The Economic Contribution of Copyright-Based Industries in Bhutan

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ROYAL GOVERNMENT OF BHUTAN
Intellectual Property Division,
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Table of Contents

Executive Summary **5**

Abbreviations **8**

1. INTRODUCTION **9**
1.1 Background 9
1.2 Objective of the Study 9
1.3 Process, Scope and Methodology 9
1.4 Data Sources and Limitations 10
1.5 The Copyright Factor 11
1.6 Structure of the Study 11
2. OVERVIEW OF THE COPYRIGHT INDUSTRIES **12**
2.1 Background 12
2.2 Definition 12
2.3 Legal and Institutional Framework 14
2.4 Protection of Copyright 14
2.5 Review of Recent Developments in Key CBIs of Bhutan 16
2.5.1 Film and Music 16
2.5.2 Print and Media 17
2.5.3 Handloom Weaving 19
2.5.4 Handicrafts, Furniture and Visual Arts 19
2.5.5 Other Related Areas 20
2.6 The Promotion of Culture-Based Creative Industries 20
2.7 Key Issues and Constraints 21
2.7.1 Weak Database 21
2.7.2 Poor Inter-Agency Coordination 21
2.7.3 Lack of Awareness of Copyright Protection and Enforcement 22
2.7.4 Lack of Innovation and R&D 22
2.7.5 Lack of Skills Training 22
2.7.6 Inadequate Access to Funding 22
3. CONTRIBUTION OF CBIs **24**
3.1 Introduction 24
3.2 The Structure of the Economy of Bhutan 24
3.3 Economic Contribution of CBIs 26
3.4 Share of CBIs in GDP 26
3.4.1 Structural Composition of CBIs 26
3.4.2 GVA Growth of CBIs 28
3.5 Share of CBIs in Employment 30
3.5.1 Share of CBIs in Total Employment 30
3.5.2 Employment Distribution within the CBIs 34
3.5.3 Female Participation in CBIs 34

4. PERFORMANCE OF CBIs **36**
4.1 Introduction 36
4.2 Performance Indicators 36
5. ECONOMIC LINKAGES OF CBIs **38**
5.1 Introduction 38
5.2 Backward and Forward Linkages 38
6. CONTRIBUTION OF CBIs TO INTERNATIONAL TRADE **39**
6.1 Introduction 39
6.2 Share of CBIs in International Trade 39
6.3 Inter-temporal Changes in Trade Contribution of CBIs 40
7. A COMPARATIVE COUNTRY ANALYSIS OF CBI CONTRIBUTION **42**
8. POLICY RECOMMENDATIONS **44**
8.1 Introduction 44
8.2 Improve Data Collection and Dissemination 44
8.3 Strengthen the Intellectual Property Division 45
8.4 Foster Public-Private Partnership 45
8.5 Provide adequate Credit 46
8.6 Conduct in-depth Sector-Specific Studies 46
9. FUTURE DIRECTIONS **47**
References **48**

ANNEX 1: ISIC CODES FOR BHUTAN **50**
ANNEX 2: SOURCES OF DATA AND INFORMATION **53**
ANNEX 3: QUESTIONNAIRE **55**
ANNEX 4: MEETINGS AND GROUP DISCUSSIONS **57**
ANNEX 5: CORE CBIS USED FOR ESTIMATING THEIR CONTRIBUTION TO GDP **58**
ANNEX 6: FORMULA ON COPYRIGHT FACTOR **59**
ANNEX 7: CALCULATIONS OF NET VALUE ADDED **60**
ANNEX 8: EQUATIONS REFLECTING THE INPUT-OUTPUT COEFFICIENTS FOR CBIS **61**
ANNEX 9: SUPPORTING POLICY DEVELOPMENT FOR CULTURAL INDUSTRIES **62**

Tables

Table 1:	Copyright Factor in Non-Core CBIs	11
Table 2:	Copyright Factor Industry Group-Wise	11
Table 3:	Classification of Copyright-based, Creative and Cultural Industries	13
Table 4:	Protection of Copyright Works	15
Table 5:	Milestones on Copyright in Bhutan	15
Table 6:	Enforcement of Rights under the Copyright Act, 2001	16
Table 7:	Issuance of ISBN from 2000 to 2008 on Works by Different Groups	18
Table 8:	Bank of Bhutan: Loans to Major CBI-related Sectors as of December 2008	23
Table 9:	Annual Average Growth Rates of Real Gdp by Major Economic Sectors at Constant Prices (in %).	24
Table 10:	Nominal GVA of the Core CBIs (in Nu. millions)	26
Table 11:	Real GVA at Market Price (base year 2000, in Nu.) of Non-Core CBIs	27
Table 12:	Percentage Share of Each Category of CBIs in GVA of all CBIs and GDP	27
Table 13:	Average Annual Growth Rate of GVA (in %)	29
Table 14:	Employment in CBIs in 2008	31
Table 15:	Share of CBIs in Employment 2008	31
Table 16:	Relative Productivity of Labour in CBIs in 2008	32
Table 17:	Employment Distribution across Core Copyright and Partial Copyright Industries in 2001	33
Table 18:	Major Employment Share within CBIs in 2008	34
Table 19:	Performance Indicators of CBIs	36
Table 20:	Education Level of Employees in CBIs	37
Table 21:	Share of CBIs in International Trade (in million Nu.) in 2008	39
Table 22:	Inter-temporal Changes in International Trade of CBIs	40
Table 23:	Trade Balance of CBIs (in Nu. millions)	41
Table 24:	Average Annual Growth Rate of Value-Added of CBIs in Selected Countries	42
Table 25:	Cross-sectional Study on the Relative Size of CBIs	42
Table 26:	Cross-country Comparisons on the Share of Core CBIs in Total Trade	43
Table 27:	Cross-sectional Study on Share of CBIs in Total Employment, 2008	43

Charts

Chart 1:	Percentage Share of Different Economic Sectors to GDP (2008)	25
Chart 2:	Share of CBIs in GDP (%)	28
Chart 3:	Share in the GVA of Core Copyright Industries in 2008	28
Chart 4:	Average Annual Growth Rates of Different CBIs	30
Chart 5:	Skill-wise Distribution of Labour in Core and Partial CBIs	33
Chart 6:	Share of Women in Labour Force	35
Chart 7:	International Trade of CBIs (in million Nu.)	41

Executive Summary

Introduction

There has been growing interest among countries in estimating the economic contribution of the creative industries that are protected by copyright, commonly termed copyright-based industries (CBIs). This worldwide trend is premised upon increasing empirical evidence of the importance of copyright-based activities in the growth and development of national economies. This pilot project was commissioned by the World Intellectual Property Organization (WIPO) at the request of the Royal Government of Bhutan (RGOB) to identify Bhutan's CBIs and to estimate their economic contribution.

Copyright is a relatively new concept in Bhutan: it was introduced in the 1990s. Bhutanese society is unique in the sense that it believes in sharing knowledge and creativity for the wellbeing of the community as a whole. Creativity is perceived as a form of meditation, and hence the belief in earning merit leads one to create arts and crafts for the benefit of society as a whole. Most crafts are produced for household use. With this distinctive socio-economic structure of Bhutan in mind, the study uses the framework and guidelines recommended by WIPO to quantify the contribution of CBIs in terms of value added, employment and foreign trade.

WIPO distinguishes CBIs into four categories, based on the nature and significance of copyright activities. These include core and non-core CBIs:

- The *core* copyright industries refer to 'industries that are *wholly engaged* in creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter'[1].

The *non-core* CBIs include:

- The *interdependent* copyright industries, defined as those industries that 'wholly or primarily *facilitate* the creation, production and use of works and other protected subject matter'[2].
- The *partial* copyright industries, defined as those industries in which 'a *portion* of the activities are *related* to works and other protected subject matter'[3].
- The *non-dedicated support* industries: those in which 'a portion of the activities are related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries'[4].

Economic Contribution of CBIs

Based on the study estimates, the total contribution of CBIs to the Bhutanese economy in 2008 was:

- 5.5% of GDP or Nu.3,009 million;
- 10.1% of total employment or 25,215 persons;
- 4.0% of total exports or Nu. 912.4 million;
- 6.9% of total imports or Nu.1,604.8 million.

The contribution of CBIs to GDP was only Nu. 648.8 million or 2.8% in 2001, but it increased almost five-fold by 2008. In other words, CBIs grew at a rapid pace of about 21.3% per annum, outperforming the national economy, which grew at 9.0% during the period. Interestingly, each of four CBI groups surpassed the national growth rate during this period. The core and interdependent CBIs grew the fastest at 123% per annum, followed by the non-dedicated support industries at 14.5%. The high rate of growth of core CBIs during this period is due to the low base of growth. Prior to the year 2000, the main core CBIs such as printing press, literature, films, TV and cable TV, IT and IT-enabled services hardly existed. Their significant growth took place only after the year 2000.

Given the unique structure of the Bhutanese economy and the differing growth among CBI groups, the partial CBIs are relatively more significant in Bhutan. The core and partial CBIs accounted for an overwhelming 75%

[1]WIPO Guide pg. 29.
[2]WIPO Guide pg. 33.
[3]Ibid.
[4]WIPO Guide pg. 35.

of the total CBI share of GDP in 2008. This is because many of the core and partial CBIs flourished due to economic liberalisation, which became more systemic, especially after 2005. This is also due to the promotion of cultural tourism. The core CBIs accounted for about 34%, partial contributed 41%, non-dedicated support industries accounted for 14%, and the interdependent CBIs 11% of the total value added of CBIs. The relatively small share of the interdependent CBIs is due to the weak manufacturing base in Bhutan.

The CBIs also make an important contribution to employment. Based on the 2005 Population and Housing Census, they contribute about 9% of total employment in Bhutan. Partial CBIs account for the largest share of employment (71%), followed by the non-dedicated CBIs at a distant 15.9%. On the other hand, the core and interdependent CBIs are relatively small and thus they contribute only 10.2 and 2.8% respectively to the total employment in CBIs. Given the characteristic labour-intensity of partial CBIs and their significance in Bhutan's CBIs, labour productivity in CBIs is lower than the national average. The more capital-intensive non-dedicated support CBIs, however, register the highest labour productivity among all CBI groups.

The partial CBIs not only make the largest contribution to GDP and employment, they also have the greatest impact on the economy. The inter-industry linkages reveal that the partial CBIs have the highest backward linkages with the domestic market, whereas the other CBI groups have notable backward linkages with the rest of the world. The partial CBIs have the greatest linkages with the agriculture sector and therefore they can play a more dominant role in rural development and poverty alleviation. With respect to forward linkages, 90-100% of the sales of different categories of CBIs are made to the services sector. The most probable explanation lies in the hospitality sector (tourism), which is the main buyer of copyright-based products, given the small population base and low purchasing power of the people.

As highlighted above, CBIs are net importers. However, the partial CBIs export almost their entire output (about 99%) and account for 98% of the total exports of all CBIs. Within this category, the weaving and handmade paper industries are the largest net exporters and consequently the biggest net foreign exchange earners among all CBIs.

Cross-country analysis of selected countries shows that Bhutan's CBIs contribute moderately to GDP at 5.5%, better than CBIs in Philippines, Jamaica and Latvia but less than those in Malaysia, Mexico and USA. However, CBIs in Bhutan were the most dynamic, expanding at double-digit rates of between 13-32% from 1997 to 2008, in contrast with between 6-7% in some of the developed economies such as Australia, Netherlands or the USA.

Notwithstanding the notable contribution and performance of CBIs in Bhutan, there are issues and problems that impede their full potential. Some of the key constraints include poor coordination of CBI development stemming from institutional weaknesses, difficulties in obtaining credit, and lack of investment in R&D and human resource development. As in many developing economies, there is also poor understanding and appreciation of the importance of copyright among consumers and producers alike. A lack of consistent and reliable data on CBIs is a major impediment to making a realistic assessment of the potential of CBIs in Bhutan.

Policy Recommendations

The growing significance and worldwide recognition of the rising role of creative industries as the engine of growth, as well as the potential of CBIs in Bhutan given its unique geographical and economic landscape, necessitate a consistent and coordinated approach for promoting CBIs in Bhutan. To meet current and future challenges faced by CBIs, the following recommendations are made:

(i) In line with the proposals for the development of cultural industries, it is recommended that supporting policies such as advocacy and strategy development, as well as cultural asset management, be implemented for CBIs. Preparing a comprehensive policy and strategy is the first step in their development, along with human resource, technology and infrastructure development. These must be accompanied by setting up of clear objectives, benchmarks and responsibilities for coordination, follow-up and implementation.

(ii) To improve the quality and availability of timely data on CBIs, coordination and cooperation amongst the five key Ministries – Home & Cultural Affairs; Economic Affairs; Labour and Human Resources; Information and Communications; Finance; as well as the National Statistics Bureau (NSB) – is vital. As NSB is the clearing house for national data, it has to be actively engaged in checking the quality of data by assisting in statistical surveys and studies. The national income accounts should also be prepared in a more-detailed manner so that disaggregated data for various activities are available to planners and researchers. The NSB has to take a leading role in this regard as well.

(iii) To facilitate the above task, the necessary institutional arrangements must be put in place. One option is to provide a specific mandate to an agency, like the proposed Cultural Commission or DCSI/APIC, for such cooperation and coordination in the generation and dissemination of data. The mandate of this body should include, *inter alia*: (a) clarification and delineation of responsibilities for maintaining and developing data on CBIs as well as creative and cultural industries; (b) cooperation in carrying out any statistical surveys, including agreement on their terms of reference so that a study can serve the need of more than one agency as well as meet NSB's qualitative requirements; (c) collect trade data at a disaggregated level; and (d) cooperate in policy and programme implementation in areas such as technology, R&D and human resource development to avoid duplication of efforts and resources. When it comes to copyright and creative industries, the IPD should play an active role in coordination and direction, in cooperation with the lead central agency.

(iv) The role of the IPD in advocacy and creating public awareness must be strengthened in order to build a stronger culture of IP protection within the Bhutanese society. The IPD must play a more proactive role in disseminating information on copyright protection. Its website has to be more user-friendly, with information, facts and figures that are easily understood. In addition, in cooperation with the Royal Bhutan Police and judiciary, the IPD must provide greater support to the private sector in dealing with piracy and other kinds of IP abuses and eventually develop a joint public-private sector strategy to combat this growing problem.

(v) To enable the IPD to carry out its role and functions more effectively, it is proposed that the IPD be transformed into an autonomous government agency, as in the case in Malaysia and other countries. As its activities cut across the work of many public and private institutions, it can function more effectively as an autonomous agency under a board of directors drawn from different professions. It can assume greater flexibility in programme operations and achieve better coordination with other agencies. If full autonomy is not feasible, the second-best option is to elevate the IPD to the status of a department. The IPD's existing facilities and staff should be reviewed and strengthened where necessary, to enable it to meet the above functions and to elevate its profile within the government. A stronger government body on IP will have a favourable impact on the development of the national creative industries and will help improve coordination at appropriate levels.

(vi) Incentives in the form of fiscal, financial and infrastructural support should be granted in order to foster private sector investment in CBIs. Bhutan's private sector is still in its infancy. As such, public-private partnership will go a long way to enable CBIs to compete in the global market. A cluster for creative industries should be developed, like the IT Park, including the encouragement of foreign direct investment (FDI) that can bring new technology, different skills and much-needed capital for investment in collaboration with the Bhutanese private sector.

(vii) There is a need to improve the availability and accessibility of credit, especially for the SMEs. The focus should be on improved credit information; better project appraisal; removal or at least relaxation of the requirements of collaterals for loans; and improved legal protection for both banks and borrowers. Some of these elements are being addressed by the RMA, but a separate window or facility for lending to SMEs is necessary to encourage their growth.

(viii) The study shows some emerging areas with much potential. These include films and music, print and media, handloom weaving, handicrafts and furniture. Among these, the first three industries have better prospects. More in-depth sector-specific analysis should be carried out for these industries, in order to identify the issues and challenges faced by them and to target policies and programmes accordingly. Simultaneously, other less-developed CBI sectors like advertising services, photography, visual arts software and databases should be encouraged to attain their full potential.

Abbreviations

APIC	:	Agency for the Promotion of Indigenous Crafts
BICMA	:	Bhutan Information, Communication and Media Authority
BIMSTEC	:	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (Bangladesh, Bhutan, India, Myanmar, Nepal, Thailand & Sri Lanka)
BPO	:	Business Processing Office
CBS	:	Centre for Bhutan Studies
CBIs	:	Copyright and Related Right-Based Industries
DOC	:	Department of Culture, MoHCA
DRC	:	Department of Revenue & Customs, Ministry of Finance
DCSI	:	Department of Cottage & Small Industries, MoEA
FDI	:	Foreign Direct Investment
GDP	:	Gross Domestic Product at market price unless stated otherwise
GNH	:	Gross National Happiness
GVA	:	Gross Value Added
HR	:	Human Resources
HRD	:	Human Resource Development
IP	:	Intellectual Property
IPD	:	Intellectual Property Division, MoEA
IPRs	:	Intellectual Property Rights
ITAB	:	Information Technology Association of Bhutan
LFPR	:	Labour Force Participation Rate
MoHCA	:	Ministry of Home & Cultural Affairs
MoEA	:	Ministry of Economic Affairs
MoIC	:	Ministry of Information & Communication
MoLHR	:	Ministry of Labour & Human Resources
MPAB	:	Motion Pictures Association of Bhutan
NDS	:	Non-Dedicated Support
NSB	:	National Statistics Bureau
NVA	:	Net Value Added
Nu.	:	Bhutanese Ngultrum
PC	:	Partial Copyright
R&D	:	Research and Development
RGOB	:	Royal Government of Bhutan
RMA	:	Royal Monetary Authority of Bhutan
SMEs	:	Small and Medium Enterprises
TRIPS	:	Trade Related Intellectual Property Rights (WTO Agreement)
TSC	:	Transport, Storage and Communication
UNCTAD	:	United Nations Conference on Trade and Development
UNDP	:	United Nations Development Programme
UNESCO	:	United Nations Educational, Scientific and Cultural Organization
UNIDO	:	United Nations Industrial Development Organization
WIPO	:	World Intellectual Property Organization
WTO	:	World Trade Organization
WRT	:	Wholesale and Retail Trade

1. Introduction

1.1 Background

Interest among countries has surged since the 1970s to estimate the contribution of copyright and related right-based industries (hereafter referred to as CBIs) to the national economy. The economic contribution of CBIs is measured in terms of its share of value added, employment and trade in the economy. Several countries, both developed and developing, have done studies which show that the overall contribution of CBIs to the national economies has been rising steadily during the past two decades, reaching as high as 11.1% of GDP in the United States in 2004 and 8.8% of total employment in the Philippines in 1999. Apart from the Philippines, other Asia-Pacific countries that have undertaken similar studies include Australia (2001)[5], Singapore (2003) and Malaysia (2009) (WIPO 2003 & Kanapathy 2009).

This study is the outcome of a request by the Royal Government of Bhutan (RGOB) to the World Intellectual Property Organization (WIPO) for assistance in assessing the economic contribution of CBIs to the national economy, which has been witnessing an average growth of real GDP at 8.4% in the past decade (2001-2010). The study will also serve as a reference for introducing new policy measures to enhance the growth of CBIs in the country. Accordingly, WIPO and the Intellectual Property Division (IPD) of the Ministry of Economic Affairs (MoEA) commissioned the study in April 2009.

1.2 Objective of the Study

The objectives of the study are to:

(a) Quantify the economic contribution of CBIs in Bhutan by estimating their share of value added and employment in the economy, and revenue generated from foreign trade;

(b) Carry out an in-depth analysis of selected CBIs of importance to Bhutan in terms of their market structure, value chain, demand and supply patterns, labour market, policy frameworks, institutional support (including the role of collecting management organisations and other copyright-related organisations), terms of trade and cross-border issues, financing mechanisms, implications of the digital environment, among others; and

(c) Propose policy, strategy and institutional interventions for encouraging the growth and development of CBIs in the country.

1.3 Process, Scope and Methodology

The study commences with a review of the literature and data on CBIs, culminating in consultations among national and international consultants, the government and WIPO in June 2009 at Thimphu. The consultation, *inter alia*, reached an understanding on the scope, coverage and methodology for the study. The consultation also identified a few similar studies, such as those in Malaysia and Jamaica, as references. The consultations with WIPO and the international adviser continued throughout the period of the study.

The study will cover all CBIs that have been grouped into four categories, i.e. core, interdependent, partial and non-dedicated CBIs. In line with other national studies, Bhutan's CBIs will be identified using WIPO's methodology and guidelines. WIPO defines CBIs using the International Standard Industrial Classification (ISIC) codes. Likewise, Bhutan's CBIs are determined using the ISIC codes. As the NSB does not strictly follow the ISIC codes, the four-digit ISIC classification by MoEA is used. Bhutan's CBIs are described in Annex 1.

[5] Australia did an update of its study in 2007 http://www.wipo.int/export/sites/www/ip-development/en/creative_industry/pdf/eco_table.pdf

1.4 Data Sources and Limitations

The study is based on secondary data sourced from NSB. In addition, primary data was gathered through a structured questionnaire survey carried out between October and November 2009, semi-structured interviews and focus group discussions. The sources of secondary data, survey questionnaire and details of individual meetings and focus group discussions are given in Annexes 2 to 4 respectively.

The economic contribution of CBIs is captured through three key summary indicators, while its performance is assessed using a variety of indices. The key summary indicators include the share of CBIs in GDP, national employment and international trade. Apart from intra-CBI contribution, the relative contribution of CBIs, *vis-à-vis* other industries, over time and between countries, is also analysed.

The relative performance of the CBIs is assessed by computing various growth rates as well as labour productivity. A host of other performance indicators[6], such as capital output ratio, input-output ratio, plant load factor and profitability ratios, are used to measure their physical and technical efficiency.

The data are collected for four years, i.e. 1997, 2001, 2005 and 2008. However, secondary data are not readily available for all CBIs for all chosen years. These data gaps are addressed through sample surveys and extrapolation using relevant industry growth rates. In June 2011, consultations were held to estimate a more realistic contribution of core CBIs to GDP and employment. The list of the core CBIs consulted is given in Annex 5.

The share of CBIs in GDP is calculated by using data obtained through the above consultations and data compiled by NSB. The gross value added (GVA) of CBIs is obtained from the Census on Manufacturing Industries, 1997 and 2001. However, the GVA for the years 2005 and 2008 had to be estimated.

- For the core copyright industries, the primary data are collected through consultations with such major industries.
- For partial copyright-based industries, the GVA at market price for the years 2005 and 2008 are extrapolated using the growth rate of the manufacturing sector.
- The contribution of the interdependent copyright-based industry is imputed indirectly because of non-availability of disaggregated information. The imputation is based on the ratio of contribution of interdependent copyright industries' GVA to the GVA of core copyright industries. This ratio is derived from the studies undertaken in Latvia and Jamaica[7]. The ratio is about 37%.
- The share of non-dedicated support (NDS) industries is also indirectly imputed using the methodology applied in the study of the economic contribution of copyright-based industries for Latvia. In this study, the share of non-dedicated support industries is calculated using an average weight of 5% of the GVA of the WRT and TSC categories.

Due to highly unreliable data on employment, the contribution of CBIs to total employment is based on data from the 2005 Population and Housing Census. Prior to 2005, not only the population estimates varied significantly over time but population distribution across sectors also fluctuated. Even recent data remains unreliable, as the year-to-year fluctuations remain high. For this reason, any time series analysis can be misleading and the CBI contribution to employment is only estimated for the year 2005 onwards.

The trade data used in the study is from the 2008 Bhutan Trade Statistics. It would be pertinent to note that the trade statistics compiled by the Department of Revenue and Customs (DRC) differs from that published in the National Account Statistics, 2000-2008 compiled by NSB. The two sources differ on the value of exports and imports and hence create differences in all other variables derived from the two.

Furthermore, the problem in estimating the share of CBIs in international trade arises from the fact that data on exports and imports are not classified from the source of origin or destination of industry activity. This leads to over-estimation of the contribution of CBIs to trade. This is especially true in the case of imports. For

[6] Capital output ratio is the ratio of the stock of the capital to the output produced; input-output ratio is an amount of input used to produce a unit of output; plant load factor is ratio of actual output to full capacity output; and profitability ratio is the ratio of profit to net value added or ratio of profit to sales.

[7] The criteria for the selection of these two countries were: (1) The level of development and the nature of the economy of the two countries are similar to the Bhutanese economy compared to studies of other countries cited in the WIPO Study, and (2) Jamaica has also used similar criteria in preparing its study.

example, the statistics published by the DRC only tells us how much of a particular commodity is imported, say, particle boards. It is not possible to identify whether they are imported by CBIs or by construction firms.

The coverage, accuracy and reliability of this study therefore need to be seen in this perspective. To a certain extent, the problem was diluted, by two means. First, the data was re-classified from the census of manufacturing on a uniform basis. Second, the labour to output ratio in 1997 was used to estimate employment in each category of CBIs in different years to minimise this error.

1.5 The Copyright Factor

The copyright factor signifies the weight of copyright in the value added or employment of a firm. A detailed explanation of the computation of the copyright factor for each of the four broad categories of CBIs is given in Annex 6.

The copyright factor is calculated using information collected through the sample survey. A stratified random sampling was used with a sample size of 109. The list of CBIs provided by the MoEA served as the sample frame. The samples were drawn using the method of probability proportional to the population.

For the core CBIs, all of the firm's activities are attributed to copyrights and hence its copyright factor was assumed at 1. For the non-core CBIs, not all of the firm's activities can be attributed to copyright and hence a value of less than 1 was assigned. As shown in Table 1, the difference in the copyright factor across the non-core group is marginal. Non-dedicated support industries have the highest copyright factor among the non-core group. The least copyright factor is found in the interdependent copyright industries.

Table 1: Copyright Factor in Non-Core CBIs

Category of CBI	Average Copyright Factor
Interdependent	0.021
Partial	0.026
Non-dedicated support	0.028

Source: Sample survey

The copyright factor for each industry group calculated from the samples is shown in Table 2. Some industries have relatively low copyright factors compared to others, due to the lower level of copyright involved in the production process.

Table 2: Copyright Factor Industry Group-Wise

Category of CBIs	Industry Group	Copyright Factor
Partial	Handicrafts	0.033
Partial	Furniture	0.014
Interdependent	Electronics	0
Interdependent	Computers	0.12
Non-dedicated	Cable TV	0
Non-dedicated	Telephone booths	0
Non-dedicated	Cyber café	0.02

Source: Sample survey

1.6 Structure of the Study

The study is divided into nine sections. Section 1 introduces the study and covers its background, objective, process and methodology, data sources and estimation procedures. Section 2 provides an overview of CBIs, including their background, definition, description, legal and institutional framework, and a review of recent developments. Sections 3 to 7 form the core of the study and focus on estimating the contribution of CBIs and their performance indicators. Section 8 discusses policy recommendations and Section 9 looks at future directions.

2. Overview of the Copyright Industries

2.1 Background

Copyright is a relatively new concept in Bhutan that was introduced in the kingdom in the 1990s. Bhutanese society is basically community-based, thus it is not surprising that it believes in sharing knowledge and creativity for the wellbeing of the community as a whole. Creation is a form of meditation in Bhutan. 'Art is synonymous with spiritual practice and the execution of art earns merit.' (DoC, p.2). Hence, a belief in earning merit leads one to create arts and crafts for the benefit of the society.

The Bhutanese people utilise natural resources in local surroundings for producing different goods. This is clear if one looks, for instance, at Bhutanese arts and crafts, be it traditional architecture, painting, weaving or any craft from among its 13 major crafts collectively known as *'Zorig Chusum'*. Bhutan's successive rulers, clergy and layman alike, have preserved these crafts over centuries. The 13 crafts are:

(i) bamboo and cane weaving
(ii) wood crafts
(iii) handloom weaving
(iv) gold and silver crafts
(v) sculpture and pottery
(vi) casting
(vii) papermaking
(viii) painting
(ix) embroidery and appliqué works
(x) carpentry
(xi) masonry
(xii) wood carving and
(xiii) blacksmithing

The creativity in arts and crafts has assumed a new meaning with the development and monetisation of its barter economy since the 1960s, and more specifically after opening the country for tourism in 1974. These products in their social and community setting have formed an important source of income for many artisans, though there is much room for their improvement in quality, standard and sophistication.

2.2 Definition

Copyright is one of the two branches of intellectual property (IP), the other being industrial property. According to WIPO, 'It applies to every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression.' (WIPO 2003, p.13). Unlike patents, copyright protects only the form of expression of ideas but not the ideas themselves. It is aimed at protecting the creator's right over unauthorised copying for commercial purposes.

As CBIs are sometime termed as cultural or creative industries, it is important to clarify these terms. Culture plays a pivotal role in social and economic development and so CBIs and cultural industries have to be seen together. 'Cultural industries' refer to those industries that produce fairly large-scale industrial products with significant cultural content and are often used in relation to mass-media production. On the other hand, the term 'creative industries' is wider in scope and 'includes, besides the cultural industries, all cultural or artistic production, whether live or produced as an individual unit, and is traditionally used in relation to live performances, cultural heritage and similar 'high art' activities. The borderline between the two is often very fine' (WIPO 2003, p.18); though WIPO clarifies it by stating that creative industries are copyright-dependent (WIPO 2007). In the context of the study, the term 'copyright and related right-based industries' (CBIs) is used most of the time and if the other two terms are used, it is to denote their general context that copyright plays a significant and identifiable role within those industries. The classification of cultural industries, creative industries and CBIs is given in Table 3.

Table 3: Classification of Copyright-based, Creative and Cultural Industries

Copyright-based industries	Cultural industries	Creative industries
Core Copyright Industries:		
Press and Literature	Printed Matter and Literature	Advertising
Music, Theatrical Production, Operas	Music and Performing Arts	Crafts
Motion Picture and Videos	Visual Arts	Design
Radio and Television	Audio-Visual Media	Designer Fashion
Photography	Cinema and Photography	Film and Videos
Software and Databases	Radio and TV	Interactive Leisure
Visual and Graphic Arts		Software
Advertising Services		Music
Copyright Collecting Societies		TV and Radio
		Performing Arts
		Publishing
		Software
Interdependent Industries:		
TV Sets, Radios, VCRs, CD Players	Cultural Heritage	
DVD Players, Cassette Players, Electronic Games Equipment, and other similar equipment	Socio-Cultural Activities	
Computers and Equipment	Sports and Games	
Musical Instruments	Environment and Nature	
Photographic and Cinematographic Instruments		
Blank Recording Material		
Paper		
Partial Copyright Industries:		
Apparel, Textiles, and Footwear		Arts and Antique Markets
Jewellery and Coins		Architecture
Other Craft		
Furniture		
Household Goods, China, and Glass		
Wall Coverings and Carpets		
Toys and Games		
Architecture, Engineering, surveying		
Interior Design		
Museums		
Non-dedicated Support Industries:		
General wholesales and retailing		
General transportation		
Telephony and Internet		

Compiled from: UNIDO 2005, WIPO 2003 & UNESCO n.d.

WIPO places CBIs into four categories for statistical and functional purposes. These are core copyright industries, interdependent copyright industries, partial copyright industries and non-dedicated support copyright industries (WIPO 2003). These are further divided into sub-groups as can be seen in Table 3. The core CBIs refer to 'industries that are wholly engaged in creation, production and manufacturing, performance, broadcast, communication and exhibition, or distribution and sales of works and other protected subject matter.' They are further divided into nine sub-groups.

The interdependent copyright industries are defined as those 'engaged in production, manufacture and sale of equipment whose function is wholly or primarily to facilitate the creation, production and use of works and other protected subject matter'. This category is divided into two sub-groups – core interdependent and partial interdependent, both of which cover manufacture, wholesale and retail trade. The first sub-group under this category is integral to the core copyright industries while the latter has a supportive role only.

The partial CBIs are defined as those in which 'a portion of the activities is related to works and other protected subject matter and may involve creation, production and manufacturing, performance, broadcast, communication and exhibition or distribution and sales'. This group may have a particular service component in it.

Finally, the NDS industries are those in which 'a portion of the activities is related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries'.

2.3 Legal and Institutional Framework

Laws are generally initiated by the agency that is responsible for managing a particular sector; for instance, the IPD in regard to intellectual property. However, since the establishment of a democratic system of government in April 2008, the Parliament, consisting of the National Council (Upper House) and the National Assembly (Lower House), has assumed a greater role in the formulation, review and amendment of legislation.

While laws may be initiated by a concerned agency and passed by the Parliament, these are left to the courts (at the district, sub-districts and High Court levels) for enforcement. The courts are not traditionally used to administer laws on copyright, despite the efforts of the IPD in the past to create awareness and promote inter-agency coordination and collaboration for law enforcement. Even if their works are copied, the owners of copyright themselves are unaware or hesitant to go to the court due to hassles in meeting legal requirements to prove violation of the law.

For all IP matters, the IPD is the lead organisation. Its principal functions are: to initiate appropriate legislation, rules and regulations; to create national awareness on IP issues; to maintain registries for patents, trademarks and industrial designs; to support right-holders in the commercialisation of their works and to strengthen enforcement of IP rights. In regard to copyright, the protection is automatic, as Bhutan is a signatory to the Berne Convention for the Protection of Literary and Artistic Works. In other countries, the copyright-holders themselves cooperate through Collective Management Organisations (CMOs), which are absent in Bhutan, to protect their rights. Two studies were carried out with WIPO's assistance to assess the feasibility of setting up a CMO in Bhutan. For the present, resource constraints make CMOs unfeasible.

The IPD organises activities in cooperation with WIPO and other relevant international organisations to create awareness on IP and its multiple dimensions. It initiates dialogue with educational institutions about incorporating IP in their curricula. In addition, there is a continuous process of institutional building through participation of stakeholders in seminars and workshops, and implementation of national projects, including ICT projects and database development.

2.4 Protection of Copyright

The copyright element in Bhutan is based more in the context of creative industries that have traditionally been lumped and interpreted under the broad framework of culture. CBIs, therefore, are a departure from the traditional understanding of creativity in arts and crafts, and embrace the meaning of copyright as used since 2001 when the Copyright Act was adopted.

The Copyright Act, 2001 provides for the protection of literary and artistic works as well as derivative works, as outlined in Table 4 below. No protection is granted for an idea, principle, concept, procedure, system, discovery or data, official texts or their translations.

Table 4: Protection of Copyright Works

A.	**Literary and Artistic Works**
	These are original intellectual creations in literary and artistic works and include: a. Books, pamphlets, articles, computer programs and other writings; b. Speeches, lectures, addresses, sermons and other oral works; c. Dramatic and dramatic-musical works, pantomimes, choreographic works and other works created for stage productions; d. Stage productions of works mentioned above and of expressions of folklore that are apt for such productions; e. Musical works, with or without accompanying words; f. Audio-visual works; g. Works of architecture; h. Works of drawing, painting, sculpture, engraving, lithography, tapestry and other works of fine art; i. Photographic works; j. Works of applied art; and k. Illustrations, maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science.
B.	**Derivative Works**
	a. Translations, adaptations, arrangements and other transformations of works; and b. Collections of works and collections of mere data (databases), whether in machine readable or other form, provided that such collections are original by reasons of selection, coordination or arrangement of their contents.

Source: Copyright Act of Bhutan, 2001

The owner of copyright has the exclusive economic and moral rights on his or her works. The economic rights relate to reproduction, translation, adaptation, distribution, rental or public lending of the original or copy of audio-visual work, a computer program, a database, musical work in graphic form, importation of the copies of the work, public display and performance, broadcasting and other modes of communication to the public. The moral rights include claim on display of authorship or ownership, the work or otherwise as well as the right to object any distortion of such work.

The recognition of the need to protect copyright is low, both with the owners and enforcement agencies, despite efforts being made by the IPD to create public awareness. A recent study carried out by the MoEA confirms this situation and outlines measures for improvement (MoEA 2010a). The measures that have been recommended include: *'suo moto'* raids by the police on suspected cases of violation; expeditious settlement of cases; training of judges for dealing with IP laws; training of police personnel and IP prosecutors; promotion of greater public awareness; a clear national policy statement on IP; and greater cooperation and coordination of efforts among stakeholders. A guideline for enforcement of rights has also been prepared, on which action is awaited from the government (MoEA 2010b).

Table 5: Milestones on Copyright in Bhutan

Year	Milestones
1994	Accession to Convention establishing WIPO
1997	Establishment of the Intellectual Property Division
2001	Enactment of Copyright Act of the Kingdom of Bhutan
2004	Accession to the Berne Convention for the Protection of Literary and Artistic Works
2008	Trial on the voluntary registration of copyright system
2010	Drafting of an enforcement mechanism as well as rules and regulation under the Copyright Act, 2001

Source: IPD, MoEA

The Copyright Act, 2001 governs the protection of copyright, and its milestones are given in Table 5 above. The Act deals with copyright works and protection of performers, producers of sound recording and broadcasting organisations, and enforcement by courts. The copyright works define literary and artistic works, derivative works, economic and moral rights, and provide for reproduction for quotation, personal, educational and broadcasting, information and library purposes with due acknowledgment to the source of the work. Performers, producers and broadcasting organisations can authorise their works and programmes for reproduction. Finally, the courts can treat violation of the copyright law as any infringement of the civil and criminal law. The enforcement rights are summarised in Table 6.

Table 6: Enforcement of Rights under the Copyright Act, 2001

A.	**Provisional measures**
	A court can apply civil and criminal law to: 1. Grant information against infringement of rights; 2. Impound copies of works or sound recordings produced or imported without owner's authorisation; and 3. Apply Part V on Border Measures & Customs Rules under the Industrial Property Act, 2001.
B.	**Civil remedies cover:**
	1. Compensation to owners of any right protected under the Act by the infringer, the amount to be fixed by the court; 2. Authority to destroy or dispose of pirated goods unless the owner of copyright requests otherwise; 3. Minimising risks of further infringement; and 4. Issuance of order prohibiting acts of infringement and imposition of fines ranging from Nu. 5,000.00 to Nu. 50,000.00 when the order is violated.
C.	**Criminal sanctions cover:**
	1. Wilful infringement of copyright for profit-making purposes will result in punishment of up to one year or a fine of Nu. 1,000,000.00 or both; and 2. Power to the court to increase the upper limit to increase the above fine up to double the amount if a defendant commits another crime within five years of the first conviction.
D.	**Abuse of technical means:**
	1. Application of civil remedies and criminal sanctions as indicated above if technical devices used in the protection or management of copyright devices or means are violated through applicant of various methods; and 2. The owner of the copyright will be compensated in the same manner as in the case of infringement if the protection device is made or imported for sale or rent with a view to alter the technical devices including devices to circumvent the encrypted programme broadcast.

Source: Copyright Act of Bhutan, 2001

2.5 Review of Recent Developments in Key CBIs of Bhutan

This section traces the development of the key CBIs and related sectors in Bhutan. The CBIs are dispersed under various public and private organisations, and data and information is difficult to obtain. They have not been studied from the copyright perspective, not even a single sector or sub-sector. While those areas mentioned below are growing on their own, areas like photography, software and database as well as advertising services can do better in an improved policy environment for the development of the private sector.

2.5.1 *Film and Music*

Though awareness about copyright is generally low, a small group of entrepreneurs engaged in creative works is keen to exploit their commercial potential. This is discernible particularly in the music, film and broadcasting sectors. Piracy of movies and music and unauthorised broadcasting of programmes by cable television channels and private radio stations have created news headlines in the local media in recent years.

Movie theatre owners and sellers of audiocassettes, CDs and DVDs have often complained of losing business due to piracy, which is also a serious global and regional problem. The porous border with India, which itself is fighting a long battle against piracy, does not provide a conducive environment for Bhutan to enforce copyright laws. Only a few cases have been filed in courts, though many such cases go unreported due to lack of awareness and the onus of submitting proof to the courts. The legal profession itself is not sufficiently equipped to handle such cases.

In 2008, legal action was taken against three persons for flouting the copyright law. At least four legal cases have been dealt with by the courts or settled outside the courts in the past six years, the most notable being the one between the Bhutan Broadcasting Service (BBS) and Sigma Cables in Thimphu (Kuensel, 31 May 2003). The latter was accused of broadcasting a BBS production without the producer's permission. BBS won the case, sending a strong signal to the market that such abusers would not escape the hands of the law in future.

These developments are welcome, as they could potentially deter similar cases in the long run. However, in the short run, the onus of proving copyright ownership not only remains difficult and costly but also lies exclusively with the creator. The IPD maintains that its responsibility is limited to developing a proper legal framework for copyright and creating public awareness, and not in law enforcement, which is the work of the police and courts. However, copyright holders are seeking help, better institutional support and enforcement of the law by the relevant government agencies. Meanwhile, film and music producers are reluctant to release movies and music albums in CDs, VCDs, DVDs and audiocassettes before they fully recover their cost of production. For instance, out of 86 movies produced till 2008, only six have been released as VCDs and DVDs (Kuensel, 30 May 2008).

Since the production of the first Bhutanese motion picture in 1988, the Bhutanese film industry has made a considerable impact on entertainment and as a source of publicity for Bhutan in the outside world. The replacement of foreign films by indigenous films has contributed to showcasing Bhutanese culture and has generated revenue and employment. For instance, the entertainment industry as a whole – of which films are an important component – was the seventh largest contributor of revenue to the government in 2007. It has 78 producers, 14 production houses, 12 music-recording studios and employs about 50 persons (full-time and part-time) on average in producing a film. As of 2008, a total of 116 Bhutanese films (feature and documentary) and about 400 music albums were produced. The industry today boasts of as many as three international awards including the one from the Cannes Film Festival and six international awards for documentaries. The potential for the industry to contribute to the national economy is considerable (Wangchuk 2008).

The above progress has been achieved with little support from the government and virtually no foreign collaboration, but through the enterprising spirit and drive of a small group of Bhutanese artists. The Motion Picture Association of Bhutan (MPAB), which was formed in 1999, has 90 members today representing feature films, music and performing arts. Apart from piracy, some of the main problems faced by the industry include lack of professionalism, difficulties in obtaining loans from financial institutions, limited movie theatres for screening, and cumbersome government procedures for compliance. The Media Development Fund, established under the Bhutan Information, Communication and Media Authority (BICMA), lacks funding. The MPAB is striving hard to improve the industry, which in 2010 saw as many as 31 movies being produced, the highest number produced in a year so far. The corresponding figures for 2008 and 2009 were 16 and 20 films respectively.

A welcome development for the industry is the government support and incentive outlined in the Economic Development Policy (EDP) in 2010 by way of waiver of customs duty and sales tax on import of professional equipment. The Policy also exempts income tax on earnings from films, documentaries and serials produced for public broadcasting and reduced the sales tax on film tickets from 30% to 10% between 2010 and 2015. Further, the Golden Award, from His Majesty the King on the National Day in December 2009, to the MPAB represents the highest recognition for its contribution to the Bhutanese society, which should provide some impetus to the industry.

2.5.2 *Print and Media*

The printing industry is growing rapidly. The capacity for printing different types of works within the country has increased and improved in recent years with the growth in demand for printing. Most of the printing presses depend on government orders for their survival, as the demand from the private sector is small. The printing of school textbooks is an important segment of the industry, though the actual printing is often done in India owing to lower production costs, thereby diverting the potential benefits of employment and income to the economy.

The increasing production of written material about Bhutan by Bhutanese and foreign authors (CBS 2009) can be seen from Table 7 below. A few authors have produced multiple works, particularly in the national language, thus helping to fulfil the government objective of promoting Dzongkha.

In September 1999, the Centre for Bhutan Studies (CBS) was designated as the national agency for issuing international standard book numbers (ISBN). Between 2000 and 2008, 1,176 books, magazines, articles and government publications were issued with ISBNs, out of which 25% were from the Ministry of Education. About 38% of the registered works were the creation of an individual or joint authorship, which shows encouraging signs of creativity among the growing number of writers in Bhutan.

Table 7: Issuance of ISBN from 2000 to 2008 on Works by Different Groups

Year	Authors	Govt. Agencies	Printing Press	Business, NGOs & Int. Organisations	Total	Remarks
2000	10	53		3	66	Issuance of ISBN starts
2001	26	54	7	6	93	
2002	13	17		5	35	
2003	37	19	23	1	80	
2004	19	22	9	11	61	
2005	18	45	3	3	69	
2006	32	53	9	1	95	
2007	27	59	1	13	100	
2008	214	70	15	13	302	Coronation & Centennial Celebrations
Years not specified	46	42	153	34	275	Year of ISBN issued unknown
TOTAL	**442**	**434**	**210**	**90**	**1,176**	

Source: Centre for Bhutan Studies, 2009.

As obtaining the ISBN is voluntary, many publications may not be submitted to CBS for registration and are thus excluded from the above data. Hence, the data is only indicative. Even then, it shows a clear growth trend from 2006 onwards, reaching the maximum in 2008 when many publications were issued to commemorate the Coronation and Centennial Celebrations of the Monarchy. There are 275 ISBNs whose year of registration remains unknown.

The media plays a vital role in a nascent democracy like Bhutan as it helps to shape public opinion, and seeks accountability and transparency in the functioning of the government and national institutions. The convergence of media and ICT becomes a powerful force for the growth of business enterprises and creativity. A recent Media Impact Study found that one-third of the population is already using mobile phones, a service that began only in 2003 (MoIC 2008). There is also significant growth in access to media in the form of TV, radio and newspapers. The media content is also moving from its traditional information domain to the growing demand for entertainment (MoIC 2008).

The print, radio and telecommunications networks in the country have also expanded rapidly. From one government radio station until recently, four additional radio stations in the private sector have now been set up providing competition and variety in informative, educational and entertainment programmes. Similarly, there are two daily and seven weekly newspapers today, as compared to one until 2007[8]. Fifty-two private cable operators provide 24-hour news coverage and entertainment on as many as 50 international channels. The national TV service that was started only in 1999 remains the only station to provide local and national programmes that are reflective of indigenous creativity.

[8]Two weekly newspapers in Dzongkha and a weekly for the youth in English were started in 2010 and 2011.

2.5.3 *Handloom Weaving*

Weaving is an important cottage industry in Bhutan, as it is extensively practised as a cash income business in central and eastern Bhutan. The handloom designs are largely traditional, have passed down from one generation to another and are in the public domain. The industry is predominantly in the informal sector, as only three weaving business were registered as per the Baseline Study[9]. Data on production, sales and employment cannot be obtained easily and therefore are not captured in the national data.

Some efforts have been made by the government since the 1980s to improve colour and designs and to produce different garments from handloom for export. The government developed a handloom design and weaving centre in Khaling that was later handed over to the National Women's Association of Bhutan (NWAB), a non-government organisation devoted to promoting income-generating activities for women. Another project in the 1990s that also produced different items from hand woven materials was privatised. More recently, two UN-assisted projects tried to carry forward the design and production of new garments and other products for domestic and export markets. These efforts have encouraged a few individuals to create new designs that are now recognised through an annual design competition arranged by the Department of Culture. These designs have not, however, been registered, because either they do not meet the criteria or the designers simply do not register their new creations. Though industrial designs are separate from copyright in terms of IP classification, they are nonetheless closely related, as such designs can be easily copied by the use of IT and multiplied without the knowledge of the creator. This is a special area where creativity can be promoted and protected through combined efforts between industrial designs and copyright domains.

2.5.4 *Handicrafts, Furniture and Visual Arts*

Bhutanese handicrafts are dominated by bamboo and cane baskets, wooden cups and bowls, scroll paintings, various handloom products, traditional jewellery, masks, and clay and metal sculptures. The principal market is the growing tourist industry, though these products are also consumed in the domestic market. Data on production and sales are also sketchy and unreliable. The little export that takes place is through carry-on baggage of passengers travelling abroad rather than export consignments, and therefore escapes from official records. Increasing the number of tourists and the introduction of credit cards is expected to increase sales to tourists.

Along with marketing, a combination of creativity, skills and quality plays a critical role in developing a successful handicrafts industry. It requires a proper strategy and policy support for development. Government intervention remains largely uncoordinated, though different agencies like the Institute of Zorig Chusum carry out product development and improvement programmes. However, the newly established Department of Cottage and Small Industries (DCSI) and the Agency for Promotion of Indigenous Crafts (APIC) – an autonomous public agency – are expected to fill this vacuum to some extent and to foster a more rapid growth of the handicrafts sector in line with renewed government focus on the sector.

Carved Bhutanese furniture has some potential, but the market is disorganised. The high labour cost also makes products uncompetitive for export; it is largely produced for the domestic market. The data on production, sale and export of furniture are lacking and often unreliable. It will take more time before entrepreneurs can invest in producing carved furniture with different designs at commercial levels.

As in the general handicrafts and other creative sectors, the concept of copyright has not yet seeped into the minds of most visual artists, except those who engage in modern paintings. Yet, visual art is traditionally a very important aspect of the Bhutanese culture in various forms of painting, masonry, sculpture, and wood and metal carving. While the IP ownership has traditionally remained in the public domain, product adaptation and innovation is impossible without protecting the creativity of the artist. Enhancing knowledge and awareness on IP, and particularly copyright, is needed for the benefit of the artists in these fields.

[9]This is the first comprehensive study done on cultural industries in Bhutan, which was completed in June 2009 based on a survey carried out by the Department of Culture and CSO with the support of UNDP, UNESCO and UNIDO.

2.5.5 *Other Related Areas*

Information and communication technology (ICT) has assumed prominence since the beginning of the decade with the Bhutan ICT Policy and Strategy (BIPS) issued in 2004. BIPS was a commitment from the government to harness the potential of ICT by ensuring good governance, creating an information culture and applying ICT in business and industry with a view to improving Bhutan's competitiveness in the region. BIPS was also meant to address sectoral policies, infrastructure, human capacity, content and application, and enterprise in relation to ICT. One of its activities was to enforce IP legislation in cooperation with the IPD, DRC, Judiciary and Police, and the work in this respect is ongoing. A review in 2009 found that the implementation of BIPS was generally satisfactory and on course.

Despite the growing application of ICT in public and private sectors, there is much to be done to engender individual creativity that is vital for economic growth. The national capacity remains low, with little or no progress in software and database development. The ICT is mainly confined to internet and mobile telephone connectivity, as well as supply of imported equipment and ICT-related services. The major IT users are the government and corporate sector. As they do not have sufficient confidence in local IT firms and professionals, they continue to engage external consultancy firms and expertise in IT and software development.

A notable achievement is the adoption in August 2009 of the Vision for the Information Society (VIS) that seeks to raise national consciousness and identity in Bhutan and promote creativity through information. Media, IT and culture are identified as three integrated components of the Information Society in the 21st century. The VIS defines the scope of 'media' as oral, TV, radio, internet, film and music, printing and publishing, gaming and mobile phones. 'IT' is recognised as an infrastructure, as a means of imparting skills and encouraging creativity. 'Culture' embodies libraries, visual and performing arts within the VIS, but excludes religious and other cultural activities, arts and crafts. The Ministry of Information and Communications (MoIC) is mandated to take the lead in realising the Vision as a 'ministry of creative clusters' and supporting tangible (commercial) and intangible forms of activities for a new Information Society.

2.6 The Promotion of Culture-Based Creative Industries

A concerted effort to study the role of creative industries, but principally cultural industries, was made in 2007 under the UN system to support Bhutan in implementing the Paro Initiative on Cultural Cooperation in the BIMSTEC region, adopted in 2006. This followed the initiative taken by BIMSTEC countries in 2004 to enhance the role of culture in socio-economic development of the member countries with Bhutan assuming the leading role for its implementation within the regional body.

A project entitled: 'The Promotion of Culture-Based Creative Industry for Poverty Reduction and Community Vitalisation' was implemented between 2007 and 2009 resulting, *inter alia*, in the Baseline Report referred to earlier. The second output of the project was to bring about improvements in the marketing, design, quality, production and entrepreneurial development of the craft sector. The Baseline Report is meant to serve as a pilot study that can be applied in other BIMSTEC countries to collect and analyse data on cultural industries. The aim is to ultimately create a 'cultural index' in BIMSTEC to measure the contribution of culture to socio-economic development in the region.

Although the role of IP is recognised in the project document, there is no specific component on it. Nonetheless, the Baseline Report forms a useful reference point for this study, as some information on CBIs has been collated and the WIPO classification is used in data compilation. Its key findings within the limitations imposed by the availability of data are:

(a) A variety of culture-based industries exists in Bhutan, with new enterprises like TV production and the movie industry entering the scene;

(b) The number of persons involved in the culture-based industries, or having skills related to those industries, are significant by international comparisons. About 10 per cent of the workforce (25,278) is engaged in the cultural sector, as per the 2005 Population and Housing Census. However, about 60,118 people professed to have some skills in culture-based industries – 35% in urban and 65% in the rural areas;

(c) A majority of the culture-based industries are in rural areas and outside the formal sector. The data from these industries are therefore not captured fully by surveys or studies in the past;

(d) Culture-based industries generally fall into five main categories – arts and applied arts, cultural and religious services, crafts-based manufacture, media and cultural tourism;
(e) Furniture-making is the largest sub-sector followed by the printed press; and
(f) Crafts are produced primarily for domestic use, though some export through tourists is taking place. But there are no data maintained on it. The data on trade of cultural products are therefore skimpy and unreliable.

Another related development is the approval in 2008 of the index for Gross National Happiness (GNH), a philosophy that Bhutan has championed in the last decade. GNH seeks to measure economic growth, not in terms of GDP, but in a more holistic concept of development that includes social and emotional wellbeing of people. Cultural diversity and resilience is one of the nine dimensions or components of the GNH index. Artisan skill (meaning traditional skill) is an aspect of the cultural dimension that brings individual contentment. The other dimensions are psychological wellbeing, time use, community vitality, health, education, environmental diversity, living standard and governance. The main challenge, however, lies in the operationalisation of the GNH index.

The two initiatives mentioned above have far-reaching implications for the creativity of CBIs and the development of cultural industries in Bhutan in the future.

2.7 Key Issues and Constraints

2.7.1 *Weak Database*

Though the copyright legislation was passed in 2001, little effort has been made thus far towards gathering data and information on CBIs in the country. There has also been poor coordination of policies and programmes with respect to CBIs.

As creative activities, many CBIs in Bhutan operate within individual settings and hence they are not captured by official data gathered on the basis of licence, or registration data maintained by various government organisations – principally the MoEA. The production of goods and services for commercial purposes requires business permits (termed a licence). However, if the total investment of a commercial enterprise is less than Nu.1 million, only a registration is needed.

2.7.2 *Poor Inter-Agency Coordination*

The process of capturing data has become even more cumbersome with the dispersal of responsibilities to other organisations within the government on the basis of their evolving mandates. As many CBIs, such as media, films and music and ICT, fall within the purview of the information and communication sector, they are now monitored and regulated by BICMA, an autonomous regulatory body. Other CBIs, especially those engaged in wholesale and retail trade, remain with MoEA, with the exception of land transport, which is regulated by the Roads and Surface Transport Authority (RSTA), functioning under MoIC. In addition, other creative and cultural industries, such as visual and graphic art, drama and theatre, are the responsibility of the Department of Culture under the Ministry of Home and Cultural Affairs. There are non-governmental organisations, like the NWAB, Handicrafts Association of Bhutan, Tarayana Foundation and Youth Development Fund, which are involved in developing various arts and crafts to benefit women, youth and disadvantaged groups in society. A central body is therefore necessary in the government to coordinate these initiatives and direct resources for their accelerated growth. The dispersal of responsibilities to various agencies has also contributed to a lack of focused approach in promoting creative industries, or CBIs for that matter, as much as the cultural industries. As stressed above, the mandate for the development of CBIs is subsumed under a number of parent organisations (MoHCA, MoEA and MoLHR), each of which has its own agenda and not specifically that of its CBI components. In such an environment and in the absence of a programmed approach to their development, the development of CBIs receives little attention.

2.7.3 *Lack of Awareness of Copyright Protection and Enforcement*

Despite the efforts of the IPD to create awareness and disseminate knowledge and information, the value of protecting IP is yet to percolate through the Bhutanese society at large. This is particularly true for rural areas, despite a relatively strong base for creativity in handicrafts and cottage industries. Whatever awareness has been created, it is limited to the music and movie industries, as well as the media that are concentrated in urban areas – particularly Thimphu. Both these sectors are already making visible impact with their growing popularity. The media, in particular, is rapidly changing views of the people that may have a lasting impact in society.

Based on the data maintained by MoEA, there were approximately 15,148 CBIs in 2008. This represents 8% of the total registered business activities in the country. Though the figure may be tentative, as such segregation has never been done so far, it shows their relative importance in the Bhutanese economy. What is noteworthy is the growth in the media and entertainment sector in recent years, a sector that has also been the most active in protection of copyright, as observed by their concern for piracy and legal cases handled by the courts.

With a rather slow start in IP enforcement, some momentum has gathered in recent years, as shown by the number of cases dealt by the courts – such as the one between BBS and a private cable operator. The MPAB is also taking initiatives on its own to curb copyright infringement, both within the country and in the neighbourhood. The government realises the need to take additional measures – more copyright protection and better enforcement of the law through capacity-building programmes, within the government and private sector, through workshops and seminars – and is taking initiatives like the drafting of enforcement mechanisms and rules and regulations for the Copyright Act, 2001.

2.7.4 *Lack of Innovation and R&D*

As for creativity and innovation, they are relatively weak in general. This is evident from the sample survey carried out for this study, which shows that less than 1% of the total time is devoted to work used for creative purposes. Considering the very low level of R&D that takes place in Bhutanese industries, the low levels of creativity and innovation are not surprising. However, their potential cannot be over-emphasised.

2.7.5 *Lack of Skills Training*

The study shows the share of CBIs in total employment as 10.1%, which is quite significant. However, only 8.7% of the labour force employed in CBIs are trained, and about half of them have a low level of education at Grade 8. Given the higher level of productivity in CBIs, a better-trained labour force could be more productive and thereby meet the excess capacities of these industries. Here too, the potential for employment in CBIs is considerable.

2.7.6 *Inadequate Access to Funding*

The CBIs in Bhutan generally have inadequate access to formal credit facilities. They generally are dependent on funds from the unorganised and informal sector. Lending by the Bank of Bhutan, which is the largest bank, is taken as a proxy variable for finances made available by the organised financial market. Lending to sectors that are closely related to CBIs is given in Table 8. It is clear that less than one per cent is disbursed to the small business sector, an area where individual creativity and copyright usually takes place.

Table 8: Bank of Bhutan: Loans to Major CBI-related Sectors as of December 2008

Sector	Amount (Nu. in million)	Percentage
Manufacturing industries	1,906.341	23.51
Trade, commerce and export finance	975.809	12.03
Service industries and tourism	1,312.097	16.18
Personal loan	1,716.467	21.17
Equity finance	6.808	0.08
Small business loans	5.320	0.07
Others*	2,186.848	26.35

*Includes housing, transport, staff and agricultural loans
Source: RMA Annual Reports

Bhutanese banks generally do not lend easily, especially to smaller enterprises. Project-tied financing is not common, particularly for SMEs, and banks often ensure that there is both adequate mortgage and repayment mode prior to lending. Bank officials are not always trained in loan appraisals. Having said this, banks too have faced losses when entrepreneurs have become bankrupt in the past. However, of late, there have been some improvements with respect to loan processing. There are also very few banks in Bhutan and in the absence of competition, banks will tend to be risk-averse. Nonetheless, with two new banks entering the market and with improvements in the legislative and policy framework for the operation of financial institutions by RMA, lending to small businesses is likely to improve. The establishment of specialised banks and financial institutions to provide credit support to CBIs is also a step in the right direction.

3. Contribution of CBIs

3.1 Introduction

The importance of knowledge in the process of economic growth is widely recognised today. More systematic and institutional support to this idea was provided through the incorporation of TRIPS under WTO, to which Bhutan is not yet party[10]. It was a step forward to acknowledge the relevance of IP to trade issues. Copyright is one of the legal ways to protect newly created knowledge or products from free riding. Copyright is increasingly being recognised for its importance in enhancing competitive advantage to a range of industries, including creative industries. Copyright, by providing competitive advantage, becomes crucial for economic growth, employment, international trade and finally, a tool for poverty alleviation and human development. Especially for a country that diligently pursues the goal of GNH, it is an important source of happiness. For these reasons, it is essential to know the contribution that CBIs make to the economy.

To better understand the contribution of CBIs to the economy, it is necessary to begin with a brief description of the structure of the Bhutanese economy. This is followed by a discussion on the economic contribution of CBIs to Bhutan.

3.2 The Structure of the Economy of Bhutan

Bhutan is a small land-locked country, with a population of 671,083 and an area of 38,394 km^2. Bhutan is a developing country, as its per capita GDP in 2008 was US$ 1,852.4 (NSB 2009). Bhutan is also categorised among the group of countries known as the 'least developed countries' (LDCs)'[11].

The Bhutanese economy has experienced sustained economic growth since 1980, averaging at 7.2% from 1980 to 2008 (Table 9). The differential growth rates of the various sectors have contributed to significant structural changes in the economy, the more significant being the shift away from agricultural to non-agricultural activities. As a land-locked state, the economy is also highly trade-intensive. The growth rate of the agriculture sector from 2000 onwards decelerated steeply to almost half of the 1980s level. On the other hand, the service sector accelerated consistently throughout the period under consideration, while the secondary sector decelerated in the 1990s but recovered to some extent after 2000.

Table 9: Annual Average Growth Rates of Real Gdp by Major Economic Sectors at Constant Prices (in %).

Period	Primary Sector	Secondary Sector	Tertiary Sector	GDP
1980-2008	3.6	12.9	7.9	7.2
1980-1989	5.2	18.2	6.7	7.5
1990-1999	3.0	9.0	7.3	5.9
2001-2008	2.2	12.9	10.7	9.0

Source: Derived from various issues of *National Accounts Statistics*

Economic growth was mainly propelled by two sectors – hydroelectricity and construction. The growth of the construction sector is closely tied to the growth of the hydroelectricity sector (See Chart 1).

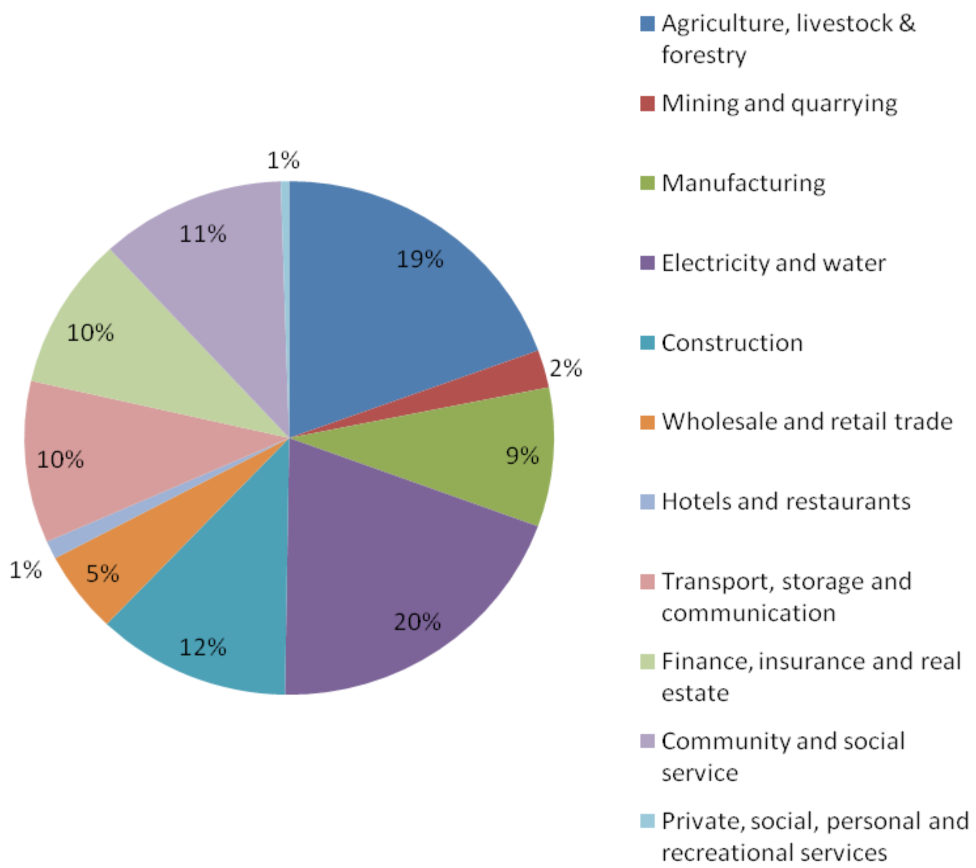
[10] Bhutan has already applied for WTO membership and its Working Party has made considerable progress on the negotiations as of 2008. However, the government is reviewing its decision for membership. See http://www.wto.org/english/thewto_e/acc_e/a1_bhoutan_e.htm

[11] Since 1971, the United Nations has denominated 'Least Developed Countries' (LDCs) a category of States that are deemed highly disadvantaged in their development process (many of them for geographical reasons), and facing more than other countries the risk of failing to come out of poverty. As such, the LDCs are considered to be in need of the highest degree of attention on the part of the international community. http://www.unctad.org/Templates/Page.asp?intItemID=3618&lang=1

The manufacturing sector underwent long-term deceleration after 1990. The average annual growth rate of the manufacturing sector declined from 17.7% in 1980s to 4.1% in the first six years of the present decade[12]. Since many of the interdependent CBIs are mainly manufacturing in nature, this has affected the contribution of this group of CBIs.

The manufacturing sector has also experienced a deceleration in its growth rates after 1990.

Chart 1: Percentage Share of Different Economic Sectors to GDP (2008)



Source: *National Accounts Statistics* 2000-2008

Chart 1 shows that, in 2008, the primary sector contributed 21%, the secondary sector contributed 39% and the tertiary sector contributed 40%. Today, the electricity sector (20%) contributes more than the agriculture sector (19%) compared to 1990 when the agriculture sector contributed about 45% to GDP. Likewise, the share of the manufacturing sector has fallen to 9% of GDP.

The private sector in Bhutan is relatively under-developed, as it is still constrained by state controls and regulations. The regulatory environment makes private investment less profitable. The problem is compounded, ironically, by the free trade policy with India, which makes domestic production uncompetitive due to more competitive and efficient foreign firms.

[12] Main document of the *Tenth Five-Year Plan* (2008-2013), page 25, states clearly this in following words: 'The manufacturing sub-sectors' contribution to the national economy has declined steadily from around 16% of GDP between 1990 and 1995 to around 5% of GDP over the last five years. Additionally, the manufacturing sector, traditionally among the largest employers around the world, has generated little quality employment.'

3.3 Economic Contribution of CBIs

The economic contribution of CBIs can be explored through the analysis of three major variables:

(a) Share of CBIs in GDP;
(b) Share of CBIs in employment; and
(c) Share of CBIs in international trade

These variables are analysed for the years 1997, 2001, 2005 and 2008 for the entire sector of CBIs as well as for each of the four CBI groups. Section 3.4 discusses the contribution of the CBIs to GDP, while Section 3.5 analyses the contribution in term of employment. The contribution of CBIs to international trade is examined in Section 6.

3.4 Share of CBIs in GDP

In 2008, the CBIs collectively contributed about 5.5% to GDP (Table 12). The share of CBIs in GDP has consistently increased since 2001. The share of CBIs in GDP was 3.3% in 1997 and declined to 2.8% in 2001, before rising to 5.5% in 2005. It has almost remained unchanged since then.

Intra-CBI composition has changed significantly since 1997. Within the CBIs, the share of core copyright industries in GDP increased sharply from 0.3% in 1997 to 1.3% in 2005 and to 1.9% in 2008. The share of partial copyright industries in GDP reflects a steady increase over the period: from 2.1% in 1997 to 2.2% in 2008. The share of non-dedicated support industries in GDP fluctuated marginally. Their share was 0.7% in both 1997 and 2001. This then increased to 0.8% in 2005 and again declined to 0.7% in 2008.

3.4.1 *Structural Composition of CBIs*

The panel data relating to GVA of CBIs is provided in Tables10, 11 and 12. Among the CBIs, the partial copyright industry group is the largest. In 2008, it accounted for about 41% of the total GVA of the CBIs, declining from about 66% in 1997 (Table 12). On the other hand, the GVA share of the core CBIs was estimated at about 8% in 1997, but has since increased consistently to about 34% in 2008 and further to 36% in 2010[13]. One plausible explanation for the sharp increase, especially since 2001, could be the unreliable estimates in the 1997 Census on Manufacturing Industry and mainly because of the substantial growth in many of the core copyright activities, such as press and literature, IT and IT-enabled services especially after the year 2000.

The GVA of partial CBIs grew consistently till 2001 but declined thereafter. This trend is not completely devoid of any explanation. The reason for the higher share of the partial CBIs is the overwhelming dependence of the Bhutanese economy on natural resources. The partial CBIs are largely natural resource intensive in nature, as they use natural resources drawn from forests. These industries also form the Zorig Chusom industries of Bhutan. The share of the interdependent CBIs in the GVA of all CBIs declined after 1997, but increased very marginally since the year 2001.

Table 10: Nominal GVA of the Core CBIs (in Nu. millions)

Type of Core CBI	2005	2008	2010
Press and literature	197.4	473.9	662.0
Music, theatrical production, opera	38.9	76.2	84.5
Motion picture and video	40.7	81.4	90.7
Radio and TV	82.0	164.2	200.8
Photography	41.6	83.2	104.0
Software and database	45.7	93.0	143.1
Advertising agencies	15.2	30.4	38.0
Total	**461.46**	**1,002.31**	**1,323.10**

Source: Consultations with major core CBIs

[13] The contribution of core CBIs to GDP was determined through consultations with major core CBIs as the NSB does not have relevant data. Their contribution to GDP in 2008 is imputed on the basis of data obtained for 2010.

As tourism in Bhutan is mainly of a cultural nature, the entire tourism industry is taken as cultural tourism – Bhutan follows a policy of high-value and low-volume tourism in order to protect its unique culture and natural environment. The value added by the tourism sector is rising significantly. It grew at an annual compound rate of 25.3% between 2001 and 2005 and at 27.5% between 2005 and 2008. It is because of the rapid growth of cultural tourism that the GVA share of the partial CBIs in total CBIs has been the highest in spite of the decline in the share of partial CBIs in GDP (see Table 12).

Table 11: Real GVA at Market Price (base year 2000, in Nu.) of Non-Core CBIs

Type of CBI	Industry	1997	2001	2005	2008
PC	Bronze casting	0.5	0.7	0.8	1.3
PC	Gold and silver smith	1.9	6.4	7.8	12.3
PC	Wood carving/bowl and cups	6.1	0.1	0.2	0.3
PC	Weaving handloom	0.6	6.5	8.0	12.6
PC	*Martha* factory	0.6	3.0	3.7	5.8
PC	Carpet factory	2.3	0.8	0.9	1.5
PC	Handicrafts	19.7	13.8	17.0	26.7
PC	Furniture	107.2	125.4	154.0	242.1
PC	Handmade paper	3.7	2.1	2.6	20
PC	Incense	1.2	2.1	2.6	4.0
PC	Cultural tourism	175.6	331.2	817.6	1,696.5
NDS	WRT	50.7	52.3	104.4	134.7
NDS	TSC	51.1	104.1	194.5	268.3
	GDP at market price (at constant prices)	**13,971.0**	**22,894.0**	**35,497.0**	**54,150.0**

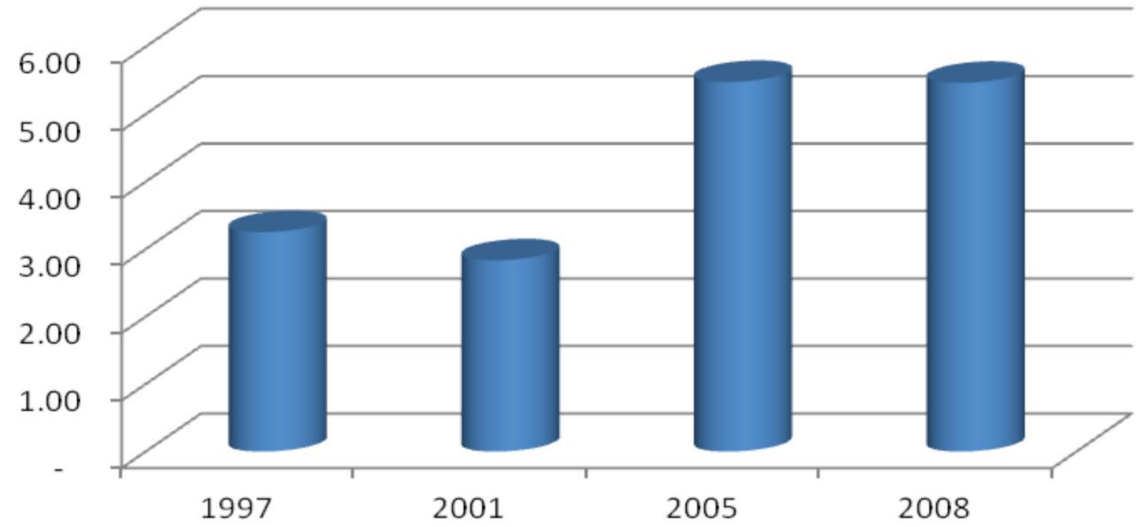
Source: Census of Manufacturing Industries, 1997& 2001; *National Account Statistics*, 2000-2008

Table 12: Percentage Share of Each Category of CBIs in GVA of all CBIs and GDP

	1997			2001			2005			2008		
	GVA	% of GVA of CBIs	% GDP	GVA	% of GVA of CBIs	% GDP	GVA	% of GVA of CBIs	% GDP	GVA	% of GVA of CBIs	% GDP
Core	38.3	8.4	0.3	3.6	0.5	0.0	461.5	23.7	1.3	1,002.3	33.9	1.9
PC	299.7	66.0	2.1	487.5	75.1	2.1	1,009.0	51.9	2.8	1,211.4	40.9	2.2
Interdep.	14.5	3.2	0.1	1.4	0.2	0.0	174.9	9.0	0.5	342.4	11.6	0.6
Non-ded	101.8	22.4	0.7	156.4	24.1	0.7	299.0	15.4	0.8	403.0	13.6	0.7
CBIs	454.4	100.0	3.3	648.8	100.0	2.8	1,944.3	100.0	5.48	2,959.1	100.0	5.46

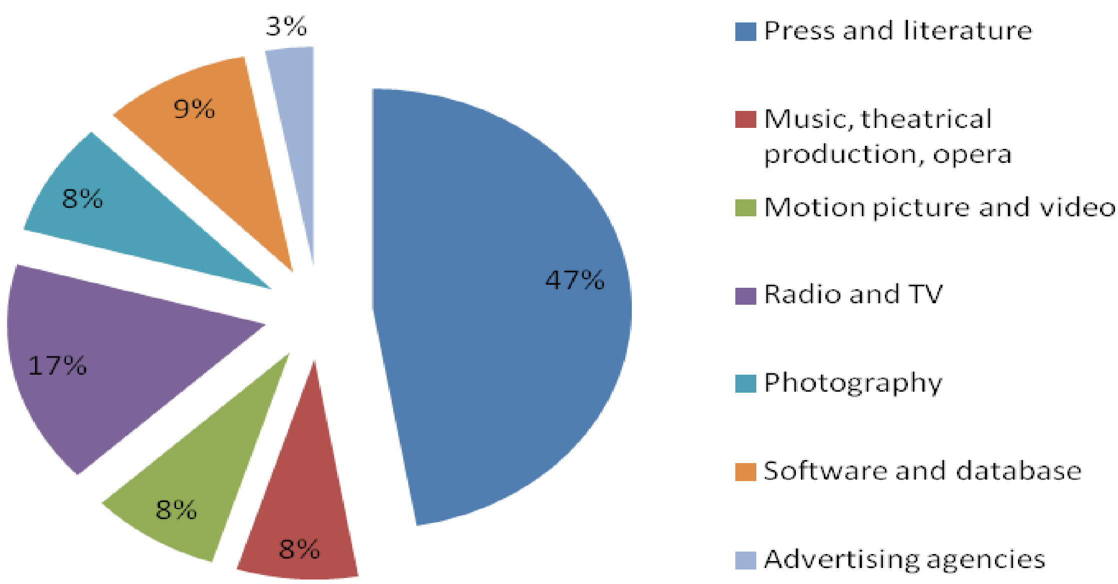
Source: Derived from Tables 10 and 11

Chart 2: Share of CBIs in GDP (%)



Source: Table 12

Chart 3: Share in the GVA of Core Copyright Industries in 2008



Source: Table 10

3.4.2 *GVA Growth of CBIs*

It would also be of interest to know the GVA growth rate of CBIs and their major components during this period under study. This will be useful in understanding the changing importance of these industries in the overall economy and the structural changes within CBIs.

These growth estimates are divided into three periods as shown in Table 13 – Period 1 (1997-2001), Period 2 (2001-2005) and Period 3 (2005-2008). As the estimates from the 1997 Census of Manufacturing Industry are less than reliable, an analysis of the growth rates in Period 2 and Period 3 is more meaningful. The average annual growth rate of GVA for each component of CBIs and GDP is calculated as shown in Table13. The total GVA of CBIs recorded the highest average annual growth rate of 31.6% in Period 2. The growth, however, declined to 15% in Period 3. Despite the deceleration, GVA of CBIs grew at a higher rate than GDP. The coefficient of covariance between the average annual growth rate of GDP and the average annual growth rate of GVA of CBIs is 0.35[14]. This shows that one standard deviation change in GVA of CBIs causes 0.35 standard deviation change in GDP. There is evidence of medium positive association between the two variables, implying that the association between GVA of CBIs with GDP is medium and any change in GVA of CBIs has a moderate impact on GDP.

Table 13: Average Annual Growth Rate of GVA (in %)

	Period 1 1997-2001	Period 2 2001-2005	Period 3 2005-2008
GVA of core copyright industries	-10.0	237.3	29.5
GVA of partial copyright industries	16.6	26.9	32.7
GVA of non-dedicated support industries	13.4	22.8	11.6
GVA of all CBIs	13.3	31.6	15
GDP	6.3	7.8	9.5

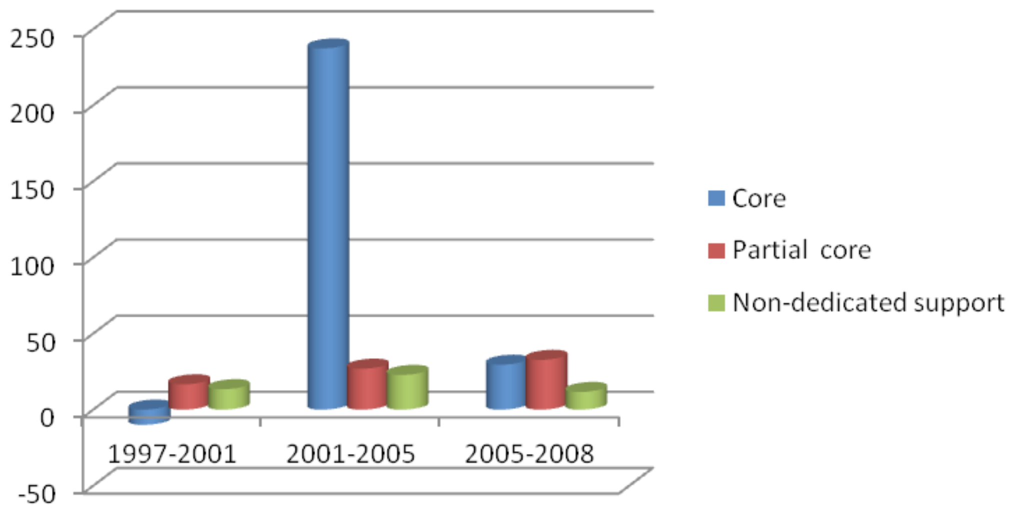
Source: Table 12

The core CBIs grew at an average annual rate of 237.3% in Period 2, and by 29.5% in Period 3. This reflects the dynamism of the core CBIs in Bhutan. If this trend continues, the share of core copyright industries in GDP will increase substantially in the coming years.

The partial CBIs not only experienced acceleration in the average annual growth rates of GVA but also grew at the highest rate in Periods 1 and 3. It grew at 26.9% in Period 2, accelerating to 32.7% in Period 3. The average annual growth rate of GVA of the NDS group was 22.8% in Period 2, but it decelerated in Period 3. It nonetheless registered a double-digit growth of 11.6%. The growth analysis indicates that CBIs in Bhutan are dynamic and have good potential in the near future.

[14]The covariance is calculated using SPSS 11.5 for Windows.

Chart 4: Average Annual Growth Rates of Different CBIs



Source: Table 13

3.5 Share of CBIs in Employment

Before discussing the share of CBIs in total employment, it is pertinent to give a brief overview of the employment scenario in Bhutan.

Bhutan has a very small population base and its population census is a recent phenomenon. The first professional census was carried out in 2005 and this is the only source of a reliable demographic database. According to the 2005 Population and Housing Census (PHC), the population of Bhutan was 634,981. The projected population for the year 2008, as given by the Labour Market Information Bulletin, 2008 was 671,083, while the Labour Force Participation Rate (LFPR) was 67.3%. The rate of unemployment in 2008 was estimated at 3.7%. As in most countries, the LFPR for females is lower, at 46.4 compared to 49.5 for males.

Like the analysis of the contribution of CBIs to GDP, the contribution of CBIs to employment is done in two segments.

3.5.1 *Share of CBIs in Total Employment*

In 2008, about 66.7% of the labour force were engaged in the primary sector and the rest in the secondary and tertiary sectors. The total workforce in the economy was 249,030, of which 25,215 persons were employed in CBIs as shown in Table 14. This means that the share of CBIs in total employment was 10.13%. In the same year, 2,574 people were employed in core CBIs, which constituted about 1.03% of total employment. In the partial CBIs, 17,914 persons were employed constituting 7.19% of total employment. The non-dedicated support industries employed 4,012 persons, accounting for about 1.61% of total employment (Table 15).

Table 14: Employment in CBIs in 2008

Category	Industry	Persons employed
Core	Press and literature	712
Core	Music, theatrical production, opera	522
Core	Motion picture and video	52
Core	Radio and TV	968
Core	Photography	40
Core	Software and database	255
Core	Advertising agencies	25
PC	Gold, silver and blacksmiths, potters	548
PC	Bronze casting	49
PC	Wood and stone carving/bowl and cups	5,372
PC	Handicraft, weaving handloom, *martha* and carpet	6,086
PC	Handmade paper	71
PC	Incense	40
PC	Furniture	5,225
PC	Cultural tourism	523
NDS	Wholesale and retail trade	1,828
NDS	Transport, storage and communications	2,184
Interdependent		715
	Total employment in CBIs	**25,215**
	Total employment in the economy	**249,030**

Source: Derived from the Population and Housing Census, 2005 for non-core, and consultations with core CBIs in 2011

The number of people employed in each industry is based on their primary occupation and excludes persons who are involved in any economic activity as a secondary occupation. The best practice would have been to use man-hours involved in each activity rather than the number of people involved. Such an exercise would have given more precise estimates of the labour devoted to each activity. In the absence of such information, the analysis of the contribution of CBIs to total employment is therefore an under-estimation.

Table 15: Share of CBIs in Employment 2008

	Core	Partial	Interdependent	Non-dedicated	All CBIs
No. of employees	2,574	17,914	715	4,012	25,215
Share in employment in CBIs (in %)	10.21	71.05	2.84	15.91	100
Share in total employment (in %)	1.03	7.19	0.29	1.61	10.13

Source: Derived from Table 14

A notable aspect of the employment in CBIs is that the average productivity of labour in CBIs is lower than the national average. Evidence of this observation can be found in the ratio of the percentage share of CBIs in GDP to the percentage share of CBIs in total employment. This ratio is used as an indicator of the average labour productivity index. In 2008, the share of CBIs in GDP was 5.5%, while its share in total employment was 10.13%[15] as indicated in Table 15. The ratio is about 1.84, which implies that, on average, CBIs contribute proportionately less to GDP per employment except for core CBIs. Further disaggregation of the data highlights intra-CBI differences in the standards of productivity. The core CBIs appear to be the most productive segment of CBIs as reflected by the share in GDP to share in employment. The partial copyright industries also have relatively lower productivity. On the other hand, the NDS industries are relatively more productive in terms of labour productivity (see Table 16).

Table 16: Relative Productivity of Labour in CBIs in 2008

	Share in GDP (in %)	Share in employment (in %)	Share in GDP/share in employment
Core copyright	1.9	1.0	1.8
Partial copyright	2.8	7.2	0.4
Non-dedicated support	0.8	1.6	0.5
All CBIs	5.5	10.1	0.5

Source: Tables 10, 11 and 14

The data provided by the 2001 Census for Manufacturing Industries reveals that core and partial CBIs employed 1,983 persons, of which 73% were male employees. The data provided by this Census also shows that 5.4% of the persons employed were proprietors; the rest were hired employees as highlighted in Table 17. Only a fourth of the total labour employed in CBIs were skilled. The average labour productivity in these two segments is low because of the low skill content of labour. Skill-wise distribution of labour in core and partial core CBIs is illustrated in Chart 5.

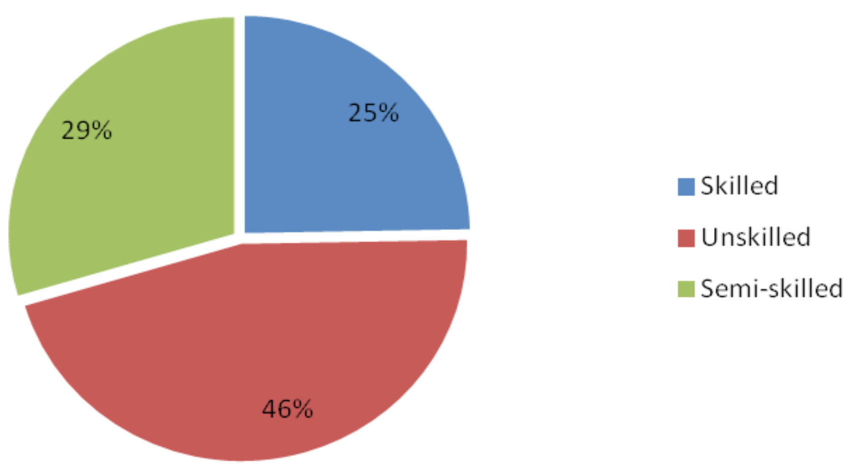
[15] Employment estimates of 2008 are based on two sources, Population and Housing Census 2005 for non-core CBIs and consultations in 2011 for core CBIs. The 2005 estimates are revised for 2008 using growth rate of GVA of each category of non-core CBIs. Similar methodology is applied to convert information collected for core CBIs through consultations in 2011.

Table 17: Employment Distribution across Core Copyright and Partial Copyright Industries in 2001

Type of CBI	Industry	Proprietor	Employee	Casual	Skilled	Unskilled	Total
PC	Weaving handloom	11	17	89	43	43	203
PC	*Martha* factory	0	4	7	11	0	22
PC	Carpet factory	1	10	67	35	0	113
PC	Handicrafts	18	83	91	106	7	305
PC	Furniture	31	269	183	103	150	736
PC	Handmade paper	12	52	21	13	26	124
PC	Incense	4	12	8	4	6	34
PC	Wood carving/bowl and cups	16	3	9	15	11	54
PC	Bronze casting	1	27	10	14	0	52
PC	Gold and silver smithing	11	69	5	38	47	170
	Sub Total	**105.8**	**546**	**490**	**382**	**290**	**1,813**
	% share	**5.8**	**30.1**	**27.9**	**21.1**	**16**	**100**
Type of CBI	Industry	Proprietor	Employee	Casual	Skilled	Unskilled	Total
C	Printing/press	1	16	2	0	0	19
C	Audio visual and video movies	2	25	124	0	0	151
	Sub Total	**3**	**41**	**126**	**0**	**0**	**170**
	% Share	**1.8**	**24.1**	**74.1**	**0**	**0**	**100**
	Grand Total	**108**	**587**	**616**	**382**	**290**	**1,983**
	% Share	**5.4**	**29.6**	**31.1**	**19.3**	**14.6**	**100**

Source: Derived from the Census of Manufacturing Industries, 2001

Chart 5: Skill-wise Distribution of Labour in Core and Partial CBIs



Source: Census of Manufacturing Industries, 2001

3.5.2 *Employment Distribution within the CBIs*

It has already been noted that the partial copyright industries create the largest employment opportunities from among CBIs. Within the partial core segment, weaving/ handloom, wood and stone carving and furniture constitute the largest employer, as they employ 24.1%, 21.3% and 20.7%, respectively, of the workforce engaged in CBIs. The WRT and TSC sectors are the next biggest employers within the CBIs as shown in Table 18.

Table 18: Major Employment Share within CBIs in 2008

Type of CBIs	Industry	Share in CBIs employment (in %)
NDS	Transportation, storage and communication	8.7
NDS	Wholesale and retail trade	7.2
Interdependent	Altogether	2.8
PC	Weaving handloom	24.1
PC	Wood and stone carving/bowl and cups	21.3
PC	Furniture	20.7
PC	Incense	0.1
PC	Handmade paper	0.3
PC	Cultural tourism	2.1
PC	Gold, silver and black smiths and potters	2.2
PC	Bronze casting	0.1
Core	Printing press	2.8
Core	Radio and TV	3.8

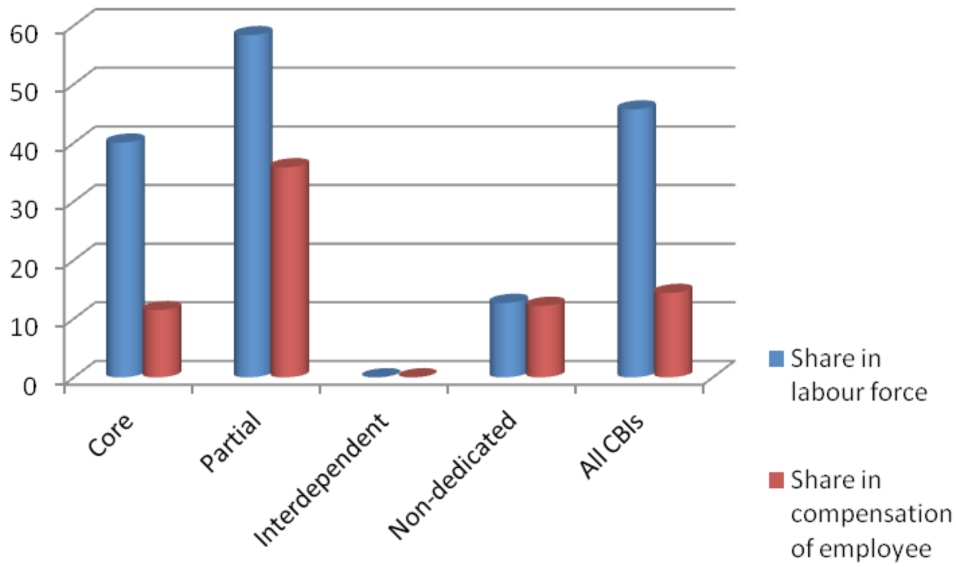
Source: Derived from Table 14

Handloom weaving, wood and stone carving, and furniture together engage about two-thirds of those employed in CBIs. It should also be noted that weaving in Bhutan is primarily carried out under the domain of cottage industries and many rural households are involved in these activities. It is often undertaken as a secondary occupation and not as a primary occupation. In this sense, the share of weaving in employment may be under-estimated.

3.5.3 *Female Participation in CBIs*

The sample survey suggests that about 47% of the labour involved in CBIs are females but they receive only 14.5% share in the total compensation of employees. This may be because of a few female employees at higher positions who are better paid. The share of females in the labour force and in the compensation of employees is reflected in Chart 6. The female employees receive a less than proportionate share in the compensation of employees. The difference could be due to the female labour employed in CBIs being less skilled than their male counterparts.

Chart 6: Share of Women in Labour Force



Source: Census of Manufacturing Industries 2001

4. Performance of CBIs

4.1 Introduction

The detailed information on the performance of CBIs is derived from the sample survey undertaken for this study. The information collected from this survey is used to analyse the financial and physical variables relating to their performance. This part of the study will help to identify the industrial health of CBIs and identify areas requiring the immediate attention of entrepreneurs and planners.

4.2 Performance Indicators

The book value of installed capital in the sample CBIs is worth Nu. 171.123 million and they have provided employment to 778 persons. For each labour employed, a capital equivalent of Nu. 219,954.00 is invested in CBIs. The plant load factor for CBIs is 59.1%, which implies that CBIs use only 60% of their existing capacity. Thus, there is an excess capacity of about 40% in this class of industries.

Table 19 provides a comparative analysis of the performance indicators of different categories of CBIs in Bhutan. The capital-output ratio (K/O) for the CBIs is 1.5, which means that to produce one unit of output, 1.5 unit of capital is required. The input-output ratio (I/O) is 2.2 implying that for each unit of output, 2.2 unit of input is required by the CBIs in Bhutan.

Table 19: Performance Indicators of CBIs

Indicators	All CBIs	Core	Interdependent	Partial	Non-dedicated support
Capital output ratio	1.5	1.7	0.4	1.3	1.6
Input-output ratio	2.2	2.6	0.1	1.4	3.8
Plant load factor	59.1%	52.6%	37.9%	74.2%	18.0%
Total sales to total capital	2.8	2.8	2.1	2.1	4.7
NVA/sales	35.1%	37.4%	80.4%	36.9%	18.1%
Rate of depreciation	11.5%	14%	12.2%	4.5%	12.2%
Gross Profit/NVA	40%	32.2%	37.4%	54.9%	11.3%
Gross profit/sales	12.6%	12.3%	30.1%	20.3%	2.1%
Net exports/NVA	-75.9%	-89.3%	-2.9%	-24.4%	-84.5%

Source: Consultant's sample survey

The interdependent and partial copyright industries are the most profitable firms, as their profitability ratios are higher than others. Net exports to net value added ratio is negative for all the CBIs and is highest for the core and NDS copyright industries. The overall picture is mixed and it is not easy to identify one group as the poorest performer. The NDS industries are the worst performers in terms of capacity utilisation as they have excess capacity of about 82%. They also have the lowest profitability ratio and are among the highest net importers. They can therefore arguably be the weakest performer.

It is evident from the above that substantial under-utilisation of the scarce capital exists in Bhutanese CBIs and the resource use efficiency is very low. Improvement in the operational efficiency would definitely strengthen the financial viability and prospects of CBIs. Though the identification of the causes of such inefficiency is beyond the scope of the study, an attempt is made to analyse this aspect briefly. However, the findings from the sample survey on operational efficiency of the CBIs should be used with caution. The identification of the causes of operative inefficiency should be taken up separately by interested parties.

The findings of the survey as tabulated in Table 20 suggest that only 8.7% of the labour force employed in CBIs are professionally trained, and about half of the labour employed in these industries have received less than a Grade 8 level of school education. Paradoxically, the survey reveals that only a miniscule fraction (less than a per cent) of the total time devoted to work is used for creative work and the CBIs together spend only 3.7% of their total gross profit on research and development (R&D) and training of staff. The CBIs in Bhutan are seemingly caught in a vicious cycle of low skill, low productivity and low spending on R&D. The lower spending in the crucial areas of productivity and competitive advantage explains why the exports originating from CBIs are very meagre, with a high trade deficit.

Table 20: Education Level of Employees in CBIs

Level of education	No. of employees	% of total employees
< Grade 8	403	47.5
Grades 8-12	242	28.5
Graduate	99	11.7
Postgraduate	31	3.7
Professionally trained	74	8.7
Total	**849**	**100**

Source: Consultant's sample survey

To explain the NVA, a multiple regression model is developed, as given in Annex 7. The NVA tends to have a negative association with the changes in net exports. A possible explanation for this relationship is the overwhelming dependence of Bhutanese industries on imports for acquiring capital goods, skilled manpower and raw materials. The results show that better capacity utilisation, greater percentage of trained manpower and greater expenditure on R&D would enable CBIs to create greater value added.

5. Economic Linkages of CBIs

5.1 Introduction

The contribution of any sector to economic growth depends, not only on its direct contribution to output, employment and international trade, but, most importantly, on the linkages that any sector has with the rest of the economy. The greater the linkage effects – both backwards and forwards – the greater the stimulus it creates for the rest of the economy. The magnitude of such linkages is usually calculated by using detailed input-output tables prepared for development planning by the central planning authority. Since a detailed input-output table is either not prepared or not put in the public domain in Bhutan, the following analysis is based on information collected through the sample survey.

5.2 Backward and Forward Linkages

The backward and forward linkages are found by preparing a closed input-output table for the CBIs as a whole and for each category of CBIs. The backward linkages depend on the purchases made by any sector from all other sectors. On average, the CBIs buy about 64% of their inputs from abroad, 19% from the agriculture sector, 15% from service sector and only 2% from the industrial sector16. The greater benefits of the growth of CBIs therefore percolate to the rest of the world. The input-output coefficient for the CBIs is 2.2. The input coefficients are calculated for each category of CBIs to determine the magnitude of backward linkages.

It is evident from Annex 8 that only the partial copyright industries have the highest backward linkages with the domestic market, while the others have predominant backward linkages with the rest of the world. The partial copyright industries have the greatest linkages with the agriculture sector and thus they can play a more dominant role in rural development and poverty alleviation. The equations also suggest that the CBIs and all their components have very negligible backward linkage with the industrial sector. This is because the manufacturing sector is still relatively undeveloped and the required manufactured goods, both capital goods and raw materials, have to be imported. This explains the overwhelming dependence of CBIs on the rest of the world. The development of the manufacturing sector would thus help to retain domestically the benefits associated with backward linkages.

The forward linkages of the CBIs suggest that 90-100% of the sales of different categories of CBIs are made to the service sector. The most probable explanation lies in the hospitality sector (tourism), which is the main buyer of copyright products, given the small population base and low purchasing power of the people.

[16] This part of the study is based on the data collected from the sample survey.

6. Contribution of CBIs to International Trade

6.1 Introduction

The analysis of the contribution of CBIs to international trade is divided into two categories: share in exports and imports.

6.2 Share of CBIs in International Trade

In 2008, the total volume of international trade was Nu. 46,085.72 million, of which Nu 2,517.2 million was from the CBIs (Table 21). In other words, the CBIs contributed 5.46% to the total trade of Bhutan. The contribution of CBIs to exports was 4.04% and their contribution to imports was 6.9 per cent.

The international trade of CBIs constituted 103.8% of the combined GVA of the CBIs. This was slightly more than the overall trade intensity of Bhutan. In 2008, international trade contributed 85.1% to GDP. The partial copyright industries constituted 4.1% of total trade in 2008, while their contribution to the trade generated by the CBIs was about 75 per cent.

Table 21: Share of CBIs in International Trade (in million Nu.) in 2008

Category of CBIs	Industry group	Exports	% share in exports by CBIs	% share in total exports	Imports	% share in imports by CBIs	% share in total imports
Core	Printing press	10.7	1.2	0.05	277.8	17.3	1.2
Core	Audio-visual & video movies	0.1	0.0	0.0005	177.6	11.1	0.8
Total core		**10.8**	**1.2**	**0.05**	**456.4**	**28.4**	**2.0**
Partial	Weaving handloom, *Martha*, carpet and handicrafts	441.4	48.4	1.95	20.6	1.3	0.1
Partial	Gold and silver smith				1.0	0.1	0.004
Partial	Furniture	454.4	49.8	2.01	970.6	60.5	4.1
Partial	Handmade paper	5.6	0.6	0.02	0.8	0.01	0.004
Total partial		901.4	98.8	3.99	992	61.8	4.2
Non-dedicated	WRT	0.0	0.0	0.0	66.8	1.5	0.3
Non-dedicated	TSC	0.0	0.0	0.0	89.6	2	0.4
Total NDS		0	0	0	1,56.4	3.5	0.7
	Total of CBIs	**912.4**	**100**	**4.04**	**1,604.8**	**100**	**6.9**
	Total for Bhutan	**22,590.6**			**23,495.1**		

Source: Trade Statistics 2005 and 2008, DRC, MoF

Further analysis of data in Table 21 reveals that CBIs are net importers and consequently record trade deficits. In 2008, the collective trade deficit of CBIs was Nu.692.4 million. The largest trade deficit among the CBIs is recorded by the core copyright industries, which at contribute about 64% of the combined trade deficit of CBIs in Bhutan. The trade deficit of CBIs was relatively larger than the total trade deficit in 2008. The weaving and handmade paper industries are the only net exporters among the CBIs and thus the only net foreign exchange earners.

The CBI exports are estimated at 4.04% of total exports. However, the export by each CBI is extremely lopsided. The partial copyright industries contribute an overwhelming 98.8% of the total exports generated by CBIs, amounting to Nu 901.4 million.

Bhutan's export structure is highly skewed towards a few commodities. For instance, the top 10 export commodities[17] accounted for 81% of the total value of exports in 2008. Hence, the share of core copyright industries in total exports is just 0.05%, while its share in total imports is 1.9%. Partial copyright industries contribute 4.22% to total imports and 3.99% to total exports.

6.3 Inter-temporal Changes in Trade Contribution of CBIs

Inter-temporal changes in the contribution of the CBIs to trade show that exports from CBIs declined by 4.4% between 2005 and 2008, while the imports of CBIs increased by 9.1% during this period (Table 22). Meanwhile, exports increased at 25.6%, which was greater than the growth rate of imports at 18.2%. The higher growth rate of exports meant that the trade balance improved during the period 2005-2008. But, despite the higher growth rate of international trade, the share of CBIs to international trade declined in 2008 as compared to 2005. In 2005, their share was 7.05%, which declined to 5.46% in 2008. This is because the growth rate of international trade generated by CBIs increased at a lower rate than that of the economy as a whole.

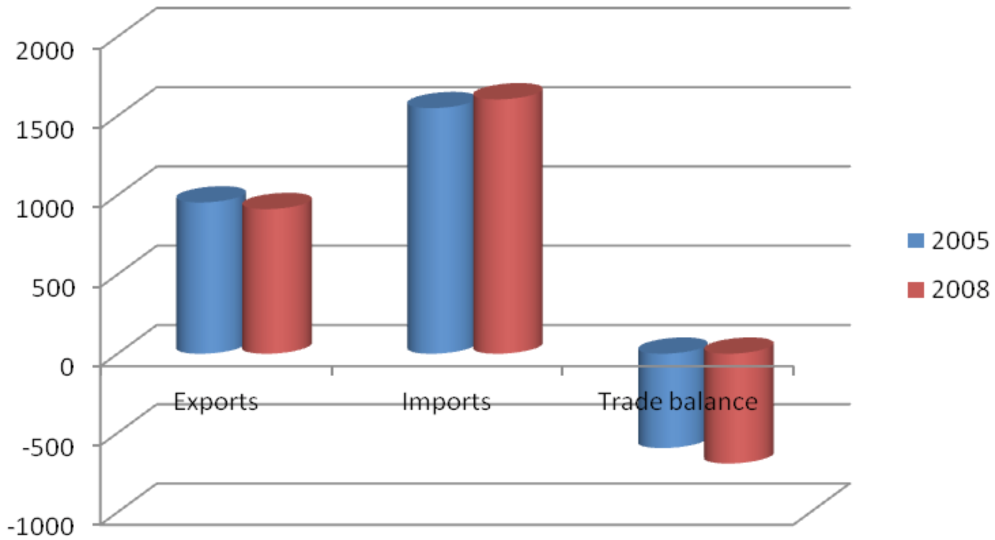
Table 22: Inter-temporal Changes in International Trade of CBIs

		Export (in Nu. millions) 2005	Imports (In Nu. millions) 2005	Growth of exports in 2008 over 2005 (In %)	Growth of imports in 2008 over 2005 (In %)
Core	Printing press	4.6	296.3	134.5	-6.2
Core	Audio-visual and video movies	0.01	270.6	188.7	-34.4
Total core		**4.61**	**566.9**	**134.3**	**-19.5**
PC	Gold and silver smith	0.0	59.1	-100.0	-98.4
PC	Weaving handloom	617.0	21.4	-28.4	-3.8
PC	Furniture	329.1	761.6	38.1	27.4
PC	Handmade paper	3.5	1.2	59.3	-32.0
Total PC		**949.6**	**843.3**	**-5.06**	**17.6**
NDS	WRT	0.0	92.6	0.0	-27.9
NDS	TSC	0.0	46.5	0.0	92.6
Total NDS		**0**	**139.1**	**0**	**12.4**
	Total CBIs	**954.2**	**1,549.3**	**-4.4**	**9.1**
	Total for Bhutan	**17,990**	**19,875**	**25.6**	**18.2**

Source: Trade Statistics 2005, DRC, MoF

[17] The top commodities of exports are electrical energy (60%), ferro-silicon (15%), carbides (4.64), copper wire (4%), manganese, cement, vegetable fats and free cutting steel. The top commodities of imports are light oil and preparations (26%), vehicles (19%), motor spirit (10%), rice (10%), manganese ore (8%), coal (8%), edible oil (6%) and wood charcoal (6%).

Chart 7: International Trade of CBIs (in million Nu.)



Source: Derived from Tables 22 and 23

Despite the expansion in output, export from CBIs has declined. Within the CBIs, the inter-industry differences are quite high, as can be seen from Table 23. The export of audio-visual and movies in 2008 increased by a whopping 188.7%, largely due to their very low base in 2005. Printing press and handmade paper registered the second and third highest growth in exports in 2008, i.e. by 134.5% and 59.3% respectively.

The core CBI group recorded the highest growth. This is a positive trend, even though the base for the core group in 2005 was small. This trend suggests that the core CBIs have the potential to export their products abroad if appropriate policies are designed and implemented. The decline in exports from weaving is a cause for concern, as this industry accounted for the largest share of the total exports from the CBIs. The positive trend was mainly due to the rise in the export from the furniture-based industries

As shown in Table 23, the trade balance of CBIs deteriorated further in 2008 by 16.3%, from Nu. 595 million in 2005 to Nu. 692 million in 2008. However, for printing press, audio-visual movies and handmade paper, the trade balance improved in 2008. Only two industries within the CBIs, i.e. weaving and handmade paper, have registered a trade surplus. This is because these industries draw most of their raw materials domestically.

Table 23: Trade Balance of CBIs (in Nu. millions)

Industrial Group	2005	2008
Printing press	-291.8	-267.1
Audio-visual and video movies	-270.5	-177.5
Gold and silver smith	-59.1	-1.0
Weaving and handloom	595.5	420.9
Furniture	-432.4	-516.1
Handmade paper	2.3	4.8
Wholesale and retail trade	-92.6	-66.8
Transport, storage and communications	-46.5	-89.6
Total for CBIs	**-595.1**	**-692.4**

Source: Trade Statistics, DRC, MoF

7. A Comparative Country Analysis of CBI contribution

In this section, a comparative country analysis is carried out to see how Bhutan's CBIs perform *vis-à-vis* other countries. Existing research shows that the size of CBIs has been growing at a faster rate than the overall economy, thereby increasing their role in the growth and development of the economies. Table 24 shows the comparative growth of CBIs in selected countries.

Table 24: Average Annual Growth Rate of Value-Added of CBIs in Selected Countries

Country	Period	Rate of growth of gross value added by CBIs (in %)	Rate of growth of GDP (in %)
USA	1977-2001	7.0	3.0
Australia	1996-2001	5.7	4.9
Netherlands	1994-1998	5.6	3.2
Bhutan	1997-2001 2001-2005 2005-2008	13.3 31.6 15.0	6.3 7.8 9.5

Source: http://www.wipo.int/copyright/en/publications/pdf/copyright_pub_893.pdf para. 5.3

The data in Table 24 reflect that GVA growth of CBIs exceeded the overall growth of GDP in all countries. Except for the Netherlands, GVA grew at almost twice the growth rate of GDP. As a result, their share in GDP has also been rising.

Table 25 shows the relative size of total CBIs and the core CBIs in terms of GDP.

Table 25: Cross-sectional Study on the Relative Size of CBIs

Country	Period	Percentage share of CBIs in GDP	Percentage share of core copyright industries in GDP
Latvia	2000	4.0	2.9
Jamaica	2005	4.8	1.7
USA	2001	12.0	4.9
Singapore	2001	5.7	2.9
Philippines	1999	4.8	2.6
Mexico	2003	8.1	2.6
Malaysia	2005	5.8	2.9
Bhutan	2001 2008	2.87 5.46	0.05 1.85

Source: Copyright industries publications of different countries

The relative size of CBIs to GDP varies from as low as 4% in Latvia to as high as 12% in USA, and Bhutan's CBI share in GDP, at about 5.46%, is in the middle. Though Bhutan's total CBI share is relatively high, its core copyright industries' contribution is relatively low at 1.85%. This dichotomy arises because the relative size of the NDS industries in Bhutan is very high as compared to other countries. The explanation is embedded in the structure of the Bhutanese economy, which is different from others in terms of the level of development as well as the disproportionate size of the trade and communications sectors. The share of wholesale and retail trade, and transportation, storage and communication is about 15% of the GDP, which is much higher than in other countries.

A comparative study of the share of the core CBIs in international trade in different countries is shown in Table 26. For Bhutan, the share of core CBIs to merchandise exports is the lowest and is about a tenth of that in the countries covered in this study. Given the differences in the IP regime among the countries covered, the differences in the share of core copyright industries in total merchandise exports and imports is justifiable. However, due to the relatively high import intensity of the Bhutanese economy, the share of core CBIs in total merchandise imports is higher.

Table 26: Cross-country Comparisons on the Share of Core CBIs in Total Trade

Country	Percentage share in merchandise exports	Percentage share in merchandise imports
India (1989)	0.1	0.4
Republic of Korea (1989)	1.3	0.2
Brazil (1989)	0.1	0.7
Spain (1989)	0.6	0.6
Australia (1996-97)	0.5	2.2
Bhutan (2008)	0.05	1.9

Source: http://www.wipo.int/copyright/en/publications/pdf/copyright_pub_893.pdf para. 5.3, except for Bhutan

The share of CBIs in total employment is a crucial index of the economic contribution of CBIs. Table 27 shows the comparative contribution of CBIs to total employment in Bhutan, Jamaica and Latvia. The CBIs in Jamaica have a very limited share in total employment in the economy at just 3%, whereas the CBIs in Latvia contribute about a third to the total employment. However, the CBIs in Bhutan contribute about 10.13% to total employment in the country. As expected, the share of the core CBIs in total employment in Bhutan is the lowest at 1.03%; whereas the Jamaican core CBIs contribute about 1.8% of to total employment. In countries like the Philippines, Malaysia and USA, the core CBIs contribute more than 4% of total employment. In fact, in the Philippines, core CBIs contribute 8.8% of total employment.

Table 27: Cross-sectional Study on Share of CBIs in Total Employment, 2008

Country	Percentage share of CBIs in total employment	Percentage share of core copyright industries in the total employment
Latvia	5.59	3.7
Jamaica	3.03	1.8
Bhutan	10.13	1.03

Source: Copyright industries publications of Jamaica and Latvia, WIPO

8. Policy Recommendations

8.1 Introduction

Experience suggests that appropriate policy support is necessary at all stages of the value chain from inputs, production, marketing, distribution and consumption. The major policy measures for cultural industries identified by UNESCO that can also be applied in CBIs in Bhutan are given in Annex 9 (cited in UNIDO 2005).

In line with proposals for the development of cultural industries, it is recommended that supporting policies, such as advocacy and strategy development as well as cultural asset management, be implemented for CBIs. Preparing a comprehensive policy and strategy is the first step in their development along with human resource (HR), technology and infrastructure development. These must be accompanied by clear responsibilities for coordination, follow-up and implementation.

The HR and technological development are crucial for generating new ideas and ushering creativity. The government has prioritised HRD, with each relevant agency having its own programme for implementation, though such programmes are not clearly targeted at CBIs. Technological development, on the other hand, has received little attention so far. This is not surprising, as investment in R&D is negligible in both the public and private sectors. The roles of R&D and skills are central in this respect along with policy and infrastructure.

The 10th Five-Year Plan outlines a new approach for creative industries to be promoted in clusters in different parts of the country for income generation and poverty reduction. This means that efforts need to focus at national and local levels. Most of these industries fall in the cottage, small and medium scales, requiring strong support for growth. A strong institutional organisation is therefore necessary to lead the sector. The establishment of a separate Department for Cottage and Small Industries in MoEA in 2010, to focus exclusively on the development of this sector, followed by the creation of APIC, to be overseen by a multi-sectoral managerial Board in 2011, are steps in the right direction. The past interventions made through the entrepreneurship and rural enterprise development programmes and initiatives can yield better results with greater coordination of efforts within the government and with sustained partnership between the government and private sector. The APIC should enable and facilitate better synergies among copyright, creative and cultural industries as well as the handicrafts sector as a whole and provide the needed thrust for their expansion and accelerated growth.

In the light of the above, the following measures are suggested:

8.2 Improve Data Collection and Dissemination

One of the major problems is the lack of comprehensive data on CBIs, as highlighted in the Baseline Study for cultural industries. There is a strong tendency for each organisation to conduct such studies on its own to meet its specific needs, but these fail to meet national statistical standards. With Bhutan assuming the leadership role within BIMSTEC for the promotion of cooperation in cultural industries, it is imperative that the cultural, copyright and creative industries be built up.

As many cultural industries fall in the creative or copyright-based industries category, it makes sense for coordination amongst the five ministries of Home and Cultural Affairs, Economic Affairs, Labour and Human Resources, Information and Communication and Finance, as well as the National Statistics Bureau. As the NSB is the clearing house for national data, it has to be involved in checking the quality of data, for which its involvement in the statistical surveys and studies is invariably required.

The government should provide a specific and legal mandate to an agency like the proposed Cultural Commission or DCSI/APIC for such cooperation, taking into account the need for generation and transparency of data for measuring the contribution of CBIs and associate industries to GDP, employment and trade. The mandate of this body would include, *inter alia*: (a) clarification and delineation of responsibilities for maintaining and developing data on CBIs, creative and cultural industries with the separation of each of these; (b) cooperation in carrying out any statistical surveys, including agreement on their terms of reference so that a study can serve the need of more than one agency and meet NSB's qualitative requirements; (c) measuring trade flows of these industries in more detail; and (d) cooperation in policy and programme implementation as well as training and HRD to build national capacity, avoiding duplication of efforts and resources. The IPD should play an active role when it comes to copyright and creative industries, for coordination and direction in cooperation with the lead central agency.

It is strongly felt that national income accounts should be prepared in a more detailed manner so that disaggregated data for various activities are also available to planners and researchers. For a developing economy like Bhutan, where planning still plays an important role, availability of detailed and reliable information is imperative. The NSB has to take a leading role in this regard as well.

8.3 Strengthen the Intellectual Property Division

The IPD has come a long way since it was elevated to the status of a Division in 1997. Its functions and responsibilities as a national organisation on IP have also expanded over time, especially with the enactment of legislation in copyright, patents and trademarks. Its role as an important link both between government agencies and private sector in IP matters has not been fully appreciated, and as such it lacks sufficient recognition and status. Its work in advocacy and creating public awareness, as well as building capacities in the government and private sector on IP matters, must be strengthened.

It must play a more proactive role in disseminating information and knowledge that can translate into creativity and innovation in the long run. Its website has to be more user-friendly, with information, facts and figures that can be easily understood by the reader. In addition, in cooperation with the Royal Bhutan Police and judiciary, it must provide greater support to the private sector in dealing with piracy and other kinds of IP abuses and eventually develop a joint public-private sector strategy to combat this growing problem. A strong culture of IP protection has to develop from the beginning within Bhutanese society so that it can play a positive role in economic development in the future.

An option to vitalise the IPD is to transform it into an autonomous government agency as is the case in Malaysia and other countries. As its activities cut across many public and private institutions, it would function more effectively as an autonomous agency under a board of directors drawn from different professions. It can assume greater flexibility in programme operations and achieve better coordination with other agencies. It is not equipped to play this role at present as a Division within MoEA. If autonomy is not given, it should be elevated to the status of a Department as a minimum requirement. The IPD’s existing facilities and staff should be reviewed and strengthened where necessary to enable it to meet the above functions and to elevate its profile within the government.

8.4 Foster Public-Private Partnership

The emphasis on the role of the private sector as an engine of economic growth cannot be overemphasised. In a land-locked and high-cost economy like Bhutan, the private sector finds it difficult to compete in the regional and global markets in exports of both manufactured goods and services. In an age of globalisation where the factors of production move from one country to another to take advantage of the low cost of production, Bhutan does not have an edge. This is only possible if the country focuses on, and builds capacity in, a few niche products, many of which could be within the CBIs, such as quality handicrafts, handloom weaving, eco products and the prospects from ICT and software development as other countries have done. This, however, requires a right mix of policy instruments and entrepreneurial zeal.

The private sector is still young and needs nurturing. This is possible only through an active support of the government. The CBIs therefore are ideal for such collaboration with the government, providing that the right policy and incentives packages for lowering the cost of production exist, and the private sector is willing to take the risk to invest. A cluster for creative industries should therefore be developed, similar to the IT Park, with the encouragement of foreign direct investment (FDI) that can bring new technology, different skills and much-needed capital for investment in collaboration with the Bhutanese private sector. An important area for joint action is R&D, which is completely absent at present. The time is propitious for these initiatives, as a new economic development policy and an FDI policy were adopted in 2010.

8.5 Provide adequate Credit

It is extremely important for the government to examine the ways in which financing for SMEs can be made easier, as this is a major problem that comes through in the discussion with the private sector representatives, as well as the World Bank report on *Doing Business: Bhutan 2010*. The main elements of such a facility should include: improved credit information; better project appraisal; removal or at least relaxation of the requirements of collaterals for loans; and improved legal protection for both banks and borrowers. Some of these elements are being addressed by the RMA, but even then a separate window or facility for lending to SMEs is necessary to encourage their growth.

8.6 Conduct in-depth Sector-Specific Studies

The study shows some emerging areas with much potential. These include films and music, print and media, handloom weaving, handicrafts, furniture and visual arts. Among these, the first three industries have better prospects. More in-depth sector-specific analysis should be carried out for these industries, to identify issues and challenges facing them and to target policies and programmes accordingly.

9. Future Directions

The outcome of the study is heavily influenced by the quality and consistency of data in estimating the contribution of CBIs to economic growth, employment and trade. While the availability of economic and social data on Bhutan has improved considerably in recent years, there is more to be done in capturing specific data required for a study of this nature. Several government agencies collect data, but such data are not consistent over time, thereby hindering any meaningful trend analysis. Such data should be audited by NSB so that their quality and consistency can be assured. The study has made recommendations regarding the need for better coordination among such agencies and identifying a lead agency amongst them to plan and implement development programmes on CBIs and cultural industries. Together with closer cooperation with NSB, such an effort will help to improve the quality of data. It is suggested that a similar study on CBIs should be undertaken after a few years when the current recommendations have been implemented and as the required data is available. Meanwhile, inasmuch as the findings of this study should be regarded as tentative, the study can be the basis of further work on the subject in the future. It will be of crucial importance to set up a permanent monitoring mechanism to produce new data and monitor trends in the creative sector.

An important finding of the study is that the CBIs suffer from low levels of operative efficiency. The stakeholders should carry out a separate study, not necessarily linked to the one proposed above, to find the reasons for this problem so that corrective measures can be designed and implemented. This will help CBIs and the economy in the long run.

Notwithstanding the above, the government is on the right track in protecting and optimising the benefits of IPRs in a growing economy. The knowledge economy that started at the end of the 20th century will dominate the 21st century. The potential for creating new goods and services is infinite when knowledge is applied in combination with information and communications technology. While this promises new opportunities for production, manufacturing, trade and employment, it also brings new challenges in protecting the IP of those who make this possible. Bhutan will be required to play its part in creating such an environment to benefit from the emerging knowledge economies for improving the quality of life of its people. It would also have to protect the creativity of individuals, without which the society will not benefit from their creations. This will require appropriate policies and legislation as well as a strong institutional mechanism for their application and enforcement. Such an institution is possible through cooperation of all stakeholders in intellectual property and copyright-based industries.

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Annex 1: ISIC Codes For Bhutan

Description of copyright and copyright-based industries (CBIs)

Core copyright industries

Press and literature

2211	Publishing of books, brochures and other publications
2212	Publishing of newspapers, journals and periodicals
2219	Other publishing (cards, maps, directories and other published material)
2221	Printing (pre-press, printing, and post-press of books, magazines, newspapers, advertising materials)
2222	Service activities relating to printing (pre- and post-press as 2221) – supply of printing materials
5239	Other retail sale in specialised shops (retail of press and literature)
9214	Dramatic arts, music and other activities (authors, writers, translators)

Music, theatrical production, operas

2213	Printing and publishing of music
2230	Reproduction of recorded media (production and manufacturing of recorded music)
5233	Retail sale of household appliances, articles and equipment (incl. rental of recorded music)
9214	Dramatic arts, music and other arts activities

Motion picture and video

2230	Reproduction of recorded media
9211	Motion picture and video production and distribution (incl. rental and sale)
9212	Motion picture projection (and exhibition)
9214	Dramatic arts, music and other arts activities (writers, directors, actors)

Radio and TV

6420	Telecommunications (cable and satellite TV)
7499	Other business activities (independent producers)
9213	Radio and TV activities (national, private and allied activities)

Photography

2222	Service activities relating to printing (photo agencies and libraries)
7494	Photographic activities (studio and commercial photography)

Software and databases

5151	Wholesale of computers, computer peripheral equipment and software (pre-packaged software – business, educational and video games)
7229	Other software consultancy and supply (as in 7221)

Visual and graphic arts

7494 Photographic activities (picture framing and other allied services)
7499 Other business activities (graphic design) including the following:
Wall painting
Painting (mural, scroll, *Thanka*, house)
Masonry (slate and stone carving)
Wood carving
Metal carving and smithy (gold, silver, iron)
Sculpture (statues, masks)
9214 Activities by authors, music composers, and other independent artists
Dramatic arts, music and other activities (art galleries and other wholesale and retail, graphic design)

Advertising services

7430 Advertising (agencies, buying services)

Interdependent copyright industries

Core interdependent

5139 Wholesale of other household goods (electronics, computers, musical instruments)
5151 Wholesale of computer, computer peripheral equipment and software
5233 Retail sale of household appliances, articles and equipment (electronics, musical instruments)
7123 Renting of office machinery and equipment (incl. computers)

Partial interdependent

2101 Manufacture of pulp, paper and paper board
5149 Wholesale of other intermediate products, waste and scrap (paper)
5152 Wholesale of electronic and telecommunication parts and equipment (blank recording material)
5233 Retail sale of household appliances, articles and equipment (blank recording material)
5239 Other retail sale in specialised stores (photographic and cinematographic equipment, paper)

Partial copyright industries

1711 Preparation and spinning of textile fibres, weaving of textiles
1721 Manufacture of made up textiles articles
Bhutanese tent making
1722 Manufacture of carpets and rugs
1730 Manufacture of knitted and crocheted fabrics and articles
1810 Manufacture of wearing apparel *(Gho and Kira)*
1920 Manufacture of footwear *(Chhog Lham)*
2029 Manufacture of other products of wood (household goods)
Bamboo and cane products
2101 Manufacture of pulp, paper and paper board including Bhutanese handmade paper
2109 Manufacture of other articles of paper and paper board
2422 Manufacture of natural dyes
2423 Manufacture of pharmaceuticals, medicinal, chemical and botanical products including Bhutanese incense
2424 Manufacture of perfumes and toilet preparations
2693 Manufacture of clay and ceramic products (non-refractory)
2696 Cutting, shaping and finishing of stone
2899 Manufacture of other fabricated metal products
3610 Manufacture of furniture

3691 Manufacture of jewellery and related articles (jewellery, coins)
5139 Wholesale of other household goods (jewellery, coins, furniture)
5232 Retail sale of textiles, clothing, footwear, and leather goods
5233 Retail sale of household appliances, articles and equipment
5239 Other retail sale in specialised stores (jewellery, coins, crafts, household goods, wall coverings and carpets)
7421 Architectural and engineering activities and related technical consultancy

9111 Activities of business and professional organisations
Cultural/creative tourism
9199 Activities of other membership organisations
Religious activities
9232 Museum activities and preservation of historic sites and buildings

Non-dedicated support industries

6023 Freight transport by road
6210 Scheduled air transport
6301 Cargo handling
6302 Storage and warehousing
6304 Activities of travel agencies and tour operators; tourist assistance activities
6309 Activities of other transport agencies
6411 National post activities
6412 Courier activities
6420 Telecommunications (telephony, Internet)

Note: The code also includes items within parenthesis

Annex 2: Sources of Data and Information

Primary

1. Population and Housing Census of Bhutan, 2005, Census Commission
2. Labour Force survey, 2006, Dept. of Labour, MoLHR
3. Establishment Census, 2008, Dept. of Employment, MoLHR
4. *National Revenue Report*, 2006-07, DRC, Ministry of Finance
5. *Bhutan Trade Statistics*, 2008, DRC, Ministry of Finance
6. Bhutan Living Standard survey, 2007,NSB
7. *Statistical Year Book of Bhutan*, 2007, NSB
8. *National Accounts Statistics*, 2000-07, NSB
9. *Annual Report*, 2006-07, RMA
10. UNESCO Baseline Study on Culture Industry in Bhutan, 2009

Secondary

1. Bhutan 2020: A vision for peace, prosperity and happiness, Planning Commission, 1999
2. Economic Policy, 2010, Ministry of Economic Affairs (MoEA)
3. Foreign Direct Investment Policy, 2010, MoEA

Brief description of sources

Population and Housing Census

The 2005 Census gives information about employment by different economic sectors, major occupations, and main source of income that would be relevant for the Study.

Labour Force Survey

The survey provides occupational data on Bhutan. Of particular relevance to the Study is the number of persons engaged in crafts and related trades, by sex, economic activity and level of education.

Establishment Census

This document provides information on employees by major occupations including in crafts and related trades.

National Revenue Report

The Report is brought out annually. It gives summary of revenues by tax (direct and indirect) and non-tax for a financial year (July-June). In particular, it has information on sales tax on cable TV and cinema, and revenue from Bhutan Telecom.

Bhutan Trade Statistics

This is an annual report and contains trade statistics as per Bhutan Trade Classification (Harmonised System Code) at eight-digit level. While the trade data is sufficiently detailed, segregation for the study is a major challenge.

Bhutan Living Standard survey

This survey gives some information on distribution of employment by major sectors and by employment status (regular, casual, unpaid family worker, self-employed and other unspecified).

The National Accounts Statistics and the Statistical Yearbook of Bhutan

These are standard annual publications of NSB and need no elaboration. The data is compiled from all available national sources.

RMA Annual Report

This is particularly useful for monetary and trade data. It is published by RMA.

UNESCO Report on data of culture Industries

This is perhaps one of the best references for the study. As the report suggests, there are extensive data gaps.

The study was coordinated by the NSB on behalf of the Ministry of Home & Cultural Affairs and international agencies (UNDP, UNESCO UNIDO and WIPO) involved.

Annex 3: Questionnaire

For the assessment of Copyright-based (CBIs) Industries in Bhutan

Type of the unit surveyed: Circle the appropriate type, i.e.,   A,   B,   C   or   D

Date and time of interview:

Place:

Name of the surveyor:

Sample code: A=Core; B=Interdependent; C=Partial and D=Non-Dedicated

Q1. What is your annual production capacity? (How much output you can produce every year if you have sufficient demand? (In quantity)

____

Q2. What is the book value of installed capital? (The value of the machinery and equipment purchased – in Nu.)

____

Q3. What is your annual production? (i.e., output last year – in quantity) ______________________

Q4. Please provide the following details (for last financial/ annual calendar):

Value of sales	In Nu.
Value of raw materials purchased	
Wages paid	
Salary paid	
Rent paid	
Interest paid	
Indirect taxes paid (such as BIT, excise duty, import duty	
Depreciation	
Gross profit (i.e., profit before tax)	

Q5. Please provide following details about the raw materials purchased by your firm in the last year:

Raw materials purchased from	Value of raw materials (in Nu.)
Domestic Agriculture Sector	
Domestic Industrial Sector	
Domestic Service Sector	
Rest of the world (Imports)	

Q6. Please provide information about sales made by your organisation.

Sales made to	Value of sales (in Nu.)
Domestic Agriculture Sector	
Domestic Industrial Sector	
Domestic Service Sector	
Rest of the world (Exports)	

Q7. Please provide following information about the employees hired by your firm.

Education level of employee	No. of employees
Grade 0-8	
Grade 8-12	
Graduates	
Postgraduates	
Professionally trained	

Q8. How many of your employees are expatriates (Non-Bhutanese)?

Q9. What is the total payment made to the expatriates? ______________________________

Q10. How many of your employees are female? ______________________________

Q11. What is the total payment made to the female employees? ______________________________

Q12. How much money did you spent last year on training your staff? ______________________________

Q13. How much foreign exchange did you earn last year? ______________________________

Q14. How much money did you spend last year on Research and Development activities?

____

Annex 4: Meetings and Group Discussions

Meetings

1. Mr Kuenga Tshering, NSB
2. Mr Dechen Wangdi, NSB
3. Mr Cheda Jamtsho, NSB
4. Mr Pema Wangda, Director-General, Department of Employment
5. Mr Subarna Lama, Director, IPD, MoEA
6. Mr Loknath Chapagai, Department of Industry, MoEA
7. Mr Dhanraj Subba, DoI, MoEA
8. Mr Kinley Wangchuk, Director, BICMA
9. Ms Pema Choden, Managing Director, Bhutan Broadcasting Service (BBS)
10. Mr Tashi Dorji, BBS
11. Mr Sherab Gyeltshen, General Secretary, Motion Picture Association of Bhutan (MPAB), Thimphu
12. Mr Tshering Gyeltshen, MPAB
13. Ms Tshering Lham, President, Handicrafts Association of Bhutan (HAB), Thimphu
14. Mr Rinzin Dorji, President, IT Association of Bhutan (ITAB), Thimphu
15. Mr Tenzin Rigden, Managing Director, Bhutan Times, Thimphu
16. Mr Chencho Dorji, Managing Director, Kuensel Corporation
17. Mr Mani Dorji, Proprietor, KMT Printing, Thimphu
18. Ms Dago Bida, Managing Director, Etho Metho Tours & Travels, Thimphu
19. Mr Shyam Basnet, Bhutan International, Thimphu
20. Mr Mani Pradhan, Digital Shangrila, Thimphu
21. Ms Lhamo Dukpa, Singer/Producer, Thimphu
22. Mr Joseph Lo, UNDP, Thimphu
23. Mr Jigme Dukpa, Aa-Yang Music School, Thimphu.
24. Mr Rinzin Penjor, Principal, Royal Academy of Performing Arts, Thimphu.
25. Mr Norbu Tenzin, Jungshi Handmade Paper, Thimphu.

Group Discussions

1. Department of Industry
2. National Statistics Bureau
3. Handicrafts Association of Bhutan
4. Motion Pictures Association of Bhutan
5. IT Association of Bhutan

Annex 5: Core CBIs used for Estimating their Contribution to GDP

(June 2011)

Type	ISIC Code
Publishing of books, brochures and others	2211
Newspaper publishing	2212
Production of music	2213
Printing and publishing	2219/ 2221
Recording of visual (film production)	2230
Retail sale of video and audio production	5233
Retail sale books/stationery	5239
Cable and satellite TV	6420
Data processing, software consultancy, and data publishing	5151/7229
Publicity/advertising agency	7430
Photo studio and photo frame	7494
Graphic design	7499
Industrial property agent	9112
Audio video production and distribution	9211
Cinema	9212
Music and other activities/writers, directors, actors	9214

Annex 6: Formula on Copyright Factor

The copyright factor is measured on a scale of 0 to 1, where 0, at one extreme, means copyright related aspects are absent and 1, at the other, means the entire value added is created by the copyright related issues. Empirical evidence suggests that as the economy develops the intellectual property increasingly becomes significant and consequently the copyright factor approaches 1. In developing countries, traditional knowledge plays a more significant role in the production processes. The traditional knowledge falls in the public domain and consequently is not adequately protected by copyright law in general thus leading in underestimation of the copyright factor in traditional societies and less developed countries.

The ratio of the sum of royalty paid and expenditure on R&D made by a firm to its net value added at factor cost is defined as the copyright factor.

$$Cf = \frac{r + rd}{nva} Cf = \frac{r + rd}{nva}$$

Where,

c_f	=	copyright factor
r	=	royalty paid
rd	=	expenditure on research and development
nva	=	net value added at factor cost

Annex 7: Calculations of Net Value Added

In order to find the main explanatory factors to the NVA created by CBIs, a multiple regression model[18] is prepared that includes the following variables as explanatory variables: percentage of trained employees (PTE), expenditure on research and development (RD), plant load factor (PLF) and net exports (NX) and net value added (NVA) as the dependent variable. Findings of the study are shown in Tables A, B and C.

Table A: Model Summary

Model	R	R2	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R2 Change	F Change	df1	df2	Sig. F Change
1	.683(a)	.467	.443	1917639.681	.467	19.727	4	90	.000

a Predictors: (Constant), PTE, RD, PLF, NX
b Dependent Variable: NVA

Table B: ANOVA (b)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	290171178116376	4	72542794529094.00	19.727	.000(a)
	Residual	330960775330909	90	3677341948121.219		
	Total	621131953447285	94			

a Predictors: (Constant), PTE, RD, PLF, NX
b Dependent Variable: NVA

Table C: Coefficients (a)

Model		Un-standardised Coefficients		Standardised Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	741231.455	265644.747		2.790	.002
	NX	-.278	.033	-.667	-8.371	.000
	PLF	321.459	2633.319	.009	.122	.003
	RD	-2.400	4.138	-.045	-.580	.003
	PTE	93160.010	169621.988	.044	.549	.000

a: Dependent Variable: NVA

Since the calculated f value (19.7) far exceeds the p value (0), the explanatory variables together are effective to explain the changes in the dependent variables. As the Table for coefficients reflects that the t value for each of the explanatory variable exceeds the p value, each of the explanatory variables explains the changes in the dependent variable. Value of r square is 0.467, meaning 1% standard deviation change in the explanatory variables causes 0.467% standard deviation change in dependent variable.

[18]Regression output is derived using SPSS 11.5

Annex 8: Equations Reflecting The Input-Output Coefficients For CBIs

Total CBI

$X_{cbi}= 0.40\ I_{ag}+0.039\ I_{ind}+0.33\ I_{srv} + 1.41\ I_{m}$

Core

$X_{core}= 0.02\ I_{ag}+ 0.04\ I_{ind}+ 0.558I_{srv}+2.16\ I_{m}$

Interdependent

$X_{intdp}= 0\ I_{ag}+0.004\ I_{ind}+0.0474\ I_{srv}+0.28\ I_{m}$

Partial

$X_{part}=1.11\ I_{ag}\ +0.42\ I_{ind}+0.15\ I_{srv}+0.24\ I_{m}$

Non-dedicated Support

$X_{nds}=0\ I_{ag}\ +0\ I_{ind}+0I_{srv}+3.81\ I_{m}$

Notes: X= one unit output and subscripts cbi, core, intdp, part and nds stand for CBIs and its each category (cbi= all CBIs, core= core copyright, intdp=interdependent, part=partial copyright and nds= non dedicated support)
I= input required and subscripts ag, srv,ind and m stand for different sectors (ag=agriculture, ind= industry, srv= services and m= imports from rest of the world.

Annex 9: Supporting Policy Development for Cultural Industries

Step in the process	Examples of Activities
1. Advocacy and Strategy Development	1. Elaboration of a long-term Plan of Action.
a. Mapping the Sector	Surveys, baseline data, need assessment, SWOT analysis, and stakeholder's consultations.
b. Identification of Policy Issues	Objectives and priorities, strategy, MSE development, marketing strategy.
c. Drivers	Formulation of sub-sector specific priorities, targets and programmes.
2. Human Resource Development	2. Institutionalisation of innovative and traditional training opportunities related to cultural industries. Strengthening training in entrepreneurship, management, business development and skills development.
3. Cultural Assets Management	3. Strengthening archiving and research, promotion of international conventions.
4. Technological Development	4. A national plan for access of information, support for research and innovation in products and marketing, support cluster development, promotion of e-commerce.
5. Infrastructure	
a. Legislative Infrastructure	IPR, business law for MSEs ICT legislation, copyright, etc.
b. Institutional Infrastructure	Develop institutional capacity to ensure enforcement, strengthen professional organisations and knowledge sharing through ICT.
c. Financial Infrastructure	Mechanisms to encourage MSEs cultural industries. Import-export regulation and taxation.
d. Physical Infrastructure	Easy access to affordable, efficient transport and distribution of cultural industries products and services.
e. Inter-sectoral Coordination and Cooperation	Sector–wide approach to planning and implementation; information sharing among private and public enterprises using ICT; identification of external and national funding options; instruments for coordination and mobilisation of resources.
f. Financing	Consolidated plan and instrument for mobilisation of resources; stakeholders consultations.
g. Programme Monitoring and Evaluation	Integrated plan and schedule; coordination; integration of training activities in the subjects; benchmarking.

Source: UNESCO 2005, quoted in UNIDO 2005 as Annex 2, p.105.