accordance.

Merriam Webster Dictionary: *1) (a) the act or process of complying to a desire, demand, proposal, or regimen or to coercion; and (b): conformity in fulfilling official requirements; 2) a disposition to yield to others; 3) the ability of an object to yield elastically when a force is applied.*

Dictionary com: 1) the act of conforming, acquiescing, or yielding; 2) a tendency to yield readily to others, especially in a weak and subservient way; 3) conformity; accordance: in compliance with orders; 4) cooperation or obedience: Compliance with the law is expected of all.

World English Dictionary: 1) the act of complying; acquiescence; 2) a disposition to yield to or comply with others; 3) a measure of the ability of a mechanical system to respond to an applied vibrating force, expressed as the reciprocal of the system's stiffness.

Chamber 21st Century Dictionary: Compliance means yielding, agreement, assent, submission, etc.

United States Health Insurance Portability and Accountability Act of 1996: Compliance is undertaking activities or establishing practices or policies in accordance with the requirements or expectations of external authorities. Compliance may be the result of legal mandate, policy statement, code of practice, guidelines, procedural or stated (institutional, organizational or personal) preferences. Although compliance usually means meeting conditions of an authority; compliance can be internally agreed process or practice. Quality processes are often used to ensure compliance to a range of policy issues and accountability or reporting requirements (externally) and procedural and requirements (internally). Compliance is either a state of being in accordance with established guidelines, specifications, or legislation or the process of becoming so. In the legal system, compliance usually refers to behavior in accordance with legislation.

C. Perception of Export Related Compliance

There is no unanimous definition of export related compliance. Generally it is known that export related compliance means effectively meet/conform non-tariff barriers (NTB) imposed by the importing countries. In fact, export related complete compliance means successfully face any procedure/measure/condition applied on any export item by any competent authority of the importing/exporting countries and other difficulties faced by the exporters at home and abroad. So export related compliance means combination of the following:

(i) building satisfactory level of physical infrastructures, e.g. road and transport network, railway and communication network, customs and port management, electronic commerce, customs and port infrastructure and its management, full automation in every trade office, border infrastructures, banking and insurance mechanisms, energy supply etc.;
(ii) ability to effectively face all measures related to export procedures, customs formalities, customs valuation etc. at home;
(iii) ability to effectively face prescribed relevant qualities, standards, laws, rules and regulations applied by the export destination countries;
(iv) making compatible and updating domestic laws, rules and regulations, policies, strategies etc. related to export.

D. Possible Benefits of Compliance

Measures regarding export related compliance are undertaken by the competent authorities of the government for providing guidelines to the export oriented trade bodies with a view to adopt appropriate policies for attaining the following:

1. making opportunity for the exporters to adopt right and well-matched decisions for ensuring supply chain and providing compatible safeguards;
2. reducing export cost through saving time, reducing harassment, minimizing duty payments, improving overall cash flow management etc;
3. growing awareness about registration and administrative procedures, customs laws, rules and regulations applied in the customs stations and ports at home and abroad;
4. growing awareness about the standards of the products, relevant laws, rules and regulations;
5. growing awareness about responsibilities for making appropriate measures;
6. selecting best practices for obtaining optimum benefits from trade;
7. improving cycle times through better data management, eliminating customs holds, expediting delivery of goods and enabling faster payment;
8. making facility to immediate response to trade expertise and operational supports;
9. providing appropriate trainings for enhancing employees' working capability, etc.

E. Business Environment of Bangladesh

It is noticeable that Bangladesh's export trade into the global trade regime is characterized by significant export performance, especially by the export oriented manufacturing industries. Trade procedures in Bangladesh are moderate in nature which is neither so smooth nor so hard. Number of documents required for the business process is not so high.

But in starting business the traders have to move door to door for different certificates, test reports, documents etc. It is observed from the Doing Business Reports Bangladesh from 2011-2014 of World Bank Group, the rank of Bangladesh is gradually lagging behind at economics sector. According to Doing Business 2012, Bangladesh has gone down four steps than that of Doing Business 2011; it ranked 122 among 183 economies which was 118 in 2011. The report Doing Business 2014 showed that Bangladesh was ranked 130th among 189 countries whereas in 2013 the country was ranked 129th among 185 countries. Getting electricity and registering property, Bangladesh ranked lowest at 189 and 177 respectively both in 2013 and 2014. Complexities in the country's import and export processes adversely affect Bangladesh's international business standing, proving costly for traders and hindering its global competitiveness. In 2005, foreigners needed 185 days to get the permission of construction in Bangladesh while it reached at 201 days in 2011. Required days for getting electricity connection in industries in 2011 was 372 days which increased to 404 days in 2013 and remained unchanged in 2014. In Bangladesh, to implement a contract, it takes 1,442 days and almost 63 percent of the demanded property which is the highest time and cost considering the 189 economies. In trading across borders (export and import), Bangladesh needs 25 and 35 days respectively that is very high in comparison with the rest of the world.

F. Need of Export Related Compliance in Bangladesh

Export related compliance is necessary for mainly two reasons: a) Effectively meeting major NTBs, and b) Removal of major deficiencies in compliance. The major necessities are summarized below:

a) Effectively meeting NTBs: Export related compliance is unavoidable in Bangladesh for successfully meeting NTBs. Because exports of Bangladesh are seriously affected by NTBs in which Bangladesh have no satisfactory level of compliance. Without acquiring international standard complying capability optimum level of promotion and expansion in exports is not possible. A concise inventory of NTBs is given below:

1) NTBs faced by textile products: In case of export of the textile products, the exporters have to submit a quality control certificate issued by the appropriate authority to the Customs Authorities. Import of clothing and textile products in **Australia** is subject to mandatory information standards; in **India** these are subject to condition of free from hazardous dyes; import of apparels in **Singapore** is subject to technical regulations and non-compliance with regulations may cause fines and/or imprisonment. Import of garments in **Thailand** is subject to import restrictions involving licensing and prohibition; in **Republic of Korea** these are subject to standards of the Korean Agency for Technology and Standards.

2) NTBs faced by frozen foods: In the EU and US markets, Bangladeshi frozen foods are facing problems, e.g. HACCP, lack of traceability, labor law compliance, capacity building of testing facility etc. EU uses RASFF food and fish testing to prevent Nitrofuran Hazards and some antibiotic problems. Besides, testing requirement of shrimp exported by Bangladesh and mandatory testing of 20% consignment by EU Customs authority are appeared as difficult barriers to export from Bangladesh. In the **Middle East**, especially in the Gulf markets, Bangladeshi frozen foods have been facing some antibiotic problems. Import of fish and fish products in **Pakistan** is subject to quarantine requirements. Import of fish and seafood in **Singapore and Mauritius** is subject to import license.

3) NTBs faced by agro and agro-processed products: HACCP and EUREPGAP standards must be met for supplying to EU markets. Due to Aflatoxin problem with Bangladeshi Nuts in Chanachur is prohibited in EU Countries. EU countries always claim Sudan Dye Certificate for all types of spices. Import of pickle is prohibited in pickle as mixed by Mustard Oil. EU countries always ask products definite percent of ingredients in the labels. Besides, they do not accept the certificates/test reports issued by Bangladesh Standards and Testing Institution (BSTI) and Bangladesh Council of Scientific and Industrial Research (BCSIR). In the **USA** market the preservative label of Bangladesh is not acceptable. Import of Mustard oil, Pickles and Chutney is restricted in **Australia and Singapore** for containing Prohibited Acids. Import of vegetables is subject to annual importer license in **Singapore.** Recently **Riyadh** Customs stopped to allow importing any product with the writing of "ISO" on the packet of the products. Special approval is required for importing horticultural products. Import of every unit of packaged vegetables in **Malaysia** must contain the importers details, including labeling with nutritional information, manufacturing of goods and best before information. Import of all primary agricultural products in **India** is subject to bio-security and SPS permit. Recently **Nepal** Customs introduced a new rule that the exporters have to send the samples of each product to them for health clearance before sending any consignment. Exporting of agro-processed products to **Africa** needs "Third Party Inspection". It is found that the third party inspection team declares juice items as drink items. The duties between juice items and drink items have a big difference; juice items face very lower duty compared to drink items**.** In **Kenya,** import of agricultural products, flowers etc is subject to import permit. These products are subject to labeling requirements in **South Africa.**

4) NTBs faced by pharmaceuticals: Exports of pharmaceuticals of Bangladesh have to face difficult challenges due to importing countries' product regulations, registration requirements, language requirements, cultural preferences, national packaging requirements, industry protection mechanisms etc. To Export pharmaceutical goods, registration of the drug, import licensing and No objection Certificates (NOC) are compulsory in many importing countries (**Malaysia, Pakistan, India, etc).** Import of pharmaceuticals in **South Korea** requires a free sale certificate from the exporting country. Besides, the importers must collect item specific approval from KFDA. At the Kingdom of Saudi Arabia (**KSA),** pharmaceuticals are subject to price and profit regulation. Wholesalers and retailers are allowed a 10%, 15% or 20% profit margin depending on the export price. Besides, import requires special approval. In **Oman and Bahrain,** pharmaceuticals must be imported directly from manufacturers with research departments and the products must be licensed in the manufacturing country and in at least two GCC countries other than home country, one of which must be Saudi Arabia. In **Morocco,** marketing of pharmaceuticals is subject to authorization of Ministry of Health. In **Nigeria,** import of drugs is subject to manufacture and free sale certificate from the competent regulatory body in the exporting country and it must be authenticated by the Nigerian Embassy in the country of origin. In **Kenya and Tanzania,** import of pharmaceuticals is subject to marking, labeling and packaging requirements. In **Mauritius,** imported pharmaceuticals must be registered for sale in their country of origin. In **Comoros,** import of pharmaceutical products is subject to import permit.

5) NTBs faced by the jute and jute products: Fiber products that are packed in wooden crates or placed on wooden pellets have to be quarantine treated. In the past, methyl bromide was used to fumigate these crates and pellets, but use of methyl bromide is now banned in many countries. Alternative treatments are costly because more than one chemical is needed to treat the broad spectrum of pests. The plethora of standards imposed by importing countries has increased cost of compliance to significant levels. In **Australia**, sacks and woven fabrics require certification that industrially processed JACKS have originated from pest-free crops. In **Japan,** blended products require additional certification depending on the specific percentage of certain **JACKS in the fabric.** Exporters who sell directly to specialized retail outlets also face obligatory requirements to meet private standards regarding such issues as health, safety, child labor, fair wages and working hours, freedom of association and environmental impacts**. India** issued a rule in 2010 by which labeling of a country of origin for jute bags becomes mandatory for exports. Moreover, it was mandated that it should be machine stitched on four sides which raises the manufacturing cost for the exporters. Exports to **ASEAN countries** also face some NTBs where the exporters need to undertake testing of products and have to submit certificate during the trading process.

6) NTBs faced by the leather and leather products: Despite EU's EBA policy; market access of Bangladesh into EU countries has been facing TBT and SPS measures, e.g. packaging, marking and labeling related barriers; environmental friendly chemical usage certification; leather products must be AZO[1] free certified on health grounds due to its risk of cancer hazard in many EU countries, etc

7) NTBs faced by the light engineering products: Import of electrical and electronic products in many countries subject to various types of technical regulations such as standard, metrology testing, quality control, conformity assessment etc.

8) NTBs faced by the other exportable products

USA: Beverage companies located outside the US must designate a US Agent for USFDA communications. These are not allowed preservative but Bangladesh does not have such facility without preservative. Its preservative label is not acceptable in USFDA. Import of fish is subject to quarantine restriction. Import of fertilizers, furniture, cigarettes, and children's products is subject to technical regulation and standards.

Australia: Import of cosmetics, toiletries, tobacco products is subject to mandatory product information standards, including care labeling.

Malaysia: Import of poultry, beef, rice, sugar etc is subject to import licensing. Import of breads, canned meat, soft drinks is subject to importers details, including labeling with nutritional information, best before information etc.

India: Import of meat and poultry products is subject to conditions regarding manufacture, slaughter, packing, labeling and quality. Import of beef in any form and products containing

[1] There are azo dyes that have been found to be potential carcinogens (may cause of cancer).

beef in any form is prohibited. Import of edible food products, tea etc. is subject to quality and packing requirements.

Pakistan: Import of rethreaded and pneumatic tyres is prohibited. Import of furnace oil is importable only by some specific bodies.

ROK: Import of agricultural fertilizers is subject to import license. Cosmetics importers are required to be registered in KFDA and to file a customs report and to obtain prior approval from the Korea Pharmaceutical Traders Association (KPTA). Import of food products, fish products, salts etc. is subject to food safety and quality.

China: Import of rice, sugar, chemical fertilizer is subject to tariff rate quota and STEs.

Singapore: Import of furniture, mattresses and bedding etc. is subject to technical regulation. Import of meat is subject to import licensing. Import of frozen beef, mutton, poultry etc. is allowed only from a limited number of countries. Prior import permit is needed for aromatic fine rice.

Japan: Japan imposes import prohibition on beef and poultry from different countries to prevent the spread of Bovine Spongiform Encephalopathy (BSE) and avian flu.

Thailand: Import of potatoes, tea, pepper, oil cake, naphtha, waste and scrap of plastics, lazed ceramic wares etc. is subject to import restrictions involving licensing and prohibitions. Import of certain food products (e.g. some dairy products, edible oils, tea etc.) is subject to mandatory compliance with Good Manufacturing Practice (GMP).

Middle East:- KSA: Import of most food and food products is subject to mandatory labeling and marking. Import of meat and meat items requires halal certificate. Import of betel leaves, spices etc. is subject to SPS measures. Import licenses are required for flour, rice and sugar; fertilizer is subject to non-automatic licensing. **UAE:** Import of tobacco products, cosmetics, detergents, toys, etc is subject to technical regulations. **Oman:** Health permits are needed for importing some foodstuffs, e.g. biscuits, chocolates, soft drinks, tea etc. Import of tyres, food items etc. is subject to standards and technical requirements. Oman applies strict marking and labeling conditions for meat and poultry products. **Bahrain:** Product-specific documentation is required for import of drugs/medicines, food products, fish, meat, poultry products etc.

Africa:- Morocco: Import of ceramic tiles is subject to quota restriction. **Nigeria:** Import of bagged cement is subject to import permit. Cosmetics, food products etc. is subject to manufacture and free sale certificate and authentication by the Nigerian Embassy in the country of origin.

b). For removal of complying major deficiencies:

1) Problems in complying with buyers' CoCs: Compliance with CoCs in the labor intensive industries is basic need for attracting the reputed global buyers, intensifying competitiveness, enhancing productivity, strengthening consumer confidence, building reliable relationship between employers and employees, increasing profit of the owners, achieving employees' welfare and survival of export of the products. In this context, concerned developed countries and international organizations pressurize Bangladesh to comply with the ILO's labor standards. In most cases Bangladesh failed to comply with these conditions that are why the reputed buyers often become reluctant to buy the products from Bangladesh. In fact, most of the manufacturers of Bangladesh are not yet aware and interested to comply with the CoCs because of huge initial investment and running cost, and also for apprehension of intensifying workers' bargaining power and labor movement.

2) **Lack of physical infrastructures:** There is serious deficiency in physical infrastructures in almost whole country. Road and transport infrastructures, system and network are very weak and backdated; particularly deficiency in road and transport network among the factories, commercial places and borders, land and seaport areas, lack of transports, cargo and container within the port areas, lack of improved road and highway linkage with Dhaka and other trade areas are major problems to trade. The railway network is remained virtually static due to limited investment for rehabilitation or construction. Inland water transport has been suffering for silting and lack of maintenance of river routes.

3) **Deficiency in customs clearance process:** There is serious lacking of physical facilities in the border areas; especially customs procedures are very lengthy and troublesome. The export of goods has to meet 14 hierarchical steps at customs stations. Besides, the exporters have to submit a number of documents for getting clearance from Customs which create delays and incur high transaction cost.

4) **Deficiency in conformity assessment procedures:** Exports have to meet the following process and requirements: (i) submission of testing report, (ii) surveillance, (iii) inspection, (iv) auditing, (v) submission of certificate, (vi) registration procedure, and (vii) condition of accreditation. In this case, the exporters often fail to comply with the technical regulations and standards because still today Bangladesh could not reach at a satisfactory level of conformity assessment procedures. For this reason, often certificates/test reports issued by the designated authorities are rejected by the importing countries which cannot be challenged. This rejection enforces the exporters to test their products again in the designated laboratories of the importing countries which increases their trade cost and impairs competitiveness.

5) **Institutional constraints:** The institutional constraints, e.g. problems of multiple ownership, control of the land, market infrastructure development, market operations, market revenue collection systems, lack of coordination among these operations as key impediments of the sector. Besides, infrastructural constraints (lack of godowns, cold storage, drinkable water, drainage, vehicle access for loading/unloading); human resource constraints (lack of requisite skills in market management); information constraints (absence of information network, supply chain integration system, market intelligence services, trade innovation, business engineering, modern marketing strategy); and quality control constraints (absence of monitoring system, standard grading system) are prime obstacles for promotion of the sector.

6) **Environmental deficiency:** Environmental pollution control is a serious challenge in all manufacturing enterprises, particularly in effluent treatment which affects public health. Proper mechanism for monitoring, compliance and enforcement of environmental

protection is not available in the enterprises. Working environment of labor intensive industries is characterized by predominance of women; long working hours, delayed wage payment, suffocated work places; violation of routine, health and life insecurity etc.

7) Deficiency in testing/R&D facilities: Bangladesh's most of the industries do not have significant testing and R&D capability due to severe dearth of human resources and advanced technologies. So Bangladesh is unable to apply business reengineering process for bringing down the price, diversifying the products and improving quality of the products.

8) Deficiency/absence of NSW: Due to lack of NSW, the exporters have to move different bodies for their required documents, certificates, test reports, laws, rules/regulations etc which waste time, increase trade cost, create harassment and thus impair competitiveness of the products in the world market. Besides, due to lack of SW the exporters do not get their information regarding export procedures, relevant laws, rules/regulations and policies in a single place and sometimes these are hardly available.

9) Lack of MkIS: Most of the manufacturers and exporters do not have MkIS that is why they have to face lack of trade information (regarding suitable sources of raw materials, nature of market demand, export potential markets etc.), market intelligence (market determining strategy, market penetration strategy, data from external environment, market development etc.), business intelligence (skills, processes, technologies, applications and practices used to support decision making), marketing/distribution channels (practices or activities necessary to transfer the ownership of goods, and to move goods, from the point of production to the point of consumption) etc. which limit the ability of the producers/exporters to take advantage of export opportunities.

10) Serious crisis in energy supply: For having serious crisis in gas and electricity, the factories cannot produce products in due time and at optimum level. In absence of available energy supply, using cylinder gas and generator by the factories increase production cost which impairs competitiveness of the products in the world market.

11) Country's image deficiency: Lack of participation in the international fairs/exhibitions; lack of marketing campaign; deficiency in consumer safety and international standard, eco-labelling and packaging, occupational standards and labor compliance; quality management, export documentations, environment protection measures etc. are seriously creating bad image for Bangladesh by satellite TV and Internet. As a result Bangladeshi products have to face uneven competition with the brand products.

G. Major Initiatives Taken by the Government

1) Facilities for export oriented industries: The Industrial Policy 2010 prescribed the following facilities for export-oriented industries: i) concessionary indemnity bond system; ii) further simplification of the duty draw back system and a flat rate for the exportable items from the commercial banks; iii) various facilities at a predetermined rate for ensuring backward linkage, export-oriented RMG industries and other local raw materials using export-oriented industries and local deemed exporters; iv) 90% credit against nonnegotiable and irrevocable L/C; vi) 50% tax free export income for all other exporters which companies are neither registered nor enjoying any type of tax exemption/tax holiday; vii) facility of importing raw materials necessary for the production of export goods; viii)bonded warehouse facility for importing raw materials of exportable products; ix) further expansion & strengthening of export credit supply scheme; x) Continuation of existing facilities for back-to-back L/C; xi) duty free for import of specified quantities of samples for producing exportable items; xii) further expansion & strengthening the E**CGC**; and xiii) facilitation & simplification of export of industrial products & import of raw materials, rules of Customs and C&F procedure.

2) Initiatives for export diversification: Export Policy, SFYP and Perspective Plan of Bangladesh 2010-2021 focused on export diversification as follows:

- Product diversification- introducing range of new products in the export basket
- Geographical diversification- widening the range of destination markets for exports
- Quality diversification- upgrading the value of existing products
- Goods-to-services diversification- seeking opportunities to expand non-merchandise exports.
- Intermediate goods diversification- product diversification need not imply adding only final consumer goods in the export basket.

Ministry of Industry and BSCIC have taken a number of steps to diversify exports products and markets: i) providing special facilities to the highest priority and special development sectors; ii) arranging fairs/exhibitions at home/abroad; iii) sending trade delegations to prospective countries; iv) arranging workshops/seminars to disseminate information to the exporters; and v) implementing One District One Product (ODOP). EPB has undertaken ODOP program for 14 products in 41 districts. Besides, the government has been working for export diversification through Bilateral Trade Agreements, Regional Trade Agreements and Multilateral Trade Agreements.

3) Utility services: In order to facilitate industrialization the Industrial Policy 2010 has given priority to enhance utility services, e.g. electricity, gas and coal. Highest priority is given to power generation and committed to make electricity available to whole country by 2021. In accordance with Vision 2021, for graduating at middle income country by 2021 and achieving higher GDP growth, the government has undertaken short, medium and long term programs in electricity, gas and fuel resources.

4) Initiatives for infrastructural development: The government has given priority on infrastructural needs of industrialization, e.g. smooth energy supply, development in port facilities; road, railways and waterways; road transport and bridge construction; transport network system and telecommunications; institutional development; reforms in banks and financial institutions, HRD etc. through Export Policy, Bangladesh Perspective Plan 2010-2021, and SFYP.

5) Simplification of customs administration: NBR has undertaken a comprehensive renewal program that seeks to put in place an efficient, effective, fair and responsive tax regime which is benchmarked against international best practice. The reform program covers income tax, VAT and customs duties and will review and modernize both tax policy (tax laws and statutory rules) and tax administration (business process, organizational design, HR policies, taxpayer services, etc.). Customs modernization aimed to achieve the three major objectives of the Bangladesh customs: (i) introduce speedy customs clearance through automation of the process; (ii) ensure transparency in the customs clearance process as well as in revenue collection activities; and (iii) extend the maximum possible facilities to the trade communities.

6) Development in conformity assessment procedures: Bangladesh Accreditation Board (BAB) is established to open any testing laboratory and calibration center irrespective of its application public, private and or in-house. It accredits almost every testing facility and technology from chemical testing to engineering. Everything related to accreditation is available at online. BAB has been internationally recognized in the 34th meeting of the MRA Council of ALAC held on 08 January 2015 in Hong Kong.

7) Establishment of EPZs: BEPZA was established to achieve objectives of: i) promotion of FDI and local investment; ii) diversification of export; iii) development of backward and forward linkages; iv) employment generation; v) transferring of technology; vi) upgradation of skill of the workforce; and vii) development of management. In order to expedite growth and diversify products, the government has established 8 EPZs: (1) Dhaka, (2) Chittagong, (3) Ishwardi, (4) Mongla, (5) Comilla, (6) Adamjee, (7) Karnaphuli, and (8) Uttara.

8) Prioritization on export oriented industries: Industrial Policy addressed three key characteristics: i) promotion of domestic content in output; ii) substitution of imports; and iii) sustainable development and husbandry of exports-oriented industries. For achieving these goals, improvement in terms of the product-mix, diversification of both product and export-base, significant upgrading of the product quality-assurance services and amenities, and revamping of all trade-facilitation incentives are scheduled to be completed.

9) Compliance in industrial environment: Emphasis is given on making the industrial sector environment friendly through complying with relevant national laws & rules, health, safety & other standards as per WTO rules, Environment Protection Act and other relevant legislations. In this case, the government has been working for effective enforcement of ETP and CETP in the industries. It undertook a review and coordination of all environment protection and environment related agencies with a view to ensuring that laws, rules & regulations are strictly enforced for meeting current and future requirements.

10) Strengthening of institutional capacity: BSTI, BAB and other akin organizations should have joint action plan to strengthen and extend institutional coverage in different areas and to develop its technical capabilities for providing relevant services to the stakeholders.

11) Preparing DTIS: In response to request of the government, World Bank has drafted a DTIS which identified a four-pillar strategy aimed at providing guidelines to sustain, accelerate growth and intensify competitiveness of the export products. The four pillars are: (1) breaking into new markets through a) better exploitation of regional trading opportunities; and b) better trade logistics to reduce delivery lags and become more competitive in nearby markets and world markets, to generate new sources of competitiveness and thereby enable market diversification; (2) breaking into new products through a) more neutral and rational trade policy, taxation and bonded warehouse schemes; and b) concerted efforts to attract FDI, to spur investment and export diversification; (3) improving workers and consumer welfare by a) improving skills and literacy; b) implementing labor and work safety guidelines; c) making safety nets more effective in dealing with trade shocks; and (4) building a supportive environment, including a) sustaining sound macroeconomic fundamentals; b) easing the energy constrain; c) strengthening the institutional capacity for strategic policy making geared to the objective of international competitiveness to help bring focus and coherence to the government's reform efforts.

12) Establishment of Industrial park and estates: BSCIC has undertaken a project Saiyedabad and Kalia Haripur, Sirajgonj which has been started from July 2010 and scheduled to be completed in June 2014. Among others, one of the objectives of the projects is to establish export oriented indigenous and import substitutes 570 industrial units in the industrial park. Besides, BSCIC provides infrastructural facilities by establishing 79 industrial estates throughout the country: Barisal- 4, Chittagong- 16, Dhaka- 26, Khulna- 11, Rajshahi- 17 and Sylhet- 5 which were scheduled to complete by March 2014.

13) Other initiatives: Initiatives for setting up sector-based minimum wage board keeping in line with the Labour Act, HRD, establishing quality management system, ensuring gender parity, growing social accountability awareness etc will bring strong complying capability in export of Bangladesh.

H. Actions to be Taken

Strong complying capability is prerequisite for building deep rooted export base and sustainable competitiveness in the world market. Acquiring complying capability needs the following measures:

1) Establishing causal link between buyers' CoCs and productivity: Compliance with buyers' CoCs in manufacturing industries is indispensable for ensuring speedy supply, enhancing productivity, earning more profit, protecting labor rights, attracting the consumers, social workers, welfare organizations and the reputed global buyers. To these ends, every manufacturing factory must be well compliant. In this case, the government is prioritizing to implement the Amendment of Labour Act 2006 and other CoCs. Besides, the govt. should assist, guide and sometimes should force the manufacturers/exporter associations to undertake clear initiatives for complying CoCs.

2) Complying environmental challenge: Till today environmental pollution control remains a challenge in all manufacturing enterprises of Bangladesh. They cannot meet the conditions, standards prescribed in the domestic and international laws, rules and regulations for protection of environment. So establishment of adequate mechanism is required for monitoring, compliance and enforcement of environmental protection laws, rules and regulations.

3) **Ensuring backward linkage industries:** The government should take initiatives to provide guidelines for ensuring backward linkage industries such as textile, leather, jute etc, For example, modernization of the backward linkages in the textile sector on the back of new investment and BMRI in old mills for meeting the growing demand of textiles and apparels, both in local and world markets.

4) **Establishment of NSW:** Establishment of a NSW is unavoidable for trade facilitation in Bangladesh which might confer a modernization activity in regulations, permits, and procedures of all public institutions with a role in authorizing trade transactions. NSW will simplify border formalities by allowing traders and other economic operators to make a single electronic submission of information to fulfill all cross-border regulatory requirements.

5) **Strengthening of institutional capability:** Till to date the designated authorities of Bangladesh could neither create confidence in the world market nor in the domestic market. In this context, all relevant bodies and manufacturers should design a joint plan of action to the interest of strengthening institutional capability. The government should take appropriate measures to enrich the testing laboratories (e.g. BSTI, BCSIR, AEC, BANSDOC, BUET etc) at international standard level.

6) **Conformity assessment procedures:** Conformity assessment procedures are very important for promotion and expansion of trade. In this case, Bangladesh requires developing its own national quality infrastructure and subsequently conformity assessment procedures. Since Bangladesh's products are mostly going to the developed, western and middle-east countries; it should undertake their conformity procedures as benchmarks.

7) **Establishment of MkIS:** Establishment of national and sector wise modernized MkIS is unavoidable for collecting update market information; market intelligence; marketing/business distribution. In this connection, the government should undertake initiatives to set up a national MkIS in EPB and may assist the business communities to set up MkIS in their own sector per se.

8) **HRD:** Training institutes under different ministries engaged in HRD, e.g. BIM, BITAC, NPO, SCITI, Textile Engineering University, Textile Technical Institute/Textile Vocational Institute; training institutes of BJMC; Bangladesh Handloom Board and Bangladesh Silk Board and other related public training institutes should be well equipped for acquiring professional expertise, business reengineering process capacity, well fit managerial strategy, technical know-how, and generating motivated and skilled workforce to the industries.

9) **Online Database:** Internal and external data/information flow is basic need for supporting continuously ever changing stream of the world market and sustaining export growth. In this case, a "100% Online Database" should be introduced comprising the related public and private organizations such as Bangladesh Bank, Customs Authorities, Port

Authorities, NBR, BBS, BTC, EPB, FBCCI, MCCI, DCCI, BGMEA, BKMEA, BTMA, BTMC and other similar organizations.

10) Identification of areas of compliance: In order to acquire optimal level of export related complying capability; the government should undertake a comprehensive need assessment program for clearly identifying the existing problems in the different areas and addressing the remedial measures

11) Improvement of country's image: In order to create positive image of the country, strategies of increasing inward flow of investments, advertisements and campaign in the websites raising qualities and benefits of the products, complying buyers' conditions, removing fraudulence from business, HRD, banks' investment in stock market etc. are to be ensured.

12) Quick actions to be taken:

- rapid establishment of Active Pharmaceutical Ingredients (API) and Central Effluent Treatment Plant (CETP);
- ensuring good governess, accountability and administrative transparency;
- Providing the scope to the field officers to involve with policy making activities;
- motivating the employees;
- taking product wise initiative in the export potential markets;
- searching new export markets;
- forming trade delegation comprise of public and private representatives;
- opening consulate offices and trade display centers in the potential export destinations; and
- introducing and expanding e-Commerce controlled by the competent public authority;

ACRONYMS

AEC	Atomic Energy Commission
ALAC	Asia Pacific Laboratory Accreditation Cooperation
API	Active Pharmaceutical Ingredients
APTA	Asia-Pacific Trade Agreement
ASYCUDA	Automated System of Customs Data
BAB	Bangladesh Accreditation Board
BANSDOC	Bangladesh National Scientific & Technical Documentation Centre
BBS	Bangladesh Bureau of Statistics
BCSIR	Bangladesh Council of Scientific and Industrial Research
BEPZA	Bangladesh Export Processing Zones Authority
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
BIM	Bangladesh Institute of Management

BIMSTEC	Bay of Bengal Initiatives for Multi-Sectoral Technical and Economic Cooperation
BITAC	Bangladesh Industrial and Technical Assistance Centre
BJMC	Bangladesh Jute Mills Corporation
BKMEA	Bangladesh Knitwear Manufacturers and Exporters Association
BMRE	Balancing, Modernisation, Rehabilitation and Expansion
BPC	Business Promotion Council
BSCIC	Bangladesh Small and Cottage Industries Corporation
BSE	Bovine Spongiform Encephalopathy
BSTI	Bangladesh Standards and Testing Institution
BTAs	bilateral trade agreements
BTC	Bangladesh Tariff Commission
BTMA	Bangladesh Textile Mills Association
BTMC	Bangladesh Textile Mills Corporation
BUET	Bangladesh University of Engineering and Technology
CETP	Central Effluent Treatment Plant
CoCs	code of conducts
D-8	Preferential Trade Agreement among D-8 Member States
DCCI	Dhaka Chamber of Commerce & Industry
DTIS	Diagnostic Trade Integration Study
ECGC	Export Credit Guarantee Scheme
EPB	Export Promotion Bureau
ETP	Effluent Treatment Plant
EUREPGAP	Euro-Retailer Produce Working Group Good Agricultural Practices
FBCCI	The Federation of Bangladesh Chambers of Commerce and Industry
FDI	foreign direct investment
G-77	The Group of 77
GCC	Gulf Cooperation Council
GM	genetically modified
GMP	Good Manufacturing Practice
GSTP	Global System of Trade Preferences
HACCP	Hazard Analysis and Critical Control Points
HRD	human resource development
IEC	International Electro-technical Commission
ILO	International Labour Organisation
ISO	International Standardization Organization
JAKIM	Department of Islamic Development Malaysia
KFDA	Korea Food and Drug Administration
KPTA	Korea Pharmaceutical Traders Association
KSA	Kingdom of Saudi Arabia
L/C	letter of credit
LDCs	least developed countries
MCCI	Metropolitan Chamber of Commerce
MRA	Mutual Recognition Agreement
MTAs	Multilateral Trade Agreements
NAM	Non-Aligned Movement

NBR	National Board of Revenue
NOC	no objection certificate
NPO	National Productivity Organization
NTB	non-tariff barrier
ODOP	One District One Product
PPP	Public-private partnership
RMG	readymade garment
ROK	Republic of Korea
SAFTA	South Asia Free Trade Area
SAPTA	SAARC Preferential Trade Arrangements
SFYP	Sixth Five Year Plan
SOEs	state owned enterprises
SCTTI	Small and Cottage Industries Training Institute
SPS	Sanitary and Phytosanitary
TBT	technical barrier to trade
TPS-OIC	Trade Preferential System among the Member States of OIC
TRQ	tariff rate quota
UAE	United Arab Emirates
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNSW	The University of New South Wales
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business.
UNNExT	The United Nations Network of Experts for Paperless Trade in Asia Pacific
USFDA	United States Food and Drug administration
WTO	World Trade Organisation

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Belt and Road Initiative of China: A New Hope in the Region

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Abstract

'One belt, one road' is a development strategy initiated and planned by the Chinese government in 2013 to enhance regional connectivity and to integrate the Silk Road Spirit – "peace and cooperation, openness and inclusiveness, mutual learning and mutual benefit" of the countries along the Belt and Road. It refers to the New Silk Road Economic Belt, which will link China with Europe through Central and Western Asia, and the 21st Century Maritime Silk Road, which will connect China with Southeast Asian countries, Africa and Europe. The initiative also aims to promote flow of economic factors, efficient allocation of resources and regional integration of markets by enhancing connectivity within Asian, European and African continents along with consideration of their adjacent sea areas. China hope annual trade with the countries involved in the "One Belt, One Road" initiative would surpass $2.5 trillion in a decade. The study explores how China wants to further integrate itself into the world economy and strengthen its influence in these regions through establishing "One belt, one road" strategy. It also examines the viability and implications of regional integration for Bangladesh-China-India-Myanmar (BCIM) Economic Corridor and China-Pakistan Economic Corridor (CPEC) which regarded as "closely related to the Belt and Road Initiative". Shanghai Cooperation Organization (SCO) can play a vital role within the framework of this initiative. Considering the existing Chinese Government Policies to support "One Belt One Road", the paper also try to analyze the connectivity and regional integration issue under the flagship of New Silk Roads.

Key Words: One belt, one road, Silk Road, Maritime Silk Road, China, Shanghai Cooperation Organization (SCO), BCIM-Economic Corridor, China-Pakistan Economic Corridor (CPEC)

1. INTRODUCTION

'One belt, one road' is a development strategy initiated by the Chinese government in 2013. It refers to the New Silk Road Economic Belt and the 21st Century Maritime Silk Road which will link in building networking of China with Europe through Central and Western Asia. The vision and actions on jointly building the Silk Road Economic Belt and 21st-Century Maritime Silk Road, raised by President Xi Jinping during his visits to Central Asia and Southeast Asia in 2013. This development strategy was issued by the National Development and Reform Commission and the Ministry of Foreign Affairs and the Ministry of Commerce of China.

2. ONE BELT, ONE ROAD

The Silk Road Economic Belt is the land-based component that together with the oceanic Maritime Silk Road forms One Belt, One Road, a Chinese government economic development framework for primarily integrating trade and investment in Eurasia. The Silk Road Economic Belt initiative was announced by President Xi Jinping on a visit to Kazakhstan. The Silk Road Economic Belt /the "One Belt" refer to begin in Xi'an of Northwest China before expanding its territory to west through Urumqi to Central Asia. From there it goes to northern part of Iran before swinging west through Iraq, Syria, and Turkey. From Istanbul, it crosses the Bosporus Strait and heads northwest through Europe, including Germany and Netherlands. It then heads south to Venice, Italy.

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the Maritime Silk Road goes north around the Horn of Africa and moves through the Red Sea into the Mediterranean. Then it meets the land-based Silk Road in Venice. In fact, the Maritime Silk Road is a complementary initiative aimed at investing and fostering collaboration in Southeast Asia, Oceania, and North Africa, through several contiguous bodies of water – the South China Sea, the South Pacific Ocean, and the wider Indian Ocean area.

3. OBJECTIVES OF THE RESEARCH PAPER

- To address the current development of 'One Belt, One Road' strategy under the global perspective.
- To analyze the scopes and opportunities of the regional development in diverse areas.
- To highlight the economic integration among the participated countries.

4. METHODOLOGY

As the research paper is based on qualitative analysis, no specific research model was being used. The data of the study have been collected from various sources of government web portal, seminars and daily news papers.

5. LITERATURE REVIEW

EIR's special report and comprehensive study, "The New Silk Road Becomes the World Land-Bridge" (2014) lays out the "Metrics of Progress," based on the economic scientific principles developed by renowned physical economist Lyndon LaRouche. It then proceeds region by region, beginning with China and Russia, to present the stunning progress, and plans, which have been made toward the Eurasian Land-Bridge design that the Chinese government laid out in 1996, and other nations have begun to rally behind in recent years.

Byung-Joon Ahn (2004) examined the political economy of interdependence and nationalism that is taking place in East Asia. in The Rise of China and the Future of East Asian Integration.

Lee and Son (2014) stated new argument in "China's Rise and Regional Integration in East Asia" on China's rise and the transformation of East Asia and also analyzes the foreign policy behavior of the regional states and relations among them.
Hasan H. Karrar (2009) traces in his book, "The New Silk Road Diplomacy: China's Central Asian Foreign Policy since the Cold War" on how China cooperated with Russia and the Central Asian republics to stabilize the region, facilitate commerce, and build an energy infrastructure to import the region's oil. While China's gradualist approach to Central Asia prioritized multilateral diplomacy, it also brought Beijing into direct competition with the United States, which views Central Asia as vital to its strategic interests.

6. RECENT DEVELOPMENT

Human beings have always moved from place to place and traded with their neighbors, exchanging goods, skills and innovations. Throughout history, Eurasia was criss-crossed with communication routes and paths of trade, which gradually linked up to form what are known today as the Silk Roads; routes across both land and sea, along which silk and many other goods were exchanged between people from across the world. Maritime routes were an integral part of this network, linking East and West by sea, and were used for the trade of spices in particular.

These vast networks carried more than just merchandise and precious commodities however: the constant movement and mixing of populations also brought about the transmission of knowledge, ideas, cultures and beliefs, which had a profound impact on the history and civilizations of the Eurasian peoples. Travelers along the Silk Roads were attracted not only by trade but also by the intellectual and cultural exchange that was taking place in cities along the Silk Roads, many of which developed into hubs of culture and learning. Science, arts and literature, as well as crafts and technologies were thus shared and disseminated into societies along the lengths of these routes, and in this way, languages, religions and cultures developed and influenced each other.

When Chinese President Xi Jinping visited Central Asia and Southeast Asia in September and October of 2013, he raised the initiative of jointly building the Silk Road Economic Belt and the 21st-Century Maritime Silk Road (hereinafter referred to as the Belt and Road), which have attracted close attention from all over the world. At the China-ASEAN Expo in 2013, Chinese Premier Li Keqiang emphasized the need to build the Maritime Silk Road oriented towards ASEAN, and to create strategic propellers for hinterland development. Accelerating the building of the Belt and Road can help promote the economic prosperity of the countries along the Belt and Road and regional economic cooperation, strengthen exchanges and mutual learning between different civilizations, and promote world peace and development. It is a great undertaking that will benefit people around the world.

6.1 Time line of 'One Belt, One Road' Strategy

There's an old Chinese saying: "If you bond together for profit, when the profits stop the relationship ends. If you bond together for power, when the power stops the relationship ends. Only when you bond together with a true heart can a relationship truly last."

When Chinese President Xi Jinping visited Central Asia and Southeast Asia in September and October of 2013, he raised the initiative of jointly building the Silk Road Economic Belt and the 21st-Century Maritime Silk Road. At the China-ASEAN Expo in 2013, Chinese Premier Li Keqiang emphasized the need to build the Maritime Silk Road oriented towards ASEAN, and to create strategic propellers for hinterland development. Accelerating the building of the Belt and Road can help promote the economic prosperity of the countries along the Belt and Road and regional economic cooperation, strengthen exchanges and mutual learning between different civilizations, and promote world peace and development. It is a great undertaking that will benefit people around the world.

September 2013 -- The "Silk Road Economic Belt" concept was initiated by Chinese President Xi Jinping during his visit to Kazakhstan. In a speech delivered at Nazarbayev University, Xi suggested that China and Central Asia join hands to build a Silk Road Economic Belt to boost cooperation. It was the first time Chinese leadership mentioned the strategic vision.

Oct. 3, 2013 -- President Xi Jinping proposed to build a more closely-knit China-ASEAN community following a common destiny and provided guidance for constructing a 21st Century Maritime Silk Road to promote maritime cooperation. In his speech at the Indonesian parliament, Xi also proposed to establish the Asian Infrastructure Investment

Bank (AIIB) to finance infrastructure construction and promote regional interconnectivity and economic integration.

November 2013 -- The Third Plenary Session of the 18th Central Committee of the Communist Party of China (CPC), a milestone along China's reform path, called for accelerating the interconnection of infrastructure among neighboring countries, and facilitating the construction of the Silk Road Economic Belt and 21st Century Maritime Silk Road.

December 2013 -- President Xi Jinping urged strategic planning of the "Belt and Road" initiatives to promote the interconnection of infrastructure and build a community of common interests at the annual Central Economic Work Conference.

February 2014 -- President Xi Jinping and his Russian counterpart, Vladimir Putin, reached a consensus about the construction of the "Belt and Road", as well as its connection with Russia's Euro-Asia Railways.

March 2014 -- Premier Li Keqiang highlighted acceleration in building the "Belt and Road" in the government work report. The report also promoted balanced development of the Bangladesh-China-India-Myanmar Economic Corridor and the China-Pakistan Economic Corridor.

May 2014 -- The first phase of a logistics terminal jointly built by China and Kazakhstan went into operation in the port of Lianyungang in east China's Jiangsu Province. The terminal, with a total investment of 606 million yuan (98 million U.S. dollars), is seen as a platform for goods from central Asian countries to go overseas and a boost to the construction of the Silk Road Economic Belt.

October 2014 -- Twenty-one Asian countries willing to join the Asian Infrastructure Investment Bank (AIIB) as founding members signed the Memorandum of Understanding on Establishing AIIB. As agreed, Beijing will be the host city for AIIB's headquarters. The 21 countries are Bangladesh, Brunei, Cambodia, China, India, Kazakhstan, Kuwait, Laos, Malaysia, Mongolia, Myanmar, Nepal, Oman, Pakistan, the Philippines, Qatar, Singapore, Sri Lanka, Thailand, Uzbekistan and Vietnam. It is expected that AIIB will be formally established by the end of 2015.

November 2014 -- President Xi Jinping announced China will accelerate the construction of the "Belt and Road" and strengthen cooperation with the countries involved. When presiding over the eighth meeting of the Central Leading Group on Financial and Economic Affairs, Xi announced that China will contribute 40 billion U.S. dollars to set up the Silk Road Fund. During the Beijing APEC meetings, Xi announced that the fund will be used to provide investment and financing support to carry out infrastructure, resources, industrial cooperation, financial cooperation and other projects related to connectivity for countries along the "Belt and Road".

December 2014 -- The Central Economic Work Conference sketched out priorities for the coming year, which include the implementation of "Belt and Road" initiatives. Earlier in the month, Thailand approved a draft memorandum of understanding between Thailand and China on railway cooperation.

January 2015 -- The number of AIIB founding members, many of whom are important countries along the Silk Road routes, rose to 26, after New Zealand, Maldives, Saudi Arabia and Tajikistan officially joined.

Feb. 1, 2015 -- A conference focused on the "Belt and Road" initiatives was held in which Chinese leaders sketched out priorities for the initiatives, highlighting transport infrastructure building, investment and trade facilitation, financial cooperation and cultural exchanges.

March 2015 -- Vision And Actions on Jointly Building Silk Road Economic Belt And 21st-Century Maritime Silk Road was issued by the National Development and Reform Commission, Ministry of Foreign Affairs, and Ministry of Commerce of the People's Republic of China, with State Council authorization.

7. PRIORITIZE AREA

The Belt and Road Initiative, with its focus on five kinds of connectivity – policy communication, infrastructure connectivity, trade links, capital flow and understanding among peoples – bonds together more than 60 countries in Asia, Europe and Africa to work for a community of shared benefits, destiny and responsibility by enhancing mutual political trust, economic integration and cultural inclusiveness.

The Belt and Road Initiatives will benefit:

- 4.4 billion people
- 63% of the global population
- A collective GDP of $2.1 trillion
- 29% of the world's output

8. BENEFICIARY COMPONENTS

'One Belt, One Road' can play vital role to render expected growth in the following drivers of participating countries of 'Belt, Road' Initiative:

8.1 Connectivity issue

China's 'One Belt, One Road' strategy can help in managing the challenges and would be able to provide better, integrated connectivity and greater economic opportunities for the connecting countries. The Belt and Road encompasses the continents of Asia, Europe and Africa, connecting the vibrant East Asia economic circle at one end and developing European economic circle at the other, and can create huge potential for economic development of those countries. The Silk Road Economic Belt focuses on bringing together China, Central Asia, Russia and Europe (the Baltic); linking China with the Persian Gulf and the Mediterranean Sea through Central Asia and West Asia; and connecting China with Southeast Asia, South Asia and the Indian Ocean. The 21st-Century Maritime Silk Road is designed to go from China's coast to Europe through the South China Sea and the Indian Ocean in one route, and from China's coast through the South China Sea to the South Pacific in the other.

On land, the Initiative will focus on jointly building a new Eurasian Land Bridge and developing China-Mongolia-Russia, China-Central Asia-West Asia and China-Indochina

Peninsula economic corridors by taking advantage of international transport routes, relying on core cities along the Belt and Road and using key economic industrial parks as cooperation platforms. The China-Pakistan Economic Corridor and the Bangladesh-China-India-Myanmar Economic Corridor are closely related to the Belt and Road Initiative, and therefore require closer cooperation and greater progress.

8.2 Boost to Regional Economy

The Belt is an overland network bringing together China, Central Asia, Russia and Europe; linking China with the Persian Gulf and the Mediterranean Sea, and connecting China with Southeast Asia, South Asia and the Indian Ocean.
The Road is a maritime network designed to link China’s coast to Europe through the South China Sea and the Indian Ocean in one route, and China’s coast to the South Pacific through the South China Sea in another.

According to Zhang Yansheng, an economist of the National Development and Reform Commission (NDRC), “Better transportation, electricity, energy and telecommunications means more investment opportunities, a foundation for growth and more jobs and he also added Improvements in infrastructure and financial services will also help trade in the region”

BCIM and China-Pakistan Economic Corridor: Closely related networks

In ‘Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road’, it was clearly stated that ‘the China-Pakistan Economic Corridor and the Bangladesh-China-India-Myanmar Economic Corridor are closely related to the Belt and Road Initiative, and therefore require closer cooperation and greater progress’.

8.3 Infrastructure Development

According to the Asian Development Bank, there is an annual “gap” between the supply and demand for infrastructure spending in Asia on the order of $800 billion. In view of development of infrastructure at the heart of the Belt and Road, there is scope for the initiative to play a constructive role in regional economic integration architecture. On the other hand, the vibrant economy of China is mainly export oriented and it needs to create domestic demand as well as search new markets for maintaining sustainable growth. Infrastructure development plans such as network of ports can help Chinese goods to enter regional markets easily and also can crate huge demand.

China International Trust and Investment Corporation (Citic) announced that they would invest in 300 projects (of $113 billion) stretching from Singapore to Turkmenistan that include a network of roads and railways, oil and gas pipelines, power grids, internet networks, and maritime links. New Markets and Demand.

8.4 Energy Security

Currently, Asia faces several energy needs. Its growing countries are demanding more energy as well as energy-intensive products such as iron, steel, cement, electric appliances and cars. They are also increasingly looking to adopt clean energy. This fast-growing energy consumption requires more reliable and efficient infrastructure and markets. Under the broader aspect of "One Belt, One Road" initiative, China may help to offset this major challenge. China may invest in energy projects ranging from upstream projects, oil and gas pipelines, and liquefied natural gas terminals to high-voltage power lines, nuclear power and renewable energy. It may create a more efficient and better integrated energy network in the region. As such, a hub and proper pricing system is necessary to facilitate the fast-growing market for natural gas in the region. Some of China's harbour cities such as Shanghai and Tangshan , in Hebei , have put forward the idea of developing a natural gas hub. Given the rising demand, participation by other East Asian economies can turn this vision into reality. In terms of a more integrated energy network, the design of the "One Belt, One Road" initiative offers all Asian countries better energy connectivity, more economic opportunities for local communities and stronger communication among different nations and peoples.

8.5 Free Trade Area

"Belt and Road" Initiative is expected to promote free trade agreement negotiations with countries along the routes, improving the flow of exports and imports

8.6 Silk Road Fund and Financial integration

'Financial integration is an important underpinning for implementing the Belt and Road Initiative. We should deepen financial cooperation, and make more efforts in building a currency stability system, investment and financing system and credit information system in Asia. We should expand the scope and scale of bilateral currency swap and settlement with other countries along the Belt and Road, open and develop the bond market in Asia, make joint efforts to establish the Asian Infrastructure Investment Bank and BRICS New Development Bank, conduct negotiation among related parties on establishing Shanghai Cooperation Organization (SCO) financing institution, and set up and put into operation the Silk Road Fund as early as possible' (According to the 'Vision and Actions on Jointly Building Silk Road Economic Belt and 21st- Century Maritime Silk Road).

The first investment project of the Silk Road Fund is the Karot Hydropower Station in Pakistan. The investment into the $1.65 billion Karot hydropower project in Pakistan, along with other hydropower projects in the region, will help the South Asian country upgrade power supply and improve its economic performance.

8.7 People-to-people bond

According to the 'Vision and Actions on Jointly Building Silk Road Economic Belt and 21st- Century Maritime Silk Road' People-to-people bond was depicted as 'People-to-people bond provides the public support for implementing the Initiative. We should carry forward the spirit of friendly cooperation of the Silk Road by promoting extensive cultural and academic exchanges, personnel exchanges and cooperation, media cooperation, youth and women exchanges and volunteer services, so as to win public support for deepening bilateral and multilateral cooperation'.

9. SHANGHAI COOPERATION ORGANIZATION (SCO)

'One belt, One Road' is coherent with the interests of the Shanghai Cooperation Organization (SCO) which would gain more momentum in economic cooperation, because it would act as an interaction platform of the Silk Road Economic Belt.

In the 21st century, a new era marked by the theme of peace, development, cooperation and mutual benefit, it is all the more important for us to carry on the Silk Road Spirit in face of the weak recovery of the global economy, and complex international and regional situations.

The Belt and Road Initiative is an integrated project which should be jointly built through mutual consultation regarding interests of every stakes and efforts should be made to integrate the development strategies of the countries along the Belt and Road. The Chinese government has published the Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road to promote the implementation of the Initiative, instill vigor and vitality into the ancient Silk Road, connect Asian, European and African countries more closely and promote mutually beneficial cooperation to a new high and in new forms.

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How Tourism Endanger the Environmental Stability? A Case Study on the Sea-beach area of Cox's Bazar in Bangladesh

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Abstract

Bangladesh has a lot of potentiality & prospect in Tourism and it is expanding day by day. The Government is patronizing this sector and the 'Coastal Areas' are the most potential sector of tourism in Bangladesh right now. Bangladesh has world's largest Sea beach at Cox's Bazar. Other most potential coastal areas are Kuakata and St. Martin's Island. Tourism is increasing at these places. Government of Bangladesh is now able to earn more revenue from tourism of these places. But, Tourism has some drawbacks. One of the major drawbacks is: environmental pollutions, created by the tourists and the tourism related objects. This writing is a small endeavor to identify and point out about these issues and is a trial to search out solutions through Government policy which will be able to mitigate the environmental degradation as well as helpful for the development of Tourism at the Coastal areas in Bangladesh.

Keywords: Tourism, Impact, Environment, Policy.

1. PREAMBLE

Recreation and leisure now form a major component of human activity and, when combined with travel, comprise the growing tourist industry. It has created jobs in both large and small communities and is a major industry in many places. It is the dominant economic activity in some communities. Yet, the impacts of tourism to a community are not widely understood – even where tourism is growing dramatically and should be of the greatest interest or concern. Most people think of tourism in terms of economic impacts, jobs, and taxes. However, the range of impacts from tourism is broad and often influences areas beyond those commonly associated with tourism. Leaders as well as residents who understand the potential impacts of tourism can integrate this industry into their community in the most positive way. Tourism especially, marine and coastal tourism is one the fastest growing areas within the world's largest industry. Yet despite increased awareness of the economic and environmental significance of tourism, it is only in recent years, scientific researches have emerged (Hall, 2001).

Tourism can bring numerous socio-economic benefits to a region, in terms of creating local employment, stimulating local economies, generating foreign exchange, stimulating improvements to local transportation infrastructure, and creating recreational facilities (Budowski, 1976). In turn, several positive environmental effects (McNeely, 1988) are derived from these socio-economic benefits including:

- Promoting conservation action by convincing government officials and the general public of the importance of natural areas for generating tourist income;

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- Stimulating investment in infrastructure and effective management of natural areas;
- Encouraging productive use for conservation objectives of lands which are marginal to agriculture, leading to the retention of natural vegetation and/or landscapes.

The environmental effects identified above can provide incentives for effective management of the natural areas which are tourist destinations thereby enhancing the qualities of the natural resources that initially attracted tourists. Furthermore, tourism can subsidize the cost of national park management as, for example, in Costa Rica (Barborak in McNeely 1988). In this sense, properly planned and managed tourism in natural areas is both non-polluting, sustainable and compatible with conservation, and numerous examples exist where tourism has provided the incentive for conserving biological resources (Saenger, P., 1990).

Natural areas such as mountains, forests, coral reefs, islands and beaches are major attractions for tourists and these areas are coming under increasing pressure from the tourist industry (Beekhuis, 1981; Salm, 1983; Lal, 1984). Coastal resources in particular are subject to this pressure and the appendix shows some selected population densities expressed per length of coastlines. Because of the significance of the natural resources at many of the tourist destinations, important biological resources also may be damaged by poorly planned and/or managed tourist operations. Some of these adverse impacts of tourism are identified and examined with special emphasis on coastal projects in tropical regions (Saenger, P., 1990).

The impacts of tourism can be subdivided into those impacts from the tourist development (e.g. hotels, resorts, marinas, transport infrastructure) and those from the tourists themselves (e.g. trampling, fishing, social effects) (Saenger, P., 1990). The impacts of tourist development need to be addressed largely in the planning stages of a project, while the impacts from the tourists can be controlled by the day-to-day management of the tourists' activities (Saenger, P., 1990).

Tourism is one of the most promising foreign currency earning sectors in Bangladesh (www.tradingeconomics.com). Several archaeological sites, historical mosques and monuments, resorts, beaches, picnic spots, forests and tribal people, wildlife of various species are the basic attractions for the tourists. Bangladesh has a lot of natural phenomena and a major portion of these phenomena are around the coastal areas. Some international tourism related organizations have already ranked Bangladesh as the best ‘Value Destination’ for the year 2011 (Lonely Planet 2011, en.wikipedia.org).

The most potential tourism area of Bangladesh is the South-Eastern Coastal Areas. It’s gradually becoming as a suitable tourist destination. Among the coastal areas, Cox’s Bazar is the ideal most for the tourists. “This is because the world's longest constant natural sandy beach (more than 120km /62.5 miles) is situated at Cox's Bazar which has a variety of natural phenomena (www.parjatan.gov.bd)”. “The north of Cox's Bazar is Chittagong and the hill districts of Bandarban and Khagrachhari, to the east is Myanmar, to the west and south is the Bay of Bengal (www.parjatan.gov.bd)”. Just because of proper marketing and propaganda of the Bangladesh Government, still now, this long coastal line is not often explored but it should not be hidden in recent future and if the Government can utilize this sea beach properly then it should become another ideal holiday destination of Asia like 'Pattaya' in Thailand or 'Galle' in Sri Lanka. "The Government of Bangladesh has new plans to put this area as a Tourist Holiday Zone of this country on the International tourist map (www.parjatan.gov.bd)". "It hopes to earn more than $5billion (£3.17billion) from tourism in the next 10 years by attracting more domestic and foreign visitors (Ahammed, 2010)".

Tourism in Bangladesh is managed by Bangladesh Parjatan Corporation (BPC). The economic contribution of tourism and the share of Cox's Bazar to the national economy are not studied with reliable statistics. World Travel and Tourism Council's Bangladesh Country Report 2010 forecasted that "the contribution of Travel & Tourism (TT) to Gross Domestic Product (GDP) is expected to rise from 3.9% (BDT265.9bn or US$3,786.4mn) in 2010 to 4.1% (BDT788.4bn or US$8,781.7mn) by 2020". "The Real GDP growth for the Travel & Tourism Economy (TTE) is expected to be 1.7% in 2010 and to average 6.4% per annum over the coming 10 years (World Travel & Tourism Council, 2010)". "The contribution of the TTE to employment is expected to rise from 3.1% of total employment, 2,373,000 jobs or 1 in every 32.3 jobs in 2010, to 3.2% of total employment, 3,114,000 jobs, or 1 in every 31.1 jobs by 2020 (Ahammed, 2010)". "Export earnings from international visitors are expected to generate .5% of total exports (BDT6.0bn or US$85.8mn) in 2010, growing (nominal terms) to BDT20.5bn or US$228.5mn (.5% of total) in 2020 (Ahammed, 2010)". "Travel & Tourism investment is estimated at BDT64.0bn, US$911.9mn or 3.7% of total investment in 2010 (Ahammed, 2010)". "By 2020, this should reach BDT190.7bn, US$2,124.5mn or 3.8% of total investment (World Travel & Tourism Council, 2013)".

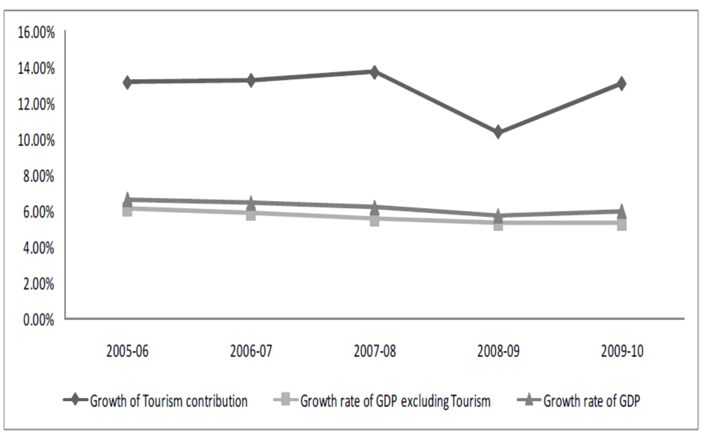

Figure 01. Comparative growth of Tourism, Total GDP and GDP excluding Tourism
(Das & Chakraborty 2012)

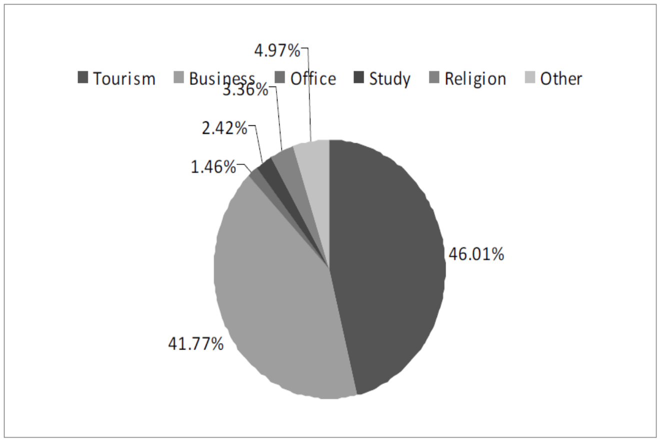

Figure 02. Comparative arrival of Tourists in Bangladesh in 2009
(Das & Chakraborty 2012)

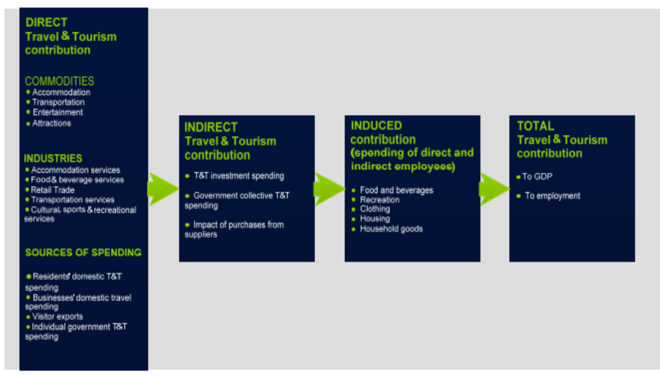

Figure 03. How Tourism works at the Economy of Bangladesh
(World Travel & Tourism Council, 2013)

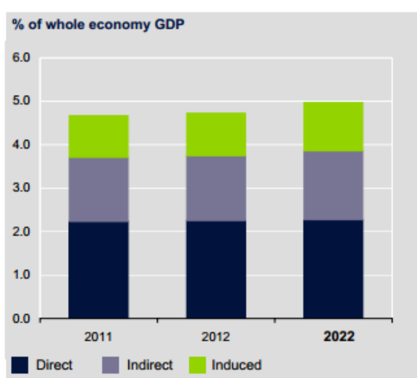

Figure 04. Total Contribution of Travel and Tourism to GDP of Bangladesh at 2012
(World Travel & Tourism Council, 2013)

Within this background, this study is an endeavor to find out the environmental impacts of tourism at Cox's Bazar Sea beach area of Bangladesh as a case study.

1.2 PROBLEMS STATEMENT

Although the tourism industry in Bangladesh is still in a taking-off stage and the Government of Bangladesh is highly patronizing this sector but the concerned authority is not aware of the drawbacks of Tourism which is increasing day by day and endangered the environment of these areas. There are a lot of problems happed generally in the coastal areas like: Loss of marine resources due to destruction of coral reefs, overfishing, Pollution of marine and freshwater resources, Soil degradation and loss of land resources, Air pollution, Loss of cultural resources, social disruption, Loss of public access and so on just because of Tourism (www.coastalwiki.org). In 1996, The World Tourism Organization jointly with the tourism private sector issued an Agenda 21 for the Travel and Tourism Industry, with 19 specific areas of action recommended to governments and private operators towards sustainability in tourism (www.coastalwiki.org). What is the impact of Tourism on the environment of the coastal areas in Bangladesh and how the authority can prevent the negative impact of tourism at the environment through policy formulation; this writing is an initiative about it. This study tried to focus on the most popular coastal tourism area-Cox's Bazar and the areas around the Cox's Bazar in Bangladesh.

1.3 OBJECTIVES

The objective of this study is - to scrutinize the Impacts of Tourism on the environment in Bangladesh. Specially:

- Examine the impact of tourism at the environment of the coastal area;
- Prepare some recommendations which will be helpful for the policy makers to continue the Tourism along with preserving the environmental stability of the coastal areas.

1.4 QUESTIONS FOR THE RESEARCH

1. What is the impact of tourism at the environment of Cox's Bazar?
2. What measures should be helpful for the policymakers to preserve the environmental stability as well as develop the Tourism at this area?

2. REVIEW OF RELATED LITERATURE

2.1 OVERVIEW

The quality of the environment, both natural and man-made, is essential to tourism. However, the relationship of tourism with the environment is complex (Sunlu U, 2003). It involves many activities that can have adverse environmental effects. Many of these impacts are linked with the construction of general infrastructure such as roads and airports, and of tourism facilities, including resorts, hotels, restaurants, shops, golf-courses and marinas (Sunlu U, 2003). The negative impacts of tourism development can gradually destroy environmental resources on which it depends (Sunlu, U., 2003). On the other hand, tourism has the potential to create beneficial effects on the environment by contributing to environmental protection and conservation. It is a way to raise awareness of environmental values and it can serve as a tool to finance protection of natural areas and increase their economic importance (Sunlu U, 2003).

Negative impacts from tourism occur when the level of visitor use is greater than the environment's ability to cope with this use within acceptable limits of change. Uncontrolled conventional tourism poses potential threats to many natural areas around the world (Sunlu U, 2003). It can put enormous pressure on an area and lead to impacts such as soil erosion, increased pollution, discharges into the sea, natural habitat loss, increased pressure on endangered species and heightened vulnerability to forest fires. It often puts a strain on water resources, and it can force local populations to compete for the use of critical resources.

2.2 BACKGROUND OF TOURISM

Tourism is often viewed as an expression of human behavior (Kim, 2002). Tourism is an invisible industry, encompassing transportation, lodging, and entertainment (Harrill and Potts, 2003). Tourism as the set of ideas, theories, or ideologies for being a tourist, and that it is the behavior of people in tourist roles, when these ideas are put into practice (Przeclawski, 1986). Once a community becomes a destination, the lives of residents in the community are affected by tourism, and the support of the residents is essential for the development, planning, successful operation and sustainability of tourism (Kim, 2002). Therefore, the quality of life of the residents should be a major concern for community leaders (Tamakloe, 2011).

Thus, tourism is a complex industry which provides employment opportunities and tax revenues and supports economic diversity (Tamakloe, 2011). It has very different impacts, both positive and negative, or even mixed ones and comes in many shapes and forms such as social, cultural, economic, and environmental (Godfrey & Clarke, 2000). Tourism has been a source of social-economic change in many developing countries (Tamakloe, 2011). Tourism is one of the world’s fastest growing industries and one of the global engines of development (World Tourism Organization Network, 2012). As one of the largest industry in the world, tourism employs 192.3 million workers (World Tourism Organization Network, 2012). International tourism arrivals will grow by an estimated 4.3 percent per year and spending will grow by an estimated 6.7 percent per year, providing communities and tourism interests with both a problem of managing such growth and the possibility of sustainable economic development (Tamakloe, 2011).

Mobility, disposable income, communication technologies and more discretionary time have all contributed to the diversification of tourism (Wearing, 2001). In 2005, tourism generated around US$ 735 billion which is most often attributed to mass tourism (World Tourism Organization Network, 2012).

Early planning of tourism focused on the economic benefits with little regard to the socio-cultural or environmental impacts (Tamakloe, 2011). During the 1960’s and 70’s the prevalent thinking was that tourism was a clean industry with no fumes or pollution and had an economic multiplier effect to drive high employment (Tamakloe, 2011). This attitude was soon challenged and the ideal of tourism for producing high foreign exchange earnings were negated by the tourism related jobs that were seasonal and low paying in nature among others (Tamakloe, 2011). This led to the 1990’s where tourism policy makers and development agencies began to evaluate the economic, social, cultural, and political sustainability of tourism (Tamakloe, 2011).

2.4 TOURISM'S GENERAL IMPACT ON ENVIRONMENT

The direct effect of tourist developments includes a loss of habitat in a specified area which invariably leads to a reduction in species diversity in and around that area, and may lead to the loss of a particular species from a region depending on the extent or intensity of land-use changes (e.g. Hockey, 1987).

Whether for recreation, bait, souvenirs or subsistence, collecting in shallow waters or intertidal areas can have large local impacts (Cryer et al., 1987; Duran and Oliva, 1987; Catterall and Poiner, 1987). In fact, Hockey (1987) has suggested that the extinction of the Canary Island oystercatcher was probably precipitated by increasing disturbance and competition with man for intertidal marine food resources. As with recreational fishing, where collecting is concentrated (e.g. around tourist resorts), prohibition or regulation needs to be part of the day-to-day management plan. Non-extractive activities which may affect the environment significantly include trampling, use of off-road vehicles, noise and disturbance on fauna, anchor and flipper damage, vandalism and littering.

2.4.1 DEPLETION OF NATURAL RESOURCES

Tourism development can put pressure on natural resources when it increases consumption in areas where resources are already scarce. Quite apart from the intrinsic value of species, both species and species diversity enhance the pleasure of visitors to an area (Everett, 1977; 1979) and as such, comprise an economic resource (Everett, 1978; Loomis, 1986). For example, in Kenya, where tourism is the leading foreign exchange earner (US \$60 x 106/year), each lion in Amboseli National Park has been estimated to be worth US \$27,000/year in visitor attraction, and each elephant herd is worth US \$610,000/year. Net park earnings from tourism are estimated at US \$40/hectare/year (Western, 1984).

2.4.1.1 WATER RESOURCES

Water, and especially fresh water, is one of the most critical natural resources. The tourism industry generally overuses water resources for hotels, swimming pools, golf courses and personal use of water by tourists. This can result in water shortages and degradation of water supplies, as well as generating a greater volume of waste water. In dry and hot regions like the Mediterranean, the issue of water scarcity is of particular concern. Because of the hot climate and the tendency of tourists to consume more water when on holiday than they do at home, the amount used can run up to 440 liters a day. This is almost double what the inhabitants of an average Spanish city use (UNEP, 1999).Golf course maintenance can also deplete fresh water resources. In recent years golf tourism has increased in popularity and the number of golf courses has grown rapidly. Golf courses require an enormous amount of water every day and as with other causes of excessive extraction of water, this can result in water scarcity. If the water comes from wells, overpumping can cause saline intrusion into groundwater. Golf resorts are more and more often situated in or near protected areas or areas where resources are limited.

In the offshore areas, habitat losses usually result from dredging or reclamation works associated with the landward facilities or from changed circulation patterns as a result of water-based facilities. Dredging, reclamation and siltation are known to adversely affect most inshore ecosystems and the resources and services provided by these communities (Canestri and Ruiz, 1973; Amesbury, 1981; Chansang et al., 1981; Saenger et al., 1983; White 1987; Chansang, 1988). Earthworks on land in close proximity to the shoreline for industrial land, ports, airports and recreational facilities may have similar effects and, for example, are estimated to have caused the loss of over 3000 ha of coral reef and seagrass habitat in Bahrain (Madany, 1987). For localized dredging operations near coral reefs, a number of ameliorative measures may be used to contain the effects of the resultant sedimentation including silt 'geotextile' curtains (Gabrie et al., 1985).

2.4.1.2 LOCAL RESOURCES

Tourism can create great pressure on local resources like energy, food, and other raw materials that may already be in short supply. Greater extraction and transport of these resources exacerbates physical impacts associated with their exploitation. Because of the seasonal character of the industry, many destinations have ten times more inhabitants in the high season than in the low season. High demand is placed upon these resources to meet the high expectations tourists often have (proper heating, hot water, etc.).

2.4.1.3 LAND DEGRADATION

Important land resources include minerals, fossil fuels, fertile soil, forests, wetland and wildlife. Increased construction of tourism and recreational facilities has increased pressure on these resources and on scenic landscapes. Direct impact on natural resources, both renewable and non-renewable, in the provision of tourist facilities can be caused by the use of land for accommodation and other infrastructure provision, and the use of building materials. Forests often suffer negative impacts of tourism in the form of deforestation caused by fuel wood collection and land clearing. For example, one trekking tourist in Nepal and area already suffering the effects of deforestation can use four to five kilograms of wood a day (UNEP, 1999).

2.4.2 POLLUTION

Tourism can cause the same forms of pollution as any other industry: air emissions, noise, solid waste and littering, releases of sewage, oil and chemicals, even architectural/visual pollution.

2.4.2.1 AIR POLLUTION AND NOISE

Transport by air, road, and rail is continuously increasing in response to the rising number of tourists and their greater mobility. The International Civil Aviation Organization reported that the number of international air passengers worldwide rose from 88 million in 1972 to 344 million in 1994. One consequence of this increase in air transport is that tourism now accounts for more than 60% of air travel and is therefore responsible for an important share of air emissions. One study estimated that a single transatlantic return flight emits almost half the CO emissions produced by all other sources (lighting, heating, car use, etc.)

consumed by an average person per year (ICAO, 2001). Transport emissions and emissions from energy production and use are linked to acid rain, global warming and photochemical pollution. Air pollution from tourist transportation has impacts on global level, especially from carbon dioxide (CO_2) emissions related to transportation energy use. And it can contribute to severe local air pollution. Some of these impacts are quite specific to tourist activities. For example, especially in very hot or cold countries, tour buses often leave their motors running for hours while the tourists go out for an excursion because they want to return to a comfortably air-conditioned bus.

Noise pollution from airplanes, cars, and buses, as well as recreational vehicles such as snowmobiles and jet skis, is a problem of modern life. In addition to causing annoyance, stress, and even hearing loss for humans, it causes distress to wildlife, especially in sensitive areas (www.unepie.org/tourism).

Underwater noise or vibrations may cause behavioural changes such as avoidance in locally resident or migratory species of invertebrate, fish, birds and marine mammals (Mills and Renouf, 1986; Bleckmann and Lotz, 1987; Hanlon and Budelmann, 1987; Heinisch and Wiese, 1987). Abovewater noise, particularly low-flying planes and helicopters, may also affect these organisms, particularly birds (Hicks et al., 1987).

2.4.2.2 SOLID WASTE AND LITTERING

In areas with high concentrations of tourist activities and appealing natural attractions, waste disposal is a serious problem and improper disposal can be a major despoiler of the natural environment, rivers, scenic areas, and roadsides. For example, cruise ships in the Caribbean are estimated to produce more than 70,000 tons of waste each year. Solid waste and littering can degrade the physical appearance of the water and shoreline and cause the death of marine animals (UNEP, 1997). In mountain areas, trekking tourists generate a great deal of waste. Tourists on expedition leave behind their garbage, oxygen cylinders and even camping equipment. Such practices degrade the environment with all the detritus typical of the developed world, in remote areas that have few garbage collection or disposal facilities.

2.4.2.3 SEWAGE

Construction of hotels, recreation and other facilities often leads to increased sewage pollution. Wastewater pollutes seas and lakes surrounding tourist attractions, damaging the flora and fauna. Sewage runoff causes serious damage to coral reefs because it contains lots of nutrients and it stimulates the growth of algae, which cover the filter-feeding corals, hindering their ability to survive. Changes in salinity and transparency can have wide-ranging impacts on coastal environments. And sewage pollution can threaten the health of humans and animals.

Probably the single most important indirect effect of tourist developments is that of a decline in local water quality. Sewage discharges, particularly if inappropriately sited or inadequately treated, are the most common sources of adverse effects on the ecology (see review by Pastorok and Bilyard 1985). Kaneohe Bay, Hawaii has been the site of the most detailed study of the effects of urban runoff and sewage on a coral reef ecosystem (Banner, 1974). In this bay, there was a drastic decline in the coral cover (particularly of *Porites compressa*) with the heavy overgrowth by algae, such as *Dictyosphaeria cavernosa.* Immediately after resiting the sewage outfalls, some recovery was evident (Smith 1977) and six years later the coral and macroalgal cover had returned to pre-discharge levels (Maragos et al., 1985).

In the Caribbean, less than 10% of the sewage generated is treated and bacterial levels regularly exceed international standards for recreational contact waters (Barnes, 1973: Ward and Singh, 1987) as in other tourist regions where treatment facilities are inadequate (e.g. the Alicante coast of Spain which is visited by 5 x 106 tourists per year - Zoffman et al., 1989). Wherever circulation or dispersion is restricted, sewage discharges may result in algal blooms which, in turn, reduce the benthic (including coral) diversity. For example, in the Caribbean, the mat-forming alga *Cladophora prolifera* presently covers huge areas of inshore waters although 25 years ago, it was not reported (Bach and Josselyn, 1978; 1979; Lapointe and O'Connell, 1989). This alga, with a highly active alkaline phosphatase system and, thus, a high capacity to recycle organic phosphorus, can grow well in oligotrophic waters doubling its biomass every 100 days. However, with N and/or P enrichment, the biomass doubling time of this species is reduced to 14 days, allowing extensive mats to form which cause anoxia and a reduction in infaunal and epifaunal species diversity on decomposition (Lapointe and O'Connell, 1989).

Quite apart from the eutrophication effects described above, phosphate enrichment of coral reef waters may directly inhibit hard coral growth through phosphate inhibition of calcium carbonate deposition (Simkiss, 1964), an essential process of healthy coral growth. Seagrass and mangrove systems appear to be less susceptible to damage from sewage discharges, as they have a capacity to absorb high levels of nutrients (Nedwell, 1974a; Montgomery and Price,1979). Nevertheless, high organic loading to these systems may cause anoxia and increase the turbidity to levels where the resilience and diversity of these systems is adversely affected. Furthermore, as Nedwell (1974b) pointed out, where the discharges contain significant amounts of heavy metals or other industrial wastes, toxic bioaccumulation, particularly in fish, crustaceans and molluscs, may occur through the adsorption and subsequent release to the foodchain of these compounds (Montgomery and Price, 1979).

Heavy metals have also been identified as emanating from other tourist activities. For example, outboard motors on recreational boats were identified as a source of mercury and lead in a coastal lagoon in Argentina (Marcovecchio et al., 1986). It was found that mercury was bioaccumulated, increasing markedly with increases in trophic level. Lead, on the other hand, became immobilized into highly calcified tissues and, thus, was not bioaccumulated. Anti-fouling paints are also a source of heavy metals (copper, mercury and lead) and TBT, and have been implicated in major community changes in poorly flushed waters such as marinas (Stallard et al.,1987). Barnes (1973), in his analysis of Caribbean sewage effects, showed that with the increased use of package treatment plants rather than simple septic systems, the potential to minimize sewage effects existed. However, a number of factors relating to the operation of package plants were responsible for not realizing that potential. These factors need to be considered in day-to-day management planning for tourist developments. They include:

- Fluctuating loads during peak and slack tourist seasons caused problems of overload at certain times, and an inadequate load to maintain the microbial populations within the plant at other times;
- Package plants were often operated by inexperienced personnel rather than by sanitary engineers, as a result of which, package plants were poorly maintained, and subject to frequent mechanical failure;
- Virtually no monitoring of package plant function was undertaken.

2.4.2.4 AESTHETIC POLLUTION

Often tourism fails to integrate its structures with the natural features and indigenous architectural of the destination. Large resorts of disparate design may look out of place in a natural environment and may clash with the indigenous structural design. A lack of land-use planning and building regulations in many destinations has facilitated sprawling developments along coastlines, valleys and scenic routes. The sprawl includes tourism facilities themselves and supporting infrastructure such as roads, employee housing, parking, service areas, and waste disposal.

2.4.3 PHYSICAL IMPACTS

Attractive landscape sites, such as sandy beaches, lakes, riversides, and mountaintops and slopes, are often transitional zones, characterized by species-rich ecosystems. Typical physical impacts include the degradation of such ecosystems. An ecosystem is a geographic area including all the living organisms (people, plants, animals, and microorganisms), their physical surroundings (such as soil, water, and air), and the natural cycles that sustain them. The ecosystems most threatened with degradation are ecologically fragile areas such as alpine regions, rain forests, wetlands, mangroves, coral reefs and sea grass beds. Threats to and pressures on these ecosystems are often severe because such places are very attractive to both tourists and developers. Physical impacts are caused not only by tourism-related land clearing and construction, but by continuing tourist activities and long-term changes in local economies and ecologies.

2.4.3.1 PHYSICAL IMPACTS OF TOURISM DEVELOPMENT

- *Construction activities and infrastructure development*: The development of tourism facilities such as accommodation, water supplies, restaurants and recreation facilities can involve sand mining, beach and sand erosion, soil erosion and extensive paving. In addition, road and airport construction can lead to land degradation and loss of wildlife habitats and deterioration of scenery.

- *Deforestation and intensified or unsustainable use of land*: Construction of ski resort accommodation and facilities frequently requires clearing forested land. Coastal wetlands are often drained and filled due to lack of more suitable sites for construction of tourism facilities and infrastructure. These activities can cause severe disturbance and erosion of the local ecosystem, even destruction in the long term.

- Hodgson and Dixon (1988) have reported on the wide-ranging effects of logging operations in the catchment of Bacuit Bay on Palawan in the Philippines and were able to relate the input of silt to a decrease in various biological parameters which were of significance to the local tourist industry. Dramatic changes in coral species diversity and coral cover in the adjacent reefs were immediately apparent and fish standing stock (measured as fish catch) showed an equally rapid decline. Regression analysis was used to predict the effects of continuing sedimentation from the logging operation and, these effects will persist for several years beyond the time (1992) when logging of the area is expected to be completed.

- *Marina development*: Development of marinas and breakwaters can cause changes in currents and coastlines. Furthermore, extraction of building materials such as sand affects coral reefs, mangroves, and hinterland forests, leading to erosion and destruction of habitats. In the Philippines and the Maldives, dynamiting and mining of coral for resort building materials has damaged fragile coral reefs and depleted the fisheries (Hall, 2001).

- Overbuilding and extensive paving of shorelines can result in destruction of habitats and disruption of land-sea connections (such as sea-turtle nesting spots). Coral reefs are especially fragile marine ecosystems and are suffering worldwide from reef-based tourism developments. Evidence suggests a variety of impacts to coral result from shoreline development, increased sediments in the water, trampling by tourists and divers, ship groundings, pollution from sewage, over-fishing, and fishing with poisons and explosives that destroy the coral habitat (Hall, 2001).

- Dredging at the mouth of rivers or coastal lagoons is often necessary to allow boat access. When such dredging is undertaken without adequate knowledge of the dynamics of sediment movement in the area, the resultant instability of nearby channels, sand-bars or beaches can have undesirable environmental effects which may be costly to rectify. In addition, the provision of a navigable channel will open an area which was previously less accessible which, in turn, may result in increased human activity in the area.

- The hydraulic consequences of dredging operations also need to be considered as changed natural flow patterns, tidal circulation or wave energy conditions may have far-reaching consequences on nearby ecosystems; these consequences may result indirectly through abiotic changes (e.g. changed salinity gradients in estuaries or erosion patterns on beaches) or directly from such factors as altered recruitment or mortality patterns, or growth conditions.

- Apart from their hydraulic consequences, berthing facilities, marinas or residential canal developments may reduce local habitat values (Odum, 1970; Lindall and Trent, 1975; Saenger and McIvor, 1975; Westman, 1975; Davies and Stewart, 1984; Stallard et al., 1987) through changes in water quality (e.g. salinity and oxygen stratification, anti-fouling compounds, organic loading, and turbidity), habitat diversity (uniform depths and substrates) or food availability. In California, for example, tributyltin (TBT) concentrations were determined in 80 marinas and were found to range from 20 to 600 ppb (Stallard et al., 1987). In those marinas where the concentrations exceeded about 100 ppb, there was a conspicuous absence of organisms, especially molluscs, which are among the most sensitive organisms to TBT.

2.4.3.2 PHYSICAL IMPACTS FROM TOURIST ACTIVITIES

- Vandalism is a phenomenon which has rarely been studied and which, thus, is difficult to quantify. However, vandalism has been identified as a major factor in destroying the limestone caves in Bermuda (Iliffe, 1979), which attract approximately 3.2x 105 visitors each year and generate approximately US $106/year. In addition, these caves are being affected by infilling, water pollution and littering (Iliffe, 1979).

- Littering is also a form of vandalism with both ecological and aesthetic consequences (Siung-Chang and Deane, 1984; Coulton and Mocogni, 1987). In Trinidad, the deposition rate on four of the most popular beaches was estimated at 0.87 tons/week (Siung-Chang and Deane, 1984), which, without daily maintenance, would soon render these beaches unsuitable for recreational purposes. The average litter load was 74 g/m2, with about 60% being material deposited by beach users. Soft drink cans and pull tabs constituted 42%, plastic bags, containers and sheeting 30%, and glass about 4%. As most of these materials are resistant to chemical and biological degradation, they are likely to cause persistent problems of injury and entanglement to the coastal ecology.

- *Trampling*: Tourists using the same trail over and over again trample the vegetation and soil, eventually causing damage that can lead to loss of biodiversity and other impacts. Such damage can be even more extensive when visitors frequently stray off established trails. Loss of terrestrial habitat results from the clearing of upland vegetation as part of the site preparation prior to the commencement of construction. While landscaping is now generally practiced and may offset some losses, some permanent loss of habitat is invariably involved (Goldsmith, 1974). As many tourist developments are situated close to coastal ecosystems, interference with such habitats may lead to a destabilization of dune systems or shoreline vegetation which may be both difficult and expensive to re-stabilize.

- **Trampling impacts on vegetation Trampling impacts on soil**

Trampling impacts on vegetations	Trampling impacts on soil
Breakage and bruising of stems	Loss of organic matter
Reduced plant vigor	Reduction in soil macro porosity
Reduced regeneration	Decrease in air and water permeability
Loss of ground cover	Increase in run off
Change in species composition	Accelerated erosion

(source: www.unepie.org/tourism)

- Trampling and the use of off-road vehicles leads to damage to fragile vegetation and soil changes which are likely to remain permanent (Liddle and Greig-Smith, 1975; Webb et al., 1978; Jim, 1987). Off-road vehicles on beaches have also been implicated in modifying the littoral fauna (Steiner and Leatherman, 1981; Wolcott and Wolcott, 1984). In sensitive areas such as dunes and mangroves, boardwalks may be used to reduce trampling effects while enhancing access. Trampling also may damage corals and coral reefs (Woodland and Hooper, 1977; Liddle and Kay, 1987), particularly branching and tabular species, and intertidal reef walking may require strict regulation if coral damage is to be contained. To view corals at low water, walking trails can be laid out on sand among coral areas - thus providing convenient access without undue trampling effects.

- The frequent presence of people, particularly in large numbers, can disturb faunal populations such as nesting seabirds (Anderson and Keith, 1980; Hicks et al., 1987) and tortoises (Stoddart et al., 1982; de Groot, 1983). Stoddart et al. (1982) report on the apparently successful transplanting of a land tortoise population as a means of deflecting tourist pressure from their primary habitat.

- *Anchoring and other marine activities*: In marine areas (around coastal waters, reefs, beach and shoreline, offshore waters, uplands and lagoons) many tourist activities occur in or around fragile ecosystems. Anchoring, snorkeling, sport fishing and scuba diving, yachting, and cruising are some of the activities that can cause direct degradation of marine ecosystems such as coral reefs, and subsequent impacts on coastal protection and fisheries (Hall, 2001). For example, in the Cayman Islands (Smith, 1988), damage from anchors contributes to significant coral destruction, which, based on Caribbean coral growth rates, has been estimated to require decades for recovery. With the rapid growth in cruise ship visitation, coral destruction is likely to become a more widespread and significant problem (Saenger, P., 1990).

- Anchor and flipper damage to corals from recreational use may be local problems in heavily used areas (Davis, 1977a), although other studies in Florida suggest that such damage is almost negligible when compared with natural damage from phenomena like wave action and cyclones (Tilmant and Schmahl, 1981). Nevertheless, a number of mooring systems have been designed and installed to minimize anchor damage from small craft (Salm and Robinson, 1982; Halas, 1985). Roped underwater trails have also been used to minimize diver damage to corals while enhancing user education (Saenger, P., 1990).

2.5 SUSTAINABLE TOURISM DEVELOPMENT

Sustainable tourism development (STD) is a long-term approach that cultivates economically viable tourism without harming residents' environment or society while simultaneously ensuring fair distribution of costs and benefits (DBEDT, 2006a). Decisions are based on economic, environmental, and cultural impacts; how wealth is generated and distributed; and the relative power and interactions among the stakeholders (Bramwell, 2006; Twining-Ward & Butler, 2002). STD balances industry's goal of profit with the needs of the environment and stakeholders (Bramwell, 2006). Stakeholder cooperation is necessary for sustainable tourism (Dyer, Gursoy, Sharma, & Carter, 2007). To keep stakeholders satisfied with tourism development and their community, the environment and culture must be protected (Ahn et al., 2002; Hjalager, 1996). When tourism development enhances, rather than erodes the natural environment, a more sustainable tourism product can be offered to support the destination's economy (Batra & Kaur, 1996).

A government that effectively manages tourism creates benefits for all stakeholders (Jamal & Getz, 1995). Effective management is avoiding negative impacts through a combination of general protective measures; regulations to control development; and financial restraints (Cohen, 1978; Hjalager, 1996). Improvement of the environment can be achieved by ensuring that development is harmonious with the overall plan for the destination (Batra & Kaur, 1996). Necessary tourism infrastructure such as roads, airports, parks, and visitor centers are also the responsibility of government (Jamal & Getz, 1995). Maintenance of infrastructure and facilities is expensive and residents, through property taxes, should not be the only group to bear this burden (Wong, 1996).

Residents benefit when tourists spend money in the local economy and create jobs, as well as from the development of infrastructure that residents also utilize (Wong, 1996). Tourism development usually involves a tradeoff between economic benefits and environmental or cultural costs, residents cope by downplaying the negative impacts based and emphasizing the economic gains to maintain satisfaction with their community (Dyer et al., 2007; Cavus & Tanrisevdi, 2003; Faulkner & Tideswell, 1997). Residents with the most economic gain are the most supportive of the tourism industry (Harrill, 2004).

The development process controlled by planners was the primary factor in residents' negative attitudes towards tourism (Cavus & Tanrisevdi, 2003). When residents perceive that the costs of tourism outweigh the benefits, feelings of resentment and irritation towards tourists can develop and lower community satisfaction (Doxey, 1975; Faulkner & Tideswell, 1997; Ko & Stewart, 2002). Residents who feel that they have a voice in tourism planning are more positive towards tourism (Cavus & Tanrisevdi, 2003).

Sustainable tourism is the development pathway to minimize the negative impacts of tourism (Choi & Sirakaya, 2005). There are many ways to make tourism more sustainable but few tools for evaluating and testing a sustainable tourism framework (Choi & Sirakaya, 2005). Audits and resource valuation evaluate tourism's costs and benefits so that they can be fairly distributed to stakeholders (Warnken et al., 2004; Wen, 1998). Limiting tourism growth (such as carrying capacity or limits of acceptable change) can also make development more sustainable (Cohen, 1978; Butler, 1980; Gössling, Peeters, Ceron, Dubois, Patterson, & Richardson, 2005; Christensen & Beckmann, 1998; Ahn et al., 2002). In these approaches, government management and stakeholder cooperation are necessary to reach a consensus for how to manage future tourism development (Ahn et al., 2002).

The effects of tourist activities need to be considered in terms of other present users, and on potential effects on future users of the particular resource (Saenger, P., 1990). The concerns of present users are mainly centred on the sustainability of the resource, continuing access to the resource, and equity considerations arising from conflicting uses of the resource, and aesthetics (Saenger, P., 1990). The sustainability of resources (and thus, activities) is generally assessed by some measure of carrying capacity. The concept of carrying capacity, borrowed from agricultural stocking rates, embodies *inter alia*, optimum sustainable yield for fisheries resources, environmental capacity for the tolerance of pollutants by aquatic systems, social carrying capacity for recreational satisfaction, physical carrying capacity for varying forms of land-use, and 'ultimate environmental thresholds' for specific environmental features (Yapp and Barrow, 1979; Jackson, 1986; GESAMP, 1986; Boteler and Lucas, 1986; Rosier et al., 1986; Salm, 1986; Sowman and Fuggle, 1987).

Assessing the sustainability of tourist activities requires that some or all of the above measures are considered at the planning stages of a tourist development, and adjusted through prohibition or regulation in the day-to-day management of tourist operations (Saenger, P., 1990). One of the major (and resented) effects of tourism on other users is through the pre-emption of access, either by design, through heavy traffic, congestion or overcrowding, or by ignorance of local custom. This is best summarized by Lusigi (1984:141), in describing the attitudes of tribal Africans to parks situated on their traditional lands: "It is an ironical situation; these people have moved for generations on foot among the animals in what are now called parks, but they must now have a permit and a car to do the same thing." Exclusive use of foreshores or the restriction of certain activities by tourist operators generally leads to conflict with other local users. In some areas, foreshore development has restricted public access to such an extent that beaches have had to be repurchased by government agencies (e.g. Florida - Fischer, 1988).

Some tourist activities may be incompatible or compete with the activities of other user groups, thus giving rise to conflict; recreational fishing may compete with the artisanal fishery, or the mass influx of tourists onto a reef may conflict with other users seeking a wilderness experience (Saenger, P., 1990). Many of these conflicts can be resolved through suitable zoning arrangements and by involving a range of other user groups in tourism planning. It should be pointed out that situations also arise where, after tourist developments have been established, other and conflicting uses may affect the tourist operation. For example, coastal tin mining conflicts with tourism in Phuket, Thailand, where tourist numbers have increased from 195,000 in 1982 to 580,000 in 1987 (Ruyabhorn and Phantumvanit, 1988). Similarly, logging operations in Bacuit Bay, Palawan, are threatening local coral reefs and the dependant tourist economy of the area (Hodgson and Dixon, 1988).

Recreational satisfaction and scenic quality are related (Calvin et al., 1972) and need to be conserved (Deardon, 1980) for tourists and residents alike. Although a range of techniques are available to assess the visual impact of shoreline development (Wohlwill, 1982), aesthetics and recreational satisfaction are highly personal and variable, even within single individuals. For example, an individual's perception of crowding would vary by several orders of magnitude between a football stadium and a wilderness trail. Thus, while assessment of visual impact and recreational carrying capacity may provide some general guidelines, these are goal-orientated and subjective, and will vary over time both in relation to the user and the resource (Saenger, P., 1990).

Resource sharing and other equity considerations may also be influenced by tourist activities. As such concerns are generally economically based, thus affecting entire local communities. The effects of tourism on future users is often overlooked in impact analyses. However, any allocation of land (or sea) involves choice. For example, whether establishing a tourist development is the best use for a particular area will depend on the total costs and benefits associated with that development compared with the potential costs and benefits that would have been attainable with some other use of the area. This concept of 'opportunity cost' can also be applied to future uses (or users) of the particular area (Saenger, P., 1990). Thus, the benefits and costs of using a particular area for a particular purpose now, must be considered against the benefits and costs which are potentially attainable for a particular use of the area in the future. For conservation purposes, McNeely (1988) has defined opportunity cost as 'the benefit foregone by using a scarce resource for one purpose instead of for its best alternative use'. The cost of foregoing a future benefit needs to be considered during tourism planning (Saenger, P., 1990).

2.6 TOURISM INFORMATION OF COX'S BAZAR

"Nearly two million people visit Cox's Bazar in peak season from November to March (Ahammed, 2010)". "Visitors are mainly Bangladeshi nationals and originate from all parts of Bangladesh (Ahammed, 2010)". "The visitors are generally busy with making walk along the beaches, sea bathing, shopping from the Rakhaine stalls (Ahammed, 2010)". "The beaches of Labonee, Kalatoli, Himchari and Innani are particularly heavily visited-Labonee beach is reportedly one of the most heavily visited tourist destination in the country (Daily maximum visitors as high as 30,000) (Ahammed, 2010)". "Cox's Bazar experiences huge growth in tourism since 1990 (Ahammed, 2010)". "During the peak season some millions of tourists visit Cox's Bazar and all hotels, motels and guest houses are totally filled up and even some visitors spend their night inside the vehicle because no seats are available in the hotels (Ahammed, 2010)". "From general observation it is understood that tourism has brought a big change in this area (Ahammed, 2010)". "Local community people are seemingly benefited from tourism and its economy is quite good compared to other backward area (Ahammed, 2010)". "On economic front, the local community and other stakeholders like investors, hoteliers, tour operators and so on are getting benefits (Ahammed, 2010)". "But little is known about the overall implication or impact of tourism - whether good or bad- on the area on economical, social, cultural and environmental sides (Ahammed, 2010)". "The substantial literature on the economic, environmental and sociocultural impacts of tourism is replete with seemingly contradictory observations, with researchers reporting both positive and negative findings in each of these categories (Ahammed, 2010)".

3. METHODOLOGY

3.1 STUDY AREA & SOURCES OF DATA

The study area is the Sea-beach area especially the Laboni Sea-beach Point area of Cox's Bazar and the St. Martin sea-beach area. Primary & Secondary data sources were used for this study. The Primary data gathered from those two sea-beaches debris collection which were and are throwing by the tourists during their visiting period. The Secondary data were gathered from literatures of books, policies, journals and articles of the relevant subjects.

4. DISCUSSION

This portion is about the output of Data Analysis. Data were collected from Field Survey. Last 25 years (from 1986-2011) more than 59,978,82,86,525 Kilograms (approx) debris have been thrown by the tourists at the sea-shore areas of this world (www.oceanconservancy.org). In 2011 at Bangladesh, how much trashes were thrown by the tourist at the sea-shores of Cox's Bazar and St. Martin in each day, which is given as follows:

Items	Amount
Bags(Paper)	1,672
Bags(Plastic)	789
Balloons	40
Beverage Bottles (plastic) 2 liters or less	512
Glass Beverage Bottles	218
Beverage Cans	732
Caps, Lids	787
Clothing, Shoes	115
Cups, Plates, Forks, Knives, Spoons	4,450
Food Wrappers/Containers	12,762
Pull Tabs	407
6-Pack Holders	0
Shotgun Shells/Wadding	0
Straws, Stirrers	1,850
Toys	39
Bait Containers/Packaging	16
Bleach/Cleaner Bottles	8
Buoys/Floats	37
Crab/Lobster/Fish Traps	87
Crates	0
Fishing Line	64
Fishing Lures/Light Sticks	11
Fishing Nets	112
Light Bulbs/Tubes	4
Oil/Lube Bottles	13
Pallets	0
Plastic Sheeting/Tarps	224
Rope	149
Strapping Bands	12
Cigarettes/Cigarette Filters	12,084
Cigarette Lighters	47
Cigar Tips	5
Tobacco Packaging/Wrappers	978
Appliances (refigerators, washers, etc.)	0
Batteries	111
Building Materials	29
Cars/Car Parts	0
55-Gallon Drums	0
Tires	6
Condoms	39
Diapers	37
Syringes	32
Tampons/Tampon Applicators	25
Totals	**38,503**

Source: Field Data (2011) & www.oceanconservancy.org

The data were collected from 159.4 miles areas (accumulating figure of Cox's bazar and St. Martin Sea-beach area). If 38,503 pieces of trashes were thrown by the tourists and visitors in each day, then we can easily calculate the approximate data of trashes thrown by the visitors per year at these two places and the number is: 1,40,53,595 pieces.

5. KEY FINDINGS AND RECOMMENDATIONS

The Phenomena of Bangladesh is not different from the other countries of the world. Tourism became popular in Bangladesh during the decades of 1980 and it flourished at the end of the decades of 1990s. From that time, Cox's Bazar became to start as a tourist area and now it is the most visited tourist area of Bangladesh. The basic reason of becoming as a most visited place in Bangladesh is: the communication facilities. Cox's Bazar is the only one coastal area where the people of Bangladesh can go easily. Now-a-days, Cruise ship transportation system started from Cox's Bazar to St. Martin's Island so that, people are starting to go there randomly. The impacts of Tourism in these 2 places are:

- **Deforestation**

  Cox's Bazar is situated in the mostly wide spread forest zone of Bangladesh. This forest area has a lot of diversity because it has two types of trees, coastal areas trees and the hilly areas trees. The fact is, the area of Cox's Bazar and its surroundings are becoming tree less quickly now a days. Actually, there are no forests at and besides Cox's Bazar. This is because, local inhabitants and the businessmen and the housing developers are starting to make high rise hotels in these areas. Same thing happened at St. Martin's Island. It was famous for the 'Coconut Jungle' once upon a time and it was called by the local people as a 'Narikel Zinjira'. Now-a-days, a few coconut trees are available there for the housing projects.

- **Demolishing Hills**

  Cox's Bazar Sea beach is situated at the pavement of hilly areas. But, Now-a-days, no hills are available there. Some small hills are available at Government properties but no hills are available at private properties. It happened because of making heavy buildings. People of these places sold their land to the hotel owners and they demolished the hills to build up 3star Hotels.

- **Changing the Structure of Sea Shore**

  Now-a-days, a lot of cottages, clubs, stages, hotels, motels are built in the sea shore which is changing the real shape of the world's largest sea shores structure.

- **Destroying and submerge the Coral Island**

  The most sinister matter is happened at St. Martin's Island. That is, a lot of Buildings and cottages are already made up by the businessman for the tourists. The result is, this island is starting to submerge under the sea-water. The Government of Bangladesh prohibited building up any new infrastructure but the older one, which are already built in, it should be eradicated, but no one has taken any initiatives yet. The other fact is, may be no multistoried building are not building up there, but, single one storied building are randomly build up there now. The result is same. The island will be drowned. Not only is that, but also the tourist taking corals from the base of this island which is the cause of breaking of this island. The existing hotels and motels are always trying to get drinking water so that they always excavate this islands which is very dangerous for the existence of this island.

Over fishing is destroying the fish verities

St Martin's Island is famous for 2 types of sea fish: 1. Churi, 2. Kala Chanda. The local inhabitants are storing these fish by drying at the sun light. The more tourist are coming, the need of the dry fish is increasing day by day. To met up these needs, fishermen are caching more fish beside the sea and a lack of this two species (types of fish) are going on there. Specialist are saying that, if the caching of these two types of fishes should not be stopped right now, these two types of fish may be abolished from the water of Bangladesh forever. Besides it, more dry fishing factories are stinking the environment.

Fish Boat and Small trawlers oils are polluted the water

The fishermen are always available at St. Martin's Island. It is a basic cause of the water pollution. The other type of pollution is increasing day by day, that is: the tourists trawlers. The more tourist are going there, they will want to visit at the sea by the trawlers so that the oil lickage from those trawlers will be increased. At it happened randomly now-a-days.

Sound Pollutions

A lot of Sound pollution is going on at St. Martin Island and in Cox's Bazar. The authority of St. Martin Island proscribed to keep on any electricity and sound after the 10 p.m. at night. But, there is nobody to maintain it. St. Martin is one of the most important Islands for the sea tortoise in Bangladesh. Their breeding are seriously hindering through the activities of the tourists.

Market Places

Now-a-days, Cox's Bazar is a place of Market. For that reason, this city is going to very dirty and polluted. Actually, the sea shore of Cox's Bazar is looks like garbage during the night time when the tourists returned at their hotel.

New Cannels are created by the tourist boats

At the sea shore of Cox's Bazar, the local inhabitants are anchoring their boats which are used for the travel of the tourist at the sea. By the anchoring, new cannels are created at the sea shore which is becoming the cause of death of the tourists during the time of high tide.

The Socio-economic Impact- Increasing Prostitution and Teasing

The Local people are sometimes burst out rages against the tourists and the businessmen because, increasing of tourism are increasing prostitutions and other anti-social works here. The people of the coastal areas of Bangladesh are generally very conservative. They are not allowing these sort of works and ever affaires with other districts people, But, by the sake of tourism, it happened randomly and the social conflict is increasing day by day here. During the mid of 2012, riot happened there at these types of issues but it was not increase by the timely stepping of Police authority.

Direct Pollution by the tourists

In Bangladesh the Government authority has no observations about the pollutions. But, this pollution is the most serious issue of Environment. Some Private organizations are willingly coming to mitigate these problems but, that is not enough. If we can see the data, we can get a picture of Pollution (objects that are thrown by the tourists, the inhabitants, fishermen and the businessmen) that are occurring by the tourism at Cox's Bazar and St. Martin's Island.

5.1 RECOMMENDATIONS

This environmental problem and the tourism was not building in a day. A lot of peoples earning and livelihood are related along with the tourism issue in coastal areas of Bangladesh. So, stopping/reducing tourism activities will not be able and not be a wise decision here. The decision will be so by which every concern will satisfy and happiness will be increased among all of the concerns. So that, the government may take the actions as follows:

- **Urban Settlements**
  The shoreline is in increasingly strong demand for human settlements, agriculture, trade, industry, amenity and marine transport activities such as shipping, fishing boats and recreational marinas. But, it will be through proper rehabilitation, not by force.

- **Stop New Housing**
  Government should stop the urbanization and new building structure buildup in the coastal area so that the geographical change and de-forestation will be under control.

- **Waste Disposal**
  To get rid of wastage, strict rules should be imposed both for the local inhabitants and for the tourists to throw the wastage hither and thither. The Government should arrange some disposal place with a very good monitoring system so that the people will be able to dispose their wastage there. Now, there is no specific garbage disposal place at Cox's Bazar and St. Martin's Islands provided by the Government authority. But, It should be provided by the Government authority immediately. Besides, the government officials take awareness programs to build awareness about garbage management system at coastal area properly.

- **Shore Protection Works**
  In this stance, awareness is the best solutions. This is because sea shore is not attacked by the tourists but also by the local people also. The Local people are destroying it through their daily works and the tourists are doing it by their works. Both are doing it by their unconsciousness. So, consciousness is the best solution to protect the diversity of the shore protection. Government should take the initiatives to take long time awareness programs among the locality and the country wide programs.

- **Noise Protection**
  Strict law, its proper use and observance are the basic solutions of these noise protections. The Government authority should be concerned about the misconducts of the tourists.

- **Over Fishing and Trawler oil lick**
  The Government should regulate this issue through Bangladesh Navy and the Coast Guard. Bangladesh Navy has enough resources to look after this issue.

- **Entrance of the unauthorized Motor vehicles should be stopped**
  The nature of Bangladeshi coast is sandy not rocky. So that, heavy motor vehicles like Jeep, hover crafts, water skew, etc. are not favorable for the soil and nature here. Government should strictly abandon the uses of these vehicles by the tourists and the locality here.

6. CONCLUSION

Tourism is one of the most promising sectors of any country. It is very useful way to earn foreign currencies as well as reviews. Thus, we should find out the strategy of tourism, which is sustainable for our ecology, friendly for our environment. We have to establish sustainable tourism in Bangladesh through eco-friendly tourism policies.

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Feasibility of Economic Integration between Bangladesh and Macedonia

S. M. Sumaiya Zabeen[1]

ABSTRACT

The Republic of Macedonia, a landlocked country of 25, 713 sq km, has shown its interest to enter into agreement for regional integration with Bangladesh. Macedonia, which gained its independence from the former Yugoslavia in September 1991, has achieved a considerable degree of political and economic stability in the recent years. Its candidacy country status with European Union along with its political and economic stability in recent days make it's a worthwhile country for any bilateral economic integration arrangement. But before entering into any such arrangement feasibility assessment is mandatory. This paper do this job through analyzing the existing structure of economy, global and bilateral trade pattern, tariff structure, existing socio economic trends of both Bangladesh and Macedonia. Besides, analysis of Revealed Comparative Advantage and Finger-Kreinin Index *is conducted for a more in depth study Bangladesh, a country with a limited export basket in a concentrated market, demands to expand its export share as well as destination. From that point of view this paper emphasize on export potential analysis of Bangladesh in the market of Macedonia. Based on these this paper has found Early Harvest Program as a feasible option for Bangladesh and Macedonia.*

Key Words: Agreement, Bi-lateral Trade, Regional Integration, Tariff

Introduction

Recently Macedonia expressed its interest for regional integration with Bangladesh. Macedonia, a country with comparatively better experienced than Bangladesh in case of bilateral or regional Free Trade Agreement negotiation has already concluded five FTAs. Among these five three are plurilateral in nature, with the countries of the EU, Central European Free Trade Agreement (CEFTA), and European Free Trade Association (EFTA) and two are of bilateral type, with Turkey and Ukraine. Besides, in 2005 Macedonia obtained candidate country status for EU accession, a step forward to the cooperation agreement of 1997 and Stabilization and Association Agreement of 2001 with EU. On the other hand Bangladesh has a Preferential Trade Agreement with Iran and FTAs are yet to be signed. In this context this paper attempts to compare the economic, trade and tariff structure of two countries to analyze the feasibility of economic integration between Bangladesh and Macedonia.

A COMPARATIVE POSITION ANALYSIS OF BANGLADESH AND MACEDONIA: ECONOMIC, TRADE AND TARIFF RELATED ASPECT

Economic Structure Analysis

Bangladesh maintains a more stable and consistent GDP growth than that of the Macedonia. Annual GDP of Macedonia shows a growth from US$ 9,407.17 million USD in 2009 to US$ 11,323.76 million in 2013 constitute a compound growth rate of 4.7%. Though a details analysis shows a sudden shrink in 2011, from US$ 10,494.63 to US$ 9,745.261which indicates a negative growth of (0.46%) (Figure1). Compared to Macedonia Bangladesh maintains a stable GDP growth. In case of Bangladesh Annual GDP shows a constant growth from US$ 102,481.40 million in FY 2008-09 toUS$ 149,996.62 million in FY 2012-13. This stood US$ 172,886million in 2013-14. This stipulates a smooth trend of

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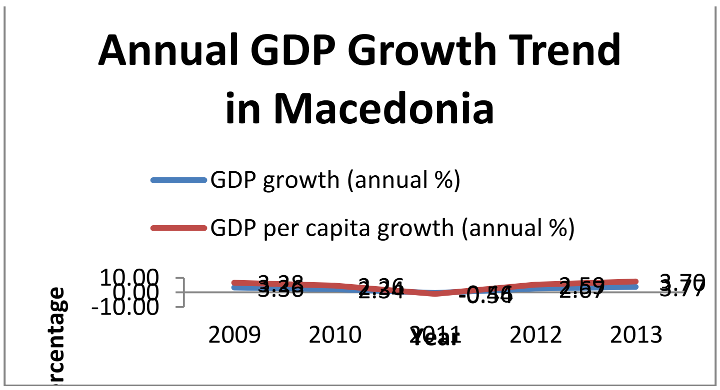


Source: WDI

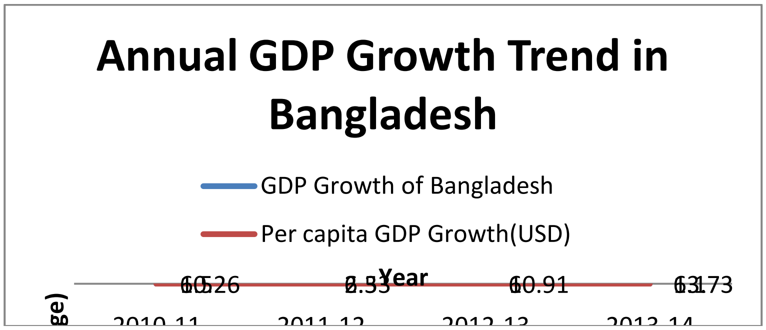
GDP per capita growth of Macedonia shows an inconsistent trend. In 2010 it shows a growth of 2.26%, which was 3.28% in the previous year (Figure 2). Though the year 2011 shows a negative growth of (0.54%), a reduction from US$ 4,988.201 million to US$ 4,628.314 million in 2011after this year the trend shows a gradual growth. In case of Bangladesh though it shows a constant growth but the per capita GDP was US$ 976 in 2012-13, stoodUS$ 1,110 in 2013-14, a 450% lower than that of the Macedonia.

Table 2: GDP and Per Capita GDP of Macedonia

Indicator Name	2009	2010	2011	2012	2013
GDP (current US$) in million	9,407.17	10,494.63	9,745.261	10,767.44	11,323.76
GDP per capita (current US$)	4,474.883	4,988.201	4,628.314	5,109.934	5,370.698

Source: World Bank

Figure 2:Annual GDP Growth Trend in Bangladesh



Source: Bangladesh Bank, Economic Review

Sector wise contribution to GDP shows a similarity between these two countries. Service sector contributes more than 50% to the total GDP, 69.9% for Macedonia and 58.3% for Bangladesh (Figure 3). Contribution of industry is 21.3% for Macedonia, compared to 26.5% for Bangladesh.Food processing, beverages, textiles, chemicals, iron, steel, cement, energy, pharmaceuticals, automotive parts are major industrial sectors of Macedonia.Agriculture is not a significant sector for both countries. But in Macedonia it constitutes a share of 8.8% compared to 15.1% of that of the Bangladesh. But still agriculture has amentionable share (17%) in total employment structure of Macedonia. Although employment in agriculture hasbeen declining in Macedonia, its share is still high compared with the OECD average.The structure of the agricultural sector is characterized by small-sized family farms .The state firms, generally much larger, are mostly not operating or in difficulties often due to not finalized state of privatization. The majority of pastures is still owned by the state and managed by the Public Enterprise of Pastures. Almost the totality of the gross agricultural output (70%) is generated by crop production where vegetables are the main contributors. Tomatoes, peppers and melons dominate the vegetable production and make Macedonia a net exporter of processed vegetables. Other important agricultural products are fruit, cereals, tobacco and grapes.

Figure 3: Sector wise contribution to GDP

Source: CIA Factbook

TRADE AND TARIFF REGIME ANALYSIS

Trade in Goods

Bangladesh and Macedonia has several basic trends in common considering trade in goods scenario. Firstly, both countries indicate an import based economies. As of 2014

Macedonia imports a total of US$ 7,273 million compared to its export of US$ 4,930.72 million in the same year (Figure 4). In case of Bangladesh its import in 2013-14 FY is 22.86% higher than its export in the same FY. It results to a mentionable trade deficit for both of the countries. In 2013-14 FY the trade deficit of Bangladesh was US$ (6,806) million. The gap between export and import was gradually reduced since FY 2010-11 from US$ (9,998) million. On the other hand, trade deficit of Macedonia maintains a continuous trend of US$ (2,503.39) million, US$ (2,335.70) million, US$ (2,342.74) million in 2012, 2013 and 2014 respectively. Secondly, the CAGR shows almost similar pattern of growth in terms of yearly export and import of the two countries. Both countries show that export maintains a much more satisfactory rate of growth than import. Macedonia indicates a CAGR of 5.64%% in import compared to a 10.83% in export based on data of three consecutive years since 2012. On the other hand, CAGR calculation of three consecutive years since FY 2011-12 stipulates an 11.39% growth in export compared to a 4.7% growth in case of import.

Figure 4: Trade in Goods of Macedonia

Source: WITS

Figure 5: Trade in Goods of Bangladesh

Source: Economic Review of Bangladesh, 2015

Trade in Services

It is well observed from the figure (Figure 6) captioned below that Macedonia's export and import of services is almost same in terms of price. Though in 2014 service export is slightly higher than that of the service import.On contrast, Bangladesh also faces trade deficit in services trade.In 2014 it was the highest compared to the four previous consecutive years.

Figure 6: Contribution in International Trade in Services

Source: ITC

According to Trade Policy Review of Macedonia relatively transportation and travel services, communication, computer and IT services grew rapidly. Trade policy objective for services is to create the necessary conditions for modernization in order to ensure competitiveness. The Government of Macedonia emphasized on promotional activities in tourism sector. Besides ICT, as sector have potentials for development, subject to government incentives. On the other hand, Trade Policy Review of Bangladesh reveals that wholesale and retail services; telecommunications; transport; and social and personnel services are the leading service sectors in Bangladesh.

Geographical Orientation

Analysis of export destination indicates that both of the two countries concentrate on several specific trade partners. Germany, Serbia, Bulgaria, Italy, Greece, Belgium, Croatia, Romania, Bosnia and Herzegovina are major export destination of Macedonia. On the other hand USA, Germany, UK, France, Italy, Canada, Belgium, Japan and Netherland are key export destination of Bangladesh. In case of Macedonia top ten export destination stands for 78.87% of the total export of Macedonia, as of 2014. This trend remained almost consistent since 2010. It is observed that EU is the major destination of exports from Macedonia. Serbia, a non EU export destination of Macedonia shows a gradual decline of its import from Macedonia, from 21.18% in 2010 to 9.91% in 2014. On the other hand top export destination of Bangladesh reveals almost the same scenario like Macedonia, though the situation is gradually developed. Share of other countries in total export of Bangladesh is gradually increasing. In FY 2009-2010 countries other than the top destination stood for 27.91% of the total export which increased gradually since then to 33.65% as of FY 2013-14.

Table 3: Share of Top Ten Import sources and Export Destination in Total Trade of Macedonia

Share of Top Ten Countries	2010	2011	2012	2013	2014
Import Sources	62.73	63.65	68.10	69.98	71.04
Export Destination	78.46	75.86	75.95	78.46	78.87

Source: ITC

In case of import sources UK, Germany, Greece, Serbia, Italy, China, Bulgaria, Turkey, Romania and Slovenia remains as major partners for Macedonia. On the other hand, China, India, Singapore, Malaysia, Japan South Korea, Taiwan, USA and Hong Kong are major import Sources of Bangladesh. Analysis of import sources of the two countries reveals that import is more diversified than their export in terms of geographical orientation. Concentration to major import partners is more visible in case of Macedonia than that of Bangladesh. Top ten import sources constitute 71.04% of total share of import in Macedonia compared to 44.76% of that of Bangladesh. As like the pattern of export destination, import structure of Macedonia indicates to mentionable dependence on EU.

Product Concentration:

Garment products are major export items of Bangladesh with 84.04 % share of its total export in 2014. Besides, textile products, fish, footwear, raw hides and skin, leather and plastic products listed in table below as the major export items of Bangladesh.On the other hand, Macedonia's top export items include chemical products, iron and steel, machinery, tobacco, vehicles and garments products. Chapter wise analysis reveals that garments (Chapters 61and 62) are major export items of both countries. A detail analysis reveals that export of Macedonia is more diversified than that of Bangladesh. Garments with the contribution of 43.46% and 41.59% for Chapters 61 and 62 respectively constitute the major part of export earnings. The export growth calculation reveals that these two items show a growth of 11.40% and 11.59% respectively for Chapters 61 and 62 calculating the trend of consecutive three years since 2012. On the other hand, chemical products of Macedonia contribute the major portion such as 17.61% of total export earning, with a compound annual growth of 31.75% since 2012 to 2014. Besides, garments earn around 13% of total export earning of Macedonia as per 2014, with an average compound annual growth of 8.06%.

List of top ten items of the two countries reveals a mentionable similarity; seven out of ten listed as top ten import items of both countries, though concentration differs a lot. As cotton, a basic raw material of garments items constitutes 13.95% of import of Bangladesh in 2014 with a growth of 35.22% since 2012. Contrary, Macedonia shows a growth of 0.35% with a share of 2.14% in the same year.

The analysis above demands more in depth analysis to reveal the basic structure of trade of the two countries. Chapter wise analysis reveals garment items as one of the major export products for both countries. But analysis of major export products at HS six digit level reveals that all of top ten export items of Bangladesh are garments, compared to only one in case of Macedonia. The product in common (HS code 620520) shows a gradual declining trend for Macedonia compared to a gradual indication of growth in case of Bangladesh .Chapter wise import scenario reveals a significant similarity between major import items of the two countries. But a product level analysis reveals that no product is in common as per the list of top ten import items of the two countries

Tariff Regime

Macedonia's tariff regime is characterized by relatively higher duty on agricultural products. In 2011, tariffs ranged from 0 to 65 percent with an average of 12.9% on agricultural products, 5.8 % on non agricultural products and the average rate of 6.8% for all products. On the other hand,Bangladesh maintains a much higher duty structure with 16.8%, 13.4% and 13.9% on agriculture, non agriculture and all products respectively. Though maximum tariff is 25% compared to 65% of that of Macedonia (Table 5).

Table 4: Simple Average MFN Applied

	Total	Agriculture	Non Agriculture
Macedonia	6.8	12.9	5.8
Bangladesh	13.9	16.8	13.4

Source: WTO

Most of the fish products (88.8%); oilseeds, fats & oil (72.9%); wood and paper products (75.2%) are duty free in Macedonia. Besides, cotton enjoys duty free access in their market. In case of Bangladesh 34.1% of oilseeds, fats & oils and 30% of cotton products enjoy duty free access. In Bangladesh duty free access is not applicable for dairy products, coffee, tea, sugars and confectionery, beverages & tobacco, petroleum and clothing.

Table 5: Product Group Wise MFN Applied Duties

	Macedonia			Bangladesh		
Product groups	**AVG**	**Duty-free**	**Max**	**AVG**	**Duty-free**	**Max**
Animal products	12.0	20.6	35	19.3	6.8	25
Dairy products	19.6	0.2	45	23.5	0	25
Fruit, vegetables, plants	20.2	18.9	65	20.3	2.7	25
Coffee, tea	14.1	20.8	34	21.3	0	25
Cereals & preparations	16.5	14.5	63	13.7	15.4	25
Oilseeds, fats & oils	2.2	72.9	32	9.5	34.1	25
Sugars and confectionery	5.4	29.4	30	18.5	0	25
Beverages & tobacco	27.3	25.5	63	25.0	0	25
Cotton	0.0	100.0	0	3.5	30.0	5
Other agricultural products	1.7	82.1	45	11.6	14.7	25
Fish & fish products	2.0	88.8	33	23.9	3.3	25
Minerals & metals	5.4	49.5	23	12.7	3.7	25
Petroleum	14.5	8.3	20	15.7	0	25
Chemicals	3.2	41.9	25	9.9	5.3	25
Wood, paper, etc.	2.9	75.2	18	15.5	8.8	25
Textiles	7.8	27.8	25	19.4	0.2	25
Clothing	17.5	0	18	24.4	0	25
Leather, footwear, etc.	10.5	22.5	25	14.4	0.6	25
Non-electrical machinery	3.6	61.5	16	4.7	0.9	25
Electrical machinery	7.8	33.9	25	12.7	0.3	25
Transport equipment	6.5	29.1	20	11.6	11.8	25
Manufactures, n.e.s.	6.9	34.7	25	12.6	3.5	25

Source: WTO

In Macedonia Dairy products; Fruit, vegetables, plants; Beverages & tobacco, clothing are subject to comparatively higher average MFN applied duty rate with average rate of 19.6%, 20.2%, 27.3% and 17.5% respectively. On the other hand, Beverage and tobacco; Dairy products, fish and fish products; Clothing are the major sectors which maintains comparatively higher applied MFN tariffs such as 25%, 23.5%, 23.9%, 24.4% respectively. Item wise duty rates are shown in table 5.

Bilateral trade Pattern:

Macedonia is not a significant trade partner of Bangladesh. Analysis of existing bilateral trade between the two countries revealed Macedonia as a significant export destination compared to import source of Bangladesh. The following table shows that export to Macedonia is gradually increasing from US$ 3.77 million in 2012 to US$7.26 million in 2014. On the other hand, import from Macedonia stands only US$ 0.22 million in 2014, a negligible import growth compared to that of 2012.

Table 6: Bilateral Trade Scenario

(Value in Million USD)

	2012	2013	2014
Export to Macedonia	3.77	6.46	7.26
Import from Macedonia	0.0058	0.44	0.22

Product wise bilateral trade scenario between Macedonia and Bangladesh indicates that garments products constitute the largest portion of the list of ten exports to Macedonia.

Table 7: Top Ten Export Products of Macedonia to Bangladesh

(Value in Million USD)

HS Code	Product Description	2012	2013	2014
360490	- Other		0.4332	0.2136
300432	-- Containing corticosteroid hormone	0.005872	0.004223	0.003901

Table 8: Top Ten Import Products of Macedonia from Bangladesh

(Value in Million USD)

HS Code	Product Description	2012	2013	2014
610910	- Of cotton	0.77	0.97	1.10
620462	-- Of cotton	0.41	0.73	0.91
620342	-- Of cotton	0.36	0.71	0.75
611020	- Of cotton	0.46	0.68	0.60
611030	- Of man-made fibres	0.30	0.48	0.58
620520	- Of cotton	0.23	0.37	0.47
410799	-- Other	0.00	0.19	0.19
610510	- Of cotton	0.11	0.15	0.19
610462	-- Of cotton	0.11	0.17	0.16
530720	- Multiple (folded) or cabled	0.10	0.17	0.15

INDICATOR ANALYSES

Analysis of *Finger-Kreinin index* (FKI)

FKI reveals the degree of similarities between the structures of production/export between the two countries. It ranges from 0 and 1. FKI 1 means the two structures are identical and thus both countries' production/export items are completely similar which indicate that no possibility exist to explore trade between the two countries. On contrast, FKI 0 means the two countries' production/export structures are completely dissimilar which indicate very substantial possibility to explore trade between the two countries.

$FK_{i1i2j} = \Sigma_k \min [(x_{i1j}/ X_{i1j}), (x_{i2j}/ X_{i2j})|]$

Where Here X= total exports; i= reporting country; k=product; j=partner country;
x= exports per good.

FKI analysis of Bangladesh and Macedonia for three consecutive years indicates scope to explore trade between Bangladesh and Macedonia. In this context, Bangladesh needs to identify potential areas to explore. Existing bilateral trade between the two countries is negligible though import from Bangladesh follows a growing trend from US$ 3.77 million in 2012 to US$7.26 million in 2014. On the other hand, Macedonia's export to Bangladesh maintains an inconsistent trend, as imports of Bangladesh in 2012, 2013 and 2014 stands US$ 0.0058 million, US$ 0.44 million and US$ 0.22 respectively.

The FKI analysis (Table 9) as well as the export trend of Bangladesh in Macedonia reveals the possibility of bilateral trade between these two countries. It needs analysis of the product wise revealed comparative advantage of both countries and comparison to find out existing potential in bilateral trade. Following section presents a detail analysis of RCA.

Table 9: Degree of FKI between Bangladesh and Macedonia

	2012	2013	2014
FKI	0.12	0.13	0.12

Analysis of Revealed Comparative Advantage (RCA)

RCA analysis indicates comparative advantage of a country in different products. Thus FTA between the two countries would be welfare enhancing if the countries have RCA in different products and FTA may encourage the parties to specialize in those products on which they have comparative advantage.

The calculation of RCA measures how much a country is exporting a given goods relative to its total trade, in comparison to the share of that good in world trade. A country is said to have "Revealed Comparative Advantage" in a good when the share of that good in its export is bigger than the share of that good in world exports. One difficulty with RCA measure as detailed above is that the upper bound is stable across countries but varies across sectors and years. This makes the index very suitable for cross country comparisons but it is difficult to make sectoral comparisons and year wise comparisons. An alternative version of the index called Normalized RCA is used to avoid these difficulties. This index ranges from -1 to 1, where an index is less than 0 implies that the product has comparative disadvantage and an index of greater than 0 implies that the product has comparative advantage. The essence of normalization is that the normalized RCA is suitable for cross country, cross sectors and cross time comparisons.

Revealed Comparative Advantage (RCA)

$$\mathrm{RCA}_{iw}^{k} = \left(\frac{x_{iw}^{k}}{X_{iw}}\right)/\left(\frac{x_{ww}^{k}}{X_{ww}}\right)$$

Here X= total exports; i= reporting country; k=product; w= world

Normalized RCA = (RCA-1) / (RCA+1)

Macedonia has more significance as an export destination of Bangladesh compared to its status as a source of import. Based on it the table captioned below enlists twenty five products at six digit level with top NRCA from the part of Bangladesh vis a vis NRCA of Macedonia for the same products. Import demand of those products in Macedonia shows a gradual growth from US$ 15.62 million in 2012 to US$ 21.12 million in 2014. Analysis reveals that among the 25 products with top NRCA of Bangladesh, 17 products have positive NRCA for Bangladesh and negative NRCA for Macedonia (Table 10). The rest eight are garment products in which both countries are in advantageous situation, though NRCA reveals a better position of Bangladesh compared to Macedonia. The following table shows that among these eight products only two (HS Code 620530 and HS Code 610831) shows a gradual decline of Macedonia's global import. Other six products (HS Code 620920, 620342, 610910, 620520, 620462, and 610610) maintain a consistent import growth from the part of Macedonia.

Table 10: Product with high comparative advantage of Bangladesh

Product Code	Product Description	NRCA (MKD_14)	NRCA (BD_14)	Mkdglo IMP musd) (12)	Share (12)	Mkdglo IMP musd) (13)	Share (13)	Mkdglo IMP musd) (14)	Share (14)
530710	- Single	-1.00	1.00	0.00	0.0000	0.06	0.0009	0.01	0.0001
530720	- Multiple (folded) or cabled	-1.00	1.00	0.11	0.0018	0.17	0.0026	0.15	0.0021
530310	-Jute and other textile bastfibres	-1.00	1.00	0.00	0.0000	0.00	0.0000	0.00	0.0000
530390	- Other	-1.00	1.00	0.00	0.0000	0.00	0.0000	0.00	0.0000
410622	-- In the dry state (crust)	-1.00	1.00	0.03	0.0005	0.01	0.0002	0.00	0.0000
531010	- Unbleached	-1.00	0.99	0.07	0.0011	0.02	0.0002	0.03	0.0005
630510	- Of jute or of other textile bast	-0.72	0.99	0.02	0.0003	0.02	0.0004	0.05	0.0007
531090	- Other	-1.00	0.99	0.00	0.0000	0.04	0.0005	0.01	0.0002
620920	- Of cotton	0.38	0.99	0.88	0.0135	0.83	0.0126	1.01	0.0138
681291	-- Clothing, clothing accessories,	-1.00	0.98	0.00	0.0000	0.00	0.0000	0.00	0.0000
620342	-- Of cotton	0.65	0.98	3.18	0.0489	3.74	0.0567	4.14	0.0570
610910	- Of cotton	0.40	0.98	3.72	0.0572	4.52	0.0685	5.59	0.0770
620520	- Of cotton	0.93	0.98	1.40	0.0215	1.72	0.0260	1.92	0.0265
620530	- Of man-made fibres	0.77	0.98	0.18	0.0028	0.20	0.0030	0.21	0.0028
290376	--Bromochlorodifluoromethane, brom	-1.00	0.98	0.00	0.0000	0.00	0.0000	0.00	0.0000
610510	- Of cotton	-0.31	0.97	0.44	0.0068	0.63	0.0095	0.66	0.0090
890800	Vessels and other floating structur	-1.00	0.97	0.00	0.0000	0.00	0.0000	0.00	0.0000
631090	- Other	-0.42	0.97	0.02	0.0003	0.00	0.0000	0.01	0.0001
621111	-- Men's or boys'	-0.95	0.97	0.05	0.0007	0.07	0.0010	0.08	0.0011
620462	-- Of cotton	0.72	0.97	2.37	0.0364	2.67	0.0405	3.03	0.0417
610721	-- Of cotton	-0.53	0.97	0.14	0.0022	0.14	0.0022	0.20	0.0027
611020	- Of cotton	-0.77	0.97	1.53	0.0234	2.15	0.0326	2.39	0.0328
610831	-- Of cotton	0.51	0.97	0.27	0.0042	0.25	0.0038	0.24	0.0033
610610	- Of cotton	0.90	0.97	1.04	0.0159	1.09	0.0165	1.23	0.0170
610220	- Of cotton	-0.97	0.96	0.14	0.0022	0.14	0.0021	0.16	0.0022
Total (of Top 25)				**15.62**	**0.2398**	**18.46**	**0.2799**	**21.12**	**0.2906**

Source: BTC's calculation based on data from WITS

Now it needs to assess export potential scenario of Bangladesh in the market of Macedonia. To do so products with high comparative advantage of Bangladesh vis a vis high comparative disadvantage of Macedonia need to be compared. Macedonia's global import demand for products with NRCA greater than or equal to 0.50 for Bangladesh and NRCA less than or equal to -0.50 for Macedonia shows an inconsistent trend of import demand of Macedonia. In 2014 import demand of Macedonia for those products was US$ 56.37 million which was US$57.49 million and US$ 62.62 million in 2012 and 2013 respectively. But analysis of top twenty five products at HS six digit level with NRCA greater than or equal to 0.50 for Bangladesh and NRCA less than or equal to -0.50 for Macedonia shows a gradually increasing global import demand from the part of Macedonia. Import payment for those products stood US$ 4.94 million in 2014 from US$4.07 million in 2012. Though table below shows a gradual growth in global import demand of potential export items but it covers only 0.068% of total import of Macedonia in 2014.

Table 11: List of Potential Items

Product Code	ProductDescription	NRCA (MKD_14)	NRCA (BD_14)	Mkdglo IMP musd) (12)	Mkdglo IMP musd) (13)	Mkdglo IMP musd) (14)	MFN AV Applied Rate in MKD	Avg MFN Applied Rate
530710	- Single	-1.00	1.00	0.00	0.06	0.01	0	
530720	- Multiple (folded) or cabled	-1.00	1.00	0.11	0.17	0.15	0	
530310	-Jute and other textile bastfibres	-1.00	1.00	0.00	0.00	0.00	0	
530390	- Other	-1.00	1.00	0.00	0.00	0.00	0	
410622	-- In the dry state (crust)	-1.00	1.00	0.03	0.01	0.00	2,5	3.5
531010	- Unbleached	-1.00	0.99	0.07	0.02	0.03	0	
630510	- Of jute or of other textile bast	-0.72	0.99	0.02	0.02	0.05	17.5	
531090	- Other	-1.00	0.99	0.00	0.04	0.01	0	
681291	-- Clothing, clothing accessories,	-1.00	0.98	0.00	0.00	0.00	8	
290376	-- Bromochlorodifluoromethane, brom	-1.00	0.98	0.00	0.00	0.00	5	
890800	Vessels and other floating structur	-1.00	0.97	0.00	0.00	0.00	0	
621111	-- Men's or boys'	-0.95	0.97	0.05	0.07	0.08	17.5	
610721	-- Of cotton	-0.53	0.97	0.14	0.14	0.20	17.5	
611020	- Of cotton	-0.77	0.97	1.53	2.15	2.39	17.5	
610220	- Of cotton	-0.97	0.96	0.14	0.14	0.16	17.5	
611120	- Of cotton	-0.60	0.96	0.50	0.65	0.51	17.5	
630622	-- Of synthetic fibres	-1.00	0.96	0.04	0.03	0.14	17.5	
410441	-- Full grains, unsplit; grain spli	-0.96	0.96	0.39	0.34	0.00	2,5	4.4
631010	- Sorted	-0.85	0.96	0.00	0.00	0.00	13	
630221	-- Of cotton	-0.81	0.95	0.60	0.46	0.59	15	
570299	-- Of other textile materials	-0.79	0.95	0.02	0.04	0.03	12.5	
560721	-- Binder or baler twine	-1.00	0.95	0.00	0.00	0.00	5	
030624	-- Crabs	-1.00	0.95	0.05	0.06	0.04	0	
611420	- Of cotton	-0.89	0.93	0.08	0.08	0.17	17.5	
610342	-- Of cotton	-0.77	0.93	0.29	0.00	0.37	17.5	
Total				**4.07**	**4.80**	**4.94**		

Source: BTC Calculation based on data from WITS

IS ECONOMIC INTEGRATION FEASIBLE BETWEEN BANGLADESH AND MACEDONIA?

Based on the above discussion and analysis it is apparent that Bangladesh's export to Macedonia is gradually increasing from US$ 3.77 million in 2012 to US$ 6.46 million and US$ 7.26 million in 2013 and 2014 respectively. Garments products are the major export items of Bangladesh in the market of Macedonia. Macedonia is less diversified in terms of trade partner than that of Bangladesh as EU remains its major trade partner. On the other hand, in terms of products Macedonia's export is more diversified than that of Bangladesh. From the economic point of view the pattern of the sector wise GDP share of two countries are identical but Macedonia's trend of GDP growth is more inconsistent than that of Bangladesh. Based on the data, discussion and analysis above and considering the socio economic, international trade and economic pattern of the two countries it is viewed that

a) Macedonia is not a significant trade partner for Bangladesh. Macedonia is export destination of 0.025% products of its total global export, in terms of values. On the other hand Macedonia shares 0.007% of total global import of Bangladesh in 2014. This is true for the Macedonia side also. Analysis reveals that in 2014 import from Bangladesh stands only 0.10% of total global import of Macedonia. On the other hand its export to Bangladesh is 0.004% of its total global export.

b) Macedonia is not a significant investor in Bangladesh. Besides Macedonia itself works to develop policy framework and take initiatives to attract Foreign Direct Investment. Acountry with : low labour costs and taxes; geographical proximity to assembly plants in central and Western Europe and Turkey; duty-free access to the large European market and a number of investment incentives, including tax holidays Macedonia express its strength to receive FDI rather than a investor across its border. According to the Government programme for the period 2011-2015, attracting foreign direct investment (FDI) remains the key objective towards achieving the Government's strategic priority of higher economic growth and a reduction in unemployment on a sustainable basis. The (fourth) Programme for Stimulating Investment 2011-20143 aims to develop policies and undertake reforms to increase growth and development consistent with the Government's overall strategic objectives.

c) According to the Trade Policy Review of Macedonia (2014) Macedonia is suffering from low activity and high unemployment rate estimated at 31.4% in 2011 and 31% in 2012, which is among the highest in Europe. Besides, poverty was persistent with 30% of the population living in poverty in 2011. This situation declared employment generation as well as poverty eradication as one of the key challenges for the country. Besides, a large part of the Macedonian emigration accounts for highly educated immigrants and the trend maintains a constant growth. The existing unemployment ratio as well as migration structure from Macedonia indicates that there is no possibility to export human resource from Bangladesh to Macedonia.

d) Comparison of RCA of the two countries indicates that products with high extent of comparative advantage of Bangladesh and high extent of comparative disadvantage of Macedonia in listed products contributes Macedonia's very little import payment, that is less than 1%.

The above analysis does not prove Macedonia a lucrative FTA partner for Bangladesh. But there are several points need to be considered before draw a conclusion about it. The points mentioned below:

a) Export of Bangladesh to Macedonia is gradually increasing followed by a rate of CAGR of 38.77% since 2012 to 2014, much higher than the growth of global import demand of Macedonia with a rate of 5.64% at the same time. Export of Bangladesh was US$ 3.77 million in 2012 which grows to US$ 7.26 million in 2014. It is observed that export of Bangladesh to Macedonia is concentrated on several products. Analysis of top twenty export product reveals that share of top twenty items was 83.02%, 80.65% and 81.26% in 2012, 2013 and 2014 respectively. Among these most are garments items.

b) RCA analysis reveals an export potential of US$ 56.37 million for Bangladesh as of 2014 compared to the existing export of US$ 7.26 million in Macedonia.

c) Analysis of top twenty five products at HS six digit level with NRCA greater than or equal to 0.50 for Bangladesh and NRCA less than or equal to -0.50 for Macedonia reveals a list of products where garments face the MFN duty of 17.5% with the majority share in Macedonia's import demand.

d) Following a 1997 cooperation agreement with the European Union (EU), Macedonia signed a Stabilization and Association Agreement with the EU in April 2001, which provided Macedonia duty-free access to European markets. In December 2005, it moved a step forward and obtained candidate country status for EU Accession. Macedonia remains one of the six candidate countries, together with Albania, Iceland, Montenegro, Serbia and Turkey. In this situation any regional integration arrangement with Macedonia would enhance opportunity for Bangladesh to explore the market of EU in absence of GSP facilitates. Empirical evidence shows that as a member of EU individual countries have the options to maintain FTAs; conditional to that it will not violate the common interest of EU member states. For example, The Association Agreement between European Union and Ukraine has not precluded the maintenance of FTA with other countries provided that it will not hamper or conflict with this Agreement of Association. Now the fact is that till todate Bangladesh has no bilateral FTA. In this situation Bangladesh should consider an Early Harvest Program (EHP) with Macedonia which would pave way for FTA as per demand of time.

CONCLUSION

At present bilateral FTA with Macedonia would not bring any significant or large scale instant expansion and promotion in trade and investment. But the existing bilateral trade pattern and potential analysis reveals that import demand of Macedonia from Bangladesh is gradually increasing, though very slowly. On the other hand as Macedonia is not a considerable import source for Bangladesh any attempt for regional integration between these two countries will not pose threat to revenue earning of Bangladesh. Besides, Macedonia as a candidate country for EU accession has potential to enhance the opportunity of Bangladesh to explore EU market in absence of non reciprocal concession under GSP in EU market. Considering all these, with the concern of Bangladesh to expand its export market, option of Early Harvest Program between these two countries needs to be taken into consideration.

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