



**Sustainable Buildings  
and Climate Initiative**

*Promoting Policies and Practices for Sustainability*

# SUSTAINABLE BUILDING POLICIES ON ENERGY EFFICIENCY

*Myanmar*

UNITED NATIONS ENVIRONMENT PROGRAMME

Building and Construction



Authority



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A Centre Collaborating with UNEP

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## OVERVIEW

The United Nations Environment Programme (UNEP) in partnership with the Building and Construction Authority (BCA) of Singapore is preparing a regional status report within the framework of the global status reporting on sustainable buildings, launched by the United Nations Environment Programme - Sustainable Buildings and Climate Initiative (UNEP-SBCI). The regional status reporting will collate the current status and trends from sustainable buildings initiatives in the region, with the aim of publishing the **Regional Status Report on Sustainable Building Policies in South-East Asia**.

The Regional Status Report on Sustainable Building Policies in South-East Asia will provide an overview of the policies and initiatives put in place in various South-East Asian countries on promoting the development of sustainable buildings, with a first focus on Energy Efficiency related initiatives. The report is being conducted by BCA's Centre for Sustainable Buildings and Construction (CSBC).

Countries participating in the Regional Status Report on Sustainable Building Policies in South-East Asia are: **Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, The Philippines, Singapore, Thailand and Vietnam**.

The Country Profile on Sustainable Building Policies on Energy Efficiency in **Brunei Darussalam** is part of the series of country profiles linked to the Regional Status Report on Sustainable Building Policies in South-East Asia.

The Country Profile on Sustainable Building Policies on Energy Efficiency, collated as of June 2011, aims to profile country's sustainable building policies and initiatives according to the four category classification of policy instruments developed by UNEP-SBCI, stated in the publication of the "Assessment of Policy Instruments for Reducing Greenhouse Gas Emissions from Buildings, 2007". These four types of policy instruments cover the whole range from voluntary to regulatory.

The four policy instruments categories are:

- Category 1: Voluntary Instruments
- Category 2: Fiscal Instruments
- Category 3: Regulatory Instruments
- Category 4: Market-based Instruments

## CHAPTER 1 INTRODUCTION

### 1.1. Myanmar Overview

This section provides an overview of building stock, geography, population, economy and climate of Myanmar.

#### 1.1.1. Building Stock

Myanmar is basically an agricultural country where majority of its people live in rural areas with buildings vernacular in nature. The buildings are constructed, by the owner or community, using locally available resources and traditional technologies to address specific and local needs. Such buildings reflect the environmental and historical contexts in which they exist, as well as accommodate the values, economies and ways of life of the culture that produce them.

The largest city of Myanmar is Yangon, which has the largest number of colonial period buildings in South-east Asia. In the past two decades, many mid to high-rise residential and commercial buildings have also been constructed or renovated in the downtown and Great Yangon regions.

#### 1.1.2. Geography

Myanmar is situated in Southeast Asia and is bordered on the north and northeast by China, on the east and southeast by Laos and Thailand, on the south by the Andaman Sea and the Bay of Bengal and on the west by Bangladesh and India.

It is located between latitudes 09 32 N and 28 31 N and longitudes 92 10 E and 101 11 E.

The country covers an area of 677,000 square kilometres (261,228 square miles) ranging 936 kilometres (581 miles) from east to west and 2,051 kilometres (1,275 miles) from north to south. It is a land with hills and valleys and is rimmed in the north, east and west by mountain ranges forming a giant horseshoe.

Enclosed within the mountain barriers are the flat lands of Ayeyarwaddy, Chindwin and Sittaung River valleys where most of the country's agricultural land and population are concentrated.

The length of contiguous frontier is 6,159 kilometres. The total length of Myanmar-Bangladesh boundary is 271 kilometres (168.7 miles). The total length of Myanmar-China boundary is 2,204 kilometres (1,370 miles); Myanmar-Thailand 2,107 kilometres (1,309.8 miles); Myanmar-India 1,338 kilometres (831.8 miles); and Myanmar-Laos 238 kilometres (147.9 miles).

For more info: <http://www.commerce.gov.mm/eng/myanmar.html>





Source: <http://geography.about.com/library/cia/blcburma.htm>

### 1.1.3. Population

The Union of Myanmar is made up of 135 national races of which the main ethnic groups are Kachin, Kayah, Kayin, Chin, Bamar, Mon, Rakhine and Shan. According to the statistics of 2009, the total population of the country is estimated at 58.38 million and the population growth rate is 1.52 per cent. Males constitute 29.03 million, forming 49.72 per cent and females constitute 29.35 million, forming 50.28 per cent.

For more info: <http://www.commerce.gov.mm/eng/myanmar.html>

### 1.1.4. Economy

Myanmar is basically an agricultural country. The agricultural sector constitutes 41 per cent of the total GDP and 11 per cent of foreign exchange earnings. The vast potential of land resources are available with different weather and various soil conditions by the combination of technology can enhance the production of cash crops and industrial crops. Various types of cash crops and industrial crops are able to cultivate in Myanmar, such as rice, pulses and beans, maize, sesame, rubber, coffee, tea, sugar cane, jute, wheat, cotton, pepper, oil palm, various kinds of herbs, variety of fruits and vegetables, etc.

Second prospective sector is livestock and fisheries sector. Myanmar is endowed with rich and various types of marine and inland fisheries resources with production potentials of 1.05 million metric tons per annum from marine source. Other sources are inland water bodies such as natural lakes, reservoirs, river systems, ponds and etc. which cover an area of about 8.2 million hectares.

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Under this sector, almost all of the production, processing and marketing of fishery/fishery related activities are carried out by the private sector. All state owned fishing vessels, carried vessels, ice plants, processing plants, cold stores, fishmeal plants dehydration plants, etc. are sold or leased to private sector. There is no state owned institution competing with the private sector in fishery and fishery related industry.

The third potential is forestry sector. Myanmar, since the immemorial time, has been committed to conserve forest and biodiversity. The forest flora is diverse, varying from sub-alpines on the snow-capped mountains in the north with dry and moist deciduous to tropical monsoon forests in the south with mangrove along the coastal areas and coral reefs offshore.

Myanmar is also home of teak which is recognized as one of the most valued and sought-after tropical timber of the world and it is asserted that extensive and beautiful natural teak stands can only be seen in Myanmar today. Production of value-added wood based items such as wood related products, wood carvings, parquet, tiles, plywood, doorframes and furniture are prosperous business under the forestry sector.

For more info: <http://www.commerce.gov.mm/eng/myanmar.html>

## 1.1.5. Climate

The climate of Myanmar is roughly divided into three seasons: summer, rainy season and cold season. From March to mid-May are summer months; the rain falls from mid-May to the end of October and the cold season starts in November and ends in the end of February. Generally, Myanmar enjoys a tropical monsoon climate. However, climatic conditions differ widely from place to place due to widely differing topographical situations. For instance, Central Myanmar has an annual rainfall of less than 40 inches while the Rakhine coast gets about 200 inches.

Besides, the average highest temperature in Central Myanmar during the summer months March and April is above 110° F (43.3 degree centigrade) while in Northern Myanmar, it is about 79° F (36.1 degree centigrade) and on the Shan Plateau between 85° F and 95° F (29.4 centigrade and 35 degree). Temperature of towns varies according to their location and elevation.

The location and topography of the country create summer, rainy season, and cold season. Extremes of temperature are not encountered. The direction of winds and depression bring rains, and in some years, severe storms occur causing damage from storm in coastal regions. In order to bring about the favourable climatic conditions, the State has given priority to the Nine Districts Special Region Refoliation Project.

For more info: <http://www.csostat.gov.mm/myan1.asp>

## 1.2. Resources

This section provides an overview of resources in Brunei Darussalam in the following categories: energy, water, material, indoor / outdoor environmental quality.

### 1.2.1. Energy

Energy utilization in Myanmar mainly depends upon traditional energy such as fuelwood, charcoal and biomass. During 1999-2000, 35 percent of the total energy consumption is contributed by commercial energy such as oil, natural gas, coal and hydropower. The consumption of liquid fuel was less than one million ton constituting about 7 percent of the



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total energy consumption. The utilization of natural gas in total energy consumption is around 10 percent and coal is about 0.2 - 0.3 percent. The balance utilization of different energy types have all along been emphasized and increased production of commercial energy has been prioritized in order to replace traditional energy types and at the same time to meet the requirement of industrial development programme.

Myanmar has abundant renewable energy sources such as hydropower, wind, solar, geothermal, biomass and other types of renewable energy sources. Renewable energy, i.e., hydroelectricity and biomass contributed 67 percent of total energy consumption. Biomass in the form of fuelwood, charcoal, agriculture waste and animal dung are predominantly used.

To liberalize the trade and to open up private sector investment opportunities, Myanmar has established a new economic system based on market oriented economy. Thus, the Government promulgated Union of Myanmar Foreign Investment Law and its related procedure in 1988.

As the outcome of the new economic policy, new investments in all sectors of economy as well as construction and infrastructure developments are growing at a faster pace, and the energy demand growth has increased due to the change from supply oriented to demand oriented market. Therefore, it is estimated that the energy demand growth in Myanmar will increase rapidly up to year 2003-2004, and then increase gradually.

In order to meet the challenges of the energy demand growth in the 21st Century, energy policy guidelines had been laid and pursued. The policy guidelines for energy sector are:-

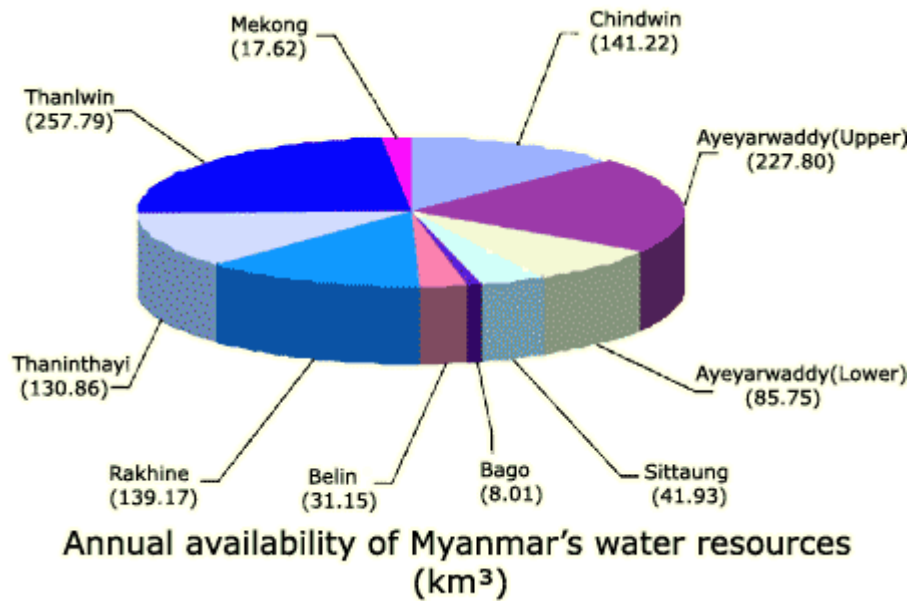
- To maintain the the status of energy independence
- To employ hydroelectric power as one of the vital sources of energy sufficiency
- To generate and distribute more electricity for economic development
- To save non-renewable energy for future energy sufficiency of the nation
- To promote efficient utilization of energy and impress on energy conservation
- To prevent deforestation caused by excess use of fuelwood and charcoal

For more info: <http://www.energy.gov.mm/energyefficiency.htm>

## 1.2.2. Water

The principal water courses flowing separately in Myanmar comprise five rivers, the Ayeyarwady, Sittaung, Thanlwin, Bago, Bilin and their major tributaries such as Chindwin, Myittha, Mu, Zawgyi, Panlaung, Samon, Myitnge, Mon, Man Salin, Yaw, Mindon and other rivulets. All rivers, with the exception of Thanlwin are wholly rivers within Myanmar and can be considered nationally owned water assets.

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The catchment area of Myanmar's eight principle river basins comprise about (8402) hectares, and the average annual in-flow of water is (1080.5) km<sup>3</sup>, and the scope for further expansion is tremendous. The available land and water resources are still abundant, and land-man ratio and other indices remain favourable as shown below:

- Land area of Myanmar =67.65 million hectares
- Agricultural Land =17.25 million hectares
- Population of Myanmar (2002-03) =52 million
- Agricultural Land availability per person =0.33 hectares
- Annual inflow of water resources =1080.6 km<sup>3</sup>
- Irrigated area under various means =2.07 hectares
- Annual utilization of water for cultivation =39.55 km<sup>3</sup>
- Water availability per acre for whole of Myanmar =1.6 m
- Water availability for one acre of agricultural land =6.3 m
- Current percentage of annual usage of water for cultivation =6%

The river systems in Myanmar are shown in table below:

River System		Drainage Area Percentage
1.	Ayeyarwady, Chindwin, Myitmakha Rivers	58.0
2.	Sittaung River	5.4
3.	Thanlwin River	18.4
4.	Bago River	0.8
5.	Bilin River	0.4
6.	Other triutaries/ rivulets	17.0
<b>Total</b>		<b>100.0</b>

For more info: <http://id.moai.gov.mm/website/water/myanmarriversystem.html>

### 1.2.3. Material

Myanmar has rich natural resources. Petroleum, timber, tin, antimony, zinc, copper, tungsten, lead, coal, marble, limestone, precious stones, natural gas, hydropower are abundant in Myanmar.

With the intention of producing dimension stones for use in construction and decoration works, systematic geological survey and prospecting has discovered an abundant occurrence of granite and marble deposits in Myanmar with various colors and patterns.

For more info: <http://www.commerce.gov.mm/eng/myanmar.html>

### 1.2.4. Indoor / Outdoor Environmental Quality

The extent of pollution and the accompanying environmental degradation in Myanmar is highly localized. The degree of air and water pollution caused by industry or agriculture has been minimal due to the low level of industrialization and the relatively small amount of chemicals used in agriculture. The data on sources of inland water pollution as well as on air pollution and air quality are not available. There are no air pollution and air quality monitoring stations or automobile exhaust monitoring stations in Myanmar. However, pollution from vehicles is not so significant and up to the present time, Myanmar has not encountered serious problems concerning marine pollution. Indoor air pollution may exist but the danger has not been fully recognized.

For more info:

<http://www.law.nus.edu.sg/sybil/downloads/articles/SJICL-1997.../SJICL-1997-609.pdf>

## CHAPTER 2 SUSTAINABLE DEVELOPMENT FRAMEWORK

### 2.1. National Plans

This section provides the key national plans on climate change, sustainable development and sustainable buildings and construction in Myanmar.

#### 2.1.1. National Environment Policy of Myanmar

The Government of the Union of Myanmar adopted the National Environment Policy of Myanmar on 5 December 1994 with the aim to establish sound environment policies in the utilization of water, land, forests, mineral, marine resources and other natural resource in order to conserve the environment and prevent its degradation. The Policy calls for the integration of environment and development to achieve sustainable development in the country and to give environmental protection a priority in promoting economic development.

“The wealth of a nation is its people, its cultural heritage, its environment and its natural resources. The objective of Myanmar's environment policy is aimed at achieving harmony and balance between these through the integration of environmental considerations into the development process to enhance the quality of life of all its citizens. Every nation has the sovereign right to utilize its natural resources in accordance with its environmental policies; but great care must be taken not to exceed its jurisdiction or infringe upon the interests of other nations. It is the responsibility of the State and every citizen to preserve its natural resources in the interests of present and future generations. Environmental protection should always be the primary objective in seeking development”.

#### 2.1.2. Agenda 21

Myanmar has already formulated and adopted Myanmar Agenda 21, published by the NCEA, with the general aim of facilitating the integration of environmental and sustainable development consideration in the daily activities and decisions of individuals, households, communities, corporations and Governmental agencies. The specific aim is to facilitate the incorporation of environmental and sustainable development policy considerations into decision making and policy formulation process. This national Agenda 21 outlines programmes and activities for sustainable consumption and/or production patterns. Guidelines are also included on the following issues:

- increasing energy and material efficiency in production processes;
- reducing wastes from production and promoting recycling;
- promoting use of new and renewable sources of energy
- using environmentally sound technologies for sustainable production;
- reducing wasteful consumption;
- increasing awareness for sustainable consumption.

The Myanmar Agenda 21 contains guidelines to address the above-mentioned issues. Among the major programmes contained in the Myanmar Agenda 21 are these:

- Public education and participation;
- Food and Nutrition;
- Food Production;
- Essential consumption items;
- Production methods;
- Research and Studies and
- Institution building.

These programmes focus on environmental, economic, social or cultural aspects of sustainable consumption and production.

### **2.1.3. National Sustainable Development Strategies**

National Sustainable Development Strategy (NSDS), Myanmar has been launched in July 2009. It covers three main areas of Social, Economic and Environmental issues and focus national effort to achieve sustainable development.

## **2.2. National Organisations**

### **2.2.1 Ministry of Energy**

The Ministry of Energy ("MOE") was reformed during 1985 and composed of Minister's Office, one Department and three Enterprises as follows :

Energy Planning Department (EPD)  
Myanma Oil and Gas Enterprise (MOGE)  
Myanma Petrochemical Enterprise (MPE)  
Myanma Petroleum Products Enterprise (MPPE)

Ministry of Energy has the main responsibility to carry out Exploration and Production of Crude Oil and Natural Gas, Refining, Manufacturing of Petrochemicals and Transportation, Distribution of Petroleum Products.

**Please refer to Appendix 1 for the Website Links of Key National Plans and Organisations in Myanmar**



## CHAPTER 3      POLICY INSTRUMENTS IN MYANMAR

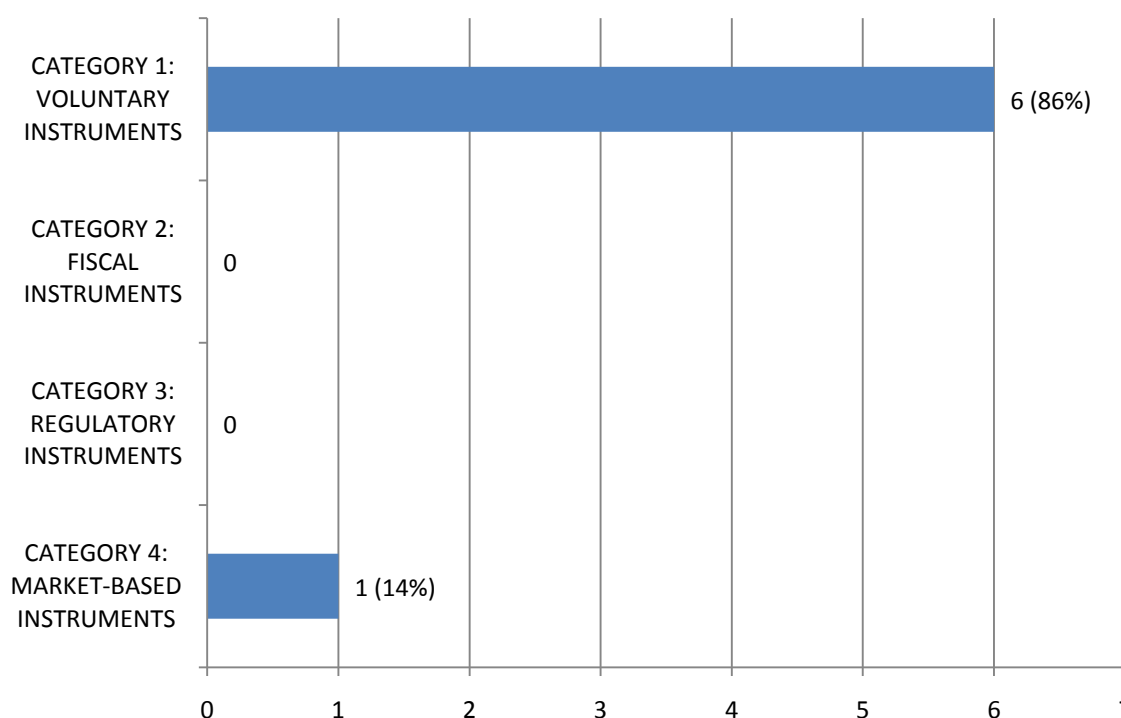
### 3.1.      Overview of Policy Instruments

Myanmar has a package of policy measures spread out over the four categories:

- Category 1: Voluntary Instruments: 6 initiatives
- Category 2: Fiscal Instruments: Nil
- Category 3: Regulatory Instruments: Nil
- Category 4: Market-based Instruments: 1 initiative

KEY SUSTAINABLE BUILDING POLICIES AND INITIATIVES ON ENERGY EFFICIENCY IN MYANMAR 2010/2011					
	CATEGORY 1 VOLUNTARY INSTRUMENTS	CATEGORY 2 FISCAL INSTRUMENTS	CATEGORY 3 REGULATORY INSTRUMENTS	CATEGORY 4 MARKET-BASED INSTRUMENTS	
product and building standards					Total 0
public initiatives				1 initiative	Total 1
private and private-public initiatives					Total 0
educational and awareness raising initiatives	6 initiatives				Total 6
	Total 6	Total 0	Total 0	Total 1	Total 7
TOTAL 7 INITIATIVES					

### Key Sustainable Building Policies and Initiatives on Energy Efficiency in Myanmar 2010/2011



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Key sustainable building policies and initiatives on energy efficiency in Myanmar in 2010/2011 are categorised in table below:

	<b>CATEGORY 1 VOLUNTARY INSTRUMENTS</b>	<b>CATEGORY 2 FISCAL INSTRUMENTS</b>	<b>CATEGORY 3 REGULATORY INSTRUMENTS</b>	<b>CATEGORY 4 MARKET-BASED INSTRUMENTS</b>
<b>Products and buildings standards</b>	<b>Voluntary certificates</b>  <b>Voluntary labels</b>  <b>Voluntary audits</b>  <b>Billing and disclosure programs</b>	<b>Taxation</b>  <b>Tax exemptions / reductions</b>	<b>Appliance standards</b>  <b>Building codes</b>  <b>Mandatory certificates</b>  <b>Mandatory labels</b>  <b>Mandatory audits</b>  <b>Mandatory billing and disclosure programs</b>	<b>Market-based programs [concerning products and services]</b>
<b>Public initiatives</b>	<b>Public leadership programs, awards</b>  <b>Executive leadership programs</b>  <b>Awards</b>	<b>Incentives</b>  <b>Grants</b>  <b>Funds</b>  <b>Capital subsidies</b>	<b>Mandatory public sector programs</b>	<b>Kyoto flexibility mechanisms</b> 3.2.4.1 Clean Development Mechanism  <b>Private leadership programs, awards</b>  <b>Executive leadership programs</b>  <b>Awards</b>
<b>Private and private-public initiatives</b>	<b>Voluntary and negotiated agreements</b>	<b>Public benefit charges</b>	<b>Procurement regulations</b>  <b>Efficiency obligations and quotas (EOs)</b>  <b>Utility demand-side management programs</b>	<b>Performance contracting</b>  <b>Cooperative procurement</b>  <b>Efficiency certificate schemes</b>
<b>Educational initiatives</b>	<b>Educational programs</b> 3.2.1.1 Energy Policy and Strategy	<b>Educational programs</b>	<b>Educational programs</b>	<b>Educational programs</b>
<b>Awareness raising initiatives</b>	<b>Awareness raising programs</b> 3.2.1.2 Energy Modeling  3.2.1.3 Energy Conservation Model Project (ECMP)  <b>Voluntary programs</b> 3.2.1.4 Regional Energy Cooperation  <b>Competitions</b>  <b>Conferences</b> 3.2.1.5 Energy Conservation Seminar <b>Campaigns</b>  <b>Others</b> 3.2.1.6 Energy Efficiency and Conservation	<b>Awareness raising programs</b>	<b>Awareness raising programs</b>	<b>Awareness raising programs</b>

## 3.2. Policies and Initiatives

### 3.2.1. Category 1 Voluntary Instruments: 6 initiatives

Myanmar has educational programs on energy policy and strategy, awareness raising voluntary programs on energy modeling, energy conservation model project and energy efficiency and conservation awareness. They have voluntary program on regional energy cooperation and conduct energy conservation seminar.

#### 3.2.1.1. Energy Policy and Strategy

The main objective of the Policy is to utilize optimum amount of energy efficiently and to save non renewable energy sources. The Energy Strategy emphasized on the development of all available energy resources of the country and to increase the production level of existing energy sources and at the same time to update the unsuppressed energy demand.

#### 3.2.1.2. Energy Modeling

Energy Planning Department ("EPD") of the Ministry of Energy is forecasting energy demands by computer energy modeling. In the database management of energy demand and in the sectoral energy demand studies, Database Administration Variable Output Input Data ("DBAVOID") computer software was used. For long term final energy demand simulation system, Energy Demand Evaluation Model ("MEDEE-S") was used.

#### 3.2.1.3. Energy Conservation Model Project (ECMP)

Under the cooperation program between NEDO and Foreign Economic Relation Department ("FERD") of the Ministry of National Planning, Feasibility Study for Energy Conservation Model Project ("ECMP") was launched. Energy conservation measures will be implemented to selected plants and factories after completion of Feasibility Study.

#### 3.2.1.4. Regional Energy Corporation

##### Bangladesh India Myanmar Sri Lanka Thailand-Economic Cooperation (BIMST-EC)

Myanmar has become a member of BIMST-EC during December 1997. Since then, Myanmar has actively participated to achieve the goal laid down in the Bangkok Declaration.

At the Second Ministerial Meeting held in Dacca during 1998, Energy Sector was selected as one of the six priority sector for promotion in the BIMST-EC Region.

Myanmar has actively participating in the following Sectors of Cooperation:

- Trade and Investment
- Technology
- Transportation and Communication
- Energy
- Tourism
- Fisheries

##### ASEAN Energy Sector Cooperation

Myanmar has signed an Agreement on the Establishment of the ASEAN Centre for Energy on 22nd May 1998, together with Brunei Darussalam, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand and Vietnam in Manila, Philippines.

## Greater Mekong Sub-region Economic Cooperation

Since the inception of Greater Mekong Sub-region (GMS) in 1992, Energy Sector Cooperation is one of the nine major areas for cooperation in the GMS Program.

The Greater Mekong Sub-region (GMS) consists of Cambodia, the People's Republic of China (PRC), Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand and Vietnam. It has a combined population of nearly 320 million and a contiguous land area of about 2.5 million square kilometers. In 1992, with the assistance of the Asian Development Bank (ADB), the GMS countries met together for the first time and agreed to launch a program of sub-regional economic cooperation designed to enhance economic linkages across their borders. The GMS Program has no formal organization like the Association of South East Asian Nations (ASEAN). It covers nine sectors and areas of cooperation, namely: agriculture, energy, environment, human resource development, telecommunications, transport, tourism, trade and investment.

The GMS economic cooperation in energy sector are as follows: -

- Regional Power Interconnection & Power Trade Arrangements
- Sub-regional Strategy for the Utilization of Natural Gas
- Sub-regional Strategy for Cooperation in Renewable Energy

## Ayeyawaddy-ChaoPhraya-Mekong Economic Cooperation Strategy

The summit meeting on the Economic Cooperation Strategy between the Cambodia, Laos, Myanmar and Thailand (CLMT) was held in Bagan, Myanmar on 11-12 November 2003. The heads of the Government of Laos, Cambodia, Myanmar and Thailand signed the Bagan Declaration of Enhancing Economic Cooperation Strategy (ECS) among CLMT countries.

The Summit agreed to call the agreement as "Ayeyarwaddy - Chao Phraya - Mekong Economic Cooperation Strategy" or ACMECS.

The ACMECS's economic cooperation in five strategic areas are as follows: -

- Trade and Investment Facilitation.
- Agricultural and Industrial Cooperation.
- Transport Linkages.
- Tourism Cooperation.
- Human Resources Development

### **3.2.1.5. Energy Conservation Seminar**

Due to population growth and change in the economic system, the demand for energy has increased. Thus energy conservation measures and improvement of efficiency of equipment are becoming essential.

Ministry of Energy in cooperation with New Energy and Industrial Technology Development Organization ("NEDO") of Japan is planning to hold Energy Conservation Seminar to a wide range of people related in energy conservation, policy making and promotion. It aims to provide practical training in the use of NEDO-DB.

### **3.2.1.6. Energy Efficiency and Conservation (EEC)**

Energy Efficiency and Conservation ("EEC") awareness is presently not very high in Myanmar due to subsidized energy pricing system. However, energy cost awareness is the key initiative in EEC as it is essential for everyone to be aware of energy cost impact and put in effort to save energy.

### **3.2.2. Category 2 Fiscal Instruments: Nil**

### **3.2.3. Category 3 Regulatory Instruments: Nil**

### **3.2.4. Category 4 Market-Based Instruments: 1 initiative**

#### **3.2.4.1. Clean Development Mechanism (CDM)**

As a measure to control environmental pollution from emission of GHG from plants under the Ministry of Energy, Efficient Energy Utilization has been implemented in cooperation with Cosmo Engineering Co., Ltd., Cosmo Oil Co., Ltd., Nichimen Corporation and Mitsubishi Research Institute of Japan. It is aimed for Anti Global Warming under a programme by Japanese Ministry of Trade and Industry ("MITI") and New Energy and Industrial Technology Development Organization ("NEDO") of Japan. Feasibility Study was made at Thanlyin Refinery to reduce GHG in an economical way.

### **3.3. Building rating system**

Information is not available.

**Please refer to Appendix 2 on the Website Links of the Key Sustainable Building Policies and Initiatives under the four categories in Myanmar**

## **CHAPTER 4 BEST PRACTICE**

Information is not available.



### WEBSITE LINKS OF THE KEY NATIONAL PLANS AND ORGANISATIONS IN MYANMAR

#### MYANMAR - KEY NATIONAL PLANS

- 2.1.1. **National Environment Policy of Myanmar 1994**  
[http://myanmar-unfccc-nc.net/index.php?option=com\\_content&view=article&id=7&Itemid=18](http://myanmar-unfccc-nc.net/index.php?option=com_content&view=article&id=7&Itemid=18)
- 2.1.2. **Agenda 21**  
[http://myanmar-unfccc-nc.net/index.php?option=com\\_content&view=article&id=7&Itemid=18](http://myanmar-unfccc-nc.net/index.php?option=com_content&view=article&id=7&Itemid=18)  
<http://www.un.org/esa/agenda21/natlinfo/countr/myanmar/eco.htm>  
<http://www.energy.gov.mm/environmentalconsideration.htm>
- 2.1.3. **National Sustainable Development Strategies**  
[http://myanmar-unfccc-nc.net/index.php?option=com\\_content&view=article&id=7&Itemid=18](http://myanmar-unfccc-nc.net/index.php?option=com_content&view=article&id=7&Itemid=18)

#### MYANMAR - KEY NATIONAL ORGANISATIONS

- 2.2.1. **Ministry of Energy**  
<http://www.energy.gov.mm/>

## APPENDIX 2

### WEBSITE LINKS OF THE KEY SUSTAINABLE BUILDING POLICIES AND INITIATIVES UNDER THE FOUR CATEGORIES IN MYANMAR

#### MYANMAR - CATEGORY 1 VOLUNTARY INSTRUMENTS: 6 INITIATIVES

- 3.2.1.1. Energy Policy and Strategy
- 3.2.1.2. Energy Modeling
- 3.2.1.3. Energy Conservation Model Project (ECMP)  
<http://www.energy.gov.mm/energyefficiency.htm>
- 3.2.1.4. Regional Energy Corporation  
<http://www.energy.gov.mm/regionalenergycooperation.htm>
- 3.2.1.5. Energy Conservation Seminar  
<http://www.energy.gov.mm/energyefficiency.htm>
- 3.2.1.6. Energy Efficiency and Conservation (EEC)  
<http://www.energy.gov.mm/environmentalconsideration.htm>

#### MYANMAR - CATEGORY 2 FISCAL INSTRUMENTS: Nil

#### MYANMAR - CATEGORY 3 REGULATORY INSTRUMENTS: Nil

#### MYANMAR – CATEGORY 4 MARKET-BASED INSTRUMENTS: 1 INITIATIVE

- 3.2.4.1. Clean Development Mechanism (CDM)  
<http://www.energy.gov.mm/environmentalconsideration.htm>