

**Draft Report on  
Innovation and Intellectual Property Policy and Strategy  
for Bangladesh**

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**A Project of  
World Intellectual Property Organization (WIPO)**

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## ABBREVIATIONS AND ACRONYMS

ASEAN	Association of, South-East Asian Nations
BIMSTEC	Bay of Bengal, Initiative for Multi-Sectoral Technical and Economic
BCC	CooperationBangladesh Computer Council
BTRC	Bureau of Research, Testing and Consultation.
BUET	BangladeshUniversity of-Engineering & Technology
CBD	Convention of Biological Diversity
CL	Compulsory Licensing
D-8	Developing 8 Countries
DCCI	Dhaka Chamber of Commerce and Industry
DTIS	Diagnostic Trade Integration Study
DPDT	Department of Patents, Design & Trademarks
DTIS	Diagnostic Trade Integration Study
EU	The European Union
FDI	Foreign Direct Investment
FGD	Focus Group Discussion
GI(s)	Geographical indication(s)
GDP	Gross Domestic Product
GoB	Government of Bangladesh
IMF	.International. Monetary Fund
ICT	Information and Communication Technology
IP	Intellectual property
IPAB	Intellectual Property Association Bangladesh
IPR(s)	Intellectual Property Right(s)
LDC	Least-developed country
MoC	Ministry of Commerce
Mol	Ministry of Industry
NGO(s)	Non-Governmental Organization(s)
OIC	Organization of the Islamic Conference
R&D	Research and Development
RMG	Ready Made Garments
SAARC	South Asian Association for Regional Cooperation
USD	US Dollar
TCEs	Traditional Cultural Expressions
TK	Traditional Knowledge
ToR	Terms of Reference
TRIPS	Trade Related Aspects of Intellectual Property Rights
U.S.	.The United States
WCT	WIPO Copyright Treaty
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

# PREFACE

Formulation of policy and strategy planning pertaining to intellectual property and innovation for Bangladesh is the prime objective of this project. High level policy makers of the Government of Bangladesh in the context of various cooperation programs with WIPO, on a number of occasions emphasized the need for creating national enabling policies and strategies for promoting innovation and creativity in Bangladesh. This activity stems from such interactions and exchanges held at the summit level meeting between the Prime Minister of Bangladesh and the Director General of the World Intellectual Property Organization (WIPO) which among others underscored the need for WIPO-Bangladesh cooperation for the preparation of National Innovation and Intellectual Property Policy and Strategy for Bangladesh. In this context, for Bangladesh, with a view to formulate national IP strategies, in order to build and strengthen national and regional IP institutions, infrastructure and resources, thus to achieve the requisite level of economic, social and cultural development, World Intellectual Property Organization (WIPO) has come forward to sponsor this project entitled 'Innovation and Intellectual Property Policy and Strategy for Bangladesh'. Key beneficiary and official counterpart is the Department of Patents, Design & Trademarks (DPDT) under the Ministry of Industries (Mol), Government of Bangladesh.

The principal purpose of designing strategy and policy is to proliferate innovation and creativity in the country. The task is to establish an enabling national policy and strategic framework in the area of innovation and creativity. The strategy and policy should be such that it leverages to promote a sustainable and beneficial innovation and creative process in the country geared to contribute in meeting national development goals. Through providing policy & strategy, it aims at contributing to a well-balanced intellectual property rights (IPR) system in Bangladesh which should be in line with TRIPS obligations and benefits the process of sustainable socio-economic development of Bangladesh.

The scope of the study possesses three-pronged task: firstly, to assess the state of the national innovation and creativity system in Bangladesh with particular focus in the area of its interface with science and technology, industry, traditional knowledge, research and development institutions, etc., of Bangladesh. Secondly, identifying and mobilizing the relevant stakeholders who will be involved in the formulation of National Innovation and IP Policy & Strategy. Thirdly, formulating, in consultation with the relevant stakeholders, National Innovation and IP Policy and strategy for the sector mentioned above, for implementation by the government of Bangladesh. Following base guideline of WIPO, survey was done in two phases. Basic information and creativity data were collected from the survey especially with regard to the assessment of the national innovation and creativity system, and the identification of Bangladesh's strategic goals and needs to this effect.

## **ACKNOWLEDGEMENTS**

The author of this report would like express his sincere thanks to the various stakeholders and respondents of the survey program and FGD programs for their outstanding support which helped to proceed through towards the desired objectives of the project. The project on IP policy benefited significantly from the useful suggestions made by the stakeholders & respondents. High appreciation is due for the valuable input received from the organizations for rendering information on the IP issues and on formulating IP policies and strategies for Bangladesh along with associated objectives.

## **EXECUTIVE SUMMARY**

This project entitled 'Innovation and Intellectual Property Policy and Strategy for Bangladesh' is sponsored by World Intellectual Property Organization (WIPO). It has got a prime objective of formulating a policy to develop a well-balanced IP system and to promote innovation and creativity in Bangladesh in line with TRIPS obligations and for the benefit of sustainable socio-economic development of the country.

In this study, attempt has been made to formulate the IP strategy as a comprehensive national document comprising of a set of measures to be implemented by the Government of Bangladesh to encourage and facilitate the effective creation, development, management and protection of IP at national level of Bangladesh. Bangladesh's legal and institutional framework for IPR protection is still in an embryonic stage. Few institutions in Bangladesh are involved in the formulation, administration and enforcement of IPRs, most importantly, the Department of Patents, Design and Trademarks (DPDT) under the Ministry of Industries (Mol), the Copyright Office under the Ministry of Cultural Affairs and the WTO Cell in the Ministry of Commerce. Bangladesh inherited a set of IP laws and rules from the colonial regime. Some of them were amended over time; the Patents and Designs Act; however, is still from 1911. The country has acceded many - yet not all - important international IPR treaties, including the Agreement on Trade Related Intellectual Property Rights (TRIPS Agreement) upon WTO accession in 1995.

Bangladesh is in growing economy situation; Intellectual Property (IP) has become a significant factor in productivity and economic growth. Strong and effective IP protection is a particularly powerful incentive for firms to invest in generating new technology in sectors where the returns to technological investment are very long term, involve high risks and are easy to copy. IP rights provide a further impetus to innovation in that they require an inventor who seeks time-limited protection to publish the knowledge embodied in a product or process. Contrary to the frequent criticism of IP rights that they provide a mechanism for hiding or unfairly appropriating knowledge, IP rights are a market-based mechanism for disseminating knowledge and spurring competition.

The objective of the IPR strategy is to transform Bangladesh into an innovative economy as would reflect in high rankings in appropriate development and innovation indices from a global standpoint and develop, sustainable and innovation-promoting IPR management system in Bangladesh while ensuring that the IP system continues to have the appropriate checks and balances conducive to social and economic welfare, and to a balance of rights and obligations. Besides measures that need to be taken, the strategy also needs to have an implementation matrix and a time bound schedule.

Methodology of this research involved in developing the national IP strategy for Bangladesh comprises of several basic steps: a. Assessment mission b. Project team: c. Desk research, d. Survey and Data collection (two phases) e. National consultations: f. Drafting the strategy, g. Validation of the strategy: h. Implementation. The methodology aims to provide a standard and integrated approach to IP policy, strategy, institutional reform and modernization. It consists of a series of steps, practical tools and key components. Survey was conducted in two phases. Data from 20 pertinent organizations were collected from 1<sup>st</sup> phase survey and 2<sup>nd</sup> phase survey conducted for this project. The scope of the study possesses three-pronged task: firstly, to assess the state of the national innovation and creativity system in Bangladesh with particular focus in the area of its interface with science and technology, industry, traditional knowledge, research and development institutions, etc., of Bangladesh. Secondly, identifying and mobilizing the relevant stakeholders who will be involved in the formulation of National Innovation and IP Policy & Strategy. Thirdly, formulating, in consultation with the relevant stakeholders, National Innovation and IP Policy and strategy for the sector mentioned

above, for implementation by the government of Bangladesh. Following base guideline of WIPO, survey was done in two phases. Basic information and creativity data were collected from the survey especially with regard to the assessment of the national innovation and creativity system, and the identification of Bangladesh's strategic goals and needs to this effect.

IPR-specific key challenges that need to be addressed to strengthen Bangladesh's IP system include the establishment of a policy- and legal framework. Up to now, Bangladesh does neither have a stand-alone IP policy or strategy, nor is IP protection adequately integrated into the country's development strategies/policies. The legal framework is still incomplete, but currently amendment process is going on. In particular, there is an urgent need for basic capacity building. Awareness on IPRs among most institutions, businesses, researchers and the public is limited. Consequently, the enforcement of IPRs remains weak.

The protection of IPR encourages innovation, contributes to a sound business environment and increases Bangladesh's ability to attract foreign investment, know-how and modern technology. Moreover, IPRs are essential to achieve market diversification and to shift towards higher value-added products and services. A well-balanced IPR system that takes into account a wider public interest is conducive to Bangladesh's current and future socio-economic development (particular in the light of the following fast-developing. Sectors such as Textile and RMG, Telecommunication, Ship Building, Leather, Pharmaceuticals, Construction, Transportation, etc., and with regard to the cultural heritage).

The proposed IP policy objectives of this study are well aligned with Bangladesh's economic development strategies, such as the Vision 2021 that try to improve the investment climate as well as to diversify and modernize the economy. The inclusion of Traditional Knowledge (TK) and Traditional Cultural Expressions (TCEs) will facilitate Bangladesh's efforts to achieve a more balanced growth that benefits also more disadvantaged segments of the population, in particular in rural and remote areas. The policy reflects expressed priorities of the stakeholders.

Furthermore, the IP policy objective will contribute to further strengthening the international trade system. It is required to strongly advocate the timely implementation of the TRIPS Agreement by LDCs and has a reputation as a reliable partner in the WTO TRIPS Council. The Government of Bangladesh (GoB) has a strong interest in establishing a strong IP policy base in the country. Moreover Bangladesh has got strong commitment to achieve progress in the implementation of TRIPS. National initiatives are underway in order to improve the current framework for IPR protection.

The project has given focus on niches and priorities pursuing for development of a strategy which is able to contribute to the strengthening of Bangladesh's IPR system, by focusing on selected areas of high priority. Key beneficiary and direct counterpart is the DPDT under the MoI, GoB.

## **Proposed IP Policy and Strategy**

The Intellectual Property regime of Government of Bangladesh underscored need of a coherent IP policy & strategy in the country. The focus on the IPR regime is now on consolidation as well as promoting a fair balance between IP protection and public interest.

### **1. To Declare the Decade 2013-2023 as the 'Decade of Innovation' and to constitute National & Sectoral Innovation Council to create a Roadmap for 2023**

It will be prudent to declare the decade of 2013-2023 as the Decade of Innovation. National Innovation Council can be constituted to create a Roadmap for 2023.

## **2. To Prepare National IPR Strategy Implementation Roadmap**

A document 'National IPR Strategy Implementation Roadmap' is to be prepared on the basis of inputs provided by the Members of the Sectoral Innovation Council. The objective of this exercise is to prepare a policy statement on the steps that the Government needs to take to promote innovation and creation of IP and encourage its utilization.

## **3. To Develop a National Framework for Creation and Protection of IPRs Commensuration Global Standards**

It is required to develop a national framework for creation and protection of IPRs, which should continuously evolve meeting global standards.

## **4. To Strengthen the Prominent Entities involved in Creation, Protection and Commercialization of IPRs and the Institutional Framework**

Today, creation, management and commercialization of intellectual property rights are facilitated by several institutional frameworks. The Open Innovation paradigm too is gradually fuelling collaborative R&D and concomitant IPR creation across organizations. Innovation and IPR landscape largely extends over the academia and publicly funded research laboratories, SMEs, large corporate and start-ups/innovators. It is required to strengthen prominent entities and stakeholders. Any strategy that proposes to discuss IP creation must first focus on the characteristics of the major players:

### **i) International Organizations and Multinational Corporations (MNCs)**

Bangladeshi organizations are using their IPR portfolios to create a niche for themselves and gain a competitive edge. They also realize the importance of carefully managing their business practices to avoid infringement on other's intellectual property. Several such companies have incorporated business intelligence tools and IP management systems to safeguard their businesses and intellectual capital. Others are increasingly becoming aware of the importance of IP and, with needful external support, can swiftly catch up. However, innovation-seeking R&D is still at a low level in the country. This therefore, poses a huge challenge to the future development of globally competitive technology.

### **ii) Micro, Small and Medium Enterprises (MSMEs)**

In Bangladesh, there are approximately six million medium, small, micro industries in Bangladesh which employ thirty million people directly and indirectly, which accounts for 87 per cent of the total industrial labor force. This sector (MSMEs) is also responsible for creation of over 33 per cent of industrial value added goods. In addition, evidence suggests that there are over 347,000 cottage industrial units and a large number of handloom and power loom enterprises. Another study data that are pertinent to characterizing SMEs in Bangladesh shows the following: (a) there are some 78,440 private-sector establishments of various sizes in Bangladesh with some 3.5 million workers employed in them. The urban Bangladesh accounts for some 60% of units and 76% of employment in the private-sector enterprises. Rural Bangladesh accounts for the rest. The intellectual capital of micro, small and medium enterprises in Bangladesh is often embedded in processes/routines, and the existing methods for managing the intellectual property are highly diverse ranging from formal to informal protection methods. At times semi-formal means are also used.

**5. Formal, Semi-formal and Informal Protection Practices of Intellectual Output: To Enhance Awareness and Formal Education on IPR**

Lack of awareness and formal education on the intellectual property rights, and an inclination to reduce transaction cost of acquiring legal IP rights also contributes to high prevalence of such practices namely, formal, semi-formal and informal protection.

**6. MSMEs and Global Competition: Render Importance of Innovation and IPRs**

**7. To Emphasis Academic Institutions and Publicly Funded Research laboratories as Forefront of Knowledge Creation and Innovation**

With innovation as a central theme driving the growth of economies and businesses, the role of academic and publicly funded research laboratories is witnessing a gradual expansion particularly in respect of their outreach to business community in Bangladesh. This is generally true for the leading academic institutions and most of the national laboratories.

**8. Start-Ups and Individual Innovators: To Leverage Intellectual Property Rights to Create a Niche and Gain a Competitive Edge**

A large number of these technology entrepreneurs are trying to be based out of Technology Business Incubators (TBI) or Science and Technology Entrepreneurship Parks (STEP). Many are academic spin-offs who are trying to leverage their intellectual property rights to create a niche for themselves and gain a competitive edge. Quite a few have grown from public sector research resultants.

**9. To Provide Financial Assistance to Start Up to Leverage IPRs**

While Government/private funding does provide financial assistance to start up, this support is woefully inadequate to leverage IPRs as a strategic tool.

**10 To Develop Capacity of the Office of DPDT and to Establish National Institute of Intellectual Property Management (NIIPM)**

National Institute of Intellectual Property Management (NIIPM) to be established to meet the training needs on IPR.

**10. To Bring about Greater Efficiency and Transparency into the IP System**

Steps to be taken to bring about greater efficiency and transparency into the IP system. The processing of Trade Marks and Patent Applications and post-registration activities should be fully e-enabled. Complete e-enablement of Designs applications is to be done.

**12. To Emphasis the Need for Institutional/Organizational Innovation and Social Innovation and ensuring diffusion of innovation: Innovation and IPRs in Economic Development**

Anecdotal evidence suggests that the rate of technical change and of economic growth depends on efficient diffusion of innovation. Further, evidence also supports the need for institutional/organizational innovation and social innovation as much as technological innovation for obtaining and sustaining a high correlation between IP and development. Clearly, the national policies and frameworks play an important role in ensuring diffusion of innovation.

## **Recommendations for a National IPR Strategy for Bangladesh**

Bangladesh is an emerging economy which has been witnessing good levels of economic expansion. The economy of Bangladesh showed its resiliency even in the thick of a severe global economic downturn. The country has a big consumer market of 160 million people and its middle class is larger than the individual total population of Malaysia, Singapore or Thailand. The consumption of the middle class people of Bangladesh is nearly 44 billion dollars which is much higher than the GDP of many countries in the world.

Bangladesh is now ranked as the world's 42nd largest economic power in terms of Purchasing Power Parity (PPP). Today, Bangladesh is the 69th largest exporting country, the 2nd largest exporter of Ready Made Garments and the 11th largest importer of textiles in the world.

Realizing the importance of a strong and balanced IP system in Bangladesh, several initiatives have been undertaken at the policy level over the last decade. This is to foster an environment which is conducive for development of technology and trade in Bangladesh. However, as most would acknowledge, innovation and IPR is an ever-evolving subject and there is a definite need for constantly reviewing national framework and policies to keep abreast with the global developments while paving the way for a robust economy. Although the IP system in Bangladesh inherited and has come a long way since its inception in 1856 and continues to evolve, a critical analysis of the situation of IPR creation, management and protection in Bangladesh vis-a-vis the global practices points to the need for both improvement and strengthening of the Bangladeshi IP system.

### **To Develop IPR Policy to Transform Bangladesh into an Innovative Economy**

The aforementioned objectives are proposed to be addressed through the following four-pronged approach.

#### **A. Promoting respect for Intellectual Property and stimulating creation of IP Rights**

#### **B. Creation of new IP regimes to address the specific needs of the country and the existing gaps**

#### **C. Strengthening protection of IP**

#### **D. Facilitating commercialization of Intellectual Property**

The IP strategy should outline the various facilitative measures that need to be taken by the Government of Bangladesh to stimulate creation of IPRs, its protection and management as also its commercialization. It includes development of associated infrastructure and capacities to support innovators and creators of IP and for utilization of knowledge-based resources.

#### **A. Promoting Respect for IP and Stimulating Creation of Intellectual Property Rights**

In the knowledge economy, creation of IP and its incorporation in designs, products and production techniques are increasingly becoming important for commercial competitiveness



and economic growth. Credible national IP system thus calls for social awareness amongst the people about the stakes involved in IPRs. More particularly, the Bangladeshi academia, industry, the innovator/entrepreneur community ought to be increasingly made aware of the value of IPRs both from national and global contexts. Further, there is a need to develop a general understanding of different processes involved in creation of IP assets. In seeking to establish an IP culture, it would be critical to take the following sector/stakeholder specific interventions.

### **Micro, Small and Medium Enterprises (MSMEs)**

- (i) To Encourage the MSMEs to Protect their IP Through Formal Methods
- (ii) Setting Up of IP Facilitation Centers as Effective Nodal Points
- (iii) To Search Worldwide Patent Databases and Prepare Technology Landscapes for Industry Segments for Bangladesh
- (iv) To Enact Favorable Tax Treatment for R& D Expenditures
- (v) State Support Mechanisms Need to be Tailored Towards Offsetting Bonafide IP Costs and In Facilitating Technology Transfer

### **Academia and Public Research Laboratories**

To Establish Institutional Mechanisms to Encourage and Propel Universities and Public Research Laboratories for Innovation: Specific actions such as the following are proposed:

- (i) Basic Precautions Before Applying for a Patent
- (ii) To License Technologies in Creation of Technology Ventures
- (iii) To Address National Priority Issues and Use of Key Leverage Technologies
- iv) IP Creation in Sponsored/Collaborative Research and Technology Development/Transfer
- v) Basic Concepts of IP Creation and Respect for IP Needs to be Introduced as a Component of Formal Education

### **Large Organizations**

- To Create World-Class IP and Utilize this IP for Both Organizational and National Benefits
- Government Should Encourage to Share their Expertise and Resources for National Benefit Through PPP
- To Leverage Strategic Relationships Even with Overseas Players to Facilitate Inflow of Best Technology/Knowledge
- Research Led Organizations Should be Encouraged to Tap Open Innovation Platforms and Tie-Ups with Academia

### **Start-ups and Individual Innovators**

**To Promote Techno-entrepreneurs: Interaction between Universities, Research Institutions and Innovation Driven Industry Units is extremely Important**

While synergy and close interaction between universities, research institutions and innovation driven industry units is extremely important for promoting techno entrepreneurs, following measures may need to be taken to boost this interaction:

- i) Information dissemination and delivery mechanism for support services including venture capital funding ought to be made expedient.
- ii) Dedicated public institutions which offer end to end support for creation, protection and commercialization of IP is vital for start ups. There is need to identify such institutions and enhance their ability to provide such services.
- iii) Procedural mechanism adopted for giving financial support for patent filings should be made smoother and quantum of assistance provided should be augmented.

## **B. Strengthening Protection of Intellectual Property**

- **A Scope and a Depth Issue of IP Protection: Improvements in the Institutions that Grant IPRs**
- **Improvements in the institutions that grant and protect IPRs**
- **Functioning of the IP Offices**

### **Strengthening of the institutional set up to improve enforcement of IPRs**

- **Restructuring of the Institutions:**
- **An Inter-Ministerial Committee on the Enforcement of IPR Laws to be Set Up**
- **A Copyright Enforcement Advisory Council (CEAC) to be Set up**
- **The Intellectual Property Appellate Board (IPAB) to be established**
- **Strengthening of IP Association of Bangladesh (IPAB) and IPR Committees**
- **To Undertake Market Intelligence Studies**
- **A Need for a Centrally Managed National Intellectual Property Enforcement Taskforce**
- **More Vulnerable Smaller and Niche Businesses Should Be Encouraged to Formulate Their Trademark Strategies**

## **Geographical Indications**

In so far as geographical indications are concerned, Bangladesh is bestowed with a rich tradition of arts, handicrafts, agricultural practices, characteristic foods, ethnic produce etc. Besides, it has a vast repository of information on IP embedded in local practices and procedures. A large pool of such IP is dispersed across the length and breadth of the country, and it ought to be protected in the form of Geographical Indications wherever feasible. While Tangail's Chamcham, Muktagacha's Manda, Bogra's Dai, Padma's Hilsa, North Bengal Black Goat, Ruhitpur's lungi, Comilla's Rashmalai, etc have made a mark in the global markets, countless such indigenous creations are still untapped from an IP perspective. An awareness initiative is needed to further promote the significance of such local assets, so that they can be leveraged towards the economic benefit of the community and the country. Such an initiative should specifically target local communities (including the rich and yet unexplored tribal products/processes). Central public bodies in partnership with suitable district-level entities and local Union Council Institutions should do the following:

- i) It should undertake the task of educating communities on the benefits of registering the GIs. Special emphasis on building brands will also be essential to safeguard the rights of the GI owners.
- ii) It should put in place examination protocols to ensure that the GI owners comply with the prescribed quality standards.
- iii) It should develop a road map for building brands to enable better market access and penetration for the products registered as GIs.

iv) It should also coordinate for enforcement matters with the relevant state level authorities and should provide periodical updates to the Enforcement Taskforce on issues that need redressed.

### **Protection of Industrial Designs**

Interventions of existing Government of Bangladesh support start ups and SMEs to protect IP have to be enhanced many times over to achieve a fair degree of scale. As the design aspects become more sophisticated, the protection, rights and remedies may have to be suitably viewed and administered under different national laws related to say competition and copyrights. In short, protection of industrial designs needs to be both encouraged and facilitated by needful administrative intervention.

### **Protection of Plant Varieties**

Protection of Plant varieties is essential to encourage the development of new plant varieties and to protect the extant varieties. In Bangladesh, appropriate authority should initiate the process of registration of new, extant and essentially derived varieties, extensive awareness generation programmes are also necessary to encourage filings.

## **C) Creation of New IP Rights to Address the Specific Needs of the Country and the Existing Gaps**

- **Utility Patents or Utility Models: A Cost Effective Way To Incentivize Incremental Innovation And Encourage Creation Of IPRs:**

- **A glaring gap in Bangladeshi IP system: Utility Patents are an Answer**

### **Protection of Trade Secret**

Trade secret is to be protected through the contract law and is part of the concept of protection against unfair competition. A predictable and recognizable trade secret regime will improve investor confidence and create a facilitative environment for flow of information.

## **D. Facilitating Commercialization of IPRs**

- **Policy Interventions are Needed to Create Strong and Transparent National Systems**

- **National Research Laboratories, Academia and Other Public Funded Institutions Should Stimulate Commercialization**

- **National Level Policy Changes are Required to Encourage Development of Indigenous Technologies**

## **Emergence of Open Innovation Systems and the Role of Voluntary Standard Setting Organizations**

Interestingly, IPRs have also become an important tool in addressing any dichotomy between cooperation and competition in the standard creation process more particularly in the ICT industrial sector where there are large number of inter dependent vendors and technology suppliers. This situation also gets aggravated due to rapid pace of technological obsolescence. Thus, emergence of open innovation systems and the role of voluntary 'Standard Setting Organizations' are visualized.

## **Key Findings and Conclusions**

While the overall status of the IPR system is currently weak, there is a strong commitment of the GoB (up to the Ministerial level), and the private sector to improve the protection of IPRs.

**Key challenges that need to be addressed to strengthen the IPR system include:**

- **Policy and legal framework is weak**
- **Lack of budget for an. adequate infrastructure and staff in government offices hinders an effective administration of I.PRs.**
- **There is a general lack of awareness on IPRs**
- **Enforcement of IPRs, an essential element of the TRIPS Agreement, remains weak.**

**Conclusions can be drawn as follows:**

- Analyzing the challenges above, a three-pronged approach; formulation and strengthening the policy and strategy, IPR administration and demand for IPRs (by users) in parallel, is needed.
- On the policy side, it is required to formulate and support the elaboration of an IP policy and to focus on completing the legal framework in the field of TK and TCEs. There is a need to combine technical advice with capacity building for policy makers.
- As highlighted by the GoB, key priority is basic capacity building among government staff and groups of stakeholders for whom IP is of high practical relevance, in particular universities and segments of IPR users (e.g. the software/outsourcing industry).
- An IP training centre can be established. The support to the IP training centre seems however premature at this time, because the centre has not yet been established. Also, prior to establishing the centre, capacities of trainers need to be built and the funding for operational cost should be arranged & made sustainable.
- GIs are a high priority to Bangladesh. The sustained technical support is needed to implement GI pilot projects. Also, both the legal framework and institutional framework for registration/management of GIs must be in place, prior to the implementation of pilot projects, which is not yet the case in Bangladesh. Nevertheless, support to basic awareness raising and a study on the potential of GIs and groundwork for the future development of GIs can be initiated.
- Strengthening enforcement of IPRs is important. Bangladesh requires assistance in this area. The potential for value added within a limited technical cooperation project not directly working with enforcement agencies would be marginal. Promoting the use of IPRs among the right holders is important. Well-informed right holders are likely to actively defend their rights. Pressure from right holders tends to gradually result in better IPR protection.

# Chapter I

## Introduction

### 1.1 Background

Creativity and innovation has no limit but endless benefits. As a result, protection, promotion and management of intellectual Property (IP) is becoming an instrument for national development in the context or globalization of trade and commerce and emerging knowledge-based world. Its role in global equilibrium in many or complex situations is derived from changing technologies and political realities needs to be understood by scientists, technologists, legal experts, governments, industries and business, civil societies and individual creators. In this era of globalization and rapid expansion of world economy, intellectual property and the corresponding rights over intellectual property are crucial to the economic, social and technological development of any country beyond doubt. Globalization also has made the Intellectual property rights a subject matter of international concern. All nations who want to promote and project their development in all aspects must protect the rights over intellectual property by granting legal veil through exclusive enactments. Realizing this fact, all industrialized nations and by now most developing countries of the world have enacted laws for the protection of 'works of mind'.

To comply with the international obligations Bangladesh also has introduced intellectual property rights protection system. It is needed to explore to seek how enforcement mechanisms in Bangladesh are intrinsically precious, effective and thenceforth, worth in protecting the rights of IP holders. As an obvious flow of discussion the report analyzes to look beyond the constraint and formulation of a comprehensive legal framework for IP protection. Innovation is the key driver of economic growth and development in the short & medium to long term. It can be defined as the process of introducing new products, services and production processes into the market place and to create new profitable enterprises and higher-paying jobs on this basis. A well-balanced, affordable and reliable system of intellectual property rights has an important role to play in this process. Intellectual property rights serve to protect the - often large and highly risky - investments of innovative and creative companies against potential imitators and thereby provide key incentives to undertake such investments in the first place.

It is important to provide a cross-cutting analysis of intellectual property laws and their economic impact. Practical problems should be emphasized of using intellectual property rights in the innovation process, i.e. on the commercialization of intellectual property, and on the question of what economic policy can do to support the various innovation stakeholders in this process. Specifically, it is a matter to analyze the role of intellectual property in the transfer of technology from public research organizations to the business sector, the management of intellectual property in small, medium & large-sized enterprises, and the auditing, valuation of and accounting for intellectual property. It is widely accepted that a well-functioning and balanced IP system is key to promoting innovation and creativity, which are the main drivers of economic development of knowledge-based economies (KBEs). The success of a KBE is dependent on a system that promotes knowledge-based enterprises, strengthens linkages between industry and research institutions, and develops the workforce necessary to deliver IP services. Such a system presupposes the appropriate integration of IP into the national development framework, and the interfacing of broad national IP policies and strategies with relevant national policy

issues. Intellectual Property Right is a much talked about issue all over the world both nationally and internationally. In recent years, Intellectual Property has attracted huge public interest amusing a good deal or debate and becoming a prominent subject in discussions on knowledge diplomacy. Both the protection and the dissemination aspects or IPR have got special prominence in the context of global trade and business.

For some countries, IP system is a crucial factor in their prosperity in the era of knowledge economy: the others view it as a kind or new protectionism compensating for declining status of trade protection such as tariffs, non-tariff barriers and subsidies. IP also raises vital economic, social and moral issues concerning the patenting of life-forms, and matters of biodiversity. Intellectual property management is becoming a major element in corporate business management. It affects Mergers and Acquisitions, generates joint ventures, forges cooperative research and development agreements, and is the basis of licensing agreements. Companies are forging alliances with each other in order to heighten value of their IP and to obtain mutually beneficial competitive advantages. Often such alliances will give the companies involved substantially increased clout in their particular field of technology, allowing them to impose their standards on competitors in that sector. Strategic positioning of IP assets can make a difference to a company's profit. Such strategic positioning enhances revenue through better deployment of Research and Development (R&D) and market intelligence, and facilitates licensing income, as well as the potential for Mergers and Acquisitions (M&As). Possession and management of IP assets is becoming a major determinant of company's success or failure. IP management, formerly lined to legal departments, is increasingly being handed over to proactive IP departments. This is especially true in some of the new technology firms which are developing so fast and making huge investments in R&D sectors.

## 1.2 Country Profile of Bangladesh

With an estimated population of 152.6 million and a surface of 147,570 km<sup>2</sup>, Bangladesh is the eighth most populous nation and among the most densely populated countries in the world. It is bordered by India on all sides except for a small border with Myanmar (Burma) to the far southeast and by the Bay of Bengal to the south. Together with the Indian state of West Bengal, it makes up the ethno-linguistic region of Bengal. Today's borders of Bangladesh were established with the partition of Bengal and India in 1947, when the region became the eastern part of the newly-created nation of Pakistan. Due to political, economic, ethnic and linguistic discrimination by the politically dominant West Pakistan, popular agitation led to the Bangladesh Liberation War in 1971. After independence, the new state endured famines, natural disasters and widespread poverty, as well as political turmoil and military coups.



## **KEY FACTS ON BANGLADESH**

Office Name	: People's Republic of Bangladesh
Political System	: Parliamentary Democracy
Population	: 152.6 million (Projected 2011-12)
Area	: 147,570 Km <sup>2</sup>
Time Zone	: GMT +6Hours
GDP Total	: USD 112 billion (FY 2011-12)
GDP Per Capita	: USD848(FY2011-12)
Total Exports	: USD 24.287 billion (FY 2011-12)
Total Import	: USD 35.44 billion (FY 2011-12)
Total FDI	: USD 1.136 billion (2011 )
Forex. Reserve	: USD 13.8 billion (Mar, 2013)
Major Maritime Ports	: Chittagong & Mongla
Currency:	:(US\$ 1 = Taka 77.80) (May, 2013)
Major Cities	: Dhaka, Chittagong, Khulna, Rajshahi, Sylhet, Barisal, Rangpur
Dialing Code	: +880

## **BANGLADESH IS A PLACE FOR INVESTMENT AND INNOVATION PROMOTION**

Bangladesh is a winning combination of competitive market, business-friendly environment and competitive cost structure that can give best returns.

### **INDUSTRIOUS COMPETITIVE WORKFORCE**

Bangladesh offers a well-educated, highly adaptive and industrious workforce with the lowest wages and salaries in the region. About 57.3% of the population is under 25, providing a youthful group for recruitment. The country has consistently developed a skilled workforce catering to your needs. English is widely spoken, making communication easy.

### **STRATEGIC LOCATION, REGIONAL CONNECTIVITY AND WORLDWIDE ACCESS**

Bangladesh is strategically located next to India, China and ASEAN markets. As the South Asian Free Trade Area (SAFTA) comes into force, investors in Bangladesh enjoy duty-free access to India along with EU, Japan and in major developed countries

### **STRONG LOCAL MARKET AND GROWTH**

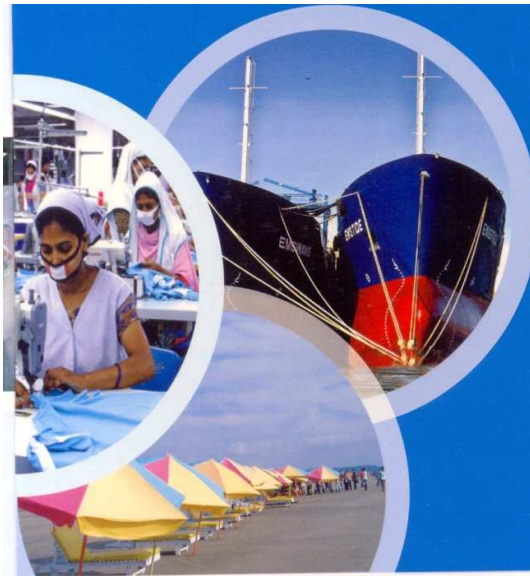
Bangladesh has proved to be an attractive investment location with its 153 million population and consistent economic growth for a decade leading to strong and growing domestic demand.

### **LOW COST OF ENERGY**

Energy prices in Bangladesh are most competitive in the region.

### **PROVEN EXPORT COMPETITIVENESS**

Bangladesh enjoys tariff-free access to the European Union, Canada and Japan in RMG sector. In EU, Bangladesh enjoys 60% of RMG market share and is the top manufacturing exporter amongst 50 LDC countries.



### **COMPETITIVE INCENTIVES**

Bangladesh offers the most liberal FDI regime in South Asia, allowing 100% foreign equity ownership with unrestricted exit policy, remittance of royalty and repatriation of equity and dividend.

### **EXPORT AND ECONOMIC ZONES**

Bangladesh offers export oriented industrial enclaves with infrastructural facilities and logistical support for foreign investors. Building economic zones is in the process. The country is also developing its core infrastructures like roads, highways, surface transport and port facilities for a better business environment.

### **POSITIVE ENVIRONMENT**

A largely homogenous society with people living in harmony irrespective of race and religion. Bangladesh is a democratic country enjoying broad bi-partisan political support for private investment. The legal and policy framework for business is conducive for foreign investment.

The country experienced different political systems from democracy to military rule (1985-1991). An estimated GDP of USD848 (FY2011-12) ranks Bangladesh as a least-developed country (LDC). Although two-thirds of the population lives from farming, the country's economy largely depends on the garment industry, which contributes three quarters of the country's export earnings, and remittances from workers abroad. Despite an impressive growth in recent years, Bangladesh still struggles with poverty and unemployment, inadequate infrastructure, and corruption. A large portion of the population is extremely vulnerable to economic shocks and increases in food or oil prices. Bangladesh is regularly hit by natural disasters, which are expected to increase in the future due to climate change. A large share of Bangladesh's population lives in poverty. However, considerable progress has been made in recent decades, mainly in the areas of population control, child mortality, malnutrition and gender-neutral access to education.

### **PROVEN EXPORT COMPETITIVENESS**

Bangladesh enjoys tariff-free access to the European Union, Canada and Japan in RMG sector. In EU, Bangladesh enjoys 60% of RMG market share and is the top manufacturing exporter amongst 50 LDC countries.





## **INDIGENOUS INNOVATION AND R&D INVESTMENT CLIMATE OF BANGLADESH**

Vision 2021: In Quest of a Happy, Prosperous and Inclusive Bangladesh

### **Medium Term Economic Targets (2013)**

- Raising economic growth rate to 8%
- Reducing poverty rate to 25%
- Reducing absolute poverty rate to 15%
- Enhancing electricity supply to 7,000MW

### **Long Term Economic Targets (2021)**

- Boosting economic growth rate to 10% in 2017 and sustaining it till 2021
- Reducing poverty rate to 15%
- Enhancing electricity supply to 20,000MW
- Raising the Economy to the level of a middle-income country

### **Existing Climate of Innovation**

- Bangladesh has an open, market-based economy led by a vibrant and innovative private sector which provides the main stimulus to its growth
- Growing markets, with innovative entrepreneurs, offer greater business opportunities
- Existing slacks in the economy of Bangladesh offers enormous opportunities of high return and low risk investments in infrastructures, utilities, manufacturing and consumer goods industries
- Risk factor for FDI are the minimum in Bangladesh
- Bangladesh is one of the top exporters of readymade garments to US & Europe
- Goldman Sachs has identified Bangladesh as one of the next big eleven emerging markets
- City Investment Research & Analysis termed Bangladesh, China, Egypt India, Indonesia, Iraq, Mongolia, Nigeria, Philippines, Sri Lanka and Vietnam have the most promising (per capita) growth prospects.
- The International Monetary Fund (IMF) commented on the economy of Bangladesh as resilient export and remittance flows have bolstered growth and external stability.

- The wall Street Journal (WSJ) dismissed the previous branding of Bangladesh as commented Bangladesh, 'Basket Case' No More- with a higher growth rate, a lower birth rate, and a more internationally competitive economy.
- JP Morgan Chase commented on Bangladesh: The country ranks fourth in growth in economically active population.
- Morgan Stanley has commented Bangladesh is at the very early stages on an investment boom...
- The New York Times has termed Bangladesh as "an unlikely corner of Asia, strong promise of growth".
- Bangladesh has never defaulted in its debt repayments, nor asked for their rescheduling
- Bangladesh never posted negative economic growth during the past 30 years
- Bangladesh is a homogeneous country with religious, ethnic or other forms of cultural diversity ·
- Bangladesh has outstanding records in human rights.
- Bangladesh is one of the largest contributors to UN peacekeeping forces and missions and the records of the forces have been exemplary and laudable

## **INVESTMENT INCENTIVES**

- Corporate tax holiday of 5 to 7 years for selected sectors and areas
- Accelerated depreciation on cost of machinery for new industries in lieu of tax holiday
- Avoidance of double taxation under bilateral tax convention
- Tariff concessions on import of capital machinery
- Tariff concessions on import of raw materials of the export oriented industries
- Bonded Warehousing facility
- Cash incentives and export subsidies ranging from 5% to 20% on the FOB value of selected products
- Funds for exports promotion, export credit guarantee scheme
- Permission for domestic sales up to 20% by export-oriented companies outside EPZ
- Remittance of royalty, technical know-how and technical assistance fees
- Citizenship by investing a minimum of US\$ 5,00,000 or by transferring US\$ 10,00,000 (non-repatriable), permanent resident by investing US\$75,000 (non-repatriable) And many more,...

## **INVESTMENT OPPORTUNITIES**

### **KEY SECTORS**

Information & Communication technology, textiles, electronics, light engineering, power & gas, ship-building, Business Process Outsourcing (BPO), frozen fish, leather and leather products, ceramics, agro-based industries, pharmaceuticals, tourism Agrobased business, Plastic, Furniture, Home textile, Jute & Jute products etc.



## OPPORTUNITIES

There are some business sectors in which Bangladesh has a particularly competitive edge and investments opportunities for exceptional returns. These range from shipbuilding to ceramics; from flat glass to tourism.

### KEY OPPORTUNITIES :

#### Quality Garment Design and Production

From spinning to weaving, from knitwear to leisurewear and high street fashion, the textiles and clothing industry is Bangladesh's biggest export earner with over USD 16 billion of export in FY2011. The factories design and produce for the world's leading brands and retailers with quality product on time, reliable.



## Light Engineering

Light engineering sector is the most important industrial sector in the economy of Bangladesh. There are about 50,000 Light Engineering small industries all over Bangladesh producing about 25000 products (industrial units, capital machinery, equipments, instruments, industrial spare parts, etc.) . Annual turnover is about Taka 20,000 crore.

### **Talented ICT and Business Services**

From inbound call centers to the latest in web 2.0 software development widespread English helps make Bangladesh an emerging option for the global outsourcing business services industry. The promising ICT sector is ready to win any opportunities.

### **Competitive Pharmaceuticals**

The WTO TRIPS agreement permits Bangladesh to reverse-engineering patented generics to sell locally and export to markets around the world. This has created a strong manufacturing and technically experienced base with growth of 12% a year and a potential for R&D and clinical trials.

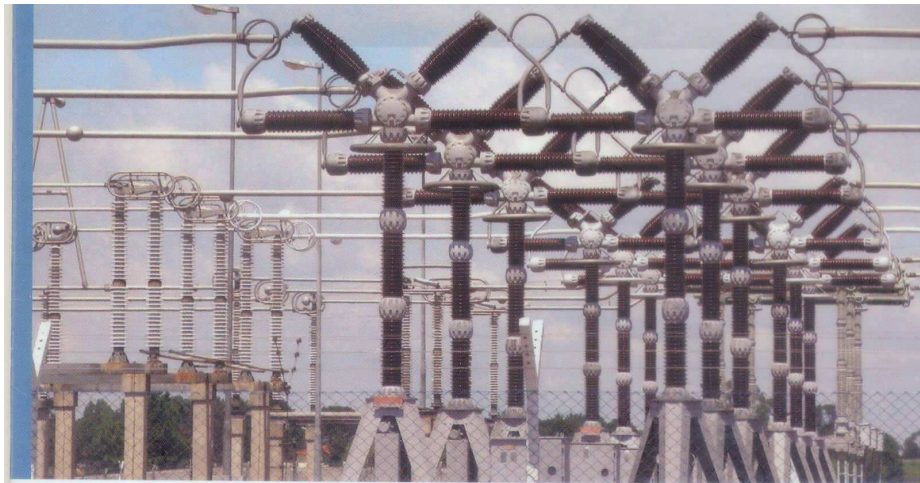
### **Agro Processing**

Over 90 varieties of vegetables are growing in Bangladesh. There are huge opportunities for investment in cold storage for export produce, vegetable preservation, production of fertilizers and seeds, eco-friendly jute products, shrimp farming, halal food, milk, value added foods for export an endless list.

### **Leather Products**

Bangladesh has a mature tanning industry, producing around 2-3% of the world's leather from a ready supply of raw materials. The finished goods sector is also taking its lead in parallel. With good export incentives plus tariff and quota free access to major markets such as the EU, Bangladesh is an unrivaled location to outsource the manufacture of finished leather products.

And a lot more...



According to the IMF, Bangladesh's per-capita GDP has more than doubled since 1975 (to USD848 in FY2011-12). With a GDP of USD 112 billion(FY 2011-12), the country's economy is now the 44th largest in the world. The poverty rate has fallen by 20% since the early 1990s and the country has been listed among the 'Next Eleven'economies by Goldman Sachs. The country is a member of the Commonwealth of Nations, the Organization of the Islamic Conference (OIC), the South Asian Association for Regional Cooperation (SAARC), the Bay of Bengal Initiative for Multi-Sectorial Technical and Economic Cooperation (BIMSTEC), and the Developing 8 Countries (D-8).According to the Food and Agriculture Organization of the United Nations (FAO), two-thirds of the population is farmers and Bangladesh is one of world's largest producers of rice (4th in the world), potato (11th), mango (9th), pineapple (16th), tropical fruit (5th), onion (16th), banana (17th), jute (2nd), and tea (11th).More than three quarters of the country's export earnings derive from the garment

industry. Due to low cost labour and low conversion cost, the garment sector has attracted considerable amounts of foreign direct investment (FDI) and now employs more than 3 million workers (90% are women).

A substantial share of Bangladesh's foreign currency earnings also derives from the remittances sent by expatriates working abroad (\$ 14 billion foreign remittance, Jan, 2013) (e.g. in 2009, Bangladesh's remittances accounted for 12 % of the country's GDP and exceeded almost nine times the official development assistance). Despite an impressive growth; Bangladesh still struggles with poverty and unemployment, inadequate infrastructure, corruption, a complex regulatory environment, and unequal resource distribution among regions. A large portion of the population is thus extremely vulnerable to economic shocks and increases in food or oil prices. Furthermore, Bangladesh is among the countries most prone to natural floods, tornados or cyclones. Due to climate change, these natural hazards are expected to increase in the future.

### **1.3 Rationale of the Study**

Innovation and Intellectual Property (IP) policies and strategies are a set of measures formulated and implemented by a government to encourage and facilitate effective creation, development and management of intellectual property. They outline how to develop infrastructures and capacities to support inventors of IP to protect, develop and exploit their inventions. An IP Strategy may also be defined as a comprehensive national document which outlines how all the policy developments and implementation take place in a coordinated manner within a national framework. It therefore spells out how best to develop the talent base for an innovation and creativity system that attracts foreign direct investment, and helps in building an inclusive economy. IP Strategy is useful because it strengthens a nation's ability to generate economically valuable IP assets. The goal of IP strategy is to provide a plan in the short, medium and long term, whereby all national stakeholders can work together to create, own and exploit research results, innovations, new technologies, and works of creativity. To achieve the above goals, the study has been undertaken.

Being a member of WIPO, Bangladesh is also a signatory to Berne Convention and Paris Convention. Meantime, Trademark Act, 2009 and Copyright Act, 2000 have been passed amending the old ones. Other laws such as the Patent Law, the Designs Law, the Geographical Indication Law, Utility Model and Integrated Circuit Layout Design law need to be oriented/enacted. Bangladesh is also a signatory of WTO's TRIPS Agreement. TRIPS Agreement imposed some norms for trading any goods related to IP rights. So to make IP laws consistent with such conventions or agreements, updating/enactment of IP laws are necessary. The proposed study on the current status of IP laws would supplement an attempt to that end.

#### **1.3.1. Relevance of IPR to Bangladesh's Economic Development**

In a knowledge-based economy, successful enterprises differentiate themselves by creativity, innovation and strong, well-recognized brands. Only where legitimate IPRs are protected and enforced, enterprises will be able to amortize their significant investments into research and development (R&D) as well as into brand building. Protection and enforcement of IPRs encourage innovation and investments, which are needed to modernize the economy. The protection of IPR also contributes to a sound business environment and increases Bangladesh's ability to attract foreign investment, know-how and modern technology. Illegal exploitation of IPRs causes significant damage to the legitimate right owners, leads to unfair competition and distorts the market.

Non-discriminatory measures for protection of IPRs reduce trade barriers caused by less favourable IP protection for imported versus domestic products. This contributes to a level-playing field for both foreign and local enterprises.

### **The economic benefits of IPRs are manifold**

Patents encourage investment into R&D, as the owner of a patent will be able to enjoy the benefits of his invention. In case the inventor does not want to directly exploit his invention, he has the possibility to license the right to make use of it to another person. On the other hand, the moment of patenting is also the time of disclosure of the relevant information to the public and everyone who wants to further exploit a new technology. This public access to "prior art" also helps to prevent duplication of efforts in R&D. Promoting the use of patent information for research and development and a systematic approach to encourage the transfer of technology, e.g. through technology transfer centers are equally important to patent protection. Trademarks are of substantial and growing importance to enterprises, as differentiation through strong brands enables them to position themselves on national or international markets. Brands are a powerful tool to add value, to products.

#### **1.3.2 IPR Act as a catalyst for Bangladesh's Economic and Cultural Development**

- Increasing Bangladesh's ability to attract modern know-how and technology, which is necessary to increase product quality, productivity and competitiveness of Bangladeshi exports on the world market;
- Improving the framework conditions for businesses and encouraging investments, in particular into higher-value added products and services;
- Encouraging investments into research and development (R&D) as well as, in building strong local brands protected by trademarks;
- Facilitating free trade by reducing barriers and distortion of trade;

IPRs are highly relevant to Bangladesh's current and future socio-economic context (particular in the light of the following fast-developing sectors: ICT, textiles, pharmaceuticals, and with regard to the cultural heritage). IPRs are also highly relevant to the textile industry. Textile designs are generally considered copyrights, or may fall under industrial designs.

For the Bangladeshi economy, IPRs are essential to achieve market diversification and to shift towards higher value-added products and services. All stakeholders that were interviewed during the project formulation mission have recognized the great importance of IPRs for the future development of the country. They have also mentioned that a particular emphasis should be put on using IPRs for the benefit of Bangladesh's socio-economic development.

A well-balanced IPR system that takes into account a wider public interest is conducive to Bangladesh's socio-economic development in general, by encouraging R&D, improving the business environment and enhancing the value-added of Bangladeshi products.

### **1.4 Objective of the Study**

Bangladesh is a signatory of different international conventions/agreements on intellectual property. As such Bangladesh needs to make national innovation & IP policy & strategies.

The policy must be consistent with such conventions/agreements and enact laws in such areas of IP such as Designs, GI, TCE, TK etc. Keeping this in mind, the overall objective of this study is to formulate national Innovation & IP policy and strategy for Bangladesh. Then to see if these laws are consistent with international conventions/agreements to which Bangladesh is a signatory.

### **Overall development objective**

The overall development objective of the project is to contribute to the formulation of a coherent Innovation and intellectual property policy strengthening of a well balanced IPR system in line with TRIPS obligations and for the benefit of Bangladesh's sustainable socio-economic development.

Bangladesh's framework for IP protection is still in an embryonic stage. IP Offices have only a limited absorption capacity. The policy should focus on certain niches and priorities. Based on lessons and experiences learned from other similar interventions, the policy will develop a strategy to contribute to the strengthening of Bangladesh's IPR system, by focusing on selected areas of high priority in the policy as follows:

- (1) Enhancing the IP policy environment
- (2) Strengthening IP support services and protection
- (3) Fostering the use of IPRs

### **1.5 Alignment of the Objective of the Study with Bangladesh's Economic Development Policies**

The project objectives are well aligned with Bangladesh's economic development strategies such as the **Vision 2021** aiming at middle-income status by year 2021 or the "Digital Bangladesh Vision" that consists of four elements (human resource development people involvement, civil services and use of information technology in business). All these strategies try to improve the investment climate as well as its aim to diversify and modernize its economy. The inclusion of TK, TCEs and GIs will facilitate Bangladesh's efforts to achieve a more balanced growth that benefits also more disadvantaged segments of the population, in particular in rural and remote areas. Capacity building will strengthen the ability of the national IP institutions to provide services to the public and to contribute to international and national policy making.

Special attention is paid to types of IPRs that enable Bangladesh to better capitalize on its internal strengths, such as its wealth of TK, culture and local specialties. The protection of TK combined with benefit sharing offer an alternative livelihood to indigenous people. This in turn, is a way to prevent overexploitation of natural resources and improve the protection of biodiversity. Last but not least, improved patent protection in particular enables the transfer of clean technology, which contributes to the GoB's aim to shift towards more sustainable industrial production.

### **1.6 Methodology of the Research**

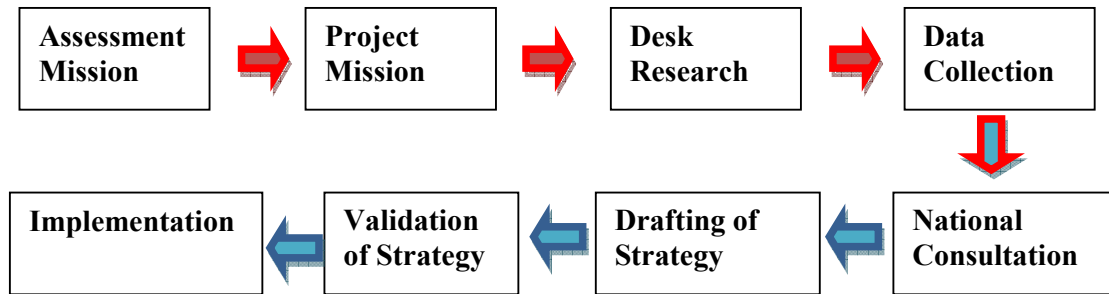
#### **Steps Involved in Developing the National IP Strategy for Bangladesh**

The following methodology of WIPO has been adopted to formulate IP strategy for Bangladesh. The methodology aims to provide a standard and integrated approach to IP policy, strategy, institutional reform and modernization. It consists of a series of steps,

practical tools and key components, which are listed below and is shown in the flow chart.

- a. **Assessment mission:** The assessment mission, which is undertaken by WIPO officials, is the first major activity carried out during the course of the IP strategy development process. The assessment mission, who is intended to prepare the ground for the IP strategy development process, involves meeting with the institutions responsible for the formulation of the IP strategy at national level.
- b. **Project team:** A project (national) team has undertaken an initial fact-finding exercise, carry out an IP audit, and develop a strategy document and action plan.
- c. **Desk research:** Desk research was carried out to review existing policy documents, in order to create a comprehensive assessment of the country's national development objectives, strategies and policies, and also in order to identify how to align the national IP strategy with the country's national development priorities.
- d. **Survey and Data collection:** The desk research was complemented by extensive data collection using an integrated tool – the Baseline Survey Questionnaire – which was developed by WIPO. The purpose of data collection is to obtain a clear picture of the current IP situation in the country (IP audit), its weaknesses, strengths and potential, and, on this basis, to realistically assess what issues need to be considered during the formulation of the national IP strategy. Survey was done in two phases.
- e. **National consultations:** National consultations were carried out to enable stakeholders to actively participate in the validation of the IP audit findings and the formulation of the national IP strategy. The ultimate goal of this exercise is to enhance a wide range of IP stakeholders' ownership of the process of developing and eventually implementing a national IP strategy. Consultation was done through various ways such as Focus Group Discussion (FDG), Round Table Conference (RTC), Etc.
- f. **Drafting the strategy:** Based on the suggestions, opinions and recommendations received during the national consultation process (i.e., suggestions, opinions and recommendations that would be considered useful for inclusion in the draft national IP strategy), the task of formulating the national IP strategy and related action plan was done. This task includes identifying key strategic IP objectives and priorities for some sectors, as well as for the country as a whole.
- g. **Validation of the strategy:** A second round of stakeholder consultations will be required in order to validate the proposed draft strategy, and also in order to ensure that all suggestions, opinions, recommendations and concerns raised during the first round of consultations have been taken into account before the document is finally submitted to the government for approval.
- h. **Implementation:** The development of a national IP strategy would not be complete without a clear implementation framework. Such a framework should include implementation structures, a resource mobilization strategy, and monitoring and evaluation mechanisms.





**Figure: Steps for Formulating National IP Strategy**

The methodology of research study comprised of several basic activities:

1. Study of previous documents such as research report, Stakeholders' consultation meeting, Focus Group Discussions (FGD) and workshop reports, Industrial Policy-2010, SME Policy Strategies-2005, Vision-2021, 6<sup>th</sup> Five Year Plan, PRSP, ICT Policy, Export Policy, Import Policy, SME Financing Policy of Bangladesh Bank, and other reports published by the donor communities, etc.
2. Review of the state of the art of IP in home & abroad.
3. Survey Program 1<sup>st</sup> phase.
4. Survey Program 2<sup>nd</sup> phase.
5. Arranging Focus Group Discussion (FGD), Round Table Conference (RTC), & other interactive programs.
6. Research and analysis.
7. Preparation of prototype details of the IP issues
8. Preparation of conclusions, recommendations, details IP features.
9. Preparation of Draft Report.
10. Validation of the strategy
11. Preparation of final report

Survey was conducted in two phases. Data from 25 pertinent organizations were collected from Survey of 1<sup>st</sup> phase and 2<sup>nd</sup> phase in 2012.

### **Implications of the study**

Based on the study findings IP policy & strategy was formulated to make the national IP laws consistent with the international agreements/ conventions to which Bangladesh is a signatory.

### **1.7 Terms of Reference**

The Terms of Reference are as follows:

- (a) Assessing the state of the national innovation and creativity system in Bangladesh with particular focus in the area of its interface with science and technology, industry, traditional knowledge, research and development institutions and education institutions of Bangladesh;
- (b) Identifying and Mobilizing the relevant stakeholders who will be involved in the formulation of National Innovation and IP Policy and Strategy; and
- (c) Formulating, in consultation with the relevant stakeholders, National Innovation and IP Policy and strategy for the sector mentioned in (a) above, for implementation by the government of Bangladesh.

## **1.8 Respondents**

Various stakeholders and respondents from a number of sectors participated in the survey program and FGD programs. Stakeholders from all stages of the value chains of various sectors were engaged in a number of working group meetings to define IP issues and objectives, design a strategy and organize the implementation of development activities. In formulating the IP strategy, stakeholders have taken into consideration current activities implemented in Bangladesh by various development partners. Participants were drawn from: Policy-makers, Ministries and relevant Government agencies, trade and business support institutions, academia, enterprises, NGO's and other civil society groups.

# Chapter II

## National IP Policy: An Utmost Necessity For Development of Bangladesh

### 2.1 Introduction

The 21<sup>st</sup> century will belong to creators of new ideas and innovations. Innovative ideas have become the driving forces of today's technological revolutions. In the current phase of globalization, the world is undergoing different changes, driven by rapid technological progress and widespread liberalization of economy. The changes are multidimensional and far-reaching. They involve new technologies, new management pattern and different form of enterprise linkage. The relations between industry and scientific information flow have also changed dramatically. The patterns of trade and commerce, flow of capital, technology and labor, generation and ownership of information and property rights are vastly different from what we saw even a decade ago.

The main focus of technological dynamism entered around the industrialized world. The regime in which we operate is guided by the rules that are framed in response to the needs of the developed world. They intervene in the market discipline, liberate private enterprise and encourage greater private foreign capital flows to the developing countries and LDCs. The UNCTAD Report shows that most LDCs undertook deep trade liberalization in the 1990s. They also received some degree of preferential market access from developed and developing countries. But trade liberalization plus enhanced market access does not necessarily equal poverty reduction. Many LDCs are in the paradoxical situation that they are the ones needing the multilateral trading system the most, but they find it hardest to derive benefits from the application of its central general systemic principles: liberalization and equal treatment for all its members. According to Thomas Jefferson, Third President of the United States "He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me". IP is, in the words of WIPO, "a power tool for economic development that is not yet being used to optimum effect particularly in the developing world".

Narrowing the gap between LDCs and more developed countries is a global economic, political and ethnic imperative. LDCs in general and Bangladesh in particular could not gain much from the knowledge based world because of insufficient IP infrastructures. Moving towards a knowledge-based economy, underpinned by an effective IP system, is a means of generating wealth to help achieve this goal. IP is the branch of law that protects differentiating business assets. Copyright and related rights: rights to prevent the reproduction (=copying) of differentiating expressions of ideas.

#### Attributes of IP (a non-exhaustive list):

- IP ensures differentiation among businesses, products, services (i.e., to ensure competition) and to ensure honesty in competitive business
- IP permits that consumers make informed choices
- IP encourages creation and invention

- IP protects the cultural identity of traditional communities, promotes the creation of TK and TCEs and leverages TK holders from poverty to the wealth of sustainable exploitation of biodiversity
- IP reduces costs of transactions involving intangible assets
- IP serves as a bargaining chip for obtaining trade-related concessions in international negotiations
- IP enables a friendly environment for FDI
- IP encourages transfer of technology
- IP encourages imports of sensitive technologies, products and services
- IP reduces distortions and impediments to international trade

## **2.2 Objects of IP**

The objects of intellectual property are the creations of the human mind, the human intelligent hence the expression “intellectual” property in a somewhat simplified way, one can state that intellectual property relates to pieces of information, which can be incorporated in tangible objects. Similar to property in movable things and immovable property intellectual property too, is characterized by certain limitations, like for example, a limited duration in the case of copyright and patents. Intellectual Property rights are rights given to persons over the creations of their minds. They usually give the creator an exclusive right over the use of his/her creation for a certain period of time.

As per, Article 12 of the TRIPS Agreement provides that, for the purposes of that Agreement, the term “Intellectual Property” refers to all categories of rights which are covered by Sections 1 to 7 of Part II of the Agreement itself, namely. copyrights and related rights, trademarks (and service marks), geographical indications, industrial designs, patents including plant varieties, layout designs of integrated circuit and undisclosed information, including trade secrets.

IP rights are customarily divided into two main areas or branches: copyright (and rights related to copyright) and industrial property.

## **2.3 Strategic Goals**

- (a) Promotion of an IP culture to build a foundation for more solid & extensive IP culture, better understanding & use of IP system, greater respect for IP rights.
- (b) IP policies as part of Nat'l Development strategies
- (c) Development of balanced IP laws responsive to emerging needs
- (d) Delivery of quality global IP protections systems
- (e) Enhanced Access to IP System to practical solutions to empower all stakeholders to develop, protect, enforce, manage and commercially exploit IPRs for development.

## **2.4 The Inherent Concept of IP Policy**

Intellectual property broadly means the legal rights that result from intellectual activity in the industrial, scientific, literary and artistic fields. Countries have laws to protect intellectual property for two main reasons. One is to give statutory expression to the moral and economic rights of creators in their creations and the rights of the public in access to those creations. The second is to promote, as a deliberate act of government policy and the dissemination & application of its results and to encourage fair trading which would contribute to economic and social development. In general, intellectual property law aims at

safeguarding creators and other producers of intellectual goods and services by granting them certain time-limited rights to control the use from those productions. Those rights do not apply to the physical object in which the creation may be embodied but instead to the intellectual creation as such. Intellectual property is traditionally divided into two branches: i) industrial property and ii) copyright. The convention establishing the World Intellectual Property Organization (WIPO), concluded in Stockholm on July 14, 1967 [Article 2 (viii)] provides that "intellectual property shall include rights relating to:

- literacy, artistic and scientific works
- performance of performing artists, phonograms and broadcasts
- inventions in all fields of human endeavor
- scientific discoveries
- Industrial designs.
- trademark, service marks and commercial names and designations
- protection against unfair competition and
- all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.

The areas mentioned as literacy, artistic and scientific works belong to the copyright branch of intellectual property. Besides this, the performing arts, phonograms and broadcasts usually called "related rights", are also covered under the purview of copyright, inventions, industrial designs, trademarks, service marks, commercial names and designations constitute the industrial property branch of intellectual property. Protection against unfair competition may also consider as belonging to that the more so as Article. 1 (2) of the Paris Convention for the Protection of Industrial Property (Stockholm Act of 1967) (the "Paris Convention") includes "the repression of unfair competition" among the areas of "the protection of industrial property"; the said convention states that "any act of competition contrary to honest practices in industrial and commercial matters constitutes an act of unfair competition (Articles 10bis (2))".

## **2.5 An Effective IP System is Required in Bangladesh**

Industrial property has long been recognized and used by industrialized countries, and is being used by an ever increasing number of developing countries, as an important tool of technological and economic development. Bangladesh is aware that it is in her best interest to establish national industrial property systems where they do not exist, and to strengthen and upgrade existing system which, inherited from their historical past, are no longer adequately responding to new needs and priorities. Industrial sector of Bangladesh is growing very fast. With the accelerated growth of the sector, the demand for new innovation, design, trade secret would increase which would ultimately be created through an effective IP system. If the initiatives are not taken now private sector's demands for the industrial machineries software and designs would be hardly be met.

An effective IP system in Bangladesh would create a congenial environment where scientists and creators would always look for the needs of the private sector to gain commercially from their innovation and creation, while the private sector would also be benefited by using these locally made relatively low-cost machineries, designs and other creations. Apart from this, if Bangladesh intends to promote its cultural heritage like *Nakshi Kantha*, *Jamdani*, *black goats*, local varieties of plants and genetic resources etc. it should obviously choose appropriate IP system. Otherwise, there are chances to lose the resources due to misappropriation of these resources.

## **2.6 Why IP Policy is Essential for Bangladesh?**

With the advancement of science it is very much needed to have an IP policy to protect the invention of science. At present, Bangladesh does not have any separate IP laws. IP issues are modestly captured by recently formulated National ICT Policy, 2009 and the Draft Industrial Policy, 2010. If there would had been a separate IP policy, it would provide appropriate guidelines of national priority and avoid duplication of work in the public sectors involved in the protection and enforcement of IP laws and rules. Business and commercial linkages of inventions and creations are increasingly becoming important in the multilateral trading system.

Developed countries with high technological base and strong intellectual property (IP) regime are progressing faster than developing countries. On the other hand, LDCs in general and Bangladesh in particular could not gain much from the knowledge-based world because of insufficient IP infrastructures. They are, however, keen to develop their own R&D capabilities. At the same time, they are in dire need of technical and financial support to benefit from global innovation and technological development. Essentially, Bangladesh needs to develop its own infrastructure and strengthen its financial and administrative capacities to encourage innovation and enforcement of IP rights. It needs to develop an IP policy, formulate or strengthen some of the existing laws to make them TRIPS consistent, restructure its institutions, and undertake training and awareness-raising programmes among the policy makers, IP enforcing agencies and users. Apart from these, it wishes to preserve its genetic resources, traditional knowledge and folklores with a view to gaining from commercialization of these resources. To make a Digital Bangladesh as envisioned by the government, at first we need to chalk out the components required for a Digital Bangladesh. They are - ICT Education, Digital Governance, accessibility, ICT infrastructure, Internet accessibility, e-Commerce and last but not the least proper IPR. Based on these components, we need to adopt a holistic approach in designing a roadmap for digital Bangladesh. Innovation-Linking the world is the theme of the present era. Innovation gives a nation the opportunity to enlighten and extend its capacity and resources to outer world. It provides all the equipments of modern science to enjoy. Connectivity among different nations increases. That is actually happening in 21st century.

Technology is developing in every moment. Today's new invention is tomorrow's previous creation. These radical transformations of technology make the world smaller and boost up the connectivity between all the parts of the earth. It has open up the prospect to exchange the prosperity with each other. Intellectual Property is the creation of human mind and IP right is the certification of any creativity like innovation, invention, art or literature. Usually intangible goods are called "Intellectual Property". Intellectual Property cover 4 areas like patent, design, trade mark and copy right. IP right can ensure the ownership of your innovation. Most of the people of our country think that IP is very much related with work of fiction, art, cinema and everything. But the fact is IP plays a very crucial role of industrialization and business as well.

Each year Bangladesh economy is loosing lot of revenues due to the lack of awareness about IP. Compared to other countries awareness of IP in Bangladesh is poor among researchers, scientists, industrialists and others. As a member country of WIPO and signatory of TRIPS, sufficient and trained manpower and IP communications are yet not developed. On the other hand piracy and infringement problem is increasing day by day for insufficient enforcement process. A Strong task force and administration is needed for effective enforcement. Enforcement of IP right is also linked with Police, the judiciary, magistrates and customs authority. So, it can be clearly stated that to enforce the IP law we have to strength the system. Hence it is necessary to generate a core group of police officers, customs officials and other enforcement authorities. Recent year's scenario is a bit

different than previous. Owners are now more concern. Government is also taking various initiatives to establish IP right in Bangladesh. Even government is now giving more emphasis on owners and other stakeholders opinion and to know what are their main difficulties regarding IP. These initiatives are also making the owners group to pay more attention to protect their IP right. IP system in Bangladesh is inherited from British-India. But related rules and laws are reforming from time to time. Though both government and private owners have positive views of establishing IP right but it is really a matter of great regret that still there are huge problems to ensure the protection.

Piracy is spreading everywhere like software, trademark, CD, VCD and audio cassette, publications and books that is truly alarming for a developing country like Bangladesh. The main reason behind this is lack of knowledge and awareness problem. Even some cases law enforcing agencies are not also active enough. in addition public doesn't know the relevant laws to protect the IP. Though those laws are not adequate enough for the protection but if we start to implement these laws then in near future scenario can be changed and new laws can be come out considering public demand. Recently an Association has been formed by the owners to protect IP right violation named Intellectual Property Association of Bangladesh (IPAB). Most of the leading local and multi-national companies are the member of the Association. All the members are working for a common objective. They are working jointly with the government and WIPO (World Intellectual Property Association of Bangladesh) as well. The Association will give all the assistance required by the government to implement the relevant laws. But before taking all steps people need to be more aware. So, lots of awareness building campaign and related activities should be taken from now. Onwards from national to route level public should know what IP right is? System to register should be easier and updated like developed countries. Present practices of IP in other countries should be observed. Registration process should be less time consuming and hassle free. if we can change the present scenario then citizens will be more attracted to innovative works. A sound environment for innovative works we increase our prosperity as a nation. Rest of the world will treat us as a innovative and developed country rather presenting us as an underprivileged example of third world country for the documentation and other stuffs. So, this is the accurate time to change the overall situation and hook up the nation with its talents!

## **2.7IP Policy in the SAARC Countries**

IP policy exists in many of the SAARC countries, for an example in India, there is an organization called NIPO which is dedicated for mobilizing the use of mobilizing the use of intellectual property for economic and social development by creating. an IP culture and enhancing knowledge & competencies in tune, with the global environment NIPO works for advancing an intellectual property agenda that promotes business practices, commercial infrastructure and laws fostering economic growth through efficient development, use and exchange of IP rights at the point where technology development, intellectual property rights and jobs creation all intersect. In Sri Lanka, The National Intellectual Property Office established under the Intellectual Property Act No 36 of 2003 is mandated with the administration of the intellectual property system. It was first established on January 1, 1982 with the same mandate under the provisions of Code of intellectual property Act no 52 of 1979. The mission is to actively contribute to the development of the country by ensuring that the intellectual property system fosters an environment conducive to innovative and creative activity, investment and entrepreneurship. Being a signatory to Trade Related Intellectual property Rights, Agreement (TRIPS) under WTO, Pakistan required upgradation of its intellectual property infrastructure in tandem with global trends. Accordingly the existing legislation on Intellectual Property i.e. Copyrights, Patents and Trademarks has been upgraded and the revised laws have been promulgated.

Nepal, like the other SAARC countries, is endowed with a diverse and rich cultural, artistic and natural heritage and has the unique distinction of being a reservoir of the treasure of traditional knowledge and being a one of the prospective nation of economic development in the century with specific reference to its bio-genetic resources and being trade-bridge between the giant nations of the South Asia. It is in relation to this reality that a real need is felt for the development of modern intellectual property jurisprudence in order to recognize and protect the intellectual property rights of the stakeholders in Nepal. It is specifically in response to this vacuum that the Centre for Intellectual Property Nepal (CIPN) has been established on an individual initiative on 25 March, 2005 which has thus far, accentuated its efforts towards bringing awareness of the critical signification of Intellectual Property and rights to the increasingly knowledge based society.

## **2.8 Need of IP policy for Economic Development of Bangladesh**

The relationship between intellectual property rights and economic development has attracted a great deal of attention from economist, but their conclusions have been ambivalent and offer little definitive guidance for policy makers. There are IP policies for economic development in United States, Europe and Japan and many other countries but not in Bangladesh. Bangladesh should review the existing IP policy of those countries and develop for our country. Strategic use of IP in business is very important because these are the engines for growth, special emphasis should also be given to the empowerment of small and medium enterprises. Sustainable IP awareness campaign, promotional and educational programs to gear the needs of SMEs, including the customization of WIPO guides for SME in Bangladesh is also needed. IP policy in Bangladesh should include patent and copyrights as well as trademarks, trade secrets, geographical indication, industrial designs and sui generis rights.

One of the primary reasons of the IP policy should be goods and services account for a substantial and increasing amount of revenues. Second IPR coverage has expanded to incorporate software, genetic material, business methods, digital information and plant varieties, and a key question is the nature of protection that should be accorded new technologies through conventional property rights. For example the United States has granted patents for genetically modified animals, but rejected property rights in database, where as European authorities have protected rights in databases, but resisted the patenting life form. Despite a century of discussion and debate, global policies towards intellectual property will differ. Among the significant questions that remain unanswered is the extent to which a uniform and strong intellectual property system is necessary for the promotion of economic as well as social development. Membership of the World Intellectual Property Organization today stands at 175 countries; 110 of these have signed the Patent Cooperation Treaty and 147 have acceded to the Berne Convention for literary and artistic works. Bangladesh is member of Berne Convention. Paris Convention is not yet member of PCT and Rome convention.

## **2.9 Intellectual Property Strategies and Policies**

Intellectual property becomes a tool for economic development, when it is used in the context of well-articulated national, regional or enterprise-based strategies, to encourage and support innovation and creativity. A number of Member States are now developing, have developed such strategies, whether they are termed innovation plans, or intellectual property strategies in support of science and technology, investment promotion, access to affordable medicines or promotion of culture and creativity. Intellectual property policies and strategies, which support cultural, educational and research institutions in the public and private sectors, make it possible for institutions to develop and manage intellectual property assets. WIPO will assist and support such specialized institutions in developing and implementing



appropriate intellectual property policies, so that they can protect, manage and exploit their research results and other valuable, though intangible, assets.

### **2.9.1 IP in the Market Place**

In the knowledge economy, economic growth can be stimulated by the effective utilization of science and technology, as well as copyright and development of cultural industries. Governments in developing countries are the largest source of funds for scientific and technological research and much of the intellectual assets generated, if effectively utilized, can be a powerful stimulus for industry. The government's policies can also channel public resources into priority areas such as science, education and development of indigenous technological capacity, including traditional knowledge. Government-level research priorities can be merged with business planning and development goals. In the intensely competitive national and global business environment, intellectual property rights (IPRs) constitute an integral part of the intellectual capital of a business enterprise.

There is evidence to show that intellectual property protected by IPRs is being used progressively as collateral to raise funds for business expansion and product or service improvements. Similarly, greater security over the ownership of IPRs would lead to wider availability of commercial funding and lower cost of financing. Security over IPR ownership is also supported by effective enforcement and anti-infringement strategies, as widespread unauthorized uses of IPR-protected subject matter in a country both erode investor confidence in the domestic economy, and undermine opportunities for local creators and innovators to exploit their rights effectively and generate economic growth.

The business activity of large firms as well as small and medium-sized enterprises (SMEs) can be stimulated by patent, copyright, trademark and design assets, as they can be leveraged in intellectual property licensing transactions. Trading in these assets enables a company to access another company's inventive ideas, through cross licensing. Intellectual property assets are strategic collection of Patents (inventions), Trademarks, Industrial designs, and Geographical indications, Semiconductor mask works, Copyright (works of authorship) and Trade secrets. Along with human capital, intellectual capital, and other intangibles with economic values. It has been found that multiple types of IP apply to products and technologies; IP is an economic asset, not a legal theory; IP makes money when used strategically in market context; its greatest value is in licensing and valuation. Economies based on physical assets, land, trade in goods, cheap labor, nationally based trade, pre-Internet economy. Which will lead to knowledge based economies, IP licensing, productive human capital, regional or global Markets and Internet. Ninety one (91) % of patents are from GECD countries. PCT filings and national patent filings in developing countries are by non-residents primarily.

### **2.9.2 Proactive IP Policies**

Proactive IP policies can facilitate the following:

- Support accumulation of national intellectual;
- Property assets;
- Attract mutually beneficial FDI;
- Stimulate local R&D;
- Cure brain drain by providing incentives;
- Enhance revenues and exports;
- Help address human needs; and
- Develop national brand and cultural identity.

### **2.9.3 Proactive Enterprise IP Policies**

Proactive enterprise IP policies can facilitate the following:

- Enhance products and promote brand value for advertising;
- Facilitate strategic alliances, joint ventures and cross licenses;
- Avoid and defend against litigation;
- Boost employee morale and enhance human capital by providing incentives and recognition; and
- Build valuable portfolios of IP as core competence leading to revenues and high valuation.

IP strategy should be done by the government through policy makers and IP office, academia-universities, research centers, and by private sector large enterprises, SMEs, individual inventors, NGOs.

Through two complementary ways IP assets may be developed; importation and local creation.

### **2.10 National IP Policy to Establish a Common Framework**

In conclusion it could be said that there should be national IP policy to establish a common framework to regulate the ownership and management of intellectual property from the creation, protection, innovation, exploitation and technology transfer activities carried out by the relevant body; to promote and facilitate the protection of Intellectual Property in line with the TRIPS to facilitate commercialization of our IP resources wherever possible. Extensive research and building up institutional capacities are needed for protecting these resources and accrue benefits from multilateral agreements. As an LDC, Bangladesh has not been able to utilize the transitional time period granted by WTO. LDCs individually or jointly should raise their voices in favour of transfer of technology for which developed countries are committed (Art 66.2 of TRIPS Agreement) to support for creating a technological base for LDCs. A viable technological base is needed for sustainable economic development. In Bangladesh public sector research institutions are mostly engaged in technology development. Private sector should come forward with their pioneering role.

# Chapter III

## Intellectual Property Rights: Scenario of Bangladesh

### 3.1 Introduction

Intellectual Property Rights (IPR) protects inventions, literary and artistic works, industrial designs, commercial symbols, images and nomenclature from piracy. The IPR in totality stipulates the protection of intangible assets, that is, intellectual property. Intellectual property is intangible property because it cannot be felt or touched like physical property. An industry can patent to protect its industrial designs, trademarks, geographical indications, trade secrets, layout designs of integrated circuits, etc. The government in any country is responsible for protecting the rights by adopting measures and policies, compatible with the Trade Related Aspect of Intellectual Property Rights (TRIPS) Agreement of the World Trade Organization (WTO). World Intellectual Property Organization (WIPO) was set up in 1967 by a convention with the objective to promote intellectual property protection across the globe through cooperation among states and with other imitational organization. It came into force in 1970. WIPO has been a specialized agency of the UN since 1974.

Patent protects an invention, a new product or a new process. It provides an inventor the exclusive right to make, use and sell a patented invention. Patents have a fixed term and are territorial in nature. An inventor has to apply for a patent in each country where he wants to have his invention protected. The countries could have their own terms and conditions and application process to adhere to the rules of TRIPS. Trademarks protect interests of those who sell products or services. A Trademark protects a word, symbol, or combination thereof, used with a product or service. Some countries allow sounds, smells, slogans or shapes to be registered as trademarks. Like patents, trademark protection is generally territorial in nature and action needs to be taken in each country where protection is sought. Trademark rights are usually acquired by registration, although in common law countries, rights can also be obtained through use. Although, rights in registered marks are granted for a fixed term, the registration can be renewed indefinitely or for further terms.

The importance and scope of IPR is going to increase in the coming years. Discussions are going on to establish a relationship between TRIPS and the Convention of Biological Diversity (CBD) to protect traditional knowledge (TK) and folklore. It is one of the contentious issues in the decision of Doha Ministerial declaration to examine relationship between TRIPS and CBD. At the Doha ministerial conference, there were several decisions on TRIPS. Some of these were on extension of additional protection on geographical indication (GI) to the products other than wine and spirits, review of the implementation of the TRIPS agreement under article 71.1, relationship between the TRIPS agreement and the convention on biological diversity (CBD) under article 27.3 (b), protection of traditional knowledge and folklore. Doha stipulates a provision of submission of detailed reports on the transfer of technology in pursuance of commitments of the WTO member-countries under article 66.2. These submissions will be subject to a review in the TRIPS council and information will be updated by members usually. So far, two different views were expressed about the disclosure of generic information while going for patenting. The contentious issue to explore CBD and its relations with the TRIPS agreement incorporating the concerns of the least developed countries (LDCs) is undecided. Some opined that in order to set a better result, further study is required, including sharing of experiences to examine details of the issue.

The Maseru LDC declaration clearly mentions the commitments of the developed countries to provide incentives to enterprises and institutions within their territories, effective technology transfer to LDCs in accordance with Article 66.2 of the TRIPS agreement as one of the requirements. It also clearly mentions that such measures must go beyond workshops and seminars to include measures that provide incentives to enterprises and institutions in the developed WTO members to work in direct conjunction with enterprises and institutions in LDCs in a manner that result in technology transfer. In the Maseru declaration, there was also a call for commitment by developed partners to provide financial and technical assistance for need assessments and implementation of bankable project identified by the LDCs. Benefits of TRIPS went to the developed countries as they are technologically advanced. They want to protect their strength by the agreements. It is also true that the LDCs are not capable of protecting whatever technologies they innovate because of absence of required policies. It creates a chain on non-development of technologies and products. Some special measures to anti-counterfeiting measures are awaited. The TRIPS agreements stipulate some mandatory measures the states have to take to create judicial or competent authority for the protection of intellectual property.

### **3.2 Branches of Intellectual Property**

A definition of the intellectual property says it is a category of public law that generally includes copyrights, patents, trade marks, geographical indications, industrial designs, utility models, plant breeder's rights, integrated circuits rights and trade secrets. Intellectual property, as defined by the TRIPS Agreement, includes copyright and related rights, computer programmes and compilation of data, trademarks, geographical indications/appellation, acts of performers, sound recordings and broadcasts, industrial design, patents, layout designs (topographic) of integrated circuits and undisclosed information.

Intellectual Property (IP) refers to creations of the human mind. A creative work, an original expression or technical solutions to a problem can all be creations of value. These creations of the mind when duly protected can become valuable intellectual property. The various forms of IP protected in Bangladesh are patents, trademarks, registered designs, copyright, layout-designs of integrated circuits, geographical indications, trade secrets and confidential information, as well as plant variety, etc.

#### **Copyright**

Copyright is a bundle of rights given to creators of works to make sure that only they can use and reproduce what they have created for their own purposes. It protects works like novels, computer programs, plays, sheet music and paintings. These rights enable a copyright owner to control the commercial exploitation of his work. Copyright refers to artistic creations, such as poems, novels, music, paintings, cinematographic works, etc. In most European languages other than English, copyright is called "authors rights". The expression "copyright" refers to the main act which, in respect of literary and artistic creations, may be made only by the author or with his authorization. That act is the making of copies of the literary or artistic work, such as a book, a painting, a sculpture, a photograph, a motion picture. "author's rights" refers to the person who is the creator of the artistic work, its author, thus underlining the fact, recognized in most laws, that the author has certain specific rights in his creation, for example, the right to prevent a distorted reproduction, which can be exercised only by himself, whereas other rights, such as the right to make copies, can be exercised by other persons, for example, a publisher who has obtained a license to this effect from the author.

## **Industrial property**

Industrial property is sometimes misunderstood as relating to movable or immovable property used for industrial production, such as factories, equipment for production. Typically, the creations to which industrial property relates are inventions and industrial designs. Simply stated, inventions are solutions to technical problems, and industrial designs are aesthetic creations determining the appearance of industrial products. In addition, industrial property includes trademarks, service marks, commercial names and designations, geographical indications (indications of source and appellations of origin) and the protection against unfair competition. Here, the aspect of intellectual creations— although existent— is less prominent, but what counts here is that the object of industrial property typically consists of signs transmitting information to consumers, in particular, as regards products and services offered on the market, and that the protection is directed against unauthorized use of such signs which is likely to mislead consumers, and against misleading practices in general.

### **Inventions**

As has already been said, inventions are new solutions to technical problems. This is not an official definition. Most laws dealing with the protection of inventions do not define the notion of inventions. However, the WIPO Model Law for Developing Countries on Inventions (1979) contained a definition which read as follows: “Invention means an idea of an inventor which permits in practice the solution to a specific problem in the field of technology”

### **Patents**

A patent is a monopoly right given by the Government to the owner of an invention to enable him to prevent others from using, copying or making the invention without his consent in the country in which he has obtained patent protection. Inventions are characteristically protected by patents. Every country which gives legal protection to inventions— and there are more than 140 such countries— gives such protection through patents although there are a few countries in which protection may also be given by means other than patents, as will be seen below. The word “patent” is often used in two senses. One of them is the document that is called “patent” or “letters patent.” The other is the content of the protection that a patent confers. First of all, let us deal with the first sense of the word “patent,” that is, when it means a document.

If a person makes what he believes is an invention, he, or if he works for an entity; that entity, asks the Government— by filing an application with the Patent Office— to give him a document in which it is stated what the invention is and that he is the owner of the patent. This document issued by a Government authority; is called a patent or a patent for invention. Not all inventions are patentable. Generally, patent laws require that, in order to be patentable, the invention must be new, it must involve an inventive step (or it must be non-obvious), and it must be industrially applicable. These three requirements sometimes called the requirements or conditions of patentability; have been incorporated in Article 27.1 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (“the TRIPS Agreement”).

### **Industrial Designs**

A design refers to the features of shape, configuration, pattern or ornament applied to an article by an industrial process. It is the appearance of articles we see everyday. An article refers to any object to which the design is applied. Generally speaking, an industrial design is the ornamental or aesthetic aspect of a useful article. Such particular aspect may depend on the shape, pattern or color of the article. The design must appeal to the sense of sight.

Moreover, it must be reproducible by industrial means; this is the essential purpose of the design, and is why the design is called “industrial.” In order to be protectable, an industrial design must, according to some laws, be new and, according to other laws, original. The requirements of novelty or originality have been incorporated in Article 25.1 of the TRIPS Agreement.

Industrial designs are usually protected against unauthorized copying or imitation. Under Article 26.3 of the TRIPS Agreement, the duration of protection available shall amount to at least 10 years. Members of the said Agreement are also obliged to ensure that requirements for securing protection of textile designs, in particular in regard of any cost, examination or publication, do not unreasonably impair the opportunity to seek and obtain such protection. The document which certifies the protection may be called a registration certificate or a patent. If it is called a patent, one must, in order to distinguish it from patents for invention, always specify that it is a patent for industrial design.

### **Plant Variety**

A plant variety is a plant group within a single botanical taxon of the lowest rank. It can be defined by the expression of the characteristics resulting from a given genotype or a combination of genotypes; distinguished from any other plant grouping by the expression of at least one of those characteristics; and considered as a unit with regard to its suitability for being propagated unchanged.

### **Trademarks**

A trade mark is a sign used by a person in the course of business or trade to distinguish his goods or services from those of other traders. Any sign, or any combination of signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings, shall be capable of constituting a trademark. Such signs, in particular words including personal names, letters, numerals, figurative elements and combinations of colors as well as any combination of such signs, shall be eligible for registration as trademarks (TRIPS Article 15.1). Most countries require that trademarks for which protection is desired be registered with a government authority; The protection that laws give to a trademark consists essentially of making it illegal for any entity other than the owner of the trademark to use the trademark or a sign similar to it, at least in connection with goods for which the trademark was registered or with goods similar to such goods without the authorization of the owner. The TRIPS Agreement sets out, in its Article 16, the rights conferred on the owner of a trademark and the protection to be given in respect of well-known marks. The TRIPS Agreement also deals, with the protectable subject matter, the term of protection, the requirements of use as well as licensing and assignment.

### **Trade Names**

Another category of object of industrial property is “commercial names and designations.” A commercial name or trade name— the two expressions mean the same thing— is the name or designation which identifies the enterprise. In most countries, trade names may be registered with a government authority; however, under Article 8 of the Paris Convention for the Protection of Industrial Property, a trade name must be protected without the obligation of filing or registration, whether or not it forms part of a trademark. Protection generally means that the trade name of one enterprise may not be used by another enterprise either as a trade name or as a trademark or service mark and that a name or designation similar to the trade name, if likely to mislead the public, may not be used by another enterprise.

## **Layout Design of an Integrated Circuit**

A layout-design of an integrated circuit (IC) refers essentially to the 3-dimensional character of the elements and interconnections of an IC. An IC is an electronic circuit in which the elements of the circuit are integrated into some medium, and which functions as a unit.

## **Trade Secret**

A trade secret is some information or "secret" that is important to the business and is not known to the public. It is a term commonly used to cover information that has commercial value. The law on "trade secrets" is really about the protection of Confidential Information.

## **Geographical Indications**

A geographical indication is a sign which identifies a product as originating from a location that has given that product a special quality or reputation or other characteristic. It usually consists of the name of the place of origin of the product. Among commercial designations there are also geographical indications. The TRIPS Agreement (Articles 22 to 24) establishes certain obligations as regards the protection of geographical indications, which are defined therein, for the purposes thereof, as "indications which identify a good as originating in the territory of a Member, or a region or locality in that territory; where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin." The notions of "indications of source" and of "appellations of origin," which are used in the Paris Convention, encompass geographical indications as defined by the TRIPS Agreement. An indication of source is constituted by any denomination, expression or sign indicating that a product or service originates in a country; a region or a specific place (for instance, "made in ..."). As a general Rule, the use of false or deceptive indications of source is unlawful.

An appellation of origin is constituted by the denomination of a country a region or a specific place which serves to designate a product originating there, the characteristic qualities of which are due exclusively or essentially to the geographical environment, in other words to natural and/or human factors. The use of an appellation of origin is lawful only for a certain circle of persons or enterprises located in the geographical area concerned and only in connection with the specific products originating there (for instance, "Bordeaux").

### **3.2.1 Protection against Unfair Competition**

The last object of the protection of industrial property is the protection against unfair competition. Such protection, required under Article of the Paris Convention, is directed against acts of competition that are contrary to honest practices in industry or commerce. The following in particular constitute acts of unfair competition in relation to industrial property all acts of such a nature as to create confusion with the establishment, the goods or the industrial or commercial activities of a competitor, false allegations in the course of trade of such a nature as to discredit the establishment, the goods or the industrial or commercial activities of a competitor, and indications or allegations the use of which in the course of trade is liable to mislead the public as to the characteristics of goods.

The protection against unfair competition supplements the protection of inventions, industrial designs, trademarks and geographical indications. It is particularly important for the protection of know-how, that is: technology or information which is not protected by a patent but which may be required in order to make the best use of a patented invention. The TRIPS Agreement contains, in its Article 39, provisions on the protection of undisclosed information (trade secrets). In the course of ensuring effective protection against unfair competition as provided in the Paris Convention, Members of the TRIPS Agreement are required to provide

natural and legal persons the possibility of preventing information lawfully within their control from being disclosed to, acquired by, or used by others without their consent in a manner contrary to honest commercial practices so long as such information has following aspects:

- (a) Such information is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;
- (b) Such information has commercial value because it is secret; and
- (c) Such information has been subject to reasonable steps under these circumstances, by the person lawfully in control of the information, to keep it secret.

### **3.3 Bangladesh Perspective: Existing IP Law, Legal and Regulatory Issues of Bangladesh**

Under the TRIPS Agreement a patent is granted for invention, whether products or process, in all fields of technology, provided that they are new, involve an inventive steps and are capable of industrial application. Pursuant to Article 27 (3) members are given option to exclude from patentability. The Patents and Designs Act, 1911 does not provide any provision for injunction against import of infringing goods in Bangladesh. Existing IPR Laws in Bangladesh are as follows:

- I. The Patents and Designs Act- 1911
- II. The Trademark Act- 2009
- III. The Copyrights Act-2000 (Amended in 2005 )

#### **IPR Regulatory Body (Stake holders)**

- 1. Bangladesh government
- 2. Department of Patent, Designs & Trademarks
- 3. Private enterprise
- 4. Research and development organization
- 5. Education institution
- 6. IPR association of Bangladesh
- 7. Civil society
- 8. Business chambers

Bangladesh, one of the founding members of WTO and leader of the 0-77 when the multilateral trade negotiations were going on, is yet to develop strategies to cope with the implications of the TRIPS Agreement. The country is economically poor but rich in biodiversity and some products and process need protection. Bangladesh has also ratified the legally binding Convention on Biological Diversity (CBD). The CBD recognizes the concerns of the countries of the South. Nevertheless, the CBD's relationship with other organizations like WTO and agreements like the TRIPS needs to be clarified if there is to be future progress on a fair and equitable sharing of benefits arising from genetic resources. Agricultural biodiversity should also be considered as part of the whole biodiversity agenda. It should be clearly stated by the countries of the South that genetic resources are held in trust by the world community, not an individual organization or industry just because of some scientific superiority.

While it might be difficult for Bangladesh to fight many of the unjust situations single handed, the country needs domestic preparation in the form of capacity building involving all relevant stakeholders in protecting its sovereign rights over resources. Our two ministries Science, Technology and ICT and Foreign Affairs should play a constructive role in this regard. The two ministries must possess adequate knowledge on IP and Copyright issues. It should be



the view of Bangladesh that the global Intellectual Property Rights (IPR) regime should recognize the needs of developing countries even as these countries take steps to protect their indigenous rights.

In order to better prioritize its development needs, Bangladesh has joined the Enhanced Integrated Framework (EIF) in November 2009. In this endeavour, the World Bank has been nominated as lead agency to complete the Diagnostic Trade Integration Study (DTIS) process and the European Commission has been selected as a donor facilitator. In the meantime, the World Bank has just initiated the preliminary works on the DTIS. Bangladesh has expressed its commitment to include IPRs as one of its priorities into the DTIS Action Matrix.

### **3.4 IP and Bangladesh's Economic Development Strategies**

Bangladesh's commitment to the prioritization of IP issues as an important tool for national development is evidenced by the submission of a Priority Needs Assessment to the WTO TRIPS Council. In contrast to the submissions of other LDCs; Bangladesh has undertaken this exercise without the financial and technical support of foreign donors.

### **3.5 Existing National Initiatives in the Field of IPRs**

According to Bangladesh's Priority Needs Assessment, two national initiatives are underway in order to improve the current framework for IPR protection. However, during the project formulation mission it became apparent that these projects are still in a very early planning stage and it remains unclear, who would actually provide the necessary funding.

**-Establishment of a Bangladesh: Intellectual Property Office:** The MoI developed a project proposal for setting up an integrated IP office (BIPO) in, order to deliver efficient IP services under one roof. The main responsibilities of the BIPO will be to contribute to the establishment of a legislative framework, ensure safeguard for industrial property, assist the enforcement of IP, create awareness, facilitate IP knowledge-sharing, encourage innovation and creativity etc, The estimated cost of the Project is USD 30 million. The GoB is actively searching for donors for implementing the project.

**-Creation of an IP Knowledge Centre situated at the Dhaka Chamber of Commerce and Industry (DCCI):** Through this centre DCCI intends to generate and provide IP related information for the private sector. Furthermore, DCCI will also organize training programmes, seminars for capacity building of the business community.

# **Chapter IV**

## **Existing Institutional Framework for IPR Protection in Bangladesh**

### **4.1 Introduction**

Various institutions in Bangladesh are involved in the formulation, administration and enforcement of IPR. Most importantly, the DPDT under the MoI, the Copyright Office under the Ministry of Cultural Affairs, but also the WTO Cell Department in the Ministry of Commerce and the Bangladesh Computer Council (BCC) under the Ministry of Science, Information & Communication Technology are involved in enforcement of IPR. Judiciary, Police and Customs (under National Board of Revenue) are also involved in the enforcement of IPRs. However, as the project does not provide assistance in the field of IP enforcement, these institutions have not been analyzed in detail in this document. In addition, there are a number of public and private stakeholders such as the Bangladesh University of Engineering and Technology (BUET) and the IPAB that play an important role in the promotion IPR and are therefore mentioned in more detail below:

The following paragraphs describe the role and the particular features of the main actors in the institutional framework for IPR protection in Bangladesh.

### **4.2 Intellectual Property Rights Administration in Bangladesh**

IP is the creation of human mind: invention, literary and artistic works and symbols names and images used in commerce. It is of two categories; Industrial Property and Copyright. The former includes patents for inventions, designs, geographical indications, trademarks, trade secrets, utility models, layout designs (topographies) of integrated circuits and many upcoming others. Copyright includes literary works, such as novels, poems, plays, films, musical works and artistic works such as drawings, paintings, photographs, sculpture and architectural designs. Copyrights have some neighboring rights which include those of performing artists, producers of phonograms and those of broadcasters in radio and television programs. The importance of IP in economic and social development was conceived all over the world in the past and its importance has increased manifold in the context of globalization. With the increasing interdependence of countries on one another, the importance of intangible assets is ever increasing. All countries today run after creating knowledge based economy, where creativity and invention can flourish to the benefit of all. IP rights consist of a bundle of rights in relation to certain material object created by the owner. Rights are provided and guarded by the respective laws and rules.

A patent owner, for example, enjoys the exclusive right to use the invention patented, to grant in licenses to other to exercise that right or to sell that right to a third person. His rights are protected by law for a limited period, after which the invention becomes a public property. Other properties, such as trademarks, industrial designs, trade secrets, geographical indication, utility models and layout design of integrated circuits are protected by respective laws and their owners enjoy different rights for specific periods. Any infringers on such rights are liable to be prosecuted by the civil and criminal courts.

### **4.3 Department of Patents, Design and Trademarks (DPDT)**

Initially, the Patent Office and the Trademarks Registry Office worked separately under the Controller of Patents & Designs and Registrar of Trade Marks respectively. Both offices were merged into the Department of Patents, Design & Trademarks in 1989. The MoI was entrusted with the responsibilities of administering the activities of DPDT. The patents and design wings of the DPDT deals with the matters related to patents and designs, while the trademark registry wing grants registration for trademarks. The DPDT is also expected to administer GIs and utility models, after the respective laws, which are in the process of formulation, are enacted. The DPDT is located in Dhaka and has one regional office at the port city of Chittagong. It does not have any institutional arrangements with any district level organization or department to provide regional services on behalf of them.

The DPDT operates in an inadequate office space and does not have a separate library for preserving records. As a consequence, the records are maintained manually within the office premises and there are chances of loss and misplacement of documents. There are several other limitations including a shortage of adequate financial resources and manpower. Moreover, DPDT staff has limited technical and legal knowledge on IP issues. The technical personnel and managers of the DPDT hardly have any opportunity to avail in-country or foreign trainings on IP issues and acquire specialized knowledge on the subject. With support of an EU-funded project, a very basic level of automation was accomplished in the DPDT, which covers nearly 5% of the total activities of the organization.

### **4.4 Copyright Office**

Copyright issues as well as TK and TCEs are dealt with by the Copyright Office under the Ministry of Cultural Affairs. The Copyright Office does not have its own premises and currently occupies a portion of the National Archive Office. It does not have regional offices and there are no institutional arrangements with any district level organization or department to provide, regional services. According to Bangladesh's Priority Needs Assessment, the Copyright Office suffers from the same shortages in the area of resources and capacity as the DPDT and it runs completely on a manual basis.

### **4.5 WTO Cell Department at the Ministry of Commerce**

The WTO Cell at the Ministry of Commerce (MoC) has been established to deal with multilateral trade issues. Currently, the cell consists of a Director General, three Directors, two Deputy Directors and two Assistant directors. A high powered committee, headed by the MoC, has been constituted to deal with WTO issues. In addition, seven working groups have been formed to deal with specific WTO sub-topics. One of these seven committees deals for instance with "TRIPS and Technical Barriers to Trade (TBT), another one with "Trade-related Technical Assistance". All the working groups and the high-powered committee include representatives from relevant public, private sector bodies and think tanks. The WTO Cell was the driving force behind Priority Needs Assessment submitted by Bangladesh and some of their staff has a comprehensive knowledge about international IP protection.

### **4.6 Bangladesh Computer Council (BCC) under the Ministry of Science, Information & Communication Technology**

The Bangladesh Computer Council (BCC) is an autonomous body under the Ministry of Science, Information & Communication Technology, responsible for encouraging and supporting ICT-related activities in Bangladesh. The BCC is responsible to deal with matters related to computerization of government offices and the support to the Information and

Communication (ICT) industry. It also provides advisory services and training programmes to different government institutions. .

#### **4.7 Bangladesh University of Engineering and Technology (BUET)**

BUET is the oldest engineering institution in the region, and it is regarded as one of the top universities for technical education in Bangladesh. BUET has continued to expand over the last three decades. This includes the construction of new academic buildings, auditorium complexes, and halls of residence. Currently, the total number of teachers is about 500 and every year, about 965 students get enrolled in undergraduate and postgraduate programmes to study engineering, architecture, planning and science. The teaching language is English. The Institute of Appropriate technology, BUET has got courses on IP and IPR in its post graduate curriculum. This is the only place in the country where there is academic course on IP and IPR.

#### **4.8 IP Association of Bangladesh (IPAB)**

The IPAB was founded as a non-profit business organization in 2005 with the vision to establish and promote IPRs in Bangladesh. The IPAB is a common platform for everyone who is concerned with protecting IPRs in Bangladesh. In 2009, the IPAB was recognized as an officially licensed "Trade Organization". Its currently more than 1 00 members are mostly from leading local and multinational companies, law firms and individuals. The IPAB has organized several high-level events and trainings. The IPAB has a General Secretary with a small permanent project management team that operates in a professional manner. In the long-run, the organization should be mainly funded by membership fees. However, as the IPAB is still in the establishment phase, some of the member companies provide substantive logistical support.

#### **4.9 IP Laws and Institutions in Bangladesh**

IP laws of Bangladesh had its origin in British India. In India there was no statutory law on copyright until 1914. The English Copyright Act 1911 was extended to India in 1912. In Bangladesh for protection of IPR, there is Trademarks Act, 2009. Patents and Designs Act (PDA) 1911 and Copyright Act 2000, have been amended in 2005. A draft Patent and Design Act 2005 has been finalized by Bangladesh Law Commission in consultation with WIPO and in conformity with WTO and TRIPS Agreement which is still could not see the light.

To protect the intellectual property rights, a country needs several laws related to protection of geographical indication, layout design and circuit Law, Protection of Plant Variety and Farmers' Right Law, Law on Traditional Knowledge and Folklore and Law on Genetic Resources. Several Ministries are taking necessary initiatives to formulate these laws and all these are interrelated to each other. The IP institutions such as Department of Patents, Designs & Trademarks and Copyright Office run with limited capacities and facilities which are far behind to meet the demand of modern IP era. Under these circumstances, Bangladesh would face enormous challenges in order to implement proper IP rights. Since the Intellectual Property Law was originated during the British period, the laws are not updated in accordance to the current scenario of our country and the world. Also there is a lack of synergy between the department of Patents Designs & Trademarks and Copyright Office. Measures are however, under way to enable an automated data base of national Trademark and Patent Registration and computer based public online research service. The process needs to be expedited to face the upcoming challenges.

#### **4.10 Legal framework for IPR protection in Bangladesh**

Although Bangladesh does not have a stand-alone IP policy or strategy, it has, however, inherited a set of IP laws and rules from the colonial regime. The first IP laws on the sub-continent were the Patent and Design Act and the Copyright Act that were extended to India by the British in 1912. A trademarks law was enacted in 1940. Bangladesh adopted these laws and rules after the independence in 1971 and a number of them were updated and amended over time. This section provides a brief overview of Bangladesh's main IP laws and rules. The following laws and treaty memberships that constitute the legal framework for IP protection in Bangladesh are taken from the WIPO Lex database. The WIPO Lex database is a one-stop search facility for national laws and treaties on IP of WIPO, WTO and UN Members. It also features related information, which elaborates, analyses and interprets these laws and treaties.

The main IP laws enacted by the legislature and currently in place:

- Trademarks Act (Act No. XIX of 2009)
- Patents and Designs Act (Act No. II of 1911)

Furthermore, the following laws contain certain provisions related to IP:

- Custom Act (ACT NO. IV OF 1.969, enacted by the Legislature)
- The National Curriculum and Text-Book Board Ordinance (Ordinance No. LVII of 1983, issued by the executive branch)

- Trade Marks (Invalidation and Summary Registration) Order (President's order, No. 19 of 1973, issued by the executive branch)

Bangladesh is a contracting party to the following WIPO-administered treaties (date of entry into force in brackets):

- ❖ Berne Convention (4 May 1999)
- ❖ Paris Convention (3 March 1991)
- ❖ WIPO Convention (11 May 1985)

Moreover, Bangladesh is a contracting party to the following IP-related multilateral treaties (selection, date of entry into force in brackets):

- Convention on the Protection and Promotion of the Diversity of Cultural Expressions (31 August 2007)
- International Plant Protection Convention (2 October 2005)
- International Treaty on Plant Genetic Resources for Food and Agriculture (29 June 2004)
- Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) (1 January 1995)
- Convention on Biological Diversity (1 August 1994), including Cartagena Protocol on Bio-safety (5 May 2004).
- United Nations Framework Convention on Climate Change (14 July 1994)
- Kyoto Protocol to the United Nations Framework Convention on Climate Change (16 February 2005)
- Convention concerning the Protection of the World Cultural and Natural Heritage (3 November 1983)
- Protocol 1 to Universal Copyright Convention 1952 (5 August 1975)
- Protocol 1 to Universal Copyright Convention 1971 (5 August 1975)
- Protocol 2 to Universal Copyright - Convention 1971 (5 August 1975)
- Universal Copyright Convention 1952 (5 August 1975)

- Universal Copyright Convention 1971 (5 August 1975)

Finally, Bangladesh is a member of the following Regional Economic Integration Treaties:

- Agreement on South Asian Free Trade Area (1 January 2006)
- Framework Agreement on the BIMSTEC Free Trade Area (25 June 2004)
- Charter of the South Asian Association for Regional Cooperation (8 December 1985)

**Figure 1: Status of Bangladesh's legal framework for the protection of IPR (self-assessment of the Bangladeshi counterparts)**

Issue	Title	Date of Effect	Previous Rule	TRIPS Consistency & Comments (self-assessment of the Bangladeshi counterparts)
<b>Copyright: Copyright Office under Ministry of Cultural Affairs</b>				
Act	Copyright Act, 2000 and Copyright (Amendment) Act 2005	18 July, 2000 and May, 2005 (for the amended part)	Copyright Ordinance formulated in 1962 (Ordinance No XXXIV, 1962) made effective in Bangladesh from 26 March 1971. It was repealed by the Copyright Act, 2000.	The law is consistent with the TRIPS Agreement. Definition of the existing act needs to be illustrated further to avoid confusion. It is desired that the main law and its subsequent amendments in 2005 are in order to make the law more user-friendly. An English version must be available for international correspondence.
Rules	Copyright Rule, 2006	12 September, 2006	Copyright Rules, 2006 was adopted repealing Copyright, 1967.	
<b>Computer Programmes: Copyright Office under Ministry of Cultural Affairs</b>				
Act	Protected by the Copyright Act, 2000 and Copyright (Amendment) Act, 2005	18 July, 2000 and May, 2005 (for the amended part)	Original Copyright Ordinance formulated in 1962 (Ordinance No XXXIV, 1962) made effective from 26 March, ' 1971. It was repealed by the Copyright Act, 2000.	Consistent with the TRIPS Agreement. Additional protection for protecting textile design may be considered according to Article 25.2 TRIPS or through incorporation of a provision in the Copyright Act or Industrial Design Act.
Rules	Copyright Rule, 2006	12 September, 2006	Copyright Rules, 2006 is applicable for Computer Programmes	
<b>Patents: Department of Patent Design and Trademarks (DPDT) under Ministry of Industry</b>				
Act	Patent and Design Act. 1911	26 March, 1971 (the date of independence)	The Patent and Design Act, 1911 is still in place. A Draft Patent Act, 2006 was formulated, but not yet finalized.	Duration of protection (16 years) is not consistent with TRIPS Agreement (20 years). Provision for export under compulsory licensing (CL) must be incorporated in line with the Protocol Amending the TRIPS Agreement of 5 December 2005. The GoB has issued an order for suspension of granting patents for pharmaceutical products and a mail box has been opened accordingly. However, this must be incorporated in the law. A Provision has to be included for avoidance of double remuneration in case of granting CL. Provisions for parallel importation and reverse engineering have to be included.
Rules	Patent and Design Rule, 1933	26 March, 1971	Patent and Design Rule, 1933 is still in place	
<b>Industrial Designs: Department of Patent Design and Trademarks (DPDT) under Ministry of Industry</b>				
Act	Patent and Design Act. 1911	26 March, 1971	Patent and Design Act, 1911 is still in place. A Design Law, 2007 was formulated, but not yet finalized.	Duration of protection is 5 years subject to renewal in two instalments. Duration is consistent with TRIPS, but in line with TRIPS the duration of protection may be for ten years for the first time and another five years subject to renewal. Addition protection for protecting textile design may be considered according to article 25.2 of TRIPS or through incorporation of a provision in the Copyright Act or industrial Design Act.
Rule	Patent and Design Rule, 1933	26 March, 1971	Patent and Design Rule, 1933 is still in place	
<b>Trademarks: Department of Patent Design and Trademarks (DPDT) under Ministry of Industry</b>				
Act	Trademarks Act, 2009	February, 2009	Trademarks Act, 2009 was adopted by repealing the Merchandise Mark Act,	The Trademarks Act, 2009 is consistent with TRIPS agreement. Protection is granted for seven years subject to renewal. in order to

			1889 and Trademarks Act, 1940 which were effective in Bangladesh since 26 March 1971, the day of independence.	avoid ambiguity about the duration of protection, it is suggested to add the phrase "Protection will be granted for indefinite period subject to periodic renewal in every seven years" in the existing Trademarks Act. Selection 84 should include the protection through air and land route along with sea route.
Rule	Trademarks Rule, 1963	26 March, 1971	Trademarks Rules, 1963 is still in place	
<b>Geographical Indication: DPDT under Ministry of Industry</b>				
Act	Geographical Indication of Goods (Registration & Protection) Ordinance, 2008	In the process	There is no law related to geographical indication till now. A draft law has recently been prepared.	The draft law is consistent with TRIPS.
Rule	Not in place	Not applicable	No GI rule has been prepared as yet.	
<b>Layout Designs (Topographic) of Integrated Circuits: DPDT under Ministry of Industry</b>				
Act	Does not exist as yet	Not applicable	It has been decided that a draft law will be prepared by a consultant under EC-WIPO project. Then it will be translated into Bengali for approval	
Rule	Does not exist as yet	Not applicable		
<b>Utility Models: DPDT under Ministry of Industry</b>				
Act	Utility Model Law	In the process of formulation	Probably it will be covered under the draft new Patent Act, 2011	
Rules	Does not exist as yet			
<b>Trade Secrets: DPDT under Ministry of Industry</b>				
Act	Does not exist as yet	Not applicable	It is expected to be formulated by a consultant under EC-WIOP project. Then it will be translated into Bengali for approval by the Parliament.	
Rule	Does not exist as yet	Not applicable		
<b>Plant Varieties and Farmers' Right: Seed Wing, Ministry of Agriculture</b>				
Act	The Seed Ordinance, 1977 The Seed (Amendment) Act, 1997 The Seed (Amendment) Act, 2005	19 July 1977 13 March, 1997 22 September, 2005	Previously, there was no Act or rule for protection of plant varieties.	A draft law for protection of Plant Varieties and Farmers Right has been prepared and is awaiting approval.
Rule	The Seed Rules, 1998	18 March 1998		
<b>Border Measures: National Board of Revenue</b>				
Act	Customer Act, 1969	26 March 1971	Along with other issues this law has been provision for restriction of importation of the items with counterfeit trademarks and design.	The Customs Act, 1969 covers trademarks and industrial design. It does not, however, make any reference to prohibition of import of goods infringing the copyright, which is required under TRIPS.
Policy	Import Policy Order, 2006-9			No specific reference is made to IPR issues
Policy	Export Policy Order, 2006-9			No specific reference is made to IPR issues
<b>Protection of Traditional Knowledge and Folklore: Copyright Office under the Ministry of Cultural Affairs</b>				
Act	Protection of Traditional Knowledge and Folklore	Does not yet exist		
<b>Competition Policy: Ministry of Commerce</b>				
Act	Competition Act, 2008	In the process		



# Chapter V

## Analysis of Existing IP System in Bangladesh and Policy Required

### 5.1 Introduction

Today's world is the age of knowledge and competition. A country that has technology, knowledge, information and skilled manpower would survive and be successful in the knowledge-based world. The developed countries are at a advantageous stage as an early starter are playing dominant role in possession of advanced technology where developing countries and least developed countries are facing obstacles in technology acquisition. Competition is stiff in this sector to sustain and capture market share as the fast changing nature of technology. We are also exchanging knowledge. In the past, there was no fear of exchanging knowledge but now exchange of knowledge requires an appropriate framework and policies, legal issues are also involved. The question of protection of knowledge-based property and innovations has become very important. Continuous development of industrial and technological innovations contributed to do the needful for diversifying IP systems of the world. No doubt, demands for patentable subject matter have been increasing in accordance with scientific development and changes in the society. At the same time it is also true that we need to protect the benefits of the new creation by new legal system. From the global scenario, it is seen that IPR law suits are increasing faster than that of ordinary law suits. Bangladesh being an LDC with a target to be graduated to a middle income country by 2021 needs to harness its IP systems as per need of the hour.

### 5.2 IPR Regime of Bangladesh and the TRIPS Agreement: An Analysis

Enactment and enforcement of intellectual property rights (IPR) are the binding for Bangladesh as it has acceded to abide by the agreements of WTO. Initially the TRIPS agreement came into force to control counterfeit goods only, the scope of TRIPS have broadened further now to include IPR as globalization proceeds ahead. Developed countries enjoyed considerable flexibility and took a lengthy time frame to accommodate IPR issues in their policies. They are the dominating player now in the field of technology and protecting their rights. As an LDC, we are technology importer and have to bear the pain and burden of the cost. Arguments and counter arguments against and in favour of IPR have increased technical difficulties for implementation. Some may feel that IPR increases cost of intellectual property and thus discourages import. In Bangladesh three offices namely patent office, the trade mark registry and the copyright office were established soon after the independence in the year 1971. The offices were working separately under controller of patents & designs and a registration of trademarks under the Ministry of Industries. At present both the offices amalgamated under the name of department of patents, design & trademarks and are working in full strength. The patents & design wings are to deal with the matters related to patents and design act and the trade mark registry wing to deal with matters related to the trade marks act. The ministry has constituted an expert committee for modernization of the Intellectual property law. The committee is now working for finalizing the draft acts. Some very important work have done so far, of them finalization of Trade Mark Law and rules are important. Copyright issues are being looked into by the Ministry of Cultural Affairs have their own office to look after copy right issues.

As per law, the duration of a patent in Bangladesh for 16 years is not consistent with TRIPS agreement which is 20 years. New provision like compulsory licensing and parallel import may also be included. Duration of protection as per law in Bangladesh is 15 years subject to

renewal in two installments from the date of the grant. Duration is consistent with TRIPS, but in line with TRIPS, the duration of protection may be for ten years for the first time and another five years subject to renewal. Additional protection for Textile design may be considered as per Article 25.2 of TRIPS or through incorporation of a provision in the copyright act or industrial design act. Patent and design Act is waiting for updating since long. The owners of the trade marks get perpetual right to use the mark if it registered. A trade mark is renewable. Trade Mark rules prepared in 1963 is going to be revised soon as Trade Mark rules 2010.

In Bangladesh, the copyright Act 2000 amended in 2005 is prepared in Bengali needs to be translated into English. Copyright rules have been revised in 2006. In order to bring harmony with the IPR laws, the terms of patent protection and duration should be harmonized. The countries are also not allowed to discriminate among foreign national in the Implementation and acquisition of IPR. There are still so many things to be done, these are updating patent law, geographical indication law, trade secrets, plant varieties and farmer's right etc. Concerned offices should have the full knowledge about TRIPS provisions of WTO and discussion going on to bring changes in new issues. We need to establish a powerful judicial authority to strengthen hands of the competent authorities. IP Practitioners viewed that existing laws related to patent, design and trademarks are not, sufficient for protecting the business or safeguarding the interests of the business people.

Copyright Act 2005 is eligible to protect the interests of business people its enforcement is low ever weak. Music and songs are frequently used by the mobile phones without authorization of the musician or the singers. Neither the creators of songs nor the singers are paid off for their contribution. A mechanism is to be established for protecting the interests of the singers, musicians and composers. Rights of the publishers' are hardly protected. Most of the writers are deprived from receiving any royalties. There must have a special tribunal at least at the capital for IPR for prompt disposal of cases. There must have scope for specialized training for the IP lawyers. Separate courses on IP issues are to be introduced in the university education, particularly in the Department of Law, Management, and Economics etc. Professional examiners are to be employed in the DPDT. Protection of traditional knowledge, folklore and biodiversity is utmost important.

Bangladesh has significant number traditional products like jamdani sharee, fazli mango, black goat etc which should be protected with appropriate Geographical Indication law or Traditional Knowledge and Folklore law. Protection of traditional cultural expression right (TCER) is also important. There is no law yet to protect traditional cultural expressions. A draft law has already been formulated under the technical supports of WIPO which needs to be adopted soon. Business people, newspapers and media are sometimes violating copyrights by publishing books without the authorization of the writer. Government should undertake awareness raising programme in this respect. A procedural and operational manual is to be developed and followed for streamlining the administrative processes of the IP offices. In administering better IP system designated lawyers, police force, judicial officers are to be trained through a long-term plan. There was little contribution of the private sector in formulating Trademarks Law, 2008 and determination of fees. Private sector must be consulted and involved in formulating any IP law and determination of fees.

In Bangladesh, the administrative set-up of the IP offices is inadequate. Poor staff and lack of expertise are delaying registrations. Examinations of patent applications are highly technical job and require specialized skill, examiners therefore have to be trained properly with specialized knowledge so that they can dispose their responsibilities efficiently. At present there is no IP institution in the country. A very few universities have courses in their curriculum on IP laws. It is extremely difficult to have institutional knowledge and research on IP issues. Country has almost no expert in the field of IP laws and policies. Officials of the IP institutions and enforcing have to acquire knowledge on IP issues at their own initiatives or

through practical working. The Ministry of Cultural Affairs is now in action and has sent letters to major chambers, law enforcing agencies, government departments, autonomous bodies and corporation with a request for adhering IP issues and reminded about the relevant punishment provisions as mentioned in the Copyright Act. Government had also issued directive to mobile phone operators for obliging Copyright Act in using welcome tones. Like other LDCs, Bangladesh has not been able to utilize the transitional time period granted by WTO. In this context, whether transitional time period must be extended until 2025 without imposing any conditionality, there is a need for consensus.

The IP systems of the LDCs including Bangladesh do not encourage creation & innovation of technologies and commercialization of the local initiatives. A viable technological base is to be developed which would eventually help them to be self-sufficient in technology to contribute to the sustainable economic development. The role of public sector research institutions engaged in technology development is to be redefined. BCSIR-the apex organization for coordinating research activities in the country should take R&D profitably for the benefit of the private sector. In order to protect the intellectual property rights IPR is the mechanism which is a combination of all i.e., patents, trademarks, design registration etc. In order to protect innovation and as technology is fast changing at different stages at different time so law has to be enacted in such a way so that it can protect the rights of the property holder at different stages. Here the issues of enforcement have come up. Another significant problem is that law can not be changed overnight but technology has been changing very fast. The regime of software so far is very small in Bangladesh though it has huge potentialities. As per information of BASIS (Bangladesh Association of Software and Information Services), the export of software grew by 70% last year, and IT-enabled services has been exported to 23 countries. A recent study revealed that the country has now 350 IT companies and software companies employing more than 15, 000 programmers & technical staffs.

Bangladesh has developed some expertise in software development, maintenance and operating call center, providing ICT counseling and processing services etc. The sector is blooming and is poised to flourish. Bangladesh is a 'port-hungry country and desperately needs diversification. ICT policy has been upgraded an ICT policy 2008 with specific target. Government should take full responsibility to safeguard the creativity by enforcing law to achieve the target. It will give birth a number new generation innovative entrepreneurs.

People even twenty years ago could not conceive that IPR issue will be so much important in respect of developing entrepreneurship in new and knowledge-based like IT. Countries who would like to protect their software from piracy should have to prepare their laws as per their own requirement and need to follow guidelines of IPR. Patent is more stronger weapon than copyright protection. It depends on the investor how to protect his innovation under this legal shelter. IP Laws should be created very carefully, as bringing coherence among all related policies is very difficult, e.g.; competition policy and patent right may contradict each other, in the name of enforcing IPR we are giving monopoly to the innovator, but competition policy is for breaking the monopoly. Actually the existence of an effective enforcement regime is the central point of a well-functioning IP system. In order to ensure enforcement 3d equate IP infrastructure should be built up first. This can give confidence to new innovations and enable SME to reap the benefits of those inventions and creations of its employees. Seeking compensation for actual damage, loss of profit resulting from infringement should prevail in the market. The responsibility of the government here is to create institutions to facilitate the enforcement of intellectual property rights.

The intellectual property offices have a big role to play here. Measure should also be taken at the custom point so that counterfeits trade marks can not enter. Execution of court order is also important. For the SMEs, it is important to know that the courts are appropriately empowered to take immediate action for stopping an alleged infringement. SMEs can

develop a joint marketing campaign for their products using collective marks. Collective marks may provide a useful basis for recognition and build a reputation for their products. But the owners of the collective marks should have to be very serious to maintain the standards to be loyal to the consumers.

### **Development of Relevant Institutions, Disciplines and Bodies**

Law school, technical school should be developed. Judicial issues should be taken care appropriately. People of the country do not like to take shelter of law and justice because of lengthy and cumbersome process and absence of neutrality. It is required to do enormous home work to frame effective and cohesive and comprehensive laws which suits the needs of the day. IPR policy changes should be very timely. Bangladesh has developed a lot in the field of IT and it is the appropriate time to design an appropriate law for flourishing. In India NASCOM by law has been empowered to enforce IPR. From Bangladesh similar organization has to be developed. Media has a very important role to report the right thing about the knowledge-based product to create a positive image of the country. Law should be in such a way so that innovators in a fearless mind can devote to the creativity. At the moment IPR issues are low priority cases. BASIS and similar organization can play a very important role in that respect to create awareness. Even the judges also need to be aware about the enforcement issue. Extensive training for all concerned including police, judges etc. are required.

### **Need for IP Infrastructure and Institutions for Private Sector Development**

Private stakeholders are now more concerns about enforcement of their IP rights and service delivery. A number of initiatives have been taken from the private sector. An IP Association has been formed. A proposal for establishing IP Society is in the process. Some stakeholders suggested for establishing IP Institutions at even in the Central places of the city, if possible it can be extended to regional levels. DCCI-the prime chamber in the country is also working for establishing an IP Knowledge Centre in the Chamber.

The Centre will help to create awareness about the IPR. and related issues along with its benefits to the concerned offices, agencies, stakeholders and business communities; act as an information Help Desk for Government Organizations, Innovators, Researchers and SME entrepreneurs of the country so that all concerned including SMEs are aware about the importance of IP and become interested to protect their creativity and contribute towards development of enhanced and advanced entrepreneurship by tapping the benefits of technology and creativity; help identifying areas so that preparedness of Bangladesh is adequate to address IPR issues by 2013; initiate policy advocacy to bring in reforms in the related Government laws, regulations, acts and ordinance etc.

Initially it will work to create a Database on the IP issues in Bangladesh in cooperation with Ministry of Industries and other relevant Ministries/organizations and WIPO; to publicize IP related News, Information to the concerned, so that awareness can be developed and business promoted; to establish a Knowledge Centre at DCCI where stakeholders can get necessary information and assistance on IP issues; to encourage innovation and help generate innovative ideas by awarding and acknowledging creativity of individuals and institutions; to help establish required infrastructure to protect interest of innovators and researchers; to build network with all national and international IP related organizations; to publish a news letter on IP issues both in Bangla and English; to organize training, seminars, dialogues on IP issues for all concerned working in the government offices dealing with maintenance of law and order, adjudication of IP disputes and ensure implementation of IP laws in Bangladesh; to create awareness among the entrepreneurs and users about the rules, regulations and obligations' of IP, WTO and WIPO etc.

This is for the first time, a private sector has come forward to establish a Center which will work to meet queries of the private sector. Institutional capacities for protecting IP rights and establishing a full-fledged IP system is necessary. Bangladesh is among the leading countries has completed a need assessment study which has already been issued as a WTO document, namely Priority Needs for Technical and Financial Cooperation :communication from Bangladesh vide WTO document IP/C/W/546. Bangladesh is the third LDC after Uganda and Sierra Leone to present their TRIPS needs assessment to WTO after extension of the transition period under article 66.1 of the TRIPS Agreement in November 2005 (vide IP/C/40). Now we need to take a concerted efforts to work together to initiate projects to establish a standard IP system in Bangladesh.

### **5.3 IP Institution Building & Interdependent factors in Institution Building**

Institution building on intellectual property development involves several interrelated dimensions and training of: lawyers, Judges, Economists, Health officials, Diplomats, Customs officials, trade experts, computer experts Administrators police officers and politicians. Each dimension of development is vital to the success of all others, as well as to the core concept of human-centered progress. Without economic growth, there will be a lack of resources to apply to any problem. Without a healthy environment, productivity will devour the basis of human progress. Without societal justice, inequalities will consume the best efforts at positive change. Without political participation in freedom, people will have no voice in shaping their individual and common destiny. Hence the development of national and regional intellectual property institutions in LDCs is dependent in all the above factors. Development requires a perpetual balancing of priorities and emphasis and the continual reassessment of needs and policies, The role and importance of good government in promoting development cannot be overestimated.

### **5.4 National IP Institutions as Knowledge-Based Organizations**

All economies are knowledge-based. Today economies are more and more dependent on: creation, acquisition, distribution and use of knowledge. Effective use of knowledge is most important factor in international competitiveness

Five pillars of Knowledge-based institution: i) Institutional regime that provides incentives for the efficient use of existing knowledge; ii) the creation of new knowledge and an entrepreneurial spirit; iii) an educated and skilled workforce that can create and use knowledge, iv) a dynamic information infrastructure that can facilitate the effective communication, dissemination and processing of information, v) An effective innovation system comprising a network of firms, research centers, universities, consultants and other organizations that can tap into the growing stock of global knowledge, assimilate and adapt it to local needs and create new knowledge or technologies,

### **5.5 Sources of Financing for National IP Institutions**

In addition to funding from the regular government budget and revenue from fees, National IP institutions can boost their income:

- By charging for patent documents and searches
- Other activities such as teaching and offering seminars for practitioners and enterprises may also bring in some revenue.

## 5.6 Introducing A New Public Management System

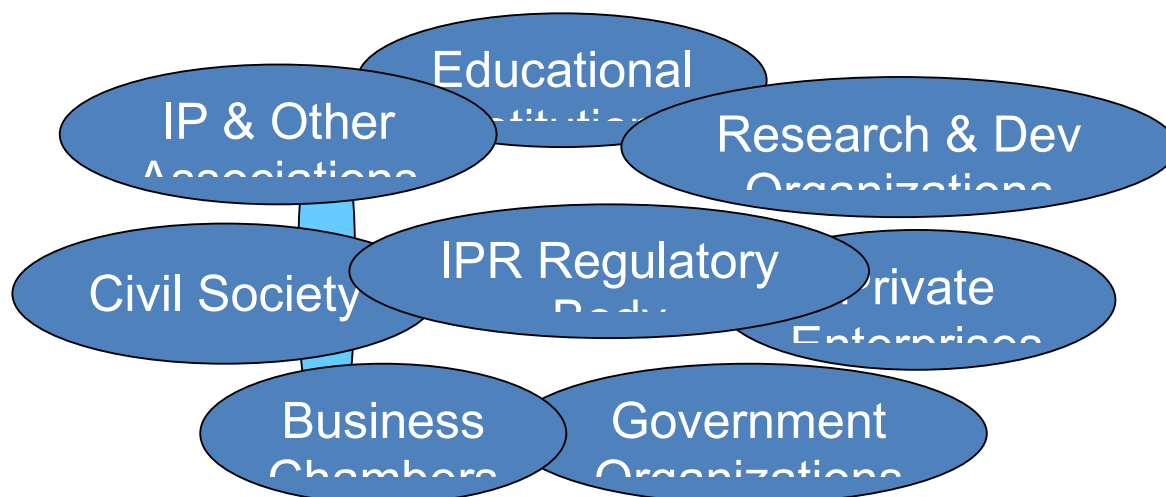
New public management (NPM) is a new philosophy for public administrations. In a nutshell: applying to public administrations the same principles applied in private enterprises. IP institution must be responsible for costs and expenses, yield results and, in return for that, it has a great degree of autonomy.

## 5.7 Creating a National Lobby Group

A national lobby group to be formed comprising of Professional Associations, Universities, Science and technology, Research institutes, Chamber of commerce and Industries, Business association, Scientific professionals. This group will be assigned to identify innovation & IP

## 5.8 Relative Institutions Involved in Formulating IP Strategy

The relevant institutions and stakeholders are shown in the figure below



## 5.9 Implementation through Institutional Form

- We are focusing on IPR to ensure the Innovation Roadmap
- Innovation is deprived due to the unavailability of the right enforcement of the IPR through authorized institutional body
- Notional/ Regional level cooperation is a definite necessity
- Technology & Innovation Support Centre (TISC):  
A public-private initiative, couple of them is already in a process in Bangladesh
- Bangladesh is included in the study for establishing a network of business development service (BDS) hubs to service the IP related business development needs of ASEAN enterprises as well as ASEAN inventors, universities and R&D institutions.

## 5.10 Partnership Building & Promotion

- IPR cannot be implemented without the core partnership of the relevant bodies

- The strong commitment of the concerned people can empower the true implementation of the IPR and this is only possible through establishing partnership
- Promotion of the usefulness of the IPR and its effectiveness needs to be spread out.
- Bangladesh needs to develop its own infrastructure and strengthen its financial and administrative capacities to encourage innovation and enforcement of IP rights and PPP is very handy at this point.
- Co-operation, Collaboration, Co-ordination are the key 3C's in order to ensure effective IPR enforcement

### **5.11 Implementation of PPP**

- A dedicated institution is needed to be set to empower the growth of IPR implementation
- Innovation should be made secured through the cooperation of the legal bodies
- Technical cooperation can also be a helping instrument to enforce IPR and create visibility among the target group

### **5.12 National IP Strategies**

- National IP strategies are policy documents on IP developed by governments.
- The documents outline the IP types, their common stakeholders and how to grant legal protection to their owners.
- The documents state the key departments and institutions including R&Ds involved with innovations and any collaboration.
- Their objective is to facilitate economic prosperity for the IP rights holders by enabling efficient exploitation of their IP assets.

### **5.13 Policy Address of an IP Institution Building**

- Rights created by various bodies of law: Copyright, Patent, Trademark, License, Contract, Academic standards for authorship and citation

### **5.14 Stakeholders that can be Involved in Developing IP Strategies for Bangladesh**

- The National IP Offices
- The R&D Institutions
- Universities and Polytechnics
- Ministries of Trade and Industry
- Intellectual Property Association of Bangladesh (IPAB)
- Chambers of Commerce
- Inventors' Associations
- Ministry of Legal Affairs,
- Legal Practitioners, accountants, etc.

### **5.15 WIPO as Collaborator in IP Strategy Development**

- WIPO offers guidance and assistance when approached by any member states to develop IP Strategies
- Some of the countries which have received such assistance from WIPO include Romania, Ethiopia, Barbados, and Colombia.

### **5.16 National Policy Integration**

- An Intellectual Property Strategy is also referred to as Innovation or Science and Technology Strategy or Plans are in some cases called Research and Development Plans.
- We need to incorporate our common demands with the National/ Regional IP Strategy, because it spells out how best to develop the talent base for an innovation system that attracts foreign direct investment, and help in building an inclusive economy.

### **5.17 Responsible Authorities to Manage IP Strategy**

- Ministerial Councils or Commissions (formed by Government)
- Ministries responsible for Trade, Industry or Commerce, Research, Science and Technology, Education, Foreign Affairs, Manpower Development, Cultural Affairs are included in the Ministerial Commission charged with managing a National IP Strategy

### **5.18 National Policy Integration**

- It is high time to integrate/ re-organize the Intellectual Property Rights with the National Policy
- We may take help from other countries who have already implemented IPR
- Exchange of experience can help the both party to gain knowledge and strengthen their capacities

### **5.19 Findings**

- There is no IPR facilitation centre in Bangladesh to guide businesses and Innovator.
- Industrial property information service is not properly institutionalized.
- Sectors like music, movies, DVD, graphics, ITES, software, financial services sectors consider IPR tools important for business development.
- Extensive delays and backlog in the granting of trademarks continue to cause losses to businesses.
- Government should promote market oriented R&D in patent searching techniques to facilitate innovations.
- National Technology Transfer Centre with trained manpower should be established .
- Financial Institutions should be made aware on how best they can exploit IP assets.
- IP facilitation centers in chambers of commerce/industry associations should be set up to create IP awareness among its members.
- Supreme Court could give directives to familiarize the judges on the evolving IPR issues particularly in the ICT sector.
- Involve industry associations in IPR awareness program.
- Amendment of the Patents and Designs Act 1911 with special provision for the protection of indigenous designs.
- The Anti Piracy Task Force of the Ministry of Cultural Affairs should be strengthened.
- WIPO can be approached to organize IPR valuation workshops for the financial institutions.

### **5.20 Conclusions**



- A platform can be created in order to encourage people to discuss their experiences in an open platform.
- This national/ regional forum to be formed who will enable the regulatory authority to collect feedback and share knowledge from the responsible/ target persons, institutions and organization bodies.
- Actual development can only be ensured through the strong cooperation of the relevant parties/ people and through an effective communication media.
- Provide advice to enable countries to make informed decisions in updating of IP legislations and use of Flexibilities
- Foster inter and intra-regional cooperation & Co-operation between IP institutions is needed to establish a common framework to:
  - Regulate the ownership and management of intellectual property
  - creation, protection, innovation, exploitation and technology transfer activities carried out by the relevant body
- Promote and facilitate the protection of Intellectual Property in line with the TRIPS to facilitate commercialization of our IP resources wherever possible
- Conduct extensive research and building up institutional capacities for protecting these resources and accrue benefits from multilateral agreements.

# Chapter VI

## Innovation and Some Selected Thrust Sectors of Bangladesh

### 6.1 Leather Sector of Bangladesh

#### 6.1.1 Introduction

The primary objective of the IP Policy on leather sector is to establish appropriate principles for creation, protection, ownership and management of intellectual property of the sector. The endeavor is to provide an intellectual property environment that encourages the development of inventions and other intellectual creations for the best interest of the public, the creator, and the research sponsor, if any, and will permit the timely protection and disclosure of such intellectual property either by development and commercialization after securing available protection, by publication, or both. Engineering Universities, Public Universities, Research institutes, Private companies, TNCs, Local firms, Government institutes around the country are giving increasing emphasis on research on commercializable technologies & different innovations in leather sector. Framing an IP policy will lead to generate and protect intellectual property of the sector.

This Policy is further intended to protect the respective interests of all participants by ensuring that the benefits of such property accrue to the public, to the inventor, to the Institute and to sponsors of specific research projects in varying degrees of protection, monetary return and recognition, as circumstances justify or require.

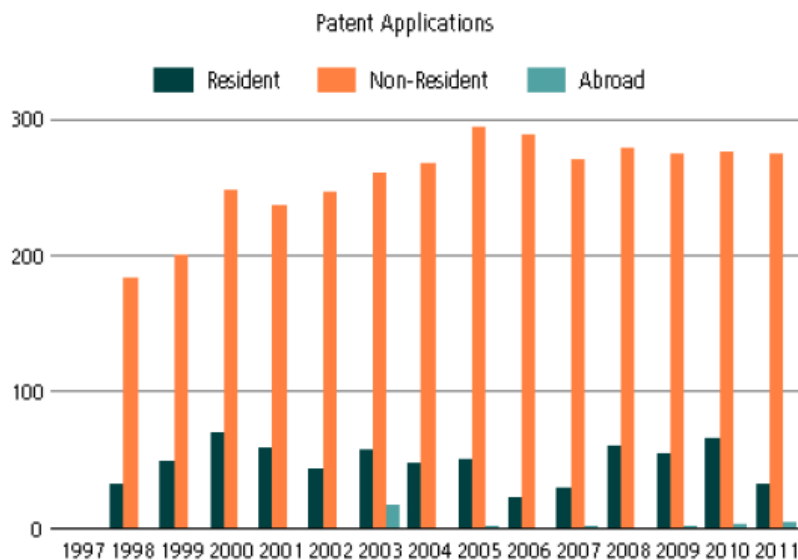
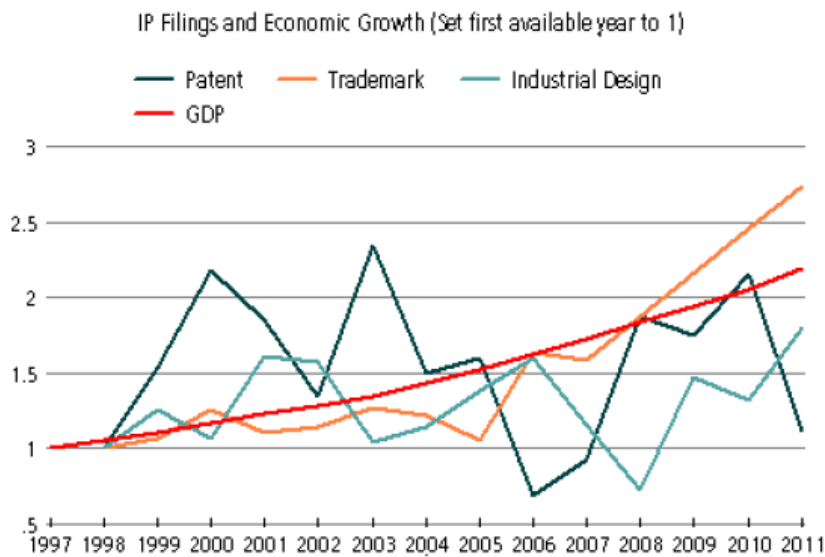
The major benefits of the IP policy are:

- ✚ To provide a superior environment for creation, protection, and commercialization of intellectual property and to stimulate innovation.
- ✚ To encourage research, scholarship, and a spirit of inquiry, thereby generating new knowledge.
- ✚ To facilitate the transfer of knowledge and technology to intending users to promote utilization of such resources for benefit of the society.
- ✚ To provide an administrative system to determine the commercial significance of discoveries and developments and to assist in bringing these into public use.
- ✚ To provide for an equitable distribution of economic gains resulting from new intellectual property among the developer, author, or inventor (the originator), the Institute, and, where applicable, the sponsor.
- ✚ To provide incentives to originators in the form of personal development, professional recognition, and financial compensation.
- ✚ To safeguard, review and manage the intellectual property so that it may receive adequate and appropriate legal protection against unauthorized use.
- ✚ To encourage students at all levels to develop patentable technologies and to provide financial assistance from the Institute to the extent possible.
- ✚ To create awareness on IPR through conducting seminars, conferences, invited talks and lectures, and training programs among the academic community.
- ✚ To create respect for other people's intellectual property among members of the

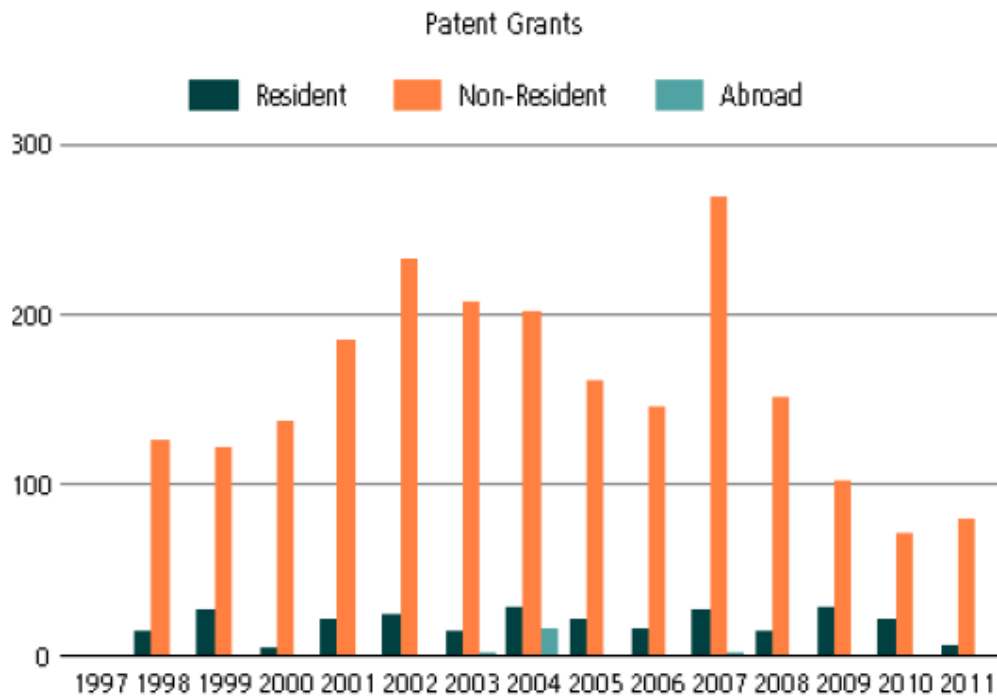
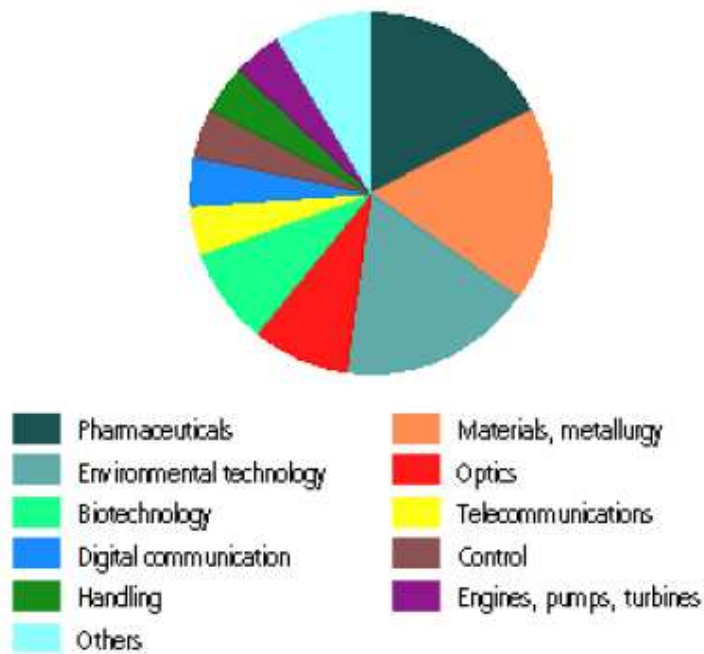
### 6.1.2 Scope of the IP Policy

The IP Policy applies to potentially patentable inventions and discoveries, industrial designs, copyrightable materials such as books, publications, electronic courseware, computer programs, electronic circuits etc., protectable trademarks and trade secrets, which are developed. The IP regime will encourage, recognize and protect all creative and scholarly works in form of patents, copyrights, industrial designs, trademarks and trade secret, as the case may be, developed by its employees/students as a result of their research or employment. The IP regime will protect the rights of the originator regarding intellectual property created by him as per legal framework of the land. However, the Institute, as a corporate body, shall share this right with inventors – staff, student or guest, in a just and fair manner.

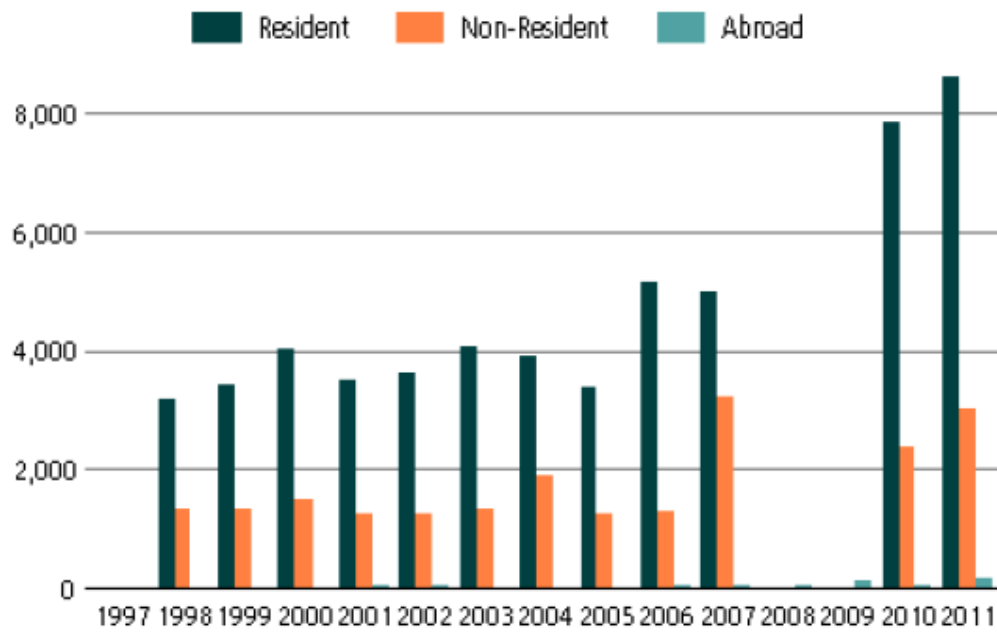
### 6.1.3 Some Statistical Data on Bangladeshi IP



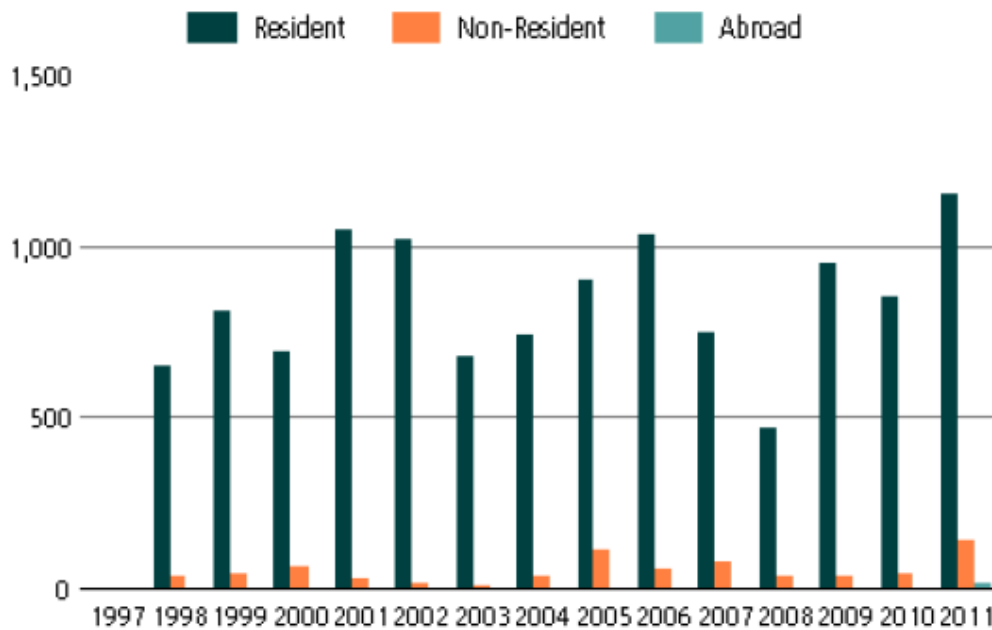
Patent Applications by Top Fields of Technology (1997 - 2011)

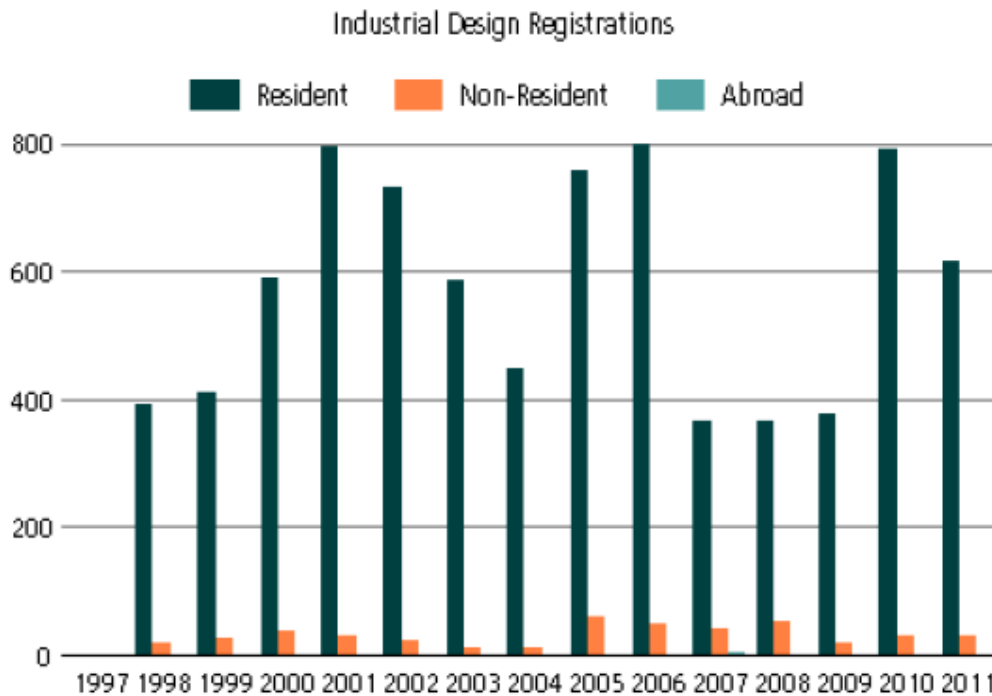


### Trademark Applications



### Industrial Design Applications





#### **6.1.4 General Policy**

- This policy shall apply to all kinds of intellectual property (including, but not limited to, any invention, discovery, trademark, copyright, trade secret, technology, scientific or technological development, research data and computer software) regardless of whether the intellectual property is subject to protection under patent, trademark, copyright, or any other law. The IP regime will encourage and recognize the originator of intellectual property and protect the ownership for the creators.
- The IP regime will work towards protection through legal means of all creations of scholarly and educational materials, inventions, products, processes, art works, musical compositions and dramatic and non-dramatic literary works related to the author's academic or professional field, regardless of the medium of expression. All such intellectual property shall be jointly owned by the originator/author and the Institute.
- The intellectual property generated from research projects sponsored by government/ non-government agencies will be owned by the creator(s), the Principal Investigator or Chief Consultant, the Institute and the sponsoring agency. The sponsoring agency will bear 50% of the protection cost or forgo the rights to the intellectual property. In case the project was accepted by the Institute under terms different from that stated herein, the terms agreed to shall prevail.

## **6.1.5 Importance of IP Policy for Bangladesh Leather Sector**

### **Leather**

Investing in a collective trade mark allows to spread the costs of managing IPR among all those participating in the initiative and to provide customers with an added value. Although it may take some time to gain notoriety and get a return on investment, at cruising speed, collective trade marks for leather can be quite profitable, both for the participants in any such collective initiative and for the consortium managing the IPRs. This is the case for consortia that set strict requirements for a given process or product. In Italy for real Italian leather or vegetable-tanned bovine leather, or in France for vegetable-tanned sheepskins for the luxury markets, or in Germany for the traditional pit tanning, and also in the United Kingdom for genuine leather or the "Union Jack Leather mark". These marks also provide an additional advantage both to their owners and to the consumers. They protect the genuine material from imitations and misdescriptions. So for Bangladesh need a strong IPR for leather sector.

### **Leather Goods**

Investing in IPRs is clearly a strategy for leather goods companies that strive to grow and develop a distinct market niche. The protection of brand names and logos through instruments such as trademarks and copyrights is a natural process that imposes itself upon businesses at a certain moment of their development. But it is up to our policy to identify this moment and to seize the opportunities that IPRs offer in terms of communication, marketing and share value. Now, is it worth investing in IPR? Clearly this is a question that every producer in the leather sector will have to answer for its own business. But it is a fact that the most successful companies in the leather sector are those who have done so.

### **6.1.6 Limitations**

Some critics of intellectual property, such as those in the free culture movement, point at intellectual monopolies as harming health (in the case of pharmaceutical patents), preventing progress, and benefiting concentrated interests to the detriment of the masses, and argue that the public interest is harmed by ever expansive monopolies in the form of copyright extensions, software patents, and business method patents. More recently scientists and engineers are expressing concern that patent thickets are undermining technological development even in high-tech fields such as nanotechnology.

The Committee on Economic, Social and Cultural Rights recognizes that "conflicts may exist between the respect for and implementation of current intellectual property systems and other human rights". It argues that intellectual property tends to be governed by economic goals when it should be viewed primarily as a social product; in order to serve human well-being, intellectual property systems must respect and conform to human rights laws. According to the Committee, when systems fail to do so they risk infringing upon the human right to food and health, and to cultural participation and scientific benefits.

Another limitation of current U.S. Intellectual Property legislation is its focus on individual and joint works; thus, copyright protection can only be obtained in 'original' works of authorship. This definition excludes any works that are the result of community creativity, for example Native American songs and stories; current legislation does not recognize the uniqueness of indigenous cultural 'property' and its ever-changing nature. Simply asking native cultures to 'write down' their cultural artifacts on tangible mediums ignores their necessary morality and enforces a Western bias of the written form as more authoritative.

## **6.1.7 Ethics**

The ethical problems brought up by IP rights are most pertinent when it is socially valuable goods like life-saving medicines and genetically modified (GM) seeds that are given IP protection. For example, some pharmaceutical companies that have developed these GM seeds, have applied for, and in some cases won, IP rights in order to prevent other companies from manufacturing their product without the additional cost of research and development. The application of IP rights can allow companies to charge higher than the marginal cost of production in order to recoup the costs of research and development. However, this immediately excludes from the market anyone who cannot afford the cost of the product, in this case a lifesaving drug.

## **6.2 Telecommunication Sector**

### **6.2.1 Introduction**

Intellectual property (IP) refers to creations of the mind for which exclusive rights are recognized in law. Under intellectual property law, owners are granted certain exclusive rights to a variety of intangible assets, such as musical, literary, and artistic works; discoveries and inventions; and words, phrases, symbols, and designs. Common types of intellectual property rights include copyright, trademarks, patents, industrial design rights and in some jurisdictions trade secrets.

The stated objective of most intellectual property law (with the exception of trademarks) is to "Promote progress. By exchanging limited exclusive rights for disclosure of inventions and creative works, society and the patentee/copyright owner mutually benefit, and an incentive is created for inventors and authors to create and disclose their work. Some commentators have noted that the objective of intellectual property legislators and those who support its implementation appears to be "absolute protection." "If some intellectual property is desirable because it encourages innovation, they reason, more is better. The thinking is that creators will not have sufficient incentive to invent unless they are legally entitled to capture the full social value of their inventions."

The World Intellectual Property Organization (WIPO) is one of the 17 specialized agencies of the United Nations. WIPO was created in 1967 "to encourage creative activity, to promote the protection of intellectual property throughout the world. The World Intellectual Property Organization (WIPO) is an intergovernmental governmental organization with head quarters in Geneva, Switzerland. It is one of the 16 specialized agencies of the United Nations system of organizations. WIPO is responsible for the promotion of the protection of intellectual property throughout the world through cooperation among States, and for the administration of various multilateral treaties dealing with the legal and administrative aspects of intellectual property. Intellectual property comprises two main branches: (a) Industrial property, chiefly in inventions, trademarks, industrial designs, and appellations of origin; and (b) copyright, chiefly in literary, musical, artistic, photographic and audiovisual works. A substantial part of the activities and the resources of WIPO is devoted to development cooperation with developing countries. The number of States members of WIPO was 161 on February 20, 1997. Bangladesh is a member state of WIPO.

The ICT sector of Bangladesh is one of the fastest growing sectors of its economy. ICT has been declared as the thrust sector by the Government. Intellectual property policy plays an important role in innovation in the telecommunication sector and ensure competitive environment and develop robust industrial development.



## **6.2.2 Intellectual Property Policy for Telecommunication Sector of Bangladesh**

To formulate an effective Innovation and Intellectual Property Policy for telecom sector of Bangladesh, following issues should be taken for judicious consideration:

1. **International Collaboration:** Intellectual Property laws and policies should be in compliance with the rules formulated by World Intellectual Property Organization (WIPO) and International Telecommunication Union (ITU) of United Nations (UN).
2. **IP to protect innovative services:** Intellectual property policy must protect innovative Value Added Services in areas such as Agriculture related VAS, Mobile Banking, eHealth, E-Commerce, Online-Education, Remote Security/ Surveillance, etc.
3. **VOIP Telephony:** VoIP telephony Licensing should be expedited to protect illegal practice.
4. **Infrastructure Provider:** Separate companies may emerge to provide infrastructure for different telecom operators and service providers which in turn reduce cost and ensure efficient use of energy and land resources. IP policy should protect innovative infrastructure providers.
5. **Upgrade of IP Laws:** Bangladesh inherits Intellectual Property System which mostly dates back to British-Indian era. In Bangladesh Intellectual Properties (IPs) are protected by the laws: The Patents and Design Act 1911, The Trademark Act 1940, The Copyright Act 2000, The Cinematographic Act 1918, and The Drug Act 1984. It may be stressed that all the above mentioned laws are quite old and needs updating corresponding to technological development. Since 1990s a number of attempts have been made to revise and up date IP laws but it has not yet been enacted. In addition, Bangladesh has no specific law to deal with technology transfer. So IP laws should be upgraded and modernized.
6. **Unified Law for IP:** Intellectual Property in Bangladesh is administered by several separate ministries of the Government. For instance, industrial IP matters are administered by Department of Patents, Designs and Trademarks (DPDT) under the Ministry of Industries, Copyright Office Bangladesh under the Ministry of cultural Affairs administer the copyrights and related rights. For proper cooperation and coordination of different matters related to IP, unified laws should be formulated.
7. **Other Policies in line with IP:** Laws and regulation of export and import as well as taxation laws should be developed in line with IP laws regarding telecommunication.
8. **Financial Support to Local Innovator:** Government should give financial support to the people who generate new idea, product, etc. So that they can protect their intellectual property before being imitated. Providing venture capital is one of the effective methods.
9. **Easy Access:** People should have easy access to the institutions which protect IP, give support and legal advices.
10. **Local Invention and Innovation:** Individuals and Institution of Bangladesh develop creative ideas in telecom services; IP laws should protect them from imitation.
11. **Reverse Engineering:** IP laws must clearly mention which products can be reverse engineered so that people involved can be free from legal wrangle.
12. **Conducive Laws for SME:** SME can contribute significantly in development of innovative services in telecom sector. Small and Medium Enterprises develops many small ideas which should be protected from the imitation by giants.

13. **Expertise Development:** Telecom related IP policy must indicate the ways to build human resources will deal with IP matters like Legal issues, counseling, collaboration and administrative activities.
14. **Raising Awareness:** IP policies must encourage raising awareness among the people who are innovators as well as other stakeholders.
15. **Protection of Environment:** Although we encourage socio-economic development through invention and innovation, IP laws should not endorse such newly developed ideas or products which is harmful to health, safety and responsible for environmental degradation. Telecommunication sector must adhere to environment protection policy.

### **6.2.3 Concluding Remarks**

Sometimes good things cannot be done due to lack of proper laws. Bangladesh, therefore, should upgrade its IP laws regarding telecommunication services judiciously considering all the relevant issues.

## **6.3 Construction Sector**

### **6.3.1 Introduction:**

In the present age of globalization, information has become more mobile and more vital than ever before. Information is the lifeblood of development, the lifeblood of technology, of products and services, of Government, and of business. Information is value. It is therefore increasingly important that information is codified and that its value is recognized. Intellectual property defines the limits under which information in the form of creations and innovations can be owned and how it can be transferred.

### **6.3.2 Strategic and Societal interest of Construction Sector**

The construction industry is an important economic actor in Bangladesh and contributes to about 50% of the gross fixed capital formation. It is also a major employer of the economy, all sectors considered. The creation, use and disposal of built facilities taken together constitute major environmental impacts. Construction activities consume more raw materials by weight than any other industrial sector although a significant part is renewable or re-useable (timber and certain mineral based materials). The built environment accounts for the largest share of greenhousegas emissions in terms of energy use. Measured by weight, construction and demolition activities also produce one of the largest waste streams even though a large share is recyclable. This implies that the construction activity and its products/services face significant environmental challenges. At the same time, the sector should take into account a number of social and cultural factors which add complexity in decision making process. Recent studies have confirmed that still today homeowners rate criteria such as aesthetics and convenience over economic and environmental considerations. The society is little by little recognizing the scale of the difficulties involved in achieving sustainability in the built environment. These difficulties are no longer simply national issues or even European ones; they are global in their extent. The worldwide demographic growth, the impacts on climate change and on the human health as well as the increased concern for security issues make that there is an urgent need for a radical transformation of the construction sector.

Construction industry has the potential to offer technical and managerial solutions at international level, especially in countries like India and China where the global construction spending growth is actually more than 8% per year. In many third world countries currently

going through phases of strong economic growth, it is recognized that the development of comprehensive technical regulations, standards and certification schemes is needed in order to achieve sustained improvements in energy and raw material consumption, wastes, etc.

The importance of employment in construction brings with it significant social and economic impacts. Its ability to integrate low skills workers plays an important societal role. As the economic activity and investment expands, construction activities create considerable employment opportunities. It is recognised<sup>9</sup> that the multiplier effect is such that one job in construction gives rise to two further jobs in the economy as a whole. Not surprisingly. Therefore, investment in construction is sometimes used by governments to reduce unemployment.

Achieving sustainability in construction will require a twofold approach: firstly, a clear direction and timeframe from the public sector, and secondly a more knowledge-based construction industry. The involvement of all stakeholders, particularly national governments, with the government Institutions playing a significant coordinating role, but also the private sector, is crucial to raise the level of sustainability.

### **6.3.3 Policy Instruments to Remove Obstacles**

Before suggesting policy orientations related to innovation and sustainable construction, it is worth considering some specific aspects of the construction sector:

- The construction sector is highly regulated at national level, in particular with respect to environment and to the materials in use. Builders, design services and specialist contractors have to observe building regulations. Their formulation, legislation and enforcement (control of application and building inspection) are Member States' competence, often with considerable power given to regional and local authorities according to the individual constitutional and administrative system. This responsibility is rather fragmented within various administrations.
- The public sector is a major client in construction (about 40% of the total production value), hence public procurement deserves special attention concerning innovation and sustainability. However, public clients have to respond to budget constraints and accountability criteria, which makes them less inclined towards innovative solutions.
- Construction assets have a long service life. Consequently, it is necessary to make a number of assumptions about the long term functionality, performances and life cycle costs of a construction asset
- Construction is mostly a locally based economic activity with little intra-community trade, except for some segments (hotel, supermarkets, etc.). This is a factor to be considered in any economy of scale.

Moreover, the construction sector is characterized by a complex supply chain with various players having competing interests, among others:

- *Inspection, certification and regulatory bodies*: they insure the implementation and the enforcement of the regulations. These market actors have different motivations with respect to changes and the nature of the innovation process and the innovation drivers differ. In the case of contractors, informal innovation based on the know-how of the employees working on site is overwhelming. The potential for innovation is not the same for a contractor belonging to a financial group as for the many small companies which work with very limited financial resources.
- For product manufacturers, the innovation process can be radical and rely on ICT and new materials ("smart" glasses, high performance concrete, composite materials, etc.).

Product distributors put more emphasis on service, e-commerce and exchange of information with material suppliers.

- The traditional ways of operating and innovating in construction are often too restrictive and confrontational and generate many deficiencies in terms of productivity, costs and quality, as it has been outlined in the report “Rethinking construction”<sup>10</sup>. In order to eliminate this burden and to address sustainability requirements more closely, the construction industry, its clients and the public sector should reflect about a transformation of the supply chain and appropriate joint initiatives. The measures suggested hereafter are intended to build a coherent basis for progressive step changes to regulation, standardization and public procurement practices fostering innovation and sustainability in construction. It is expected through this framework to raise awareness and acceptance about the need to transform the way the client decides and the supply chain operates. It is expected to clarify the overall regulatory framework which has an impact on sustainable construction and to give more importance to a pro-active voluntary approach from both the supply chain and the demand side, including the public sector.

### **6.3.4 Regulatory Aspects**

National laws and regulations will still tend to affect innovation in sustainable construction. A fundamental requirement for an effective regulatory framework is that it must be focused on targeted performance outputs, including health gains and wellbeing, and not on particular technologies or process to implement them. In other words, it should be non-prescriptive in order to allow industry to find the more appropriate and cost efficient means of achieving specific building performances.

There is also a requirement to create a level playing field for innovative actors by enlightened national building regulations as suggested in the Stern Report on Climate Change. An alternative approach is to complement regulation with voluntary building codes which set a timeframe for the construction industry to evolve. For instance, the introduction in the UK of the Code for Sustainable Homes in December 2006 has given indications to the housebuilding industry about the way forward to sustainable homes. It defines six levels for raising the environmental performance standard of new homes, with a specific target of zero net carbon emissions post-construction by 2016. This Code offers public recognition to innovators if they wish to move ahead of national regulations. A similar approach has been implemented in France with the label “Haute Qualité Environnementale”.

At European level, there is also a willingness to foster innovation through legislation. For example, within the framework of the Energy Performance of Buildings, the Commission will by the end of 2008 develop a strategy for very low energy/carbon footprint or passive houses in dialogue with Member States and key stakeholders towards more widespread deployment of these houses by 2015. The scope is to move towards this type of houses as a standard in new construction in the medium term.

More generally, there is a need for a more strategic and integrated approach in EU legislation in the areas of energy, environment, internal market and health with a view of setting a more coherent and progressive framework towards sustainable construction. In particular, it should consider the cumulative burden imposed by the different legislations and stimulate the development of the internal market of products and services related to sustainable construction. Such an approach would require better information about the construction processes and use of human and financial resources than appears to exist at present. It is suggested to set up a Panel of stakeholders, including companies covering the whole supply chain, to support the development of such an information base and an evaluation of the innovation potential and cumulative legislative effects. There is also a need for better understanding what a legislative measure would mean in practice, in terms of

activities and behaviours of construction interests and clients. This initiative would contribute to further streamlining and better targeting the enforcement of existing legislation.

The development of a lead market on sustainable construction does not *a priori* require Specific regulation although the exiting regulatory structures should be reviewed and adapted if necessary. However, there is a need to look at the cross-frontier dimension of the various legislations and to address it through the standardization process and other measures presented in the following sections. For instance, further operational interfaces should be developed between the Construction Product Directive (89/106/EC), the Waste Framework Directive (2006/12/EC) and the REACH Regulation (1907/2006) concerning the requirements for the environmental characterization and declaration of secondary materials used in construction. The same should be considered for the Directive on the Energy Performance of Buildings, the Construction Product Directive and the Integrated Product Policy regarding the assessment of the environmental performance of buildings.

### **6.3.5 Conclusion**

A high level of awareness is not reached yet for sustainable construction, especially because many key decisions are taken on the basis of the lowest costs in many countries of the world. The increased convenience and welfare should lead to a more natural uptake of new products, but the higher prices of innovative products/technologies remain a main barrier for their acceptance. The challenge is to move from a cost-driven market to a value-driven one. Communication should receive a higher priority within the mix of policy recommendations, together with the implementation of appropriate incentive schemes.

The setting of voluntary targets to achieve sustainable construction and the monitoring of realistic indicators, many stakeholders confirmed the complexity of this exercise because of the insufficient scientific basis in this field basis. Further socio-economic research is needed for implementing intellectual property in the construction sector of Bangladesh.

## **6.4 Textile and Ready Made Garments (RMG) Industry**

### **6.4.1 Introduction**

Business managers need to identify such valuable intangible assets in a timely manner, determine their business relevance, and conduct cost-benefit analyses to determine which of these should be protected and leveraged by using the tools of the intellectual property (IP) system.

#### **Benefits**

- to provide for the intellectual property generated at different institution, factory, university, etc.;
- to promote the progress of science and technology;
- to ensure that discoveries, inventions and creations are utilized in ways most likely to benefit the public;
- creation of an environment that encourages and expedites the dissemination of discoveries, creations and new knowledge generated by researchers for the greatest public benefit;
- ensuring that the commercial results, financial or other, are distributed in a fair and equitable manner that recognizes the contributions of the inventors and the institution as well those of as any other stakeholders;

- ensuring that both intellectual property and other products of research are made available to the public through an efficient and timely process of technology transfer;
- promotion, preservation, encouragement of and assistance to scientific investigation and research;
- protection of the traditional rights of scholars to control the products of their scholarly work;

#### **6.4.2. Issues to be Addressed By Innovation and IP Policy**

- coverage of intellectual property policy;
- ownership of intellectual property;
- marketing, commercialization and licensing of patents;
- rights and obligations of an inventor and the institution;
- other pertinent issues.

#### **6.4.3 Strategy for the Textiles and RMG Sectors**

- a. Improve the innovative power of women in both the sectors, since women comprise of the majority of the work force in textiles and RMG;
- b. Support the RMG and textiles firms to cope with international restrictions on exports that relate to value addition and labour welfare, Closer governmental cooperation will be key to ensuring that the local firms survive the post-MFA period to transition into value-added activities;
- c. Help re-structure university education syllabus to incorporate courses that produce managerial, technical & innovative skills required for both sectors;
- d. Focus on improved basic infrastructure provision that is a major impediment for both sectors;
- e. Focus on reviving the traditional handloom sector, through a focus on creative designing and upgrade of production facilities.

### **6.5 Ship Building Sector**

#### **6.5.1 Introduction**

- Bangladesh has coastline is about 720 km
- Bangladesh blessed with 9,000 sq km of territorial waters
- 200,000 sq km of Exclusive Economic Zone (EEZ)
- Bangladesh shipbuilding is around 15 Shipyards under Private Sector

#### **6.5.2 Importance of Shipbuilding IP Policy?**

- At present Bangladesh enjoys more than 0.7% share in the world shipbuilding order book. However, owing to various advantages, the country offers ample potential in the shipbuilding sector, which is yet to explore its optimum potential.
- During the Plan (2011-2016), the national target is to build an annual tonnage of 5 million DWT. Bangladesh intends to continue sharing more than 0.7% of the

international target in Shipbuilding/repair market. This would need accelerated growth in Shipbuilding/repair capacity in the country from present 1.11 million DWT to 3 million DWT.

### **6.5.3 IP and Ownership Right**

- ✚ The SBSRB is vested with sovereign rights as owner, conservator of the waterfront and Licensor to the contract under the Ship Building and Ship Recycling Board Rules-2011 and all other applicable acts and rules framed and amended by the competent authority from time to time.

### **6.5.4 Applicable Acts**

- Bills of Lading Act 1856
- Carriage of Goods by Sea Act 1925
- Merchant Shipping Ordinance 1983
- Marine Fisheries Ordinance 1983
- Ports Act 1908
- Customs Act 1969
- Factories Act
- Labour Laws
- Workers Compensation Act

## **6.5 Tourism Sector**

### **6.5.1 Introduction**

Tourism is an emerging sector for Bangladesh. Tourism is one of the most growing industries all around the world. It is a very promising developing tool for Bangladesh. This Policy is intended to encourage technical innovation of tourism sector as local handicraft, medium of entertainment, local products etc. and to promote the commercial use of technical inventions and innovations so as to contribute to the social, economic, industrial and technological development of the country. The grant of exclusive rights to technical inventions and innovations is a means, for the State of Bangladesh to recognize the merits of individuals and companies that make a remarkable contribution to the country's economic and technological progress.

### **6.5.2 The Vision of Bangladesh's Intellectual Property (IP) Policy for Tourism Sector**

“An environment in which the Bangladeshi tourism sector of business, Government and culture, create ideas and innovations that are protected in a way that ensures the greater prosperity of the Bangladeshi people, while making optimal use of international technologies to promote growth and productivity for the whole Bangladesh nation.”

### **6.5.3 The Mission of Bangladesh's Intellectual Property (IP) Policy Tourism Sector**

“To ensure that national IP laws, institutional practices and strategies in public research institutions and tourism industry is developed and implemented in a manner that contributes

to building Bangladesh's technological base and cultural industries and that advancements in science and technology benefit society.”

#### **6.5.4 The Objectives of the IP Policy Tourism Sector**

- I. Increasing technological literacy and advanced scientific and technological skills that in turn would increase the innovation capacity of local traditional handicrafts, goods etc. for the development of tourism sector.
- II. Increasing access to foreign and local technology by local firms and research institutions which enrich the tourism sector.
- III. Improving access to IP-based essential goods and services especially health and food.
- IV. Facilitating investments in innovative and creative activities of local goods.
- V. Enhance the protection of traditional knowledge and facilitate equitable access to genetic resources and benefit-sharing.

#### **6.5.5 Strategic Considerations for Policy Implementation**

- I. Generation and Management of Intellectual Property
- II. Technology Development, Transfer and Diffusion
- III. Environment and Natural Resources Management
- IV. Indigenous Resources and Traditional Knowledge
- V. Development of E-Marketing, E-Distribution and E-Commerce
- VI. Improve the Online presence of Bangladeshi Attraction and Products
- VII. Funding Measures and Mechanisms
- VIII. Linkages, Collaborations and Partnership Development.

#### **6.5.6 Conclusion**

In many countries tourism has been growing faster than the economy as a whole, in spite of periodic setbacks, and worldwide, international tourist arrivals have increased about one percentage point faster than global GDP in real terms. Travel and tourism can demonstrate how technology may change the structure of an industry and create new business opportunities in tourism sector. As technology is evolving faster than ever before, it has made most travelers around the world much more technology-savvy than in the past. ST&I will be applied to provide solutions that will enhance natural resource management for public safety, food security, as well as resolving human and animal health conflicts and developing a sustainable tourism industry. So 'Innovation and Intellectual Property Policy and Strategy for Bangladesh' is very necessary to promote a sustainable and beneficial innovation and creative process in tourism sector in the country.

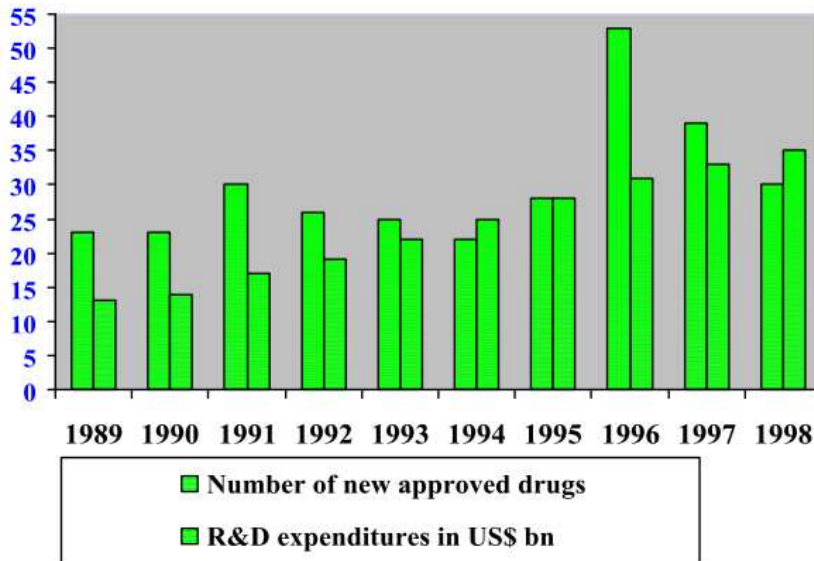
### **6.6 Pharmaceutical Sector**

#### **6.6.1 Increasing Challenges in the Pharmaceutical Industry**

- Increasing R&D costs
- High innovation pressure
- Many more therapeutic targets to be explored and utilized as drug intervention sites



## Number of New Approved Drugs as Compared to Total R&D Expenditure of the Pharmaceutical Industry

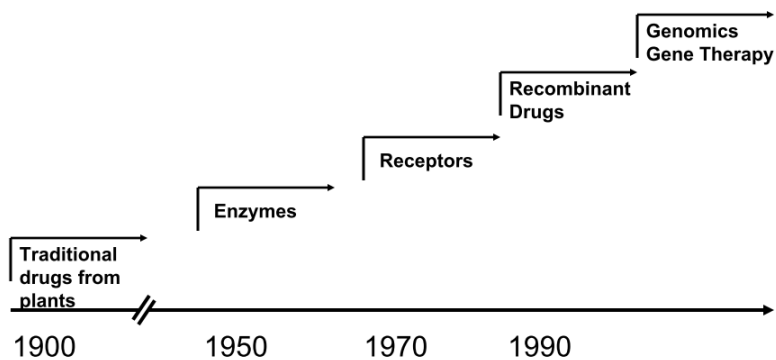


### The Future of Drug Discovery

#### 6.6.2 Bangladesh Pharmaceutical Industry

The future of drug discovery depends on understanding the genetic basis of the disease.

#### Advancements in Pharma Research Technological Advancements in Pharma Research

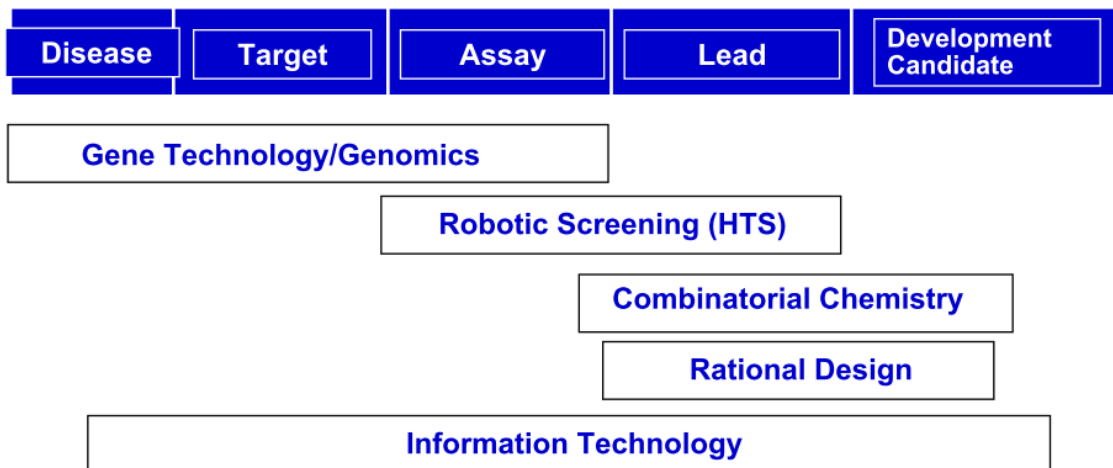


## The Change of Paradigm in Pharmaceutical R&D

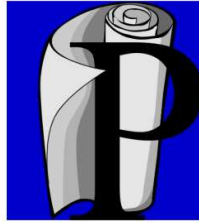
- New R&D Approach
- Genetic cause of the disease (Genomics)
- Rational selection of the
- Active substance (molecular genetics)
- High Throughput Screen
- Optimization of active substance with recombinant human gene products and combinatorial chemistry
- Clinical trial. Safety and efficacy
- Registration

## Products of R&D

<ul style="list-style-type: none"> <li>□ <b>Classical</b></li> <li>➤ <b>NCEs</b> <b>(New Chemical Entities)</b></li> <li>➤ <b>Vaccines</b> <b>Bacterial extracts</b></li> <li>➤ <b>Proteins</b> <b>From animal tissue</b></li> </ul>	<ul style="list-style-type: none"> <li>□ <b>New</b></li> <li>➤ <b>NCEs (obtained by using Genetic engineering Technology)</b></li> <li>➤ <b>Non-infectious vaccines</b> <b>Obtained by genetic Engineering</b></li> <li>➤ <b>NBEs (recombinant human Proteins, monoclonal antibodies)</b></li> <li>➤ <b>Gene Therapy</b></li> </ul>
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Why patent?



### Good Reasons for Patenting

- Patents prevent others from commercially utilizing an invention.
- For the research-based industry, periods of market exclusivity are crucial for the recoupment of R&D expenditure.
- Patents encourage financial risk and long-term research.
- Patents guarantee the dissemination of information.

### Which Rights Does a Patent Confer?

- A patent is a limited monopoly granted in respect of an invention.
- A patent confers the right to exclude others from making, using or selling the invention .
- This right is granted to the inventor (or his/her successor in title) by a national or regional authority.
- This right is limited in terms of territory and duration.
- The scope of this right is defined by the patent claims.

### Which Rights Does a Patent Not Confer?

- A patent does not confer the "positive" right to use the invention!
- The use of an invention, whether patented or not, is subject to
- other national laws and regulations!

### Patentable Inventions Created During the R&D Process

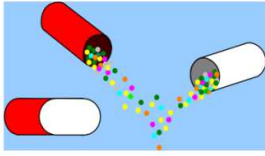


#### Research Tools

target genes  
screening assays  
reagents  
cDNAs, ESTs  
animal models

### Patentable Inventions Created During the R&D Process

Drug (NCE or NBE)



method of making  
 formulation  
 combination  
 novel use (second indication)

drug delivery system  
 gene therapy

### 6.6.3 Other Important Aspects of the Patents Act

- a) Frivolous inventions
- b) Inventions which are injurious to health, human, animal or plant life or environment
- c) Mere discovery or formulation of or discovery of any living thing or nonliving thing occurring in nature
- d) (i) mere discovery of a new form of a known substance  
 (ii) mere discovery of a new property or new use of a known substance  
 (iii) mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant.
- e) Substance obtained by mere admixture resulting only in the aggregation of the properties of the components thereof or a process for producing such substance (unless synergistic).
- f) Mere arrangement or rearrangement.
- g) Omitted
- h) Method of agriculture and horticulture
- i) any process for the medicinal, surgical, curative, prophylactic, diagnostic, therapeutic or other treatment of human beings or any process for a similar treatment of animals to render them free of disease or to increase their economic value or that of their products.
- j) Plants and animals in whole or any part thereof other than microorganisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals.
- k) Traditional Knowledge

### 6.6.4 TRIPS Agreement: Its Implications on Pharmaceutical Industries in Bangladesh

Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) of WTO has granted effective protection for Intellectual Property Rights (IPR) and ensured procedures to enforce IPRs so that it can not pose as a barrier to trade. Under TRIPS pharmaceuticals will now be considered as one of the traded commodity so impact of its on public health is very extensive. Though Bangladesh has been exempted to comply with patent until 2016, it has got several implications on development of pharmaceutical and traditional medical products.

The opportunities of TRIPS will be based on the basic principles of GATT 1994 and of relevant International Intellectual Property Agreement or conventions (Part 1, Para-3). Like other Agreements, the main principles of TRIPS is to extend national treatment, most favoured nations treatment to the nationals of other member countries (Art 3, 4). The objective of the Agreement (Art7) is to protect and promote technological innovations, ensure enforcements, transfer and disseminate technologies to the mutual advantages of producers and users of technological knowledge conducive to social and economic welfare. The Agreement has specific terms of protection of IPR (art12-14). Protection will be given in the form of copyrights and related rights, trade marks, geographical indications, industrial designs, patents, layout-designs (topographies) of integrated circuits.

In case of giving patents as per Art 27.3(a) and (b), some exclusion has been agreed in favour of Least Developed Countries (LDCs). As per Art 66.2 a special provision have been agreed to the LDC members, extension period for enforcement may be agreed upon duly motivated request from the LDCs. Developed country member shall also provide incentives to enterprises and institutions for the purpose of promoting and encouraging technology transfer to LDCs in order to enable them to create a sound and viable base. Uruguay Round (UR) has been successful in providing a comprehensive Agreement on TRIPS with required balance of conflicting issues covering national perspectives. Thus TRIPS has covered wider framework of IPR rights. Developed countries were seriously in favour to protect and encourage their new innovations while patent rights and other IPR issues were found as substantial impediments for the Developing and LDCs especially in case of making prices of medicines at an affordable limit.

LDCs have specific implications of TRIPS in regard to public health. There is no doubt that health of a country's population has special consideration as it has direct link with production capability and overall development. After a prolong discussion between all parties and upon agreeing on the issues of protection of rights of innovations, complexity of patenting process, capacity of Developing and LDC Countries and considering the importance of public health, the Doha Ministerial adopted a declaration on the TRIPS Agreement and Public Health on 14 November, 2001 where LDCs have been provided with a special benefits and extended transition period to comply with TRIPS Agreement<sup>1</sup> that LDCs is not required to grant protection until 2016.

WTO Council responsible for intellectual property, on 27 June 2002, approved a decision of extending the transition period for the LDCs. In August 2003, an agreement was also reached when USA changed its position to allow LDCs to import generic drugs from low-cost, non-patent holding producers in developing countries.

Relation of TRIPS and Public Health: Developed countries agreed that measures can be taken for the Developing and LDCs in regard to reducing the public health problems resulting from HIV/AIDS, and other epidemics. The Agreement thus establishes the rights to protect the public health. Article 31 of TRIPS and the proposed amendment on Article 31bis ensures access to essential drugs, and access to medicine which is one of the basic elements to protect human rights. Bangladesh can raise their voices to the proper body for exclusion of life-saving medicines from patentability.

The Doha Declaration<sup>3</sup> on Public Health also grant rights for compulsory licenses in case of emergency and the freedom to determine the grounds upon which such licenses are granted. The Agreement says "We also agree that the LDC Members will not be obliged, with respect to pharmaceutical products, to implement or apply sections 5 and 7 of part II of the TRIPS Agreement or to enforce rights provided for under these sections until January 2016, without prejudice to the right of LDC country Members to seek other extensions of the transition periods as provided for in Art 66.1 of the TRIPS Agreement. We instruct the Council for TRIPS to take necessary action to give effect to this pursuant to Article 66.1 of the TRIPS Agreement". Bangladesh can get benefits and action can be taken to:

- continue and expand its production base to keep medicines at an affordable prices to the need of the general people and contribute to increase health conditions and achieve one of the goals of MDGs;
- enhance policy support to expand exports and attract foreign investors;
- increase export to at least 50 LDC countries and other non-LDC and African countries;
- export to those countries who do not so far have patent protection law;

- exploit the potentials to increase business to those WTO member countries who have been granted compulsory licenses;
- export to those countries who have not yet become the member of WTO.

Provisions of Compulsory Licensing (CL) have got implications to ensure Public Health<sup>5</sup>. TRIPS though allowed CL in case of emergency applicable through its competent authority for public non-commercial use; it will require a license from the patent owner both for importing patented therapeutic ingredients and to permit the production of patented goods. Bangladeshi Pharmaceutical Industries (BPI) can take benefit in the following ways:

Bangladesh's current patent & design ACT 1911 has a provision for CL, but it should be expanded as per requirements of changed policies of the TRIPS agreement after 2016. Bangladesh could encourage FDI in local production through taking benefits of fulfilling the conditions of CL as a source of low cost producing areas. BPIs should need to build their capacities to respond to the policies. TRIPS requirement (Art 31, Para-h) says, "the right holder shall be paid adequate remuneration in the circumstances of each case, taking into account the economic value of the authorization". This may make the issue difficult for poor countries to take benefits of CL though it seems to be voluntary which is not in practice. Bangladesh should go for extensive analysis of the issue before exploring benefits out of this policy provisions.

The Pharmaceutical Industry of Bangladesh is the largest in the Least Developed Countries (LDCs). It needs to develop its multidimensional research capacity to develop new drugs. It should also increase its capacity to reverse engineering of patented drugs in order to develop capacities of competing generic products. At the moment domestic industry are mostly importing generic active ingredients and sold to domestic markets. As per TRIPS, the supply of generic active ingredients may be cut off as a result of TRIPS requirements that the developing countries in which most of the generic producers reside grant full patent production by January 2005. It may create problem in future in respect of new molecules and may cause price increase of raw materials.

Compulsory Licenses are granted under some national legal system. Though TRIPS allows CL, it imposes significant restrictions, one of which is the license shall be "predominantly for supply of the domestic market of the Member authorizing its use". A waiver of the requirement under Article 31(t) can be a durable solution to get benefit out of it. Developed countries are critical on it and express their concern for amendment of Art 31(f). Patents are protected under the Patent & design Rules, 1933; patent protection can be obtained for the process of producing pharmaceutical products but not for pharmaceutical products themselves. CL is permitted under the Patent & Design Act 1911 where the demand for the patented product is not being met to an adequate extent and reasonable terms in Bangladesh. Necessary amendments to implement TRIPS obligations are underway.

Opportunities and Challenges of Pharmaceutical Industries of Bangladesh: There are about 239 registered pharmaceutical industries in Bangladesh of which 161 is in operation<sup>6</sup>. Majority of the local pharmaceutical companies in Bangladesh are manufacturing "Formulations". There are 450 generic products, of which 117 are essentials and controlled drugs and 333 decontrolled products. 21 local companies are producing active pharmaceutical ingredients (API) although at a 'limited range and mostly intermediate in nature' and supplying these to other local companies for producing various types of Formulations. More than 40 different types of active ingredients are produced by the local companies. About 4-5 companies have taken up new projects to produce active ingredients under groups like cephalosporin, microcline antibiotic, anti-ulcerative, anti-inflammatory, etc.

Bangladesh is highly prone to tropical diseases with poor health and hygiene condition<sup>7</sup>. Per capita expenditure on medicine in Bangladesh was around US\$ 3 or Tk. 150 per annum

in 1999, which increased to about US\$4.00 per person in 2004; it is more than US\$ 4 in 2005, with the significant increase in per capita income it is projected that the amount will increase further. This is an indication for a very optimistic scenario for the new marketers. On an average 5% of household income is spent on medicine. Per capita income has a positive impact on the increase of expenditure on medicine. In 2007, the per capita income has grown approximately US\$ 470 which was only US\$ 348 in 1997-98.

About 20-30 large companies including 5 Multi-Nationals (MNCs) having their manufacturing plants in Bangladesh. Local companies including MNCs are meeting about 98.5% of the total domestic market and the rest 1.5% is being imported from abroad. There are also a number of importers of Formulations in the local market. Number of companies producing quality medicines is needed to be increased. In addition to allopathic medicine other sources of medicines are Ayurvedia, Homeopathic and Bio-clinical and Herbal and Unani (The graph above shown the structure). There is an ample opportunity to grow the areas of Ayurvedic and Herbal sector. A large segment of the lower income people dependent on natural products to maintain their health because of their poor earning capacity. Technological development in this sector can create a new horizon of opportunities for absorbing huge employment and source of low priced medicine and contribute for the mankind.

Bangladeshi companies so far have not been able to derive the benefits out of TRIPS since India has been permitted to produce patented drugs. However, China's situation is different. Considering vast potentials, the leading local companies have made aggressive plans to expand their production capacities. Besides expanding production capacity, the local companies are also expanding their product range i.e. new Formulations namely Inhaler, Slow Release Form, Suppositories etc. According to the DGDA, the Drug controlling authority in Bangladesh, another 25 new companies waiting for license and negotiations are underway to take over at least 10 sick pharmaceutical companies by new entrepreneurs.

Projects are being undertaken for producing API, estimated amount of future investment is about US\$ 20 million. Square Pharmaceuticals Ltd<sup>10</sup> has already made an expansion plan; Beximco<sup>11</sup> has made a large investment for modernization and expansion of their production facility. Finally, the government has decided to allocate required land to setup common facility for water treatment plant, effluent treatment plant(ETP) which can be used by at least 20 companies for producing API.

**Production of Pharmaceuticals**

Value in M US\$

Year	Finished Drug	Raw material	Total
2000	356.12	20.87	377.09
2001	378.37	23.41	401.78
2002	531.09	24.01	555.10
2003	563.88	26.20	590.08
2004	657.49	27.66	685.15
2005	779.62	24.99	804.61
2006	685.94	26.04	711.98

Source Drug Administration of Bangladesh, compiled by DCCI Research Cell

In order to produce finished products, companies are dependent mostly on imported raw materials; there are about 750 different types of raw materials, of which 90% is imported. Sources of imports of raw materials include Germany, Switzerland, Belgium, France, Italy, Denmark, Netherlands, UK, USA, UAE, China, Taiwan, South Korea, Japan, Spain, and India etc. Beside some large scale multinationals and joint ventures, producers are mostly small scale entities. The Drug Policy 2005 has allowed joint venture and toll manufacturing.

Some backward and forward linkages in the fields of packaging, accessories have already been established. A significant number of professionals, pharmacists, technicians are engaged in this sector. Clinical labs, diagnostic centers, hospitals, pharmacies are growing etc.

Among the major challenges faced by the sector is the absence of "bio-equivalence test facility. Registration procedures in the importing countries are lengthy and costly. Without registration it is not possible to export. Among the internal administrative problems delay in issuing "Free Sale Certificate" by the national regulatory authority, hassles for shipment of samples at the custom point, lack of market promotion fund, lengthy regulatory formalities are important to mention. Stringent conditionality's of WHO for export, Good Laboratory Practice(GLP), Good manufacturing Practice(GMP), Good Clinical Practice(GLP), inadequate fund for R&D, increase prices of raw materials, block list approval and validity, limitations of foreign currency requirements for establishing offices in the foreign countries are defined external and internal obstacles.

The sector has been facing tremendous challenges in respect of cheaper medicine from China and India. More tough competition in the local and export market is awaiting, India has amended 1970 Patents Act as favorable as possible. The sector is dependent on imported raw materials, fluctuation in raw material prices, rate of exchange have serious negative effect on competitive prices.

Complex and complicate process of registration, Inadequate R&D, waiver of the exclusive marketing rights under Art 70.9, obligations of mailbox application for pharmaceutical products, entry of products through unauthorized channel, liberalization of imports after enactment of revised drug policy can further be termed as inevitable challenges. Lack of API plants, absence of international standard quality control and testing laboratories, inadequate knowledge on TRIPS and trade related matters, little research and development on new molecule development etc. are some other challenges. The sector has been producing a wide range of price competitive products both for local and foreign markets. Large pharmacy market leaders almost parallel to MNCs have created brand image, large pool of efficient and qualified technical manpower, professionals, supportive government foreign investment policies, backward and forward linkage support, large domestic markets with potentials of reasonable growth, one of the largest sectors in terms of capital investment, scope for product diversification into herbal and animal healthcare etc. are some of opportunities to expand the sector further.

Suggestions and Concluding Remarks: One of the main features of the sector is its dependency on generics. The changed situation after expansion of TRIPS has brought both competition and opportunities. New innovations are not that much present in the markets. Like India and other neighboring countries we are not capable enough to utilize reverse engineering in other sector except API. The companies having patents are not on local innovations. Policy flexibilities are not enough to attract foreign investment for availing opportunities of technology transfer. The country is yet to get any benefit from parallel import and compulsory licensing.

Bangladesh needs to develop a viable national strategy for promoting the domestic industry and analyze the constraints & opportunities, created by TRIPS. Immediate reforms of the patent and related law, complementary policies in regard to reducing cost of business, budget for R&D are some of the requirements. We need to establish more capacities to promote and develop ingredients of medicine to reduce import dependency. S&DT treatment in terms of time extension has to be utilized. The country can try to gain markets where India and Brazil used to sell previously but now subjected to patents. The country may attract countries like China and India as a platform for API which they can not produce on their own country after 2005.



Bangladesh should build its capacities to produce drug without relying on import of therapeutic ingredients. For this education & skills as well as funding for research would be required. A Pharmaceutical Research Centre is the need of the hour. Establishment of a central drug research laboratory is also another pre-requisite. A good industry-academics collaboration is also required for building the capacities of the sector. According to TRIPS article 66.2 WTO members are obliged to extend technical assistances to the relatively weaker countries. After 2005, most of the generic suppliers are precluded for supplying pharmaceutical products subject to patent in the country of manufacturing; competitive position of existing generic producers of Bangladesh will be increased. The sector should plan a comprehensive strategy covering pre-and post 2016 situation.

## **6.7 Transportation Sector**

### **6.7.1 Introduction**

Establishing and enabling national policy and strategic framework in the area of innovation and creativity is a key to promote a sustainable and beneficial innovation and creative process in a country geared to contribute n meeting national development goals. Innovation and Intellectual Property (IP) policies and strategies are a set of measures formulated and implemented by a government to encourage and facilitate effective creation, development and management of intellectual property. They outline how to develop infrastructures and capacities to support inventors of IP to protect, develop and exploit their inventions. An IP strategy may also be defined as a comprehensive national document which outlines how all the policy developments and implementation take place in a coordinated manner within a national framework. It therefore spells out how best to develop the talent base for an innovation and creativity system that attracts foreign direct investment, and helps in building an inclusive economy. IP strategy is useful because it strengthens a nation's ability to generate economically valuable IP asset.

#### **Transportation sector of Bangladesh:**

The main transportation routes of Bangladesh are highway, railway and waterway. According to Roads and Highway Department that total length of the road is mentioned below:

- National highway: 3,538 Km
- Regional highway: 4,278 Km
- Zila Road: 21,454 Km

### **6.7.2 Policy and Strategy on Innovation and IP for Transportation Sector for Bangladesh**

The goal of IP strategy on transportation sector is to provide a plan in the short, medium and long term, whereby all national stakeholders can work together to create, own and exploit research results, innovations, new technologies and work of creativity. As Bangladesh does not have enough experience in policy making for Intellectual Property on transportation sector, we can get lessons from other developing or developed countries for a sustainable policy.

China is one of the excellent examples for Bangladesh. China's rapid economic transformation over the past three decades has presented both opportunities and challenges

to many U.S. businesses. Despite broad success in the China market, many U.S. companies have reported that two major factors—the infringement of their intellectual property rights (IPR) in China and China's indigenous innovation policies—have undermined their competitive positions.

Bangladesh should make the IP policy and strategy very carefully. Because a proper IP strategy can change not only the technological condition but also the economic condition. The policy should consider the following issues:

- The inventor will get the full right of marketing the technologies which are not harmful. If marketing is allowed, the inventor would be much more interested in continuing the research. But the marketing of the invented technologies which have considerable negative effects should be monitored or controlled by higher authorities. For transportation sector innovation of high speed vehicles should be monitored. Because it may increase road accident. Moreover our traffic system may not be compatible with that type of vehicle.
- If any company wants to market the technology, it has to take permission from the inventor.
- While marketing the technology, the inventor has to be given royalty at a certain percentage. If the inventor doesn't get any royalty, he would not be encouraged for further invention. As a result the technology won't be developed and technology based development won't be possible.
- Reverse engineering of the technology cannot be allowed for a certain period. If reverse engineering is allowed from the very first time, there is a chance that the inventor won't get proper royalty. On the other hand if reverse engineering is not allowed, it would be difficult for new researchers to develop a new technology.
- Any other person or institution, who wants to improve the technology, has to make a proposal to the inventor and include him in the research work for a certain period. But if the inventor wants to carry on the research by himself, he has to expose his research plan. If he doesn't want to continue his research, other person or institution will get the right to improve the technology by giving a certain royalty.
- Incentives should be given to the inventors. Recently a technician of Saidpur railway factory named Md. Abu Taleb Mia with the assistance of Fidar Mubarak Ali has invented a new device for separating the spring from the rail coach lot more easily. This new device is more easy and safe to use. If incentives are provided to these type of inventors, invention will reach to a new dimension.
- Priority should be given to the inventor in the case of promotion. In most of the universities, the knowledge level of the teachers is very high. As the most brilliant students join as the faculty members, it will be great if they use their knowledge and skill in invention. And they will be encouraged in research work if their invention is considered in the case of promotion.
- Visa allocation should be made easier in the case of attending international seminars and symposiums. Every year a lot of seminars and symposiums are arranged all over the world on different sectors including transportation. Attending in these seminars can build and improve the intellectual property.
- Scholarship should be provided for higher study. It can include academic persons like teachers, bright students etc. or other technical personnel related to transportation

sector. Higher study provides the opportunity of higher research. And higher research directs to new technology. Moreover higher study gives the opportunity of meeting people from different places all around the world As a result experiences from different parts of the world are shared together.

- The government can set a goal for achieving goals. For example China has directed its corporations to set goals to achieve 1,000 to 15,000 patents a year depending on how large the institution is. Bangladeshi government can also implement this technique in transportation sector.
- Ideas can also be patented. New ideas about reducing traffic jam; road accident etc. can also be patented. Because often a new idea can solve a problem and create a new dimension of research opportunity. Ideas about ensuring maximum utilization of current facilities should also be appreciated.
- Patents can be protected by trademarks. By providing trademark of different invented technology, invention and innovation can be encouraged. Any invention related to transportation must be patented as soon as possible.
- Collaborated research should be encouraged. R&D is always expensive. But while collaborating, expenses of research work reduces by a considerable amount. Moreover collaborated research gives the opportunity of sharing intellectual properties from different places. It also provides the opportunity of knowing other's technology.
- National institutions are needed to be formed immediately. Without an organized organization the benefit of intellectual properties won't be taken fully. This institution should include members from ministry, university and other technology related organizations.
- For effective and efficient commercialization of innovations, inventions and research findings, R&D institutions may require technology transfer units. The technology transfer center may be expected to undertake patent searches to assess the novelty of innovations, pay the cost of processing patent applications and take care of the marketing of the invention and its commercialization, as well as the negotiation of the licenses and royalties. For this the unit may expect the costs incurred as well as some management fees to be refunded.
- The legal actions against any violence of patent or trademark should be clarified.

## **6.8 Renewable Energy**

Rahimafrooz Renewable Energy (RRE), a concern of Rahimafrooz Group, has been working dedicatedly in the field of renewable energy for more than 25 years as one of the pioneer and leading renewable energy company in Bangladesh. With a vision of introducing a dedicated carbon trading business unit in Bangladesh, in April 2009 RRE launched Bangladesh Carbon.

Bangladesh Carbon was incepted with a vision to contribute towards national climate change mitigation objective in a way to ensure clean and sustainable development. Ever since it comes to an existence it leads as Project Developer for various CDM projects through commercial engagements with different project proponents.

To incorporate CDM benefits for the project owner throughout the Project life cycle BD Carbon acts as specialized service provider. In this regard BD Carbon takes the financial risks of upfront development of the CDM project until Certified Emission Reductions (CERs) are issued in favor of the project owner. This business model is particularly a convenient option for the private/public project owner to engage BD Carbon from the initial phase of project.

Transforming the lives of people and lighting up different corners of the country, Rahimafrooz Renewable Energy Ltd. (RREL) has been providing Solar Energy solutions for households, agriculture, healthcare, education, telecommunication, rural streets and marketplaces, as well as government and private institutions. To date, RREL has lightened up more than 100,000 rural homes in Bangladesh and the Company is endeavoring to do much more in the future. RREL is also the pioneer in providing solar-hybrid solutions for Telecom Operators' BTS towers and solar powered irrigation systems in Bangladesh.

The abundance, inexhaustibility and non-polluting nature of solar energy has made it a popular alternative to conventional energy sources, which are rapidly getting exhausted. So far only a small portion of solar energy is being harnessed for use in solar lighting, telecommunications, solar water heating and solar powered irrigation. Working closely with Bangladesh Government's agencies, NGOs, donor and partner organizations and international agencies, RREL offers a full range of solar solutions including home lighting, street lighting, water heating systems, Photo Voltaic (PV) centralized systems, irrigation systems, vaccine refrigeration, support for computer and other electronic systems and a number of other solutions.

### **Bangladesh Carbon:**



In 2009, Rahimafrooz Renewable Energy Ltd. joined hands with Carbon Planet, Australia and launched Bangladesh Carbon – a CDM based Consultancy and Carbon Trading service. Bangladesh Carbon is an initiative of RREL to develop, implement and commercialize projects under Clean Development Mechanism (CDM) guidelines of UNFCCC Kyoto Protocol, which will not only reduce Carbon Emissions but also earn foreign exchange for our economy.

## **MISSION & OBJECTIVES**

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### **Mission**

Develop and promote CDM projects in the country with the core knowledge and expertise in this field as “Project Developer” on commercial basis for any project sponsor and ensure carbon benefits for the project owner through a win-win agreement.

## Objectives

- Introduce, promote, encourage, facilitate and assist all and any forms of CDM project initiative.
- To become recognized nationally and internationally, amongst others developers, as the Country's Centre of Excellence in CDM project development.
- Conduct business to the highest professional standards in a cost-effective manner.
- Once contracted deliver speedier services to the clients

## GLOBAL PARTNERS

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Tricorona Carbon Asset Management PTE Ltd, one of the biggest global buyers of carbon credits, has been associated with Bangladesh Carbon as a developing partner for CDM projects. It is a Swedish-origin company, recently taken over by Barclays Inc, UK. It has its regional office at Singapore which buys and sells CERs on regular basis. It has extensive experience of developing CDM projects world wide. Bangladesh Carbon has an exclusive agreement with Tricorona under which it is getting project development support services as well as transaction of CERs generated from the project activities.

## STRENGTHS

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- Efficient and strong technical team having wide range of expertise in designing projects and developing project documents like PIN/PDD
- Association with renowned global partners like Tricorona
- Unique model of success fee based consultancy services
- Connectivity to government bodies including the Department of Environment, the Designated National Authority (DNA) of Bangladesh and the National CDM Board
- Access to almost all of the large conglomerates of the country
- Excellent brand image and market reputation for our corporate culture, quality assurance and business ethics

## CARBON PROJECT DEVELOPMENT SERVICES

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- ✚ Project Development under Clean Development Mechanism (CDM)
- ✚ Project Development under Voluntary Carbon Standard (VCS)
- ✚ Project Feasibility Study and Assessment on Carbon Credits
- ✚ Calculation of Certified Emission Reduction (CER) and Verified Emission Reduction (VER)
- ✚ Project Design & Development
- ✚ Project Documentation
- ✚ Financial Modeling of CDM Projects
- ✚ Project Validation & Verification
- ✚ Project Approval from DNA and UNFCCC
- ✚ Emission Reduction Purchase Agreement (ERPA)
- ✚ Carbon Trading

## ENERGY CONSULTANCY SERVICES

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- 🌍 Energy Management for Corporate/Private companies
- 🌍 Energy Auditing in industrial facilities
- 🌍 Feasibility study & Project Analysis

- Financial & Economic Modeling of projects
- Energy efficiency and sustainable energy solutions
- Green business modeling
- Emission accounting and Life Cycle Analysis (LCA)
- Environmental Impact Analysis

## PROJECT PROFILE:

### AKIJ BIOMASS THERMAL ENERGY PROJECT

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This project, located at Toraghat, Manikganj, involves waste Bio-mass to energy generation technology in Akij Particle Board Manufacturing Ltd (APBML). In APBML, a large amount of steam and hot oil is required for the production processes. An initiative is taken to generate steam and heating up oil from production waste (wood chips & dust) using a 16 MW<sup>th</sup> Energy generation facility. This replaces a significant amount of fossil fuel requirement for heat generation. This clean heat generation from renewable bio-mass eventually reduces a large amount of carbon emission.

The project, apart from saving fossil fuel and reducing carbon emission, utilizes a huge amount of waste biomass generated at Factory through controlled combustion. It otherwise would've liberated methane to atmosphere. Moreover, in absence of the project, bio-mass waste would've been stock-pilled in the facility area through subsequent disposal in uncontrolled land-filling near the bank of river Tora. The project also ensures reduced dust emission from production process and hazard free work environment for employees as well as surrounding inhabitants.

### BUNDLED WASTE HEAT RECOVERY PROJECT

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Bashundhara Paper Mills (BPML) plans to implement Co-generation units which will recover the heat from the generator exhaust and reduce fuel consumption for the process heat application. We plan to fit this in a bundled CDM project activity. We've identified the bundling components, a snapshot of which is depicted below.

Bundle Scenario		
	TPH	CER
<b>BPML-1</b>	<b>6.40</b>	<b>8963</b>
<b>BPML-3</b>	<b>5.00</b>	<b>7002</b>
<b>AFBL</b>	<b>4.30</b>	<b>6022</b>
<b>Z&amp;Z</b>	<b>5.07</b>	<b>7709</b>
<b>Meghna</b>	<b>15.00</b>	<b>22808</b>
<b>TOTAL</b>	<b>35.77</b>	<b>52505</b>

### WASTE HEAT RECOVERY PROJECTS AT NOMAN GROUP

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Noman Group is one of the largest textile manufacturing groups in Bangladesh. Noman group of industries has installed more than 20 cogeneration units in their different spinning, weaving and knitting mills. Some more projects of similar nature are going to be installed

within next 2 years. These co-gen units generate both heat and power for the industrial operation and increase the overall energy efficiency of the mills.

## PROJECTS IN PIPELINE

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These are the few CDM projects that Bangladesh Carbon has in its pipeline.

Biogas from poultry manure of Kazi Farms Ltd.

- 🌱 Exhaust Gas Boiler (EGB)s of United Malancha Holdings
- 🌱 AKW Food Composite project
- 🌱 Binary power generation project
- 🌱 Rice husk fired power generation
- 🌱 CO2 capture project from exhaust flue gas at AFBL

Solar irrigation under programmatic CDM approach

## POTENTIAL SECTORS

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- Power generation, transmission & distribution
- Brick Kilns
- Textile & RMG
- Cement and Fertilizer
- Steel mills
- Sugar mills
- Chemical Industries
- Process Industries
- Gas Transmission and Distributions
- Real Estate
- Agriculture
- ETPs, Landfills, Industrial, agricultural and poultry waste
- Forestry

## PROJECT CATEGORIES

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- 🏠 Industrial/Household Energy Efficiency improvement
- 🏠 Waste Heat Recovery from boilers, Generators and other heat application devices
- 🏠 Combined Heat and Power Generation ( Co-generation) to gain higher efficiency over conventional power plant
- 🏠 Replacement of Brick Kiln technology in brick manufacturing industries
- 🏠 Installation of Renewable Energy Technologies (RET) to generate heat and power from Solar, Biomass, wind, hydro
- 🏠 Waste management and treatment
- 🏠 Aforestation/Reforestation
- 🏠 Conversion of state owned old single cycle gas guzzler power stations to combined cycle power generating unit.

# Rahimafrooz launches solar-powered irrigation system

Posted on October 18, 2009 | Leave a comment

<http://www.thefinancialexpress-bd.com/2009/10/18/81860.html>

## Rahimafrooz launches solar-powered irrigation system

FE Report

Rahimafrooz Renewable Energy Ltd (RRE) has introduced solar-powered irrigation system. The system will help save 760 megawatt (mw) power and 800 million litre diesel every year if the conventional power-and diesel-run irrigation pumps are converted into solar power ones, said a press release.

Rahimafrooz has introduced the system through converting a 10HP diesel-run irrigation pump on solar power, which is owned by farmer Shaheen Ahmed of Kaishar Char under Savar in Dhaka district.

Niaz Rahim, Chairman of Rahimafrooz Renewable Energy Ltd, and Shaikh Siraj, media personality and presenter of Channel I's popular "Hridoye Mati O Manush" programme, formally Saturday launched the pump, which will supply water for irrigation of 20 acres of Boro rice field.

Dr Nazmul Hossain, Chairman of Bangladesh Agriculture Development Corporation (BADC), attended the launching ceremony. Senior advisor of German Technical Co-operation (GTZ) Mr. Khurshid-ul-Islam and Programme Coordinator of (GTZ) Mr. Erich Otto Gomm were present at the programme.

It is the largest installation of its kind in Bangladesh from Rahimafrooz. It is a lifetime project with one single major investment as solar panels, the major part of the system is warranted for 20 years.

Rahimafrooz launched solar PV project back in 1985 in Bangladesh. Due to technological advancement, solar market has grown fast and efficiently for the last few years.

Around 500,000 households are already enjoying the comfort solar home systems designed by Rahimafrooz, among which, 70,000 are actually supplied and monitored by the company. Besides, another 100kwp medium- and large-scale solar installations are also supplied by Rahimafrooz.

The company introduced solar water pump in 2004, pioneering the service in Bangladesh. Since then hundreds of beneficiaries are enjoying solar-based water pumping service for drinking and irrigation water.

During the Boro season, 120 million acre rice field in Bangladesh is irrigated by 1.33 million different types of water pumps, among which 87 are diesel operated requiring 800 million liter diesel per year. The government provides taka 5400 million cash subsidy on diesel operated water pumps. Seasonal crisis and price volatility of diesel are common hazards that are associated with diesel pump-based irrigation in Bangladesh.

Bangladesh Agricultural Development Corporation (BADC) gave Rahimafrooz the opportunity to demonstrate a large solar powered irrigation scheme for the Boro season.

As a proactive initiative to reduce solar solutions price, Rahimafrooz is also setting up a solar panel assembling plant.

The number of conventional pumps replaced by the solar pumps each year will save significant amount of fossil fuel consumption as well as the government subsidy on these, which will not recur for the next 20 years.



**Staff Reporter**

**18/10/2009 Daily Ittefaq**

First ever solar-powered irrigation pump launched yesterday at Kaishar Char in Savar that will save 760MW of electricity and 800m litter of diesel in a year.

Channel I Director Shaikh Siraj and Rahimafrooz Renewable Energy Ltd Chairman Niaz Rahim jointly inaugurated solar-powered irrigation pump.

Rahimafrooz has introduced the solar-power irrigation system through converting a 10HP diesel-run irrigation pump on solar power.

The system will save 760MW of electricity and 800 million litre of diesel per year if the conventional power and diesel-run irrigation pumps are converted on solar power, speakers at inaugural function said.

Chairman of Bangladesh Agriculture Development Corporation (BADC) Dr Nazmul Hossain, German Technical Co-operation (GTZ) senior adviser Khurshid-ul-Islam and Program Coordinator of (GTZ) Erich Otto Gomm were present in the programme.

It is a lifetime project with one single major investment as solar panels, the major part of the system is warranted for 20 years, Niaz Rahim said.

Around 500,000 households are already enjoying the comfort solar home systems designed by Rahimafrooz, he said.

Such projects will also earn significant CDM benefits from world carbon trading market as such schemes are completely emission free, he hoped.

As the initial investment of solar irrigation systems are still not affordable by a single farmer, the government to take such projects through BADC, REB, LGED, PDB to initiate solar-based irrigation scheme.

**Solar Energy Products:**

Rahimafrooz Solar deals with the following solar products:

- |            |  |
|------------|--|
| <b>01.</b> | <b>Solar Water Heaters</b> are available in a range from 100 to 1,00,000 liters to suit the need of both domestic and commercial users. It can heat water upto 850C and able to provide hot water even during cloudy days. They are provided with non-corrosive components.  |
| <b>02.</b> | <b>Solar Emergency Lanterns</b> are rugged, durable, and portable and can emit omni-directional light for at least 3 hours on a single day's charge. Emergency Lanterns are suitable for both domestic and commercial establishments like shops, clinics, bakeries, small hotels, offices and banks.   |
| <b>03.</b> | <b>Yard Lighting</b> are used for pathways in gardens, hotels and tourist spots and automatically switched on at dusk and can emit 4 to 6 hrs of bright light.   |
| <b>04.</b> | <b>Solar Portable Lighting Kit</b> available in several models, is portable with battery back up and requires no operational costs. Power is available at the flick of a switch, requires least maintenance and is environmentally friendly. Solar Portable Lighting is very useful for Homes, Banks, Offices, Shops and construction sites. |

**05. Solar Education Kit:**

The Educational Kit plays an important role in helping young minds in schools to understand solar energy. It is a tool enabling the study of the operation of the solar photovoltaic system and electrical characteristics of a solar module with the following features.







## **Conclusion**

If the above considerations are included into the policy, the innovation will definitely be promoted. And with a better environment and support for invention and innovation, technological capability can be improved which will eventually help Bangladesh to promote national economy.

# Chapter VII

## National Innovation System in Bangladesh

### 7.1 Institutions Providing S&T and Innovation

- Educational Institutions/ Universities (such as BUET)
- BAEC (Bangladesh Atomic Energy Commission)
- BCSIR (Bangladesh Council for Scientific and Industrial Research)
- BANSDOC (Bangladesh National Scientific and Technical Documentation Centre)
- Bangladesh Computer Council
- National Museum of Science & Tech.
- Bangabandhu Shekh Mujibur Rahman Novotheatre
- National Institute of Biotechnology
- NARS and other research institutions

### 7.2 Scientific Professional Societies & Think Tanks

- Bangladesh Academy of Sciences
- Bangladesh Association for Advancement of Science
- Bangladesh Association of Scientists and Scientific Professions
- Monodisciplinary Scientific Societies
- Science Clubs etc.

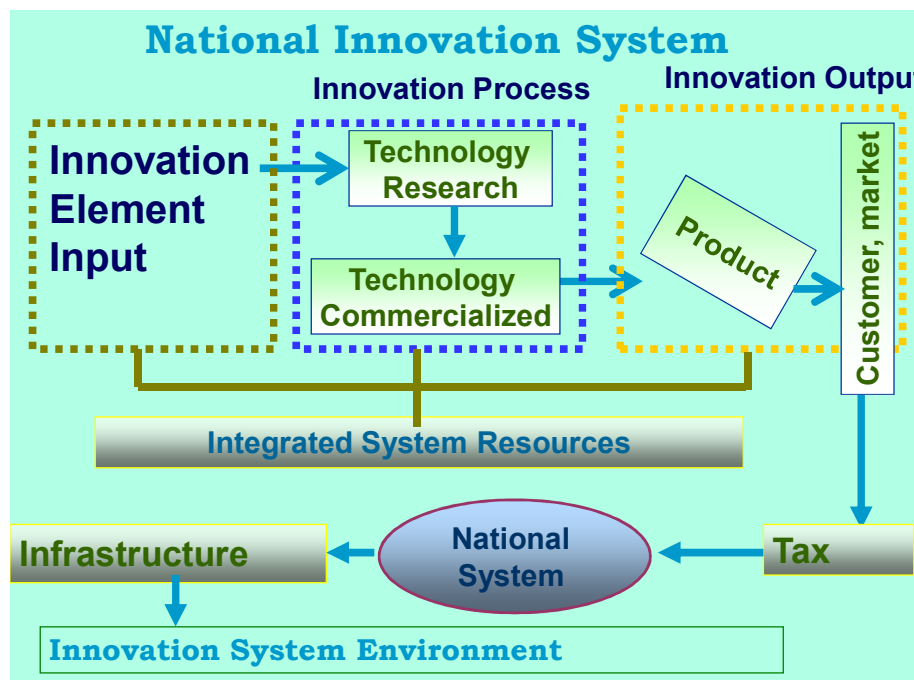


Figure: National Innovation System in Bangladesh

### 7.3 Digital Bangladesh

- Through Bangladesh Computer Council implementing
  - ✦ the national ICT policy and creating the national backbone as such to help achieving
  - ✦ “Digital Bangladesh by the Year 2021”
- Taking initiatives to groom young scientists and students in science and innovation
- Providing the main national policy & regulatory support to develop national Science and ICT framework/legal environment, science and innovation friendly atmosphere in the country

### 7.4 Scientific and Research Organizations

- The nation’s only 3 MW Research Reactor, within BAEC to use atomic and nuclear technologies for peace, health and environmental protection
- Only 3 MeV proton Vandegriff Accelerator providing many minute analytical services
- 14 Nuclear Medicine institutes and Centres offering rare diagnostic and therapeutic services
- Nation’s biggest multidisciplinary scientific, industrial and nuclear research institutions: BCSIR, BAEC, Biotechnology Institute and Marine Research Institute are operating where more than 5000 scientific, technical and engineering professionals are employed. More than 400 laboratories/sections are running within these organs

### 7.5 BAEC Commercial Ventures-Products and Services

- Joint venture with the Beximco Ltd. for food preservation by irradiation
- BINA initiative for commercialization of Rhizobium inoculums with the AK Khan Ltd.
- Patenting of high yielding citric acid producing mutants of *Aspergillus niger*
- Electronic products

### 7.6 BAEC-Electronic Products

- Radiation Survey Meter
- Area Radiation Monitoring Meter
- Hand and Foot Radiation Contamination Meter
- pH meter
- Voltage stabilizer
- Reactor Instrumentation

### 7.7 BAEC- Commercial Services

- ✦ Radiation Survey Meter
- ✦ Area Radiation Monitoring Meter
- ✦ Hand and Foot Radiation Contamination Meter
- ✦ pH meter
- ✦ Voltage stabilizer
- ✦ Reactor Instrumentation
- ✦ Electronic repair and maintenance services
- ✦ Medical products sterilization services of different private companies
- ✦ Non destructive Testing services
- ✦ Analytical services for food, feed, chemical , tobacco and pharmaceutical companies for metals, nonmetals, pesticide residues

- ✚ Radioactivity testing services
- ✚ Nuclear safety and radiation control-Licensing of Radiation Installation

### **7.8 Bangladesh Council of Scientific and Industrial Research (BCSIR)**

- ❑ The apex national body mandated to cater R&D and analytical services for exporter, importer and local entrepreneur.
- ❑ BCSIR is mandated to do research as well as provide scientific and technological solution for the industrial development
- ❑ Providing the main national policy & regulatory support to develop national Science and ICT framework/legal environment, science and innovation friendly atmosphere in the country

### **7.9 BCSIR achievements**

- 🌱 Pilot plant and techno-feasibility study of developed processes of BCSIR
- 🌱 Conversion of a Diesel Engine into Dual Fuel (CNG/Diesel) Engine for irrigation purpose
- 🌱 Pilot plant for the production of sunflower oil
- 🌱 Bio-ceramics, Bio-diesel, Break oil, Protein filler for leather
- 🌱 Cement developed from rice husk ash
- 🌱 Fruits and Food processing and preservation technology
- 🌱 De-waxed shellac flakes is being supplied to Bangladesh Ordnance Factory, Gazipur
- 🌱 Optimum drilling and blasting design for Maddhyapara Granite Mine
- 🌱 Environment Friendly Leather processing, Resin and allied technologies
- 🌱 Utilization of tannery wastes as bio-fertilizer
- 🌱 Recovery of usable basic chromium sulphate from spent chrome liquor
- 🌱 Verification of Arsenic Removal Technologies- First of its kind in the world
- 🌱 Spirulina products for Diabetic Control
- 🌱 Chitin and chitosan - bioabsorbent
- 🌱 Biotechnology and Tissue culture (Neem plantation, Virus free potato, Banana tree, All season Jack Fruit tree, Different Orchids, Apples, etc.)
- 🌱 Development of Fire extinguisher chemicals
- 🌱 BCSIR is the contributor to 70-80% domestic patent applications.
- 🌱 No. of processes developed : 908
- 🌱 No. of processes leases out : 283
- 🌱 Patent accepted : 318
- 🌱 Processes in Commercial Production : 47

### **7.10 Bureau of Research Testing and Consultancy (BRTC) BUET**

- CE:Environmental Engineering Division: Involved in testing, analytical services, air quality testing; Testing oil drilling mud cutting etc.
- Design and Consultancy
- Geochemical engineering, subsoil testing, pile and sonic integrity testing etc.
- Geotechnical engineering services-seismic design and hazard analysis, micro-zonation maps etc.
- Structural engineering testing- tests are performed as per BS, ASTM or ISO standards

- Transport engineering-testing all aspects
- EEE: Consultation/Advisory/Research Services; Evaluation work
- IICT: Computer services; Design of electronic equipment etc.

### **7.11 Agriculture-achievements**

- All those released varieties are documented in Bangladesh Agricultural Research Council(BARC)
- This document is a national document
- We claim that we have obliged to the obligation of CBD in documenting important genetic resources of Bangladesh...

### **7.12 Agriculture-Concern is Protection of Varieties**

- Our agriculture production has increased due to dissemination of high yielding varieties at the farmer's level.
- If any such HYV is taken by any other countries of the world, as per Convention of Biological Diversity, each country has sovereign right over the genetic material of the country but the country can share the genetic material for research purpose only.
- If any commercial product is developed using such genetic material, country of origin should continue receiving share of benefit from the recipient country.
- To claim such right, we were supposed to have genetic fingerprinting of each crop including the varieties that we developed.
- Nonetheless, if there is any traditional knowledge or sui-generis, the documentation can help claiming for benefit.

### **7.13 IPR and Challenges**

- IPR has not found any place in local science education system
- A common misconception that high technological innovations are patentable
- Our R & D efforts have not taken cognizance of this enormous intellectual wealth
- Less capable of properly patenting our inventions
- Lack of understanding the implications of patents granted to our competitors
- Our IP laws are insufficient.
- lack of institutional capacity building

### **7.14 Policy Imperatives**

- Educate local scientists on technology transfer issues: IPR protection, mechanisms of commercializing research results, methods for attracting financing to research
- Assist commercialization of their technologies (technology push) and the utilization of local research capacities (market pull) by industry through match-making of local scientists with foreign and local industries
- Training on IP and IPR

### **7.15 Institutional Challenges**

- Formulate appropriate policy and legislation and update
- Administer IPRs in line with international obligation
- Equip IP office with HRs and automated facilities.
- Enforce and regulate IPRs in a manner appropriate to national development.



- Develop HRs and improve capacity of professionals including judicial and customs and law enforcers.
- Increase IP awareness by education, fair and other programs.
- IP education in all law and S & T related degrees

### **7.16 IP Laws in Bangladesh**

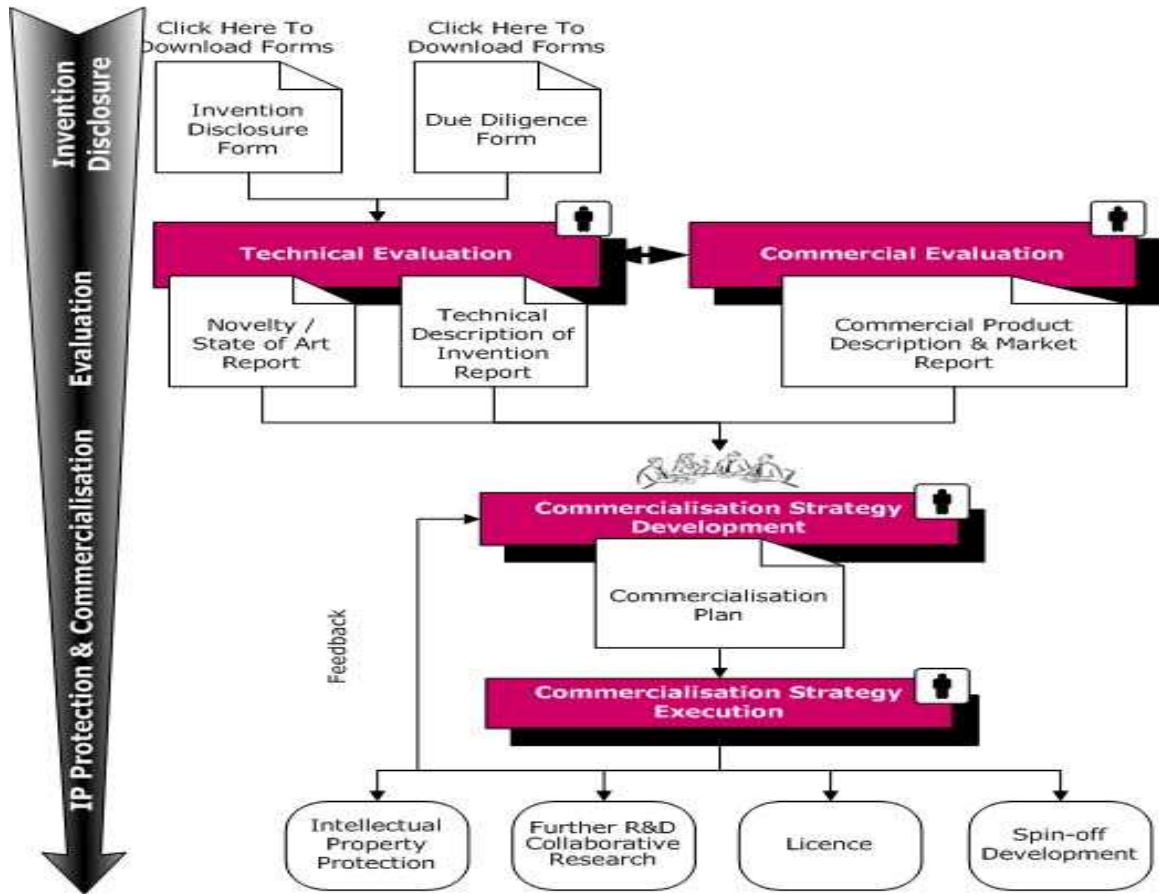
- Patent and Designs Act, 1911
- Patent and Designs Rules, 1933
- Secret Patent Rules, 1933
- Copyright Law, 2000 (amended in 2005)
- Trademarks Ordinance, 2008
- Revised Trademarks Rules, 1963

### **7.17 Draft Laws related to IPR**

- The Patent Law, 2007
- The Designs Law, 2007
- The Utility Model Law, 2007
- The Lay Out Designs (topographies) of ICs Law, 2008
- The Geographical Indications Law, 2008
- The Plant Varieties and Farmers' Rights Protection law, 2007
- The Biodiversity and Community Knowledge Protection Law, 2007

### **7.18 Conclusion**

- All R&D organizations should open IP units
- IPR should be an integral part of curricula at the tertiary level of education
- We need to document our important national resources to protect our rights
- Government should encourage scientists and give them freedom to develop entrepreneurship based on their research findings
- Motivational scheme; incentives
- WIPO assistance is a must



**Fig. IPR Protection & Commercialization**

# **Chapter VIII**

## **Strengthening of IP Administration and Enforcement Measures of IPR in Bangladesh**

### **8.1 Evolution of IP Laws in Bangladesh**

The concept of Patent system is a very old one. In England it began to grow in the 12th century, and by the 14th century, grants of special privilege were being made by the crown to individuals to protect them whilst they established new industries based on imported technology. A Venetian law of 1474 made the first systematic attempt to protect inventions by a form of patent. In the same century, the invention of moveable type and the printing press by Johannes Gutenberg around 1440 contributed to the birth of the first copyright system in the world. Toward the end of the 19th century, inventive new ways of manufacture led many countries to establish their first modern IP laws. The international IP system also started to take root at that time with two IP treaties the Paris Convention for the Protection of Industrial Property in 1883 and the Berne Convention for the Protection of Literary and Artistic Works in 1886.

Very little is known about the IPR laws before 1911 in the then British India. In India, the first Act relating to patent was passed in 1856 (Act VI of 1856), which granted certain exclusive privileges to inventors of new manufacturer for a period of 14 years. The act was amended in 1859. Under that Act patent monopolies were called exclusive privilege. In 1872, the Patterns and Designs Protection Act was passed followed by the Protection of Inventions Act of 1883. These Acts were consolidated by the Inventions and Designs Act, 1888. Subsequently The Indian Patents and Designs Act, 1911 (Act II of 1911) was passed replacing all the previous Acts. During the period from 1911 various amendments of this Act were made from time to time. The Patents and Designs Rules were framed in 1933.

Trademarks Act, 1940, is known as the first law on Trademarks in India. Before that Merchandise Marks Act, 1889 (Act IV of 1889) was in force for dealing with marks. In accordance with the Trademarks Act, 1940, Trademarks Rules were first framed in 1942 and was amended in 1963 Trademarks Ordinance was promulgated on 14th February, 2008 i.e. during the period of the last Care Taker Government. The Ordinance was a big step towards modernization of trademarks laws making it compliant with the TRIPS agreement.

The original Copyright Act in this sub-continent was passed in 1912. It was later repealed in 1962 when new Copyright Act was promulgated. In 2000, a Copyright Act was passed in the light of TRIPS Agreement and so Berne Convention. It was also amended in 2005 to incorporate stringent provisions relating to digital era and computer software etc. Copyright Rules, framed in 1967, were also revised in 2006.

### **8.2 IP System Developments in Bangladesh**

Bangladesh has inherited intellectual property system from the British rules and subsequently modified from time to time to make it responsive to modern trends and practices both nationally and internationally. The IP system in Bangladesh consists mainly of granting patents for inventions, registration for industrial designs, trademarks registration for commercial use of industrial products and registration of copyright for literature, artistic and scientific works, geographical indications, and layout designs of integrated circuits. Protection of unclosed information is also the elements of intellectual property and yet to be

incorporated in the national laws. Granting of patents and registration of industrial designs and trademarks are administered by the Department of Patent, Designs and Trademarks headed by the Registrar and controlled by the Ministry of Industries. Ministry of Cultural Affairs controls the Copyright Office. The IP offices have their own legislation and rules to conduct the registration works.

### **Trademark Registration**

Trademark registration is guided by the Trademark Act 1940 and the revised Trademark Rules 1963. Existing registration procedure particularly processing and disposal for trademark applications substantially conforms to TRIPs agreement. Some minor amendment is needed in respect of trademark, service mark, and geographical indication. The government has taken initiative to amend Trademark Act (Amendment). In order to ensure peaceful enjoyment of the right conferred by the registration of a trademark, the proposed Act has provided action for infringement and remedies in the form of injunction, more penalties and damages. In the present circumstances of competition of trade, the entrepreneurs are now very active in restraining infringement of their trademarks.

### **Patents & Designs**

The system of granting patents for new inventions and giving registration for new or original industrial designs plays an important role in promoting indigenous as well as foreign invention and innovative activities in Bangladesh. The patent is granted for a term of 16 years from the date of application but it may be extended for another 10 years. Protection of a new and original design is secured by the registration of design for 5 years and is extendable for another 2 terms of 5 years each. Existing registration provisions relating to patent and designs Act 1911 has substantial conformity with Paris Convention and Trips Agreement.

Bangladesh, as signatory to the Uruguay Round Agreement is obliged to follow the provisions of the TRIPs Agreement. With that end in view, a new law for the protection of plant varieties is being initiated. The Act has provided action for infringement and remedies in the form of injunction, penalties and damages. Suits for infringement of patent and industrial designs are instituted before the District Court under section 29 of the Act.

### **Copy Right**

Under the existing copyright laws, creators or author of literary, dramatic, musical artistic and cinematographic works, records, broadcasts and its performers are protected statutorily and as such books, gramophone records, cassettes, etc are placed under the purview of copyright laws in Bangladesh.

The existing copyright laws provided provisions for seeking legal remedies in the form of a civil and criminal action, for infringement or unauthorized use of a right or rights comprising copyrights, by laws. An affected right holder may also appeal to the higher courts or the Copyright Board against the judgment of lower courts or the Registrar of Copyrights.

### **TRIPS Implications**

There are concerns, challenges and opportunities on the country's economy in terms of developing specific multilateral rules in industrial property and overcoming from the threat of unilateralism. Nevertheless, the TRIPs Agreement has laid down several opportunities, in particular for least developed countries like Bangladesh, to derive benefit out of those. The Agreement has offered protection for the developing countries against unilateral pressure in international trade in industrial properties. The Agreement has provided with the availability

of technical assistance and technical co-operation from the developed countries in its implementation and in institutions building, transfers of technology and other joint venture arrangements.

Bangladesh is quite conscious of its obligation towards world community for promotion, protection and maximizing Intellectual Property System in conformity with the TRIPS agreement and other relevant international laws. However, several concern and challenges are being strategically considered by Bangladesh to minimize their adverse effects on its implementation, while at the same time alternative strategy is being formulated to maximize the gain from the opportunities.

The country is gradually proceeding towards implementation of the provisions of the Agreement. Trade policy has been liberalized and recommendations of the Uruguay Round Study Project are in active consideration for implementation. There is a transitional period of ten years that is considered to be adequate for amendment of legislation relating to intellectual property system.

### **Options for Bangladesh**

With the acceptance of open market economy, the strategy of private sector led industrial growth and development and emergence of a new international economic order, we are on the threshold of new era. The Government is fully committed to uplift the quality of human life, promote industrial growth and ensure a healthy, safe and environment friendly development.

In the pace of rapid liberalization of world trade and globalization. Bangladesh cannot make a comfortable position in the world trade. Instead of deriving potential benefit from globalization, the LDC's like Bangladesh are being marginalized. To combat the present situation of globalization, we are to explore our potentiality and build up national capacities to comply with the requirement of WTO Agreements.

Global industrial and trading activity is being done through alliances. Even large industrial giants are unable to undertake all the technological requirements in their spare of competence on their own. Joint venture, co-production agreement, joint research technology and licensing arrangement based on effective IPR protection are bringing major enterprises in both industrialized and developing countries together.

Generally the owner of a registered trade mark, patent, copyright, desires to marketing its products and to invest capital in different countries. There are producers, businessmen, industrialists who want to have partnership and come to contract with Bangladeshi entrepreneurs in order to produce the products using their own technology and market mechanism. Bangladesh can avail such sorts of opportunities.

In this age of globalization and in perspective of open market economy, majority countries of the world are more or less acquiring utilizing and maintaining the intellectual property to survive in the world competition of industry and trade. Growth and creation of intellectual property is not centralized in a particular country. It is disseminated in different places of the world. It is much more available in developed country compare to the developing and LDCs. The availability and creation of IP in Bangladesh is not remarkable and a little is growing. Bangladesh has to acquire this valuable IP granting pattern from developed countries through licensing or through other means for its development.

Many of us are not aware of socio-economic value of IP system and do not have IP knowledge and due to paucity of which full utilization of IP cannot be achieved in the areas of trade commerce and industrial sectors. The need for and the impact of building

awareness are indispensable. Awareness building program should be chalked out at the national level involving policymakers of the public and private sectors, IP attorneys, economists, administrators, academicians, NGOs, legislature and professional.

### **8.3 Towards Change**

Intellectual Property administration received little importance in our country during the past years. Today the government and the people of Bangladesh realize that without the development and protection of intangible assets, an asset poor country like Bangladesh cannot achieve the overarching goal of development. Globalization is the driving force behind such realization.

With the acceleration in the globalization of a world economy that is becoming increasingly knowledge-based, in the last decades, IP was recognized as a trade-related issue. With the adoption of the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPS Agreement), the obligations arising from its implementation prompted a comprehensive review of national IP legislation. This process awakened policy-makers in government and in the business sector to the increasing role of IP in development.

The present government has given due emphasis on intellectual property with a view to making the country mid-income one and knowledge based. The new draft of industrial policy pursues encouraging innovation, development and protection of intellectual property and enactment of laws relating to intellectual property compliant with the TRIPS agreement.

Implementation of this policy is urgently required when the government. Wants that industry sector contributes 40% of GDP by the year 2015. Industry sector now contributes only 28% of GDP.

With this end in view, the following steps were taken:

- (a) The Trademarks Act, 2009 was passed on 24th March, 2009 to make it consistent with the TRIPS requirements;
- (b) Draft of the Patent Law is finalized which is waiting for placement before the parliament. Utility Model Law is embedded in this law.
- (c) Design Law is drafted separately which is in the process of finalization;
- (d) Geographical Indication Law is drafted finally, which may be tabled before the parliament soon;
- (e) Trade Secret Law and Lay-out Designs of Integrated circuits are being drafted by the legal consultant.
- (f) To render on-line service to applicants, capturing of data will start soon as the first step of automation. Software from WIPO will be customized for automation of the whole process of registration.
- (g) Almost 50 manpower will be recruited within June, 2010 and they will be trained at home and abroad.
- (h) Many programs are undertaken to make people aware of IP rights and its enforcement.
- (i) Steps are also taken to popularize IP education in both public and private Universities.

Intellectual Property is an increasingly important generator of economic social and cultural growth and development. A clear understanding of the intellectual property system has, therefore, become a necessity for all those associated with creative and innovative endeavor from policy makers and business executives to educators and archivists, as well as artists and inventors themselves. A solid grasp of the mechanics of the system and a keen

awareness of its enormous potential and power are key in leveraging the opportunities it offers-at all levels.

#### **8.4 Strengthening the Dept. of Patents, Designs & Trademarks**

**Legislative framework:** With a view to modernizing the legislative framework, attempt to be taken with the immediate aim of bringing them into conformity with international obligations, including these under the TRIPS Agreement, legislative advice is one of the important and pivotal areas, which deserves support. It pertains to the updating or upgrading of national laws dealing with the protection of industrial property and copyright.

**Industrial property:** The Government should recognize the importance of improving the profile of industrial property administration, as industrial property holds the key to the most productive investment, attraction of foreign investment and transfer of technology and encouragement of indigenous creative, innovative and inventive activities.

**Enforcement:** In view of the fact that enforcement is an integral part of the TRIPS Agreement, strengthening and upgrading the national enforcement mechanisms in conformity with the Agreement has become an urgent priority. Further an effective system of enforcement is essential to address the counterfeiting and piracy and other forms of IP infringement.

**Awareness: IP Teaching, Small and Medium Enterprises (SMEs), Innovation and Creativity:** The profitable utilization of the IP system for economic, social, cultural and technological development is severely hampered by the pronounced lack of awareness, knowledge, tools and techniques in this field. The importance of IP has not been realized in the day-to-day lives of many people, and a culture of IP awareness is largely absent from contemporary society. These conditions limit the contribution of the IP system to promoting the economic vitality and global competitiveness in trade and commerce of Bangladesh.

**The capability of the Department of Patent, Design & Trademarks to be enhanced:** The capability of the DPDT to be enhanced to administer the Patent, Design & Trademarks of the country. The existing manual system to be computerized; should also enhance work efficiency of the copyright management. Further the authorities like Judiciary, Customs and Law enforcement department to be trained about Intellectual Property (IP) system because they are also involved in the management of Patent, Design, and Trademarks & Copyrights. So the human development to be strengthened and enhance the national capacity in international trade and business to a great extent.

#### **8.5 Enforcement Measures of IPR in Bangladesh**

Intellectual property is a term which refers to a number of distinctive types of legal monopolies over the creation of mind, both artistic and commercial, and also refers to the corresponding fields of law. Under IP law, owners are granted certain exclusive rights to a variety of intangible assets, such as musical, literary and artistic works; discoveries and invention and words, phrases, symbols and designs. Common types of IP include copyrights, trademarks, patents, industrial design rights and trade secrets in some jurisdictions. These exclusive rights allow owners of IP to realize monopoly profits or monopoly gains. These monopoly profits or monopoly gains provide a financial incentive for the creation of IP.

IP rights are time bound state- enforced monopolies regarding use and expression of ideas and information. IP rights are usually limited to non- rival goods, that is, goods which can be used enjoyed by many people simultaneously- the use by one person does not include use

by another. This is compared to rival goods, such as clothing, which may only be used by one person at a time. For example, any number of people may make use of a mathematical formula simultaneously. Since a non-rival goods may be simultaneously used by many people monopolies over distribution and use of works are meant to give producers incentive to create further goods. In the present context of globalization, enforcement of IPR has become a much talked about issue. For encouraging creativity enforcement of IPR is a must. The Government of Bangladesh has been trying hard to enforce IPR. It is needed to focus on the enforcement measures of IPR in Bangladesh.

### **8.5.1 Trademarks Act, 2009**

In the Trademarks Act, 2009 some penal provisions are there for infringement and other offences.

Under section 72 of the Trademarks Act, the similar, resembling or forged Trademarks, will be treated as false Trademarks if it is applied without the permission of the Trademarks right holder. In the suit the burden of proving the consent of the Trademarks right holder lie with the accused.

Section 73 provides imprisonment of not exceeding 02 years but not less than 06 months or fine of Tk. not exceeding 02 lakh but not less than Tk. 50 thousand or the both for applying false Trademarks, Trade description, etc. In case of continuing offence the penalty is imprisonment of not exceeding 03 years but not less than 01 year or fine of Tk not exceeding 03 lakh but not less than 01 lakh or the both.

Section 74 of the Act provides penalty for selling the goods or products containing false Trademarks or false Trade description which is imprisonment of not exceeding 02 year~ but not less than 06 months or the fine of TK not exceeding 02 lakh but not less than TK 50000 or the both. In case of continuing offence the penalty is imprisonment of not exceeding 03 years but not less than 01 year or the fine of TK not exceeding 03 lakh but not less than 01 lakh or the both.

Section 75 of the Act provides penalty for removing pieces of goods which includes forfeiture of all the goods and the fine of TK not less than 5000.

Section 76 of the Act provides penalty for showing unregistered Trademarks as registered one which is imprisonment of not exceeding 01 year but not less than 06 months or the fine of TK not exceeding 01 lakh but not less than 50000 or the both.

Section 77 of the Act provides penalty for describing a trading place falsely as concerning with the Trademarks office which is imprisonment of not exceeding 01 year but not less than 06 months or the fine of TK not exceeding 01 lakh but not less than 50000 or the both.

Section 78 of the Act provides penalty for making false entry into the register which is imprisonment of not exceeding 01 year but not less than 06 months or the fine of TK not more than 01 lakh but not less than 50000 or the both.

Section 79 of the Act gives authority to forfeit the goods and appeal can be preferred against the order of forfeiture.

Section 83 of the Act specifies the cognizability of some offences



Under section 83(1) No Court will take cognizance of any offence under section 76, 77 or 78 of the Act without the complaint in writing from the Registrar or the officer authorized by the Registrar in this behalf.

Under section 83(2) No Court other than the Court of the Metropolitan Magistrate or the Magistrate of the 1st class will try the cases under this Act.

Under section 83(3) notwithstanding anything contained in Cr.P.C. 1898 the Metropolitan Magistrate or the Magistrate of the 1st class can impose the fine on the accused under this Act.

Section 86 of the Act specifies the time-limit for filing the suit- No suit will be filed under this Act unless the complaint is lodged within 03 years of the commission of offence or within 02 years of the revelation of facts by the complainant whichever is earlier.

Section 88 of the Act provides penalty for abetting offence committed outside Bangladesh- the abettor will be awarded that punishment had he been awarded the punishment if the offence was committed within Bangladesh.

Section 96 of the Act provides guidelines for filing suits in the District Court for infringement

In the following cases, no suit will be filed in the court subordinate to the District Judge Court-

- a. Infringement of any registered trademark.
- B. rights relating to registered trademark,
- C. any amended right to registered trademark, and
- d. Passing off similar or deceitfully similar trademarks whether registered or not.

Section 97 of the Act provides remedial measures of Trademarks infringement cases. In the suit filed under section 96 of this Act for trademark infringement or passing off the trademark the Court may issue injunction and instruction to pay compensation or a portion of profits to the plaintiff if desired including the order of destroying or erasing or removing the .;.bds or marks used for infringement.

Section 109 of the Act authorizes the Commissioner, Customs to call for the records of the imported goods said to contain the false trademarks under section 15 clause (d)(e)(f) of the Customs Act,1969. If the importer or his representative fails to submit the records within 14 days of the receipt of the order he will be fined with TK not more than 5000.

### **8.5.2 The Patents and Designs Act, 1911**

Penal provisions and procedures are elaborated in the Patents and Designs Act, 1911.

Section 26 of the Act deals with the petition for revocation of patent. Revocation of a patent in whole or in part may be obtained on petition to or on a counter claim in a suit for infringement before the High Court Division on all or any of the grounds as mentioned in section 26(1) of the Act.

Under section 26(3) of the Act, the High Court Division may, irrespective of any provisions of the Code of Civil Procedure, 1908 in this behalf, require any person, other than the Attorney-General or any person authorized by him, applying for the revocation of a patent to give security for the payment of all costs incurred or likely to be incurred by any person appearing to oppose the petition.

Section 28 of the Act provides that the High Court Division may, if it thins fit, direct an issue for the trial, before itself, or any District Court, of any question arising upon a petition to itself under section 26, and the issue shall be tried accordingly.

Section 29 of the Act provides that a patentee may institute a suit in a District Court having jurisdiction to try the suit against any person who, during the continuance of a patent acquired by him under this Act in respect of an invention, makes, sells or uses the invention .without his license, or counterfeits it, or imitates it:

Provided that where a counter claim for revocation of the patent is made by the defendant, the suit, along with the counter claim, shall be transferred to the High Court Division for decision.

Section 29 (2) of the Act states that every ground on which a patent may be revoked under section 26 shall be available by way of defense to a suit for infringement.

Section 30 of the Act provides exemption for the innocent infringer from liability or damages.

Section 31 of the Act empowers the court to pass order for inspection etc, in a suit.

Section 32 .of the Act provides that in a suit for infringement of a patent the Court may certify that the validity of the patent came in question, and if the Court so certifies, then in any subsequent suit in that Court for infringement of the same patent the plaintiff, on obtaining a final order or judgment in his favor, shall, unless the Court trying the suit otherwise directs, have his full costs, charges and expenses of and incidental to the said suit properly incurred.

Section 35 A of the Act provides grant of relief in respect of particular claims.

Section 36 of the Act provides remedy incase of groundless threats of legal proceedings.

Section 53 (1) of the Act provides that during the existence of copyright in any design it shall not be lawful for any person-

(a) for the purpose of sale to apply or cause to be applied to any article in any class of goods in which the design is registered the design or any fraudulent or obvious imitation thereof, except with the license or written consent of the registered proprietor, or to do anything with a view to enabling the design to be so applied; or,

(as) to import for the purposes of sale, without the consent of the registered proprietor, any article belonging to the class in which the design has been registered, and having applied to it the design or any fraudulent or Obvious imitation thereof; or,

(b) Knowing that the design or any fraudulent or obvious imitation thereof has been applied to any article without the consent of the registered proprietor to publish or expose or cause to be published or exposed for selling that article.

Section 53(2) of the Act provides that if any person acts in contravention of this section he shall be liable for every contravention

(a) to pay to the registered proprietor of the design a sum not exceeding TK 500 recoverable as a contract debt, or

(b) if the proprietor elects to bring a suit for the recovery of damages for any such contravention, and for an injunction against the repetition thereof, to pay such damages as may be awarded and to be restrained by injunction accordingly.

Section 78 of the Act provides penal provision for wrongful use of words "Patent Office"

- If any person uses on his place of business or on any document issued by him, or otherwise, the words "Patent Office" or any other words suggesting that his place of business is officially connected with, or is, the Patent Office, he shall be punishable with fine which may extend to TK 200 and in case of continuing offence with further fine of TK 20 for each day on which the offence is continued after conviction therefore.

### **8.5.3 The Customs Act, 1969**

Section 15 of the Customs Act, 1969 provides some prohibitions. No goods specified in the following clauses shall be brought whether by air or land or sea into Bangladesh-

- (a) counterfeit coin;
- (b) forged or counterfeit currency notes;
- (c) any obscene book, pamphlet, paper, drawing, painting, representation, figure, photograph, film or article;
- (d) goods having applied thereto a counterfeit trademark within the meaning of the Penal Code or a false trade description within the meaning of the Merchandise Marks Act, 1889.
- (e) Goods made or produced outside Bangladesh and having applied thereto any name or trademark being or purporting to be the name or trademark of any manufacturer, dealer or trader in Bangladesh, unless

(1) the name or trademark is, as to every application thereof accompanied by a definite indication of the goods having been made or produced in a place outside Bangladesh, and

(11) the country in which that place is situated is in that indication shown in letters as large and conspicuous as any letter in the name or trademark and in the same language and character as the name or trademark;

(f) piece -goods manufactured outside Bangladesh (such as are ordinarily sold by length or by the piece) unless the real length thereof in standard (meters) or other measurement for the time being applying in Bangladesh has been conspicuously stamped on each piece in Arabic numerals; and

(g) goods made or produced outside Bangladesh and intended for sale and having applied thereto a design in which copy right exists under the Patents and Designs Act 1911 in respect of the class to which the goods belong or any fraudulent or obvious imitation of such design except when the application of such design has been made with the license or written consent of the registered proprietor of the design.

Section 16 of the Customs Act gives power to prohibit or restrict importation and exportation of goods: The Government may from time to time, by notification in the official gazette prohibit or restrict the bringing into or taking out of Bangladesh of any goods of specified description by air, sea or land.

Section 17 of the Customs Act provides that where any goods are imported into or attempted to be exported out of Bangladesh in violation of the provisions of section 15 or of a notification under section 16, such goods shall, without prejudice to any other penalty to

which the offender may be liable under this Act, or any other law, be liable to be detained and confiscated and shall be disposed of in such a manner as may be prescribed.

#### **8.5.4 The Penal Code, 1860**

- Section 468 of the Penal Code deals with the forgery for the purpose of cheating the penalty of which is imprisonment of not exceeding 07 years with fine.
- Section 469 of the Penal Code deals with the forgery for the purpose of harming reputation the penalty of which is imprisonment of not exceeding 03 years with fine.
- Section 470 deals with the forged deeds the penalty of which is imprisonment of not exceeding 02 years with fine or the both.
- Section 482 of the Penal Code provides that whoever uses any false trademark or any false property mark shall, unless, he proves that he acted without intent to defraud, be punished with imprisonment of either description for a term which may extend to 01 year or with fine or with both.
- Section 485 of the Penal Code provides punishment for making or possessing any instrument for counterfeiting a trademark or property mark which is imprisonment of not exceeding 03 years or fine or the both.
- Section 486 of the Penal Code provides punishment for selling goods marked with a counterfeit trademark or property mark which is imprisonment of not exceeding 01 year or fine or the both.

#### **8.5.5 The Drug Ordinance, 1982**

Section 35 of the Drug Ordinance provides that no patent proprietary medicines or pharmaceutical specialty or any other medicine, whether allopathic, unani, ayurvedic, homeopathic, biochemic for the time being not recognized by the accepted pharmacopoeia, shall be offered for sale to the public or advertised for such sale, unless two samples thereof shall have been sent to the Director, Central Drugs Laboratory, and the latter shall have determined that the medicine or speciality is suitable or proper for use by the public.

Under section 37 of the Ordinance it is mentioned that any person who contravenes any of the provisions of section 35 or section 36 shall be punishable with imprisonment which may extend to two 02 years or with fine or with both.

#### **8.5.6 The Pure Food Ordinance, 1959**

Section 18 of the Ordinance provides prohibition of use of false labels. Under Section 18(1) No person shall, directly or indirectly and whether by himself or by any other person acting on his behalf, with any article of food sold by him, give to the purchaser a label, whether attached to or printed on the container in which. such article is sold or not, which falsely describes that article or is otherwise calculated to mislead as to its nature, substance or quality. Section 18(2) of the Ordinance provides further that in any prosecution under this section it shall not be a defense to allege that the person who gave such a label had no knowledge of and could not with reasonable diligence have ascertained its character.

### **8.5.7 The Copyright Act, 2000 (amended in 2005)**

Some penal provisions are detailed in the Copyright Act, 2000 (amended in 2005).

- Section 76 of the Copyright Act provides civil remedy for infringement of copyright. In case of infringement of copyright or any other right vested under this Act the right holder will get injunction, compensation and other civil remedies as admissible under law in force.
- Section 81 of the Act specifies the jurisdiction of the District Judge Court.
- Section 82 of the Act provides penal provisions for infringement of copyrights and other related rights which is imprisonment of not exceeding 04 years but not less than 06 months with fine of TK not exceeding 02 lakh but not less than 50000.
- Section 87 of the Act provides penal provisions for making false entry into the register or producing false evidence, etc which is imprisonment of not exceeding 02 years or the fine of TK 10000 or the both.
- Section 88 of the Act provides penal provisions for giving false statement for the purpose of cheating or influencing which is imprisonment of not exceeding 02 years or the fine of TK not exceeding 25000 or the both.
- Section 90 of the Act provides punishment for violation of section 72 of the Act- if anybody publishes any record or video film in violation of section 72 of this Act he shall be punished with imprisonment for a term not exceeding 03 years or the fine of TK not exceeding 03 lakh or the both.
- Section 92 of the Act provides that no Court subordinate to the Sessions Court shall try .he cases filed under this Act subject to the provisions of section 66.
- Section 93 of the Act authorizes police to seize infringed copy- any Police officer not ~down the rank of Sub-Inspector can seize without warrant of arrest infringed copy and plates used for manufacturing infringed copy and will produce the same before the Magistrate as early as possible.
- Under section 94 of the Act appeal can be preferred against the order of the \ magistrate and under section 95 of the Act any aggrieved person can prefer appeal to the Board against the order of the Registrar within 03 months of the order.
- Under section 96 of the Act any aggrieved person can prefer appeal to the High Court against the order of the Board within 03 months of the order.

Enforcement of Intellectual Property Rights and consciousness of the masses are undoubtedly interrelated. The Government has been trying to build up awareness among the masses about IPR. Efforts are on to make our existing IP laws compliant with the TRIPS Agreement. More laws on IPR such as the Geographical Indication of Goods (Registration & Protection) Act, 2010, Layout Design of Integrated Circuits Act, 2010, Trade secret, Utility \node1 Law (by incorporating it in the new Patent Act) are in the process of formulation/finalization. The Department of Patents, Designs and Trademarks has been organizing seminars/workshops/training programmes for encouraging the activities of enforcing the IPR.

# Chapter IX

## Geographical Indications (GI) and Its Protection

### 9.1 Introduction

Geographical Indication of goods means an indication which identifies such goods as originating or manufactured in the territory of a country, or a region, or a locality where a given quality, reputation or other characteristics of such goods is essentially attributable to its geographical origin. Any name which is not the name of a country region or locality of that country shall also be considered as the geographical indication if it relates to a specific geographical area. So GI can be clarified as:

(a) A Geographical Indication is the name of region which is used to designate the product. The product must be a special one as it comes from a specific area.

(b) A GI is not created, it is recognized. It applies to an already existing production.

Here "Indication" denotes any name, geographical or figurative representation or any combination of them suggesting the geographical origin of goods. GI as widely known are used to describe the protection of place names, symbols which indicate a certain geographic origin of a given product. In this regard, it includes all existing means of protection of such names and symbols, whether to indicate qualities of a product which are influenced by its geographical origin, such as appellations of origin, or just to indicate the place of origin of the product, such as indications of source. This definition also covers symbols, because GI are not only constituted by names, such as a town, a region ("direct GI"), but they also consist of symbols without naming the place of origin, e.g. Eiffel Tower for Paris, the Matterhorn for Switzerland, or the Tower Bridge for London. Article 1(2) of the Paris Convention defines that indications of source and appellation of origin are subject to industrial property protection. In this regard, there is a distinction between indications of source and appellations of origin. "Indications of source" means any expression or signs used to indicate that a product or service originating from a country, a specific place or region. On the contrary, "appellation of origin" means the geographical name of a country, a region or a specific place which serves to designate a product originating where its characteristic qualities are influenced by the geographic environment, including natural or human factors or both natural and human factors (Lisbon Agreement, 1979). This means that the use of an appellation of origin requires a quality link between the product and the place of production. On the other hand, the use of indications of source on a given product is subject to the condition that this product originates from the place designated by the indication of source. Accordingly, appellation of origin is a certain kind of indication of source, whereas an indication of source comprises all appellations of origin. However, in general use, an indication of source has become a designation of sources which are not considered to be appellations of origin. This implies that under the Paris Convention for Protection of Industrial Property, basically the protection of GI aims to protect consumers from deceptions.

As a special kind of distinctive signs used in commerce, GI are different from trademarks. A trademark identifies the enterprise which offers certain products and services in the market, whereas a GI identifies a geographical area where one or several enterprises produce a certain kind of product for which the geographical indication is used. Thus, there is no "real owner" of a GI in the sense that one party or enterprise may exclude another party or enterprise from using of a GI. However, each party or enterprise which is located in a certain

area to which the GI refers to, has the right to use the GI for products in that area. Yet, in order to be eligible for the protection, any party or enterprise that wishes to use a GI may be subject to compliance with a particular requirement, such as a regulation relating the use of a GI.

According to the provisions of the TRIPS Agreement, Geographical Indications (GI) is a type of Intellectual Property (IP). GI is an identification of a special product which is different from other products, because of the place of origin. The TRIPS Agreement and the Paris Convention for the protection of Industrial Property have the same objective in relation to GI, to protect consumers from deceptions, and to avoid a product against misappropriations. In Article 22(1) of the Agreement, GI is defined as "indications which identify a good as originating in the territory of a Member, or a region or a locality in that territory, where a given quality, reputation, or other characteristic of the good is essentially attributable to its geographic origin". Due to the enactment of the TRIPS Agreement, international protection of GI have become an important issue because GI is increasingly recognized as marketing tools in the global economy. With the reality of market globalization, GI may be used to protect products of certain regions from misappropriation as well as to protect consumers from deceptions.

As an area of intellectual property rights, the use of GI is comparable with the use of trademarks. When we think about the words such as "Champagne", "Burgundy", "Jamdani Shari", "Nakshi Katha", "Fazli Mango" and many others, then we realize that those words have a special characteristic. They usually refer to famous places which relate to products of a certain nature and quality. The common feature of those words is their geographical connotations, or their meaning to designate places, or towns, or regions, or countries. Hence, there is an interesting aspect from such words; they tend to denote products rather than their own places. Geographically GI may serve as source identifiers; to indicate goods as originating in a particular territory, or region, or locality in that region. GI are also indicators of quality; to let consumers know that goods come from an area where a given quality, reputation, or characteristic of the goods is essentially attributable to their geographic origin. GI has the business interests; to promote the goods of particular area and they are eligible for the protection from infringements and/or unfair competitions. The TRIPS Agreement was negotiated with the intent to provide greater protection of IP rights worldwide which is based on the same treatment principle.

## **9.2 Benefit of GI**

- (a) It protects both producers and consumers.
- (b) GI is a tool for commercial promotion & rural development.
- (c) Geographical Indication or appellation of origin is of two kinds of rights.

## **9.3 Key Points of GI System**

- (a) Definition of a legal frame work:- a specific frame work, the use of a pre existent frame work. ,
- (b) The scope of the regulation: Wide or limited, for example agricultural products (raw products, food stuff), living animals handicraft or industrial products.
- (c) The complement authority: Intellectual property office or an ad-hoc body or a mixing of both.
- (d) The product's life: organization of producers, controls.
- (e) The protection: rules of competition law or specific offences, relation with trademarks.

#### **9.4. Protection of GI**

(a) GI may be protected in the national level and/or international level to meet the definition as stated in Article 22(1) of the TRIPs Agreement. Article 24(3) of the TRIPs Agreement provides that "a member shall not diminish the protection of GI that existed in that member immediately prior to the entry into force of the WTO Agreement. Protection means the right to prevent unauthorized party from using a GI, either for products which do not originate from the geographical place indicated, or for reasons not complying with prescribed quality standards. In the national level, generally there are many forms of protection on GI such as Special Title of Protection, Registration of Collective Marks or Certification Marks, and the Law of Unfair Competition (Passing-Off) or the Trademark Law. A Collective Mark is a mark which may be only used by members of a collective body. Such a body can be an association or cooperative manufacturers, producers or traders. The Collective Mark is owned by the association which exclusively grants its member to use it. Generally, the use of Collective Marks is governed by rules, which has to be submitted to the IP Office together with the application for registration. Once a GI has been registered as a Collective Mark, the association has the right to prohibit its use by any person who is not member of the association. However, the registration of a GI as a Collective Mark may not prevent the mark from becoming a generic term. Yet, this system contains requirements of the use which may be subject to the cancellation of registration, when the Collective mark is not continuously used. Article 24(9) of the TRIPs Agreement provides that "there should be no obligation under this Agreement to protect GI which are not or cease to be protected in their country of origin or which have fallen into disuse in that country". This means that if a GI is not protected in the country of origin, its protection under the Agreement is optional. Therefore, the protection of GI in national level is very important in this regard. Another important aspect related to the issue of protection, is to avoid GI from becoming generic expressions (Lisbon Agreement, 1979)

(b) On the contrary to Collective Marks, Certification Marks are not owned by a collective body such as an association of producers, but by a certification authority. Such an authority may be a local councilor an association or a commission which is not engaged in the production or the trade of the product concerned. In this regard, the owner of certification marks must ensure that the goods bearing the certification mark pose a certified quality. A certification mark may be used to certify the origin of products or services. In relation to the registration of a geographical indication as a certification mark, the same principle as for the collective mark registration may apply. Once a GI has been registered as a certification mark, everybody may use it under requirements that its products should meet a certain quality standard. Registration of Collective Marks or Certification Marks GI may also be protected in national level by system of Collective Marks or Certification Marks (World Intellectual Property Organization, 1998). Collective Marks and Certification Marks usually depend on the applicable national law. They may serve to indicate the origin of goods or services, thus to some extent they may be suitable for the protection of GI.

(c) Under the unfair competition law principles, in order to be protected, a given GI must have acquired a certain reputation or goodwill (World Intellectual Property Organization, 1998). As mandated by Article 22 (2) (a)-(b), member countries should prevent anything which might mislead consumers as to the geographical origin of goods and any use of GI which constitute unfair competition. In other words consumers must associate the geographical indication with the place of origin of its products or services. It is required that the use of a certain GI on goods or services not originating from the geographic area is misleading, so that consumers are deceived against the true place of the product or service. In this regard, proof of damages caused by such misleading practices is required. In order to be protected under the Law of Unfair Competition, a GI should have a reputation. Hence, a GI which does not have an established reputation yet in the market, may not be protected by



the Law of Unfair Competition. Yet, a GI which has not been used for a certain time may lose its reputation and may no longer be protected under unfair competition law principles. Under the Trademark Law, a GI may be protected by refusing or invalidating trademarks that consist wholly or partly of a GI which misleads consumers about the real geographic origin of the goods. This kind of protection may be accorded in members countries pursuant to Article 22(3) of the TRIPs Agreement.

(d) Besides the TRIPs Agreement of 1994, there are also three international agreements relating to the protection of GI such as (i) the Paris Convention for the Protection of Industrial Property, (ii) the Madrid Agreement for the Repression of False or Deceptive Indications of Source on Goods, and (iii) the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration.

(i) The Paris Convention for the Protection of Industrial Property 1883 was the first international agreement relating to the protection of GI. It requires members to "seize or prohibit imports with false indications of source, producer, manufacturer, or merchant" pursuant to Article 10. Article 10bis (3), regarding unfair competition, is aimed to prohibit indications that are "liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose, or the quantity of the goods". The Paris Convention prevents only the importation of goods containing false indications of geographic origin and is no longer applicable to indications of geographic origin that are merely misleading or "liable to mislead" (Goldberg, 2001).

(ii) The Madrid Agreement, 1891 for the Repression of False or Deceptive Indications of Source on Goods protects GI by applying the implementation of border measures (Madrid Agreement at Art. 1, 1958) and preventing the dilution of GI into generic terms (at Art. 4). The Madrid Agreement provides protections against misleading GI as stipulated in Article 1(1), and in Article 3bis, it "prohibits the use of false representations on the product itself and in advertising or other forms of public announcements" (Goldberg, 2001). Interestingly, in Article 4, the Madrid Agreement also includes protection which prohibits member countries from treating geographical indications of wines as generic terms.

(iii) The Lisbon Agreement provides for protections of geographical indications through an international registration system (Lisbon Agreement at Art. 5, 1979). The Lisbon Agreement for the Protection of Appellations of Origin and their International Registration ("Lisbon Agreement") is provided to achieve effective and enforceable protection for GI. This international registration system for appellations of origins is important, because under the Lisbon Agreement, GI could be protected as it was for trademarks (Goldberg, 2001). Article 1 provides that once a geographical indication is registered at the International Bureau of WIPO, it is protected in other member countries (Lisbon Agreement at Art. 1, 1979). As stated in Article 3 of the Lisbon Agreement, the member countries must prohibit imitations under their respective domestic laws, including the use of terms like "type" or "kind" or the like on protected products. Article 6 provides that GI cannot be considered to become generic in any other member country, as long as it is protected in the country of origin. The definition of GI, which depends on geographic origins and characteristics of a product, refers to place names that are used to identify a product, for example, "Champagne", "Burgundy" or "Coonawarra" (Davison, 1998). In this regard, Article 22 protects only products for which a relationship between their qualities or characteristics and their origin can be proved. The TRIPs Agreement on the Protection of GI Instead of protecting for a variety of intellectual property rights, the TRIPs Agreement also provides protection for GI. Under this Agreement, provisions relating to GI are indicated in Article 22-24 of the Agreement. Article 22(1) defines geographical indications and limits the scope of the definition to products or "goods", thereby excluding services (Goldberg, 2001).

(e) Article 23 of TRIPs arguably provides stronger protection than does article 22 for GI used in connection with wines and spirits. In this regard, member countries are required to provide interested parties with the legal means to prevent the use of a GI for wines or spirits not originating in the place indicated by the GI. The most relevant reasons that GI for wines and spirits deserve stronger protection under Article 23 of the TRIPs Agreement, is their reputation. Long time ago, wines and spirits from particular regions have acquired reputation because of their qualities. Unlike Article 22, under this provision no requirement that the use of the GI be misleading in order to be enforceable, except in relation to the registration of trade marks containing a geographical indication for wines and spirits. Use of a false GI for wines and spirits will be prohibited even where the true place of origin is indicated or where it is accompanied by terms such as "kind", "type", or "style". Briefly, this provision certainly has an objective to balance between producer concerns from misappropriation of products, and consumer expectations from being not deceived regarding to wines and spirits.

(f) Article 24 of the TRIPs Agreement provides exceptions that limit Articles 22 and 23. Based on Article 24(4), continued and similar use of a GI in respect of wines and spirits by other parties in the member countries for ten years prior to the enactment of the TRIPs Agreement is permitted (TRIPs Agreement). This means that, even though Article 23 of the Agreement specifically provides greater protection for wines and spirits, but under Article 24(4), the protection is limited to the use after the Agreement enters into force.

An example for the exception of continuous use of Article 24(4) is Budweiser beer (Goldberg, 2001). The term "Budweiser" has been used in such a manner so as to have a particular meaning for beer consumers as a source identifier, and it was adopted by the Anheuser-Busch Company as a trademark. In fact, "Budweiser" beer has been brewed in Ceske Budejovice, Bohemia, known as "Budweis" in Germany, for hundred years. In this case, the TRIPs Agreement allows the use of this trademark, as long as the continuous use has occurred before the enactment of the TRIPs Agreement. Another exception is Article 24(5) dealing with the relationship of GI to trademarks. With respect to the registration of trademarks, a trademark registered in good faith before the enactment of the TRIPs Agreement remains valid, and a trademark consisting of a GI is valid if the GI has not yet been registered in its country of origin.

## **9.5 GI in Bangladesh**

Bangladesh has inherited IP System from the British regime. The intellectual property right system in Bangladesh, Consists mainly granting of patents for invention registration of industrial design, registration of trade & service marks and registration of copyrights for literature, artistic and scientific works. Granting of patents, registration of industrial designs and trademarks are administered by Department of Patents, Designs & Trademarks (DPDT) under the Ministry of Industries. But there is no law in action for protecting our geographically originated or produced goods. So we could not register our famous and reputed agricultural and manufactured products though we hold its geographical origin.

## **9.6 Conclusions**

DPDT with the direction of the Ministry of Industries and other authorities should take necessary steps to protect our geographical or territorial products by formulating and implementing necessary GI Laws, Utility model law and other laws.

Appropriate legal provision and rules may be made to protect all concerned from the abuse of IPR. The protection of bio-diversity and locally evolved varieties of crops should be ensured through a good system.

# Chapter X

## Challenges of Intellectual Property Rights in Bangladesh and Policy Measures

### 10.1 Introduction

Intellectual Property Rights have attracted multidimensional attention from all concerned in the context of global economic and technological development. It is also believed that Intellectual Property has contributed to the progress of world community. Not only in developed countries, but also in the developing countries as well as in the least developed countries the government, business community, industrialists, researchers and IP practitioner" are concerned about implementation of Intellectual Property Rights in their respective jurisdiction. In Bangladesh celebration of World Intellectual Property Day has great importance in this context

Intellectual Property signifies some intangible rights with economic and creative values, The Convention Establishing the World Intellectual Property Organization (WIPO) does not directly define "Intellectual Property". It has given a list of the subject matter of Intellectual Property Rights. These are: literary, artistic and scientific works, performances of performing artists, phonograms, and broadcasts, inventions in all fields of human endeavor, scientific discoveries, industrial designs, trademarks, service marks, and commercial names and designations, protection against unfair competition, and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields. Now geographical indications, appellation of origin, utility models, new plant variety and traditional knowledge all are being subject matter of Intellectual Property.

### 10.2 IP for Development

In the new world economy we cannot think of development without Intellectual Property, We cannot stay at the same point. If we want to go ahead, we need to join the journey of development. The contribution of intellectual property to the economic and cultural development of a country is very much substantial. As a nation we have to concentrate on Intellectual Property issues. Ensuring Intellectual Property Rights can encourage scientists, software engineers, researchers and inventors to bring and launch innovative thinking. Certainly it can help in the way of economic growth and development of Bangladesh.

We can think in this way that copy right protection creates an inner urge to the creators to create some sort of works. The author of a book, performer of a song or broadcasting corporation will try to do better than other if copy rights are protected and no scope for piracy exists. Granting of patent monopoly enables competitors to manufacture new and improved products. Competitors try to 'bring improved products to have more shares in the market. On the other hand industrial design protection encourages people with creative faculty to devote their talent and energy in developing new designs for a product. In the event of protection of trademarks, consumers' rights are protected. They can buy quality goods. These create competition in the market resulting in a sound development in the economy.

Intellectual Property Rights can contribute to the expansion and development of industries in Bangladesh. It can also ensure exclusive rights to the creation of new technology. It is

possible if we from all concern work together. Researchers, academicians and business community will have to come forward to work for new inventions.

### **10.3 Challenges of Intellectual Property Rights in Bangladesh**

As a developing country Bangladesh is facing a lot of challenges in the field of Intellectual Property Rights. The taping of human potential and the development of industries are interrelated. Technological innovations and developments are key factors to cope up with the new challenges for overall development and growth of Bangladesh. In recent economic growth in the developed countries and in some of the emerging countries like India and Brazil, knowledge and innovation played the vital role.

Bangladesh is remaining behind the race as we are not running fast like other countries. Our researchers are not coming up with new inventions and ideas. In recent trends of software development, our people cannot play important role like the people of other countries. Though our young talents are participating in different competitions with the participants from other countries and our young chaps are doing better. They are also carrying goodwill for the nation. But we cannot utilize their success in practical aspect.

We cannot but admit that there is no room' for development without invention. It is allegedly said that we are not giving concentration on research and inventions. Sometimes we are criticized by the world community of pirating the technology developed by other countries. But allegation of large scale copyright violation is a subject to controversy.

Still we could not introduce online application process for registration of Trademarks, Designs or for granting Patents. It is a challenge for the Government also. To ensure the "Vision 2021" and "Digital Bangladesh" it is utmost requirement to introduce online application filing. We have sufficient reason to become optimistic that online application system will be introduced within shortest possible time as there is an ongoing Intellectual Property Right Project. Full automation will be ensured after the completion of the project.

In this open market economy Geographical Indication has become one of the major issues in trade and business. Geographical Indication is another challenging area for Bangladesh. Some of the Bangladeshi products (Le. Maslin, Khadi of Comilla, Dhakai Jamdani) have geographical implications in the world market. Recently Bangladesh Weavers Products and Manufacturers Business Association told that our neighboring country India is claiming some of our products like "Nakshi Kantha", "Jamdani Sharee" and "Fazli Aam" as are originating in India. But reality is that "Jamdani" was famous in the world as "Dhakai Jamdani". Our government is protesting this, but certainly it is a challenge and a threat for our economy as well as goodwill also. There is apprehension of being economically loser in this event. No doubt it may mislead the world community.

We have no adequate laws to cope up with the new concepts of Intellectual Property Rights. There are some challenges we need to address. Geographical Indications of Goods (Registration and Protection) Act, Prevention of Unfair Competition Act, Utility Model Law and New Plant Varieties Act are the new legal documents we have to enact.

There are some other challenges for IP rights in Bangladesh also. As our economic strength is not so healthy, we cannot allocate sufficient money to the research institutions. For this reason whenever our researchers get better opportunity they fly abroad. They are doing better there but it does not bring substantial gain for Bangladesh. There are near about 100 public and private universities in Bangladesh. But all these universities have not included IP Laws in their syllabus. Our business community and IP Practitioners should be more

proactive to contribute their sincere efforts to the substantial development and advancement of Intellectual Property Rights in Bangladesh.

So, these are really tough challenges for Bangladesh, for its economy and sustainable development. If we can firmly face the challenges, definitely we will succeed in turning Intellectual Property into Intellectual Capital also.

#### **10.4 Role of Business Community**

The business community can play a vital role in the way of development of IP in Bangladesh. Development and advancement of a country, its economy mostly depends on economical growth and development. So, the business community can raise funds and establish research institutions in private sector to encourage research and innovation. In the developed world most of the inventions are patronized by the private sectors. The private sectors can arrange scholarship schemes for researchers and scholars as well. Promotion of small efforts sometimes can establish confidence amongst small software developing institutions. Our software developing institutions claim that some times they are making software that can be useful for some institutions. But those institutions are not buying our home made software rather they are buying software from the foreign countries. This can frustrate our new inventors or innovators. The business community should think of it.

#### **10.5 University**

After TRIPS Agreement came into force the world community is obliged to make comprehensive review of their national IP laws. New laws are enacted and old laws are amended to comply with the Paris Convention and the TRIPS Agreement. The public and private universities can introduce Intellectual Property Laws in their syllabus. It is very much useful to the students of law, business, fine arts, engineering and science faculties. Students from different faculties and disciplines can be benefited from IP education. University authorities should come forward to address this issue. They should also introduce research activities on IP issues. They should go for more budgetary allocation for research activities.

#### **10.6 Researchers**

Without invention we cannot move forward. How to meet the challenges of globalization? Knowledge-based world economy has got its momentum in the development of frequent inventions. So our scholars and researchers should think of more inventions and innovations. We are not getting so many researchers coming up with inventions and innovations to compete with rest of the world. It needs devotion. We know that our economy is not so strong comparing to the most of the developing countries. But we should bear patriotism in our mind. Some times our potential scholars are going abroad and they do not come back. They are doing better in abroad. But they are not contributing to their own country. So, our researchers and scholars have responsibility to contribute for the nation.

#### **10.7 Government**

Government is always most powerful institution. The government is trying to ensure IP Rights in Bangladesh. New laws are enacted and old laws are amended. New areas of IP Rights are unveiling in the country. Automation process in the IP office is going on. If automation is completed it will be a land mark for the promotion and protection of IP Rights in Bangladesh. We are party to the Paris Convention and TRIPS Agreement. So, the Government is committed to fulfilling the requirements of these Conventions and Agreements. Enactment of Geographical Indications of Goods (Registration and Protection) Act, 2010 is under process. It is also expected from all concerned that government will

allocate more money in the Annual Budget for this sector. Government is always aware of infringement of Intellectual Property Rights. Any specific allegation of infringement with substantial evidence comes to the government is attended to with due emphasis. In the domestic laws there are provisions for ensuring Intellectual Property Rights in the event of infringement also.

### **10.8 Role of Developed Countries**

Developed countries have responsibility to assist the development of the rest of the world. They should bear in mind that without ensuring the development of other countries all their achievements will not sustain. For sustainable development they should move together. Advancement in Intellectual Property field mostly depends on overall development of a country. They can mobilize resources in building resourceful IP institutes. They can also transfer new technology to the developing countries for a certain period. They can also arrange scholarship for young scholars so that they can come up with innovative ideas.

### **10.9 Awareness Building Program**

It is true that our people are not conscious and aware about IP Rights. They even do not know how the IP Rights are infringed. Without much people involvement, we cannot expect fruitful result. Many of our companies do not feel keen interest in using intellectual Property system for their own benefit. In a statistics we have found that in the year 2009, in Bangladesh, 330 patent applications were filed in the Department of Patents, Designs and Trademarks for granting Patents out of which only 55 applications were from Bangladeshi citizens and 275 applications were from foreigners. It indicates poor performance in innovation in Bangladesh. In this connection much awareness build up program should be taken. Government, print and electronic media, concerned professionals can take initiatives.

### **10.10 Protection of Well-Known Marks in Bangladesh**

In recent world brand is considered as valuable business assets. Estimated values of the famous brands are fabulous. Information collected from the website of "Interbrand", an organization that creates and manages brand value, reflects that Coca-Cola secures the top position of the list of valuable brands. Value of this brand is US \$ 68,734 million. IBM and Microsoft are respectively in second and third position; values are respectively US \$ 60,211 and 56,647 millions. A list of the top ten valuable brands is enclosed at end of this article. Trademarks include brands. However, not all trademarks are brand. Brands are very widely popular. Unscrupulous businesspersons want to share this popularity by dishonestly using identical or similar marks. By this act, they not only hamper the business interest of the genuine businesspersons but also deceive the customers. Different international agreements have tried to protect the interest of the genuine businesspersons and the customers in the situation mentioned above. To tell more specifically, those agreements have tried to protect the Well-known marks. Now let us see how a mark is protected and what specialty is required to protect the well-known marks.

Trademark laws of different countries protect all registered trademarks. Without the permission of the registered proprietor of a mark, no one is allowed to use identical or similar mark for the same or similar goods/services for which registration is given. This is the general provision of the trademarks laws. However, well-known marks claim some more protection than this general protection. It claims protection within identical or similar goods/services when it is not registered and when registered claims protection beyond the goods/services for which it is registered. Let us find the legal basis of these protections.

Article 16.2, 16.3 of The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) and Article 6bis of The Paris Convention for the Protection of Industrial Property provide opportunity to protect well-known marks in that situation where ordinary protection cannot be extended. now let us see what are there in these articles.

Article 6bis of the Paris Convention says, "the countries of the union undertake, ex officio if their legislation so permits, or at the request of an interested party, to refuse or to cancel the registration, and to prohibit the use, of a trademark which constitutes a reproduction, an imitation, or a translation, liable to create confusion, of a mark considered by the competent

authority of the country of registration or use to be well-known in that country as being already the mark of a person entitled to the benefits of this Convention and used for identical or similar goods. These provisions shall also apply when the essential part of the mark constitutes a reproduction of any such well-known mark or an imitation liable to create confusion therewith."

This article contains many important matters. The important matters that need to be considered are:

- (A) Registration should be refused or cancelled if the mark is a reproduction, an imitation or translation of a well-known mark and it causes confusion.
- (B) Use of such mark should be prohibited also;
- (C) Competent Authority can take above action ex officio or at the request of an interested party.
- (D) This protection is given for similar or identical goods;
- (E) The well-known mark is not registered;
- (F) Only well-known trademarks get this protection; service marks are not included here;
- (G) These provisions shall apply where part of the mark constitutes reproduction or imitation of a well-known mark.

It is clear from the above points, that article 6bis of Paris Convention provides opportunity to protect unregistered well-known trademarks and this protection is confined to identical or similar goods. In other words under article 6bis of The Paris Convention unregistered well-known mark does not get protection beyond identical or similar goods; not only that this article does not deal with well-known service marks. These two points are taken into consideration by article 16.2 and 16.3 of TRIPS Agreement. Now let us look in to the provisions of these two articles of the TRIPS Agreement.

Article 16.2 of the TRIPS Agreement establishes a relation between service marks and article 6bis of the Paris Convention. It says, "article 6bis of the Paris Convention (1967) shall apply, mutatis mutandis, to services." With the establishment of this link now it is possible to protect unregistered well-known service marks, this protection should be confined to identical or similar services.

Article 16.3 of the TRIPS Agreement says, "Article 6bis of the Paris Convention (1967) shall apply, mutatis mutandis, to goods and services which are not similar to those in respect of which a trademark is registered, provided that use of that trademark in relation to those goods or services would indicate a connection between those goods or services and the owner of the registered trademark and provided that the interests of the owner of the registered trademark are likely to be damaged by such use". It means that, under certain condition well-known registered mark can get protection beyond the goods or services for which it is registered. It is applicable to trademarks as well as service marks. Now let us see, what are the conditions a well-known registered mark needs to satisfy to get protection in respect of goods and services for which it is not registered. The conditions are:

(A) Use of the mark by someone else in other goods or services would indicate a relation between the goods or services and the registered proprietor of the well-known mark; and

(B) Such use may cause damage to the interest of the registered owner of the well-known mark.

Therefore, article 6bis of The Paris Convention and article 16.2 & 16.3 of TRIPS Agreement taken together forms the basis of protection of well known trademarks. Article 1 of the TRIPS Agreement says, "Members shall give effect to the provisions of this Agreement." TRIPS Agreement constitutes Annex IC of the Marrakesh Agreement establishing the World Trade Organization (WTO). Thus TRIPS Agreement binds all members of the WTO. As a member of the WTO it is obligatory on our part to comply with the provisions of TRIPS Agreement. Article 2 of the TRIPS Agreement establishes a relation between Paris Convention and The TRIPS Agreement, it says, "In respect of part II, III and IV of this Agreement, Members shall comply with Articles 1 through 12, and article 19 of the Paris Convention (1967)". Part II (Articles 15- 21) of the TRIPS Agreement deal with Trademark. Therefore, we need to comply with the provision of 6bis of the Paris convention.

Now let us see how we have met the provisions of article 6bis of The Paris Convention and article 16.2 & 16.3 of the TRIPS Agreement. Before promulgation of the Trademarks Ordinance in 2008, subsequently which has been enacted as The Trademarks Act -2009, Bangladesh had been following The Trademarks Act -1940, enacted in The British India. Section 10 of The Trademarks Act -1940 denied the registration of identical or deceptively similar marks for the same goods or the same description of goods. Subsection 1 of section 10 of that Act was "....., no trademark shall be registered in respect of any goods or description of goods which is identical with a trademark belonging to different proprietor and in respect of the same goods or description of goods or which so nearly resembles such trademark as to be likely to deceive or cause confusion."

It is clear from the above paragraph that section 10 of The Trademark Act -1940 provided protections to registered marks only and that protection is confined to identical or similar goods for which the registration is given. In other words, in this Act there was no special provision to protect unregistered marks or extend protection to registered marks to other goods for which it is not registered. There was no scope to give special protection to well-known marks and service mark was not covered by this section; it did not comply with the provisions of article 6bis of The Paris Convention and article 16.2 & 16.3 of TRIPS Agreement. Therefore, steps have been taken to make a TRIPS compatible new law. With that aim in mind we enacted The Trademarks Act- 2009. Section 10 of this Act deals with restrictions regarding registration of identical, similar or deceptively similar marks. Subsection 1 of this section provides general protection to registered marks. General protection is confined to identical, similar goods. Provisions to protect well-known marks have been introduced in subsection 4 and 5 of section 10 of the Trademarks Act -2009. Let us see how these subsections run.

Subsection 4 of section 10 says, "No trademark shall be registered in respect of any goods or services if it is identical with, or confusingly similar to, or constitute a translation of a mark or trade description which is well-known in Bangladesh for identical or similar goods or services of another enterprise." Under this section, it is possible to protect unregistered well-known trademarks or service marks in respect to identical and similar goods.

Subsection 5 of section 10 says, "No trademark shall be registered in respect of the goods and services if it is well-known and registered in Bangladesh for goods or services which are not identical or similar to those in respect which registration is applied for, if -



- (a) The trademark is used in such a way which gives a false imprecation that there is a connection between the goods or services and the owner of the registered trademark; and
- (b) The interests of the registered owner of the trademark are likely to be damaged by such use."

This subsection is being quoted from the draft English version of the Trademark Act -2009. This subsection provides scope to protect registered well-known trademark in respect of other goods and services for which it is not registered and it totally complies with the provision of article 16.3 of the TRIPS Agreement. But some typing errors has made the Bengali version of subsection 5 of section 10 a bit obscure; Because of this error it could be misinterpreted to confine the protection of registered well-known mark within the ambit of same or similar goods and services for which registration is given. Actually protecting registered mark within the ambits of same or similar goods is the general protection, every registered mark enjoy this protection under subsection 1 of section 10. Let me quote the Bengali version of subsection 5 of section 10:

It is clear from the above quoted Bengali version of subsection 5 of section 10 that this subsection aims to create special provision to extend special protection to registered well-known' trademarks. But obscurity prevails in extending protection beyond the goods or services for which the well-known mark is registered. Immediate steps should be taken to correct this typing error.

Now let us see how can we recognize a well-known mark. Article 16.2 provides a guideline how to determine whether a mark is well known or not. It advises the members of the TRIPS Agreement to "take account of the knowledge of the trademark in the relevant sector of the public and the knowledge of the Member concerned which has been obtained as a result of the promotion of the trademark." Here "Member concerned" means the member state of the agreement who is considering the registration of the mark. This provision of considering the knowledge of the public has properly been reflected in subsection 6 of section 10 of the Trademark Act 2009 of Bangladesh. This subsection contains, "In determining whether a mark stated in subsection 4 and 5 of section 10 is well-known, the knowledge of the mark in the relevant sector of the public, including knowledge which has been obtained in Bangladesh as a result of the promotion of the mark, shall be taken in to account."

If we ignore the typing error appeared in the Bengali version of subsection 5 of section 10 we can say that we have complied the provisions of article 6bis of the Paris Convention and article 16.2 & 16.3 of the TRIPS agreement.

Now the question of determining the relevant sector of the public and the knowledge obtained in Bangladesh appears. A Joint Resolution on well-known marks was adopted in the General Assembly of WIPO and the Assembly of the Paris Union in September, 1999. That resolution contained a list factors that should be taken in to consideration to determine whether a mark is well known or not.

It recommends that in determining whether a mark is well known, the competent authority shall take into account any circumstances from which it may be inferred that the mark is well known. It recommends that competent authority shall also consider the following factors:

1. The degree of knowledge or recognition of the mark in the relevant sector of the public;
2. The duration, extent and geographical area of any use of the mark;
3. The duration, extent and geographical area of any promotion of the mark, including advertising or publicity and the presentation at fairs or exhibitions;

4. The duration and geographical area of any registrations, and/or any applications for registration, of the mark;
5. The record of successful enforcement of rights in the mark;
6. The value associated with the mark.

It recommends that the above factors are guidelines to determine a well-known mark but are not pre-conditions for reaching that determination. Rather, the determination in each case will depend upon the particular circumstances of that case.

It further recommends that relevant sectors of the public shall include, but shall not necessarily be limited to:

- (i) Actual and/or potential consumers of the type of goods and/or services;
- (ii) Persons involved in channels of distribution of concern goods and/or services;
- (iii) Business circles dealing with the concern goods/services.

It further opines that if a mark is determined to be well known in at least one relevant sector of the public it shall be considered as a well-known mark.

It contains some other recommendations to determine the well-known marks. These are useful suggestions that should be followed to implement the provisions of Article 6bis of the Paris Convention and Article 16.2 and 16.3 of TRIPS agreement. To follow these recommendations we need not amend our law.

In his regard, it is mentionable that any aggrieved person can apply for cancellation of registration under section 51 our Trademark Act. On the other hand, the matter of prohibiting a mark is being dealt by the common law of the country.

So it can be said that regarding protection well-known marks are in line with TRIPS compliance.

### **10.11 Concluding Remarks**

Intellectual Property Right has become one of the major issues in the world economy. The growth and development of a country mostly depends on its development aspects in the area of Intellectual Property. Any innovation can make any body famous throughout the world. We must exploit our scholars' inner strengths to the development of Intellectual property. We can link the world with Bangladesh with innovations. Let's start a move to link the world through our innovation! Can't we start?

# **Chapter XI**

## **Policy Measures to Promote Innovation and IP in Bangladesh**

Intellectual property rights is defined as the exclusive rights given to people for a certain period of time over their intellectual creations. The WTO Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) was established during the Uruguay Round (1986-1994) of trade negotiations in order to strengthen the international IPR regime. The TRIPS Agreement specifies minimum standards that should be attained by a designated time.

Although Bangladesh does not have a stand-alone Intellectual Property (IP) policy, it has however, inherited a set of intellectual property laws and rules from colonial regime. The first IP law in this sub-continent was the patent and design act, 1911. Then the English Copyright act 1911 was extended to India. A few years later, trademarks law was adopted in 1940. Bangladesh adopted these laws and rules after independence in 1971 and a number of them were updated and amended over time.

1. Bangladesh needs to develop its own infrastructure and strengthen its financial and administrative capacities to encourage innovation and enforcement of IP rights. It needs to develop an IP policy, formulate or strengthen some of the existing laws to make them TRIPS-consistent, restructure its institutions, and undertake training and awareness-raising programmes among the policy makers, IP enforcing agencies and users. Apart from these, it wishes to preserve its genetic resources, traditional knowledge and folklores with a view to gaining from commercialization of these resources.
2. Bangladesh has potential for innovation and creation, but unfortunately it has not been able to develop an appropriate IP regime. Interestingly in Bangladesh, the public sector plays a dominant role in research initiatives and the private sector utilises these facilities without much involvement in the research field. However, Research & Development (R&D) in the public sector cannot cope with the rising market demand. Major industrial sectors in Bangladesh like jute, ready-made garments (RMG) and pharmaceuticals could not grow properly, inter alia, due to the absence of need-based and appropriate R&D facilities.
3. Although technologies used in the country are mostly imported, the scope of technology transfer is extremely limited. Patent registration at the local level is insignificant. Whatever patent applications are filed by the local firms are not breakthrough innovations. Private sector stakeholders are not forthcoming with substantive R&D investment programmes. Apart from this, grants provided by the government to the public research institutions are not adequate in facilitating R&D and the scientists and professionals who work behind these innovation processes are inadequately valued and rewarded.
4. In the field of agriculture, the situation seems better. This sector enjoys more allocation of funds vis a vis other sectors as the sector generates more employment and contributes greatly to food security. Besides, many R&D facilities have to be continually strengthened to feed the millions, given the limited land resources, and to

fulfil the needs of the emerging agro-food processing industries. Moreover, Foreign Direct Investment (FDI) is yet to play a desired role in the field of technology transfer.

5. Undeniably, technology transfer plays a vital role in the overall development of a country. Institutional linkage between our local research institutions and that of international organizations is not yet deep-rooted and widespread. Only a few research organizations, such as the Bangladesh University of Engineering Technology (BUET), Bangladesh Agricultural Research Institute (BARI) and Bangladesh Rice Research Institute (BRRI) have technology transfer agreements with some international organizations. BUET has technology transfer agreements with the Asian Institute of Technology (AIT) of Thailand and some other international research organizations. BARI has research agreements with Australian research institutions, the International Maize and Wheat Improvement Centre (CIMMYT), the Asian Vegetable Research and Development Centre (AVRDC) etc. and BRRI has a technology transfer agreement with the International Rice Research Institute (IRRI). At present, the country direly needs technology transfer agreements with other countries and international organizations, particularly in the field of pharmaceutical products, key manufacturing industries and agriculture. This may help enhance agriculture and industrial productivity and ensure availability of affordable medicines.
6. Although Article 66.2 of the TRIPS Agreement requests developed country Members to provide incentives for technology transfer to build the capacity of LDCs, there remain questions about the effectiveness of the provision in the context of Bangladesh. In the past, pharmaceutical industries approached a number of international pharmaceutical companies for technology transfer for production of some essential medicines in exchange of granting exclusive marketing rights for a certain period; unfortunately responses did not match the expectations.
7. Enforcement of IP rights is important for encouraging innovation and creation, technological development, promotion of fair competition and protection of consumer rights. It is, however, observed that the protection and enforcement of IP rights in an LDC like Bangladesh are far behind the desired level. The reason for the low level of protection is that these countries are still fighting to meet their basic needs for their existence.
8. Although Bangladesh is rich in genetic resources and traditional knowledge, the country does not yet have any legal framework or administrative mechanism for the protection of genetic resources, traditional knowledge and folklore and to obtain appropriate benefits from these.
9. From the private sector, the DCCI has received endorsement from the Ministry of Industries to set up an IP Knowledge Centre for developing institutional and legal framework to catch up with the global IP systems and reaping reasonable economic benefit from commercialization of their innovation and creation.

It will primarily support the private sector with IP knowledge and information. The Centre aims to create awareness on IP issues, act as an "IP Help Desk" for the stakeholders, help identify areas for preparing Bangladesh to adjust with global IP system beyond 2013 and initiate policy advocacy.

International technology transfer refers to the process by which a firm in one country gains access to and employs technology developed in another country. Some transfers occur between willing partners in voluntary transactions, but many take place through non-market transactions or spillovers. The transfer of technology from countries at the technological

frontier to other countries is considered the main potential benefit of the TRIPS Agreement, particularly for developing countries that tend not to innovate significantly.

WTO on Technology transfer: Developing countries, in particular, see technology transfer as part of the bargain in which they have agreed to protect intellectual property rights. The TRIPS Agreement includes a number of provisions on this. For example, it says one of the purposes of protecting intellectual property is to promote innovation and technology transfer, and it requires developed countries' governments to provide incentives for their companies to transfer technology to least-developed countries.

Article 7 ("Objectives") states that the protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations. The obligation for developed countries to provide incentives for technology transfer is in Article 66.2. Least-developed countries want this requirement to be made more effective. In Doha, ministers agreed that the TRIPS Council would "put in place a mechanism for ensuring the monitoring and full implementation of the obligations". Additionally, climate change negotiators have been discussing the link between technology transfer and the TRIPS Agreement.

EU: 6. A privileged channel for technology transfer, including transfer of know-how, is foreign direct investment (FDI); joint research projects between private and/or public partners are also important in helping LDCs to benefit from technologies and adapt them to their specific needs; access to the right partners, to information and to expertise are key at all stages.

7. In their efforts to encourage and promote technology transfer, developed country governments are usually limited by two factors: 1) they do not own the vast majority of such technologies; 2) they can not force the private sector to transfer its technologies.

9. Against this background, it can be considered that relevant incentives can be identified as those that:

Objective 1: promote projects such as direct investment, licensing, franchising, sub-contracting, etc.

Objective 2: improve access to available techniques and industrial processes;

Objective 3: support joint research projects;

Objective 4: provide training in technology management and production methods;

Objective 5: more indirectly, improve the absorption capacity of LDCs (capacity building);

Objective 6: encourage trade in technological goods.

11. In addition, most countries and regions benefit from allocations for private-sector development included in their national or regional cooperation programs.

12. Finally, it should be borne in mind that no technology transfer program is specifically dedicated to least-developed countries as such. EU initiatives are usually specific to countries/groups of countries/regions, since the EU strongly supports regional integration, which fosters better understanding and political and economic links between neighbouring countries. However, the EU's approach to the allocation of aid and incentives pays particular attention to the situation of the least developed and other low income countries.

# **Chapter XII**

## **Protection of Intellectual Property in Bangladesh and Policy Measures**

### **12.1 Introduction**

Bangladesh has many challenges to overcome while evolving its own IP systems in order to satisfy its public policy needs and development goals. In a world, where the economic growth of a nation is driven increasingly by the creativity and knowledge of their people, effective IP systems, may be considered as the key to unlocking this human potential. Keeping the opportunities and challenges of global meltdown in consideration, government of Bangladesh has declared National Industrial Policy-2010. Protection and promotion of intellectual Property (IP) is specially signified in the Industrial Policy of Bangladesh. All possible steps are being taken on behalf of the government for nourishing, protection and nurturing of IP according to this policy.

The government of Bangladesh has already taken significant steps for creating congenial atmosphere in the country in order to protect and develop IP. New Trademarks Act has already been enforced in 2009. Draft Patents Act 2011 and draft Designs Act 2011 are now waiting for stakeholders' opinion. The Geographical Indications (GI) Law and Utility Model Law are going to be finalized very soon. As a member of LDCs, it is expected that Development Partners and International Organizations including WIPO will come forward to materialize establishing effective and efficient IP Institutional framework in the country including physical infrastructure, full-fledged automation of IP offices and structured development of human resources. Due to historical reasons, Bangladesh inherits an Intellectual Property (IP) System which dates back to the British, India. So also is the case with the statutory laws relating to industrial property, which has been modified from time to time to make it need-based and responsive to international practices and obligations.

Intellectual Property in Bangladesh is administered by two separate ministries of the Government (GOB). While industrial property matters are administered by the Department of Patents, Designs and Trade Marks under the Ministry of Industries (MOI), the Copyright Office under the Ministry of Cultural Affairs (MOCA) administers matters related to copyright and related rights. In this chapter, a brief overview of legislations relating to industrial property, the legal system and enforcement arrangements in Bangladesh is presented.

Intellectual property plays an important role in an increasingly broad range of areas, ranging from the Internet to health care, to nearly all aspects of science and technology and literature and the arts. Understanding the role of intellectual property in these areas many of them still emerging - often requires significant new research and study.

Intellectual property surrounds us in nearly everything we do, at home, at school, at work, at rest and at play. No matter what we do, we are surrounded by the fruits of human creativity and inventions. The main argument of IP system is that the author of intellectual property needs to gain credit and thereby rents for efforts in development and marketing of the idea. The system is essentially supposed to encourage innovation and restrain imitation of ideas by others for a limited period in the areas of art, science, technology and industry. In the context of globalization, the need for acquisition, adaptation and maintenance of Intellectual Property System for technological development of the country is very crucial.

IP is now a cross cutting issue. It is a combination of technology, business and legal matters. Therefore merely a single Ministry of the Government or an Institution thereof cannot address the whole issue in its full perspective. Rather a holistic approach and public-private partnership strategy would be a belief solution for meaningful development and promotion of IP in Bangladesh. It is necessary to emphasize on establishing a fruitful linkage with Government/IP Office-academia-R&D Organizations-industries-stakeholders for sustainable industrial promotion which will ultimately lead the country in the way of achieving desired transformation from trading-oriented economy into a knowledge-based one. IP issue should be integrated in our ongoing 6<sup>th</sup> Five Year planning process with utmost priority.

In the near future, TRIPS will provide the measures to protect the border, technology and other intellectual property. Muisic of Miles, a Bangladeshi band music group has been copied in India without permission. The high court of Calcutta gave its verdict in favour of the applicant and warned the would-be violator. Bangladeshi jamdaneer saree, 'nakshi kantha,' and 'fazlee mango' has already been registered in India as GI products. So far they have registered 117 GI products.

Bangladesh needs to make its GI law and update other related laws to protect the country's intellectual properties. Export policy, import policy and customs act should stipulate provisions to protect intellectual property. The Dhaka Chamber of Commerce & Industry (DCCI) has been trying for long for establishing an intellectual property centre to follow up of the activities of the WTO and WIPO on TRIPS to be able to provide the related information to the private sector.

An Intellectual Property Knowledge Centre (IPKC) at the Dhaka Chamber of Commerce & Industry would be able to provide the service to enhance the capacity of the private sector on intellectual property education. The centre can create intellectual property awareness and help create WTO compatible policies with support from the World Intellectual Property Organization (WIPO) and the relevant ministries in Bangladesh.

Bangladesh needs both soft and hard infrastructure for a supportive intellectual property regime in the country. It needs to have a full stock of GI products in the country which can be protected to develop its culture and traditions.

In today's world intellectual property surrounds us in nearly everything we do. No matter what we do, we are surrounded by the fruits of human creativity and invention<sup>2</sup>. In the knowledge based new economy the intellectual property (hereinafter, IP) community has entered a new era characterized by the rapid expansion of demand for new forms of intellectual property protection, greater global coverage. As a result, IP is no longer to be perceived as a distinct or self-contained domain, rather as an important and efficient policy investment that is relevant to a wide range of socio-economic, technological and political, environmental concern<sup>3</sup>. Recent years have witnessed increased attention to intellectual property considerations in policy making mainstream at both national and international levels. At present, it is a recognized fact that the strict enforcement of IP rights will obviously paves the way of human development. Countries generally have laws to protect intellectual property for two (2) main reasons. One is to give statutory expression to the moral and economic rights of the creators in their creations and to the rights of the public in accessing those creations.

The 21st century will belong to creators of new ideas and innovations. Innovative ideas have become the driving forces of today's technological revolutions. In the current phase of globalization, the world is undergoing different changes, driven by rapid technological progress and widespread liberalization of economy. The changes are multidimensional and

far-reaching. They involve new technologies, new management pattern and different form of enterprise linkage. The relations between industry and scientific information flow have also changed dramatically. The patterns of trade and commerce, flow of capital, technology and labor, generation and ownership of information and property rights are vastly different from what we saw even a decade ago. The main focus of technological dynamism is centered into the industrialized world. The intellectual property regime in which we operate is guided by the rules that are framed in response to the needs of the developed world. They intervene in the market discipline, liberate private enterprise and encourage greater private foreign capital flows to the developing countries and LDCs.

The fact that Bangladesh has an IP system since the time of British-India is a testimony that it has a long history in IP protection. The earliest IP legislation passed was the Patents, Designs and Trade Marks Act of 1883. This was subsequently repealed and the new Patents and Designs Act was enacted in the year 1911, and the Trade Marks Act in 1940. Since then a number of amendments have however been made in both the Acts.

The Government of Bangladesh (GOB) recognizes the significance of IP and its role, inter alia, in scientific and technological progress, economic, growth and literary, artistic and cultural creativity. The GOB, therefore, attaches much importance to the need of IP protection in the country. With this end in view, the GOB has undertaken a number of steps.

In the first instance, the GOB merged the Patent Office and the Trade Marks Registry Office in 2003 (earlier they used to be two separate, independent offices) and formed a new department .Department of Patents, Designs and Trade Marks - not only with an elevated position by designating a senior official of the government as the head of the department, but also strengthened its organizational capacity in terms of manpower, equipment, automation facilities, etc.

The most significant step was taken in respect of updating the existing IP legislations in order to give reflections of the obligations arising out of international agreements and conventions to which Bangladesh is a signatory, particularly the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). 1994. Consequently, Bangladesh Law Commission (BCL) was entrusted with the responsibility of drafting new laws on Trademarks Patents and Designs. The draft Trade Marks Act has been vetted by the Ministry of Law, Justice and Parliamentary Affairs (MOLJP). It is now awaiting approval of the cabinet and, as soon as it gets nodding, it will be placed before the parliament for enactment. Similarly, the BCL has drafted a new legislation on Patents and Designs which is now under consideration of the MOLJP. Both the legislations conform to the international standards on IP with respect to coverage and degree of protection afforded. In the following we outline the provisions for IP protection as enunciated in the concerned legislations.

## **12.2 Protecting Intellectual Property Rights in Bangladesh**

The second is to promote creativity and the dissemination and application of its results and to encourage fair trade which would contribute to economic and social development. Realizing this fact the government of Bangladesh has recognized the significance of IP due to its role in scientific and technological progress, economic growth and literacy, artistic and cultural creativity and adopted measures for the implementation of such realization. And day by day, rights over intellectual property are gaining recognition among numerous sections in Bangladesh. A brief overview on various legislations on intellectual property and the organizational structure of the concerned departments are presented in this chapter. It reflects a blender of information encompassing both primary and secondary sources so that the findings can get a multidimensional spectrum. study materials were extensively reviewed which have been gathered from relevant literatures, books, articles of resource persons on



these fields published in well-recognized journals, reported case decisions, statistical publications of relevant organizations, data analysis and web sites.

Intellectual property as understood in the north and is being increasingly adopted by the south, denotes a particular resource that is intangible in nature. (Maskus et al., 1998, Maskus et al., 1995) According to Jeremy Phillips and Alison the term 'Intellectual Property' conveys two (2) meanings with it- Firstly, the colloquial terminology of intellectual property suggests that IP simply comprises all those things, which emanate from the exercise of human brain, Le. - ideas, inventions, poems, designs, etc. Secondly, the legal nature denotes that intellectual property implies, in essence, the rights in itself. which are enjoyed in the produce of mind, rather than upon the produce of it's In broad terms, intellectual property means the legal rights, Le. - literary, artistic or scientific works. performances of performing artists, phonograms and broadcasts, inventions in all fields of human endeavor, scientific discoveries, industrial designs, trademarks, service marks, commercial names and designations, protection against unfair competition which result from intellectual activity in the industrial, scientific, literary or artistic fields. Under intellectual property law, owners are granted certain exclusive rights to a variety of intangible assets, such as musical, literary, and artistic works; discoveries and inventions; and words, phrases, symbols, and designs? (Mansfield et al., 1985)

The core purpose of all intellectual properties is to ensure creative activity and the development of goods or knowledge to bring prosperity to the country.(Gould et al., 1996) In practice, intellectual property rights imply legal mechanisms that ensure that the products we buy are genuine (OECD, et al., 1998)

### Main Fields of Application of Intellectual Property Rights

Types of IPR	Subject	Main Fields
Patents	New, non-obvious, industrially applicable inventions	Chemicals, drugs, plastics, engines, turbines, electronics, industrial control and scientific equipment.
Trade Marks	Signs or symbols to identify goods and services	All industries
Copyright	Original works of authorship	Printing, entertainment (audio, video, motion pictures), software, broadcasting Micro-electronics industry
Integrated Circuits	Original layout designs	
Breeder's Rights	New, stable, homogenous, distinguishable varieties Secret business information Geographical origin of goods and services	
Trade Secrets Geographical indications		All industries Wines, sprits, cheese and other food products
Industrial designs	Ornamental designs	Clothing, automobiles, electronics, etc.
Utility models	Functional models/ designs	Mechanical industry

Intellectual property has acquired an internationally recognized character. Now it is regarded as "one of the most fundamental sectors" of international law, having its source in different international conventions. The Universal Declaration of Human Rights (UDHR) 1948 says- "Everyone has the right to the protection of moral and material interests resulting from

scientific, literary or artistic production of which he is the author"<sup>10</sup> In addition, the imitational character and emergence of Intellectual property is positively affirmed in numerous international conventions, Le. -The Berne Convention for the Protection of Literary and Artistic Works 1971, The Paris Convention for the Protection of Industrial Property 1883, The Universal Copyright Convention (UCC) 1952, The Patent Cooperation Treaty 1970, The Agreement on Trade Related Aspects and Intellectual Property Rights (TRIPS) 1995. These documents also provide for the guidelines of enforcement mechanisms by the state parties. For example, Part III of the TRIPS agreement in its article 41 to 61 denotes on the enforcement provisions for intellectual property rights. Article 41 of the reiterates that effective action against any act of the infringement of intellectual property rights. It prescribes such remedies as may act as a deterrent to further infringements. (Park, et al., 1997) There are also other guidelines, Le. - fair and equitable enforcement, expeditions trial for offences, etc. Article 36(1) of the Bern Convention provides that "any country party to this convention undertakes to adopt, in accordance with its constitution, the measures necessary to ensure the application of this convention." Paragraph 2 of the same article provides that "it is understood that, at the time a country becomes bound by this convention, it will be in a position under its domestic law to give effect to the provisions of this convention."

So, it is obvious that the above provisions cannot be respected and implemented without appropriate measures for the enforcement of rights provided under the national laws of the member states<sup>11</sup>. Bangladesh as a member country is not an exception to it. Several steps have been taken by the government of Bangladesh to update the existing IP legislations to conform to the international standards (formulated by international treaties and conventions) to which Bangladesh is a signatory.

The Constitution of Bangladesh 1972 in its article 40 and 42 guaranteed the citizen's right to property. And within the general definition of property, property produced through creative thoughts can also be included. To support this proposition it is better to argue that 'the concept property has been expanded by courts to include practically all rights. Thus patents, licenses, trademarks and copyrights are held to be property distinct from physical or material property<sup>12</sup>.' Following this proposition it can be argued that, Constitution, the supreme law of the land gives recognition of the intellectual property rights in express terms.

The development of the IP system depends on the effective enforceability of IP rights. Historical context of Bangladesh reveals that the century to inherit old legal framework on intellectual property that dates back to British- India<sup>13</sup> which proves that the country has a long history of IP protection. Bangladesh has few IPLaws which she inherits from British period. All these laws provide protection for both the citizens and foreigners who have filed an application for such protection. But one of the shortcomings of these laws is these laws; specifically the Patent Law doesn't specifically circumscribe the area of intellectual property.

### **12.2.1 Protection against Unfair Competition**

The last object of the protection of industrial property is the protection against unfair competition. Such protection, required under Article of the Paris Convention, is directed against acts of competition that are contrary to honest practices in industry or commerce. The following in particular constitute acts of unfair competition in relation to industrial property all acts of such a nature as to create confusion with the establishment, the goods or the industrial or commercial activities of a competitor, false allegations in the course of trade of such a nature as to discredit the establishment, the goods or the industrial or commercial activities of a competitor, and indications or allegations the use of which in the course of trade is liable to mislead the public as to the characteristics of goods.

The protection against unfair competition supplements the protection of inventions, industrial designs, trademarks and geographical indications. It is particularly important for the protection of know-how, that is: technology or information which is not protected by a patent but which may be required in order to make the best use of a patented invention.

The TRIPS Agreement contains, in its Article 39, provisions on the protection of undisclosed information (trade secrets). In the course of ensuring effective protection against unfair competition as provided in the Paris Convention, Members of the TRIPS Agreement are required to provide natural and legal persons the possibility of preventing information lawfully within their control from being disclosed to, acquired by, or used by others without their consent in a manner contrary to honest commercial practices so long as such information:

- (a) is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;
- (b) has commercial value because it is secret; and
- (c) has been subject to reasonable steps under these circumstances, by the person lawfully in control of the information, to keep it secret.

### **12.3 Enforcement Mechanisms for Protection of IP Rights in Bangladesh Trademarks**

Under article 15 of the TRIPS Agreement any sign, or any combination of signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings, shall be capable of constituting a trademark. In fact, trademark is a visual symbol to indicate the origin of any specific goods as distinguished from similar goods maintained and manufactured by others<sup>14</sup>

The present legal basis of trademarks is based on The Trade Marks Act 2009. The Act specifically denotes the acts or omissions what constitute the infringement of trademarks. The proprietor or a registered user may bring an action for the infringement of trademark or for passing off and obtain relief in the form of damages, accounts of profits, delivery up of the infringing labels and marks for destruction or erasure, injunction, etc. Suits in this regard are required to be brought to the courts of district judge. Criminal suit can also be filed for offences, Le. - falsifying trademarks, making, possessing or disposing of any die, block, machine, plate, etc. Sections 73 - 91 of the Trademarks Act, 2009 are the relevant provisions for criminal proceeding for trademarks right violation in Bangladesh. If anybody commits an offense as described in items (a) to (g) in Section 73 shall be liable for the first offense to pay penalty of Tk. 200,000 with sentence of two years and Tk. 3,00,000 and three years sentence for the second offense. The other sections are also open depending on the nature of violations. Contravention of exclusive rights in relation to a trade mark (both registered and unregistered) constitutes criminal offences under the Penal Code 1860. The code circumscribes the offences in this context and provides punishments. i.e.- the Act says that making or possessing any instrument for the purpose of counterfeiting a trademark would constitute an offence and the punishment for this offence is imprisonment of either description for a term which may extend to three (3) years or with fine or with both. Besides, under the Customs Act 1969 importation of goods whether by air or land or sea having relation to trademarks and any goods that are imported in violation are detained and confiscated by the customs officials.

However, one limitation that can be pointed here is that the Act doesn't provide provision for the compulsory registration of trade mark. However, positively the law prohibits that a trade mark or a part of trade mark which consists of or contains any scandalous design or any matter the use of which is likely to deceive or to cause confusion or is likely to hurt the

religious susceptibilities of any citizen or is contrary to any law or morality shall not be register able.

Although there is no direct relationship between information technology (hereinafter IT) and functions of Trademark but from a commercial point of view Due to rapid growth of e-commerce trademark protection is very important for IT based business community. But in the present system of trademark protection there exists absence of legal framework in this regard. Such a lack has created an opportunity for unscrupulous business.

Another flaw of the current trademark regime is that under the Trademark Act protection is extended up to class 34 under international classification of goods. There has not been any step taken by the concerned authority to extend the protection to goods and services beyond class 34.

Again, enforcing agencies must be efficient to protect the rights granted by any Act. But the trademark office set up by the Trademarks Act lacks adequate manpower, i.e. - there is only one trademark registrar and assistant registrar for the whole country. Although provision is made for the post of four (4) trademark examiners but there is only one trademark examiner. Total number of staff including registrar to typist wouldn't exist 40. As a result as in every year more than five hundred applications are filed in the trademark office it takes 3-4 years to get trademark registration.

Copyrights are the authors' rights to protect their own works (such works that fall with literary, scientific, artistic or musical domain that are expression of thoughts or sentiments in a creative way) from being copied or altered without consent<sup>16</sup>. The current Copyright Act of 2000 replaced the Copyrights Ordinance of 1962. Subsequently, changes and amendments have been introduced to the Act under the name Copyright (amendments) Act 2005. By the Act gives full protection has been granted to all works which contain original literary, dramatic, musical or artistic contents. The term of protection for such work is sixty (60) years from the beginning of the calendar year next following the year in which the author dies. Copyright protection has also been provided to films, recordings and broadcasts.

This Act states that the copyright owner enjoys exclusive rights of controlling- i) reproduction in any material form, ii) communication to the public, iii) performance, showing or playing to the public iv) the distribution of copies to the public by sale v) transfer of ownership vi) commercial rental to the public. These exclusive rights imply the broad scope of copyright protection under the Act.

Under the Act the government is under an obligation to establish a Copyright Board consisting of Chairman and two or more, but not exceeding six, other members for dealing with copyright issues. The Chairman of the Board is either a present or former judge or a civil servant having the status of Additional Secretary or a lawyer having the qualification to become a judge of the High Court Division. As to enforcement measure, the Act provides punishment for the violation of copyright which may be either fine or imprisonment or both.

The backdrop of the Act can be detected from section 73. This section categorizes the act that shall not constitute an infringement of copyright under the Act. As a negative result, this provision gives wider license for reproduction that in consequence may bring bitter result in a society like ours. Because, the courtesy of obtaining permission from the original author or publisher is more or less absent here and in the vernacular press translators have made it their business to publish serialized translations of books which are later put out as the books by the translator.

Patent is a document issued upon application by the government office which describes an invention and creates a legal situation in which patented invention can normally be exploited

with the authorization of the owner of the patent<sup>18</sup>. (Ginarte, et al. 1997) The existing law relating to patents and designs is regulated by the Patents and Designs Act 1911. Under the Act, infringement of patent occurs if any person makes, sells, or uses an invention without the license of the patentee, or counterfeits it, or imitates it. For infringement of patent the patentee may institute a suit against the person alleged in a district court having jurisdiction to try the suit. The remedy under the Act is available in the form of injunction, delivering up of infringed patented product, damages for an account of the profits. Besides these civil remedies, certain acts of infringements have been made punishable offences triable by the criminal courts. The procedures of investigation and trial of these offences are governed by the normal law of the land. However, the patents and designs Act 1911 doesn't provide any provision for injunction against import of infringing goods in Bangladesh. The Act makes no difference between patentable and non patentable inventions and contains provisions regarding compulsory licenses of patent rights but the terms and conditions of conditions of compulsory licenses are not detailed in the Act.

As to design, the Act of 1911 provides that design of an article may be registered if the shape, configuration, pattern or ornament given to it by any industrial process or means is new or original. In the case of registration of design for five (5) years which may be extended for a minimum period of five years if the proprietor of the design makes an application before the expiration of the period. The Act provides civil remedies for the infringement of the copyright of a registered design.

#### **12.4 Challenges in the Way of Enforcement**

The familiar apprehension stands in the way of enforcement before Bangladesh can be described through the following points-

Firstly, the technological efforts in Bangladesh are negligible, which signifies a strong backdrop in the implementation of Strong IP rights. Because, there exists a strong opinion that, if a country has no meaningful technological activity then for that country intellectual property rights are irreverent and will throw economic burden on the country. Secondly, The IP laws in Bangladesh are in a very premature form and few in number. As a result, a vast area of IP rights cannot be protected. All these laws, specifically the patent law, don't specifically describe the inventions that will be given protection. Thirdly, implementation tools don't seem to stand in a satisfactory level leaving the IP rights a poor protection. The registration of trade mark is not compulsory. Fourthly, Bangladesh does not have any law on three subjects of Intellectual Property Rights, namely, geographical indications, layout designs of integrated circuits and plant variety protection.

Finally to say, level of skill and awareness of public in general. government officials and profession regarding IP rights is at a marginal stand.

#### **12.5 Agencies for the Protection of Intellectual Property Rights**

Besides, as pointed earlier, the abovementioned laws the government has set up numerous agencies both special and regular authorizing to protect or limit the violations of IP rights. Again, enforcing agencies must be efficient to protect the rights granted by any Act. The Departments of Patents, Designs and Trademarks are quasi-judicial organizations. The registrar of the department acts as tribunal. Any appeal against the decision of the registrar lies to high court division. In case of civil proceedings, no suit of the infringement of a trade mark can be institute in any court inferior to district court of an assistant judge or joint district judge. As all criminal proceedings at the first place are entertained by the magistrate's court thereby, criminal cases relating to false trademarks, counterfeiting of a trade mark, etc. are tried by a court of magistrate of the first class or second class, or in metropolitan area by a

metropolitan magistrate. And any appeal against the decision of the magistrate court lies in the court of district Judge or Sessions Judge. The other current functional agencies are - Mobile Courts, Rapid Action Battalion (RAB) and the local Police. The agencies are working under different teams in different areas. The IP Right holders can take necessary assistance and co-operation from the aforesaid agencies. This reflects a brief summary of the structure of enforcing agencies.

But an intrinsic analysis of the above laws and activities of the authorities reveals that the trademark office set up by the Trademarks Act lacks adequate manpower, i.- there is only one trademark registrar and assistant registrar for the whole country. Although provision is made for the post of 4 trademark examiners but there is only one trademark examiner. Total number of staff including registrar to typist wouldn't exist 40. As a result as in every year more than five hundred applications are filed in the trademark office it takes 3-4 years to get trademark registration.

The same is the condition with the Patent Office. Currently, it takes around 21 months to get patent registration. Such delay is due to inadequate office staff. Given the current boom in the field of IT and biotechnology there would be an influx of applications for patent registration.

Due to these flaws there exist frequent violations of the rights of the IP holders. The following two (2) case studies will make remarks on such violation and also positively, steps taken by the concerned administration.

### **Case study 1**

Samsonite Corporation vs Moon Light Travels.

The local agent of Samsonite Corporation initiated a criminal proceeding under the Penal Provision against a trader who imported counterfeit 'Samsonite' product in the year 2008 for marketing in Bangladesh. The Agent investigated markets through their own investigator and found counterfeit product in a famous market. Shahbagh Biponi Bitan. Accordingly the Agent informed the same to Rapid Action Battalion (RAB-3). The Commanding Officer of RAB-3 entrusted the operation to one of its team leaders. Assistant Superintendent of Police. The team leader investigated the place and found the allegation true. The RAB Team conducted raid on February 27.2008 and arrested three people with huge counterfeit 'Samsonite' product. The local police lodged criminal action under the penal provision. The infringers found no other alternative but to surrender with the local Agent and accordingly disclaimed entire seized items of 310 big suitcases in quantity in favor of the local agent and given adequate compensation including undertaking for not trading anymore with counterfeit 'Samsonite' product. The-matter disposed of in February 2010 on the basis of out of court settlement.

### **Case Study 2**

**Kraft Foods Globe Brands LLC. vs IBN Sin a Food Products Pvt. Ltd.**

Kraft Foods Globe Brands LLC, a US company having the brand, 'Tang' is a popular name in concentrated form for preparing soft drinks product. Kraft has secured the IP rights in Bangladesh in the year 1987 and has business since long through its agent, Sajeeb Corporation. A Bangladeshi small entity, Ibinsina Food marketed preparations for soft drink under brand, Ibinsina Orange Tang. On an application with the local police station the enforcing agencies seized the items and put the people under trial. The District Court has also issued an ad-interim order restraining the Ibn Sina for not trading with the mark 'Tang'.

Ibn Sina tried to obtain registration for the mark with suffix Tang but the Trademark Department has rejected all their applications.

## **12.6 Legislations Relating to IP Protection in Bangladesh**

### **i) Patents**

The Patents and Designs Act 1911, lays down the conditions of, and the procedures for, granting a patent, known as Letters Patent, for an invention. The legislation requires that apart from possessing the universal characteristic of utility (industrial applicability), novelty and non-obviousness (inventive step), an invention, in order to be patented, should not be contrary to law or morality. If the Registrar is of the opinion that an invention is as such (contrary to law or morality), he or she may refuse to grant a patent. However, the patentee or the applicant, as the case may be, may prefer an appeal against such an order with the government. Any person, whether he or she is a citizen of Bangladesh or not, and either alone or jointly with any other person, may apply for a patent. In Bangladesh, protection of an invention is granted, in the first instance, for a period of 4 years from its date. After the expiry of the tenure, the patentee can renew his/her letters patent for another 12 consecutive years on payment of annual renewal fees. The term of the Patent may, on a petition presented by the patentee, be extended for a further term not exceeding 5 years if it appears that the patent has not been sufficiently remunerative. However, in exceptional cases the term may be extended up to ten years, though the term "exceptional" has not been defined in the legislation. As an alternative, a new patent may be granted for such a term not exceeding ten years.

The new legislation on patents proposes that the term of every patent granted shall be twenty years from the date of filing an application for patent. This has been proposed in conformity with Article 33 of the TRIPS Agreement.

### **Patent Infringement**

According to Bangladeshi law, it is an infringement of a patent if any person makes, sells or uses an invention without the license of the patentee, or counterfeits it, or imitates it.

### **Remedies of Patent Infringement**

If there is an infringement of a patent by any person, the patentee may institute a suit against the person in a District Court having jurisdiction to try the suit. The legislation provides remedies for any infringement of a patent. The remedy is civil in nature, and includes both interim and final remedies. The interim or preliminary remedies include an order for an injunction, while final remedies include financial compensation.

### **ii) Designs**

In Bangladesh, designs are registered and governed according to the provisions of the Patents and Designs Act, 1911. The design of an article may be registered if the shape, configuration, pattern or ornament given to it by any industrial process or means is new or original. The principle or the mode of construction of the articles, or mere mechanical contrivances can not be registered as a design under the Act. Trademarks, trade names and mere pictures or photographs also can not be registered as designs.

In the case of registration of a design, the applicant is granted copyright in the design for a term of five years in the first instance. The beginning of the term is calculated from the date of registration or the design. The period of copyright in the design may be extended for a minimum of two periods of five years each if the proprietor of the design makes an application before the expiration of the period and on payment of the prescribed fee.

### **Design Infringement**

The Act outlines activities which tantamount to an infringement of the copyright of a proprietor of a registered design. They are as follows:

- i) Apply or cause to be applied, without the license or written consent of the registered proprietor, the design or any fraudulent or obvious imitation hereof to any article in any class of goods in which the design is registered.
- ii) Apply, without the consent of the registered proprietor, the design or any fraudulent or obvious imitation thereof to any imported article (for the purpose of sale) belonging to the class in which the design has been registered.
- iii) Apply, without the consent of the registered proprietor, the design or any fraudulent or obvious imitation thereof to any article (in any class of goods in which the design is registered) in order to publish or expose or cause to be published or exposed for sale of that article.

Suits for infringement of industrial designs are instituted before the District Court.

### **Remedies of Design Infringement**

The Act provides a couple of civil remedies for an act of infringement of the copyright of a registered design. If a person commits such an infringement, he or she will be liable to:

- i) pay to the registered proprietor of the design a sum not exceeding taka five hundred for every contravention recoverable as a contract debt;
- ii) pay such damages as may be awarded if the proprietor elects to bring a suit for the recovery of damages for any such contravention; and
- iii) be restrained by an injunction if the proprietor decides to bring a suit for an injunction against the repetition thereof.

### **iii) Trademark**

The Trade Marks Act, 1940, governs the conditions and procedures for registration of a trade mark. A trade mark may be registered only in respect of particular goods or all the goods included in a particular class of goods. The law requires, inter alia, that a trade mark shall not be registered unless it contains, or consists of, a distinctive mark based upon evidence of its distinctiveness.

According to the existing legislation, registration of a trade mark is not compulsory in Bangladesh. The law prohibits that a trade mark or part of a trade mark which consists of, or contains, any scandalous design, or any matter the use of which is likely to deceive or to cause confusion, or is likely to hurt the religious susceptibilities of any citizen, or is contrary to any law or morality, shall not be register able.



Initially, a trade mark is registered for a period of seven years. Subsequently, the registration of the trade mark may be renewed for a period of fifteen years from the date of expiration of the original registration or of the last renewal of registration, as the case may be. This means that the registration of a trade mark may be renewed as many times (which is for a period of fifteen years; in each case) as the registered proprietor of the trade mark applies for such renewal.

### **Trade Mark Infringement**

The Bangladeshi law gives the registered proprietor of a trade mark in respect of any goods the exclusive right to the use of the trade marks in relation to those goods. That right is deemed to be infringed by any person who, not being the registered proprietor of the trade mark or a registered user thereof using by way of permitted use,

a) uses, in the course of trade, a mark identical with or so nearly resembling the trademark in relation to any goods in respect of which it is registered as to be likely to deceive or cause confusion;

b) uses a mark in such a manner as to render the use of the mark likely to be taken either-  
(i) as being used as a trade mark; or  
(ii) to import a reference to some person having the right either as a proprietor or as a registered user to use the: trade mark or to goods with which such a person as aforesaid is connected in the course of trade.

However, the above provision of infringement do not hold good, and a person is not entitled to institute any proceeding to prevent or to recover damages, in case of an unregistered trade mark.

### **Unregistered Trademarks**

Unregistered trademarks are given protection under Section 73 of the Trade Marks Act (which gives protection to a registered trade mark as well). Protection to registered trade mark can also be sought under the Specific Relief's Act.

### **Trademark Remedies**

Bangladeshi laws provide both civil and criminal remedies for infringement of the right of a registered proprietor of a trademark, which are discussed below.

#### **a) Civil Remedies**

The Trade Mark Act provides that a suit for infringement shall be instituted before a District Court having jurisdiction to try it. A suit for infringement may be instituted in case of-

(i) a registered trade mark or  
(ii) otherwise relating to any right in a trade mark.

By "otherwise relating to any right in a trade mark". it is interpreted as regards rights to unregistered trademarks. Thus, civil remedies are available for both the registered and unregistered trademarks.

The relief's which a court may grant in a suit for infringement includes an injunction (both temporary and permanent) and at the option of the plaintiff, either damages or an account of

profits, together with or without any order for the delivery-up of the infringing labels and marks for destruction or erasure.

b) Criminal Remedies

In Bangladeshi law, contravention of exclusive rights in relation to a trade mark (includes both registered and unregistered trade marks) also constitutes a criminal offence and invokes punishment under the Bangladesh Penal Code, 1860.

The following constitute a criminal offence-

- (a) using a false trade mark in a manner to cause it to be believed that the goods so marked are the manufacture of a person whose manufacture they are not, and
- (b) counterfeiting a trade mark used by another person.

### **Punishment**

- (a) The punishment for using a false trade mark is imprisonment of either description for a term which may extend to one year, or with fine, or with both; and
- (b) The punishment for counterfeiting of a trade mark is imprisonment of either description for a term which may extend to two years, or with fine, or with both.

The Court determines the term of imprisonment and amount of fine.

### **12.7 Enforcement**

The Bangladeshi laws also make provision for effective means of enforcement of the interest of the IP right holders. The Bangladesh Penal Code, 1860, identifies a number of activities as criminal offences purporting to enforce the rights of the IP holders. Two such offences, and the resultant punishments, are as follows:

- (a) Making or possessing any instrument for the purpose of counterfeiting a trade mark. The punishment for this offence is imprisonment of either description for a term which may extend to three years, or with fine, or with both.
- (b) Selling goods marked with a counterfeit trade mark. Whoever sells, or exposes, or has in possession for sale or any purpose of trade or manufacture, any goods or things with a counterfeit trade mark commits the offence. The punishment for this offence is imprisonment of either description for a term which may extend to one year, or with fine, or with both.

Apart from the above, The Customs Act. 1969, prohibits importation of goods whether by air or land or sea in the following categories:

- (a) goods having applied thereto a counterfeit trade mark or a false trade description;
- (b) goods made or produced outside Bangladesh and intended for sale, and having applied thereto, a design in which copyright exists under the Patents and Designs Act 1911, in respect of the class to which the goods belong or any fraudulent or obvious imitation of such design without the license or written consent of the registered proprietor of the design; and
- (c) goods made or produced outside Bangladesh and having applied thereto any name or trade mark, being or purporting to be the name or trade mark of any manufacturer, dealer or trader in Bangladesh.

Any goods which are imported into Bangladesh in violation of the above provisions, such goods are detained and confiscated by the customs officials, and they are disposed of in a prescribed manner.

In Bangladesh, an individual can file a criminal case with the police in case of counterfeiting, etc. The Police investigate the complaint and, if proved, the case is tried before a court. In addition, the police officials often launch raids against counterfeited and pirated goods and take legal actions. Similarly, the customs officials make sure that counterfeited goods are not imported into the country. The case goods violating trademark or copyright are detained; recourse to legal proceedings is taken after observing necessary formalities.

## **12.8 The Legal System**

The Department of Patents, Designs and Trade Marks is quasi-judicial organization. The Registrar of the department acts as a tribunal. Any appeal against the decision of the Registrar lies to the High Court having jurisdiction.

In case of civil proceedings, no suit for the infringement of a trade mark can be instituted in any court inferior to a District Court. However, in case of passing-off a proceeding can be instituted in the court of an Assistant Judge/Joint District Judge.

In Bangladesh, all criminal proceedings begin in the magistrate's courts. All criminal cases relating to false trade marks, counterfeiting of a trade mark, etc. are tried by a court of the Magistrate of the first or second class, or by a Metropolitan Magistrate ( in a metropolitan area). Any appeal against the order of the Magistrate lies to the District Magistrate or to the Sessions Judge.

## **12.9 IPR Negotiations**

The subject and content of Intellectual Property Rights (IPR) were included in the final phases of Uruguay Round (UR) of GAIT negotiations pressured by the US and with support from the E.C. The developed countries wanted a system through which all the IPRs could be brought under a single agreement leading to global enforcement. The developing countries thought that the benefits of UR Agreements would outweigh the economic and social costs of the TRIPS Agreements. The developing countries were pressurized and allured by ensuring more access to the markets of developed countries. The application of copy strategy ensured growth for many developing countries during the twentieth century that created challenge to the industrial economies and necessitated the enactment of TRIPS Agreement. When concluded in 1994 it was termed a "victory for the free over managed trade regime". Member states, under the provision of TRIPS Agreement, have to amend their existing laws if non-existent. The Agreement allows member states to provide more extensive protection of intellectual property if they so wish. The main three features of the Agreement are Standard, Enforcement and Dispute Settlement.

## **12.10 Policy Measures**

### **Importation of IP Assets through**

- foreign direct investment and technology transfer
- licenses, manufacturing, distribution, joint ventures
- training programs associated with joint ventures
- use of patent data bases

## Local creation of IP assets

- 🌐 Universities, public research centers;
- 🌐 SME promotion and incentives;
- 🌐 Targeting and protecting new technology;
- 🌐 Using traditional knowledge/folklore as base for commercial activity; and
- 🌐 IP harvest from joint venture participation.

## The essential components of proactive IP strategy would be as follows:

- 🚧 Strategic policies
- 🚧 Infrastructure & enforcement
- 🚧 Education & marketing and
- 🚧 Dynamic use

Strategic policies must be in context of a market. It should define market for IP and IP based products such as size of population, manufacturing, making, using and selling. Other contexts are local, national, regional and global markets. Infrastructure and enforcement of IP would be "updating laws to suit national needs and promote IA growth and use, budgeting, R&D funding, tax incentives, use organizational development principle, employ relevant IT and focus on enforcement. Marketing of the IP assets depends on the promotion of IP culture in context of human capital development and national economic policies, de-mystify, use plain language; change expectations: everyone has IP; and make IA (IP+ HC) a national "brand".

## Technology Exchange

The success of technology transfer depends first on the implementation of an overall strategy in Bangladesh to create, own and exploit intellectual property assets. This should be based on human capital development and proactive public policies, to strengthen local R &D capacity and public-private sector collaboration. Therefore, a combination of technology transfer and exchange, based on locally-developed technology and know-how, may become an important tool for developing countries. Conversely, in the absence of locally-owned intellectual property assets and know-how which permit an exchange of value, developing countries will continue to face serious challenges in gaining access to externally-developed technology, as well as in developing and nurturing locally-developed technology-based businesses.

In supporting developing countries to create, own and exploit intellectual property assets, WIPO assists in improving their marketing strength in the process of technology transfer and exchange. WIPO also offers capacity-building programs to facilitate technology transfer and exchange in developing countries. Technology is transferred from one party to another by means of intellectual property licensing and know-how agreements, the latter generally occurring in the form of formal training agreements or joint ventures.

## About Term of Copyright Protection

It is a well-established principle that copyright is territorial in nature, that is, that protection under a given copyright law is available only in the country where that law applies. Thus, for works to be protected outside the country of origin, it is necessary for the country to conclude bilateral agreements with countries where the works are used. In the mid-nineteenth century, such bilateral agreements were concluded among European nations, but they were neither consistent nor comprehensive. As a result of the need for a uniform

system of protection, the first international agreement for protection of the rights of authors was concluded and adopted on September 9, 1886, in Berne, Switzerland: the Berne Convention for the Protection of Literary and Artistic Works. The countries which adopted the Convention formed the Berne Union to ensure that the rights of authors in all member countries were recognized and protected. The Berne Convention is administered by the World Intellectual Property Organization (WIPO) in Geneva, Switzerland.

The copyright and neighboring rights are legally valid for a fixed period of time. This period is known as the term as the term of protection. The length of the period of time. This period is known as the term of protection. The length of the period varies depending on the copyright laws of each country but it is usually from fifty to seventy years after the death of the author. The term of protection also varies depending on the type of work. Once this term has expired, however, legal rights to the work also expire. After that, the work becomes part of the public domain and can be exploited freely. The objectives of establishing a term of protection are to increase the motivation of authors and at the same time to make sure that their works become the property of society as a whole after a certain period.

### **Term of Protection for Copyright (Property Rights)**

In most countries, a work automatically comes under the protection of the copyright laws of the author's country as soon as it is created and made public. (This is known as unconditional.) However, some countries also have a system for "registering" works as soon as they come under the protection of copyright law. This acts as a deterrent against illegal use by a third party and also gives the author an advantage when proving that copyright exists. (In the United States, Japan, Korea and China, for example, this system exists for software only).

### **Term of Protection for Neighboring Rights**

The term of protection for neighboring rights is also determined by the copyright laws of each country or by such agreement as TRIPS, which will be explained later. Protection commences from the time the work is first performed, when the sound for a recording is first fixed, or when it is first made public.

This part of the presentation is devoted to the international conventions in the field of neighboring rights, namely, the International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (Rome, 1961, known as the Rome Convention), the Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms (Geneva, 1971, known as the Phonograms Convention), and the Convention Relating to the Distribution of Program-Carrying Signals Transmitted by Satellite (Brussels, 1974, known as the Satellites Convention).

Neighboring rights are primarily a result of technological development. The first organized support for protection of neighboring rights came from the phonogram industry, which sought (and gained, at least in countries following the common-law tradition) protection under copyright law against unauthorized copying of phonograms under copyright. In the United Kingdom, for example, the Copyright Act 1911 granted a copyright to producers of sound recordings, and this copyright approach has been followed in countries such as the United States and Australia.

### **Duration of Protection**

The minimum term of protection under the Rome Convention is twenty years from the end of the year in which (i) the fixation was made, as far as phonograms and performances

incorporated therein are concerned, or (ii) the performance took place, as regards performances not incorporated in phonograms, or (iii) the broadcast took place, for broadcasts (Article 14).

### **Limitations on Copyright**

Excluding certain specific conditions, copyright is limited. Limited means that the rights are controlled. It means that except for these specific conditions copyright does not apply and the work can be exploited freely. Recently, however, uses based on a very broad interpretation of this rule have become a problem. One such problem that has recently been the focus of attention in Japan is reproduction for private use or in public libraries, etc. In addition, there is not yet sufficient understanding of the difference between legally recognized "quotation" and "use" for which permission must be obtained. Limitations on copyright should be viewed as nothing more than the recognition of a few exceptions to the rules. It is important to remember that the ultimate objective is to project the profits of the copyright holder.

### **IPR Protection in Computer-Related Innovations**

Patent able subjects are device, hardware circuits and networks. Patent of software is related in a system or device and under other conditions. Non-patent able subject is lay out for designs of integrated circuit, External design of Hardware/Devices, Icons, Brands of the various products including computer programs, and Computer programs, Engineering drawings, Icons, Graphics. If claimed properly, software patents have a broader scope than copyrights because patents protect the broad steps of the process for accomplishing a given practical effect, whereas copyright protects only against the verbatim copying of a given set of code. It matters not what language or organization the code is programmed in, if the code achieves the same function as the claimed elements of the software patent, the code infringes the patent.

#### **What can be Patented in IT based Innovation?**

- Computer System or part thereof
- Peripheral or part thereof
- Accessory or part thereof
- Component or sub assembly
- Features of any of the above.
- Sequence, structure, organization of the program
- Concept, methodology or technique embodied in the invention.

#### **Some patenting issues should be:**

- Raise cost of software development
- Small inventor may have disadvantages
- Standards to be adopted for patent ability criteria
- Interoperability of software could be a problem
- Problems to the open platforms development

E Commerce and IPR issues are as follows: Jurisdiction, Contracts, Linking, Metatarsi, Licenses, Privacy issues.

## **Rental Rights**

The WCT provides (Article 7) for a right of commercial rental in respect of computer programs, cinematographic works and, as determined in national law, works embodied in phonograms, subject to certain important exceptions contained in Articles 7(2) and 7(3);

## **Limitations and Exceptions**

Agreed Statements accompanying the WCT and the WPPT provide that limitations and exceptions, as they have until now been applied in compliance with the Berne Convention, may be extended to the digital environment. In addition, Contracting States may devise new exceptions and limitations appropriate in the digital environment. Of course, the extension of existing or creation of new limitations and exceptions is only allowed if it is acceptable on the basis of the "three step" test.

## **Technological Protection Measures and Rights Management Information**

It was recognized during the preparation of the two treaties that in a digital environment any new rights in respect of digital uses of works would, in order for the new rights to be effective, require the support of provisions dealing with technological measures of protection and rights management information.

## **Implications of TRIPS**

Member states, under the provision of TRIPS Agreements, have to amend their existing laws if non-existent. The Agreement allows member states to provide more extensive protection of intellectual property if they so wish. The main three features of the Agreement are: Standard, Enforcement and dispute settlement.

## **Options for Bangladesh**

Bangladesh does not yet have the full capability and economic strength to stand the onslaught or intellectual property rights regime. Indicators for industrial performance and technical purpose index have implications for IPR. The technology effort for Bangladesh is zero meaning negligible. Bangladesh enacted the copyright act 2000. Punishment for willful violation of copyright is jail for a maximum of four years and fine for Tk. 2 lacs. In case of computer software, if the use was made for non-commercial use, punishment is for three months and fine Tk. 50,000. In case of pirated software jail for three years and fine for Tk. 2 lacs. Bangladesh needs a three-tier strategy: national, regional and international. Clear understanding of leaders and policy planners about implications of WTO agreements. Next regional participation to prevent piracy of traditional knowledge. To raise the question of technology transfers in different global forums.

## **Emerging Issues in Intellectual Property**

Intellectual property plays an important role in an increasingly broad range of areas, ranging from the Internet to health care to nearly all aspects of science and technology and literature and the arts. Understanding the role of intellectual property in these areas many of them still emerging - often requires significant new research and study.

## **Women and Intellectual Property**

Although traditionally women have not generally held major prominence in the intellectual property field, an area frequently seen as a "masculine" activity in years past, this has

sometimes been more a matter of perception than of reality. Moreover, in recent times, the intellectual property field, as every aspect of human endeavor, has witnessed significant strides being made by women towards achieving equality, both in terms of opportunities and of recognition.

One very visible sign of progress is the increasing number of women acceding to high level positions in intellectual property administrations, within both the public and private sectors, and at the national, regional and international levels. This development is reflected in the growing number of women representatives who participate in WIPO meetings and other events as well as in the high proportion of women who benefit from the various WIPO training and other educational programs.

Women have long been known to have made important contributions in the visual and performing arts, in music and in literature, even if they may not have always received the recognition they deserved. Around the world, in indigenous, nomadic and agricultural communities, it is frequently women who have been and continue to be entrusted with safeguarding and transmitting traditional knowledge and folklore. It is important that these contributions be recognized and protected where appropriate. The only person to have ever been awarded two Nobel prizes, each in a different science (physics and chemistry), Marie Curie, may have stood out as a "lonely" pioneer in her times. She nonetheless inspired millions of future women (and also male) scientists around the world. Today, Marie Curie would have been pleased to find herself in the good company of so many women scientists. Although women inventors overall still constitute a minority (the patent field being the only intellectual property area where gender desegregated statistics can be compiled because the Paris Convention requires that inventors be named as such in the patent document), this minority is slowly growing into a "critical" mass and expanding into all fields of science and technology. This is reflected not only in the growing number of women whose inventions are being patented but also in the scope of their scientific and technological activities. Whereas women first ventured mainly into "feminine" oriented endeavors, involving home and family related inventions, such as toys and disposable diapers, frequently in an effort to find practical solutions to their every-day challenges as housewives and mothers, today women are making important contributions as professional research scientists in all aspects of mainstream and forefront sciences, from biology and medicine to genetic engineering and "high tech". It is important that these contributions be acknowledged and that the prototype of an inventor as a "man" be discarded, so that girls and young women can look into the future with confidence that all fields of science and technology are open to them, with equal opportunities offered to women and men to make contributions to the betterment of mankind. Why deprive humanity of the potential contributions that women could make?

In country after country, statistics show that even during these past years of economic crisis and recession, the one robust sector providing economic growth, increased productivity and employment has been that of small and medium-sized enterprises. What is less known is that in many countries up to 40% to 50% of such enterprises are owned and run by women - women who are actual or potential owners of trademarks, service marks, trade names as well as of industrial designs, patents and copyright. It is critical that outreach programs to build awareness about the importance of intellectual property and its protection target these women and also the many other women running the majority of micro enterprises and many cooperatives, especially in developing countries. Women, just as men, deserve to be given the means to enable them to use intellectual property as a tool of economic and social empowerment.

Today, women constitute about 55% of the world's population. If one of the great achievements of the 20th century was that women gained access to all fields of economic, commercial and intellectual activity, one of the major challenges of the 21st century is to



ensure that women gain equal opportunities of access, advancement and recognition. As a United Nations specialized agency, WIPO is committed to these goals.

### **12.11 Conclusion**

The GOB is committed to the protection, and for that matter to the enforcement, of the rights of the IP holders. With this end, it has undertaken several measures to strengthen the IP system in Bangladesh. On the one hand, it has taken measures to strengthen the IP Office, on the other it has almost finalized updating the existing IP legislations. Works on framing IP laws on utility model and geographical indications have been undertaken.

The GOB is fully aware to the fact that the incidence of counterfeiting and piracy is on the increase in the country. This happens mainly because of lack of awareness and ignorance among the members of the public and, even among, the law enforcing agencies. It is expected that with the measures undertaken, IP rights will be better protected in the country.

In any initiative to protect and enforce the rights of the IP holders, the importance of public awareness and training of the officials of the concerned departments can hardly be exaggerated. Keeping this in mind, the GOB, in collaboration with the European Union, has taken a technical project to impart training on intellectual property to the officials of the concerned departments, such as, Police, Customs, Judiciary, Ministry of Commerce, Ministry of Industries, Ministry of Cultural Affairs etc. In order to create public awareness, the project envisages organizing a number of workshops, seminars and study tours for the concerned stakeholders. This will buttress the public awareness creating program undertaken by the GoB.

The development and protection of intellectual property rights largely depends on the effective enforcement mechanism. Strong enforcement mechanisms for the protection of intellectual property rights foster an environment in which creative and innovative industries can thrive and contribute to economic development. Though the government has updated laws on the point but it is evident from the above discussion that the present legal framework as well as administrative set up is inadequate to provide expected protection of intellectual property for entrepreneurs who seek to protect their invention, trademark and other intangible business property. In any initiative for better protection and promotion of the rights of IP holders the significance of enhancing public awareness and skills of concerned officials of the authorized departments can hardly be exaggerated. An equitable, modernized and protected IP rights regime provides recognition and material benefits to the inventor, constitutes incentives to the inventors and innovative activities.<sup>22</sup> In order to maximize exploitation of intellectual property rights there is no alternative to amending legislation in this area.<sup>23</sup> But the most important thing is the awareness of people in general that can only stop the rampant violation of intellectual property rights. Thereby, the government should not only formulate and reform the law on this context rather, should take all indispensable steps to make people conscious. Every people should know that they have right for everything both inside and outside.

### **12.12 Findings in the Context of Bangladesh**

1. Bangladesh does not have a comprehensive national IPR policy.
2. GI Act in Bangladesh is an immediate imperative to enable many of the traditional products to be protected.
3. Bangladesh IP offices are running mostly by deputed personnel. It is crying need at the moment to appoint permanent manpower for betterment of IP administration.
4. Weak IPR enforcement in Bangladesh negatively impacting the businesses.

5. IP valuation and monetization of IP as concepts are not too well known in Bangladesh.
6. There is no IPR facilitation centre in Bangladesh to guide businesses.
7. Industrial property information service is not properly institutionalized.
8. Sectors like music, movies, DVD, graphics, ITES, software, financial services sectors consider IPR tools important for business development.
9. Extensive delays and backlog in the granting of trademarks continue to cause losses to businesses.
10. Government should promote market oriented R&D in patent searching techniques to facilitate innovations.
11. National Technology Transfer Centre with trained manpower should be established.
12. Financial Institutions should be made aware on how best they can exploit IP assets.
13. IP facilitation centers in chambers of commerce/industry associations should be set up to create IP awareness among its members.
14. Supreme Court could give directives to familiarize the judges on the evolving IPR issues particularly in the ICT sector.
15. Involve industry associations in IPR awareness program.
16. Replace Textile Policy 1995 with a new textile policy to promote RMG exports.
17. Amendment of the Patents and Designs Act 1911 with special provision for the protection of indigenous designs.
18. The Anti Piracy Task Force of the Ministry of Cultural Affairs should be strengthened.

## **12.13 Recommendations**

- In the light of the above discussions following recommendations are proposed-
- Bangladesh should immediately amend the laws on intellectual property to develop a harmonious system of IP rights protection.
- Bangladesh needs to formulate & systematically implement international IP Policy and IP Strategy
- In order to implement commercialization of home-grown innovations national innovation fund may be initiated.
- Comprehensive IPR awareness and business strategy program needs to be launched.
- The Patents and Designs Act 1911 is to be amended with inputs from relevant stakeholders and experts.
- Geographical Indications Act has been submitted so far. But no further progress has been made yet. So, immediate appropriate an action has to be taken to finalize the GI law IP administrations need to be strengthened with trained permanent manpower, befitting infrastructure with sufficient resources.
- Co-operation, Collaboration, Co-ordination are the key 3C's in order to ensure effective IPR enforcement.
- The organizational capacity and efficiency of the concerned administrative branch should be upgraded qualitatively and quantitatively so that they can function properly.
- Copyright law should provide the basis for the protection of software because absence of copyright protection of software is responsible for poor flow of foreign client and extremely low rate of export of software.

- Mechanisms must be developed to ensure speedy and cheap resolution of disputes and litigation on intellectual property rights.
- Rules annexed to every particular Acts on IP should be amended periodically to reflect the changes that have been taken place since enactment of any Act.
- For the sake of fair justice and scientific resolution, it is important that Bangladesh should immediately start Intellectual Property and Commercial Law Courts, at least, initially in Dhaka, Chittagong, Rajshahi and Khulna covering the whole of Bangladesh, particularly in consideration of increased number of Intellectual Property.
- Bangladesh possesses a prosperous wealth of Intellectual property emanating from indigenous or traditional knowledge. It would be shrewd for the government to recognize their knowledge, practices, innovation and rights and bring them under the protection of intellectual property law regime.

# Chapter XIII

## Focus Group Discussion (FGD) and Survey Program

### 13.0 Focus Group Discussion (FGD) and Survey Program

A survey program was conducted to get the views on IP policy. Some of the respondents are as follows:

**1. Mr. Shuvasheesh  
Vice Chairman  
Export Promotion Bureau (EPB)  
1, Karwan Bazar, TCB Bhaban,  
Dhaka-1000.**

An interview was held with Mr. Shuvasheesh, VC (Vice Chairman) of Export Promotion Bureau (EPB) on 8th Aug, 2013 at EPB Office. The VC of EPB delineated the various lackings of infrastructure facilities in the country in the process of creating innovation climate in the country. The following are the key points he cited out.

- (i) All the stakeholder organizations such as BSTI, DPDT, BITAC, BSCIC etc. to be affiliated with some accredited international organizations, so that the organizations operating in the country possess credibility in the global arena.
- (ii) Without GI (Geographical Indication) law, the protection of GI items can not be ensured. There are significant numbers of GI items in the country (such as *Padma Hilsha Fish, Rajshahi Mango, North Bengal Black goat, Mirpur Banarashi Shari* etc). Thus a suitable GI law to be articulated in the country.
- (iii) Presently colour testing facilities in the garments industries are not available. Colour testing is outsourced from the neighbouring country. Without colour testing lab institution, no assessment can be done. Thus the product acceptability to the global market is being hampered. So colour testing institution accompanied with certification to be established in the textile industry. A mutual cooperation mechanism can be sought from Delhi colour lab.
- (iv) For pharmaceutical sector, Bio-equivalence centre to be established in the country. A system to be developed for standardization and certification. Registration system of drug to be affiliated with foreign pharmaceutical industry.
- (v) More emphasis to be given on fashion & design aspects. State-of-the-art of fashion & design technology to be disseminated all over the country.
- (vi) Design and fashion institutes for the sectors such as RMG, leather, furnitures, handicrafts etc. are to be established under the patronage of Ministry of Industry. (As for example, Uttara Fashion Institute can be cited).
- (vii) Standardization and certification pertaining to food product is needed for export. For expert, an internationally accredited organization to be developed.

- (viii) Packging system to be upgradaded to enhance its quality. Packagng must not be only for aesthetic purpose but also it should possess protective attribute. The packages must be attractive as well as protective and hygenic.
- (ix) Technology design quality to be upgraded for footwear and leather shoes. Indigenous and native design to be developed to penetrate into the global market.
- (x) A Comprehensive Trade Policy (CTP) involving all concerned ministries (such as MoI, MoC, BoI, BSCIC, SMEF, EPB) to be developed. A body/committee to be formed who will formulate, implement & monitor the CTP and its action plan. Finance Division, IRD, NBR to be included in the process.

**2. Mr. Nazmul Haque Bhuiyan**  
**President**  
**Music Association**  
**17/2, New Eskaton Road, Dhaka.**

A discussion meeting was held with Mr. Nazmul Haque Bhuiyan, Founder President of Music Industries Owners' Association of Bangladesh, 17/2, New Eskaton Road, Dhaka on 11th August, 2013. His comment on innovation promotion was as follows.

- (i) History of sound culture & heritage in Bangladesh is very long. Research in the areas such as fine arts Music, etc. to be strengthened and promoted. Music composer, music lyries writer, music entrepreneurs must be evaluated and properly strengthened.
- (ii) There is an act of copyright (amended in 2005). But implementation is not being done properly and arbitration takes very long time.
- (iii) Legal action process in Bangladesh is very time consuming. President of Music owners' Association Mr. Nazmul Haque Bhuiyan made a legal petition whose verdict came after 8 years.
- (iv) Registrar of DPDT must be a resource person in this field. If registrar is not fully conversant with the subject matter then the concerned department becomes slow and inactive. Frequent shifting of Registrar from DPDT is a major problem in crystallization of cognizance and relevant knowledge.
- (v) The innovation must be fundamental and of genesis nature. Measures to be taken to create congenial innovation climate in the country.

**3. Mr. Nessar Maksud Khan**  
**Senior Vice President**  
**Dhaka Chamber of Commerce & Industries (DCCI), Dhaka.**  
**And**  
**Managing Director**  
**MAKS Renewable Energy Company Limited**

A discussion meeting was held with Mr. Nessar Maksud Khan, Senior Vice President, DCCI on 13th August, 2013. He commented about some modality of innovation promotion in the country.

**4. Mr. Mustafa Jabbar  
Ananda Computers  
188, Motijheel Circular Road  
Arambag, Dhaka-1000.**

A discussion meeting was held with Mr. Mustafa Jabbar, Ananda Computers, 188, Motijheel Circular Road, Arambag, Dhaka-1000 on 11th August, 2013. His comment on innovation promotion was as follows.

- To provide a platform for young entrepreneurs, especially from outgoing students, faculty and small entrepreneurs to develop their technology based companies
- The selection of projects for innovation promotion will be based on three criteria,
  - The topics will be in fields of best strength and capabilities
  - The projects with high national priority
  - Projects have to be attractive to entrepreneurs
- To do innovation at the incubation centre
- To make intensive efforts to involve the industry into joint projects
- Consultancy and fields of expertise
- IP rights and incentive to faculty

Develop the Incubation Centre and in next phase expand it to a Technology Park, supporting businesses

**5. Mr. Sobur Khan  
President  
Dhaka Chamber of Commerce & Industries (DCCI), Dhaka.**

A discussion meeting was held with Mr. Sobur Khan, President, DCCI on 13th August, 2013. The President of DCCI discussed about the important issues of IP, IP protection and Patent law. He said that he has taken positive steps on innovation promotion.

In order to achieve the employment targets, industrial growth, improved socioeconomic structure and keep positive impact to GDP aligned with the targets of the government announced policies, Dhaka Chamber of Commerce & Industry (DCCI) in association with Bangladesh Bank has come forward with an innovative idea of Creating 2000 New Entrepreneurs in 2013 along with a parallel event of an expo titled Entrepreneurship and Innovation Expo-2013. This is an outstanding and unique initiative in the country as the Entrepreneurship Talent Hunting will be carry forward throughout the whole country to collect talents from every nook and corner of the country.

**Objectives of the Program**

- Create and foster 2000 new entrepreneurs from all over the country.
- Initiate a platform for the first-generation new and innovative entrepreneurs for network building which will deal with business risk factors, disseminate information to establish an Idea- shop and help enhancing capacities of others.
- Share inspired stories and journeys of successful entrepreneurs to network with those renowned business and management professionals of both at home and abroad.

- Encourage age-old reputed chambers, trade bodies, sectoral associations, NGOs and public and private universities/educational institutions for creation of new entrepreneurs in the country.

## **Project Areas**

Ideas/Projects can be formed from any sectors, there is no restriction. Some of the examples are: Agribusiness (Green Harvest, Dairy, Poultry, Fisheries), RMG (High value added sectors), ICT (Software, Hardware, Security, Games/Apps, Animation, Information Database, National Digital Network, Antivirus), Leather and leather goods, Pharmaceutical/Medical/Vaccine, Frozen Goods, Light Engineering, Handicrafts, Mobile Engineering, Folk/Heritage/Music, Tourism, Environment/Waste Management, Furniture, Fashion and Accessories, Electronics and Technology, Renewable/Alternative Energy, Machinery, Chemical, Cosmetics/Beauty/Herbal, Automobile, Textile, Architecture, Education and Freelance etc.

DCCI is encouraging any profitable business concepts which can be run commercially. DCCI is expecting to receive about 40,000 ideas/projects from all over the country and out of these, at least 2000 best projects will be selected for demonstration in Dhaka and the owner of the projects will enjoy to showcase them in the "Entrepreneur & Innovation Expo 2013.

**6. Mr. G.M. Kader**  
**Honb'le Minister**  
**Ministry of Commerce**  
**Govt. of Bangladesh**

A discussion meeting was held with Mr. G.M. Kader, Honb'le Minister, Ministry of Commerce, Govt. of Bangladeshon 14th August, 2013. Discussed about various issues of innovation & creativity situation prevailing in the country and also about innovation promotion, thereby creation of congenial innovation climate in the country.

**7. Dr. Md. Ruhul Amin Sarker, Ph.D**  
**Additional Secretary**  
**Ministry of Commerce**  
**Govt. of Bangladesh.**

A discussion meeting was held with Dr. Md. Ruhul Amin Sarker, Ph.D, Additional Secretary, Ministry of Commerce, Govt. of Bangladeshon 15th August, 2013. Discussed how an innovative product can be commercialized. Also discussed about market situation, market forces and hindrances for marketing innovation driven products.

**8. Mr. Kazi Akram Uddin Ahmed**  
**President**  
**The Federation of Bangladesh for Commerce and Industry (FBCCI)**  
**Federation Bhaban**  
**60, Motijheel Commercial Areas, Dhaka-1000.**

A discussion meeting was held with Mr. Kazi Akram Uddin Ahmed, President, The Federation of Bangladesh for Commerce and Industry (FBCCI)on 19th August, 2013. Discussed how various innovations in the university and research institutions can be materialized through business community and venture capital. He suggested that if a list of

innovative ideas can be given to him then he would request the business leaders FBCCI directors and other entrepreneurs to come forward to implement the projects. He mentioned that FBCCI has got 50 directors who can help innovative projects in many ways.

Entrepreneurship is universally recognized as critical resource in the economic development process of a country. Entrepreneur will continue to play a dominant role in the economic growth particularly industrials growth during the 21<sup>st</sup> century. Bangladesh has adequate potential for entrepreneurship development as essential qualities such as, innovativeness, risk-taking, perceiving economic opportunities, strong commitment, vision etc. are available among a good number of educated and young people of the country. Given the opportunities and with needed support they can be emerged as future winning entrepreneurs.

Bangladesh adds 2 millions of people to its labor force every year and a significant portion has great potentials to be self-employed. They can be engaged to create a revolutionary force for effective economic growth through exploring entrepreneurial opportunities.

**9. Mr. Munwar Misbah Moin**  
**Managing Director and Group Director**  
**Rahimafrooz (Bangladesh) Ltd.**  
**1A, Gulshan Avenue, Dhaka-1212.**

A meeting was held on 25 Aug, 2013 with Mr. Munwar Misbah Moin the Managing Director of Rahimafrooz. Detail discussions were made about the innovation policy required in the country. Deliberation was made about new innovations of Rahimafrooz a such as solar pump, solar street light, enhanced capacity adorned UPS (Uninterrupted Power Supply), etc. Some new ideas on 3 (three) battery technologies were discussed with the MD. These are load acid battery, Li-ion (lithium ion) battery and NiMH (Nickel-Metal Hydride) battery. He showed interest to get technologies of these batteries especially Li-ion battery. The MD of Rahimafrooz requested a list of focused innovative technologies on different items in the energy sector (as Rahimafrooz is working on energy sector) so that the company can choose selected projects for implementation. He showed exclusive interest to make projects to translate new ideas to commercially viable products.

**10. Mr. M. Shahidul Haque**  
**Secretary**  
**Legislative and Parliamentary Affairs Division**  
**Ministry of Law, Justice and Parliamentary Affairs**  
**Govt. of Bangladesh**  
**Bangladesh Secretariat, Dhaka-1000.**

On 3<sup>rd</sup> September, 2013, there was a meeting with Mr. M. Shahidul Haque, Law Secretary, Ministry of Law, Justice and Parliamentary Affairs, GOB. Discussed about GI (Geographical Indication) law. It was stated by Prof. Dr. M. Kamal Uddin that the delay of making GI law in Bangladesh will be fatal for Bangladesh as Bangladesh can lose ownership of some its GI items. Presently there is no GI law in the country. India has registered a number of GI items of Bangladesh in their name. Prof. Dr. M. Kamal Uddin said that we should not make replication of Indian GI law as our traditional cultural expressions (TCE), resources, culture, heritage, geographical setting, variety of indigenous items and specialties are quite different from India in many cases. We should adhere, define and value our own proprietorship in our inherent dimension. The secretary said that we should check the proposed law whether it encompasses and protects our interest in all respect.



The Secretary of Ministry of Law stated that the draft of GI law was received by the Ministry of Law in the 1<sup>st</sup> week of August, 2013, from Ministry of Industry, GOB for vetting and necessary correction and changes if required. Ministry of law, since then, has made corrections and did many changes. Now the GI law is almost ready and will be submitted soon to the parliament for approval. The law secretary has requested Prof. Dr. M. Kamal Uddin, Director (Head), Institute of Appropriate Technology, BUET, Dhaka to check the draft GI law and to make comments for correction on that. Prof. Dr. M. Kamal Uddin has taken the draft for perusal and to make comments. The law secretary said that the proposed GI law will be submitted for approval without at the quickest possible time.

**11. Mr. Kazi Arifuzzaman, LLB (Hons), LLM (DU)  
Deputy Secretary  
Legislative & Parliamentary Affairs Division  
Ministry of Law, Justice & Parliamentary Affairs  
Govt. of Bangladesh.**

On 26<sup>th</sup> August and 3<sup>rd</sup> Sept. '13 there was a meeting with Mr. Kazi Arifuzzaman, Deputy Secretary of Ministry of Law and discussed various issues pertaining to the new proposed GI law. One of the important clause that has been included in the draft GI law is pertaining to keeping a provision that if some other country register any GI item that belongs to Bangladesh at any date prior to registration made by Bangladesh of that item, in that case, ownership of Bangladesh on that item will prevail and in no circumstance, Bangladesh will lose it's ownership.

**12. Dr. Delowar Hossain, Ph.D  
Professor and Former Chair  
Department of International Relations  
Faculty of Social Sciences  
University of Dhaka**

A discussion meeting has been held with Dr. Delowar Hossain on 8<sup>th</sup> September, 2013. Dr. Delowar Hossain stated that an 'Institute of Intellectual Property' is required to be established. He said that WIPO is interested to establish such institute and work is going on.

**13. Dr. A.S.M. Ali Ashraf, Ph.D  
Faculty  
Department of International Relations  
University of Dhaka**

A discussion meeting has been held with Dr. Delowar Hossain on 8<sup>th</sup> September, 2013. Dr. A.S.M. Ali Ashraf said that a nationwide awareness program to be undertaken which is very important. People should know what are IP & IPR.

It was discussed that copyright should primarily serve the instrumentalist function of satisfying social goals and values: the creation, spread and sharing of knowledge and information, and public use and access. In the current era, and particularly with regard to LDCs, the presumptions of copyright are ripe for wholesale reconsideration. The biases and interests of developed countries are monopolizing the international copyright agenda; the interests of LDCs have been ignored and, in any event, copyright, a Western concept, is not a prerequisite for the production of works in LDCs.

**14. Dr. Muhammed Abdul Mazid, Ph.D**  
**Chief Cordinator**  
**BIRDEM**  
**Former Secretary to GoB and Chairman, NBR**

A discussion meeting has been held with Dr. Muhammed Abdul Mazid on 8<sup>th</sup> September, 2013. Dr. Muhammed Abdul Mazid said that an individual entity in the private sector can promulgate the innovation promotion creating innovation climate in the country. The body can be evolved in private sector, public sector or as NGO (As for example CPD as a policy think tank who does economic analysis, policy advocacy and policy formulation, etc.). The name of the forum can be 'The Innovative'. The forum will work in a multifarious ways such as rendering suggestion, advocacy, awareness development, seminal, symposium, journal publication, etc.

**15. Mr. Kamal Abdul Naser Chowdhury, Ph.D**  
**Secretary, Ministry of Education, GoB**

A discussion meeting has been held with Dr. Kamal Abdul Naser Chowdhury, Secretary, Ministry of Education, GoB on 17<sup>th</sup> September, 2013 at his office. Dr. Kamal Abdul Naser Chowdhury agreed that the subject of intellectual property and innovation system to be introduced in the education system in our country especially in the tertiary and university level.. The present education system in Bangladesh is lagging far behind in this field with respect to other progressive countries in the world. Thus innovation and creativity are not being promoted and rejuvenated in Bangladesh. In this present world of knowledge and cognizance, a country cannot progress without innovative work. The education has got effect in the society in the multitude of ways. Japan, South Korea, Taiwan, China are few examples. A proposal has been given to Dr. Kamal Abdul Naser Chowdhury so that government can consider to establish an Institute of Intellectual Property. The institute can be established in BUET.

**16. S.M. Aminul Karim, MPA (Harvard)**  
**Member, Tax Policy**  
**National Board of Revenue**  
**&**  
**Additional Secretary**  
**IRD, Ministry of Finance**

A discussion meeting was held with S.M. Aminul Karim, MPA (Harvard), Member, Tax Policy, National Board of Revenue and Additional Secretary, IRD, Ministry of Finance, on 30<sup>th</sup> September, 2013 at his office. He talked about tariff policy and its restructurization.

**17. Mosharraf Hossain Bhuiyan**  
**President**  
**Bangladesh Electrical Merchandise Manufacturers Association**  
**6, B.C.C. Road (1st Floor), Nawabpur, Dhaka-1100**

A discussion meeting was held with Mosharraf Hossain Bhuiyan, President, Bangladesh Electrical Merchandise Manufacturers Association on 30<sup>th</sup> September, 2013 at his office. He suggested about tariff policy and its restructurization to promote innovation as follows:

### **Fiscal Policies**

- VAT and Corporate Income Tax have to be waived for small industrial enterprises (as defined by Industrial policy 2010) and initiated by Bangladeshi entrepreneurs so long they do not take any loans from formal banks.
- Industries based on investment from the remittances of non-resident Bangladeshis should also be waived of all taxes.
- However, industries based on foreign investment, whether in part or full, cannot get such facilities.
- When a micro or small industry enjoying such tax and VAT waiver takes a formal bank loan, or grows into a medium enterprise, this facility will no more be available.

### **Deregulation of other mandatory policies**

- To eliminate harassment to the start-up or tiny enterprises, trade licence requirement should be waived for the very small enterprises, particularly for which tax and VAT waiver has been proposed in this body of recommendations.
- Counseling, campaigning and moral suasion persuasion, not draconian enforcement of strict labour laws or regulations as exemplified by "Child-labour laws" -- ought to be *modus operandi* when it comes to complying with the so-called 'universal charters' thrust down by the multilateralist institutions.

### **Anti dumping measures**

- "Dumping" by other countries should be prevented through individual case-to-case actions, with due diligence'.
- The Government trade bodies abroad should be more active in providing the required help since it may not be possible for local entrepreneurs to obtain necessary information and documentation to file such cases.
- Awareness-raising towards this effect would be quite useful.

**18. Mr. Md. Asaduzzaman Nur**  
**Senior Assistant Secretary**  
**Legislative & Parliamentary Affairs Division**  
**Ministry of Law, Justice & Parliamentary Affairs**  
**Govt. of Bangladesh.**

A discussion meeting was held with Mr. Md. Asaduzzaman Nur, Senior Assistant Secretary, Legislative & Parliamentary Affairs Division, Ministry of Law, Justice & Parliamentary Affairs, on 15<sup>th</sup> September, 2013 at his office. He talked about tariff policy and its restructurization.

**19. Mr. M. Iftekhar H. Chowdhury**  
**General manager**  
**Rahimafrooz (Bangladesh) Ltd.**  
**1A, Gulshan Avenue, Dhaka-1212.**

A discussion meeting was held with Mr. M. Iftekhar H. Chowdhury, General manager, Rahimafrooz (Bangladesh) Ltd., on 17th September, 2013 at his office. Various issues on innovation and creativity promotion in Bangladesh were discussed.

**20. Mr. Abdur Razzak**  
**President**  
**Bangladesh Engineering Industry Owners' Association**  
**Tipu Sultan Road, Dhaka.**

A discussion meeting was held with Mr. Abdur Razzak, President, Bangladesh engineering Industry Owners' Association on 18th September, 2013 at his office. Various issues on innovation and creativity promotion in Bangladesh were discussed. He suggested about tariff policy and its restructuring to promote innovation as follows:

**Tariff Policies to Promote Innovation**

- For small industrial enterprises (as defined by Industrial policy 2010) which have taken loans from formal banks, an alternative simple option to standard VAT, based on total turnover, should be given. This may be set at 3% on total turnover.
- The entrepreneur would choose the option whether to pay through the standard procedure, or through the simpler turn-over procedure.
- Total Tax Incidence (TTI) on the imported raw materials and components of the same product that are not made locally should be significantly less to allow a competitive edge to local production.
- If the above tax rationalisation is not done in certain cases, the importers should be able to import raw materials of the same product paying not more than 60% of the duty on the similar finished products.
- If import duty and VAT are waived on a finished product, import duty on its raw materials and components should automatically stand waived, as well as the VAT on the production on the same products.
- Duty free import of electrical and electronic items under baggage rules should be abolished.
- The import of any 'technology-based' finished product at zero tax or VAT, however important that product is, should be not to allowed by law.
- If necessary, the Government, including by steering direct subsidies, can pay the duties back to certain organizations which it wants to provide with special support (such as computers and laboratory equipment to educational institutions).

# Chapter XIV

## Method of Innovation promotion in Bangladesh

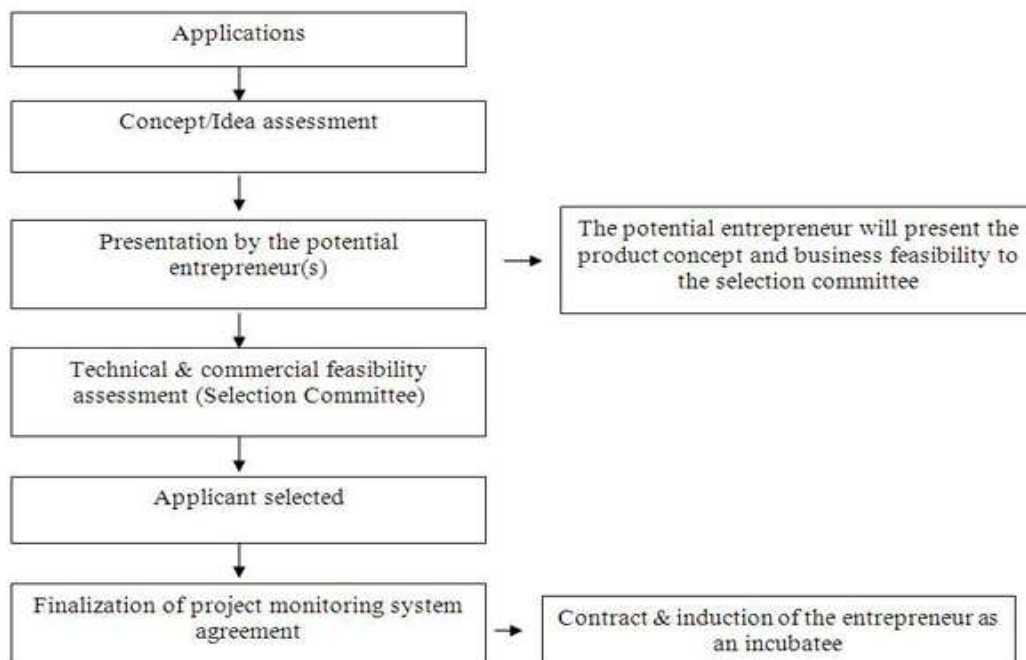
### 14.1 General Qualification Criteria for selection of Business Incubates

- Good understanding of the market and competition.
- Pre-feasibility
- Strong growth potential
- Demonstrate scalable business potential
- Financial condition
- Industry growth rate
- Significant growth rate
- Significant market size
- Identification of marketing, financial or management deficiencies.

### 14.2 The Technology

- An innovative concept
- Potential for IPR
- Technical expertise and edge

### 14.3 Incubates Selection process

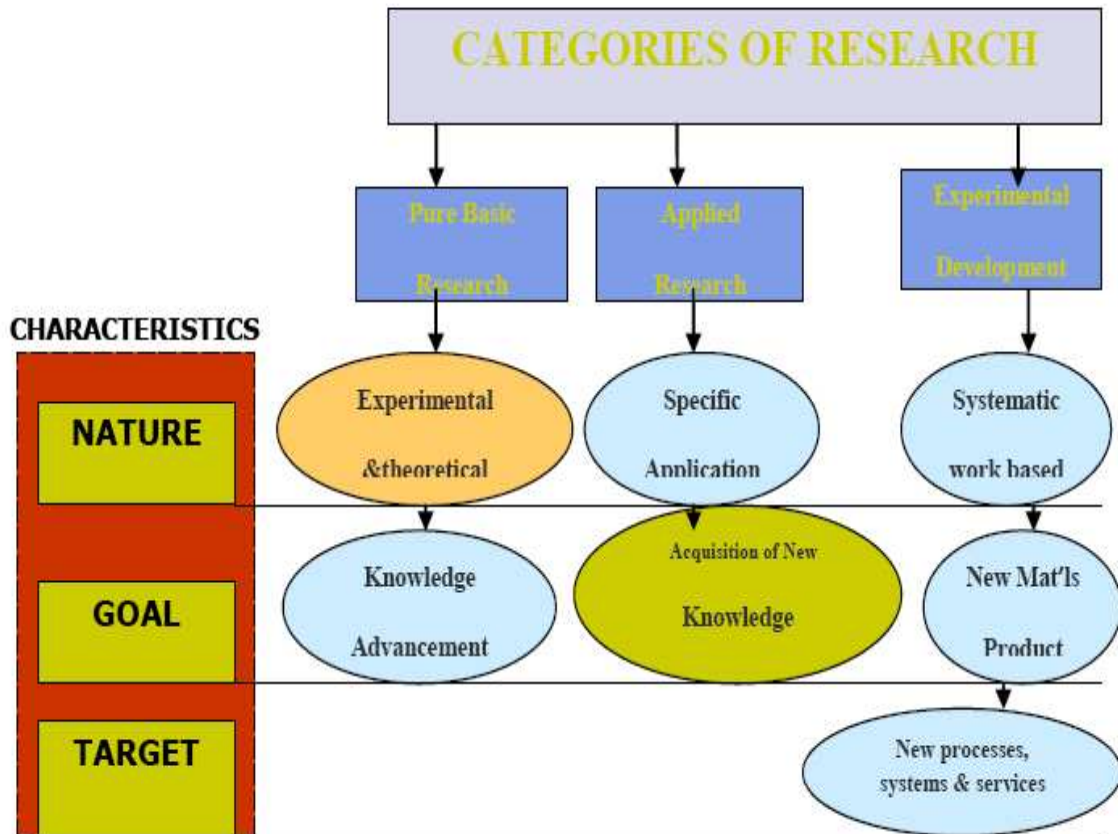


<b>Educating People</b> <ul style="list-style-type: none"> <li>• Training skilled undergraduates, graduates &amp; postdocs</li> </ul>	<b>Increasing the stock of 'codified' useful knowledge</b> <ul style="list-style-type: none"> <li>• Publications</li> <li>• Patents</li> <li>• Prototypes</li> </ul>
<b>Providing public space</b> <ul style="list-style-type: none"> <li>• Forming/accessing networks and stimulating social interaction</li> <li>• Influencing the direction of search processes among users and suppliers of technology and fundamental researchers <ul style="list-style-type: none"> <li>– Meetings and conferences</li> <li>– Hosting standard-setting forums</li> <li>– Entrepreneurship centers</li> <li>– Alumni networks</li> <li>– Personnel exchanges (internships, faculty exchanges, etc.)</li> <li>– Visiting committees</li> <li>– Curriculum development committees</li> </ul> </li> </ul>	
	<b>Problem-solving</b> <ul style="list-style-type: none"> <li>• Contract research</li> <li>• Cooperative research with industry</li> <li>• Technology licensing</li> <li>• Faculty consulting</li> <li>• Providing access to specialised instrumentation and equipment</li> <li>• Incubation services</li> </ul>

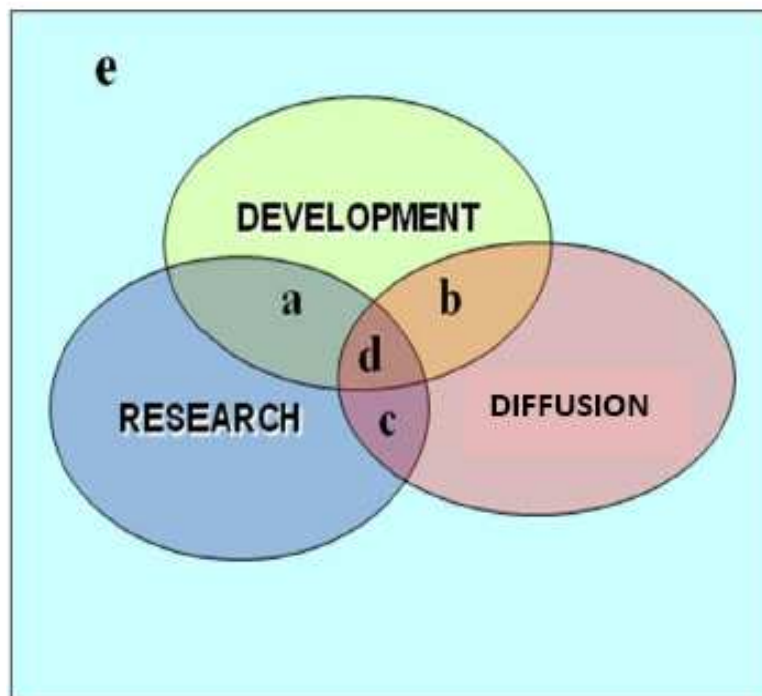
**Table 14.1: Ranking of Barriers to Tangible R&D**

Limitation	% researchers
Lack of funding for research	87
Inadequate supply of electricity	82
Lack of R&D facilities	76
Obsolete facilities	67
Lack of exposure to modern lab skills	55
Inadequate water supply	54
Lack of quality research assistance	50
Inadequate access to recent journals/library materials	45
Lack of exposure to conferences	43
Inadequate time for R&D	29
Poor attitude to collaboration among researchers	29
Lack of research drive	24

**Figure 14.1: The Three Categories of R&D**



**Figure 14.2: Model for the relationship among Research, Development and Diffusion**



- a – Research and Development
- b – Commercialisation
- c - Publication, etc
- d – Research, Development and Diffusion
- e – the NIS, the domain in which all activities take place

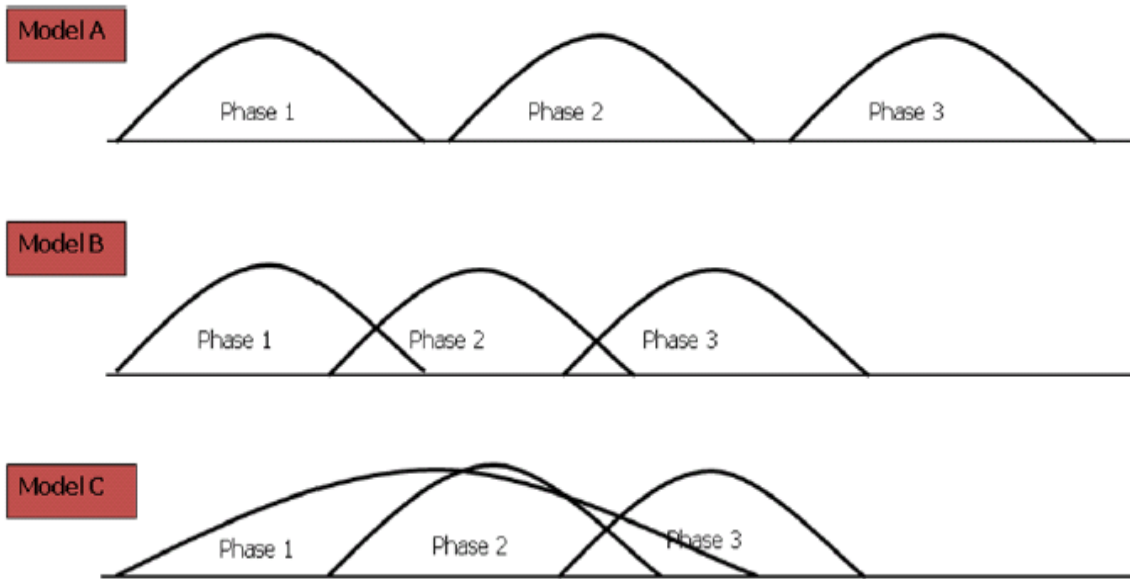
#### **14.4 The proposed Road Map**

The proposed road map is as follows:

- To start from the departmental research groups' output or products, which are mature or are nearly mature
- These products are taken up at the innovation center to convert them to marketable product through design improvements, integration, quality assurance
- Innovation centre will license these products to a new entrepreneur or to an already existing business for production and marketing after due IPR legal considerations
- New entrepreneurs will be formed preferentially from the university graduates
- For commercialization of R&D, the faculty and the relevant department will be given attractive incentives from the revenue earned out of licensing
- Full time Research Associates will be available at the innovation center to help the faculty in prototype development alongside their post graduate students
- The university-industry interaction is to be strengthened through workshops, symposia, lectures, poster shows, training courses, exhibitions and open days. Incubation Center has a special section and workshop available for this purpose



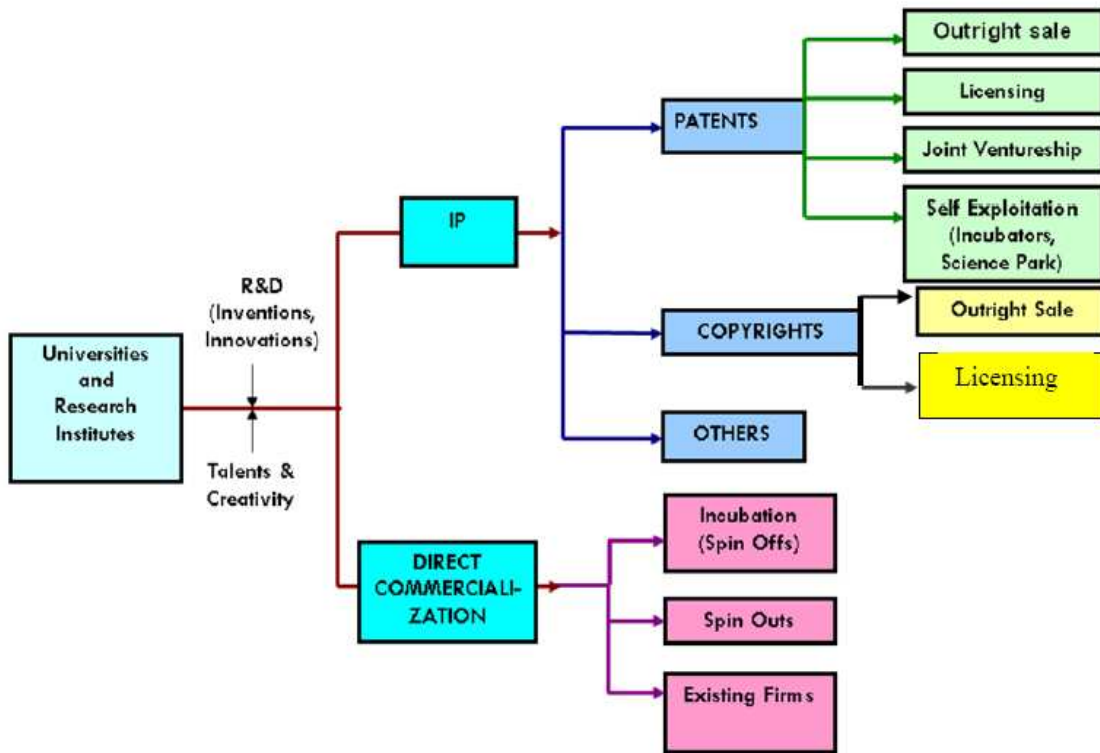
**Figure 14.3: Models of S&T Development for Industrial Production**



Phase 1 – Pure Research Phase 2 – Technological Development

Phase 3 – Production and Marketing

**Figure 14.4: Options for Knowledge-Based Wealth Creation**



## 14.5 Research Areas

### Computer Science and Information Technology

- Digital Image Processing
- Wireless Networks
- Network security
- Natural Language Processing
- Semantic Web
- Software Engineering
- Data warehousing and Data Mining

### Electrical Engineering and Electronics

- Design of semi-conductor thin films,
- Real time data transfer and cable design,
- Image improvement
- Electrical, optic and structural characterization of thin films.
- Telemetric monitoring,
- Image contrast development.
- Enhanced IP Multimedia subsystem development,
- Electronic and electrical engineering designs.

### Management Sciences

- Project Management and H R development and Economic Competitiveness
- Accounting, Dividends,
- Islamic Banking

- Loans and Working Capital Management,
- Management of Small and micro enterprises,
- Globalization and Development,
- Social Problems, Population Growth, Bonded Labor, Working Environment and Productivity

### **Biosciences**

- Production & Commercialization of Biofertilizers/ Biopesticides for different crops.
- Agro based Pharmaceutical development.
- Chemical synthesis.
- Instrumentation for detection and quantification.
- Bioinformatics software development.
- Plant tissue culture technology for micro propagation of plants of demand.
- Flowers and seed production of difficult crops, vegetables etc.
- Development of Bacterial Biosensors.
- Development of Bioremediation strategies.
- Development of vaccines.

### **Mathematics**

- ✚ Applied Mathematics and Computational techniques,
- ✚ Analytical Solutions, Iterative techniques,
- ✚ Parameter determination from Experimental Data.
- ✚ Nonlinear Iterative Methods.
- ✚ Solution of various types of fluid flows, Heat Transfer, Flow through Porous materials
- ✚ Molding of Industrial Problems into Mathematical form and rendering Exact or Analytical solutions.

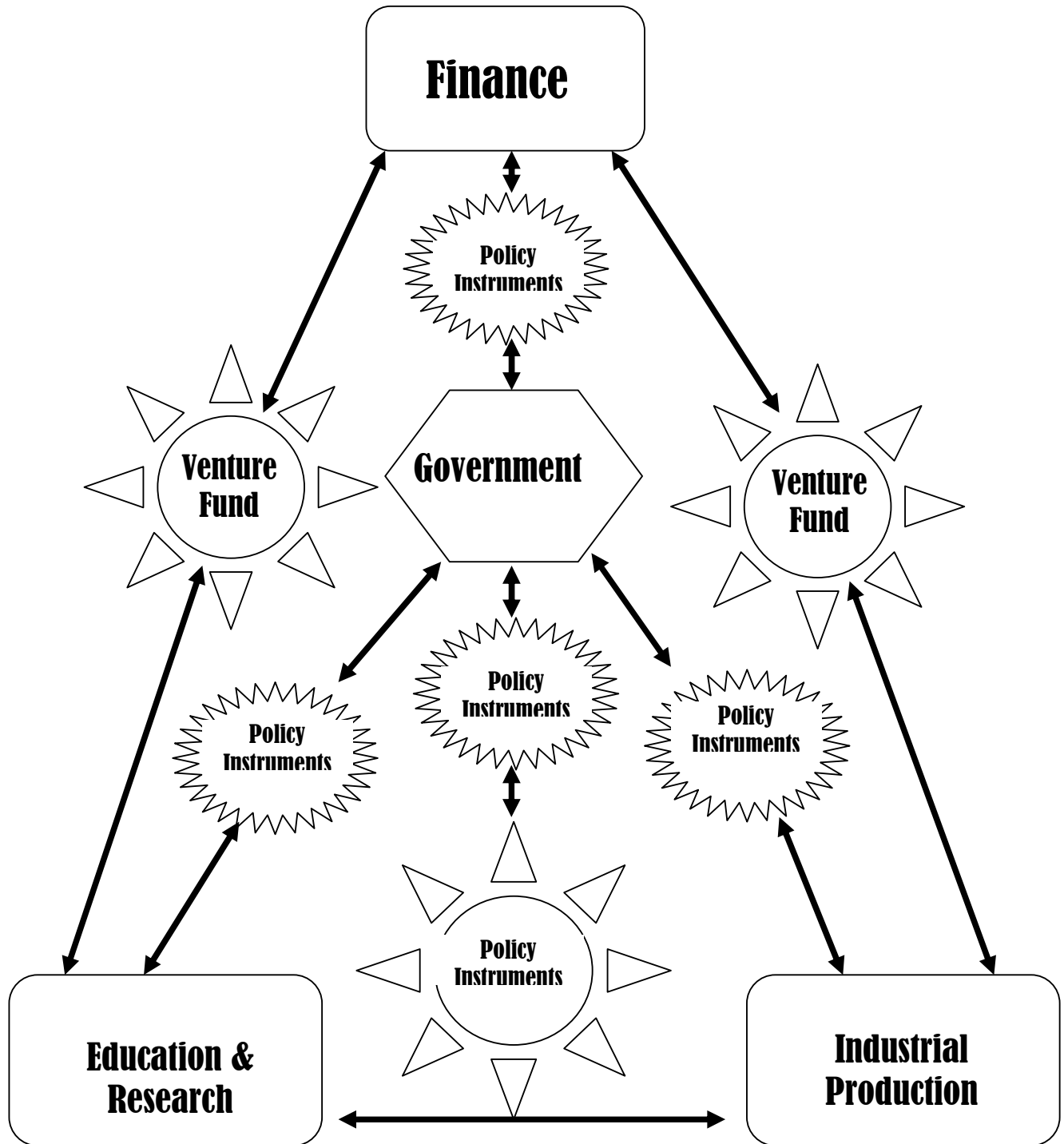
### **Physics**

- Nano Technology, Synthesis of special Nano- materials,
- Characterization of surface Layers, Nano Materials,
- Characterization of Crystalline and Amorphous Materials,
- Renewable Energy Sources,
- Fiber optic Communication,
- Study of Solid Materials through Charge Particle Channeling

### **Environmental Science**

- Devise experimental Methods for Industrial Waste Management,
- Pollution Management.

**Figure 14.5: Typical Structure of Interactions among the Elements of the National Innovation System**



# Chapter XV

## IP Policy and Strategy Formulation for Bangladesh

### 15.1 Introduction

Intellectual Property Right is a private right recognized within the territory of a country and assigned to an individual or individuals for a specific period of time in return for making public, the results of their creativity or innovation. It is required to have a well established legislative, administrative and judicial framework to safeguard Intellectual Property Right which meets its international obligations while utilizing the flexibilities provided in the international regime to address its developmental concerns. Comprehensive legal framework on IPRs includes the Patents Act, the Trade Marks Act, the Geographical Indications of Goods (Registrations and Protection) act, the Designs Act, the Copyright Act and the Protection of Plant Varieties and Farmers Rights Act. The Department of Patent, Design, and Trademarks (DPDT) under Ministry of Industry, Government of Bangladesh is responsible for the IP rights, namely patents, trademarks, designs and geographical indications. The government of Bangladesh has already taken significant steps for creating congenial atmosphere in the country in order to protect and develop IP. New Trademarks Act has already been enforced in 2009. Draft Patents Act 2011 and draft Designs Act 2011 are now waiting for stakeholders' opinion. The Geographical Indications (GI) Law and Utility Model Law are going to be finalized very soon. As a member of LDCs, it is expected that Development Partners and International Organizations including WIPO will come forward to materialize establishing effective and efficient IP Institutional framework in the country including physical infrastructure, fullfledged automation of IP offices and structured development of human resources.

The emergence of globalization and constant technological changes are steadily transforming our society - making it more knowledge intensive than ever. The industrial landscape too is witnessing a similar evolutionary pattern. Importantly, the capacity to appropriately create, protect, utilize and transfer knowledge assets has become an important determinant of competitive advantage. The rapid development of information technology has connected firms, customers, suppliers and various other stakeholders in a complex and interdependent web of interactions. These developments have resulted in a paradigm shift in the nature and scope of economic progress.

The underlying basis of knowledge as a source of productivity gain and competitiveness has ensured a central place for Intellectual Property Rights (IPRs). Compared with the traditional factors of land, labor and capital responsible for production, it is the generation and management of knowledge and corresponding intellectual property rights, which is increasingly playing an important role in the economic development of the country. This increasing importance of IP rights has started to change the way the government view IP and Innovation system as a whole, making it a policy driven initiative in both developed and developing economies. Most developed economies already have strong systems and policies in place to encourage and protect IPRs, and developing economies are slowly but steadily moving towards creating similar ecosystems most suitable to their national needs.

There are significant challenges for Bangladesh pertaining to formulating an intellectual property (IP) policy compatible with its production structure, cultural values and development needs, and for translating such policy into laws and regulations consistently with

international obligations. This chapter reviews those challenges and makes suggestions about policy formulation in which Bangladesh can deal with human, institutional and financial constraints to ensure the coherence, sustainability and effectiveness of its IP policy.

## **IP to Act as a Policy Instrument to Advance Innovation and Creativity in Bangladesh**

The purpose of IP policy is often described, in a simplistic way, as a means to reward inventors and creators for their contributions to the state of the art. IP, however, has been designed to benefit society by providing incentives to those that introduce new inventions or creations. Its purpose is not the exclusive benefit or advantage of individuals or corporations, but of the public or community at large through the activities of inventors and creators. IP is an instrument for achieving specific objectives, which have historically evolved and varied across countries. How the rationale for IP protection has changed over time in developed countries is well documented, particularly in the area of patents. The available evidence clearly suggests that the role of IP varies significantly accordingly with productive structures and levels of development. As the World Bank has noted, in the area of IP “one size does not fit all”. So according to the social surroundings of Bangladesh, IP formulation should be different and unique; the policy should be able to advance innovation and creativity in the social surroundings namely, economic, socio-cultural, demographic, resources, politico-legal, technology, environment, infrastructure situation of Bangladesh.

## **15.2 Outline of the Present Intellectual Property System in Bangladesh**

### **15.2.1 Legislative History prior to the Agreement on Trade Related Intellectual Property Rights (TRIPS) in the WTO**

The present legal framework has its roots in the system established by the British. Patent Right was first introduced through the Protection of Inventions Act, 1856 (Act VI of 1856) which had the objective of encouraging inventions and in inducing inventors to disclose secret of their inventions. This legislation was further modified and the Patent and Designs Protection Act, 1872 was enacted which brought in Design within the ambit of protection. A significant step was taken in 1911 when through a further amendment to the Patent and Design Act; Patent Administration was brought under the management of the Controller of Patents for the first time. Unlike the fairly long legislative history of Patents and Designs, prior to 1940 there was no statutory law relating to trademarks. The problems relating to passing off and infringement were decided on the basis of the common law as was applicable in England. Registration of Trade Marks was carried out under the Indian Registration Act, 1908. In 1940, however a separate legislation for Trade Marks was enacted which was a replica of the UK Trade Marks Act, 1938.



### **Organizations Working for IP In Bangladesh:**

In Bangladesh, protection of industrial property comes under the purview of Ministry of Industries. On behalf of M/O Industries Department of Patents, Designs & Trademarks (DPDT) administers all the activities relating to industrial property. DPDT started its work as a department from 20.3.2004. Registrar is the head of this department. He is a joint secretary of the Government DPDT has 4 wings, each is headed by a Deputy Registrar. The wings are:

- a. Patents & Designs Wing,
- b. Trademarks Wing,
- c. WTO and International Affairs Wing,
- d. Administration & Finance Wing.

It has 9 sections, each headed by one Assistant Registrar.

### 15.2.2 Prevailing IP related laws in Bangladesh

-  The Patents and Designs Act -1911;
-  The Trademarks Act – 2009;
-  The Copyrights Act – 2000 (Amended in 2005).

- The following IP rights are protected under these laws:
- A patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem. Under the Patents and Designs Act -1911 patents are granted. Patents provide 16 years protection from the date of filing of the application.
- An industrial design is the ornamental or aesthetic aspect of an article. The design may consist of three-dimensional features, such as the shape or surface of an article, or of two-dimensional features, such as patterns, lines or color. Industrial designs are protected under The Patents and Designs Act -1911. Registration of assign is given for 5 years. It could be renewed twice; each renewal remains valid for 5 years.
- A trademark is a distinctive sign which identifies certain goods or services as those produced or provided by a specific person or enterprise. The trademarks system helps consumers identify and purchase a product or service because its nature and quality, indicated by its unique trademark, meets their needs. A registered trademark provides protection to the owner of the mark by ensuring the exclusive right to use it to identify goods or services, or to authorize another to use it in return for payment. In Bangladesh trademarks and service marks are registered under The Trademarks Act- 2009. Registration provides 7 years protection; it can be renewed every after 10 year on payment of renewal fees
- Copyrights are protected for original intellectual work of literature, art, music, software, etc. under The copyrights Act – 2000 (Amended in 2005). Copyright exist up to 60 years after the death of copyright owner.

The Department of Patents, Designs and Trademarks (DPDT) administers all the above mentioned IP rights except copyrights

#### Copyright Offices

Competent administration	<b>Copyright Office Bangladesh Ministry of Cultural Affairs</b>
Web site address	<a href="http://copyrightoffice.gov.bd">http://copyrightoffice.gov.bd</a>
Address	Agargoan Sher-e-Bangla Nagar Dhaka-1207, Bangladesh
Telephone	(88) 02 911 9632
Telefax	(88) 02 811 1384

E-mail address	<a href="mailto:registrar@copyrightoffice.gov.bd">registrar@copyrightoffice.gov.bd</a>
Title and name of head	Permanent Secretary to the Government/Secretariat permanent

### Industrial Property Offices

Competent administration	<b>Copyright Office Bangladesh Ministry of Cultural Affairs</b>
Web site address	<a href="http://copyrightoffice.gov.bd">http://copyrightoffice.gov.bd</a>
Address	32, Justice SM Morshed Sharany Agargoan Sher-e-Bangla Nagar Dhaka-1207, Bangladesh
Telephone	(88) 02 911 9632
Telefax	(88) 02 811 1384
E-mail address	<a href="mailto:registrar@copyrightoffice.gov.bd">registrar@copyrightoffice.gov.bd</a>
Title and name of head	Permanent Secretary to the Government/Secretaries permanent



### 15.2.3 Bangladeshi Laws Related To IP

<b>Laws</b>	<p><b>Constitution / Basic Law (Date of current version)</b></p> <ul style="list-style-type: none"><li>■ The Constitution of Bangladesh (as modified up to 17 May, 2004) (2004)</li></ul> <p><b>Main IP Laws: enacted by the Legislature (Date of current version)</b></p> <ul style="list-style-type: none"><li>■ Trademarks Act, 2009 (Act No. XIX of 2009) (2009)</li><li>■ The Patents and Designs Act (Act No. II of 1911) (2003)</li><li>■ Copyright Act 2000 No. 28 of 2000 (as amended up to 2005) (2000)</li></ul> <p><b>IP-related Laws: enacted by the Legislature (Date of current version)</b></p> <ul style="list-style-type: none"><li>■ Right to Information Ordinance, 2008 (2008)</li><li>■ The Antiquities (amendment) Ordinance No. 939 (1976)</li><li>■ Civil Procedure Act, 1908 (Act No. V of 1908) (1908)</li><li>■ Penal Code, 1860 (Act No. XLV of 1860) (1860)</li><li>■ The Custom Act (Act No. IV of 1969) (196)</li></ul> <p><b>IP Laws: issued by the Executive (Date of current version)</b></p> <ul style="list-style-type: none"><li>■ SRO No. 312-Law/2000 (2000)</li><li>■ The National Curriculum and Text-Book Board Ordinance, 1983 (Ordinance No. LVII of 1983) (1983)</li></ul>
<b>Implementing Rules/Regulations</b>	<p><b>Intellectual Property (Date of current version)</b></p> <ul style="list-style-type: none"><li>■ The Copyright Rules, 2006 (2000)</li><li>■ Patents and Designs Rules, 1933 (as amended up to the 15th June 1946) (1993)</li></ul>
<b>Treaty Membership</b>	<p><b>WIPO-Administered Treaties (Entry into force of the Treaty for the Contracting Party)</b></p> <p><b><u>Summary Table of Membership of the World</u></b></p> <p><b>Intellectual Property Organization (WIPO) and the Treaties Administered by WIPO, plus UPOV, WTO and UN</b></p> <ul style="list-style-type: none"><li>■ Berne Convention for the Protection of Literary and Artistic Works (May 4, 1999)</li><li>■ Paris Convention for the Protection of Industrial Property (March 3, 1991)</li><li>■ Convention Establishing the World Intellectual Property Organization (May 11, 1985)</li></ul> <p><b>IP-related Multilateral Treaties (Entry into force of the Treaty for the Contracting Party)</b></p>

- Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity
- Convention for the Safeguarding of the Intangible Cultural Heritage (September 11, 2009)
- Optional Protocol to the Convention on the Rights of Persons with Disabilities (June 11, 2008)
- Convention on the Rights of Persons with Disabilities (May 3, 2008)
- Convention on the Protection and Promotion of the Diversity of Cultural Expressions 2005 (August 31, 2007)
- Stockholm Convention on Persistent Organic Pollutants (June 10, 2007)
- Convention for the Protection of Cultural Property in the Event of Armed Conflict (September 23, 2006)
- Protocol to the Convention for the Protection of Cultural Property in the Event of Armed Conflict (September 23, 2006)
- International Plant Protection Convention (October 2, 2005)
- WHO Framework Convention on Tobacco Control (February 27, 2005)
- Kyoto Protocol to the United Nations Framework Convention on Climate Change (February 16, 2005)
- International Treaty on Plant Genetic Resources for Food and Agriculture (June 29, 2004)
- Cartagena Protocol on Biosafety to the Convention on Biological Diversity (May 5, 2004)
- United Nations Convention on the Law of the Sea (August 26, 2001)
- International Covenant on Economic, Social and Cultural Rights (January 5, 1999)
- Agreement establishing the World Trade Organization (WTO) (January 1, 1995)
  
- World Trade Organization (WTO) - Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) (1994) (January 1, 1995)
- Convention on Biological Diversity (August 1, 1994)
- United Nations Framework Convention on Climate Change (July 14, 1994)
- Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property (March 9, 1988)
- Convention concerning the Protection of the World Cultural and Natural Heritage (November 3, 1983)
- Protocol (I) Additional to the Geneva Conventions of 12 August 1949, and relating to the protection of victims of international armed conflicts (March 8, 1981)
- Protocol (II) Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (March 8, 1981)
- Protocol 1 annexed for Universal Copyright Convention as revised at Paris on 24 July 1971 concerning the application of that Convention to works of Stateless persons and refugees (August 5, 1975)

- Protocol 1 annexed to the Universal Copyright Convention as signed at Geneva on 6 September 1952 concerning the application of that Convention to works of stateless persons and refugees (August 5, 1975)
- Protocol 2 annexed for Universal Copyright Convention as revised at Paris on 24 July 1971 concerning the application of that Convention to works of certain international organizations (August 5, 1975)
- Universal Copyright Convention as revised on 24 July 1971, with Appendix Declaration relating to Article XVII and Resolution concerning Article XI (August 5, 1975)
- Universal Copyright Convention of 6 September 1952, with Appendix Declaration relating to Article XVII and Resolution concerning Article XI (August 5, 1975)
- Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (March 26, 1971)
- Convention (II) for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea (March 26, 1971)
- Convention (IV) relative to the Protection of Civilian Persons in Time of War (March 26, 1971)

**Regional Economic Integration Treaties (Entry into force of the Treaty for the Contracting Party)**

- 🌐 Protocol Relating to Trade Negotiations Among Developing Countries Agreement
- 🌐 Agreement on South Asian Free Trade Area (January 1, 2006)
- 🌐 Framework Agreement on the BIMST-EC Free Trade Area and its Protocol and the Declaration establishing the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (June 25, 2004)
- 🌐 Global System of Trade Preferences among Developing Countries (April 19, 1989)
- 🌐 Charter of the South Asian Association for Regional Cooperation (December 8, 1985)
- 🌐 First Agreement on Trade Negotiations among Developing Member Countries of the Economic and Social Commission for Asia and the Pacific (Bangkok Agreement) (June 17, 1976)

**IP-relevant Bilateral Treaties (Entry into force of the Treaty for the Contracting Party)**

- 🌐 Treaty between the United States of America and the People's Republic of Bangladesh concerning the Reciprocal Encouragement and Protection of Investment (July 25, 1989)

## 15.2.4 International Copyright Agreements:

There is a list of countries which have signed and ratified one or more multilateral international copyright treaties. This list covers only multilateral treaties (i.e., treaties by more than two countries). It does not include bilateral treaties (treaties between only two countries). Related rights provide intellectual property rights for performers, producers of sound recordings (phonograms) and broadcasting organizations. In some countries these rights are known simply as copyright, while other countries distinguish them from authors' rights: in either case, the international laws which are concerned with them are distinct from those concerned with literary and artistic works under the Berne Convention for the Protection of Literary and Artistic Works and other treaties.

Berne

Berne Convention for the Protection of Literary and Artistic Works, Berne, September 9, 1886, came into force December 5, 1887[1]

UCC Geneva

Universal Copyright Convention, Geneva Act, September 6, 1952, came into force September 16, 1955[2]

UCC Paris

Universal Copyright Convention, Paris Act, July 24, 1971, came into force July 10, 1974[3]

TRIPS

Agreement on Trade-Related Aspects of Intellectual Property Rights, Marrakech, April 15, 1994, came into force January, 1 1995[4] Note: membership in TRIPS coincides with membership in the World Trade Organization except for least developed countries, which were granted a grace period; observer governments of the World Trade Organization are marked observer in the table below.

WCT

WIPO Copyright Treaty, Geneva, December 20, 1996, came into force March 6, 2002

In addition to these treaties, the Anti-Counterfeiting Trade Agreement (ACTA) is a multilateral treaty governing multiple aspects of intellectual property, including copyright. As of February 2012, ACTA has been signed by 31 countries, but has not been ratified by any. If ACTA is ratified by six or more signatories, it will enter into force thirty days later.

Country	Berne	UCC Geneva	UCC PARIS	TRIPS	WCT
Bangladesh	May 4, 1999	August 5, 1975	August 5, 1975	January 1, 1995	—

## 15.3 Proposed IP Policy and Strategy

The Intellectual Property regime of the Government of Bangladesh underwent changes after accession to TRIPS in 1995. The focus on the IPR regime is now on consolidation as well as promoting a fair balance between IP protection and public interest.

1. To Declare the Decade 2013-2023 as the 'Decade of Innovation' and to constitute National & Sectoral Innovation Council to create a Roadmap for 2023

It will be prudent to declare the decade of 2013-2023 as the Decade of Innovation. National Innovation Council can be constituted to create a Roadmap for 2023. The objective is to formulate a roadmap for innovation with focus on key parameters namely platform, inclusion, eco systems, drivers and discourse. The ultimate objective of this roadmap is to expand the space for dialogues and discourse by offering novel solutions which will lead to inclusive growth and foster appropriate eco systems across domains and sectors. It will be as a part of this exercise that a Sectoral Innovation Council on IPR to be set up with members from the corporate sector, academia, public sector undertakings and the Government. The Terms of Reference of the Council can be as under:-

- a. To prepare a National IPR Strategy for encouraging innovation with a view to adequately address the key concerns of sustainable development, inclusive growth and food security.
- b. To formulate the medium term policy objectives that can be the building blocks of the envisaged IPR strategy.

## **2. To Prepare National IPR Strategy Implementation Roadmap**

A document of the National IPR Strategy Implementation Roadmap to be prepared on the basis of inputs provided by the Members of the Sectoral Innovation Council. The objective of this exercise is to prepare a policy statement on the steps that the Government needs to take to promote innovation and creation of IP and encourage its utilization. Views and suggestions to be invited on the draft document. These views/suggestions, facts figures and empirical evidence to be furnished. The Department hopes to generate informed discussion on the subject, so as to enable the Government to take an appropriate policy decision on this issue. The comments received will be further analyzed and the document will be further refined. The issue of policy objectives as building blocks to the IPR strategy will be taken up subsequent to the finalization of the document on National IPR strategy.

## **3. To Develop a National Framework for Creation and Protection of IPRs Commensuration Global Standards**

It is required to develop a national framework for creation and protection of IPRs, which should continuously evolve meeting global standards. The challenge before Bangladesh is to scale up the process of IP creation and capture value from the scientific and technological creations to catapult the country into the league of most innovative and developed nations.

## **4. To Strengthen Prominent Entities involved in Creation, Protection and Commercialization of IPRs and the Institutional Framework**

Intellectual capital is a key source of productivity gain and global competitiveness. Today, creation, management and commercialization of intellectual property rights are facilitated by several institutional frameworks. The Open Innovation paradigm too is gradually fuelling collaborative R&D and concomitant IPR creation across organizations. Innovation and IPR landscape largely extends over the academia and publicly funded research laboratories, SMEs, large corporate and start-ups/innovators. Strengthen prominent entities and stakeholders. Any strategy that proposes to discuss IP creation must first focus on the characteristics of the major players:

### **i) International Organizations and Multinational Corporations (MNCs)**

Bangladesh is host to several International corporations both of Bangladeshi and foreign origins. The foreign players have a share in domestic IP registrations and their success is to a large extent attributable to the Intellectual Property they own. Bangladeshi organizations are also using their IPR portfolios to create a niche for themselves and gain a competitive edge. They also realize the importance of carefully managing their business practices to avoid infringement on other's intellectual property. Several such companies have incorporated business intelligence tools and IP management systems to safeguard their businesses and intellectual capital. Others are increasingly becoming aware of the importance of IP and, with needful external support, can swiftly catch up. However, innovation- seeking R&D is still at a low level in the country. This therefore, poses a huge challenge to the future development of globally competitive technology.

## ii) Micro, Small and Medium Enterprises

Micro, Small and Medium Enterprises (MSMEs) form the economic backbone of the Bangladeshi economy. The Figure below shows the base data defining Micro, Small and Medium Enterprises (MSMEs) in Bangladesh. A study with a forecasting model shows that there are approximately six million medium, small, micro industries in Bangladesh which employ thirty million people directly and indirectly, which accounts for 87 per cent of the total industrial labor force in the country. This sector is also responsible for creation of over 33 per cent of industrial value added goods. In addition, evidence suggests that there are over 347,000 cottage industrial units and a large number of handloom and power loom enterprises. Another study data that are pertinent to characterizing SMEs in Bangladesh shows the following: (a) there are some 78,440 private-sector establishments of various sizes in Bangladesh with some 3.5 million workers employed in them. The urban Bangladesh accounts for some 60% of units and 76% of employment in the private-sector enterprises. Rural Bangladesh accounts for the rest.

<b>Industrial Policy (2010)</b>		
<b>Category</b>	<b>Either Value (Replacement cost) of fixed asset excluding land &amp; building</b>	<b>Or No. of Workers</b>
<b>Large Industry (Manufacturing)</b>	<b>&gt;Tk. 30 crore</b>	<b>&gt;250</b>
<b>Large Industry (Service)</b>	<b>&gt; 15 crore</b>	<b>&gt;100</b>
<b>Medium Industry (Manufacturing)</b>	<b>Tk. 10 - 30 crore</b>	<b>150 - 250</b>
<b>Medium Industry (Service)</b>	<b>Tk. 1 crore - 15 crore</b>	<b>50 -100</b>
<b>Small Industry (Manufacturing)</b>	<b>Tk. 50 Lac -10 crore</b>	<b>25 - 99</b>
<b>Small Industry (Service)</b>	<b>Tk. 5 Lac – 1 crore</b>	<b>10 - 25</b>
<b>Micro Industry</b>	<b>Tk. 5 Lac - 50 Lac</b>	<b>10-24</b>
<b>Cottage Industry</b>	<b>&lt; Tk. 5 Lac</b>	<b>&lt;10 Including Famil Members</b>

The intellectual capital of micro, small and medium enterprises in Bangladesh is often embedded in processes/routines, and the existing methods for managing the intellectual

property are highly diverse ranging from formal to informal protection methods. At time semi-formal means are also used.

### **1. Formal, Semi-formal and Informal Protection Practices of Intellectual Output To Enhance Awareness and Formal Education on IPR**

The formal protection of intellectual output entails creation of legal rights acquired through, inter alia, Patents, Trademarks, and Registered Designs, infringement of which has civil and criminal remedies. The semi-formal methods entail some legal mechanisms but without formal registration (contracts is an example of this method). Informal protection practices include developing high-trust relationships with customers, maintaining lead time advantage over competitors and building specialized know-how into products. These informal practices have been embedded within broader managerial practices, and form an integral component of the business approaches of the small business owners in Bangladesh. This is because most MSMEs prefer to allocate their limited resources to the development of products and processes. Lack of awareness and formal education on the intellectual property rights, and an inclination to reduce transaction cost of acquiring legal IP rights also contributes to high prevalence of such practices.

### **2. MSMEs and Global Competition: Render Importance of Innovation and IPRs**

Majority of these MSME produce and sell within local markets, which in the past has shielded them from global competition while offering significant cost advantage. Today, cost-effectiveness and local presence alone does not guarantee a customer base. Globalization and attendant sustainability issues have caused a significant increase in competition from the global players and MSMEs have started to realize the importance of innovation and IPRs. There have also been several instances of MSMEs acquiring or in-licensing technologies or IP either from local markets or even global players to enhance their performances.

### **3. To Emphasis Academic Institutions and Publicly Funded Research laboratories as Forefront of Knowledge Creation and Innovation:**

Academia is at the forefront of knowledge creation, and alongside the national research laboratories lead the scientific activity in the country. With innovation as a central theme driving the growth of economies and businesses, the role of academic and publicly funded research laboratories is already witnessing a gradual expansion particularly in respect of their outreach to business community in Bangladesh. This is generally true of the leading academic institutions and most of the national laboratories.

### **4. Start-Ups and Individual Innovators: To Leverage Intellectual Property Rights to Create a Niche and Gain a Competitive Edge:**

Bangladesh is trying to wake up to the world of start-up companies – both technical ventures and those offering services including venture finance and angel investors. A large number of these technology entrepreneurs are trying to be based out of Technology Business Incubators (TBI) or Science and Technology Entrepreneurship Parks (STEP). Many are academic spin-offs who are trying to leverage their intellectual property rights to create a niche for themselves and gain a competitive edge. Quite a few have grown from public sector research resultants.

### **5. Provide Financial Assistance To Start Upto Leverage IPRs**

While Government/private funding does provide financial assistance to start up, this support is woefully inadequate to leverage IPRs as a strategic tool.

## **10 To Develop Capacity of the Office of DPDT and to Establish National Institute of Intellectual Property Management (NIIPM)**

The Registrar, Department of Patents, Design and Trademarks (RDPDT), is responsible for registration and management of Intellectual Property Rights, namely Patents, Design and Trade Marks. At present, the office is headed by the Registrar of Department of Patents, Design and Trademarks. Capacity of the Office of the DPDT is to be enhanced. National Institute of Intellectual Property Management (NIIPM) to be established to meet the training needs on IPR.

In recent times, there have been a number of external impulses which have placed considerable demands on the office DPDT. These include:

a. Increase in filings for IPRs in all the categories of IP. This has systematically resulted in an increase in the work load for the office over the past ten years.

b. The growing importance of intellectual property in the backdrop of an increasingly globalized and buoyant Bangladeshi economy has simultaneously placed greater demands on the IP institutional structure. Increase in foreign investment and expansion of trade has accelerated demands of producers to seek exclusive rights over technology, products, designs and ideas as an essential tool for gaining market access in competitive markets.

The Government has been responding to the challenges of increasing workload by implementing plan schemes for modernization and strengthening of the IP Offices.

## **11. To Bring about Greater Efficiency and Transparency into the IP System**

In addition, steps to be taken to bring about greater efficiency and transparency into the IP system. The processing of Trade Marks and Patent Applications and post-registration activities should be fully e-enabled. Complete e-enablement of Designs applications is to be done.

## **12. Need for Institutional/Organizational Innovation and Social Innovation and ensuring diffusion of innovation: Innovation and IPRs in Economic Development**

Speed of creation of IP and development has a strong correlation. This seems to be borne out from the fact that the developed countries today such as the US and EU are also among the most innovative. However, anecdotal evidence also suggests that the rate of technical change and of economic growth depends on efficient diffusion of innovation. Further, evidence also supports the need for institutional/organizational innovation and social innovation as much as technological innovation for obtaining and sustaining a high correlation between IP and development. Clearly, the national policies and frameworks play an important role in ensuring diffusion of innovation.

## **15.4 Recommendations for a National IPR Strategy for Bangladesh**

### **15.4.1 Introduction**

Bangladesh is an emerging economy which has been witnessing good levels of economic expansion. The underlying vision of the strategy is that Bangladesh can become the 30th largest economy of the world by the year 2030 by exploiting the fundamentals of Vision 2021



announced by the present Government. To reach this target, Bangladesh must accelerate its annual economic growth to 8% by 2017, sustain and increase the present level of remittance growth and increase investment-GDP ratio to 38% from the existing 25%.

The economy of Bangladesh showed its resiliency even in the thick of a severe global economic downturn. The country has a big consumer market of 160 million people and its middle class is larger than the individual total population of Malaysia, Singapore or Thailand. The consumption of the middle class people of Bangladesh is nearly 44 billion dollars which is much higher than the GDP of many countries in the world.

Bangladesh are now ranked as the world's 42nd largest economic power in terms of Purchasing Power Parity. Today we are the 69th largest exporting country, the 2nd largest exporter of Ready Made Garments and the 11th largest importer of textiles in the world. his economy of Bangladesh showed its resiliency even in the thick of a severe global economic downturn. We have a big consumer market of 160 million people and our Middle class is larger than the individual total population of Malaysia, Singapore or Thailand. The consumption of the middle class people of Bangladesh is nearly 44 billion dollars which is much higher than the GDP of many countries in the world.

Bangladeshis now ranked as the world's 42nd largest economic power in terms of Purchasing Power Parity (PPP). Today it is the 69th largest exporting country, the 2nd largest exporter of Ready Made Garments (RMG) and the 11th largest importer of textiles in the world.

As a cost effective and labor intensive economy, Bangladesh has benefited immensely from the manpower working abroad and outsourcing of work from developed countries, and has maintained a reasonably good manufacturing and export oriented industrial framework. While Bangladesh is currently amongst the most attractive destinations globally, for investments and business, it is innovation and efficiency that shall increasingly play a key role in ensuring long-term economic survival and success.

Realizing the importance of a strong and balanced IP system, several initiatives have been undertaken at the policy level over the last decade, to foster an environment which is conducive for development of technology and trade in Bangladesh. However, as most would acknowledge, innovation and IPR is an ever-evolving subject and there is a definite need for constantly reviewing national framework and policies to keep abreast with the global developments while paving the way for a robust economy. Although the IP system in Bangladesh inherited and has come a long way since its inception in 1856 and continues to evolve, a critical analysis of the situation of IPR creation, management and protection in Bangladesh vis-a-vis the global practices points to the need for both improvement and strengthening of the Bangladeshi IP system.

#### **15.4.2 To Develop IPR Policy to Transform Bangladesh Into an Innovative Economy**

The objective of the IPR strategy is to transform Bangladesh into an innovative economy as would reflect in high rankings in appropriate development and innovation indices from a global standpoint and develop, sustainable and innovation-promoting IPR management system in Bangladesh while ensuring that the IP system continues to have the appropriate checks and balances conducive to social and economic welfare, and to a balance of rights and obligations. Besides measures that need to be taken, the strategy also needs to have an implementation matrix and a time bound schedule.

The aforementioned objectives are proposed to be addressed through the following four-pronged approach.

- a. Promoting respect for Intellectual Property and stimulating creation of IP Rights
- b. Creation of new IP regimes to address the specific needs of the country and the existing gaps
- c. Strengthening protection of IP
- d. Facilitating Commercialization of Intellectual Property

The IP strategy should outline the various facilitative measures that need to be taken by the Government to stimulate creation of IPRs, its protection and management as also its commercialization. It includes development of associated infrastructure and capacities to support innovators and creators of IP and for utilization of knowledge-based resources.

### **A. Promoting Respect for IP and Stimulating Creation of Intellectual Property Rights**

In the knowledge economy, creation of IP and its incorporation in designs, products and production techniques are increasingly becoming important for commercial competitiveness and economic growth. Credible national IP system thus calls for social awareness amongst the people about the stakes involved in IPRs. More particularly, the Bangladeshi academia, industry, the innovator/entrepreneur community ought to be increasingly made aware of the value of IPRs both from national and global contexts.

Further, there is a need to develop a general understanding of different processes involved in creation of IP assets.

In seeking to establish an IP culture, it would be critical to take the following sector/stakeholder specific interventions :

#### **Micro, Small and Medium Enterprises**

(i) **To Encourage the MSMEs to Protect their IP Through Formal Methods:**With increasing globalization, there is an immediate need to encourage the MSMEs to protect their IP through formal methods. A healthy mix of education and incentives is needed to encourage MSMEs to create new IP and to formalize the existing ones based on expert advice.

(ii) **Setting Up of IP Facilitation Centers as Effective Nodal Points:**The Government intervention in existing mechanisms like the setting up of IP facilitation centers would have to be significantly scaled up to improve impact. One of the effective ways of achieving this would be by synergizing these services with the activities of the existing industrial clusters and thereby develop these facilitation centers as effective nodal points for knowledge dissemination and for hand holding the small of medium enterprises sector in the process of IP creation.

(iii) **To Search Worldwide Patent Databases and Prepare Technology Landscapes for Industry Segments for Bangladesh:**Access to Database on patent and non patent literature to enable prior art search should be provided to premier institutions such as, inter alia, Universities, S&T Institutes, by the Government free of cost. For this purpose 15-20 such institutions should be identified. Such a database would be helpful in scouting the

technology landscape to identify white spaces and thereby help promote invention activities in uncovered areas. From a purely strategic plan perspective it appears useful to search worldwide patent databases and prepare technology landscapes for our industry segments to help them assess Bangladesh's relative strength and then suitably plan for attaining Global Leadership in those areas. The roles and responsibilities of the institutions that are provided such access would be to provide assistance to the SME sector/individual innovators by preparing technology landscape with a view to guide inventions, conducting preliminary search and examination to determine novelty of an innovation free of cost and to assist the innovators to file patent applications, for a nominal fee.

(iv) **To Enact Favorable Tax Treatment for R& D Expenditures:** Favorable tax treatment for R& D expenditures incurred could play a positive role in incentivizing innovation and IP creation.

(v) **State Support Mechanisms Need to be Tailored Towards Offsetting Bonafide IP Costs and In Facilitating Technology Transfer:** Since innovations and creation of IP comes at a cost, state support mechanisms need to be tailored towards offsetting bonfire IP costs and in facilitating technology transfer including through in-licensing from publicly funded research institutions.

### **Academia and Public Research Laboratories**

**To Establish Institutional Mechanisms to Encourage and Propel Universities and Public Research Laboratories for Innovation:** Academia and public research laboratories potentially form the largest source of technology and intellectual property. The country should establish institutional mechanisms to encourage and propel universities and public research laboratories to not only do top quality research but be inventive as well. For this to happen, the Bangladeshi academia needs to be educated about the importance of IP and about the processes involved in creation of and for commercial exploitation of technology innovations. Specific actions such as the following are proposed:

(i) **Basic Precautions Before Applying for a Patent:** Bangladeshi researchers/ innovators must be made aware of basic precautions that need to be exercised before applying for a patent, such as not publishing or demonstrating their research/invention to the public before filing for a patent and also by sensitizing them about not selling out their early stage research to companies/organizations.

(ii) **To License Technologies in Creation of Technology Ventures:** Talented scientists and engineers ought to be motivated to create intellectual property and be encouraged to license technologies in creation of technology ventures. Promoting university start-ups can also be an effective technology transfer mechanism.

(iii) **To Address National Priority Issues and Use of Key Leverage Technologies:** Significant part of academic research particularly in universities, S&T institutes, and other institutions should increasingly focus on addressing national priority issues in poverty, healthcare, food security, energy, potable water, agriculture, homeland security etc. Key leverage technologies such as information technology, biotechnology and materials science should be accorded due importance.

(iv) **IP Creation In Sponsored/Collaborative Research and Technology Development/Transfer:** IP creation in sponsored/collaborative research and technology development/transfer should be made a component of the scientific role of a research institution. This should be included as a key performance indicator for the institution. This could be introduced gradually from Tier-1 to Tier-2 institutions.

v) **Basic Concepts of IP Creation and Respect For IP Needs to be Introduced as a Component of Formal Education:** From a fundamental long term perspective an intervention in the mainstream education system is needed. Basic concepts of IP creation and respect for IP needs to be introduced as a component of formal education at school, college, university and at vocational level thereby fostering a culture of creativity in future generations. Such education should focus on the economic as well as the social aspects of IP. While attempts are already being made in premier institutes which offer this education as a part of their curriculum, it is mostly limited to optional courses and professional subjects. A more focused and gradual expansion of this is necessary to create a robust innovation ecosystem that would lend itself to capacity building, skill enhancement and a sustainable learning platform. It is therefore essential to introduce a course on IPR in the curriculum of all the technical programmes that are duly recognized by the authority and in the post graduate/research programme in science and applied fields in Universities.

### **Large Organizations**

**To Create World-Class IP and Utilize this IP for Both Organizational And National Benefits** Large organizations have the know-how and the resources required for creation and protection of IP. With increasing globalization, their key challenge will be to create world-class IP and utilize this IP for both organizational and national benefits. Such organizations have to be encouraged to take a long term view of R&D and make necessary research investments to create not just strong self-reliant technology portfolio but, acquire the scale to build strategic global positions.

**Government Should Encourage to Share their Expertise and Resources for National Benefit Through PPP:** Moreover, the Government should encourage these large organizations to share their expertise and resources for national benefit through public-private partnerships.

**To Leverage Strategic Relationships Even with Overseas Players to Facilitate Inflow of Best Technology/Knowledge:** Development of high technology base requires much more than access to codified knowledge. It may call for strategic relationships even with overseas players. Such large organizations ought to be encouraged through state-level intervention to leverage their standing and global reach to facilitate inflow of best practices (including tacit knowledge) and investments from all over the globe. For most large organizations, particularly the ones in strategic areas, it should be mandated to align their innovation strategies to national innovation system.

**Research Led Organizations Should be Encouraged to Tap Open Innovation Platforms and Tie-Ups with Academia:** Further, Bangladeshi organizations with a demonstrable culture of IP creation may be offered additional sops and, be given preferential treatment in public contracts. Such organizations should be encouraged to tap open innovation platforms and tie-ups with academia in particular, ought to be encouraged and supported. Research led organization should be guided into strategic tie-ups with Government to foster co-creation of critical IP. A mechanism similar to corporate social responsibility may be encouraged in the country to foster a culture of open innovation.

### **Start-ups and Individual Innovators**

**To Promote Techno-entrepreneurs: Interaction between Universities, Research Institutions And Innovation Driven Industry Units is Extremely Important** While synergy and close interaction between universities, research institutions and innovation driven

industry units is extremely important for promoting techno entrepreneurs, following measures may need to be taken to boost this interaction:

i) Information dissemination and delivery mechanism for support services including venture capital funding ought to be made expedient.

ii) Dedicated public institutions which offer end to end support for creation, protection and commercialization of IP is vital for start ups. There is need to identify such institutions and enhance their ability to provide such services.

iii) Procedural mechanism adopted for giving financial support for patent filings should be made smoother and quantum of assistance provided should be augmented.

## **b. Strengthening Protection of Intellectual Property**

**A Scope and a Depth Issue of IP Protection:**Improvement in the Institutions that Grant IPRs:Protection of Intellectual Property is both a scope and a depth issue. While establishing new instruments and addressing gaps in the available instruments is a scope issue, efficiency and strength of institutions that grant/protect IPR and extent of protection available is the depth issue. Therefore strengthening of IP protection regime will involve improvement in the institutions that grant IPRs and in those that are responsible for its enforcement as also expansion of rights to include new IPRs.

### **Improvements in the institutions that grant and protect IPRs**

**Functioning of the IP Offices:**Office of the Registrar of Department of Patents Design and Trademarks is responsible for grant of patents and registration of design, and trademarks. At the operational level, there is a need to address growing pendency especially in the Trade Marks and the Patents side. Besides this, action for improving the transparency and efficiency of the system also needs to be emphasized. At the operational level, following actions may be required to improve the functioning of the IP Offices:

i) Complete digitization of IP records and uploading it for public view is important for improving transparency in the IP office. Communication with the applicant/agents should be improved with a view to bring greater transparency and meticulousness in the system.

ii) Database should be made searchable in an effective manner over a number of fields so that the industry, researchers are in a position to conduct effective searches be it for patenting, landscaping, technology tracking or to identify the state of the art technology.

iii) Electronic filing of applications and its subsequent examination through electronic mode should be made mandatory.

iv) While filing fees needs to be increased to make it comparable with fees charged in other countries, there could be specific discounts for certain identified sectors such as the Micro and Small Enterprise Sector.

v) Quality of Examination of IP applications need to be improved significantly. Grant/registration procedure should be quickened through new recruitment and by augmenting the capacity through human resource development.

vi. A reassessment of the procedures followed in the IP Office must be taken to reduce timelines towards statutory actions.

A similar action will also be required from the other IP institutions such as, inter alia, the Registrar of Copyrights, the Plant Variety and Farmers' Rights Authority.

Intellectual Property Right being private right needs to be enforced by its owner through the enabling legal, administrative and judicial framework available for protection of these rights.

### **Strengthening of the institutional set up to improve enforcement of IPRs**

**Restructuring of The Institutions:**At the organizational level also, there is a need to evaluate whether restructuring of the institutions including possible merger of all IP issues under one umbrella would be required to improve efficiency and effectiveness.

**An Inter-Ministerial Committee on Enforcement of IPR Laws to be Set Up** The legislative measures are supplemented by appropriate administrative measures by the Government for enforcement of IPRs. An Inter-Ministerial Committee on Enforcement of IPR laws under the chair of the Department of Patent, Design and Trademarks (DPDT) to be set up to deliberate on the IPR enforcement issues.

**A Copyright Enforcement Advisory Council (CEAC) to be Set up:**Similarly, a Copyright Enforcement Advisory Council (CEAC) with industry representatives, representatives of police forces and Ministries/Departments concerned, as an apex advisory body, to be set up by the Ministry of Human Resources Development for advising Government on measures to improve the enforcement of the Copyright Act and for reviewing the progress of enforcement periodically. Besides at the Government level, enforcement cell to be set up in the police headquarters and nodal officers to be appointed by the Government to handle copyright related offences.

**The Intellectual Property Appellate Board (IPAB) to be established:**To expedite the resolution of IP disputes, the Intellectual Property Appellate Board (IPAB) can be established for hearing appeals arising from the decisions, orders or directions of the Registrar of Patents, Design and Trade Marks and Geographical Indications.

**Strengthening of IP Association of Bangladesh (IPAB) and IPR Committees:**IP owners have increasingly realized the need to mobilize themselves to ensure effective protection of their rights and this has led to the national level industry chambers setting up IP Association of Bangladesh (IPAB) and IPR Committees with a view to generate awareness on issues relating to infringement of trademark and piracy.

**To Undertake Market Intelligence Studies:**The IPR Committees are also expected to undertake market intelligence studies and identify action programmes to improve the enforcement of the rights of the IP owners. Besides this, industry level organizations especially in the sphere of music and films should become pro-active in ensuring protection of their rights. Industry organizations such as Film, Motion Picture and Music Industry should cooperate and collaborate with the police in anti-piracy, video piracy, etc., programmes.

**A Need for a Centrally Managed National Intellectual Property Enforcement Taskforce** Thus, the efforts at enforcement should be taken by disparate group of actors. Involvement of stakeholders in enforcement of IPRs is also a healthy trend which is likely to be reinforced in the future. However, there is perhaps a need for a Centrally managed National Intellectual Property Enforcement Taskforce that could:

i) maintain database on criminal enforcement measures instituted for trademark infringement and copyright piracy. Besides this information on civil cases filed should also be collated.

ii) be mandated to deliberate upon operational issues of enforcement with the concerned agencies

iii) to conduct periodic industry wise infringement surveys.

iv) coordinate capacity building programmes for the enforcing agencies.

**More Vulnerable Smaller and Niche Businesses Should Be Encouraged to Formulate Their Trademark Strategies:**

At the organization or enterprise level, all types of enterprises particularly the more vulnerable smaller and niche businesses should be encouraged to formulate their trademark strategies and establish quality attributes with their Brands. This will help them leverage their corresponding brand value towards business and social advantage. They should also be encouraged to seek international protection to participate in global competition and contribute to international trade activities. Service sector, which is one of the fastest growing contributors to the GDP needs to be encouraged to adopt strategies for registration of trademarks marks for ensuring local and global competitiveness and for strong business presence. It is to country's advantage to leverage the goodwill of its strong indigenous brands which have acquired sufficient traction (even if with suitable Government support) in the international markets. In order to ensure that a patent is not issued on unprotected innovations already in public domain, SME clusters could be encouraged to develop comprehensive database/catalogue on their products.

**Geographical Indications**

In so far as geographical indications are concerned, Bangladeshis bestowed with a rich tradition of arts, handicrafts, agricultural practices, characteristic foods, ethnic produce etc. Besides, it has a vast repository of information on IP embedded in local practices and procedures. A large pool of such IP is dispersed across the length and breadth of the country, and it ought to be protected in the form of Geographical Indications wherever feasible. While Tangail's Chamcham, Muktagacha's Manda, Bogra's Dai, Padma's Hilsa, North Bengal Black Goat, Ruhitpur's lungi, Comilla's Rashmalai, etc have made a mark in the global markets, countless such indigenous creations are still untapped from an IP perspective. An awareness initiative is needed to further promote the significance of such local assets, so that they can be leveraged towards the economic benefit of the community and the country. Such an initiative should specifically target local communities (including the rich and yet unexplored tribal products/processes). Central public bodies in partnership with suitable district-level entities and local Union Council Institutions should do the following:

i) should undertake the task of educating communities on the benefits of registering the GIs. Special emphasis on building brands will also be essential to safeguard the rights of the GI owners.

ii) should put in place examination protocols to ensure that the GI owners comply with the prescribed quality standards.

iii) should develop a road map for building brands to enable better market access and penetration for the products registered as GIs.

iv) should also coordinate for enforcement matters with the relevant state level authorities and should provide periodical updates to the Enforcement Taskforce on issues that need redressed.

## **Protection of Industrial Designs**

Protection of industrial designs has an important bearing in economic development as it helps expand the commercial scope by greatly encouraging creativity in the industrial sector. In fact creative designs sustain marketability of products and help the indigenous products compete with foreign goods. Stupendous success of companies like Apple and hundreds of others attests to the power of design innovations at the market place. In the Bangladesh context, as the large consumption basket continues to grow designs are going to be increasingly relied on in influencing the choice of consumer and industrial goods. The existing informal practices of protecting designs through trust based relationships need to be translated to formal protection methods to avoid business conflicts and to ensure proper protection for innovations in designs. Interventions of existing Government of Bangladesh support start ups and SMEs to protect IP has to be enhanced many times over to achieve a fair degree of scale. As the design aspects become more sophisticated, the protection, rights and remedies may have to be suitably viewed and administered under different national laws related to say competition and copyrights. In short, protection of industrial designs needs to be both encouraged and facilitated by needful administrative intervention.

## **Protection of Plant Varieties**

Protection of Plant varieties is essential to encourage the development of new plant varieties and to protect the extant varieties. Such protection will protect the rights of the farmers in respect of their contribution made in conserving, improving and making available plant genetics resources for development of new varieties. Such protection will facilitate the growth of seed industries and ensure availability of quality seeds and planting material to the farmers. In Bangladesh, appropriate authority should initiate the process of registration of new, extant and essentially derived varieties, extensive awareness generation programmes are also necessary to encourage filings.

## **c) Creation of New IP Rights to Address the Specific Needs of the Country and the Existing Gaps**

**Utility Patents or Utility Models: A Cost Effective Way To Incentivize Incremental Innovation And Encourage Creation Of IPRs:** Bangladesh possesses a market of 160 million people, and while advanced concepts borrowed from developed countries find their audience in Bangladesh, the bulk of the trade is centered around indigenous products and services. A salient feature of such products and services is incremental innovation - either in technology or business models. Introduction of a separate legal regime that recognizes and protects these incremental improvements which are otherwise not fit for patent grant can address this Bangladesh requirement. Utility Patents or Utility Models with their less stringent patentability criteria, and faster examination/grant although with shorter term of protection of 5-7 years could also be an efficient and a cost effective way to incentivize incremental innovation and encourage creation of IPRs. Needless to say, there could however be certain sector specific exemptions to ensure that objectives and principles enshrined in Article 7 and 8 of the TRIPS Agreement are respected and followed.

## **A glaring gap in Bangladeshi IP system: Utility Patents are an Answer**

A glaring gap in Bangladeshi IP system is the lack of awareness and hence adoption of formal methods of IP creation which are expensive from the point of view of individual innovators and small industry units. Utility patents are an answer as they can potentially bridge this gap by reducing the effort, time and cost, which are considered the key entry barriers to creation of IPRs. Consequently, in the longer term, a utility patent system is



bound to develop awareness on benefits of procuring patents which have more stringent requirements of inventive step. Such a model can especially be useful for small industry units, schools and colleges, NGOs and thousands of grass-root innovators who are silently transforming the lives of the under-privileged and under-empowered.

### **Protection of Trade Secret**

Any confidential business information which provides an enterprise a competitive edge may be considered a trade secret. Trade secrets encompass manufacturing or industrial secrets and commercial secrets. The unauthorized use of such information by persons other than the holder is regarded as an unfair practice and a violation of the trade secret. Depending on the legal system, the protection of trade secrets forms part of the general concept of protection against unfair competition or is based on specific provisions or case law on the protection of confidential information.

The subject matter of trade secrets is usually defined in broad terms and includes sales methods, distribution methods, consumer profiles, advertizing strategies, lists of suppliers and clients, and manufacturing processes. While a final determination of what information constitutes a trade secret will depend on the circumstances of each individual case, clearly unfair practices in respect of secret information include industrial or commercial espionage, breach of contract and breach of confidence would come within its ambit.

Trade secret is to be protected through the contract law and is part of the concept of protection against unfair competition. Trade Secret is an important form of intellectual property and most innovative companies rely upon this confidential/proprietary information to gain business advantage. A predictable and recognizable trade secret regime will improve investor confidence and create a facilitative environment for flow of information.

### **D. Facilitating Commercialization of IPRs**

**Policy Interventions are Needed to Create Strong and Transparent National Systems:**For Innovation to create any impact, it is imperative to take the idea/innovation from mind/laboratory to the market, where their true intrinsic value is realized – through products and services. While larger organizations have the intent and capabilities to take their technology/IP to markets, several others do not. Hence, it becomes imperative to establish facilitative mechanisms that can address such limitations of several SMEs and individual innovators and thus help put knowledge into practice in a big way. Hence, policy interventions are needed to create strong and transparent national systems that encourage and facilitate i) licensing of rights to another entity for commercialization (ii) Cross-licensing agreements where two or more companies can exchange rights to their IP (iii) leveraging the Intellectual assets for future R&D growth and improved products/services; (iv) sale/merger/acquisition of either the Intellectual property rights or the entire business distinguished and appropriately valued by their intellectual capital; (v) patent pooling which allows two or more companies to pool their technologies/IP and join in common interest to create some product that is to their combined benefit and (vi) reinforcing the stability of IP license contracts.

**National Research Laboratories, Academia and Other Public Funded Institutions Should Stimulate Commercialization:**National research laboratories, academia and other public funded institutions should stimulate commercialization of their research resultants. They ought to be suitably state-supported in the development and deployment of their intellectual property and know-how in the market place – more particularly their application into industrial production. The intervention could be in

building/strengthening the institutional capacity of research-led organizations to enable optimal utilization of intellectual property whether formal or informal. Importantly, the institutional platforms or other market entities should establish value assessment, data management and accounting system for intellectual property. Their IP Management systems should increasingly be guided by market intelligence philosophy.

**National Level Policy Changes are Required to Encourage Development of Indigenous Technologies:** Towards this the Government should fund (through grants / soft-loans) demonstration projects of new technologies requiring large investments. Indigenously developed and commercialized products may be allowed suitable tax breaks till attainment of some maturity levels or for some initial period. National Level Policy changes are required to encourage development of indigenous technologies.. It is also being argued that qualification requirements during tendering process should accord acceptance to indigenously developed products where heavy development investments have been incurred. In such cases user's interests can be safeguarded by manufacturers through appropriate insurance cover/deferred payment/extended warranty etc. Moreover, towards strengthening the indigenous R&D ecosystem, policy frameworks should provide for flexibility in outsourcing technical expertise in niche areas as well as type-testing of prototypes.

### **Emergence of Open Innovation Systems and the Role of Voluntary Standard Setting Organizations**

Interestingly, IPRs have also become an important tool in addressing any dichotomy between cooperation and competition in the Standard creation process more particularly in the ICT industrial sector where there are large number of inter dependent vendors and technology suppliers. This situation also gets aggravated due to rapid pace of technological obsolescence. Thus, emergence of open innovation systems and the role of voluntary Standard Setting Organizations are visualized.

### **Key Findings and Conclusions**

While the overall status of the IPR system is currently weak, there is a strong commitment of the GoB (up to the Ministerial level), and the private sector to improve the protection of IPRs.

### **Key challenges that need to be addressed to strengthen the IPR system in Bangladesh include:**

- ❖ **Policy and legal framework:** Up to now, Bangladesh does neither have' a stand-alone IP policy or strategy, nor is IP protection .adequately integrated into the country's development strategies/policies (e.g.: in the current National Science and Technology Policy). Without systematically addressing IP issues within official policies, there is a risk that the development of the IP system remains fragmented and inconsistent. The legal framework is still incomplete, but currently in the process of being amended.
- ❖ **Lack of budget for an. adequate infrastructure and staff in government offices hinders an effective administration of I.PRs.** There is in. particular an urgent need 'for basic capacity building within government offices. Also, the IPR registration system needs to be computerized and to be made publicly accessible.
- ❖ **There is a general lack of awareness on IPRs** among most institutions, businesses, research and the public. The linkages between research and industry are rather weak and the existing IP system does currently not serve the needs of the innovative sector.

As of now, no formal courses on IPRs are available at major universities in Bangladesh except at the Institute of Appropriate Technology, Bangladesh University of Engineering & Technology (BUET), Dhaka-1000.

❖ **Enforcement of IPRs**, an essential element of the TRIPS Agreement, remains weak.

#### **Conclusions can be drawn as follows:**

- Analyzing the challenges above, a three-pronged approach; formulation and strengthening the policy and strategy, IPR administration and demand for IPRs (by users) in parallel, is needed.
- On the policy side, it is required to formulate and support the elaboration of an IP policy and to focus on completing the legal framework in the field of TK and TCEs. There is a need to combine technical advice with capacity building for policy makers.
- As highlighted by the GoB, key priority is basic capacity building among government staff and groups of stakeholders for whom IP is of high practical relevance, in particular universities and segments of IPR users (e.g. the software/outsourcing industry).
- An IP training centre can be established. The support to the IP training centre seems however premature at this time, because the centre has not yet been established. Also, prior to establishing the centre, capacities of trainers need to be built and the funding for operational cost should be arranged & made sustainable.
- GIs are a high priority to Bangladesh. The sustained technical support is needed to implement GI pilot projects. Also, both the legal framework and institutional framework for registration/management of GIs must be in place, prior to the implementation of pilot projects, which is not yet the case in Bangladesh. Nevertheless, support to basic awareness raising and a study on the potential of GIs and groundwork for the future development of GIs can be initiated.
- Strengthening enforcement of IPRs is important. Bangladesh requires assistance in this area. The potential for value added within a limited technical cooperation project not directly working with enforcement agencies would be marginal. Promoting the use of IPRs among their right holders are important. Well-informed right holders are likely to actively defend their rights. Pressure from right holders tends to gradually result in better IPR protection.

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