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**Japan's Development Cooperation Policy:
Examining its Relevance to Bhutan's Development Policy**

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List of Abbreviations

ADB	Asian Development Bank
BTFEC	Bhutan Trust Fund Environment Conservation
COP	Conference of the Parties
DAC	Development Assistance Committee (OECD)
DANIDA	Danish International Development Agency
EEC	European Economic Commission
EURCO	European Commission
FYP	Five Year Plan
GDP	Gross Domestic Product
GEF	Global Environment Facility
GLOF	Glacier Lake Outburst Floods
GNH	Gross National Happiness
GNHI	Gross National Happiness Index
GNI	Gross National Income
HSI	Human Society International
IDA	International Development Association (World Bank)
IFAD	International Fund for Agriculture Development
ITU	International Tele Union
JICA	Japan International Cooperation Agency
JOCV	Japan Overseas Cooperation Volunteers
LFS	Labour Force Survey
MDGs	Millennium Development Goals
NSB	National Statistics Bureau
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation Development
OECF	Overseas Economic Cooperation Fund
OTCA	Overseas Technical Cooperation Agency
SDA	Sustainable Development Agreement
SDGs	Sustainable Development Goals
SMEs	Small and Medium Enterprises
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USD	United States Dollar
USF	Universal Service Fund
WHO	World Health Organization

Abstract

Japan's contribution to international peace and development through generous ODA is widely applauded. Guided by the ODA Charter, Japan seeks to contribute towards global peace, prosperity and security by supporting developing countries achieve their development goals. The countries in Asia and the Pacific benefited from Japan's assistance as early as since 1954 under Colombo Plan. The history of Japan's ODA began with settling of war reparations to Myanmar in 1954 and its first disbursement of Yen loan to India in 1958 (MFA 2004). By 1983, Japan was the second largest donor in the world and became the largest donor by 1993 until 2000. Today, Japan stands as the fifth largest donor and Asia remains to be its biggest beneficiary (MFA 2015). Large shares of Japan's ODA were disbursed in developing economic and social infrastructures in the recipient countries.

All along these years, Bhutan too benefited from Japan's development cooperation with the unwavering partnership dating back to 1964. The formal bilateral relationship between Bhutan and Japan was established in 1986. The common interests of Bhutan's development philosophy of Gross National Happiness and Japan's ODA philosophy of global peace, prosperity and security were mutually recognized.

While Japan's areas of support to Bhutan were diverse, its main tangible contributions to Bhutan were in modernizing agriculture, establishing nation-wide telecommunication system, electrifying villages in rural areas, and replacing old bridges along the national highways. With support from development partners including Japan, Bhutan recorded an unprecedented pace of development since the launch of first five-year plan in 1961. Nevertheless, Bhutan's challenges have evolved over the years.

In view of the above, this study seeks to assess the current development needs and challenges of Bhutan and accordingly examine how best Japan could contribute towards addressing those challenges given its comparative advantages. The main purpose of this study is to contribute towards enhancing the relevance of Japan's development support to Bhutan and in increasing its effectiveness and impact.

Taking stock of Bhutan's achievements, the income poverty rate declined from 31.7 % in 2003 to 12 % by 2012 (NSB 2012). The access to education and health services have improved, the living standard has improved by many folds, rural access has increased, both rural and urban infrastructures have improved, and Bhutan has transitioned from absolute monarchy to parliamentary democratic governance.

Notwithstanding the above, Bhutan continues to grapple with the challenges of improving road connectivity and its quality, addressing youth unemployment, threats from climate change, dwindling agriculture, and rural poverty. Bhutan is still dependent on external financial support for development. Hence, it will take continued efforts from the government and the development partners to address both these immediate and long-term challenges.

Bhutan has largely benefited from Japan's assistances, which were always in consistence to Bhutan's development policy and priorities. While the continued support from Japan is still relevant and needed, the possibility of expanding its scope in cognizant of the current and emerging issues and Japan's comparative advantages could be explored.

1. Introduction

Bhutan witnessed a rapid pace of development since Bhutan embarked upon its first five-year development plan in 1961. With limited resources and know-how, Bhutan received financial and technical support from numerous development partners. Japan is recognized as an important and unwavering development partner to Bhutan, whose engagement in Bhutan's development process dates back to as early as 1964 when Mr. Keiji Nishioka came to Bhutan to help modernize agriculture practice. The formal diplomatic relation between Bhutan and Japan was established in 1986, after which Japan's support to Bhutan's development expanded and increased significantly. In 2016, Bhutan and Japan are already celebrating 30 years of seamless diplomatic relation and 52 years of development partnership. Japan's contribution to Bhutan's development is unfathomable.

The main areas of support from Japan were in agriculture and rural development; economic infrastructure development, health and education, good governance, and human resource development. The assistances to Bhutan from Japan were in the form of grant aids, technical assistances, and recently, ODA loans.

The continued support from the development partners, including Japan, helped Bhutan achieve most its development milestones. Most of the millennium development goals were achieved by 2015. The income poverty rate declined from 31.7 % in 2003 to 12 % by 2012 (NSB 2012), and multi-dimensional poverty rate (MPI) decreased to 12.7 % in 2012 (NSB 2012). The access to education and health services have improved, the living standard has improved by many folds, rural access has increased, both rural and urban infrastructures have improved, and Bhutan has transitioned from absolute monarchy to parliamentary democratic governance.

1.1 Purpose

Notwithstanding the above, Bhutan is faced with a set of emerging challenges, though some old issues continue to be relevant at the dawn of the next global development agenda of Sustainable Development Goals (SDGs). Hence, it will take continued efforts from the government and the development partners to address both these immediate and long-term challenges. In consistence to the idea of global integrated partnership for development, it calls for global partnership recognizing the unique strength of each development partner.

In view of the above, the main purpose of the study is to assess the current development needs and challenges of Bhutan and accordingly examine how best Japan can address those challenges given its comparative advantages, while operating within the existing Japan's development cooperation policy. Hence, the ultimate goal of this study is to contribute towards enhancing the relevance of Japan's development support to Bhutan, and thereby increasing its effectiveness and impact.

1.2 Objectives

The objectives of the study are to:

1. Examine the relevance of Japan's development cooperation in Bhutan against the backdrop of changing needs and challenges, and the changing global development agenda;

2. To study how Japan's policy on development cooperation complements Bhutan's development policy and needs;
3. Identify new prospects for development cooperation;
4. Contribute towards mutual alignment of Japanese development cooperation policy in Bhutan for aid effectiveness;

1.3 Methodology

Given the nature of the research topic, it entailed the collection and review of both quantitative data and qualitative information. Hence, this study is an outcome of both qualitative and quantitative analysis. The process of data collection and analysis are highlighted below.

Data Collection

The data and information for the study were obtained from various sources:

1. Official reports and records

The information and data related to development policies, development financing, domestic revenue, public debt and trade balances were obtained from the official reports and documents of the relevant ministries and agencies in Bhutan.

Similarly, the information and data related to Japan's development cooperation policies and ODA disbursement trends were obtained from the annual white papers and ODA Charters published by Ministry of Foreign Affairs, Japan, and annual reports published by Japan International Cooperation Agency (JICA) . Evaluation reports published by JICA were also a good source of information for the study.

2. Literature reviews

In addition to official reports, literatures on Japanese development cooperation were also referred for information on third-party views on the Japan's ODA policies. They were also good source of information in identifying prospects for development cooperation drawing from the experiences in other recipient countries. The evaluation reports on Japanese development cooperation were also a good source of information on the effectiveness and relevance of the policy.

3. Interviews

In understanding the views of the officials engaged in design and implementation of policies and projects, interviews were carried out with officials in JICA headquarter in Japan. The officials from Research Institute under JICA were also interviewed.

Analyses

The quantitative data thus gathered were compiled, processed and analysed using STATA and R. Most of the quantitative analyses are descriptive analyses illustrated in the form of figures, tables and maps. Notwithstanding, other parts of the analyses are qualitative and narrative based on reports, literature reviews and interviews.

2. Bhutan's Development Policy

Before delving into Japan's development cooperation policy and its relevance to Bhutan, we will discuss Bhutan's development policy, trends in development financing, trend in trade balances, structure of the economy and Bhutan's achievements and progress.

2.1 Guiding Development Philosophy: Gross National Happiness

Bhutan's modern planned-development process started only in 1961 with a minimal budget outlay of Nu. 107.2 million (Planning Commission 1999). With a meagre amount, first roads and bridges were constructed, and modern social and economic institutions were established. The achievements were astounding. That marked the beginning of Bhutan's rapid socio-economic development.

However, with a glimpse of modernization just over a decade, Bhutan soon realized the risks of losing age-old values of Bhutanese culture and the importance of co-existence with the environment that kept Bhutan sovereign and peaceful for centuries.

Hence, upon enthronement of His Majesty the King Jigme Singye Wangchuck in 1974, he shared his vision for Bhutan wherein, the wellbeing and happiness of the people will be placed above economic pursuits. In essence, it meant that the wellbeing of the people should be the ultimate goal and economic development should be seen as only one of the means. The concept also meant that impact on culture and environment should be minimal, while reaping the benefits of economic advancement.

Since then, Bhutan's development has always been guided by the holistic development philosophy of Gross National Happiness (GNH), placing equal importance to both economic and non-economic human needs. Its relevance is only increasing with emergence of global issues such as climate change, poverty, new diseases and global terrorism.

As a way of operationalizing the philosophy, measures of GNH were adopted with nine dimensions, namely, psychological wellbeing, standard of living, good governance, health, education, community vitality, cultural diversity and resilience, time use, and ecological diversity. Using this measure, three surveys have already been carried out with the latest report being launched in 2015. The findings are used to develop policies and plans. In order to ensure the coherence of public policies with GNH values, all draft policies are assessed using GNH screening tool. The sector programmes under current 11th five-year plan are aligned to GNH values, with each project directly mapped to nine dimensions of GNH index.

2.2 Five-Year Development Plans and its Brief History

Bhutan charted out its first development plan with the launch of first five-year plan in 1961 with full financial support from the Government of India. The budget outlay for the plan was Nu.107.2 million (Planning Commission 1999). The first two five-year plans were prepared and implemented by the expatriates from the Government of India. Understandably, first two five-year plans were largely focussed on building basic infrastructures and establishing development institutions.

Only in 1971, Planning Commission was instituted to develop and implement third five-year plan by the Bhutanese officials for the first time. While continuing the basic infrastructure development, the third and fourth five-year plans drafted by the Bhutanese officials began to place importance on balanced regional development and protection of culture and tradition.

By fifth five-year plan, the decentralization process began by instituting District Development Committees (*Dzongkhag Yargay Tshogdu*) in 1981, engaging people in planning and implementing development activities. Most importantly, it also emphasized on sustainable approach to development. The sixth five-year plan saw more pronouncements on decentralization, self-reliance, good governance, and the need to increase the rural income. It was also during this period, further decentralization took place with institution of Sub-District Development Committees in 1991 (*Gewog Yargay Tshogchung*). The seventh five-year plan embodied almost all GNH pillars as the plan objectives, namely, sustainable economic growth, spiritual wellbeing of the people, preservation of culture, and conservation of environment.

Starting the eighth five-year plan, private sector development and privatization emerged as the development priority recognising its importance to the economy. The plan period also saw the devolution of full executive power by His Majesty the Fourth King to the cabinet ministers in 1998, who were elected by the members of the National Assembly. That marked the beginning of Bhutan's transition to Democracy.

The 9th five-year plan witnessed the most important events in Bhutan's history. His Majesty the Fourth King Jigme Singye Wangchuck voluntarily abdicated the throne in 2006 and formally crowned His Majesty the King Jigme Khesar Namgyel Wangchuck as the Fifth King of Bhutan in November 2008. The first written Constitution of Bhutan was enacted in July 2008 in preparation to Bhutan's transition to Constitutional Monarchy. It was also during this period, when the sub-district plans (*Gewog plans*) were introduced with dedicated budget for each sub-district to implement the plans prioritized and prepared by communities themselves.

The 10th five-year plan began by yet another historic event, when Bhutan peacefully transitioned to Constitutional Monarchy with democratic governance system. The first political parties were formed and contested for general elections in 2008. *Druk Phuensum Tshogpa* won the first general elections and assumed the executive power. The poverty reduction was identified as the overall development objective.

The eleventh five-year plan ushered in new government, People's Democratic Party after winning the general elections in July 2013. The new government adopted self-reliance and inclusive green socio-economic development as the overall objective of the plan period.

The table 1 below shows the compilation of main goals and objectives for each five-year plan and their corresponding budget outlays.

Table 1: Five-Year Plans and their goals and budget outlays

Five Year Plan	Main Goal/Objectives	Budget Outlay (Nu.in millions)
1 FYP (1961-66)	-Basic social infrastructure development (road, education, health, agriculture, forestry, animal husbandry, industries, electricity) -Establishment of development institutions	107.200
2 FYP (1966-71)	-Agriculture development -Improvement of education level -Livestock development -Improvement of roads and transport services -Forest conservation -Explore for potential mining	202.200

	-Explore potential for tea plantation and forest based industries	
3 FYP (1971-76)	-Agriculture development -Balanced regional development -Livestock development -Basic infrastructure development (roads, bridges, electricity) -Industrial development -Improvement of education facilities and quality education -Improvement of health services: quality and reach -Development of facilities in Capital city: Thimphu -Protection and preservation of ancient monuments	475.200
4 FYP (1976-81)	-Economic development -Improvement of living standards	1,106.200
5 FYP (1981-87)	-Sustainable economic growth -Economic self-reliance -Greater distributional equity -People's participation in planning and implementation of development programmes	4,711.200
6 FYP (1987-92)	-Strengthening governance -Preservation and promotion of national identity -Mobilization of internal resources -Enhancement of rural income -Improvement of rural housing and resettlement -Consolidation and improvement of development services -Development of human resources -Promotion of people's participation -Promotion of national self-reliance	9,559.200
7 FYP (1992-97)	-Sustainable economic growth; -Spiritual and emotional well-being of the people; -Preservation of culture; -Conservation of environment	15,590.700
8 FYP (1997-2002)	-Self-reliance -Sustainability -Preservation and promotion of cultural and traditional values -National security -Balanced development; -Improving the quality of life -Institutional strengthening and human resource development -Decentralization and community participation; -Privatization and private sector development	39,523.820
9 FYP (2002-07)	-Improving the quality of life and income, especially of the poor -Ensuring good governance -Promoting private sector growth and employment generation -Preserving and promoting cultural heritage and environment conservation -Achieving rapid economic growth and transformation	70,000.000
10 FYP (2008-13)	-Poverty Reduction	146,252.219

11 FYP (2013-18)	-Self-reliance and inclusive green socio-economic development	213,291.490
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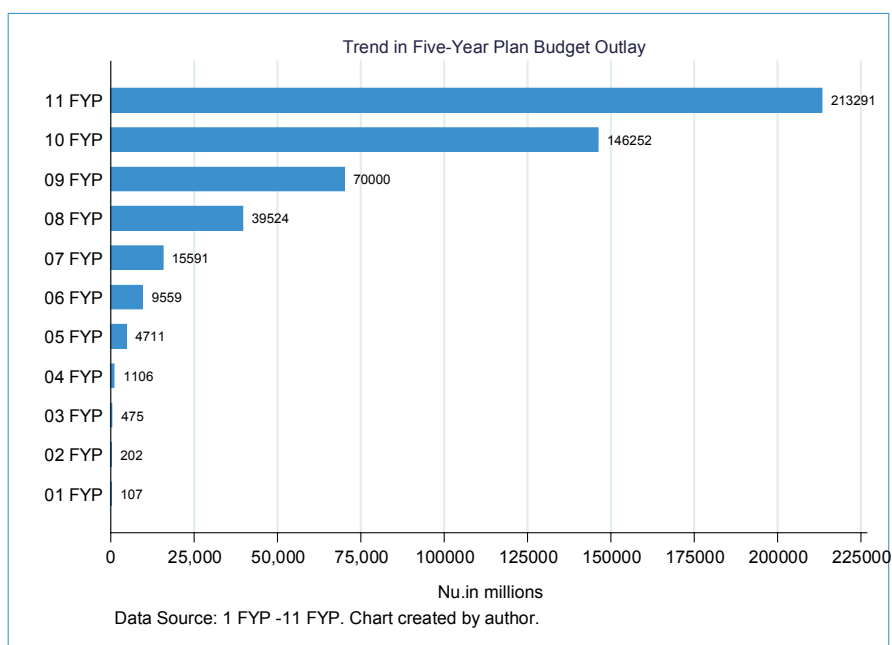
Source: FYPs, Planning Commission

2.3 Trends in Budget Outlay

As can be seen from the figure 1 below, the budget outlays for the first and second five-year plans were only Nu.107 million and Nu.202 million, respectively. The entire budget was fully funded by Government of India as Grant Aid.

The budget kept growing roughly by two-folds in the following five-year plans as compared to the preceding plans. The current 11th five-year plan has the budget outlay of Nu.213,291 million.

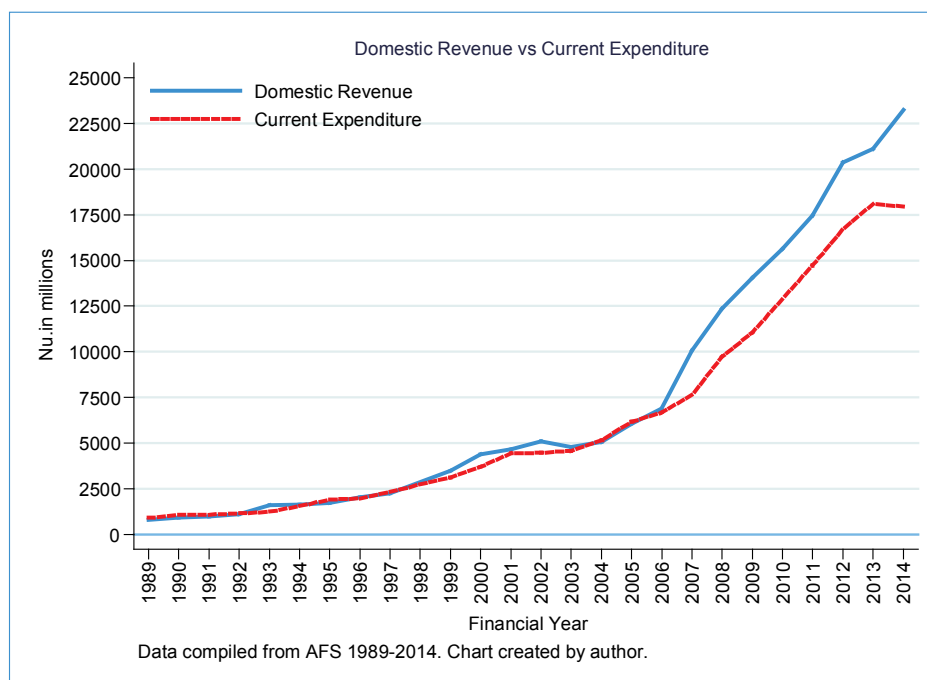
Figure 1: Trend in Five-Year Budget Outlays



2.4 Development Financing

The main resources for development financing in Bhutan are comprised of domestic revenue and grants. The domestic revenue is mainly raised from tax and non-tax revenues. One of the important aspects of the development financing policy in Bhutan is to be able to meet all the current expenses from the domestic revenue. The figure 2 below shows that domestic revenues were always higher than the current expenses. In recent decade, Bhutan was also able to fund some portion of capital expenses from the domestic revenue in addition to entire current expenditure.

Figure 2: Trend in Domestic Revenue and Current Expenditure



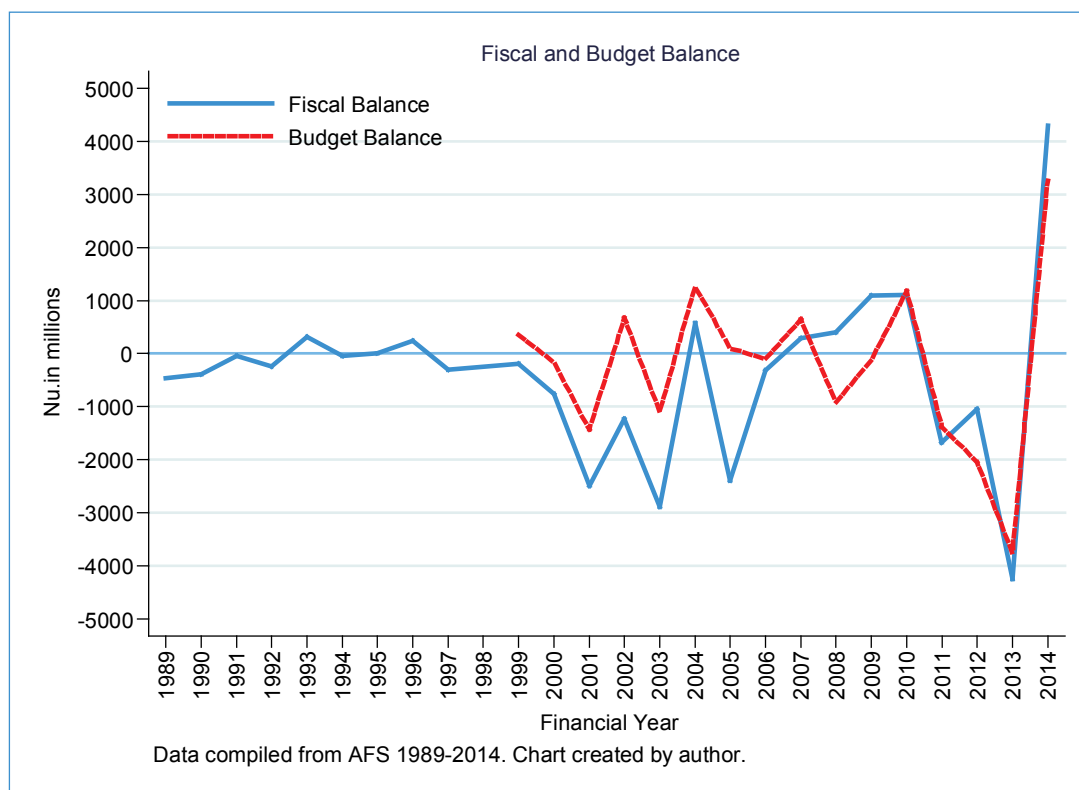
Nonetheless, not all resources needed for the development could be mobilized through the domestic revenue and grants alone. Hence, the government had to borrow from both domestic and external sources. Most of the years, even after borrowings, Bhutan faced shortage of funds for development, which are called budget deficits.

The figure 3 below shows the trend in fiscal balances since 1989, and trend in budget balances since 1999. The fiscal balance is the balance accrued out of total resources (sum of total domestic revenue and total grants) after total expenditure, while budget balance is the balance accrued out of the total resources and the total borrowings after total expenditure. The fiscal balances have been most of the time negative. There was a long period of ever increasing fiscal deficits from 1997 to 2003 until there was a sudden fiscal surplus in 2004. But one year later in 2005, the fiscal balance fell back to negative. The commissioning of Tala hydropower plant with the installed capacity of 1020 megawatt in 2007 increased the domestic revenue and the fiscal balances remained positive for another four years until 2010. The fiscal balance fell back to negative from 2011 and the fiscal deficit increased to record high of Nu.4.2 billion in 2013. This sharp increase can be attributed to huge decline in grants from Government of India, although grants from other development partners increased during that year.

However, the fiscal balance improved significantly in 2014 with record fiscal surplus of more than Nu.4 billion. This increase is attributed to the huge increase in grants from Government of India and other development partners with the launching of 11th five-year plan. In addition, there was a decrease in total expenditure during that year.

As mentioned earlier, the fiscal deficits led to borrowings from both internal and external sources. However, with ever increasing repayments of loans, net borrowings remained low. Therefore, the budget balances remained negative whenever there were fiscal deficits.

Figure 3: Trend in Fiscal and Budget Balance

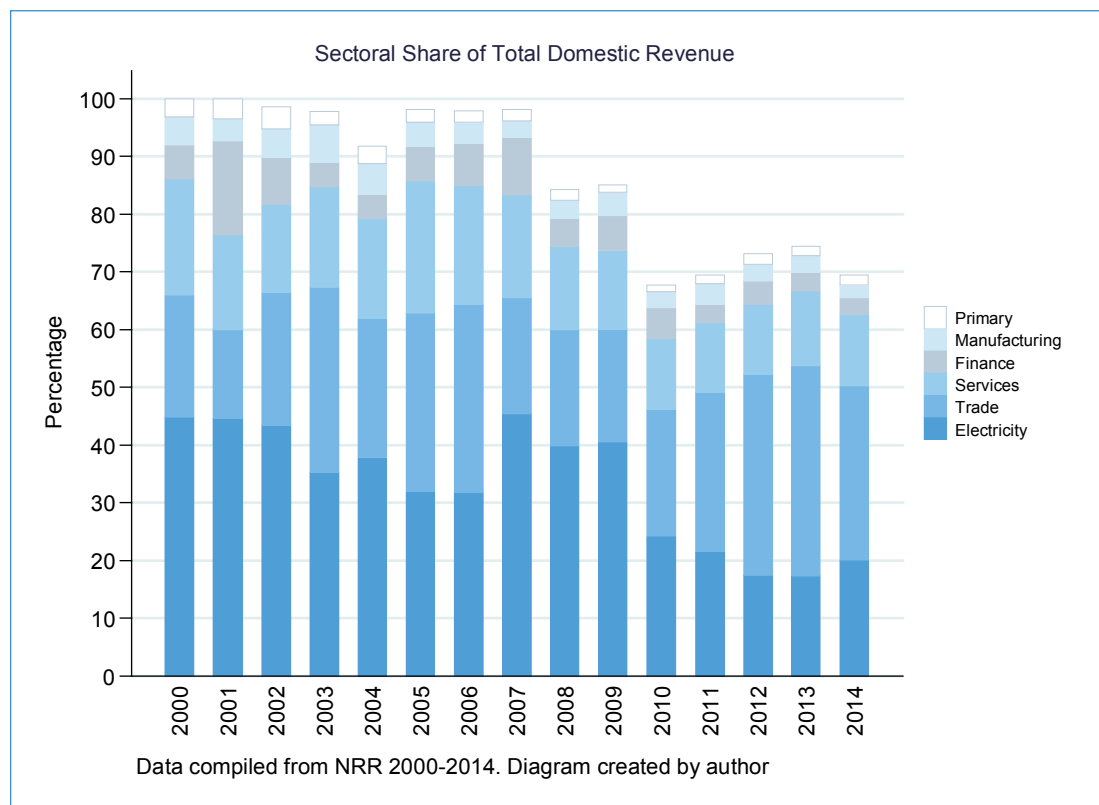


2.5 Contribution of sectors to domestic revenue

The sectors contributing to domestic revenue are broadly classified into six. They are primary, manufacturing, finance, services, trade, and electricity sectors. The figure 4 below shows the trend in sectoral contributions to the domestic revenue since 2000. In 2000, the electricity sector contributed the largest to the domestic revenue, while the revenue from the primary sector was the lowest. The trade and services also formed the major contributing sectors to the domestic revenue.

Over the period, the share of revenue contributions from the trade and service sectors increased. The sectoral share as a whole declined substantially since 2007-2008. The change is due to the establishment of Druk Holding Investments (DHI) and consolidation of all major state-owned enterprises under its management. Hence, the profits from SOEs are deposited to the government treasury as the dividend by DHI. The revenues thus earned in the form of such dividends are not included in the sectoral contribution to domestic revenue. In addition, increasing revenues from personal income tax (PIT) are also not included in the calculation of sectoral contribution. Hence, in the year 2013-2014, the total sectoral contribution to domestic revenue stood at 70 %, and the remaining 30 % came from other sources mainly, dividends from DHI and PIT.

Figure 4: Trend in Sectoral Share of Total Domestic Revenue



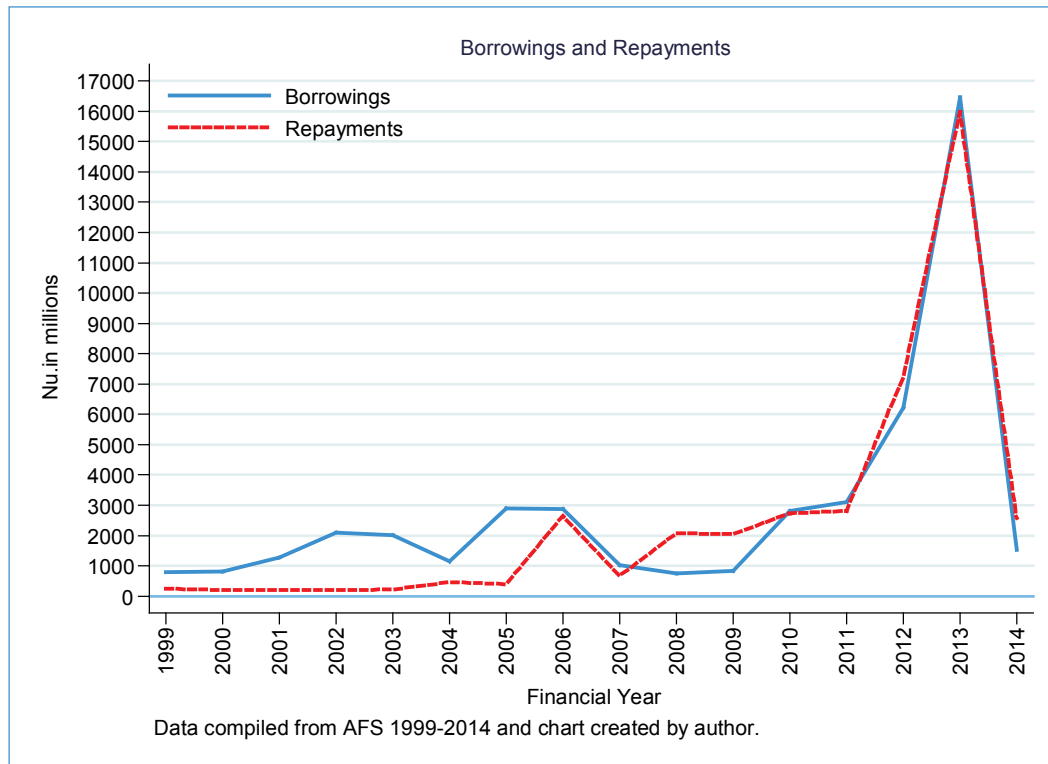
2.6 Borrowings and Repayments

As Bhutan faced fiscal deficits, borrowings had to be made from both domestic and external sources. The borrowings from the external sources were mainly in the form of ODA loans. The figure 5 below shows the trend in borrowings and repayments since 1999. The borrowings here exclude loans received from India and ADB for financing hydro power projects, while repayments include repayments of principal loans for hydropower projects (Ministry of Finance 2015). The trend shows that borrowings remained below Nu.3 billion until the fiscal year 2010-2011. As for the repayments, it remained below Nu.1 billion until the fiscal year 2004-2005, and kept below Nu.3 billion until the fiscal year 2010-2011.

Both borrowings and repayments rose sharply to the record high of Nu. 16.5 billion and Nu. 15.9 billion, respectively in the fiscal year 2012-2013. The huge amount had to be borrowed as there was huge fiscal deficit with massive decline in grant from the Government of India. However, of the total borrowing of Nu.16.5 billion, about Nu.12.9 billion were raised from the domestic market through the issuance of Treasury Bills (MoF 2013). The remaining loans of Nu. 3.5 billion were borrowed from external donors such as ADB, IFAD, JICA, IDA (World Bank) and the Government of Austria (MoF 2013). The borrowings made from domestic market were fully repaid by the end of the fiscal year 2012-2013.

Nevertheless, with substantial increase in grants from Government of India during the fiscal year 2013-2014, both borrowing and repayment declined again to Nu.1.5 billion and Nu.2.5 billion, respectively.

Figure 5: Trend in Borrowings and Repayments



2.7 Economy

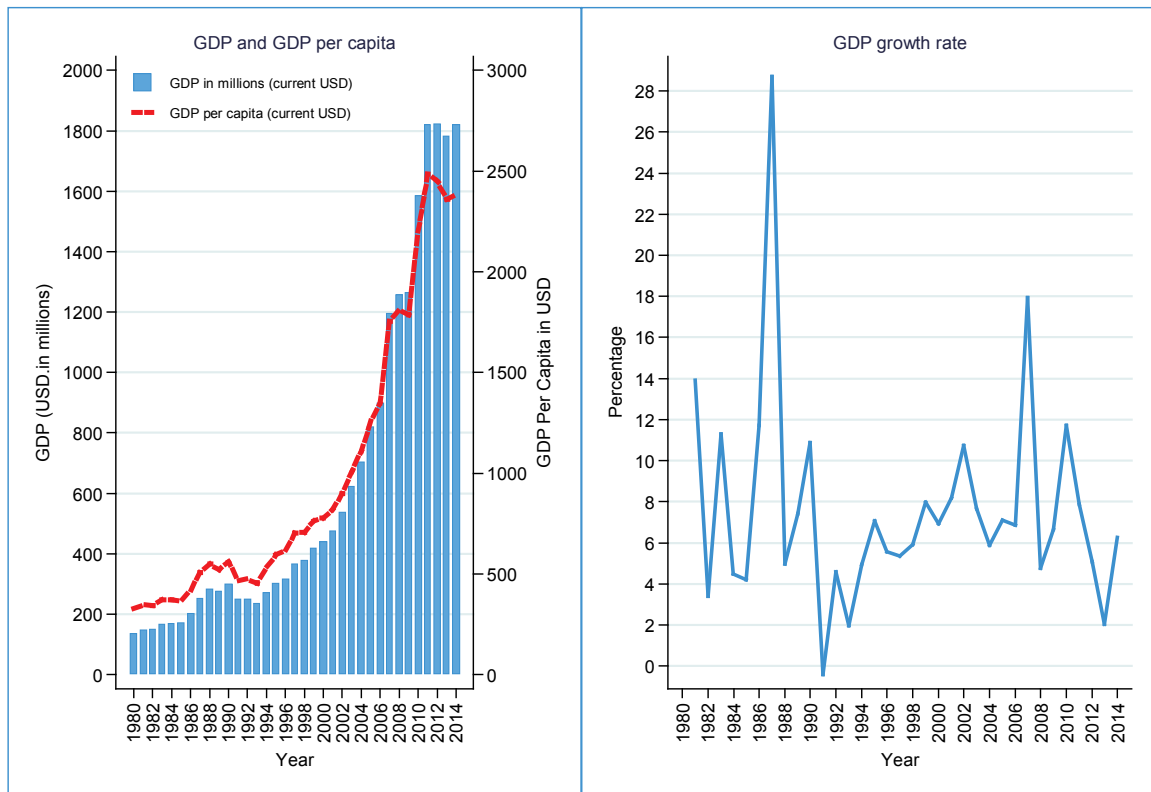
Gross domestic product

The economy, as measured by gross domestic product (GDP), grew significantly since the implementation of the first five-year plan in 1961. The figure 6 below shows the trend in GDP and GDP per capita since 1980.

The GDP grew significantly from a meagre USD 135.65 million in 1980 to USD 1821.41 million in 2014 (World Bank 2015). Bhutan recorded a highest GDP growth rate of 28.69 % in 1987, when first mega hydro power plant, Chhukha hydropower plant with an installed capacity of 336 megawatt was commissioned. Two decades later in 2007, Bhutan recorded another peak in GDP growth rate of 17.92 % fuelled by commissioning of Tala hydropower plant with the installed capacity of 1020 megawatt.

The GDP per capita increased from mere USD 328.80 in 1980 to USD 2380 in 2014 (World Bank 2015). Bhutan ascended to lower middle-income country in 2003 as per the World Bank’s classification.

Figure 6: Trend in GDP and GDP Per Capita Growth of Bhutan



Data Source: World Bank. Charts created by author

2.8 Structure of the economy

The structure of the economy in Bhutan has gone through a major transformation over the course of time. The figure 7 below shows the structure in four discrete years at the interval of ten years starting 1980.

In 1980, agriculture was by far the dominant sector contributing 56 % of GDP, while all other sectors were below 11 % with electricity and water sectors being the lowest (NSB 2014).

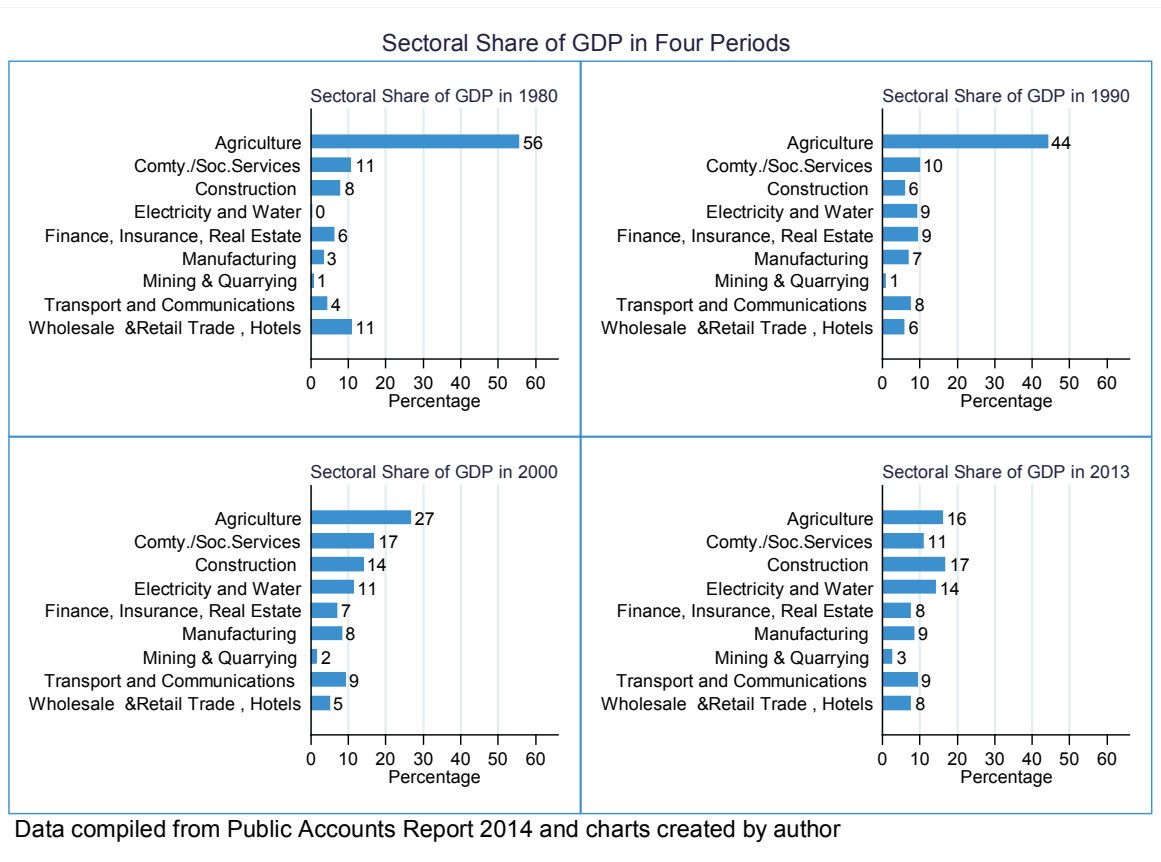
Ten years later in 1990, agriculture continued to be the dominant sector. However, its share decreased to 44 % and the shares of other sectors grew (NSB 2014). The electricity and water sector grew from being the least in 1980 to one of the top sectors in 1990. The mining and quarrying sector continued to remain low at 1 %. The wholesale, retail trade and hotel sector decreased its share to 6 %.

In the wake of millennium, the share of other sectors grew massively. The share of agriculture sector dropped significantly to 27 %, although it continued to be the top sector (NSB 2014). The most remarkable increase was seen in the community and social sector. The construction sector also became one of the leading sectors.

By 2013, the structure of the economy became more evenly spread across the sectors. Construction became the dominant sector, and agriculture dropped to being only second top sector with the share of mere 16 % as compared to 56 % in 1980. Electricity and water sector continued to be one of the leading sectors with 14 %. Mining and quarrying sector remained

to be the lowest with only 3 %. In the course of three decades, manufacturing had gradual increased from 3 % in 1980 to 9 % in 2013.

Figure 7: Sectoral Share of GDP in Percentage



2.9 Balance in Trade

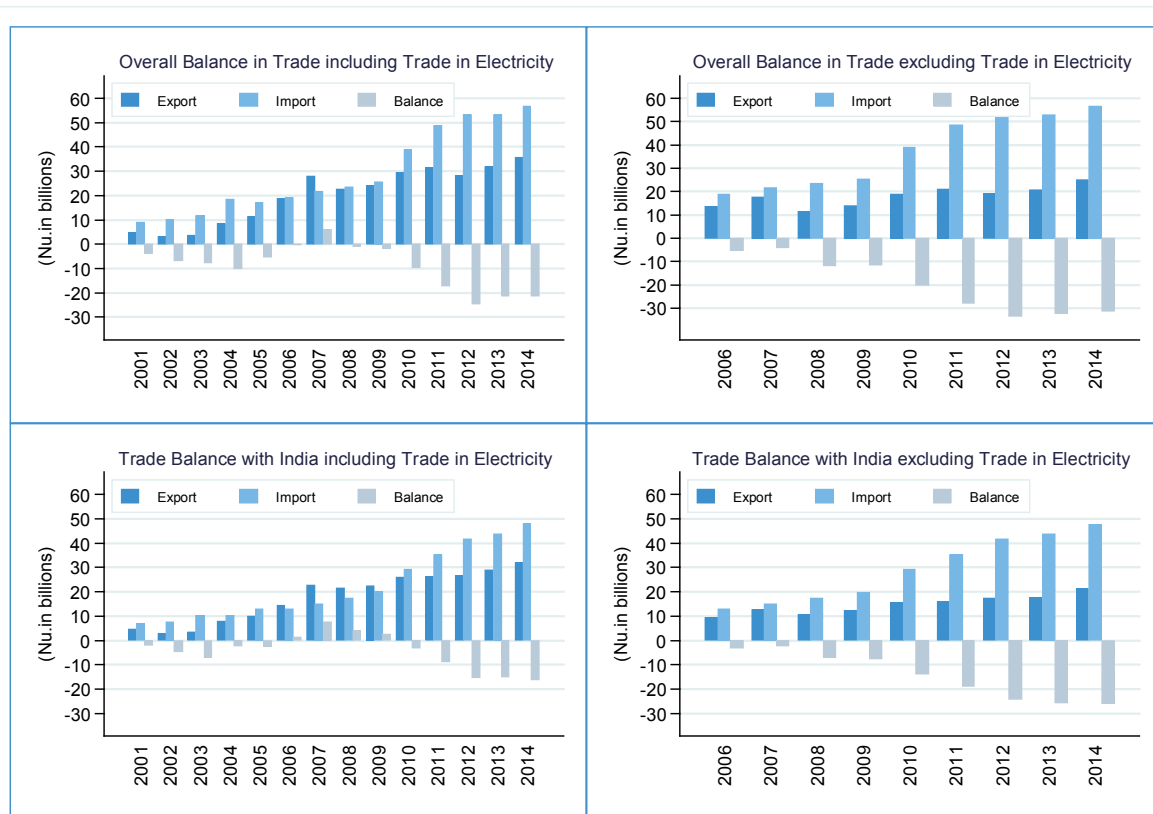
The figure 8 below shows the trend in trade balance in two categories; one being overall balance in trade and other being balance in trade with India. Each category is further segregated into balance in trade including electricity, and balance in trade excluding electricity. Since electricity forms major part of the trading sector, the balance in trade is hugely influenced by the trade in electricity.

The overall trade balances (including electricity) have been negative from 2001 until 2005. In 2007, the trade balance improved when Tala hydropower plant with an installed capacity of 1020 megawatt was commissioned and began exporting electricity to India. However, immediately after one year in 2008, trade balance fell back to negative and the trade deficits kept increasing since then. The scale of trade deficits was even larger when trade in electricity was excluded, which shows that other sectors were importing much more than they exported.

The balance in trade with India (including electricity) has been negative from 2001 until 2005. There was a trade surplus with India for four brief years from 2006 through 2009. However, the balance in trade fell back to negative and kept increasing since then. The balance in trade with India, when electricity was not included, was always negative and kept increasing by the year. This shows that other sectors have been importing much more than they exported to

India, and the import kept increasing by the year. With less potential from other sectors, Bhutan has been rigorously investing in hydropower in recouping the balance in trade with India and outside world.

Figure 8: Trend in Balance of Trade



Data compiled from National Revenue Reports:2001-2014 and charts created by author

2.10 Development and Progress

Finally, this chapter will end by discussing the progress achieved thus far using the global measure of millennium development goals (MDGs) and national measure of Gross National Happiness Index (GNHI).

Millennium Development Goals

The figure 9 below shows the progress of millennium development goals (MDGs) in Bhutan. As can be seen from the figure below, most of the targets were achieved well ahead of 2015.

The standard of living has significantly improved. Income poverty was more than halved from 36.3 % in 2003 to 12 % in 2012 (NSB 2012). The access to improved drinking water increased significantly from 45 % in 1990 to 97.7 % in 2014 (MoH 2014).

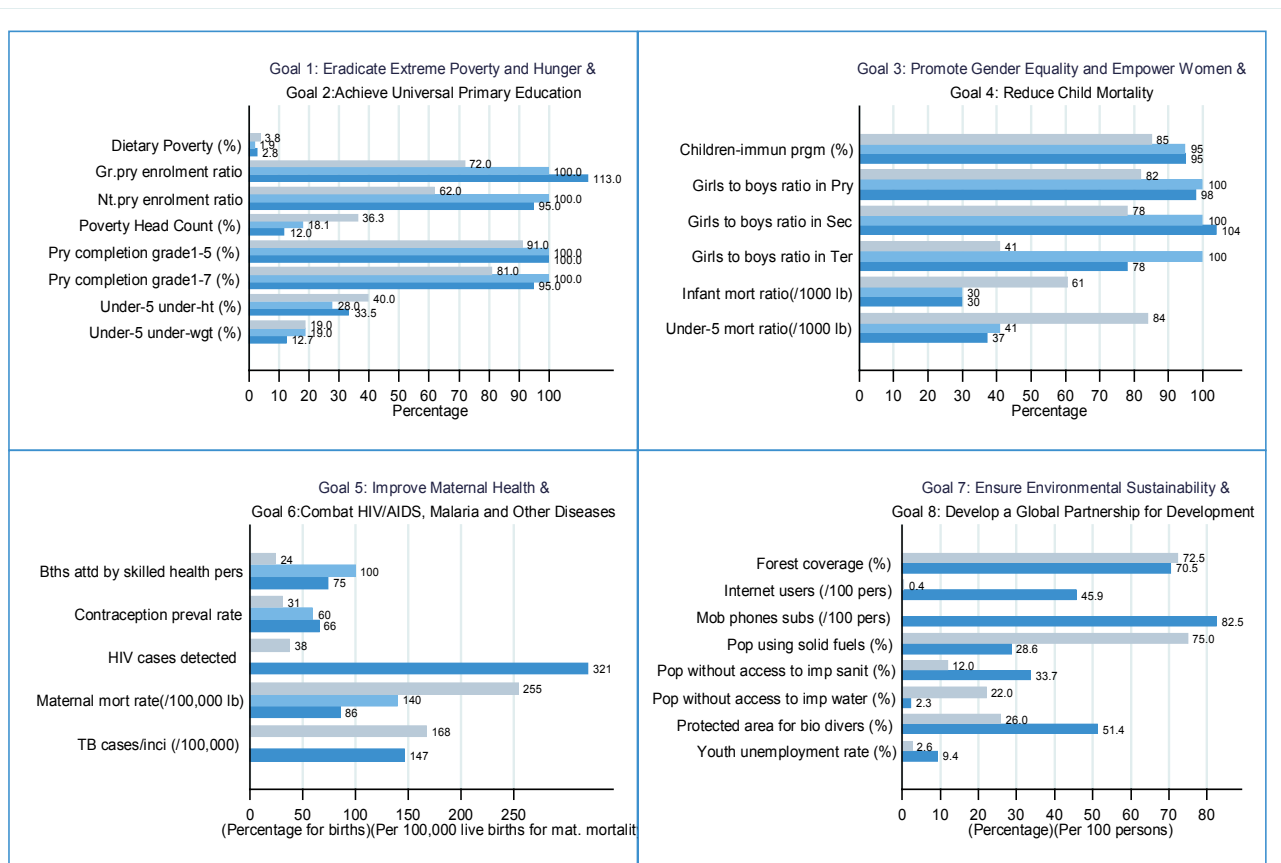
Education sector saw huge achievements. The gross primary enrolment ratio has surpassed the goal of 100 % to 113 % by 2014 (MoE 2014). Gender parity in schools improved significantly. Girls to boys ratio stood at 98 %, 104 % and 78 % in primary, secondary and tertiary education, respectively by the year 2014 (MoE 2014).

In terms of health, child immunization programme covered 95 % and infant mortality was halved to 30 per 1000 live births by 2015 (MoH 2015). The births attended by skilled personnel increased remarkably from mere 15 % in 1990 to 74.6 % by 2014 (MoH 2015). The maternal mortality rate reduced dramatically from 560 per 100,000 live births in 1990 to 86 per 100,000 live births by the year 2014 (MoH 2015). The tuberculosis and malaria incidences were significantly contained by 2014 (MoH 2015).

With regard to environment, Bhutan has championed in achieving this goal. The forest coverage remains to be 70.5 % with 51.4 % of the country protected as national parks and biological corridors. Bhutan remains to be one of the few countries in the world to be carbon-negative.

Nevertheless, one of the few targets that still remain as a challenge is in reducing youth unemployment. The youth unemployment has remained an ever-daunting challenge with ever increasing graduates still seeking jobs. The youth unemployment rate rose from 2.6 % in 2000 to 9.4 % in 2014 (MoLHR 2015).

Figure 9: MDGs Progress



2000 Target 2014

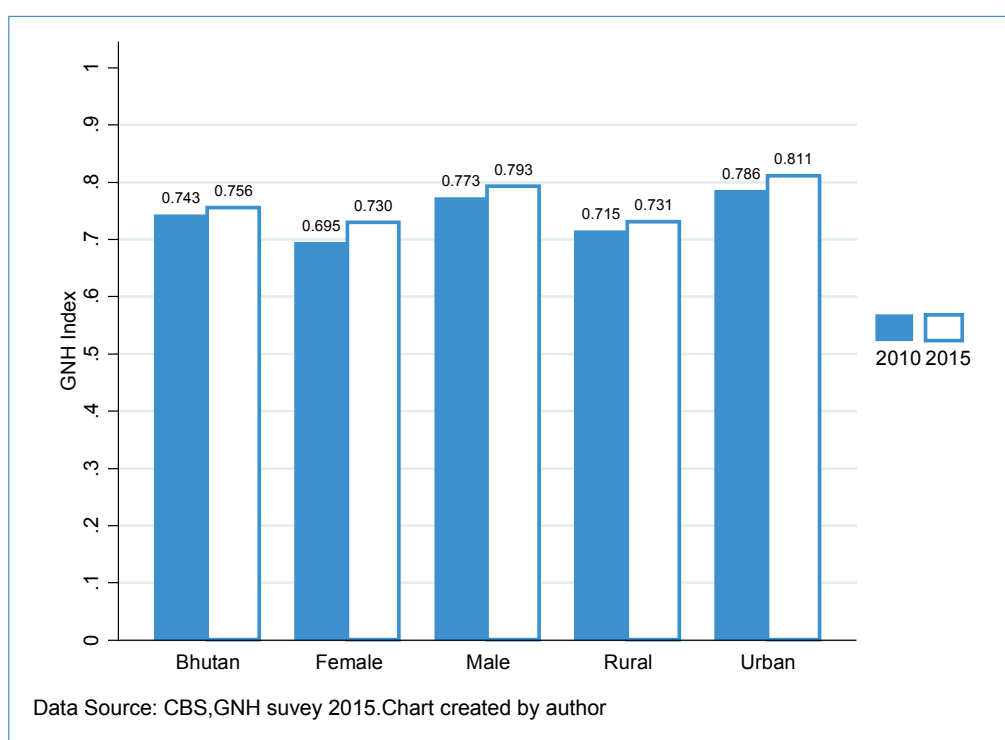
Data compiled from BLSS 2003-2012,NHS-2000-2014,LFS 2014,AICTSB 2014. Charts created by author.

Gross National Happiness Index

As mentioned in the beginning, development in Bhutan is guided by the philosophy of Gross National Happiness (GNH). Hence, Bhutan periodically measures development progress using GNH index and continues to inform policy and development decisions in the country.

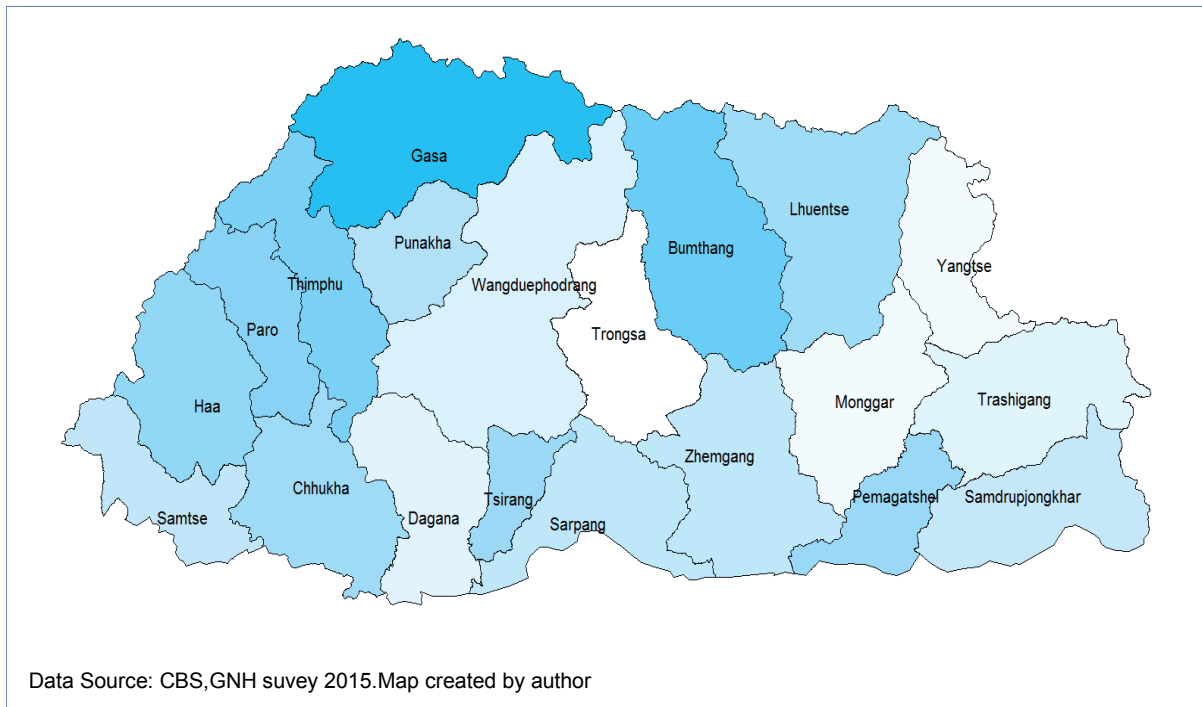
The latest survey on GNH was concluded in 2015. Although the analysis of the survey is extensive and covers wide spectrum of the nine dimensions, only a summary of GNH indices is presented in figure 10 below for simplicity. The GNH index for the country as a whole has increased from 0.743 in 2010 to 0.756 in 2015 (CBS 2015). The study has found that while GNH indices for both men and women have improved, men were happier than women. Similarly, while GNH indices for people living in both rural and urban areas have improved, people living in urban areas were happier than those living in rural areas.

Figure 10: GNH Indices by Gender, Area and Year



The map 1 below shows the comparison of happiness indices across all 20 Dzongkhags from the findings of GNH Survey 2015. Gasa was found to be the happiest Dzongkhag, while Trongsa was found to be the least happy Dzongkhag. Other least happy Dzongkhags were Trashi Yangtse, Monggar and Dagana. Nevertheless, GNH Indices of these Dzongkhags were above 0.700, which are actually high scores.

Map 1: Gross National Happiness Index in 2015 by Dzongkhag



3. Bhutan’s Development Partners since 1961

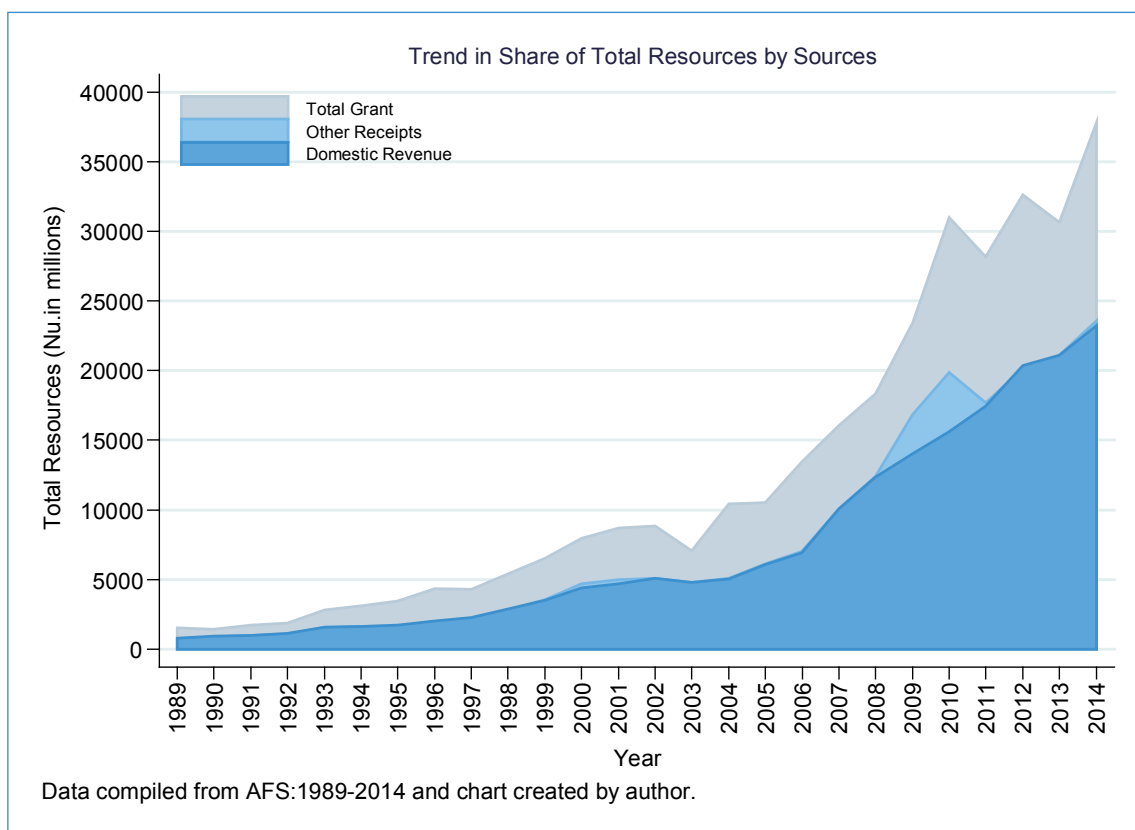
Having discussed the development policy and the achievements of Bhutan in the earlier chapter, it is important to understand the history of development partners in Bhutan and their contributions to Bhutan’s development progress.

3.1 The advent of development partners

As mentioned in the earlier chapter, Bhutan’s first two five-year plans from 1961-1971 were prepared and financed by India. Bhutan’s accession to Colombo Plan in 1962 and the United Nations in 1971 have opened doors to other multi-lateral and bilateral development assistances. Bhutan is now a member of numerous major international and regional organizations, and has established bilateral relations with countries far and wide.

The figure 11 below shows the trend in mobilization of external grants and domestic revenue from 1989 to 2014 for development financing. During the fiscal year 1988-1989, the share of domestic revenue was 50.4 % and the share of external grant was 49.6 %. Over the course of time, the share of domestic revenue increased, though the share of external grants remained large. During the fiscal year 2013-2014, the share of domestic revenue was 62 % and the share of external grant was 38 %.

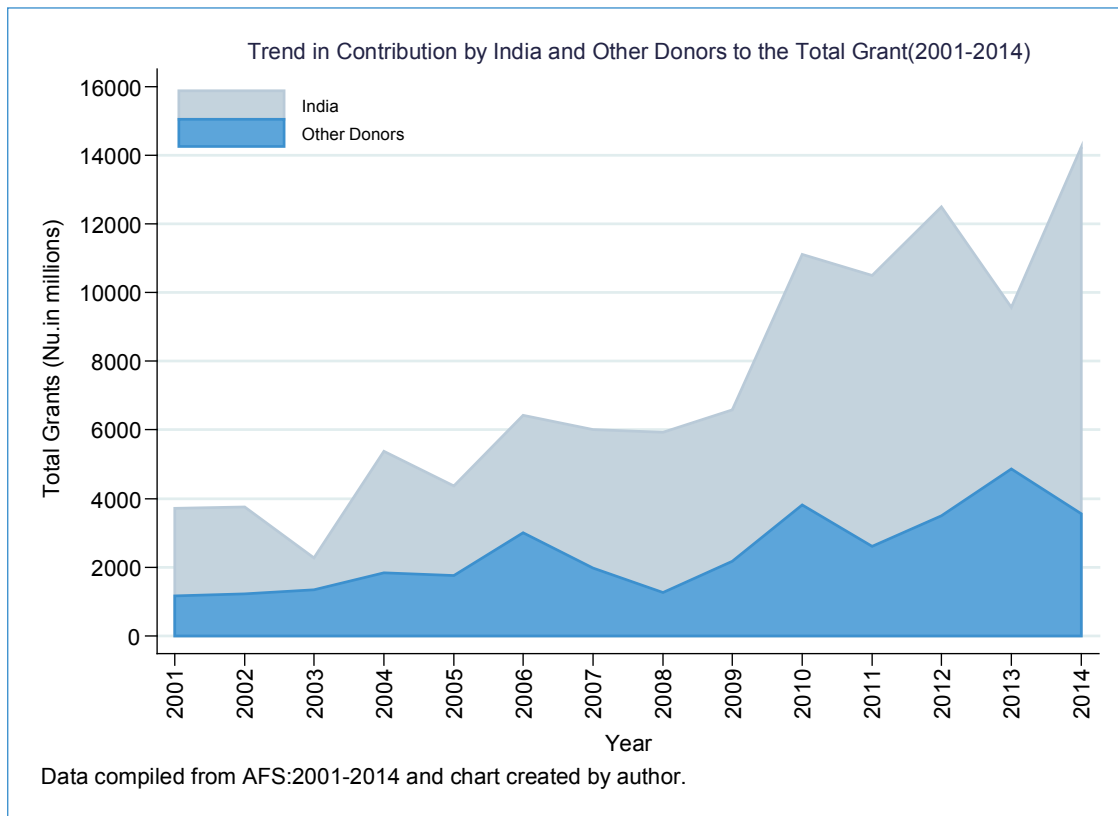
Figure 11: Trend in Share of Total Resources by Sources



The figure 12 below shows the trend in contribution by India and other donors to the total grant from 2001 to 2014. The other donors include all multilateral and bilateral donors other than India. As can be seen from the figure, the contributions by India have been larger than all donors combined all along the five-year development plans.

While the grants from other donors kept steady with little increments during the 2000s, the grants from India have increased largely every year. However, with many large development partners phasing out from Bhutan, the grants from other donors combined declined from Nu.4.8 billion in 2012-2013 to Nu.3.5 billion during the fiscal year 2013-2014. Nevertheless, the grant from India increased from 4.6 billion in 2012-2013 to Nu.10.6 billion during the fiscal year 2013-2014.

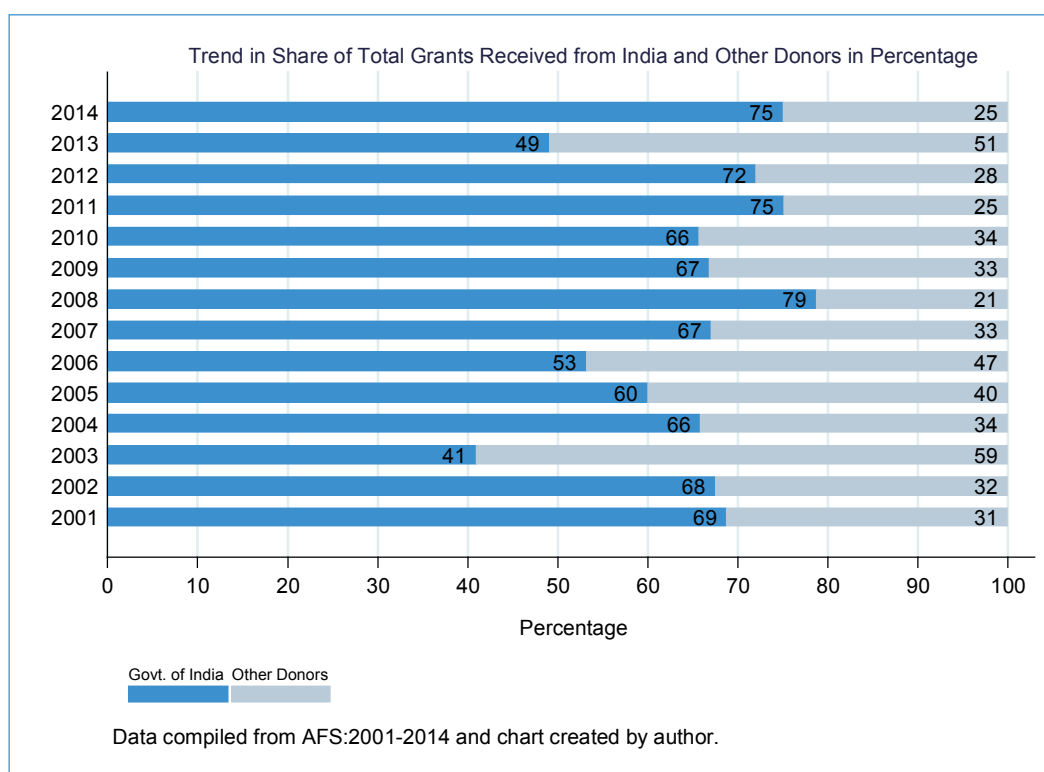
Figure 12: Trend in Contribution by India and Other Donors to Total Grant



The figure 13 below shows the contribution by India and all other donors combined to the total grants in percentage. During the fiscal year 2000-2001, the contribution by India to the total grant was 69 % as against 31 % by the other donors combined. Although the share of India was always high, its share slumped during the fiscal years 2002-2003 and 2012-2013 to 41 and 49 % respectively.

Nevertheless, India increased the grant in 2013-2014 massively and its contribution to the total grant peaked to 75 %.

Figure 13: Trend in Share of Total Grants received from India and Other Donors in Percentage



3.2 The largest development partners

In the following section, we will identify and analyse the largest development partners to Bhutan. Since each development partner has its own development cooperation policy, the disbursement of development assistances varied. While some donors provided assistances in the form of grant-in cash, some disbursed grant in kind. Similarly, some provided development assistances through mixed mode of grant and loan. The following figures show the top ten donors in 3 different categories of grant as accounted for with the National Public Accounts. It is important to note that the following figures are based on the accounts maintained by National Public Accounts based on actual disbursement to the national treasury, which excludes expenditure incurred by development partners in their respective countries.

Top ten donors (total grant)

The figure 14 below shows the top ten donors of total grant including both cash and kind in four periods for the year 2003, 2007, 2010 and 2014. In all four periods, India was by far the largest donor. In 2003, Denmark, Switzerland, Sustainable Development Agreement (SDA) and Japan were the top donors next to India. Four years later in 2007, International Development Association (IDA), Denmark, World Bank and SDA were among the top ten donors next to India. However, Japan dropped out of top ten during the year.

By 2010, Asian Development Bank (ADB), IDA, Denmark and Austria were among the top ten donors next to India. During that year Kuwait and Global Environment Facility (GEF) were also among the top ten donors. Four years later in 2014, ADB, Denmark and Switzerland were among the top ten donors. India, Denmark, Austria, Switzerland and UN agencies were consistently among the top ten donors to Bhutan.

Figure 14: Top Ten Donors (Total Grant) of Bhutan in Four Discrete Years

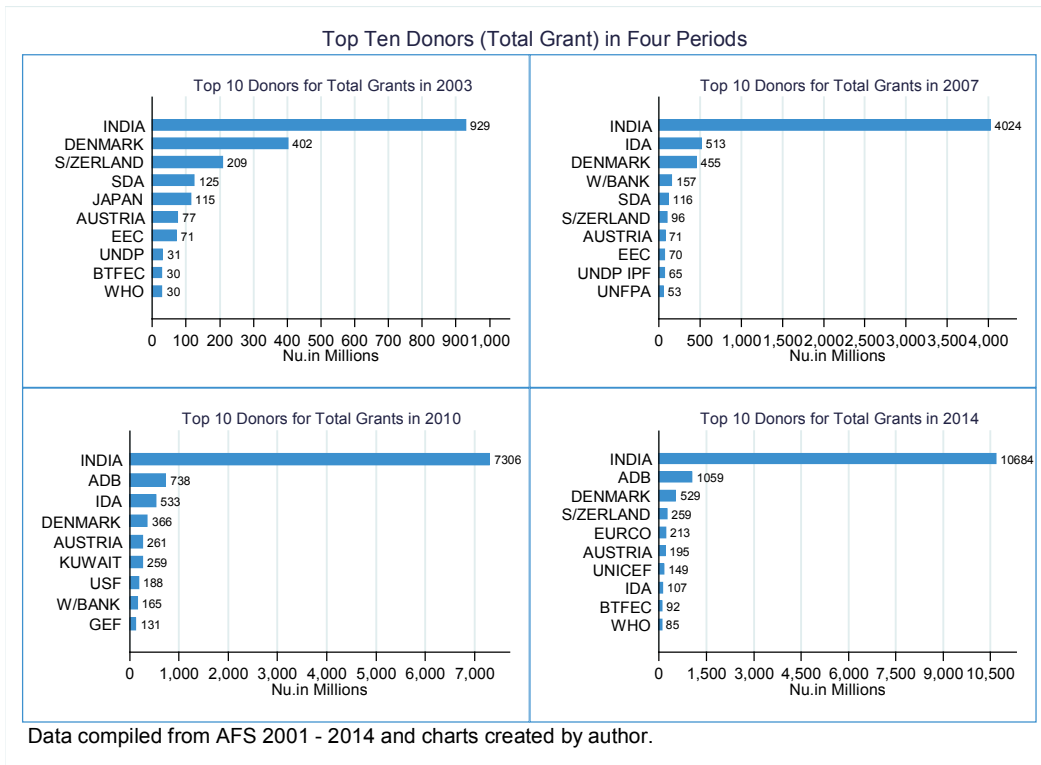
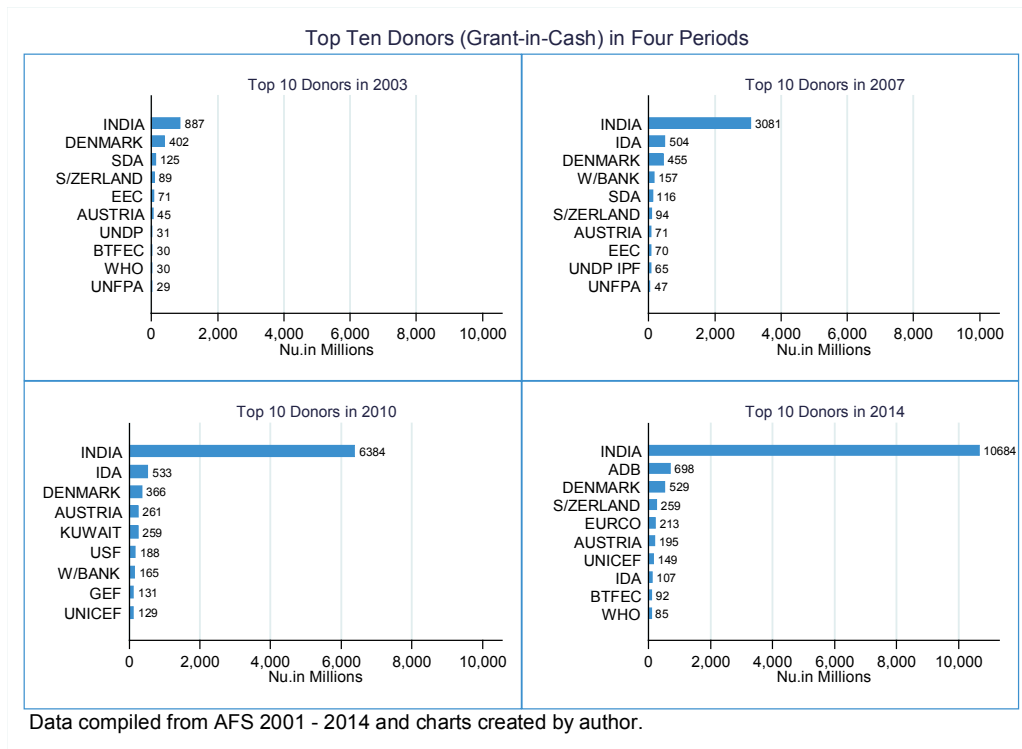


Figure 15: Top Ten Donors (Grant-in-Cash) in Four Discrete Years



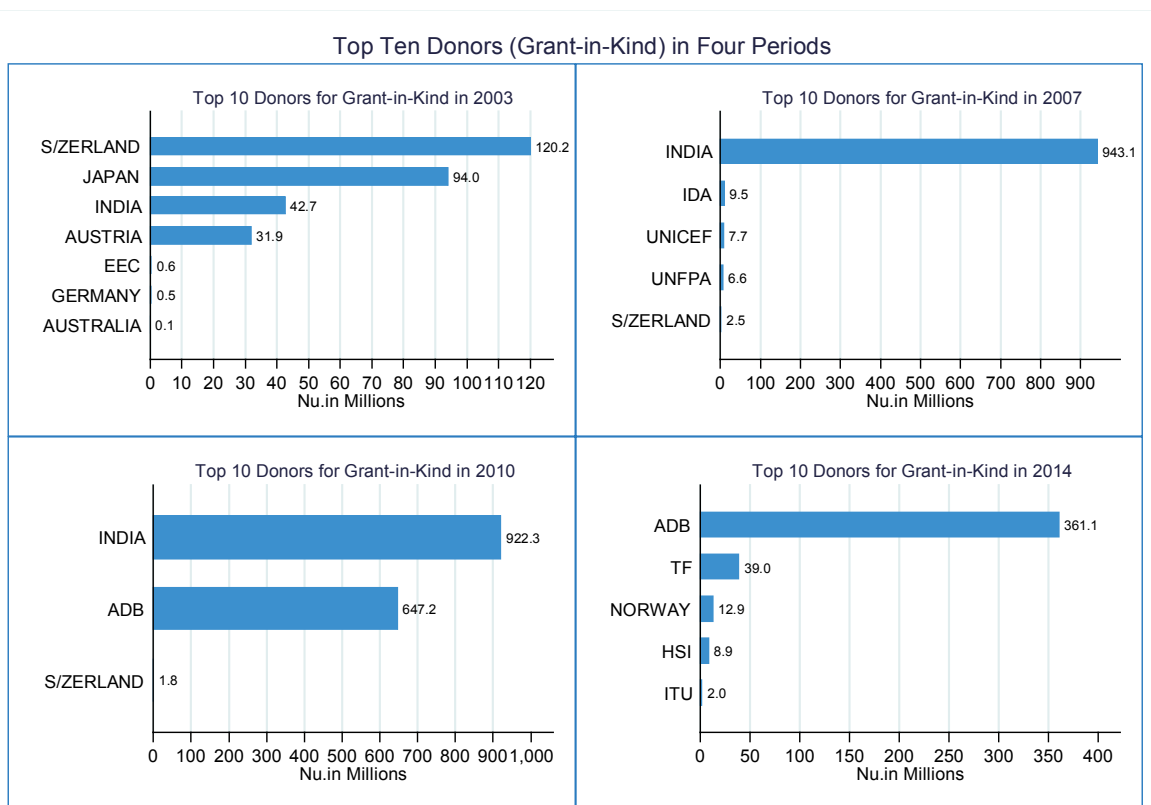
Top donors (grant-in-kind)

The figure 16 below shows the donors of grant-in-kind in four periods. The grant-in-kind includes technical assistance and goods. As can be seen from the figure 16 below, not many donors provided grant-in-kind as compared to grant-in-cash. During the year 2003, Switzerland, Japan, India, Austria, European Economic Commission (EEC), Germany and Australia provided grant-in-kind in addition to grant-in-cash.

However, during the year 2010, only three donors, namely, India, Asian Development Bank (ADB) and Switzerland provided grant-in-kind in addition to grant-in-kind. Both India and ADB provided huge grant-in-kind worth Nu.922.3 million and 647.2 million respectively.

In 2014, five donors, namely, ADB, Tarayana Foundation (TF), Norway, Human Society International (HSI) and International Tele Union (ITU) provided grant-in-kind in addition to grant-in-cash. ADB continued to provide huge grant-in-kind worth Nu.361.1 million.

Figure 16: Top Ten Donors (Grant-in-Kind) in Four Discrete Years



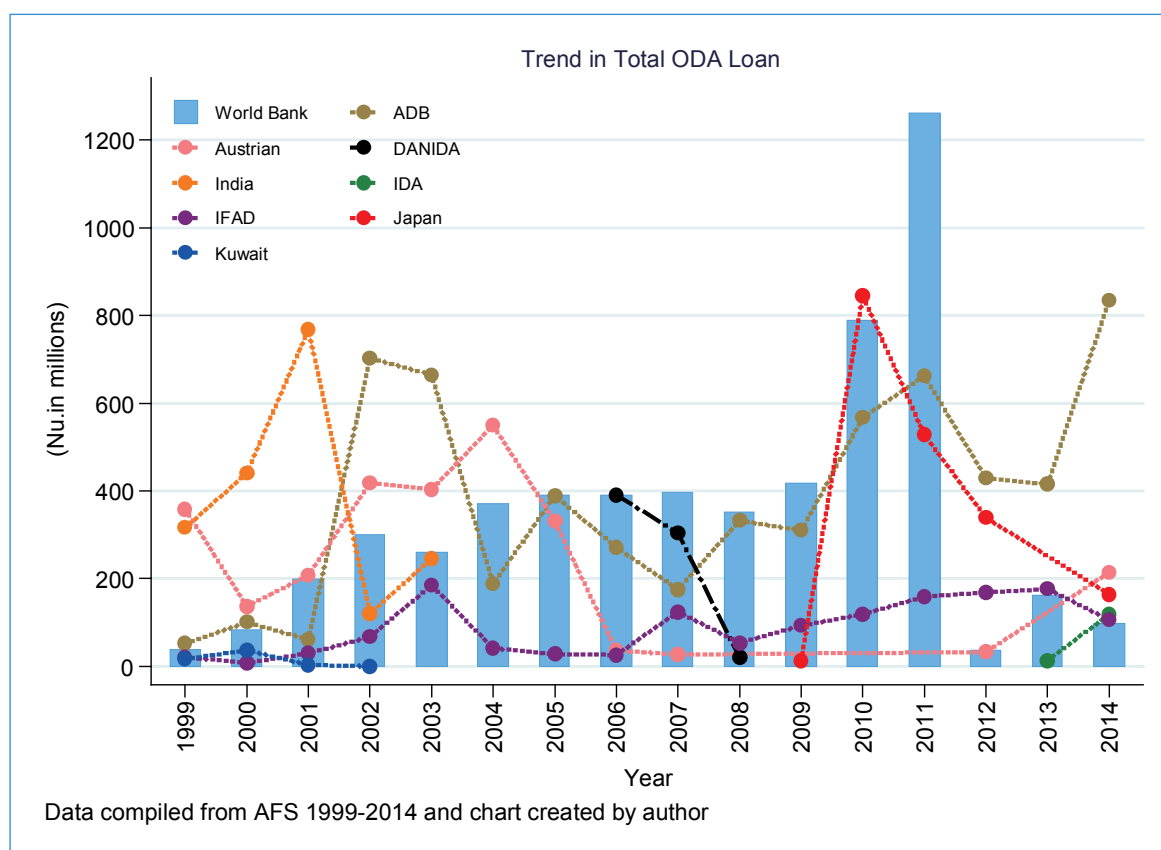
Data compiled from AFS 2001 - 2014 and charts created by author.

3.3 Trend in ODA Loans

The figure 17 below shows the trend in ODA loans received from development partners since 1999 as accounted for with the National Public Accounts. However, it is important to note that ODA loans from India and ADB in financing hydro-power projects are not included in the borrowings. During the fiscal year 1998-1999, Bhutan received largest ODA loan from Austria followed by India. Over the course of period, ADB and World Bank became the largest sources of ODA loan to Bhutan. World Bank's ODA loan peaked in 2011 with Nu.1261.56 million.

As can be seen from the figure 17, Bhutan received first ODA loan from Japan in 2009 and peaked in 2010 as the largest ODA loan donor with Nu.845 million. However, the ODA loan from Japan began to fall steeply after 2010. The ODA loan from Japan was received to finance two-phases of rural electrification programme which is due to end by 2017 (MoFA 2015).

Figure 17: Trend in ODA Loan to Bhutan by Donors



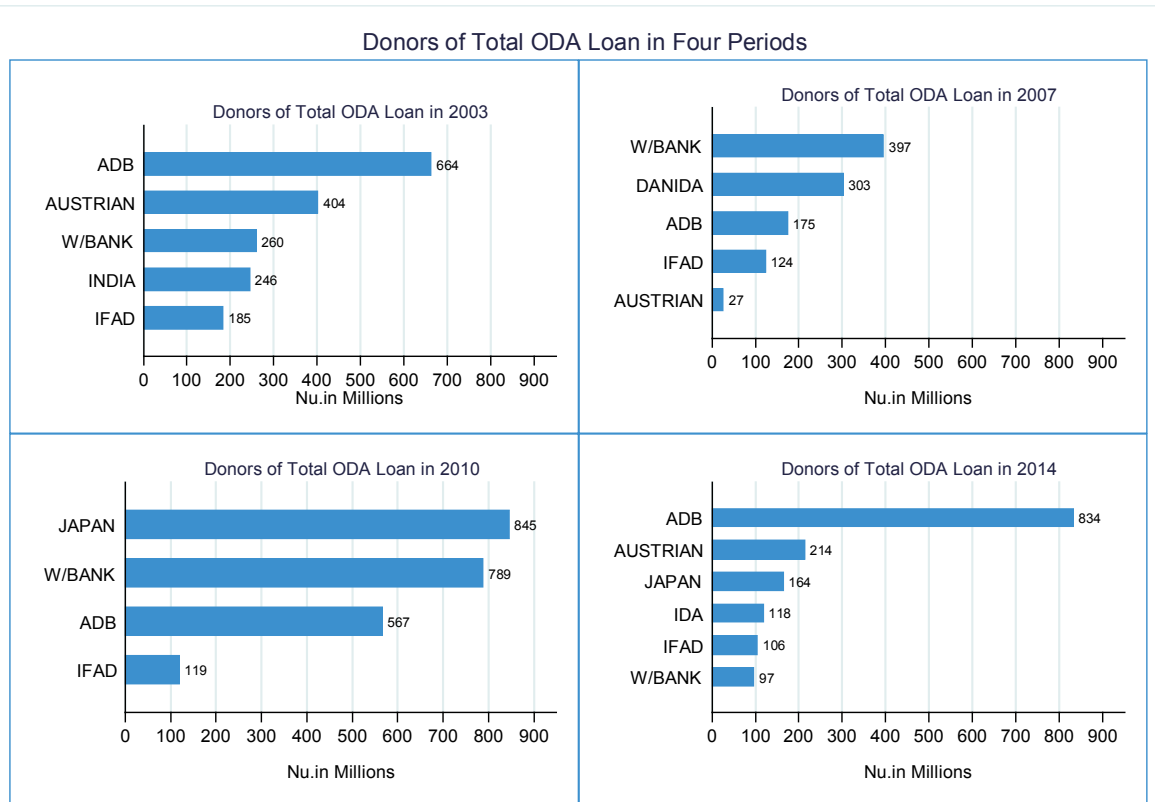
Top donors of total ODA loan

The figure 18 below shows the donors of ODA loan in the order of size in four periods. During the fiscal year 2002-2003, ADB was the largest source of ODA loan to Bhutan followed by Austria, World Bank, India and International Fund for Agriculture Development (IFAD). Three years later in 2007, World Bank became the largest source of ODA loan. For the first time, DANIDA too provided ODA loan for a brief period of three years from 2006 to 2008 to fund telecommunication infrastructure development.

In 2010, Japan became the largest source of ODA loan but declined significantly in the following years. The ODA loan was solely provided to finance two phases of rural electrification in Bhutan which started in 2007 and due to end by 2017.

In 2014, ADB provided by far the largest ODA loan to Bhutan. Austria, Japan, IDA, IFAD and World Bank continued to provide ODA loan during that year.

Figure 18: Top Donors (ODA Loan) in Four Discrete Years



Data compiled from AFS 1999-2014 and charts created by author.

4. Japan's Development Cooperation Policy

Having discussed on Bhutan's development policy and its development partners, this chapter will briefly discuss Japan's development cooperation policy and highlight its evolution, scale and distribution around the world.

4.1 Brief History of Japan's Development Cooperation

The history of Japan's ODA started in 1954, when Japan became the member of Colombo Plan and immediately started to provide technical assistance to the poorer countries in Asia and the Pacific (MFA 2004). During the same year, it also marked the beginning of Japan's financial aid when Japan began settling war reparations to Myanmar, following which several war reparation treaties were signed with other countries (MFA 2004). Japan signed war reparation treaties with the Philippines in 1956, Indonesia in 1958 and South Vietnam in 1959. Similarly, during the same period, the 'quasi-reparations' in the form of grant aid were provided to Thailand, Malaysia, Singapore, Korea and Micronesia (MFA 2004). The war reparations came to an end when Japan made last reparations to the Philippines in 1976 (MFA 2004).

Japan became member of the United Nations in 1956, which marked yet another milestone of Japan's development cooperation provided through UN and other various multilateral agencies.

The first ever Yen loan with concessional conditions was provided to India in 1958 for economic cooperation, independent of war reparation (MFA 2004). Hence, it marked the beginning of Yen loan. In 1961, Japan established Overseas Economic Cooperation Fund (OECF) to coordinate and implement Yen loans. One year later in 1962, the Overseas Technical Cooperation Agency (OTCA), the predecessor to the Japan International Cooperation Agency (JICA), was established to coordinate the technical assistance. Japan Overseas Cooperation Volunteers (JOCV) programme started in 1965. Later in 1974, JICA was established to take over the role of OTCA as an independent administrative institution.

Japan joined Organizations for Economic Cooperation and Development (OECD) in 1964, which further boosted Japan's position as the donor in the international community and went on to become one of the leading donors. In an effort to diversify ODA, Japan started providing food aid in 1968 and general grant aid from 1969.

Following series of ODA medium-term targets, Japan eventually came up with first ODA Charter in 1992 spelling out its philosophies, policies and priorities. Gathering experiences from the implementation of ODA Charter 1992 and with changing environment, Japan revised Japan's ODA charter in 2003. It was further revised recently by the Cabinet in 2015.

4.2 Japan's Development Cooperation Framework

The Japan's development cooperation functions under the purview of Japan's ODA Charter, which describes its scope, philosophies, policies and priorities. Broadly, Japan's development cooperation is mainly guided by the ODA Charter as the apex policy document. The medium-term ODA policies translate the long-term objectives of ODA Charter through medium term objectives. The country assistance policies and country rolling plans guide the disbursement of bilateral ODA to those respective countries. The sectoral policies guide the multilateral ODA disbursements for global cross-cutting issues implemented through multilateral agencies.

Table 2: Japan's ODA Charter: Change in Policies and Priorities

Key Features	ODA Charter 1992	ODA Charter 2003	ODA Charter 2015
1. Philosophy	1. Global peace and prosperity	1. Global peace, prosperity and security	1. Global peace, prosperity and security
2. Policy	<ol style="list-style-type: none"> 1. Support for self-help 2. Assurance of fairness 3. Promote good governance in developing countries 	<ol style="list-style-type: none"> 1. Support for self-help 2. Human security 3. Assurance of fairness 4. Use of Japan's experience and expertise 5. Partnership and collaboration with the international community 	<ol style="list-style-type: none"> 1. Contributing to peace and prosperity 2. Promoting human security 3. Self-reliance of developing countries
3. Principles	<ol style="list-style-type: none"> 1. Development with Environmental conservation 2. No use of ODA for military purposes 3. Monitor military expenditure of recipient countries 4. Monitor efforts of recipient countries in promoting democratic governance and market economies, violation of human rights and freedoms. 	<ol style="list-style-type: none"> 1. Development with Environmental conservation 2. No use of ODA for military purposes 3. Close attention to military expenditure of recipient countries 4. Close attention to recipient countries in promoting democratic governance and market economies, violation of human rights and freedoms. 	<ol style="list-style-type: none"> 1. A more strategic approach- to work as one 2. Utilizing Japan's strengths and comparative advantages 3. Proactive contribution to international discussions 4. Close attention to democratic governance, rule of law, and human rights 5. No use of ODA for military purposes 6. Attention to military expenditure by the recipient countries 7. Development taking account of its impact on the environment and climate change 8. Promote social equity and inclusion

			<ul style="list-style-type: none"> 9. Promote women's participation 10. Prevent fraud and corruption
4. Priority Sector and Issues	<ul style="list-style-type: none"> 1. Global issues-environment and population 2. Basic human needs 3. Human resources development 4. Infrastructure improvement 5. Structural adjustment 	<ul style="list-style-type: none"> 1. Poverty reduction 2. Sustainable growth-trade and investment, ICT, research 3. Global issues-environment, diseases, terrorism, population, natural disaster and energy 4. Peace-building 	<ul style="list-style-type: none"> 1. Quality growth and poverty reduction 2. Sharing universal values and realizing a peaceful and secure society 3. Global issues-environment, climate change, water, natural disasters, diseases, food and energy
5. Priority Region	<ul style="list-style-type: none"> 1. Asia to be major priority 2. East-Asia especially ASEAN for economic cooperation 3. Other poor countries in Asia 4. LLDCs in Africa, the Middle East, Latin America, Eastern Europe, and Oceania 	<ul style="list-style-type: none"> 1. Asia to be major priority 2. East-Asia especially ASEAN for economic cooperation 3. Other poor countries in South Asia, Central Asia and Caucasus region 4. LDCs in Africa, the Middle East, Latin America, and Oceania 	<ul style="list-style-type: none"> 1. Asia to be major priority 2. ASEAN- economic infrastructure 3. South Asia-socio-economic infrastructure and transport 4. Africa-TICAD 5. The Middle East-peace building and human resources development 6. Central and Eastern Europe-integration of Europe 7. Latin America-trade and investment 8. Oceania- individual development needs

Source: MFA, Japan 1992/2003/2015

4.3 Medium-term ODA Policies

Within the framework of ODA Charters, the medium-term ODA policies are formulated to spell out more detailed positions and specific actions to be taken on each of the priorities laid down in the ODA Charter to make them more relevant in the medium-term context. As of now, two medium-term ODA policies were formulated in 1999 and 2005 to implement ODA Charters of 1992 and 2003 respectively.

4.4 Country Assistance Policies

The country assistance policy document lays down Japan's country-specific aid policies in coherence to the policy and priorities of ODA Charters and medium-term ODA policies, while keeping it relevant to the recipient country. In principle, country assistance policies are

to be formulated for all the recipient countries. This has enabled Japan's ODA to be more predictable to the recipient countries.

As an annex to the document, the annual country rolling plans are prepared, which lists down the projects in consonance to the priority areas and development issues as in the country assistance policy.

4.5 Sectoral development policy

The commitment to address global cross-cutting issues as reflected in the ODA Charter are implemented through the sectoral development policies, which are formulated for each of the major issues. The sectoral policies outline the priorities and specific actions to be taken in line with international norms and commitments. The sectoral development policies are implemented through both bilateral and multilateral ODA.

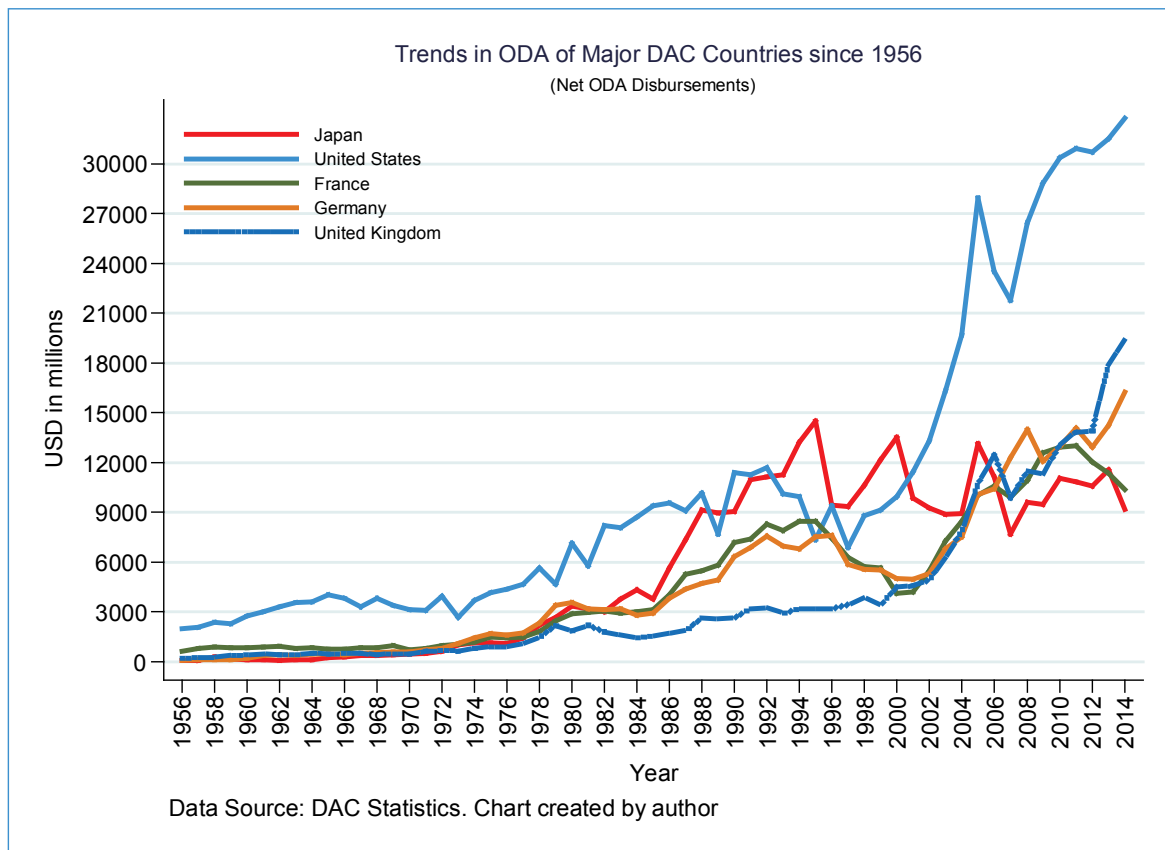
Some of the examples of sectoral development policies are: Gender and Development Initiative (2005); Basic Education for Growth Initiative (2002); Educational Assistance to Low-Income Countries (2002); Health and Development Initiative (2005); Water and Sanitation Broad Partnership Initiative (2006); The Kyoto Initiative (1997); Environmental Conservation Initiative for Sustainable Development (2002); Partnership for Democratic Development (1996); Development Initiative for Trade (2005), and Initiative for Disaster Reduction through ODA (2005).

4.6 Trend in Disbursement of ODA by OECD-DAC

The figure 19 below shows the trend in disbursement of ODA by major DAC countries from 1956 until 2014. Since 1956 until 1992, except for the year 1989, the United States of America (US) was the largest donor country for a long period of nearly four decades. By 1983, Japan became the second largest donor country. Other top donors were France, Germany and United Kingdom.

The Japan's ODA kept increasing until Japan became the largest donor country in 1993 and remained as the top donor until 2000. As Japan's net ODA fell from 2001, the United States increased its ODA by significant amount and became by far the largest donor country since then. In the meantime, other top donors kept increasing their ODA and Japan's net ODA kept falling. By the year 2014, United Kingdom became the second largest donor followed by Germany and France. Japan dropped to fifth place. Meanwhile, the United States remained to be, by large margin, the largest donor country in the world.

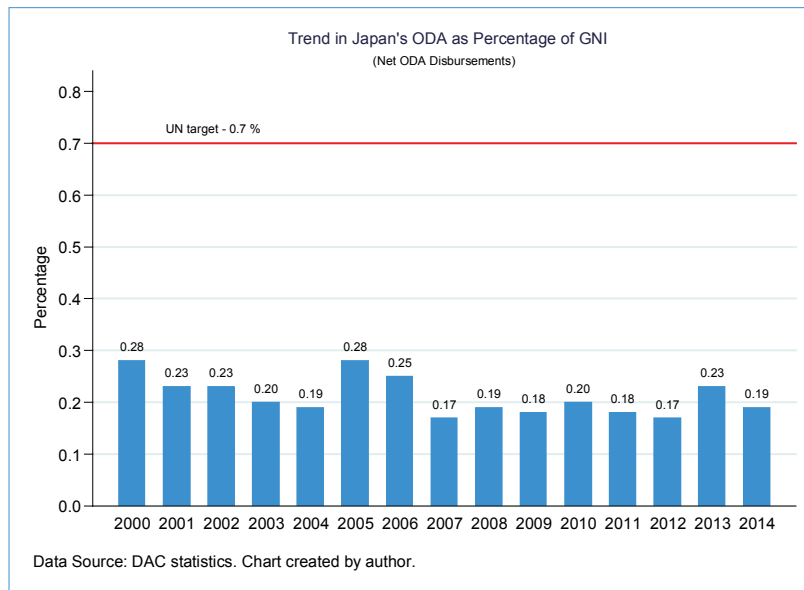
Figure 19: Trend in Net ODA Disbursements of Major DAC Countries



4.7 Japan's Net ODA as percentage of GNI

The figure 20 below shows the trend in Japan's net ODA as the percentage of GNI from 2000 to 2014. During the period, the highest net ODA as the percentage of GNI was 0.28 in 2000 and 2005. The international commitment by the OECD-DAC to the UN millennium summit held in 2000 was to provide 0.7 % of GNI. Although Japan was among the largest donors during the period, its ODA as percentage of GNI always remained much below the UN target of 0.7 % at 0.28 % and below. In the recent year of 2014, Japan's ODA as percent of GNI was 0.19 %.

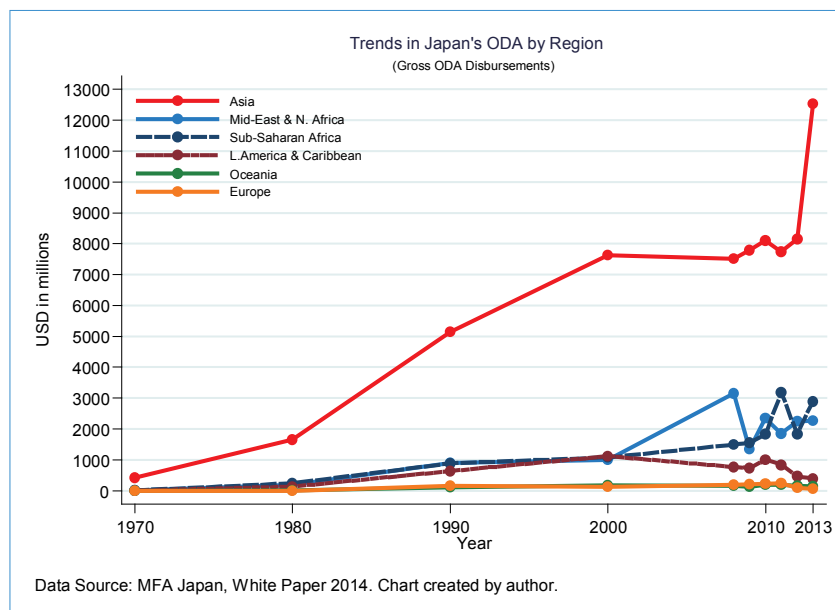
Figure 20: Trend in Japan's ODA as Percentage of GNI



4.8 Japan's Bilateral ODA by Region

The figure 21 below shows the distribution trend in Japan's ODA by region from 1970. In 1970, Asia was the largest recipient of Japan's ODA of USD 419.37 million accounting to 94.4 % of the total ODA disbursed. Over the years through 1990 and 2000, Japan's ODA increased by many folds, although a huge proportions of ODA were still disbursed to Asia. In 2013, Asia continued to receive the highest share of Japan's ODA of USD 12,526.3 million accounting for 63.9 % of the total ODA disbursed. The Sub-Saharan Africa received the second highest accounting for 14.8 % in 2013. The Oceania and Europe received the lowest share of Japan's ODA of USD 141.48 million and USD 64 million respectively in 2013.

Figure 21: Trend in Japan's Gross ODA by Region



4.9 Comparison of ODA Disbursement by Sector between US, Japan and DAC

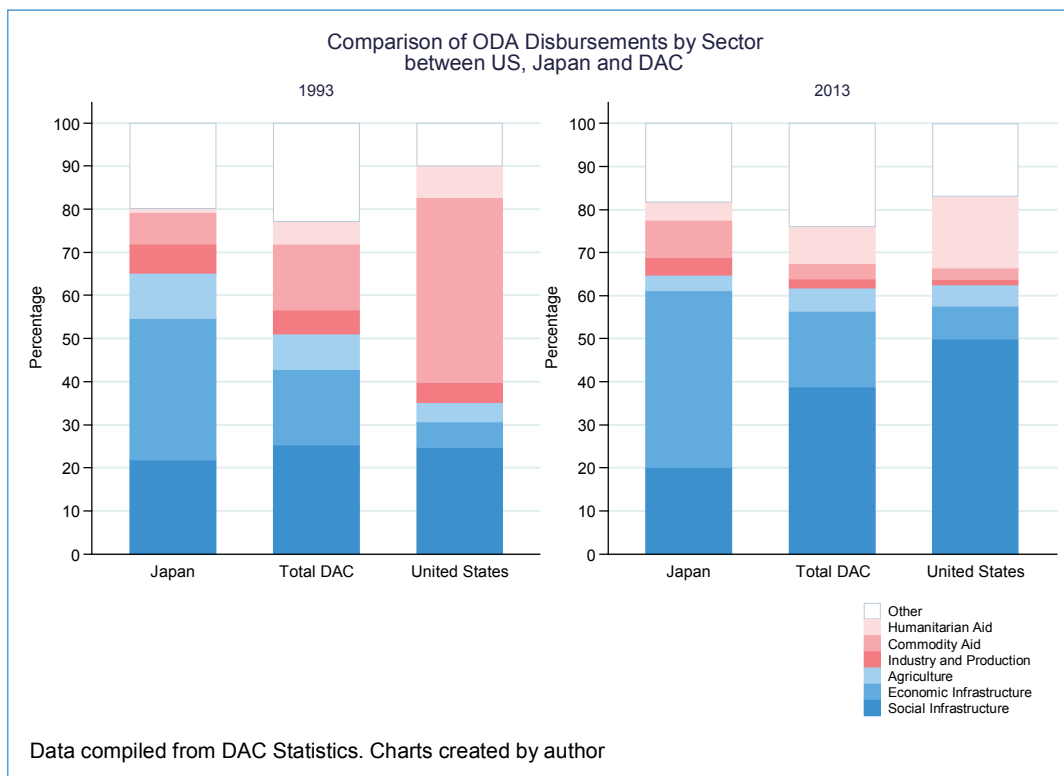
The figure 22 below compares the sectoral distribution of ODA by Japan, US and DAC on average in 1993 and 2013.

In 1993, Japan’s highest share of ODA was on economic and social infrastructure, while the United States’ highest share of ODA was on commodity aid and social infrastructure. The highest share of ODA by DAC on average was on social infrastructure.

Twenty years later in 2013, the sectoral distribution pattern did not change much for Japan. A large share of Japan’s ODA continued to go to economic infrastructure, while agriculture and humanitarian sectors received lesser share. In contrast, the United States decreased its ODA disbursement to commodity aid and increased its disbursement to social infrastructure and humanitarian aid. In the meantime, DAC on average disbursed its ODA largely to social infrastructure and decreased its disbursement to commodity aid.

This pattern is a clear manifestation of the difference between other industrialized nations, and Japan in the approaches to supporting developing nations. While other industrialized nations provided direct assistance in eradicating poverty and in building social infrastructures, Japan provided assistances to developing nations in building economic infrastructures with the view to sustain economic growth for self-help (IDRC 1999).

Figure 22: ODA Disbursement by Sector between Japan, Total DAC and US

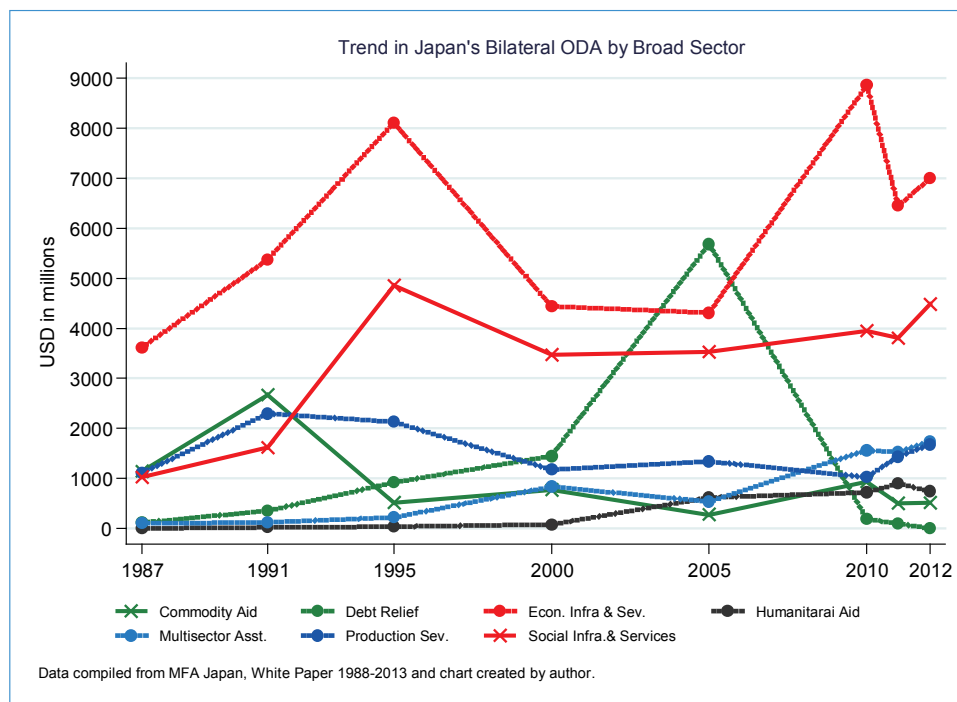


4.10 Japan's Bilateral ODA to Broad Sectors

The figure 23 below shows the trend in distribution of Japan's bilateral ODA to broad sectors from 1987 to 2012.

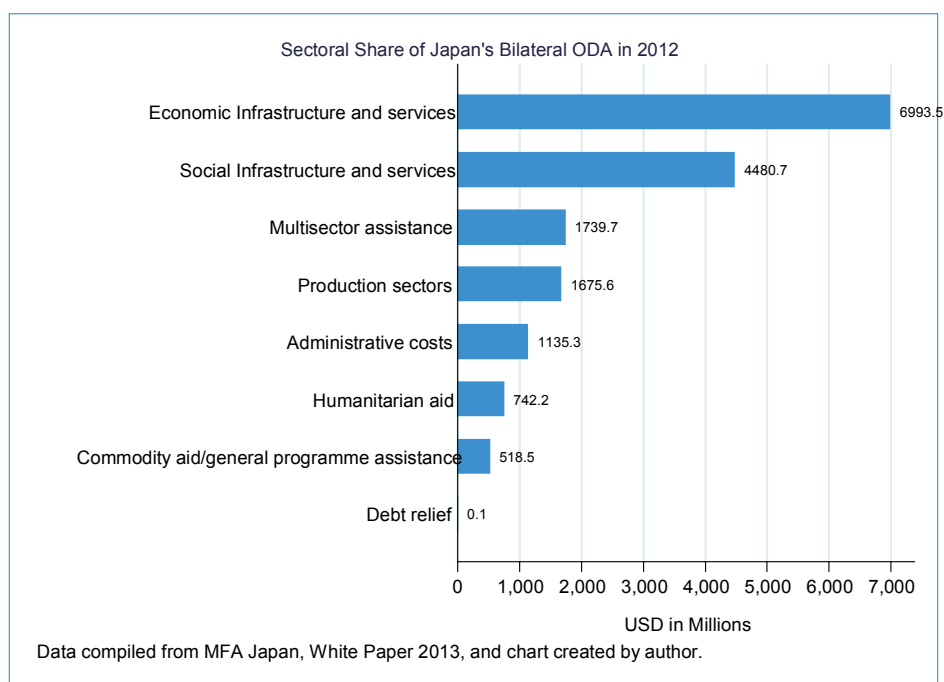
In 1987, Japan distributed its largest share of bilateral ODA to economic infrastructure and services, while its distribution to social infrastructure and services, and production services were moderate, and the distribution to humanitarian sector and multi-sector assistance was the lowest. The trend continued throughout the period, though the debt relief increased and peaked in 2000s and dropped again by 2010.

Figure 23: Trend in Japan's Bilateral ODA by Broad Sector



By 2012, as shown in the figure 24 below, Japan continued to allocate its largest share of ODA to economic infrastructure and services of USD 6993.5 million. The social infrastructure and services received the second largest share of USD 4480.7 million. However, other sectors continued to receive the lowest share of Japan's ODA. However, in terms of actual amount, it was still high. The second lowest share of ODA in 2012 was allocated to commodity aid and general programme assistance with USD 518.5 million.

Figure 24: Sectoral Share of Japan's Bilateral ODA in 2012



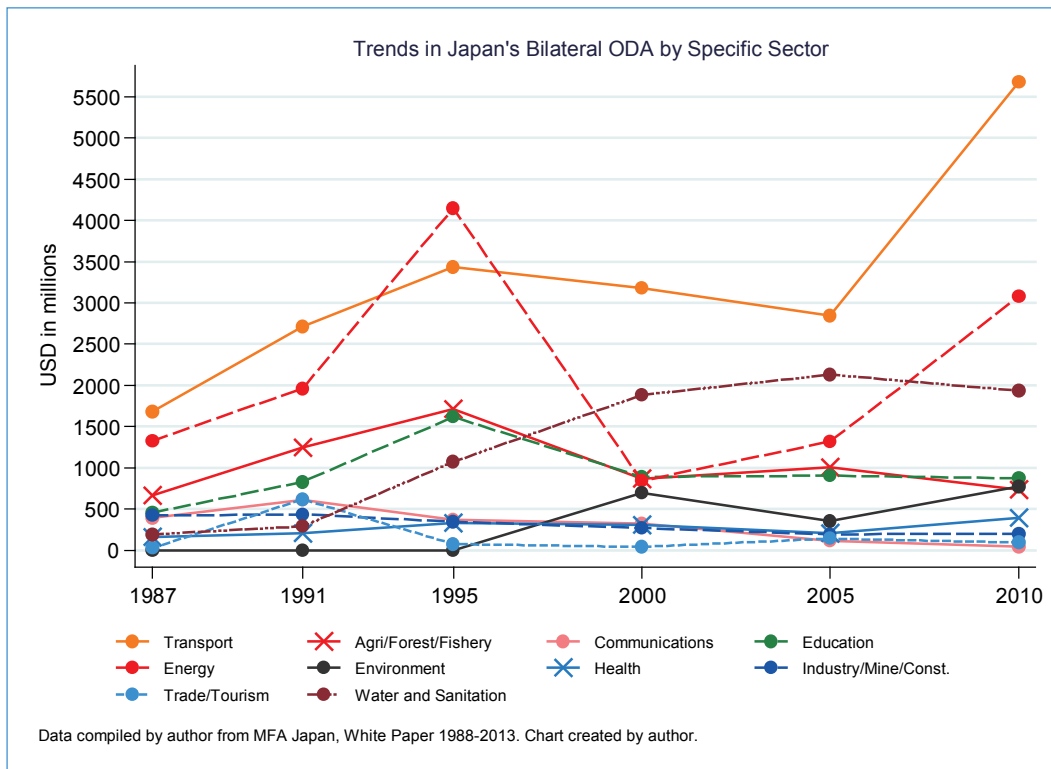
4.11 Japan's Bilateral ODA to Specific Sectors

In the earlier figure 24, we saw that the highest share of Japan's bilateral ODA was allocated to economic infrastructure and services. The figure 25 below shows the distribution to specific sectors within the broad sector from 1987 to 2010.

In 1987, the highest share of Japan's bilateral ODA was allocated to transport sector with USD 1679 million. The energy sector received the second highest share of USD 1326 million followed by agriculture, forestry and fishery sector of USD 662 million. Other sectors such as health, trade and tourism received relatively lower share of the ODA.

Over the course of time, the distribution pattern across the specific sectors did not change much, though there were some fluctuations in the energy sector. However, the allocation to water and sanitation sector picked up from being the lowest allocated sector to one of the highest over the period.

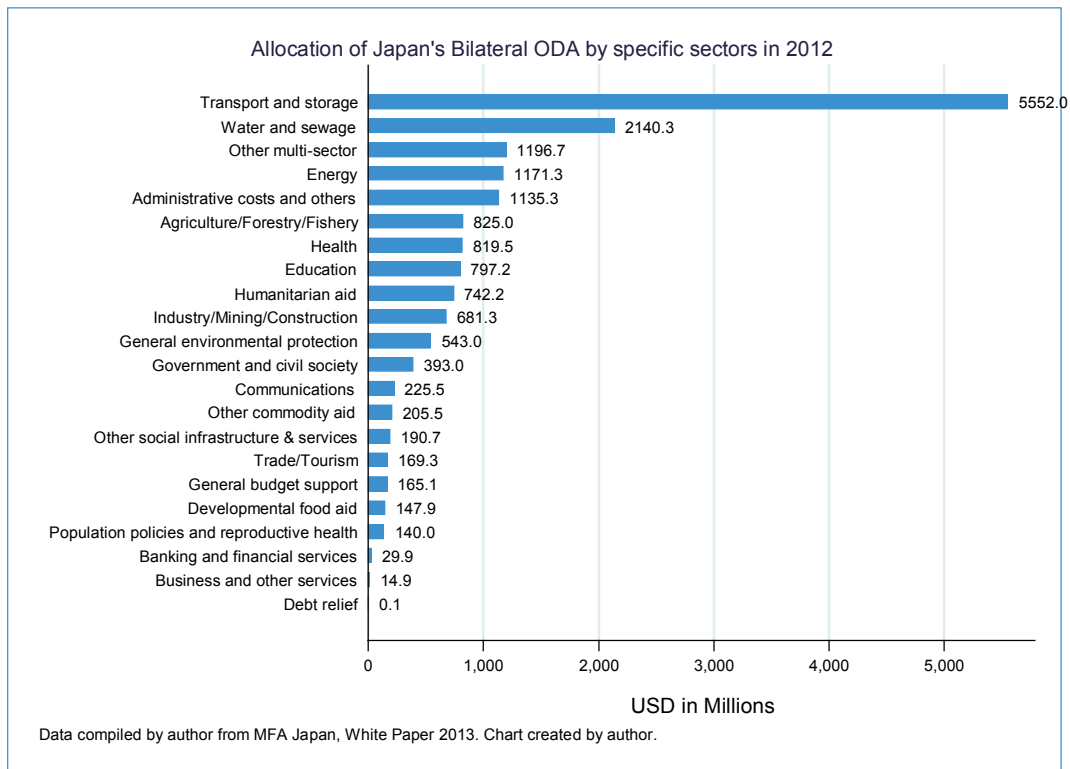
Figure 25: Trend in Japan's Bilateral ODA by Specific Sector



By 2012, as shown in the figure 26 below, Japan continued to allocate its largest share of bilateral ODA to transport and storage sector with the amount of USD 5552 million. Water and sewage received the second highest share with USD 2140 million, which was a huge change as compared to in 1980s.

Japan continued to allocate lower share of its ODA to sectors such as social infrastructure, health and banking and financial services. Nevertheless, in terms of absolute amount, it is still high with USD 140 million for health sector, and USD 29 million for banking and financial sector.

Figure 26: Allocation of Japan’s Bilateral ODA by Specific Sectors in 2012



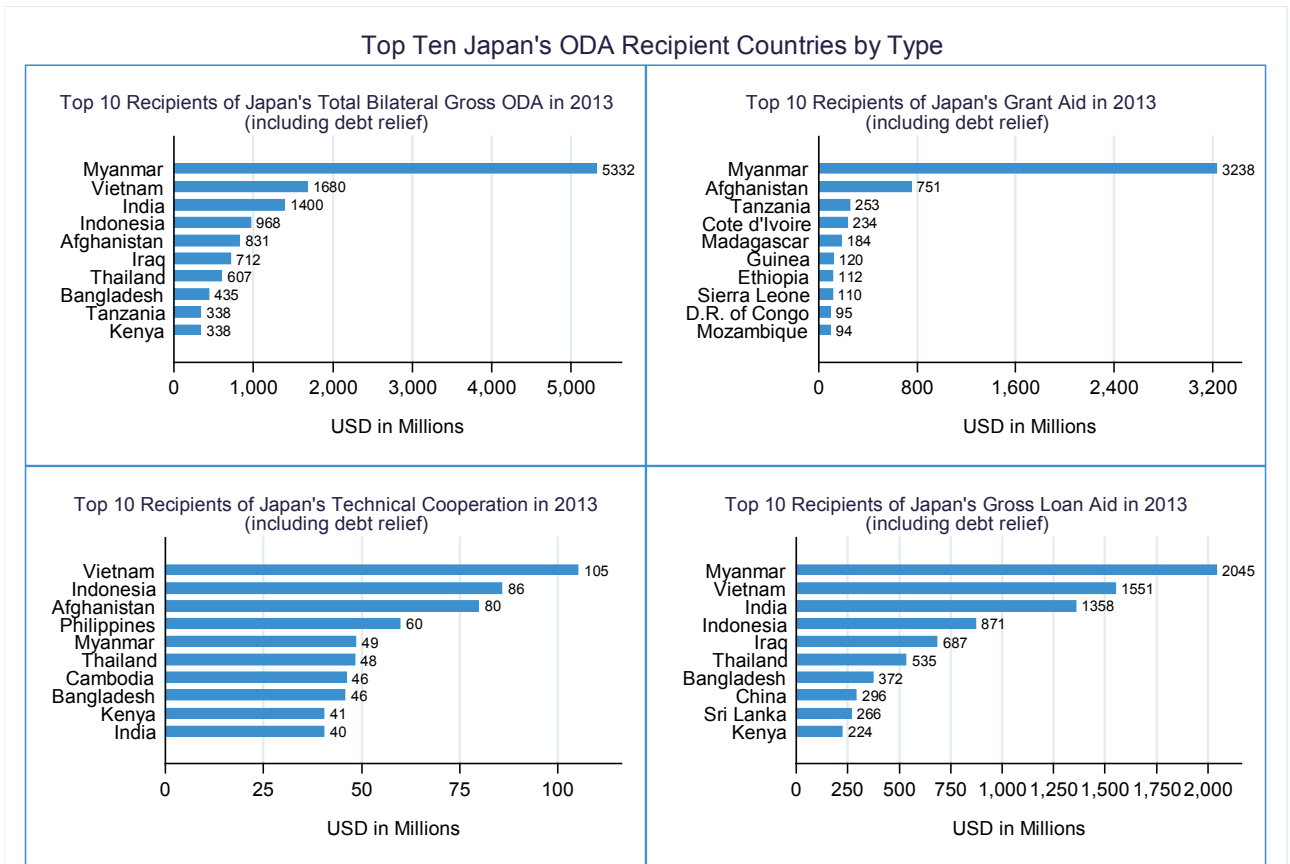
4.12 Top 10 recipient countries of Japan’s ODA

The figure 27 below shows the top ten recipient countries of Japan’s ODA by type in 2013. Myanmar was, by far, the largest recipient of total bilateral gross ODA from Japan in 2013 with USD 5332 million (MFA 2015). Vietnam and India were the second and third largest recipient countries of total gross ODA, respectively.

In terms of grant aid, Myanmar was the largest recipient country followed by Afghanistan and Tanzania. With regard to technical cooperation, Vietnam was the largest recipient country with USD 105 million, closely followed by Indonesia and Afghanistan.

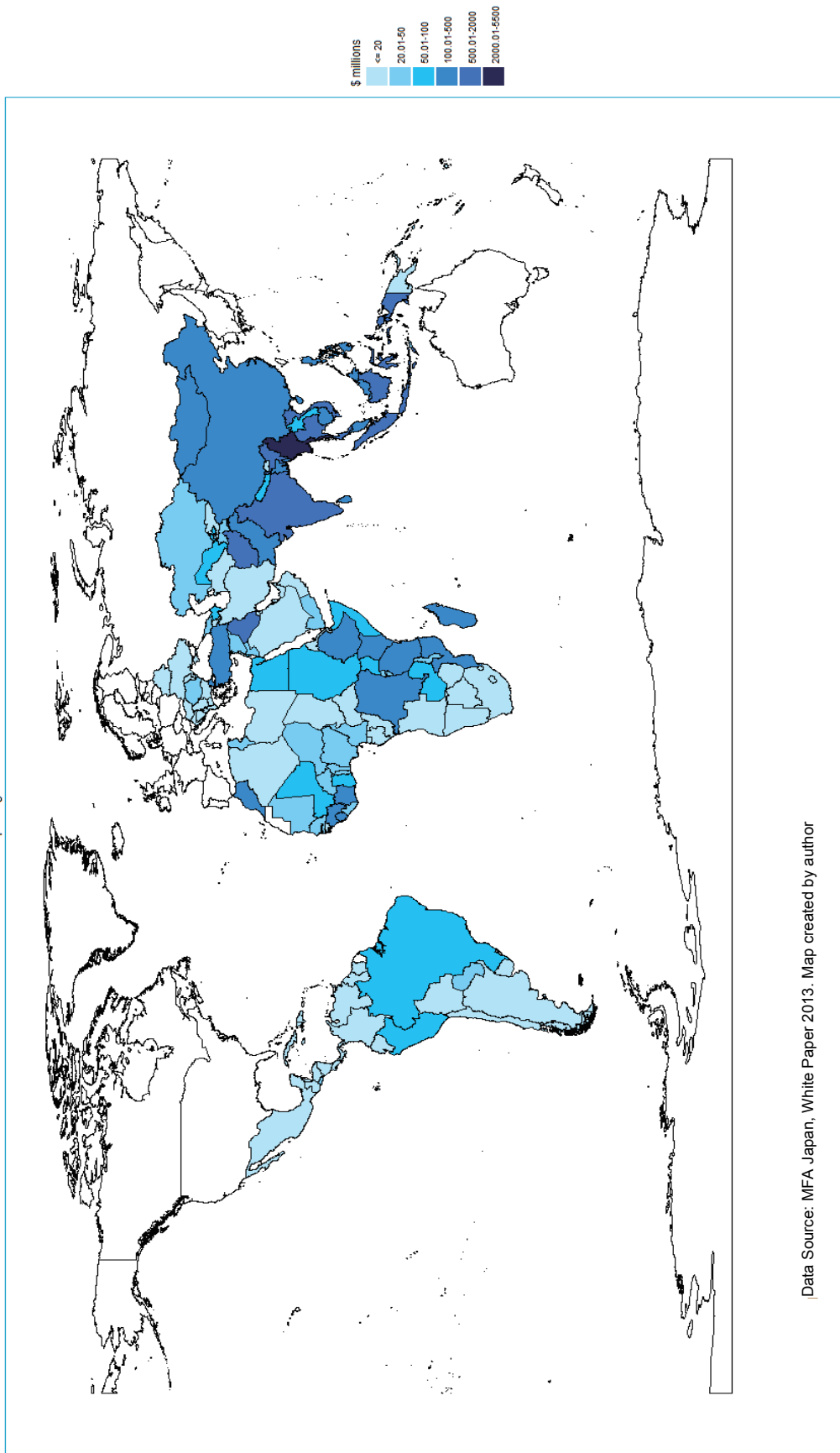
Similarly, Myanmar was the largest recipient country of gross loan aid from Japan in 2013 with USD 2045 million, followed by Vietnam and India. It is interesting to note that the two emerging countries in Asia, China and India were among the top recipient countries of loan aid from Japan.

Figure 27: Top Ten Japan's ODA Recipient Countries by Type



Data compiled by author from MFA Japan, White Paper 2014. Charts created by author.

Map 2: Distribution of Japan's Gross ODA to the World in 2013



5. Japan's Development Cooperation in Bhutan

Having discussed Japan's policy on development cooperation and its role in international development, Japan's role in Bhutan's development will be discussed hereafter.

5.1 A Brief History of Japan's Cooperation in Bhutan

The year 1964 marked the start of Japan's development cooperation in Bhutan, when Japan dispatched an agricultural expert Dasho Keiji Nishioka to Bhutan under Colombo Plan. It was exclusively technical cooperation. Bhutan was in its first five-year plan. Hence, Japan partnered with Bhutan from the beginning of the planned development activities through the technical contributions by Dasho Keiji Nishioka. His technical assistance was mainly in the field of agriculture and rural development. The government of Bhutan acknowledged and highly regarded his dedicated contributions to the development of agriculture, such as development of improved high food and cash crops, construction of irrigation canals and bridges, and training of farmers and officials. In addition, he also contributed to historic beginning of Japan's grant aid to Bhutan, when Bhutan received farm machineries from Japan upon his request.

With ever growing trust and faith in Japan's contribution to the agriculture development, and with increasing interactions and cooperation between the two countries, formal diplomatic relations between Bhutan and Japan was established in 1986. The newly established formal diplomatic relation was reaffirmed with the visit of His Highness Prince Naruhito to Bhutan in 1987.

Although Bhutan established its formal diplomatic relation with Japan only in 1986, Bhutan was already receiving grant aid from Japan before its diplomatic relation with Japan. The first formal grant aid with the amount of Yen 300 million was disbursed to Bhutan in 1981 for supplying agriculture machineries to Bhutan under agriculture mechanization project. In 1985, Japan started its grant aid to a new field other than agriculture, when an amount of Yen 624 million was disbursed to Bhutan to finance project for the construction of micro hydro power facilities.

In the following years, major portion of the grant aid was in the field of agriculture development. However, the grant aid diversified from 1991 to other areas. It was also a period when Japan began to become the largest donor country in the world.

By beginning of 1990s, Bhutan started to receive grant aid to finance the development of telecommunication network and infrastructure. In 1991, grant aid of Yen 1.540 billion was disbursed for phase I and grant aid of Yen 1.567 billion was disbursed for the phase II in 1992. Since then, Bhutan continued to receive grant aid and technical assistance in the area of telecommunication until basic related technology and infrastructure were fully established in the country.

The other important milestone of Japan's development cooperation in Bhutan was the reconstruction of high quality bridges along the national highways. The first grant aid for the reconstruction of bridges was received in 2000. Bhutan received first ODA loan from Japan in 2007 to finance rural electrification project with the target of connecting 19,261 households.

5.2 Areas of Japan's Development Cooperation to Bhutan by Five-Year Plans

The table 3 below compares the alignment of Japan's development cooperation to the development goals and priorities of Bhutan by five-year plans. As can be seen from the table, most of the areas of Japan's development cooperation to Bhutan matched against the goals of the corresponding five-year plans. However, it can be also noted that Japan's area of development cooperation confined mostly to agriculture development from the first to fourth five-year development plans, while the development goals of Bhutan were diverse covering various areas and sectors.

The Japan's development cooperation began to diversify only from the fifth-five year plan, but the areas did not expand much. While the areas of development cooperation remained aligned and relevant to the development goals of Bhutan, its core areas did not change much for a long time. For instance, during the eighth five-year plan, the main goals expanded from agriculture development to privatization and private sector development. However, areas of support from Japan did not change. No projects related to private sector development were financed by Japan ODA. Therefore, it can be partly concluded that the development cooperation policy to Bhutan remained static irrespective of the changes in the socio-economy of Bhutan.

Table 3: Five-Year Plans, Main Goals and Japan's Development Cooperation

Five Year Plan	Main Goal/Objectives	Japan's Development Cooperation to Bhutan
1 FYP (1961-66)	-Basic social infrastructure development (road, education, health, agriculture, forestry, animal husbandry, industries, electricity) and establishment of development institutions	-Agriculture development
2 FYP (1966-71)	-Agriculture development -Improvement of education level -Livestock development -Improvement of roads and transport services -Forest conservation -Explore for potential mining -Explore potential for tea plantation and forest based industries	-Agriculture development
3 FYP (1971-76)	-Agriculture development -Balanced regional development -Livestock development -Basic infrastructure development (roads, bridges, electricity) -Industrial development -Improvement of education facilities and quality education -Improvement of health services: quality and reach -Development of facilities in Capital city: Thimphu -Protection and preservation of ancient monuments	-Agriculture development

4 FYP (1976-81)	-Economic development -Improvement of living standards	-Agriculture development
5 FYP (1981-87)	-Sustainable economic growth -Economic self-reliance -Greater distributional equity -People's participation in planning and implementation of development programmes	-Agricultural mechanization -Aid for increased food production -Micro-hydro power facilities -Agriculture development -Construction and maintenance of roads
6 FYP (1987-92)	-Strengthening governance -Preservation and promotion of national identity -Mobilization of internal resources -Enhancement of rural income -Improvement of rural housing and resettlement -Consolidation and improvement of development services -Development of human resources -Promotion of people's participation -Promotion of national self-reliance	-Agriculture development -Micro-hydro power -Construction and maintenance of roads -Cultural grant -Domestic Telecommunication -Grassroots project
7 FYP (1992-97)	-Sustainable economic growth; -Spiritual and emotional well-being of the people; -Preservation of culture; -Conservation of environment	-Agriculture development -Equipment to National Library -Domestic Telecommunication -Equipment for road construction and maintenance -Grassroots project -Grant aid for increase of food production
8 FYP (1997-2002)	-Self-reliance -Sustainability -Preservation and promotion of cultural and traditional values -National security -Balanced development; -Improving the quality of life -Institutional strengthening and human resource development -Decentralization and community participation; -Privatization and private sector development	-Agriculture development -Domestic telecommunication -Equipment for preservation of cultural assets -Grassroots project -Reconstruction of bridges -Maternal and child health -Grant aid for increase of food production
9 FYP (2002-07)	-Improving the quality of life and income, especially of the poor -Ensuring good governance -Promoting private sector growth and employment generation -Preserving and promoting cultural heritage and environment conservation -Achieving rapid economic growth and	-Agriculture development -Reconstruction of bridges -Grassroots project -Education facilities

	transformation	-Community empowerment
10 FYP (2008-13)	-Poverty Reduction	-Agriculture development -Reconstruction of bridges -Equipment to Bhutan Broadcasting Service -Equipment and machinery for construction of rural agricultural roads -Replacement of ambulances -Disaster management -Rural electrification -Grassroots human security project
11 FYP (2013-18)	-Self-reliance and inclusive green socio-economic development	-Agriculture development -Grassroots human security project

Source: FYPs, Planning Commission, GNH Commission, MFA (Japan)

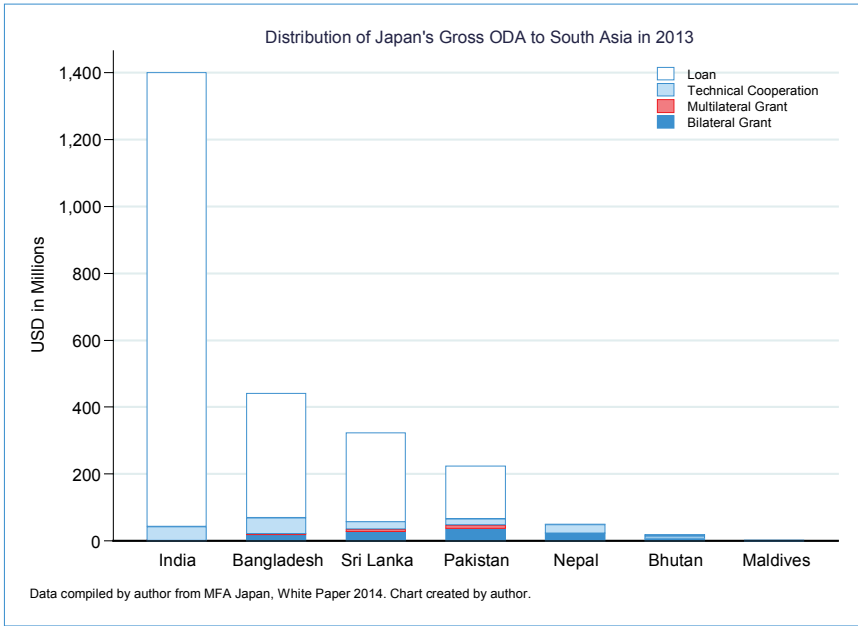
5.3 Japan's ODA in South Asia

The figure 28 below presents the distribution of Japan's gross ODA to South Asia in 2013 (MFA 2015). India was, by far, the largest recipient of Japan's gross ODA. However, major portion of ODA was in the form of ODA loan amounting to USD 1,358 million.

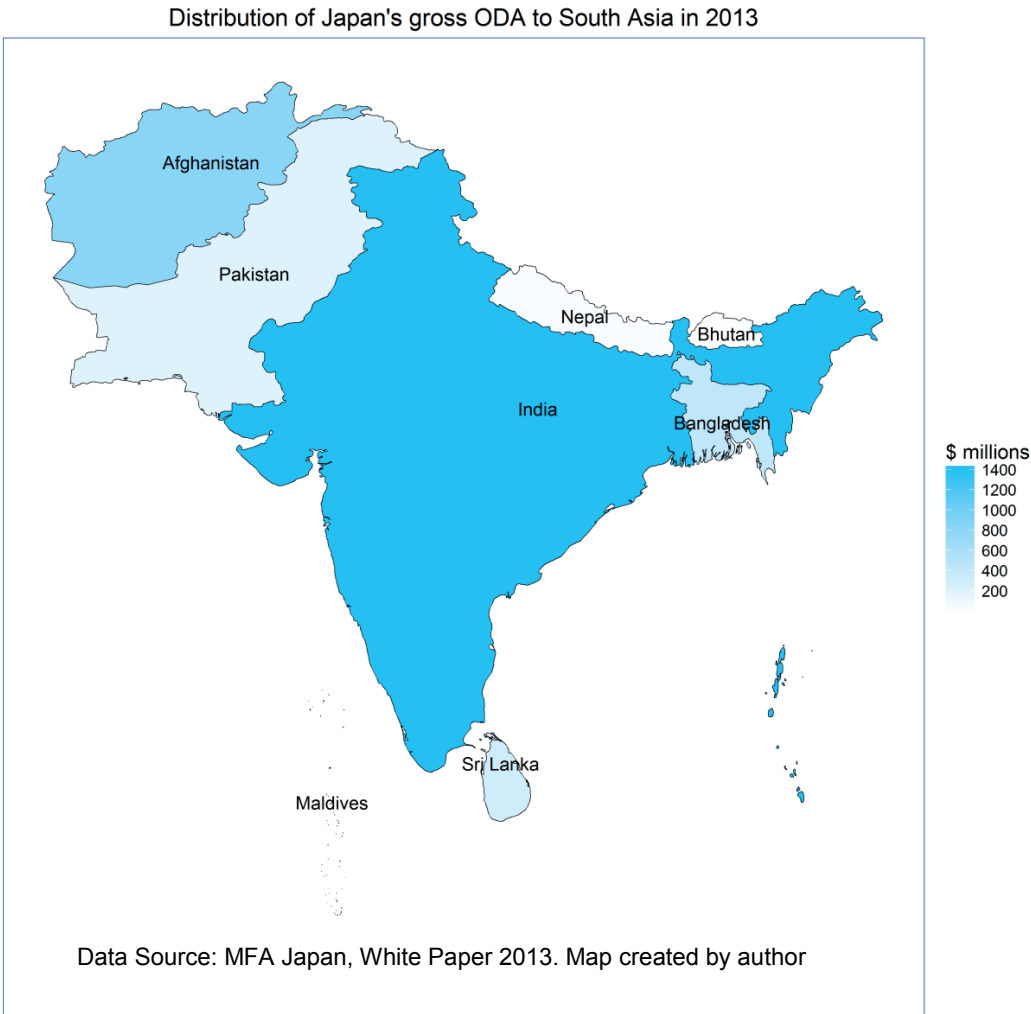
The other countries in South Asia too received major portion of the ODA in the form of ODA loans. Bangladesh received the second largest ODA from Japan, but major portion of ODA was in the form of ODA loan.

Bhutan and Maldives received, by far, the least amount of ODA from Japan in 2013. Bhutan received the total ODA of USD 18.58 million in 2013. Of the total ODA, Bhutan received USD 6.41 million as a grant aid, USD 1.15 million as technical cooperation, and USD 3.4 million as ODA loan.

Figure 28: Distribution of Japan's Gross ODA to South Asia in 2013



Map 3: Distribution of Japan's Gross ODA to South Asia in 2013



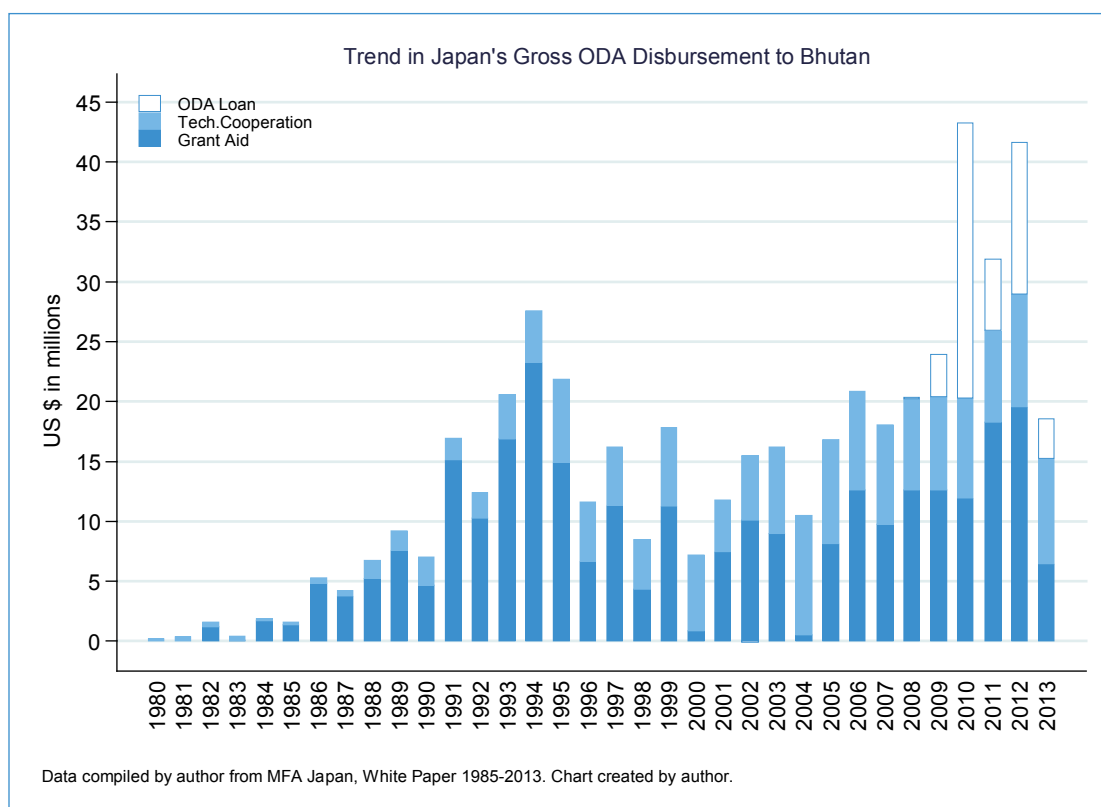
5.4 Japan's ODA Disbursements to Bhutan

The figure 29 below shows the trend of disbursement of Japan's gross ODA to Bhutan since 1980. Bhutan received first grant aid in 1981 from Japan. Japan's ODA to Bhutan was mostly in the form of grant aid until the year 2003. From 2004, Bhutan received almost equivalent amount of grant aid and technical cooperation.

As seen in the diagram below, there was a sudden surge in the grant aid from 1991 until 1999. This increase was fuelled by signing of new projects to finance the establishment of domestic telecommunication networks in Bhutan. The second surge in the ODA can be seen from 2001 onwards, when Bhutan received increased grant aid for reconstruction of bridges along the national highways. The third surge can be seen from 2007, when Bhutan received its first ODA loan from Japan to finance the rural electrification projects with the target of connecting 19,261 households. During that period, the amount of grant aid and technical cooperation also kept increasing.

It appears to have a sudden decrease in ODA in the year 2013. However, this could have been led by low implementation and expenditure by the government agencies as it was the first year of the 11th Five Year Plan. In other words, first year of the five-year plan is spent more on planning and preparation of projects. Hence, there would be less implementation of activities and thus less expenditure.

Figure 29: Trend in Disbursement of Japan's Gross ODA to Bhutan



5.5 Japan's Grant Aid Disbursements to Bhutan

As mentioned earlier, the disbursement of Japan's grant aid to Bhutan started in 1981 focusing on the area of agriculture development, understandably due to its relevance to Bhutan and its earlier engagement through technical cooperation. The figure 30 below shows the trend in disbursement of Japan's grant aid to Bhutan by broad category since 1981. Ever since Bhutan received grant aid from Japan in 1981, Bhutan received grant aid support to agriculture development every year. Support to agriculture development peaked in 1993, which was a five times increase in amount within a year from 250 million Yen in 1992 to 1156 million Yen in 1993. By late 2000s, the support to agriculture development dwindled.

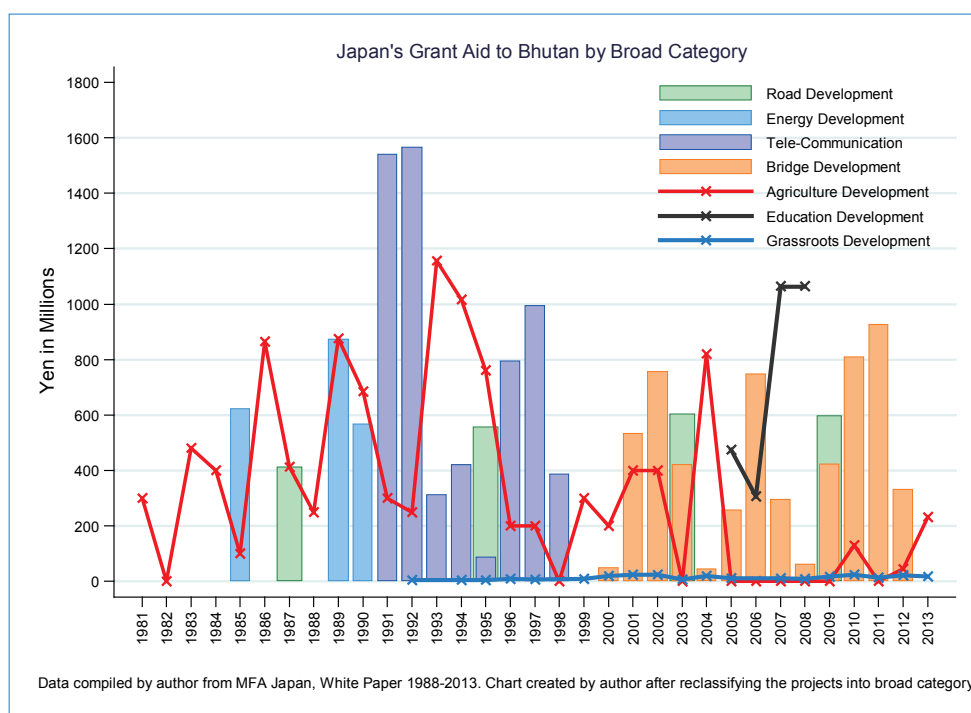
In mid 1980s, Japan expanded its grant aid assistance to energy development by supporting construction of micro-hydro power facilities, which eventually ended by 1990. Nevertheless, support to energy development resumed later in 2007 through ODA loan in financing rural electrification projects in two phases.

Another remarkable Japan's contribution to Bhutan was in the area of telecommunication development. The grant aid disbursements to telecommunication development started in 1991 and ended in 1998. Within those seven years, the telecommunication system in Bhutan was fully digitalized and network coverage expanded to all 20 Dzongkhags. Hence, Bhutan gained access to internet and television in 1999.

With successful partnership in telecommunication in 1990s, Japan expanded its grant aid to bridge infrastructure in the wake of new millennium. Under this support, a number of old bridges were replaced with new bridges along the national highways. They remain as the epitome of quality infrastructure to Bhutanese engineers.

While Japan also supported the construction of education facilities in 2005 to 2008, most of the supports to education went to local government in the form of grassroots development. The grant assistances for grassroots human security projects supported NGOs and local government authorities in the areas of primary health care, primary education, poverty alleviation, public welfare, environment protection and so on. While the grant aid for grassroots development was consistently provided every year, the amount of grant aid in this field was relatively low. Japan's support to road development was mostly in the form of supply of equipment and machineries for construction and maintenance of roads, which were provided in 1985, 1995, 2003 and 2009 averaging the amount of 5.42 million Yen per year.

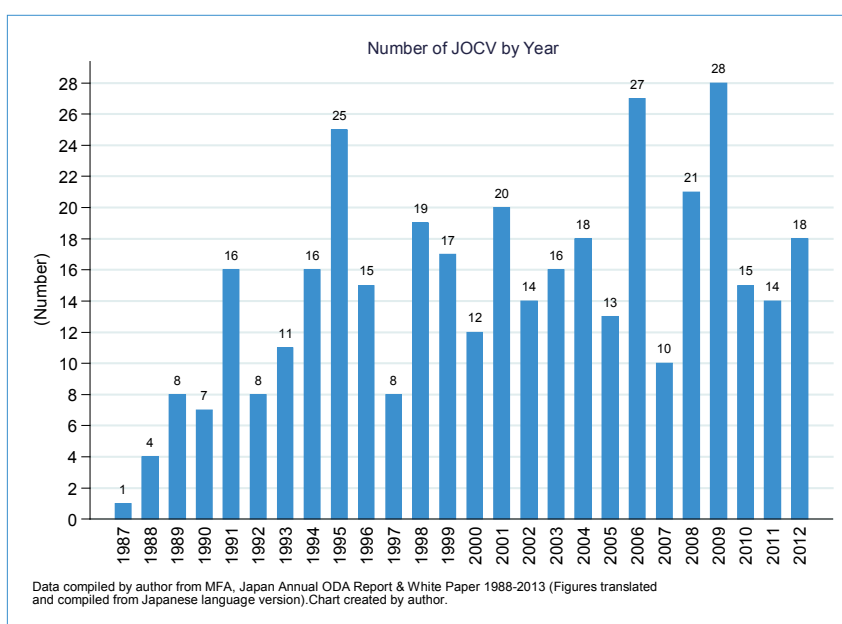
Figure 30: Japan's Grant Aid to Bhutan by Broad Category



5.6 JOCV under Technical Cooperation

Japan started to dispatch Japan Overseas Cooperation Volunteers (JOCV) to Bhutan in 1987. Although the programme started with only one JOCV in 1987, the number grew over the years averaging 14 JOCV per year. As of 2012, a total of 381 JOCV worked in Bhutan in various fields such as agriculture, health, information technology, physical education and architecture.

Figure 31: Number of JOCV by Year

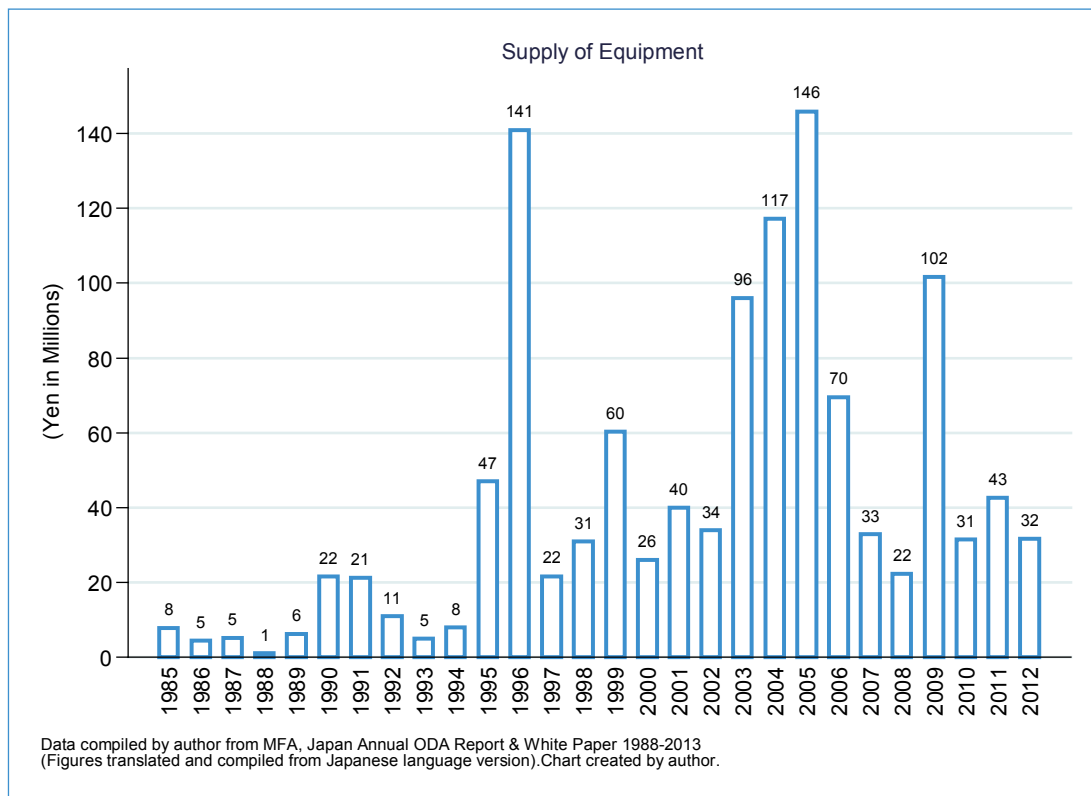


5.7 Supply of Equipment under Technical Cooperation

In addition to grant aid, Bhutan also received technical cooperation from Japan. Under the technical cooperation, Japan supplied machineries and equipment to Bhutan since 1985. The worth of equipment supplied increased over the years and peaked in 1996 and 2005.

Other form of assistances under technical cooperation were training of Bhutanese personnel and supporting higher education of Bhutanese in Japan. Japan also dispatched a number of technical experts to Bhutan in various fields.

Figure 32: Trend in Supply of Equipment from Japan to Bhutan under Technical Cooperation



6. Emerging Challenges and Issues in Bhutan

This chapter will discuss the emerging challenges faced by Bhutan. Although it is not an exhaustive list, the following challenges are the most apparent and pressing issues that Bhutan currently grapples with and will emerge in the near future.

6.1 Climate Change and Natural Disasters

The recent twenty-first session on the Conference of the Parties (COP21) held in Paris from 30 November to 11 December 2015 highlighted the urgency in global action to fight climate change, which poses ‘irreversible threat to human societies and the planet’ (UNFCCC 2015).

The threat posed by global warming is even more amplified to a country like Bhutan, located in fragile mountains of Himalaya. The natural calamities in the form of glacier lake outburst floods (GLOF) caused by accelerated glacier retreats have already affected Bhutan in the recent years. Bhutan is home to a large biodiversity with 5,603 species of vascular plants, 616 species of birds and 198 species of mammals, out of which 14 bird species and 26 mammal species are globally endangered (NEC 2008). The threat of climate change to this biodiversity cannot be ignored as well.

Its threat to Bhutan’s economy is enormous. Bhutan’s economy and development are largely dependent on revenue earned from the export of electricity and eco-tourism. The electricity, in turn, is generated out of fast flowing water fed by snows and glaciers. The eventual disappearance of snow and glaciers will not only cause environmental catastrophe but may also cause economic downturn.

Recognizing the vulnerability and calling for global action to curtail global warming, Bhutan made a pledge to remain carbon-neutral and preserve 60 % of the country under forest cover in all times to come during the COP21 held in Paris.

While Bhutan’s development policy has always remained to be environmental friendly and champions the green initiatives, the need for preparedness and management of natural disasters caused by the immediate impact of global warming is inevitable. Bhutan has already witnessed the increase in the frequency and intensity of other forms of natural hazards such as earthquakes and windstorms. Therefore, disaster preparedness and management are of paramount importance. In light of the above, the evaluation report 2015 on the disaster risk management programme highlighted the need to increase the capacity of institutions for risk reduction, response and preparedness (MoHCA 2015).

6.2 Youth Unemployment

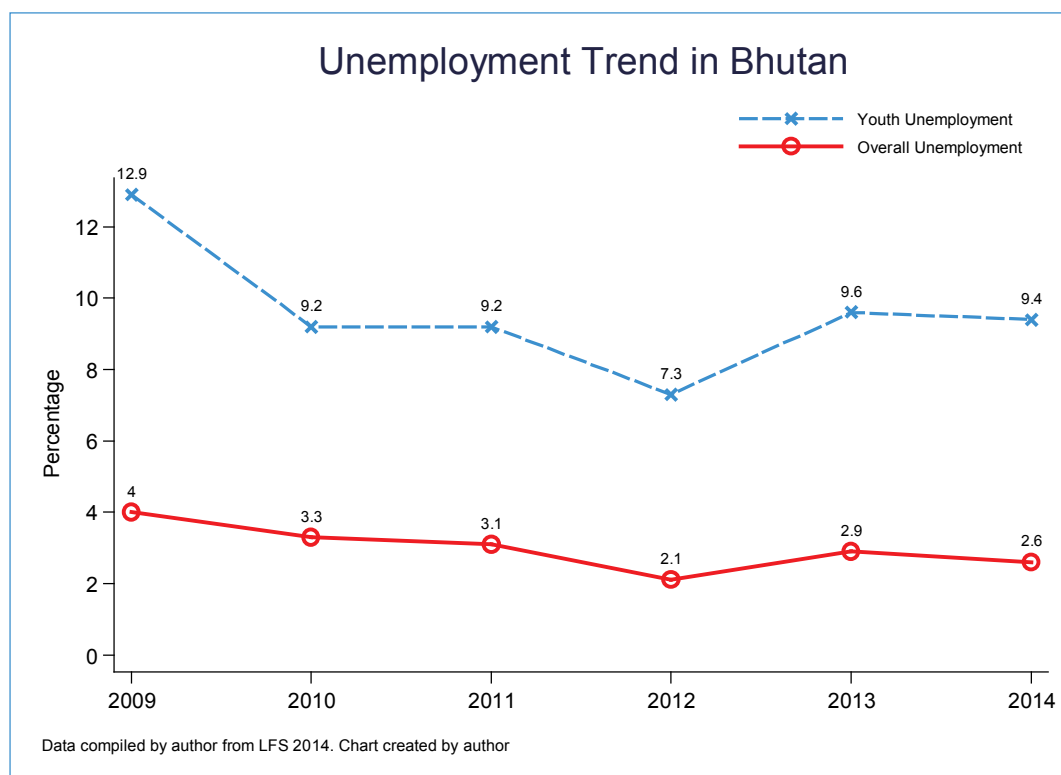
Although the overall unemployment rates remained low, the youth unemployment has posed a serious challenge to Bhutan over the recent period. The youth unemployment rate has risen to 9.4 % in 2014 (MoLHR 2014). For the purpose of estimating the youth unemployment, the labour force falling under the age group of 15-24 are categorized as the youth (MoLHR 2014).

Although the factors causing youth unemployment are multi-faceted, some of the obvious factors are saturation of jobs in the government and private sector remaining to be small. The government has traditionally been a source of employment. However, as the jobs in the government filled up over the period, it has become difficult for the government to hire young graduates as it did in the past. Similarly, the private sector, which is relatively at its infancy, cannot offer jobs that match the skills of the youth.

In addressing the issue, a number of measures are put in place including guaranteed employment program through direct employment scheme, overseas employment programme and employment skills scheme. Technical Vocational Education and Training (TVET) programmes are being provided to the youth through several regional technical training institutes (TTI) in an effort to increase their skills for employability.

However, the effectiveness and financial sustainability of such measures remain to be tested with ever increasing youth unemployment rates.

Figure 33: Trend in Unemployment in Bhutan by Type



6.3 Rural Poverty and Infrastructure

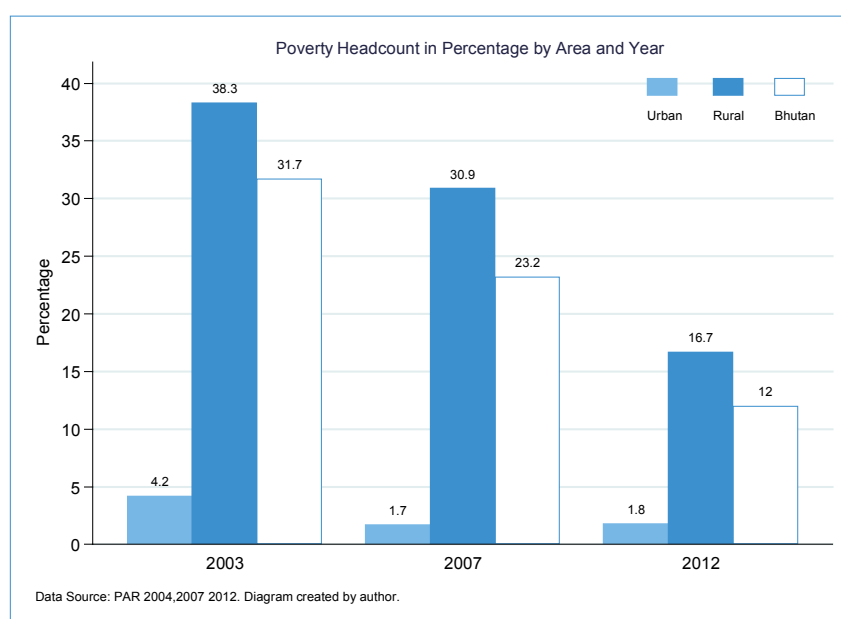
Bhutan has witnessed remarkable achievements in reducing poverty during the past decade. The poverty rate has declined significantly from 31.7 % in 2003 to 12 % in 2012 (NSB 2012). However, the poverty still remains to be highly prevalent in rural areas with 16.7 % of the rural population living under poverty as opposed to just 1.8 % in the urban areas.

Most of these poor are located in the remote villages, where the broad-based development plans and programmes have not benefitted much. In this light, targeted poverty programmes such as ‘rural economy advancement programme’ at the village level, and ‘targeted household poverty programme’ at the household level are being initiated to cover the poorest of the poor, in addition to broad-based development programmes. However, the mobilization of huge resources required to finance such targeted poverty initiatives remain to be a daunting challenge. Since most of the interventions require developing basic amenities and structures, high transportation costs of materials to the remote villages are driving the cost of poverty programmes high.

Nevertheless, it is important that the momentum of current decline of poverty be sustained. According to poverty assessment report 2014, despite significant decline in poverty, some non-poor fell into poverty. “For every two families that managed to escape poverty, one previously non-poor family fell into poverty” (NSB 2014). In addition, it has been found that the risk of falling back to poverty is higher in the rural areas.

In addition to the above concerns, the need to expand rural infrastructure and to take services to the far-flung remote villages is imperative to lift those poor out of the poverty and to secure sustainable livelihood. Improving access to market and services through construction of rural roads remain to be a priority. As highlighted above, due to the huge investments required to construct rural infrastructure given the difficult topography and the scattered nature of settlements, it has put a heavy pressure and challenge to the national treasury.

Figure 34: Poverty Headcount in Percentage by Area and Year



6.4 Growing Urban Population and Infrastructure

Rise in urban population has become a universal phenomenon. According to UNDESA, Asia will have 50 % of the population living in urban areas by 2020. Similarly, urban population has been on the rise in Bhutan driven mainly by migration from the rural areas. People move to urban areas looking for employment, higher education, getting married to people in the towns or for medical attentions to name few. Hence, rise in urban population is inevitable.

The population and housing census of Bhutan report 2005 estimated that the urban population will grow at the rate of 4.2 %. The urban population was estimated to be 294,042 in 2015, which was 38.8 % of the total population. A large proportion of urban population live in Thimphu, the capital of Bhutan. Thimphu alone had 39 % of the total urban population in 2015. In terms of absolute number, a total of 116,012 lived in Thimphu in 2015.

Despite several measures undertaken to curtail rural-urban migration, the growth in urban population remained inevitable. Hence, the pressure keeps mounting on the urban services and facilities, particularly on housing, water, education, health and transport systems. Therefore, the need to expand and improve existing facilities is growing. More schools will have to be built. More health personnel and doctors will have to be recruited. More health facilities will have to be built. Environmental measures will have to be heightened to prevent activities that would impact natural environment. Most importantly, a robust and reliable public transport system is needed in part to make it affordable and in part to reduce the increasing number of cars causing environmental hazards.

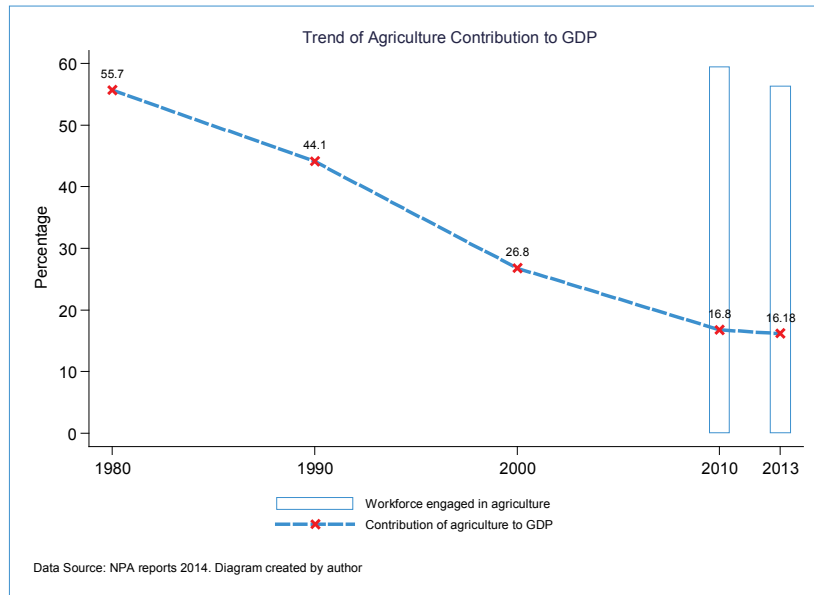
In light of the above, it is important to put in place the modern urban infrastructures aided by green modern technology in preparation for the increasing urban population to offset its associated impact.

6.5 Dwindling Agriculture Practice

Bhutan has been an agrarian society with long experience in agriculture. The agriculture is the main source of livelihood to majority of Bhutanese. However, the recent trend shows that the agriculture practice is dwindling. The decline in agriculture practice is exacerbated by rapid rural-urban migration depleting the labour supply in the farm.

The figure 35 below shows that more than half of the total GDP was contributed by agriculture sector in 1980. However, its contribution to the GDP fell dramatically over the period. By 2013, agriculture sector contributed only 16.18 % to the total GDP.

Figure 35: Trend in Agriculture Contributions to GDP

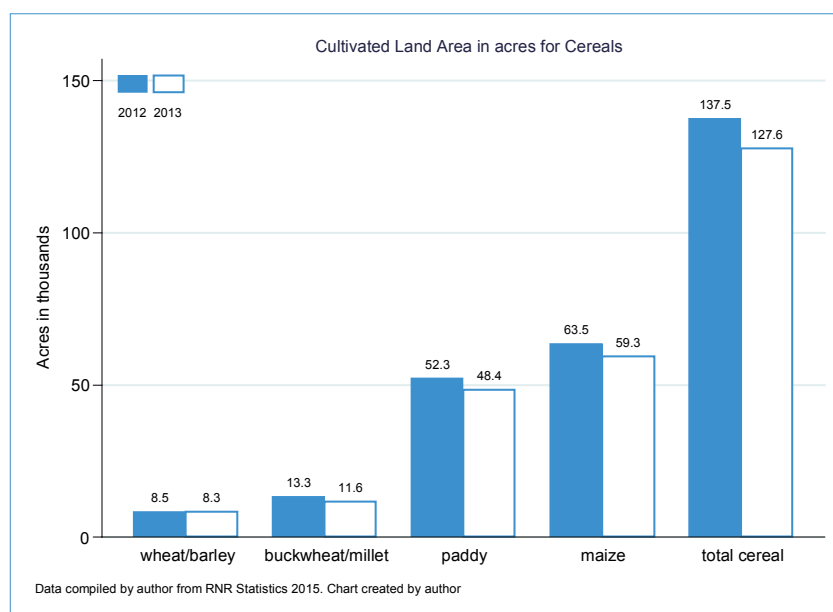


Nevertheless, majority of the Bhutanese population are still engaged in agriculture sector. The national labour force survey in 2013 showed that 56.3 % of the working population were engaged in agriculture sector. However, its share to GDP was only 16.18 %. Hence, it appears to have huge inefficiency in the agriculture sector.

The total cultivated area continues to decline by the year. As seen in the figure 36 below, the total cultivated land area for all cereals has declined from 137.5 thousand acres in 2012 to 127.6 thousand acres in 2013, which is a decline of 9.9 thousand acres in just one year.

The vegetables and cereal imports, mostly from India, made about 6 % of the total import in the year 2014 (MoF 2014). With continuous decline in the agricultural practice, it poses an alarming threat to the food security and the economy.

Figure 36: Comparison of Cultivated Land Area by Cereal Type in 2012 and 2013



6.6 Private Sector Development

Although the importance of private sector development was long recognized and envisioned as an engine of growth generating wealth and employment, the progress has been slow. The growth is limited to only few small scale industries (SMEs) such as wholesale and retail enterprises, tourism and hotels. ‘SMEs remain weak, typically one-person shop operations’ with limited product diversification (Dorji 2008: pp. 5).

Table 4: Number of Enterprises by Type

Industrial Establishments	2010	2011	2012	2013	2014
Ownership					
Private	32,218	34,550	37,155	39,814	42,634
Joint	46	46	27	29	26
Public	96	96	100	108	139
Size					
Cottage enterprise	17,815	19,774	21,210	23,324	25,156
Small enterprise	2,878	2,649	3,014	3,053	3,659
Medium enterprise	201	220	240	268	296
Large enterprise	114	133	141	162	177
Other (Contract)	11,352	11,916	12,677	13,144	13,511

Source: NSB, 2015

The table 5 below shows the contributions of sub-sectors in the private sector to the total GDP. Although the contribution of hotels and restaurants to GDP grew from 0.18 % in 1990 to 1.71 % in 2014, it is relatively low despite perceived growth in tourism industry.

The manufacturing sector has not grown much over the decades. Its contribution to GDP grew from 3.2 % in 1980 to only 8.12 % in 2014. There was, however, a significant growth in construction sector with its contribution to GDP of 15.46 % in 2014. Over the years, the contribution of wholesale and retail sector to GDP has decreased to 7.09 % in 2014.

Table 5: Share of Sub-Sector to GDP (%)

Year	1980	1990	2000	2010	2014
Wholesale and Retail trade	10.9	4.66	4.5	5.18	7.09
Manufacturing	3.2	7.71	8.2	8.72	8.12
Construction	7.9	8.42	14.0	14.22	15.46
Hotels and Restaurants		0.18	0.45	0.84	1.71

Source: National Accounts Statistics, 1990-2015

A multitude of factors prevented growth in private sector. In addition to other challenges, the cut-throat price competition from India coupled with small domestic market pose a huge

challenge to the growth of manufacturing industry. Access to credit and finance is another challenge to the prospective entrepreneurs. With recent revamped efforts on streamlining the procedural hurdles such as registration, permits and licensing, Bhutan's ease of doing business ranking in 2016 improved and stood at 70 out of 189 economies as classified by the World Bank.

6.7 National Road Networks

Bhutan built its first road only in 1961 with technical and financial support from the Government of India. Since then, the road network has expanded across the country. However, many remote villages are yet to be connected.

In absence of railway and sea transport systems, the national highways connecting Bhutan to India and to other parts of the country have been the single most important means of transportation. However, these highways built mostly in 1960s and 1970s are narrow, long and winding, making the cost of transportation high. In addition, these roads remain susceptible to heavy monsoon during summer causing landslides and road blocks. Similarly, heavy snow falls during winter frequently cause road blocks in the high passes.

As seen from the table 6 below, only 17.6 % of the total road networks are primary national highway, while more than 50 % of roads are rural roads connecting villages.

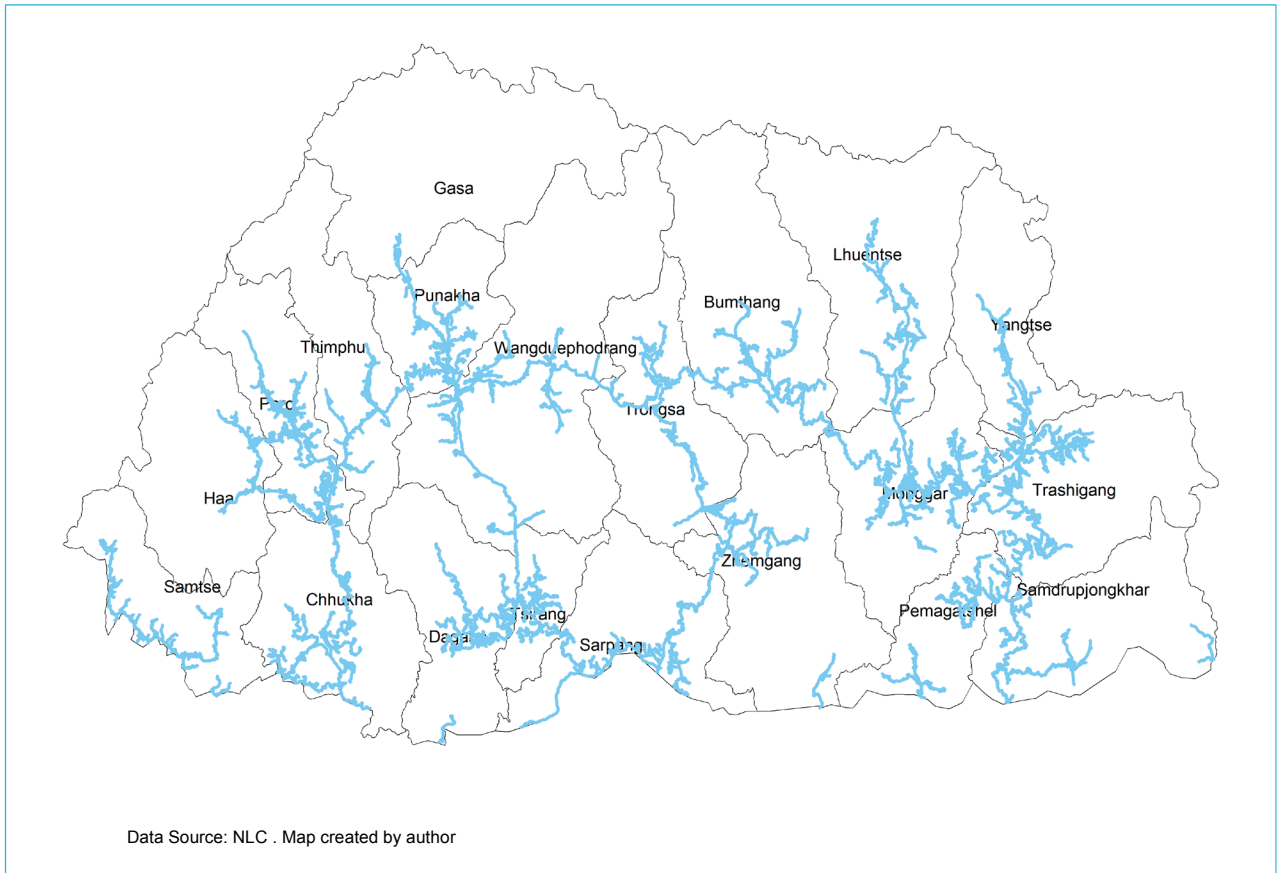
Table 6: Road network as of June 2014

Road Type	Length (km)	Percentage
Expressway	6.2	0.1
Primary National Highway	1860.12	17.6
Secondary National Highway	578.26	5.5
Dzongkhag Roads	1178.29	11.1
Urban Road	349.67	3.3
Farm Road	5255.19	49.7
Forest Road	667.25	6.3
Access Road	563.18	5.3
Power tiller track	120.1	1.1
Total	10578.26	100.0

Source: AIB 2014, MOWHS

Map 4: Road Network as of 2006

Road Network in Bhutan



7. Post 2015 Global Development Agenda (SDGs)

7.1 SDGs and Commitments

Following the signing of millennium declaration at the millennium summit in 2000 in achieving the millennium development goals (MDGs) set for next 15 years, a significant amount of cooperation and partnerships were witnessed resulting in decent achievements of most of MDGs. To Bhutan, MDGs initiative was a success. Bhutan achieved most of its MDGs and some of the goals were achieved ahead of 2015.

The success of MDGs has led the world leaders to believe in global partnership for development and adopted the 2030 agenda for Sustainable Development on 25 September 2015 to achieve 17 goals by 2030. While some of the goals are similar to MDGs with more ambitious targets, new goals such as climate change, marine life, sustainable production and consumption, good governance, and reducing inequalities are included in SDGs making it more comprehensive.

Figure 37: Sustainable Development Goals



Source: United Nations, 2015

The concept of sustainable development and its multi-dimensional approach to development is seen to be very relevant to Bhutan and in line with the development philosophy of gross national happiness. Therefore, Bhutan pledged to champion the SDGs at the United Nations Sustainable Development Summit in September 2015.

With the preparations underway for the 12th Five-Year Plan in Bhutan, SDGs are already being mainstreamed in the planning guidelines. Hence, all the national, sectoral and local plans will be geared towards achieving the SDGs by 2030. While the political will and the implementation capacity are at their apex, the success of SDGs will still depend on the continued financial support from the development partners.

8. Prospects for Development Cooperation in Bhutan and Recommendations

In this final chapter, we will highlight prospects for development cooperation in Bhutan in cognizant to current development policy and challenges of Bhutan, and Japan's development cooperation policy and its comparative advantages.

8.1 Partnership in Disaster and Risks Management

The natural disasters caused by the impact of global warming and climate change could pose serious challenge to Bhutan's livelihood if the efforts in establishing disaster risks and management mechanisms are not expedited. As put by Toyoda, disaster management in developing countries in Asia is a vicious cycle with its impact heavier in absence of resources and know-how (Toyoda 2012). Bhutan has already witnessed the increase in the frequency and intensity of other forms of natural hazards such as flood, earthquakes and windstorms. Although measures are being put in place under the government initiatives, they are still at infant stage. With wrath of natural disasters around the corner, there is an urgent need to work towards putting systems in place to prevent and mitigate disasters.

Japan with wide hands-on experience in managing disasters and cutting-edge technology to monitor weather patterns, this is one area where Japan has high comparative advantage as compared to other development partners. It is also in line with 'Sendai Framework for Disaster Risk Reduction 2015-2030' calling for 'broader and a more people-centred preventive approach to disaster risk' (UNISDR 2015). Japan is already supporting Bhutan in setting up early-warning systems to save lives and properties from the glacier lake outburst floods. Recently, support is also being rendered by Japan to build the capacity of the meteorology centre in Bhutan to study the weather and climate patterns to provide timely information on extreme weather events such as heavy rainfall, snowfall and cyclone. While it is important to continue the existing support to early warning systems, Japan's support to enhancing capacity of the existing institutions drawing from its own experience will add the biggest value to Bhutan's struggle in fighting disasters.

8.2 Partnership in Advanced and Comprehensive Agriculture Mechanization

The history of Japan and Bhutan's partnership began with support to agriculture development in Bhutan from Japan. Given its relevance to Bhutan and its significance to Bhutan-Japan's partnership, Bhutan has been receiving both technical and financial support overwhelmingly to agriculture. In most of the places, agriculture practice has transformed from traditional and subsistence farming to modern and commercial farming. A huge contribution has been made in mechanization of the agriculture in Bhutan. Several agriculture machinery centres (AMCs) were established across the country and power tillers were supplied to Bhutanese farmers. These remain to be the biggest testimonies of Japan's contribution in efforts to mechanizing agriculture in Bhutan.

With increasing pace of rural-urban migration and children going to schools, the labour supply in the farms have decreased dramatically posing huge challenge to farmers in continuing their farming practice. Most of the agriculture lands are increasingly left fallow. Therefore, as a remedial measure to this challenge, more advanced and appropriate mechanization of farming could revitalize the dwindling agriculture practice.

Although Bhutan has already benefited immensely with the introduction of power tillers, there is a huge scope to take farm mechanization beyond just tilling the land. Appropriate mechanization at all levels of farming activities starting from land preparation through cultivation to post harvest activities need to be developed. Currently, most of the farming activities are done manually and remain labour-dependent. More advanced and comprehensive mechanization of agriculture will not only help address the dwindling agriculture and its labour supply, it will also increase productivity, reduce drudgery, boost agriculture practice, and encourage educated youths to take up farming. It will also help reduce poverty in the rural areas.

Recognizing its huge potential for organic farming and huge market in India and beyond, the Government of Bhutan has embarked upon making farming fully organic by 2020. This calls for more comprehensive mechanization at all levels of agriculture activities. In addition, the mechanization at post-production up until marketing of agriculture produce also needs to be enhanced to ensure comprehensive mechanization in entire value-chains.

8.3 Partnership in Quality and Resilient Road Infrastructure

High Quality National Highways:

Drawing from the experience of other Asian emerging economies, a good transport system is crucial for a vibrant economy. Bhutan being landlocked, the road transport is the only means of transporting goods and services. Therefore, the national highways serve as the life-lines of the economy. However, the existing national highways built in 1960s and 1970s are too narrow to accommodate today's traffic, thereby causing inefficiencies and cost escalation in goods and services. Recognizing its importance, the work on broadening of northern east-west national highway has already begun in some stretches despite challenges in mobilizing financial resources. Since the broadening of roads are being undertaken using same old technology and man-power, the likelihood of a high quality and resilient national highway is slim.

In this regard, Japan's technical and financial support in upgrading few stretches would serve as the bench mark and model to the Bhutanese road builders. Japan has already built several high quality bridges along the national highways. These quality bridges built with speed and quality have not only boosted the economy and transport system, but they also serve as the epitome of bridges to the Bhutanese engineers. Japan can bring similar positive impact and exposure of quality-road to the road construction industry.

Road Tunnels:

The cost escalation of goods and services are often driven by long and winding roads built along the steep slopes of the hills and mountains. The heavy snowfalls cause frequent road blocks and accidents in high passes during the winter. This has led to exploring the possibility of shortening the road distances and by-passing the high passes by constructing road tunnels at the strategic stretches. The findings from both economic and technical preliminary feasibility studies were shown to be positive.

Japan's experiences in infrastructure investment in East-Asian countries have shown that there was positive impact on those economies. With quality and fast transport system, the reduction in cost of production was made possible, which helped them to attract foreign direct investments.

Similarly, Japan's investment to road tunnels in Bhutan can have multiple benefits. It will not only help boost the economy but will have positive impact on other social spheres and human security. It will also help close the geographical gap created by mountains, and contribute towards achieving balanced regional development.

Farm and Feeder Roads:

Increasing accessibility to goods and services through expansion of road networks has always been the top priority for both people and the government of Bhutan. One of the targets of strategic document 'Vision 2020' is to have all people including in the remotest villages within 30 minutes-walk from the nearest road points by the year 2020 (Planning Commission 1999). While a fair progress has been made in connecting villages in the recent decade by constructing numerous feeder and farm roads, the quality and reliability of these roads are of a grave concern.

8.4 Partnership in Urban Public Transport System

With rapid increase in urban population driven by rural-urban migration, the pressure on maintaining clean environment and most importantly, providing affordable public transport system is mounting. Thimphu, the capital of Bhutan, had 39 % of the total urban population in 2015. In absence of proper public transport system, the number of cars has increased dramatically causing traffic congestions and air pollution.

Hence, a modern clean and inclusive public transport system needs to be enhanced. Given the wide experience of Japan's ODA in other Asian countries investing in urban public transport system, Japan has the comparative advantage over other development partners in exploring the possibility of supporting Bhutan build a robust and modern urban public transport system.

8.5 Partnership in Entrepreneurship Development

As highlighted in the previous section, private sector in Bhutan is small owing to numerous factors such as limited domestic market, access to limited credit and price competition from neighbouring countries. Given these challenges, private sector remained small despite several efforts made by the government. As Japan's economy is driven largely by small and medium enterprises (SMEs), Japan has enormous experience in nurturing SMEs. Hence, Japan's support in boosting SMEs in Bhutan can be effective in private sector development.

8.6 Business Partnership with Japanese firms

Increasingly, Bhutan is opening up for business and inviting foreign investments. The efforts are being made to streamline the procedures and improving investment climate. In 2016, Bhutan's ease of doing business ranking improved and ranked at 70 out of 189 economies as classified by the World Bank.

Bhutan has free access to huge market in India and Bangladesh. Bhutan being the member of South Asia Free Trade Agreement (SAFTA) Bhutan has good access to markets in all South Asian countries with low trade tariffs. Similarly, Bhutan is also the member of Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) making access to markets in Thailand and Myanmar easier.

The possibility of business partnership between Bhutanese and Japanese firms could be explored. With many business firms believing in doing business with values and care for

environment, Bhutan offers political will and policy that support green initiatives. The business partnerships would not only help boost Bhutan's green economy but it would also inculcate professional values and entrepreneurial skills to the local partners. With 'Brand Bhutan' known for green initiatives and originality, Japanese firms could benefit from its goodwill in promoting their businesses.

8.7 NGO and Local Government Partnership

Although Bhutan has benefitted immensely from the partnership with the Government of Japan, the partnerships with NGOs and local governments of Japan have been rather minimal. The participation of NGOs could bring in more focussed area of cooperation and effective implementation of the projects. With decentralization process on the rise by the year and recent proliferations of *Thromdes* (municipalities), the partnership with the local governments of the two countries could be more effective in implementing the projects with similar interests.

8.8 'Loan Conversion' Mechanism

The 'loan conversion' mechanism was first introduced by Japan and Bill & Melinda Gates Foundation, when JICA disbursed 4.9 billion Japanese Yen as ODA loan to Pakistan to finance polio eradication programme, and Gates Foundation agreed to repay the loan to Japan if Pakistan successfully implemented the project. In 2014, upon successful implementation of the project, the Gates Foundation announced to repay the loan.

Possibility of introducing such 'loan conversion' mechanism in Bhutan could be explored. Such mechanism will provide incentive for the government agencies to expedite and improve the implementation of projects. This mechanism could be used in financing on-going 'targeted poverty programmes' with the goal of eradicating poverty with a given time-frame. This will not only help expedite the poverty reduction initiatives with direct implications on the national treasury, but it will also help government agencies to have a sense of ownership.

8.9 'Triangular Cooperation'

Another concept worth exploring in Bhutan is 'triangular cooperation'. This concept was seen to be successful, especially in South-South cooperation, mainly spearheaded by Japan. In this concept, a primary donor works with a new partner and a recipient country. The best example of triangular cooperation is cited by Brian Kelley (2012) in his book on 'From Aid to Development', where Japan financed the construction of a hospital in Angola and training of health personnel was supported by Brazil. This has enabled the use of 'competitive advantage' in achieving common goals. Similar success story of triangular cooperation was demonstrated by the partnership between South Africa and Sweden to train police in Rwanda (Sidiropoulos 2012, p. 96).

As a similar concept, Japan could partner with other development partners in achieving shared common agenda in Bhutan, depending on the comparative advantage of each partner on the given area. Japan could either act as the primary partner with other pivotal development partners or act as pivotal partner according to comparative advantage on the given project. This could help reduce costs and bring synergy and reduce duplications in development activities. For example, Japan could finance a project and the training programme could be partnered by a pivotal development country and vice-versa.

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10. Annexures

10.1 List of Projects under Japan Development Cooperation by Grant Aid, Technical Cooperation and ODA Loan

Fiscal Year	Grant Aid		Technical Cooperation		Loan Aid		Total (million Yen)
	Project	Amount (million Yen.)	Project	Amount (million Yen.)	Project	Amount (million Yen.)	
1979		0.00	Acceptance of trainees	10.00			
			Dispatch of experts	16.00			
	Total	0.00	Total	26.00	Total	0.00	26.00
1980		0.00	Acceptance of trainees	23.00			
			Dispatch of experts	9.00			
	Total	0.00	Total	32.00	Total	0.00	32.00
1981	Agricultural Mechanization Project	300.00	Acceptance of trainees	23.00			
			Dispatch of experts	10.00			
			Development survey	4.00			
	Total	300.00	Total	37.00	Total	0.00	337.00
1982		0.00	Acceptance of trainees	10.00			
			Dispatch of experts	12.00			
			Development survey	19.00			
	Total	0.00	Total	41.00	Total	0.00	41.00
1983	National Agricultural Mechanization Center	480.00	Acceptance of trainees	34.00			
			Dispatch of experts	12.00			
	Total	480.00	Total	46.00	Total	0.00	526.00
1984	Aid for Increased Food Production	400.00	Acceptance of trainees	13.00			
			Dispatch of experts	14.00			
			Development survey	9.00			
			Grant assistance promotional expenses	3.00			
	Total	400.00	Total	39.00	Total	0.00	439.00
1985	Project for the Construction of the Micro Hydro Power Facilities	624.00	Acceptance of trainees (6 no.)				
	Aid for increased food production	100.00	Dispatch of experts (1 no)				
			Dispatch of investigation team (6 no)				
			Supply of equipment (7.8 million yen)				
	Total	724.00	Total	51.00	Total	0.00	775.00
1986	Aid for Increased Food Production	200.00	Acceptance of trainees (5 no.)				
	Agriculture Development Project	666.00	Dispatch of experts (5no.)				

			Dispatch of investigation team (17 no.)				
			Supply of equipment (4.5 million yen)				
			Development survey (1 case)				
	Total	866.00	Total	74.00	Total	0.00	940.00
1987	Aid for Increased Food Production	200.00	Acceptance of trainees (5 no.)				
	Agriculture Development Project	213.00	Dispatch of experts (2 no)				
	Project for Construction and Maintenance of Roads	412	Dispatch of investigation team (8 no.)				
			Dispatch of JOCV (1 no.)				
			Supply of equipment (5.1 million yen)				
			Development survey (1 case)				
	Total	825.00	Total	119.00	Total	0.00	944.00
1988	Aid for Increased Food Production	250.00	Acceptance of trainees (18 no.)				
			Dispatch of experts (2 no)				
			Dispatch of investigation team (33 no.)				
			Dispatch of JOCV (4 no.)				
			Supply of equipment (1.1 million yen)				
			Development survey (1 case)				
	Total	250.00	Total	204.00	Total	0.00	454.00
1989	Project for the Construction of the Micro Hydro Power Facilities	874.00	Acceptance of trainees (13 no.)				
	Paro Valley Comprehensive Agriculture Development Program	625.00	Dispatch of experts (2 no.)				
	Increased Food Production	250.00	Dispatch of investigation team (20 no.)				
	Cultural Grant (audio equipment)	48.00	Dispatch of JOCV (8)				
			Supply of equipment (6.3 million yen)				
			Development survey (1 case)				
	Total	1797.00	Total	163.00	Total	0.00	1960.00
1990	Paro Valley Comprehensive Agriculture Development Program	434.00	Acceptance of trainees (19 no.)				
	The Project for the Construction of the Micro Hydro Power Facilities Stage II	567.00	Dispatch of experts (1 no)				
	Increase of Food Production	250.00	Dispatch of investigation team (19)				
			Dispatch of JOCV (7 no.)				
			Supply of equipment (21.6 million yen)				
			Development survey (1 case)				
	Total	1251.00	Total	343.00	Total	0.00	1594.00

1991	Project for the Development of the Domestic Telecommunication Network (phase I)	1540.00	Acceptance of trainees (22 no.)				
	Aid for Increased Food Production	300.00	Dispatch of investigation team (9 no.)				
	Fumigation equipment to the National library	46.00	Dispatch of JOCV (16)				
			Supply of equipment (21.2 million yen)				
			Development survey (1 case)				
	Total	1886.00	Total	278.00	Total	0.00	2164.00
1992	Project for the Development of the Domestic Telecommunication Network (phase II)	1567.00	Acceptance of trainees (24 no.)				
	Aid for Increased Food Production	250.00	Dispatch of investigation team (16)				
	Grassroots project (1 Project)	5.00	Dispatch of JOCV (8 no.)				
			Supply of equipment (11.0 million yen)				
	Total	1822.00	Total	314.00	Total	0.00	2136.00
1993	Project for the Development of the Domestic Telecommunication Network (Phase III)	313.00	Acceptance of trainees (37 no.)				
	Paro Valley Agricultural Development Project (Phase III)	856.00	Dispatch of investigation team (15 no.)				
	Aid for Increased Food Production	300.00	Dispatch of JOCV (11 no.)				
	Dzongkha Typewriters to Schools	49.00	Supply of equipment (5 million yen)				
			Development survey (1 case)				
	Total	1518.00	Total	362.00	Total	0.00	1880.00
1994	Project for the Development of the Domestic Telecommunication Network	422.00	Acceptance of trainees (35 no.)				
	Project for the Paro Valley Agricultural Development	716.00	Dispatch of experts (1 no)				
	Aid for Increased Food Production	300.00	Dispatch of investigation team (38)				
	Grassroots project (1 Project)	5.00	Dispatch of JOCV (16 no.)				
			Supply of equipment (8 million yen)				
			Development survey (1 case)				
	Total	1443.00	Total	525.00	Total	0.00	1968.00
1995	Project for Improvement of the Equipment for Road Construction and Maintenance (Phase II)	557.00	Acceptance of trainees (58 no.)				

	Paro Valley Agricultural Development Project	587.00	Dispatch of experts (3 no.)				
	Project for Construction of the Domestic Telecommunication Network in the Western Region	87.00	Dispatch of investigation team (21 no.)				
	Grant Aid for increase of Food Production	175.00	Dispatch of JOCV (25)				
	Grassroots project (1 Project)	5.00	Supply of equipment (47 million yen)				
			Development survey (1 case)				
	Total	1411.00	Total	578.00	Total	0.00	1989.00
1996	Grant Aid for increase of Food Production	200.00	Acceptance of trainees (49 no.)				
	Project for Construction of the Domestic Telecommunication Network in the Western Region	796.00	Dispatch of experts (4 no)				
	Grassroots project (2 Projects)	10.00	Dispatch of investigation team (10 no.)				
			Dispatch of JOCV (15 no.)				
			Supply of equipment (141.0 million yen)				
			Development survey (1 case)				
Total	1006.00	Total	535.00	Total	0.00	1541.00	
1997	Project for Construction of the Domestic Telecommunication Network in the Western Region	994.00	Acceptance of trainees (58 no.)				
	Supply of Equipment for Preservation and Recording of Cultural Assets to the National Museum of Bhutan	40.00	Dispatch of experts (2 no.)				
	Grassroots project (2 Projects)	8.00	Dispatch of investigation team (34 no.)				
	Grant Aid for increase of Food Production	200.00	Dispatch of JOCV (8)				
			Supply of equipment (21.7 million yen)				
			Development survey (3 cases)				
Total	1242.00	Total	496.00	Total	0.00	1738.00	
1998	Project for Construction of the Domestic Telecommunication Network in the Western Region	388	Acceptance of trainees (51 no.)				
			Dispatch of experts (5 no)				
			Dispatch of investigation team (40 no.)				
			Dispatch of JOCV (19 no.)				

			Supply of equipment (30.9 million yen)				
			Development survey (3 cases)				
	Total	388	Total	558.00	Total	0.00	946.00
1999	Grant Aid for increase of Food Production	300.00	Acceptance of trainees (60 no.)				
	Grassroots project (1 Project)	9.00	Dispatch of experts (6 no.)				
			Dispatch of investigation team (41 no.)				
			Dispatch of JOCV (17 no.)				
			Supply of equipment (60.30 million yen)				
	Total	309.00	Total	636.00	Total	0.00	945.00
2000	Project for Reconstruction of Bridges	49.00	Acceptance of trainees (59 no.)				
	Project for Improvement of Maternal and Child Health and Essential Equipment	205.00	Dispatch of experts (2 no.)				
	Grant Aid for increase of Food Production	200.00	Dispatch of investigation team (30 no.)				
	Grassroots Projects (2 Projects)	19.00	Dispatch of JOCV (12 no.)				
			Supply of equipment (26.11 million yen)				
	Total	473.00	Total	542.00	Total	0.00	1015.00
2001	Project for Reconstruction of Bridges	534.00	Acceptance of trainees (85 no.)				
	Grant Aid for Increase of Food Production	400.00	Dispatch of experts (7 no.)				
	Grassroots Projects	24.00	Dispatch of investigation team (6 no.)				
			Supply of equipment (39.98 million yen)				
			Acceptance of Foreign Students (15 no.)				
			Dispatch of JOCV (20 no.)				
			Other Volunteers (8 no.)				
	Total	958.00	Total	547.00	Total	0.00	1505.00
2002	The Project for Reconstruction of Bridges (government loan 2/3)	758.00	Acceptance of trainees (111 no.)				
	Grant Aid for increase of Food Production	400.00	Dispatch of experts (5 no.)				
	Grassroots Projects (3 Projects)	23.00	Dispatch of investigation team (35 no.)				
			Supply of equipment (33.99 million yen)				
			Acceptance of Foreign Students (21 no.)				

			Dispatch of JOCV (14 no.)				
			Other Volunteers (12 no.)				
	Total	1181.00	Total	722.00	Total	0.00	1903.00
2003	The Project for Reconstruction of Bridges (government loan 3/3)	421.00	Acceptance of trainees (191 no.)				
	The Project for the Improvement of Equipment for Road Construction and Maintenance	603.00	Dispatch of experts (3 no.)				
	Grassroots Human Security Projects (1 project)	8.00	Dispatch of investigation team (51 no.)				
			Supply of equipment (96.09 million yen)				
			Acceptance of Foreign Students (22 no.)				
			Dispatch of JOCV (16 no.)				
			Other Volunteers (8 no.)				
	Total	1032.00	Total	834.00	Total	0.00	1866.00
2004	The Project for the Improvement of Machinery and Equipment for the Construction of Rural Agricultural Roads	521.00	Acceptance of trainees (165 no.)				
	The Project for Reconstruction of Bridges Phase II	46.00	Dispatch of experts (17 no.)				
	Grant Aid for increase of Food Production	300.00	Dispatch of investigation team (91 no.)				
	Grassroots Human Security Projects (2 projects)	19.00	Supply of equipment (117.26 million yen)				
			Acceptance of Foreign Students (56 no.)				
			Dispatch of JOCV (18 no.)				
			Other Volunteers (9 no.)				
	Total	886.00	Total	1126.00	Total	0.00	2012.00
2005	The Project for Reconstruction of Bridges, Phase II (government loan 1/3)	258.00	Acceptance of trainees (108 no.)				
	The Project for Construction of Education Facilities (1/4)	474.00	Dispatch of experts (12 no.)				
	The Project for Improvement of TV Programmes of Bhutan Broadcasting Service Corporation	40.00	Dispatch of investigation team (29 no.)				
	Grassroots Human Security Projects (2 projects)	12.00	Supply of equipment (145.94 million yen)				
			Acceptance of Foreign Students (21 no.)				
			Dispatch of JOCV (13 no.)				
			Other Volunteers (18 no.)				
	Total	784.00	Total	961.00	Total	0.00	1745.00
2006	The Project for Reconstruction of Bridges, Phase II (government loan 2/3)	749.00	Acceptance of trainees (100 no.)				

	The Project for Construction of Education Facilities (2/4)	307.00	Dispatch of experts (10 no.)				
	The Project for Community Empowerment	240.00	Dispatch of investigation team (18 no.)				
			Supply of equipment (69.59 million yen)				
			Acceptance of Foreign Students (22 no.)				
			Dispatch of JOCV (27 no.)				
			Other Volunteers (7 no.)				
	Total	1296.00		909.00	Total	0.00	2205.00
2007	The Project for Reconstruction of Bridges, Phase II (government loan 3/3)	295.00	Acceptance of trainees (67 no.)		Rural Electrification Project (Phase 1)	3576.00	
	The Project for Construction of Education Facilities (3/4)	1064.00	Dispatch of experts (9 no.)				
	The Project for Community Empowerment	210.00	Dispatch of investigation team (53 no.)				
	Grassroots Human Security Projects (2 projects)	12.00	Supply of equipment (32.85 million yen)				
	Emergency Grant Support (Bhutan General election via UNDP)	124.00	Dispatch of JOCV (10 no.)				
			Other Volunteers (17 no.)				
	Total	1705.00		Total	810.00	Total	3576.00
2008	The Project for Improvement of Equipment of Bhutan Broadcasting Service Corporation	594.00	Acceptance of trainees (71 no.)				
	The Project for Construction of Bridges (Phase III)	62.00	Dispatch of experts (19 no.)				
	Non-Project Grant Aid	200.00	Dispatch of investigation team (29 no.)				
	The Project for Community Empowerment	180.00	Supply of equipment (22.36 million yen)				
	The Project for Construction of Education Facilities (4/4)	1064.00	Acceptance of Foreign Students (30 no.)				
	Grassroots Human Security Projects (1 projects)	9.00	Dispatch of JOCV (21 no.)				
			Other Volunteers (4 no.)				
Total	2109.00		Total	694.00	Total	0.00	2803.00
2009	The Project for the Improvement of Machinery and Equipment for the Construction of Rural Agricultural Roads (Phase II)	597.00	Acceptance of trainees (103 no.)				
	The Project for the Construction of Bridges, Phase III (1/4)	424.00	Dispatch of experts (59 no.)				
	Grassroots Human Security Projects (2projects)	17.00	Dispatch of investigation team (18 no.)				
			Supply of equipment (101.69 million yen)				
			Acceptance of Foreign Students (27 no.)				

			Dispatch of JOCV (28 no.)				
			Other Volunteers (12 no.)				
	Total	1038.00	Total	856.00	Total	0.00	1894.00
2010	Food Security Project for Underprivileged Farmers	130.00	Acceptance of trainees (85 no.)				
	The Project for Replacement of Ambulances	161.00	Dispatch of experts (54 no.)				
	The Project for the Construction of Bridges, Phase III (2/4)	811.00	Dispatch of investigation team (30 no.)				
	Grassroots Human Security Projects (2projects)	25.00	Supply of equipment (31.49 million yen)				
			Acceptance of Foreign Students (47 no.)				
			Dispatch of JOCV (15 no.)				
			Other Volunteers (9 no.)				
	Total	1127.00	Total	782.00	Total	0.00	1909.00
2011	The Project for Reconstruction of Bridges, Phase III (3/4)	927.00	Acceptance of trainees (136 no.)		Rural Electrification Project (Phase 2)	2187	
	The Project for Restoration and Improvement of Vital Infrastructure for Cyclone Disaster	1019.00	Dispatch of experts (42 no.)				
	Non-Project Grant Aid(1project)	200.00	Dispatch of investigation team (23 no.)				
	Grassroots Human Security Projects (2projects)	13.00	Supply of equipment (42.71 million yen)				
			Dispatch of JOCV (14 no.)				
			Other Volunteers (5 no.)				
	Total	2159.00		724		2187	5070.00
2012	The Project for Reconstruction of Bridges, Phase III (4/4)	332.00	Acceptance of trainees (86 no.)				
	The Project for the Rehabilitation of Taklai Irrigation System in Sarpang District (Detailed Design)	46.00	Dispatch of experts (54 no.)				
	Grant Assistance for Underprivileged Farmers(1project)	110.00	Dispatch of investigation team (31 no.)				
	Grassroots Human Security Projects (3projects)	21.00	Supply of equipment (31.65 million yen)				
			Dispatch of JOCV (18 no.)				
			Other Volunteers (8 no.)				
	Total	509.00		659.00		0.00	1168.00

2013	The Project for the Rehabilitation of Taklai Irrigation System in Sarpang District (1/3)	233.00	Project for Capacity Development of GLOF and Rainstorm Flood Forecasting and Early Warning in the Kingdom of Bhutan	1609.00			
	Grassroots Human Security Projects (3projects)	17.00					
	Total	250.00		1609.00		0.00	1859.00

Data compiled by author from MFA Japan, White Paper 1985-2014 and JICA ODA report 1980-1985. *Data for technical cooperation translated and compiled from Japanese Language version)

10.2 List of Countries with Formal Diplomatic Bilateral Relations

No.	Country Name	Date of Estd. of Dip. Relations	No.	Country Name	Date of Estd. of Dip. Relations
1	India	Jan-68	28	Fiji	18.11.2011
2	Bangladesh	12.04.1973	29	Morocco	21.11.2011
3	Kuwait	23.05.1983	30	Luxembourg	01.12.2011
4	Nepal	03.06.1983	31	Czech Republic	02.12.2011
5	Maldives	20.07.1984	32	Serbia	09.12.2011
6	Netherlands	10.06.1985	33	Indonesia	15.12.2011
7	European Union	09.08.1985	34	Mongolia	18.01.2012
8	Denmark	13.08.1985	35	Vietnam	19.01.2012
9	Sweden	27.08.1985	36	Myanmar	01.02.2012
10	Switzerland	16.09.1985	37	Argentina	14.03.2012
11	Norway	05.11.1985	38	Costa Rica	21.03.2012
12	Japan	28.03.1986	39	Andorra	23.03.2012
13	Finland	01.05.1986	40	Mauritius	02.07.2012
14	Sri Lanka	13.05.1987	41	Swaziland	21.08.2012
15	Korea, South	24.09.1987	42	United Arab Emirates	13.09.2012
16	Pakistan	15.12.1988	43	Slovenia	13.09.2012
17	Austria	08.05.1989	44	Slovakia	26.09.2012
18	Thailand	14.11.1989	45	Armenia	26.09.2012
19	Bahrain	06.01.1992	46	Turkey	26.09.2012
20	Australia	14.09.2002	47	Egypt	14.11.2012
21	Singapore	20.09.2002	48	Kazakhstan	20.11.2012
22	Canada	25.06.2003	49	Poland	29.11.2012
23	Belgium	21.01.2009	50	Colombia	21.12.2012
24	Brazil	21.09.2009	51	Tajikistan	24.01.2013
25	Afghanistan	20.04.2010	52	Azerbaijan	07.02.2013
26	Spain	11.02.2011	53	Oman	15.03.2013
27	Cuba	26.09.2011			

Source: Ministry of Foreign Affairs, 2013

About the Author

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List of Major Work:

1. 2015: *Evaluation of National Land Rehabilitation Programme*, Gross National Happiness Commission, Thimphu.
2. 2015: *Draft National Evaluation Policy of Bhutan*, Gross National Happiness Commission, Thimphu.
3. 2012: *Strategic Framework for Rural Economy Advancement Programme*, Gross National Happiness Commission, Thimphu.
4. 2012: *SAARC Regional Poverty Profile of Bhutan (2009-2010)*, Gross National Happiness Commission, Thimphu.
5. 2011: *Progress on SAARC Development Goals*, Gross National Happiness Commission, Thimphu.