

Sustainable Development Strategy for Greater Mekong Subregion (SDS GMS) is built on common and trans-boundary issues as well as existing individual strategies and policies, such as poverty reduction strategies and national environmental action plan and all other frameworks. The long term vision of GMS countries is to create more integrated, prosperous and equitable Mekong sub-region, completing national efforts to promote economic growth and reduce poverty and augmenting domestic development opportunities to create sub-regional opportunities. It will serve as a long term policy guideline and reference document for SD of the populations, sharing environmental resources. The document was prepared in a participatory process in consultation with the concerned Line Ministries of respected countries, intergovernmental organizations, international organizations, and civil society organizations.



Sustainable Development Strategy for Greater Mekong Subregion

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**SUSTAINABLE DEVELOPMENT
STRATEGY FOR
GREATER MEKONG
SUBREGION**

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**Sustainable Development Strategy
of the Greater Mekong Sub-region (DRC - ROAP)**

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FOREWORD

Message from Achim Steiner, United Nations Under-Secretary-General and Executive Director, United Nations Environment Programme

The Greater Mekong subregion – made up of Cambodia, the People’s Republic of China, the Lao People’s Democratic Republic, Myanmar, Thailand and Viet Nam – is endowed with a rich and diverse natural resource base. The Mekong River itself has historically supported economic development and sustained rural livelihoods. However, differing political, economic, institutional and cultural circumstances across the countries of the subregion have resulted in uneven progress towards sustainable development.

On the request of the countries of the Greater Mekong subregion, and in cooperation with the Government of Norway and the Asian Development Bank, UNEP has provided technical and capacity building support for preparing National and Subregional Sustainable Development Strategies. This report highlights sustainable development challenges and prospects for the subregion and outlines essential goals, principles, and long-term strategic approaches. These include: poverty reduction through integrated and equitable economic growth, sustainable management of shared environmental resources, and nurturing human and social capital for achieving the Millennium Development Goals.

Recommended strategies and actions for poverty reduction include integrated community development, pro-poor infrastructure development and private sector development. Strategies for managing shared environmental resources include conserving and creating value from shared natural assets. Addressing transboundary issues and social vulnerability linked to natural resources are also key. The report also emphasizes the power of partnerships, and the importance of cooperation on issues related to environmental governance and human development.



I hope the strategies and action plans recommended in this report will be useful to policy and other decision makers for developing responses to the subregion's sustainable development challenges. UNEP gratefully acknowledges the contribution of governments, intergovernmental organizations, non-government organizations, and private sector and other regional and international groupings in the preparation of this report, and in particular the technical support provided by the Thailand Environment Institute.

A handwritten signature in black ink, reading "Achim Steiner". The signature is written in a cursive, flowing style.

Achim Steiner,

*United Nations Under Secretary General and Executive Director
United Nations Environment Programme*

ACKNOWLEDGEMENTS

Sustainable Development Strategy for the Greater Mekong Sub-region has been developed as a result of aspiration and implementation efforts of all stakeholders in the sub-region who were actively engaged in the long-term planning with participatory process.

The NSDS Project Secretariat expresses special gratitude to Dr. Chaiyod Bunyagjdi and Dr. Pongvipa Lohsomboon from Thailand Environment Institute (TEI) for consolidating inputs from representatives and Government officials of Cambodia, China (Yunnan Province), Lao PDR, Myanmar, Thailand and Vietnam, namely, UNEP Environmental Focal Points, representatives of the line ministries as well as the non-governmental organizations, private sector, international organizations, many individuals and research institutions in preparation of the “Sustainable Development Strategy for Greater Mekong Subregion”.

Valuable contributions and cooperation between ministries and civil society organizations of neighboring countries, providing with necessary information have been crucial in completing this strategic document. Special appreciation to Dr. Porametee Vimolsiri of the National Economic and Social Development Board of Thailand for hosting the challenging sub-regional consultations in Bangkok.

The NSDS Project Secretariat of the Regional Resource Centre for Asia and the Pacific of United Nations Environment Programme at the Asian Institute of Technology (AIT/ UNEP RRC.AP) expresses heartfelt appreciation for the Government of Norway and Asian Development Bank for the financial and moral support to the project in the Greater Mekong Subregion of Asia.

We look forward for the next phase of the project and success of the implementation of the strategy within new initiatives to address the challenges of sustainable development of the subregion, sharing the transboundary issues and the most beautiful natural resources and environment.

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PREFACE

Sustainable Development

“Our Common Future” (1987) - also known as the Brundtland Report – defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

Much has transpired since this phrase was coined in 1987, and today sustainable development is widely considered an integral element of the socio-economic development process around the globe. The 1992 UN Conference on Environment and Development (UNCED) in Rio de Janeiro and the World Summit on Sustainable Development (WSSD) in Johannesburg ten years later highlighted the three pillars – economic, environmental and social – that define sustainable development. “Sustainability” in these three dimensions has thus come to provide a holistic perspective for any development initiative in the new millennium.

“Our biggest challenge in this new century is to take an idea that seems abstract - sustainable development - and turn it into a daily reality for all the world’s people.”

*Kofi Annan,
Former UN Secretary*

Millennium Development Goals

In September 2000, at the United Nations Millennium Summit, world leaders agreed to a set of time bound and measurable goals and targets for combating poverty, hunger, disease, illiteracy, environmental degradation and discrimination against women. These Millennium Development Goals (MDGs) have since been placed at the heart of the global agenda. The eight MDGs – with the target date of 2015 – form a blueprint agreed to by all the world’s countries and leading development institutions, and have galvanized unprecedented efforts to meet the needs of the world’s poorest.

Millennium Development Goals to be achieved by 2015

- Goal 1:** Halve extreme poverty and hunger
- Goal 2:** Achieve universal primary education
- Goal 3:** Empower women and promote equality between women and men
- Goal 4:** Reduce under-five mortality by two-thirds
- Goal 5:** Reduce maternal mortality by three-quarters
- Goal 6:** Reverse the spread of diseases, especially HIV/AIDS and Malaria
- Goal 7:** Ensure environmental sustainability (including improved access to safe water/sanitation)
- Goal 8:** Create a global partnership for development; with targets for aid, trade and debt relief.

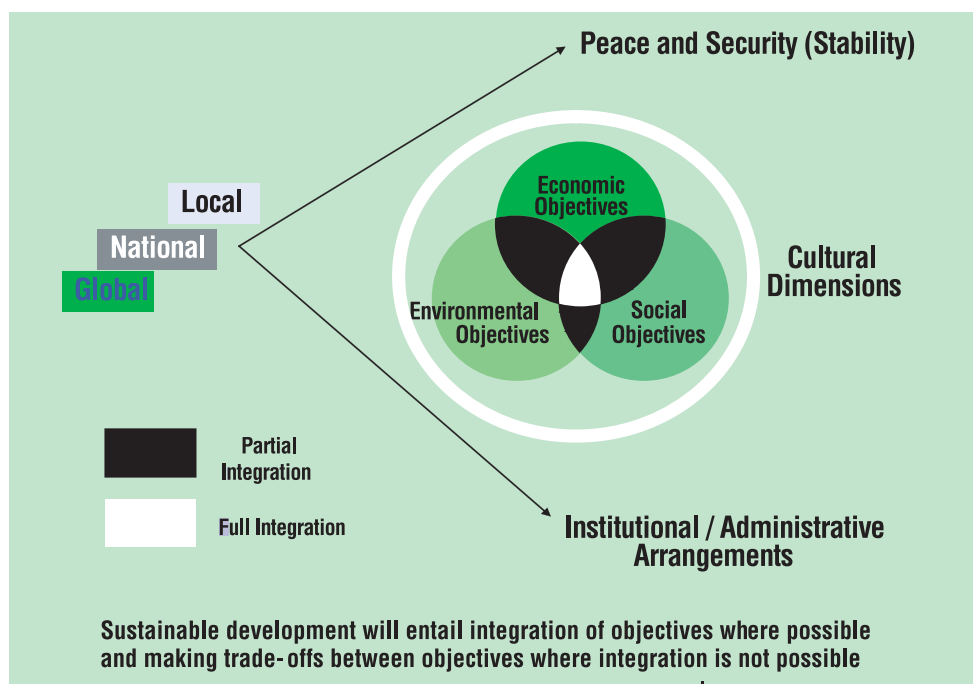
National/Sub-regional Sustainable Development Strategies

Operationalizing sustainable development is a major challenge, as it requires balancing economic, social and environmental objectives. Achieving sustainable development requires far-reaching policy and institutional reforms and involvement of all segments of society representing government, business and civil society.

In the global Agenda 21 adopted at the 1992 Rio Earth Summit, governments were urged to pursue the formulation of National and Sub-regional Sustainable Development Strategies (NSDS and SSDS) (Agenda 21 Chapter 8). The Rio+5 Summit in 1997 reaffirmed the importance of NSDS as a mechanism for countries to achieve sustainable development.

In the UN Millennium Declaration (2000), heads of states and governments reaffirmed their commitment to the principles of sustainable development and other provisions of Agenda 21. Subsequently, assessments made during the preparatory process for the 2002 WSSD highlighted the progress countries had made over the last decade in formulating policies and programmes relating to economic growth, social welfare and environment conservation.

The 2002 Johannesburg Plan of Implementation (JPOI) that emerged from the WSSD emphasized the need for the development, enhancement and implementation of agreed regional or sub-regional sustainable development strategies and action plans reflecting national and regional priorities. Such strategies should integrate economic, social and environmental dimensions of sustainable development (see illustration¹).

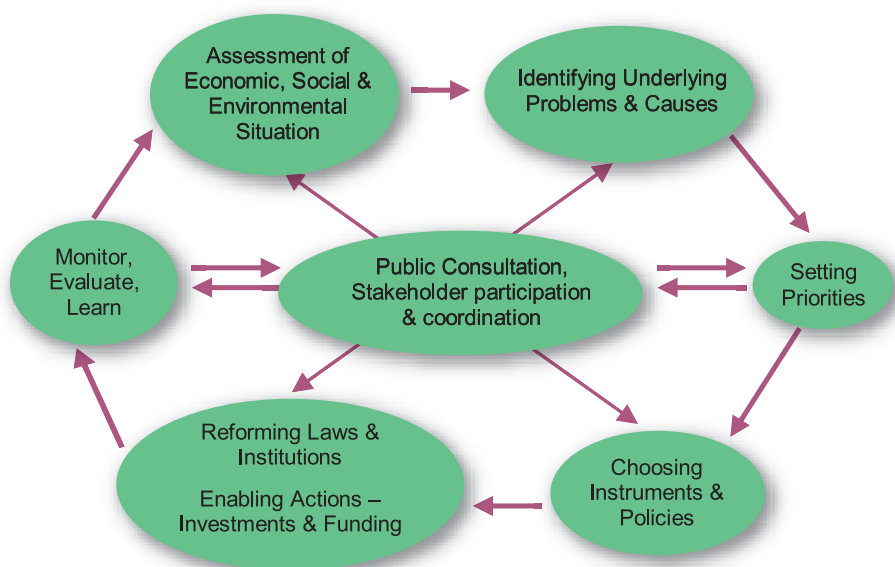


¹ Source: UNEP RRC.AP and NORAD Training Manual on NSDS. 2006.

² Source: UNEP RRC.AP and NORAD Training Manual on NSDS. 2006.

JPOI called upon countries to take immediate steps to make progress in the formulation and elaboration of NSDS, and begin their implementation by 2005. JPOI also encouraged sub-regional, regional and international organizations to assist in the preparation of SSDS.

The Development Assistance Committee of OECD has defined NSDS as “a coordinated set of participatory and continuously improving process of analysis, debate, capacity-strengthening, planning and investment, which integrates the economic, social and environmental objectives of society and seeks trade-offs where such integration is not possible.” NSDS is a process which involves situation analysis, formulation of policies and action plans, implementation, monitoring and regular review. It is a cyclical, interactive and adaptive process of planning, participation and actions in which the emphasis is on managing progress towards sustainable goals (see figure below²).



JPOI identified the lack of coordinated and holistic institutional mechanisms as a barrier to implementation of sustainable development. It also highlighted the need to formulate a more holistic sustainable development strategy at the sub-regional level to address common and transboundary issues. Hence, development of SSDS that builds upon individual NSDSs has been recommended.

SSDS For GMS

The Greater Mekong Sub-region (GMS) comprises the six countries that share the Mekong River — Cambodia, People’s Republic of China, Lao People’s Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam — and has become one of the world’s fastest growing sub-regions. The GMS is endowed with a rich

and diverse natural resource base, which has historically supported economic development and sustained rural livelihoods. But despite its geographic advantage and resources, about 50 million of the sub-region's 300 million people are still living in poverty on less than the equivalent of one dollar a day. Moreover, in recent years this natural resource base has come under increasing stress.

Given the commitments associated with Agenda 21, the MDGs and JPOI, there is express need for developing a SSDS for GMS. The processes of SSDS can be built on common and trans-boundary issues as well as existing individual national strategies and policies, including Poverty Reduction Strategies, National Environmental Action Plans and all the other relevant existing planning and developmental frameworks.

SSDS is expected to define a collective long term vision, goals and targets for GMS. Promoting a multi-stakeholder mechanism at the sub-regional level would ensure the participation of all relevant stakeholders in decision-making and implementation of SSDS.

In July 2003, the Norwegian Agency for Development Cooperation (NORAD) and UNEP Regional Resource Centre for Asia and the Pacific (UNEP RRC.AP) finalized a project on NSDS, SSDS and Action Plans towards Mainstreaming Sustainable Development in the Decision Making Process. The purpose of the project is to strengthen the capacity of and assist national governments in formulating National Sustainable Development Strategy and Action Plans (NSDSAP) towards mainstreaming sustainable development in the decision making process.

In addition to the NORAD and UNEP RRC.AP project described above, UNEP RRC.AP also entered into an agreement with the Asian Development Bank (ADB) to implement the Regional Technical Assistance (ADB RETA 6198) with GMS countries on Capacity Building for Promoting Sustainable Development in the GMS. The main objective of this project is to build capacity of GMS countries to integrate social, economic, and environmental objectives into existing planning mechanisms for sustainable development on both national and sub-regional levels.

Accordingly, preparation of this SSDS document for the GMS has been spearheaded by the Thailand Environment Institute (TEI) in Bangkok, Thailand in cooperation with the various stakeholders through a participatory process that has spanned over two years.

Purpose of this Document

This document is expected to provide the strategic direction for the pursuit of sustainable development in the GMS. It is important to note that this document addresses the issues at the sub-regional level, building upon national level issues

and policies but particularly addressing those transcending and common to the countries in the GMS.

It is expected that the document will be used by policy makers in the GMS countries as well as the officers and decision makers in the regional and international organizations active in the development process of the GMS. It is hoped that the various ideas and proposals made in this document are taken up by the concerned officials and policy/decision-makers for necessary follow-up and implementation in order to realize the vision of sustainable development in GMS. As this document builds on the respective national sustainable development strategies (NSDS), it provides an opportunity to compare the regional priorities with respective NSDS and possibly make necessary adjustments in the national policies to be consistent with sub-regional objectives.

Participatory Process for the SSDS Development

As indicated above, this SSDS document is an outcome of a participatory process amongst all the relevant stakeholders. Thailand Environment Institute undertook the role of co-ordinator and sub-regional focal point (SFP) under the support and guidance from UNEP.RRC and ADB. A number of meetings and interactive sessions were organized to ensure an effective participatory process so that the SSDS reflects the concerns and aspirations of all the GMS countries, and of both government and non-government stakeholders. The table below summarises the participatory process for developing this SSDS.

No.	Activities	Time Frame
1	<p>Prepare an outline for the Sub-regional Sustainable Development Strategy (SSDS) by SFP:</p> <ul style="list-style-type: none"> ▶ Review SSDS from Asia, Europe and other regions ▶ Review relevant information on SD priority issues and SD policy frameworks from GMS countries ▶ Review common and trans-boundary issues of GMS ▶ Study the output from the project inception workshop held in April 2005 ▶ Prepare the draft SSDS outline 	January – February 2006
2	<p>Limited review /consultation on draft outline of the SSDS:</p> <ul style="list-style-type: none"> ▶ Circulation of the draft SSDS outline by SFP to selected experts and national focal points. ▶ Consultation with UNEP ▶ SFP finalized the outline for preparation of SSDS 	March 2006

No.	Activities	Time Frame
3	Preparation of draft SSDS by SFP: <ul style="list-style-type: none"> ▶ Identify common and trans-boundary issues within the sub-region; ▶ Review existing policies, strategies, action plans and institutions relating to common and trans-boundary issues; ▶ Review existing main policies, strategies and action plans in order to assess the impacts on existing conditions; ▶ Review existing policies in order to evaluate the level of integration of sustainable development objectives; ▶ Develop an SSDS, with long term vision, goal and clear priority of sustainable development in the sub-region, linking all the existing policies, strategies and mechanisms; ▶ Address the need in terms of capacity building and institutional mechanism, in order to pursue sustainable development policies and strategies; and ▶ Prepare the first draft of SSDS report 	April – November 2006
4	Sub-regional Multi-stakeholders Consultations to review/revise draft SSDS : <ul style="list-style-type: none"> ▶ Sub-regional multi-stakeholders consultations to review the draft SSDS. ▶ Presentation of the draft SSDS during the consultation. ▶ Compilation of all comments, and incorporate the comments to produce the 2nd draft SSDS. 	30-31 January 2007, Bangkok, Thailand
5	Second Review Workshop <ul style="list-style-type: none"> ▶ Sub-regional multi-stakeholders consultations to review the 2nd draft SSDS. ▶ Presentation of the 2nd draft SSDS during the consultations; ▶ Compilation of all comments, and incorporate the comments to produce the revised 3rd draft SSDS. 	28-29 May 2007, Chiang Mai, Thailand
6	Multi-Stakeholder Meetings for the review of the draft final SSDS <ul style="list-style-type: none"> ▶ Presentation of the final draft SSDS to the major stakeholders for their review and approval ▶ Preparation of the final SSDS based on the comments from the stakeholders. 	25-26 October and 2007, Bangkok, Thailand November-December 2007
7	Production/printing and launching of the final SSDS: <ul style="list-style-type: none"> ▶ SFP together with UNEP RRC.AP will be responsible for coordination of the clearance process of the final SSDS report for publication. ▶ SFP will be responsible for the publication of the SSDS report (500 hard copies, 500 CDs, and 500 DVDs) ▶ SFP will be responsible for coordination of the launching ceremony including the selection of suitable participants representing all stakeholders, and invitation of media representatives. 	January-February 2008

³ List of Participants of the Consultation Workshop is attached as Annex

⁴ List of Participants of the Review Workshop is attached as Annex 2.

SUSTAINABLE DEVELOPMENT IN GMS: STATUS, CHALLENGES AND PROSPECTS

SUSTAINABLE DEVELOPMENT IN GMS: STATUS, CHALLENGES AND PROSPECTS

1.1 About the Greater Mekong Sub-region

The Greater Mekong Sub-region (GMS) comprising the six countries that share the Mekong River — Cambodia, People's Republic of China, Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam — has become one of the world's fastest growing sub-regions.

The GMS shares a rich and diverse natural resource base, which has historically supported economic development and sustained rural livelihoods in the sub-region. Roughly one-third of the area is covered with forests, and another 40 percent consists of rich agricultural cropland. In addition, there are significant mineral deposits, especially coal and petroleum reserves, and a high potential for hydropower development. Both riverine and coastal fishing provide food for the populace as well as income. The area is also one of the most culturally diverse and rich areas in the world.

The rich human and natural resources in the GMS make it a new frontier for economic growth. As a "land bridge" between South and East Asia, it is ideally positioned for trade with its neighbors.

However, despite its geographic advantage and resources, about 55 million of the sub-region's 300 million people are still living in poverty on less than the equivalent of one dollar a day.

Moreover, in recent years this natural resource base has come under increasing stress from the combined effects of rapid demographic and economic changes, thoughtless (and often illegal) exploitation, the impact of infrastructure projects, and relative weakness of the regulatory regime.

In recognition of the increasingly interconnected nature of the sub-regional socio-economic development issues, the six GMS countries entered into a program of economic cooperation with the assistance of the Asian Development Bank (ADB) in 1992.

The five countries and one province of the GMS have a combined land area of 2.34 million km². The total population of the sub-region in 2004 was just over 264 million people, mostly living in rural areas. Though culturally, ethnically & linguistically diverse, the people of the sub-region share a common link in the Mekong River. This flows for 4,200 km through the GMS before entering the South China Sea. It forms a basin of 795,000 km², through which some 475,000 million m³ of water flows every year.



Since the inception of the sub-regional program GMS countries have recognized the importance of cooperation in maintaining healthy natural systems and curbing degradation of the environment. In 1995 the GMS Working Group on Environment was established to serve as a forum to address environment issues in GMS projects and facilitate cooperation in information exchange, training, policy coordination and project financing & implementation.

SUB-REGIONAL SUSTAINABLE DEVELOPMENT STRATEGY FOR GREATER MEKONG SUB-REGION

Table 1-1. Development Indicators for GMS (Base Years: 2004-2005)

(Note: For some indicators the latest data available is for 2003)

	Cambodia	China (Yunnan) (2006)	Laos (2005)	Myanmar	Thailand	Vietnam (2006)
Demographics						
Land Area (thousand sq.km)	181	394	236.8	658	511	331
Population (Million)	14.1a	44.83	5.6	50.5	64.2	84.2
Population Density (persons/sq.km)	79a	114	9	75	125	254
Population growth rate (%)	1.8a	0.69	2.5	1	0.8	1.26
Life expectancy (years)	58a (male); 64a (female)	67.5	59	60.1	69.7	70.4
Infant Mortality Rate (deaths/1000 live births)	66a	16.82	70	76	18	17
Under-5 Mortality Rate (deaths/1000 live births)	82a	21	98	106	21	23
AIDS Deaths	16000	227	100	37000	21000	13000
People (15-49 years old) living with HIV (%)	0.6a	0.19	0.1	1.3	1.4	0.5
Poverty						
% Population below \$1 (1993 PPP) per day	34.1	16.6c	27	-	2	2.2
% Population below national poverty line	34.7b	15.0	-	-	13.1	19.5 (2004)
Education						
Primary education enrollment rate (%)	91.3a	96.6	84.4	90.2	-	92.9
Adult literacy rate (%)	84.7a	95.0	73	89.9	92.6	90.3
Natural Resources						
Forested land area as a share of land area (%)	59a	49.0	69.9	49	28.4	39.7
Protected areas as a share of land area (%)	21.8	8.5	16	4.6	19	3.6
Traditional Fuel Consumption (% of total energy requirement)	92.2	-	78.4	83.9	17.7	23.3
Economy						
GDP Per Capita (US\$)	513a	1149	423	-	2539	722
GDP Per Capita - PPP adjusted (US\$)	2423	3288	1954	-	8090	2745
Real GDP Growth Rates (%)	10.8a	11.9	7.2	4.5	4.5	8.4
Imports of goods and services (% of GDP)	78.5a	0.55	42	-	66	74
Exports of goods and services (% of GDP)	60.2a	0.66	29	-	71	66
Infrastructure and Transport						
Total Road Network (km/1000sq.km)	69.8	503.8	141.3	42.5	112.4	415.5
Length of Paved Road (% of total network)	24.1a	50.3	14.1	78	98.5	39
Railway Network (km/1000sq.km)	3.7	5.3	-	-	-	8
Passenger Cars (per 1000 population)	0.6	6.6	-	-	53.8	-
PCs (per 100 population)	0.3	0.84	1.7	-	5.8	1.3
Internet users (per 100 population)	0.3	8.4c	0.4	-	11	12.7
Telephone (Landline) users (per 100 population)	0.3	14.4	1.3	-	11	18.8
Telephone (Mobile) users (per 100 population)	7.6	23.9	10.8	-	43	11.4
Water, Sanitation, Environment						
Rural Population with access to improved water sources (%)	35	75.7	43	77	-	-
Urban Population with access to improved water sources (%)	64	86	79	80	100	-
Rural Population with access to improved sanitation (%)	15.8a	49.1	20	72	-	-
Urban Population with access to improved sanitation (%)	53	95.1d	67	88	100	-
CO2 Emissions (MT per capita)	0.04	3.2c	0.2	0.2	3.9	0.9
ODS Use (gms per capita)	5.4	27.1c	4	0.7	39.7	5

Sources:

The vision of this GMS program has been to create a more integrated, prosperous, and equitable Mekong sub-region, complementing national efforts to promote economic growth and reduce poverty, and augmenting domestic development opportunities to create sub-regional opportunities. It seeks to encourage trade and investment among GMS countries, ease the cross-border movement of people and goods, and meet common resource and policy needs.

1.2 Sustainable Development in the GMS: Status and Trends

The uniqueness of the GMS lies in the economic, social, political, cultural and environmental interlinkages among the GMS countries. It is therefore imperative that these countries plan their respective development initiatives in close coordination with one another. At the same time, such cooperation and coordination faces practical difficulties due to the widely varying circumstances of these countries.

As an overriding challenge, poverty in the GMS remains high, and the bulk of the poor are dependent for their livelihood on direct utilization of the natural resources supported by the Mekong River basin. As the region experiences rapid economic growth, heavy pressure is being exerted on these shared natural resources resulting in serious consequences such as deforestation, polluted water bodies, poor urban air quality, degradation and indiscriminate conversion of agricultural lands, declining fish and wildlife population, and even migration of populations. All in all, the degradation of the shared environmental resources compromises the ability of the rural poor population in the GMS to maintain a decent livelihood and quality of life.

The common challenge facing the GMS, therefore, is to balance the three dimensions – economic, environmental and social – of sustainable development. The GMS countries cannot afford the “grow now, clean up later” approach experienced in the more advanced economies in the region and elsewhere in the world.

Disparate distribution of the costs and benefits of development is yet another challenge. The disparate situations among the GMS countries is evident in Table 1-1, which provides a snapshot of the development situation in the GMS using commonly accepted indicators, including those pertaining to the MDGs.

The specific issues, status, trends and challenges related to sustainable development in the GMS are examined in greater detail below for each of the pillars of sustainable development, viz. economic, environmental and social.

1.2.1 ECONOMIC ISSUES

The GMS is one of the world’s fastest-growing sub-regions. Economic growth in the GMS remained robust at around 8% in 2006. The GMS economies have

been expanding relatively rapidly despite rising oil prices, the increased threat of avian flu, and protectionist tendencies in key export markets. Rapid growth of trade and investment flows coupled with an accelerating development of energy and transportation (especially road and rail) infrastructure has led to the characterization of the entire region as the new frontier of Asian economic growth.

Foreign direct investment (FDI) flows into the sub-region have also been on the rise, with substantial increases in 2005 and 2006 particularly for Cambodia, Lao PDR, and Thailand. As a result of greater openness of the GMS economies spurred by the ASEAN Free Trade Area, total merchandise exports grew by more than 300% from 1992 to 2005. Intraregional trade increased even more dramatically; in 2004, it was 11 times more than the 1992 level. Annual tourist arrivals to the sub-region doubled from 10 million in 1995 to an estimated 20 million in 2005.

However, in the short to mid-term, GMS economies are threatened by pressures from rising energy prices, the avian flu pandemic and growing international financial pressures, together with possible slowdown in demand from major developed country markets. Hence, regional security, infectious diseases, and energy cooperation were addressed as major issues in the East Asia Summit 2005.

Tourism has been a key element in the rapid economic growth of the GMS. With rapidly growing incomes in the continent, especially in the giant economies of China and India, the outlook points to further acceleration in tourism arrivals. There is thus need to manage tourism growth in a way that does not unduly stress the sub-region's environment and natural resource base.

Moreover, except for Thailand and Vietnam, industrial development in the GMS has been relatively weak, and the benefits of industrial development have not reached the masses, as evident from persistently high levels of poverty incidence. The majority of industries are in the small and medium sectors and use fairly old and inefficient technologies. Improvements in the sub-region's transport network would facilitate wider dispersal of large-scale industrial activity, which is currently largely confined to Thailand and Vietnam. At the same time, there remains ample scope for the development of the private sector through productivity enhancement to improve competitiveness of these industries in the global markets.

A broad-based sustainable economic development would hinge on effective community-based livelihood generation programs, particularly for the rural population of the GMS who can generate income using the available shared natural resources in a sustainable manner. Underpinning this initiative is a great need for capacity building of local institutions, and for meaningful participatory planning and implementation of innovative projects relevant to the local situation and culture.

1.2.2 ENVIRONMENTAL ISSUES

While GMS is endowed with vast natural resources, years of unsustainable exploitation and lax regulations have extensively degraded the sub-region's environment. Rapid

economic and demographic changes in the GMS, the impact of development and urbanization, and the relative weakness of protective regulatory institutions have compounded the problem.

Environmental degradation has serious implications for the people in GMS. More than half of the population is dependent on natural resources and primary sector activities (forestry, fisheries, agriculture etc.) for their livelihood and economic growth. This direct link between poverty and environmental degradation means that the rural poor are especially vulnerable to further degradation.

The shared nature of natural resources in the GMS has subjected them to multiple stresses. Of particular concern are water resources, forest resources, biodiversity, fisheries and trans-boundary pollution. Each of these is discussed briefly below.

Water Resources:

The river and its fisheries are increasingly threatened by the development of dams and weirs built for hydroelectric power, irrigation, water supply and flood control. These cause fragmentation of aquatic habitats, block fish migration routes, change water levels and flow patterns, and increase water loss by evaporation. Other threats to the Mekong system include habitat loss from the conversion of floodplains into arable land and selective over-fishing leading to declining overall fish yields.

Forest Resources:

In 2005, about 45% of the GMS area was classified as forest land (see Table 1-1). The proportion of forest land varies widely from country to country, with Cambodia, Lao PDR, Yunnan and Myanmar still relatively heavily forested, while Thailand, Vietnam and Yunnan have lost much of their original forest cover.

The forests of the GMS, while a major source of biodiversity, environmental services and livelihoods, are under intense pressure from severe exploitation, agriculture and the expansion of settlements. Population growth and increasing urbanization of the GMS have further contributed to this. Deforestation is a particular concern in upland areas prone to erosion, especially where contour agriculture is not practiced (e.g. Lao PDR and northeastern Thailand).

Biodiversity :

The GMS is a rich but highly threatened biodiversity area, and is classified as a global biodiversity hotspot (i.e., it contains important species threatened with extinction).



The countries of the GMS are defined by their relation to the Mekong River. The Mekong serves as a natural boundary, a trade and navigation route, a source of livelihoods in fisheries and agriculture, and, in recent years, a source of hydroelectricity. Furthermore, the riverine system is rich in flora & fauna, many of which are endemic to this particular ecosystem.

Much of the sub-region remains biologically unexplored, especially along the Greater Annamite Mountains. Previously unknown species found nowhere else in the world continue to be discovered, even as others have become extinct. This rich web of natural systems provides the foundation for the economic, social, and cultural future of the sub-region.

Fisheries:

Several GMS economies rely heavily on fisheries both for nutrition and as source of foreign exchange. The GMS has globally significant inland riverine environments and fisheries resources with a substantial fish biodiversity, with freshwater fish species estimated to number in the range of 1,600-1,800.

While there is apparently a trend of increasing capture fishery production, there is a parallel trend for increasing fishing effort that has led to declining catch per unit effort (CPUE). Coastal marine fisheries are generally heavily exploited and in need of effective management.

Thailand, Vietnam and Myanmar have substantially larger marine fisheries than freshwater fish production. The Mekong represents a major source of freshwater fish catch for all the GMS countries, although Thailand and Vietnam derive about half of their freshwater fish production from aquaculture. Cambodia and Lao PDR are most vulnerable to disruption in fish stocks in the Mekong and its tributaries, since their reliance on freshwater sources is much greater than on the marine catch.

Trans-boundary Pollution:

At the Informal ASEAN Ministerial Meeting on the Environment held in Kuching, Malaysia on 21 October 1994, the Ministers agreed to enhance cooperation to manage natural resources and control trans-boundary pollution within ASEAN, to develop regional early warning and response system, and to improve the capacity of member countries in these areas. The Ministers further agreed to the formulation of an ASEAN Cooperation Plan on Trans-boundary Pollution which addresses the trans-boundary movement of hazardous wastes.

The promotion of environmentally sound management of toxic chemicals and hazardous wastes and the control of the trans-boundary movement of hazardous wastes are priorities under the ASEAN Strategic Plan of Action on the Environment, Strategy 7.

This involves the establishment of regional guidelines for assessing highly polluting industries and for safe handling of potentially harmful chemicals entering the ASEAN region. In addition, it addresses the strengthening of an information network on the trans-boundary movement of toxic chemicals and hazardous waste.

³ *GMS Biodiversity Conservation Corridors Initiative Strategic Framework & Technical Assessment; Executive Summary, Asian Development Bank, May 2005.*

⁴ *Strategic Environmental Framework for the Greater Mekong Sub-region: Integrating Development and Environment in the Transport and Water Resource Sectors Volume II: Regional Issues and Emerging Trends: environmental, socio-economic and institutional, ADB, March 2002*

Extensive and reliable data on the generation of hazardous wastes in the region (and its trans-boundary movement) are not readily available. Another issue of concern is the hazardous wastes being brought into the region for disposal.

1.2.3 SOCIAL ISSUES: POVERTY AND OTHER DEVELOPMENT INDICATORS

Notwithstanding strong economic growth and an abundance of natural resources in the sub-region, about 55 million people in the GMS still lived in poverty in 2000. In the past two decades, some GMS countries have made substantial progress in reducing poverty. The available data on poverty lack accuracy and comparability, but indicate that poverty incidences are 30–40% in Cambodia and Lao PDR, 20–30% in Myanmar and Vietnam, and 0–20% in Thailand and Yunnan.

The record of the GMS countries in developing their economies and reducing poverty is reflected in their human development indicators (Table 1-1). Life expectancy in the sub-region, except in Cambodia and Lao PDR, is more than 60 years. Adult literacy rates, again with the exception of Cambodia and Lao PDR, are also high. School enrolment ratios in are high in Thailand and Vietnam, though relatively low elsewhere.

Despite clear improvements, serious challenges remain. For instance, while the overall infant & maternal health in GMS has improved, better health & nutrition can reduce mortality rates further. The low life expectancies in Cambodia and Lao PDR can be traced to several causes, including high infant mortality rates (97 & 65 per 1,000 live births respectively). Maternal mortality rates are also high in some of the GMS countries.

Both children and adults in the sub-region face severe threats from HIV/AIDS, malaria and other diseases. Among 15 to 24-year-old women, HIV is most prevalent in Cambodia and Thailand, and least prevalent in Lao PDR, Vietnam and Yunnan. Thousands of people in the sub-region do not have access to treatment for malaria, tuberculosis and other serious diseases. In 2000, there were about 360,000 cases of malaria in the sub-region. It is most prevalent in Cambodia and Lao PDR, where it afflicts nearly 1,100 out of every 100,000 people.

The GMS is considered one of the world's hotspots for human trafficking, estimated to involve around 200,000 to 450,000 people from the region annually. Trafficking in the sub-region occurs amid a high volume of cross-border migration, where a substantial part is involuntary or leads to undesirable, hazardous or illegal forms of employment, including the sex trade. The problem of human trafficking and irregular migration is rooted in poverty and deprivation, especially in the rural areas.

There is a strong though not readily apparent link between environment and poverty, health, peace and quality of life in the region.

Shared environmental resources have a direct bearing on agriculture and thus food security, especially for the rural population in the GMS.

In turn, food security is directly linked with poverty, and thus ultimately to health, peace and well-being of the peoples in the GMS region.

⁶ <http://www.aseansec.org/8938.htm>

1.3 Need for a Regional Sustainable Development Strategy

As evident from the above discussions, a number of challenges related to sustainable development confront countries in the GMS region as well as for the region as a whole. Some of the challenges go beyond the regional boundaries and are wider global issues (e.g. climate change) that require a concerted global action. Others can be handled at a regional/sub-regional, national or local levels.

In any case, there is need for a set of comprehensive strategies at various levels to address the individual problems and realize the bigger goals of sustainable development. At the level of the GMS, this Sub-regional Sustainable Development Strategy (SSDS) outlines the coordinated plans and actions that the six countries must undertake in pursuit of goals and targets to achieve a sustained upliftment in the lives of their people.

1.3.1 EXISTING NATIONAL AND SUB-REGIONAL STRATEGIES

Each member of the GMS has its own set of social, economic and environmental constraints and opportunities. Most countries in the region have formulated a range of plans and strategies to tackle their own challenges, primarily focusing on poverty reduction and overall socio-economic development.

However, these plans exhibit limited consideration of the plans of other (neighboring) nations and thus lack a coordinated effort – especially in addressing those trans-boundary issues which are better dealt with jointly.

Moreover, the solutions to these challenges in the GMS are closely linked with their shared natural resources. Also, the principles of sustainable development are not integrated systematically. Few countries have a comprehensive national strategy or strong institutional framework for sustainable development.

In general the various national strategies have had mixed results. Although they have fostered institutions and legislation, especially for environmental issues, they have also suffered from many weaknesses. The most serious of them is the lack of integration – both with other plans and processes and with national decision-making and budgeting processes. Many of the recommendations in Cambodia's National Biodiversity Strategy and Action Plan (NBSAP), for example, remain unimplemented because of this lack of integration. Other weaknesses include limited national ownership, inadequate public consultation and a lack of monitoring and evaluation.

There is also a wide range of plans, agreements and initiatives at the sub-regional level. The 1995 Mekong Agreement (which gave rise to the Mekong River Commission - MRC) is perhaps the most prominent formal inter-governmental trans-boundary agreement in the sub-region.

GMS Program & Working Group on Environment supported by ADB

A key influence on environment and development in the sub-region is the GMS Program supported by ADB. This features an annual GMS Economic Cooperation Ministerial Conference, which in 2001 adopted a Strategic Framework to guide cooperation in the sub-region for the next decade.

The Ministerial Conference is advised by the Working Group on Environment (WGE), among other thematic working groups, established in 1995 to ensure that environmental issues are addressed in all projects and activities supported by the GMS Program. WGE serves as a forum to address environment issues in sub-regional projects and facilitate cooperation in information exchange, training, policy coordination and project financing and implementation.

Strategic Environmental Framework for GMS supported by ADB

The WGE launched the Strategic Environment Framework (SEF) initiative, which aimed to develop analytical tools to integrate environmental issues into development planning and critical sub-regional investment decisions. One of the tools was the Early Warning Information System (EWIS) used to pinpoint GMS “hotspots” or areas of environmental sensitivity. The SEF’s development goals include:

- Goal 1: Reduce Poverty and Social Vulnerability
- Goal 2: Maintain and Restore Healthy Ecosystems
- Goal 3: Support Informed Decision-making Through Improved Planning and Assessments
- Goal 4: Foster Public Involvement
- Goal 5: Build Effective Institutions and Enhance Governance
- Goal 6: Provide Innovative & Persistent Financing for Ecosystem Protection & Social Development

ADB’s Regional Cooperation Strategy 2004-2008

According to the ADB’s Regional Cooperation Strategy for 2004-2008, the interrelated poverty and environmental concerns underscore the cross-boundary challenges in the GMS. As such, the strategy has four major thrusts:

- Integrating national markets for economic efficiency & private sector development
- Strengthening connectivity & facilitating cross-border movement and tourism
- Health and other social, economic and cross-border issues
- Managing shared environmental resources esp. integrated watershed system of Mekong

Kunming Declaration, July 2005

At the 2nd GMS Summit⁸ in Kunming, Yunnan, China (4–5 July 2005) the Heads of Governments of GMS countries issued the Kunming Declaration emphasising “a stronger GMS partnership for common prosperity”.

⁸ The first ever GMS Summit was organized in Phnom Penh in November 2002 where the leaders of the GMS pledged to work closely to reduce poverty and promote greater sub-regional integration among the 6 GMS countries. The leaders recognized the challenges of managing the sub-region’s natural environment and said they would take responsibility and leadership for the sustainable management of national and shared resources.

The WGE oversaw projects that developed joint approaches for sustainably managing shared natural resources such as critical wetlands and remote watersheds.

The Tonle Sap Initiative, a comprehensive basin-wide approach to address poverty and environment threats in a critical GMS hotspot, the Tonle Sap region, resulted from one such project.

This summit also reaffirmed the commitments of the GMS countries to the vision of an integrated, harmonious and prosperous sub-region characterized by steady economic growth, social progress and environmental sustainability.

The Heads of GMS countries also expressed their determination to carry forward the development agenda that seeks to fulfil the sub-region's vast potential, lift people from poverty and promote sustainable development for all. It was decided to achieve that goal by further enhancing connectivity, competitiveness and community building.

Further, the Kunming Declaration clearly outlined the "Road Ahead towards Sustainable Development", wherein the GMS countries reaffirmed their commitments in pursuing the Millennium Development Goals (MDGs) and to accelerate GMS cooperation agenda as reflected in the GMS Strategic Framework. To this end following four key areas were identified for priority actions:

- Reinforcing Infrastructure for Development
- Improving Trade and Investment Environment
- Strengthening Social and Environmental Infrastructure
- Mobilizing Resources and Deepening Partnership

1.3.2 EXISTING STRUCTURES, PROCESSES AND ACTORS IN DEVELOPMENT

In the GMS there are many actors with very different interests and powers, exhibiting contrasting modes of behavior, and having varying degrees of influence. Different actors are motivated by very different paradigms which are reflected in their associated institutions, processes, policy positions, behavior and use of various strategies and tools to implement their agenda.

Major Actors in GMS⁹

In the aftermath of and even prior to the 1992 Rio Earth Summit, the GMS countries had begun taking steps in pursuit of the ideals of Agenda 21, the global agenda for action for sustainable development that was adopted in Rio. The degree and nature of progress has varied across the GMS countries, conditioned by differing political, economic, institutional and cultural circumstances. The institutional responses included (i) establishment of high-level institutional structures and mechanisms to address environmental concerns; (ii) establishment of relevant legal frameworks and promulgation of policies and guidelines for incorporating environmental considerations in development planning and processes; and (iii) providing opportunities for greater participation of stakeholders, particularly civil society and the private (business) sector, in various sustainable development initiatives.

The GMS countries have all undertaken moves to establish appropriate high-level institutional bodies and mechanisms to ensure appropriate consideration

⁹ Guangxi Zhuang Autonomous Region could also be included in GMS-SDS project.

of the environmental dimension in sustainable development. Most of them established Cabinet-level ministries to deal with environmental concerns, while the others established high-level councils directly under the office of the prime minister for the purpose.

National Institutions for Environment and Sustainable Development in GMS

Cambodia established the Ministry of Environment (MOE) in 1993, which operates along principles to which the Cambodian government has committed itself, including recognizing the links between poverty and environmental degradation; the importance of a participatory approach to dealing with environmental issues; the need for an integrative approach to addressing environmental problems; and the need for awareness building and institutional capacity building. In recent years, the MOE has assumed a strengthened role in environmental management and conservation. Various international partners have assisted in strengthening institutional capacity in the Cambodian government, including the World Bank, UNESCO, EU, ADB and DANIDA.

In the **Lao People's Democratic Republic**, various ministries and agencies are involved in managing the environmental issues. In the latter 1990s, the government established the Science, Technology and Environment Agency (STEA) out of the former Science, Technology and Environment Organization (STENO), to provide stronger focus and coordination on environmental concerns. Traditionally, STEA's role had been primarily as a coordinating agency, with special emphasis on reviewing EIAs for hydropower development projects, and developing a set of environmental assessment standards. An Inter-Ministerial Working Group within STEA facilitates communication and coordination among mid-level technical officials of concerned ministries. STEA's mandate is undergoing further widening and strengthening as it nears achieving ministry status. Its responsibility is being extended to include shifting cultivation, soil erosion, disaster preparedness, and watershed and water resource management. Increased investment in human resources development and institutional capacity building will be required to enable STEA to effectively play its expanding coordinative role.

Myanmar has established the National Commission for Environmental Affairs as the key coordinating mechanism for environmental protection and sustainable development. Prior to its creation, the Ministry of Agriculture and Irrigation (MAI) took primary responsibility for the majority of environmental and natural resource related issues in the government. Issues pertaining to land use, integrated pest management, forestry protection, and food policy, among others, are the direct

responsibility of the MAI, which coordinates with other government ministries and bodies in addressing issues of a multi-sectoral concern. The Myanmar Agenda 21 was formulated and published in 1997 that provides a blueprint for the country's approach to sustainable development. A stronger institutional mechanism for addressing environment and sustainable development may come about with the passage of an Environmental Protection Law expected in the near future.

Thailand acted early in addressing the institutional requirements for the environment, having established its National Environment Board (NEB) and the Office of National Environment Board (ONEB) as early as 1975. The ONEB was then a sub-cabinet committee chaired by the Deputy Prime Minister, and acted as Secretariat to the NEB directly under the Prime Minister's Office. In 1979, ONEB was placed under the Ministry of Science, Technology and Energy. In 1992, the ministry was renamed the Ministry of Science, Technology and the Environment (MOSTE), reflecting increased emphasis on the environment. Three environmental departments as well as 12 regional offices were created under MOSTE, namely, the Office of Environmental Policy and Planning (OEPP), Pollution Control Department (PCD) and the Department of Environmental Quality Promotion (DEQP). In October 2002, MOSTE was split into two ministries namely: Ministry of Science and Technology and Ministry of Natural Resource and Environment. Also in 2000, the Sustainable Development subcommittee under the NEB was established to address the broader concerns of sustainable development, with the National Economic and Social Development Board (NESDB) providing technical leadership. On the urging of Thailand Environment Institute (TEI), the Sub-Committee served as the National Council for Sustainable Development (NCSD).

Vietnam established its Ministry of Science, Technology and Environment (MOSTE) in 1992. One of its first initiatives was the establishment of the National Environment Agency (NEA) in 1993. Subsequently, local government arms (i.e. departments) of MOSTE, called DOSTE, were established in all 61 provinces, and from 1995, environment management divisions were set up in every DOSTE. MOSTE's mandate, reflected in its nine divisions, covered international environment relations, EIA, environmental monitoring, inspection, pollution control, database management, awareness and training, and policy and nature conservation. NEA was elevated in status to a general department in 1999, stopping short of giving it full ministerial status. In the late 2002, the new ministry named Ministry of Natural Resource and Environment was established. Other ministries too cover certain other aspects of the environment and natural resources. The Ministry of Agriculture and Rural Development (MARD) takes charge of forestry management, the Ministry of Fisheries (MOFI) governs fishery resources, the Ministry of Education and Training (MOET) deals with environmental education, and the Ministry of Planning and Investment (MPI) is concerned with overall development planning, economic policy and major projects. "Vietnam Agenda 21 Office" (VA21 Office for short) was established to implement Vietnam Agenda 21 on 28 June 2004 by MPI. National Council on Sustainable Development (NCSD) was established on 27 September 2005 by Prime Minister in order to organize, instruct and steer the implementation process of the National Strategic Orientation for Sustainable Development in Vietnam.

China established the National Environmental Protection Agency (NEPA) in 1985 and subsequently elevated to ministerial level and renamed as the State Environmental Protection Administration (SEPA) in 1998. The NEPA/SEPA has been vested with relevant powers, including regulation of environmental monitoring systems and punitive measures against environmental offenders. At the level province, the Yunnan Provincial Environmental Protection Bureau (YNPEPB), which is under the administrative supervision of the Provincial Government, is designated to responsible for all environmental concerns in Yunnan under the technical guidance of SEPA. Following the 1992 Rio Earth Summit, the Chinese government assembled a group of experts and luminaries to form the Leading Group for China's Agenda 21. This group is supported by an inter-agency body called the Administrative Center for China's Agenda 21 (ACCA21), which is under the supervision of the State Planning Commission and the State Science and Technology Commission. Through this mechanism, China completed its Agenda 21 in 1994. ACCA21 is tasked with overseeing implementation of China's Agenda 21.

Institutions for Environment and Sustainable Development in GMS

(Note: This indicative list, though comprehensive, is not necessarily complete.)

States

- ▶ Mekong governments: Cambodia, Lao PDR, Myanmar, Thailand, Vietnam, Yunnan Province of PRC
- ▶ Mekong public sector agencies and militaries
- ▶ Regional inter-government organizations: Asia-Pacific Economic Co-operation (APEC), Association of South-East Asian Nations (ASEAN), Mekong River Commission (MRC), etc.
- ▶ Ministerial Forums e.g. ADB-hosted Greater Mekong Sub-region Economic Co-operation annual meetings, ESCAP Environment Ministers' 5 yearly meetings, Asia-Europe Meetings (ASEM)
- ▶ Non-Mekong governments: Japan, PRC, United States of America, South Korea, Singapore, Sweden, Denmark, Germany, Australia etc.

Grassroots

- ▶ People: about 300 million people live in the GMS
- ▶ People's forums and movements facilitated or supported by NGOs (e.g. People's Forum Chiang Mai, May 2000), wats (temples), churches etc.
- ▶ Public organizations with strong links to the state (e.g. Lao Women's Union, irrigation user groups)

NGOs

- ▶ **Sub-national NGOs:** Assembly for the Poor (Thailand), Northern Development Foundation (Thailand), Cambodian NGO Forum – and their members, which may be other NGOs or grassroots peoples' movements.
- ▶ **Regional NGOs:** Focus on the Global South (FOCUS), Asia-Pacific Forum for Women Law & Development (APWLD), Towards Ecological Recovery and Regional Alliance (TERRA)
- ▶ **International NGOs:** The Oxfam, World Wildlife Fund (WWF), IUCN; plus, philanthropists such as Ford Foundation, Rockefeller Brothers Fund, Rockefeller Foundation etc.; plus development assistance subsidiaries of non-Mekong political parties such as the German Green Party's Heinrich Boell Foundations; plus Church groups e.g. World Vision

Media

- ▶ Mainstream media, independent media, email networks etc.

Business

- ▶ Local/national business – either private or private/public, transnational corporations (TNCs) and other international business, consultants, private financiers, also the deal arrangers and insurers.

Multilaterals and Bi-laterals:

- ▶ **United Nations ‘family’:** UN Economic and Social Commission for Asia and the Pacific (ESCAP), United Nations Development Program (UNDP), United Nations Commission on Trade and Development (UNCTAD), United Nations Environment Program (UNEP), United Nations Education Scientific and Cultural Organization (UNESCO), Food and Agriculture Organization (FAO) etc.
- ▶ **Multilateral public financiers, donor groups, trade regulators:** Asian Development Bank (ADB); World Bank ‘family’ - International Bank for Reconstruction and Development (IBRD), the International Monetary Fund (IMF) and their associated credit guarantee agencies; associated Donor Consultative Groups (DCGs) which may also include bilateral and NGO members; World Trade Organization (WTO).
- ▶ **Bilateral public financiers:** ‘Aid’ organizations from Japan JICA, United States of America USAID, Sweden SIDA, Denmark DANIDA & DANCED, Australia AusAID, Germany GTZ etc., but also major financiers such as Japan Bank for International Co-operation (JBIC) and their respective export credit guarantee agencies.

Policy Research Institutes

- ▶ Cambodia Development Resource Institute (CDRI), Environment Research Institute (ERI, Lao PDR), National Economic Research Institute (NERI, Lao PDR), Thailand Development Resource Institute (TDRI), Thailand Environment Institute (TEI), Stockholm Environment Institute (SEI), Vietnam Environment and Sustainable Development Centre (VNESDC), Yunan Institute of Environmental Sciences, Yunan Institute of Economy, World Resources Institute (WRI), etc.

Universities

- ▶ Cantho (Vietnam), Chiang Mai (Thailand), Sydney (Australian Mekong Resource Centre), Goteborg (Sweden), etc.

Research and/or Advocacy Networks

- ▶ Asia Resource Tenure Network (ARTN), Development Analysis Network (DAN), Greater Mekong Sub-region Academic Research Network (GMSARN), International Centre for Research on Agroforestry (ICRAF), International Mekong Research Network (IMRN), Oxfam Mekong Initiative (OMI), European Assoc. of South-East Asian Studies (EUROSEAS), Resource Policy Support Initiative (REPSI); plus aforementioned APWLD, FOCUS, TERRA, Mekong Institute etc.

1.3.3 INSTITUTIONAL ISSUES

The GMS is a complex region socially, politically and environmentally. A wide range of programs, initiatives and stakeholders compete for the attention and resources of governments. Inevitably there are constraints and challenges to effective sub-regional coordination and cooperation. The more serious of these include:

- ▶ **Low level of awareness on sustainable development:** There is observed to be low awareness and weak appreciation for sustainable development, especially recognition of the importance of the environmental dimension, among government officials and workers outside of the environment and planning ministries.
- ▶ **Lack of “clout” by environment ministries:** As in most places in the rest of the world, the environment ministries in GMS tend to have limited authority and capability to influence overall development planning and implementation. Environmental considerations tend to be subordinated to the economic and social dimensions in development initiatives of the governments.
- ▶ **Weak coordination within governments:** There tends to be lack of effective teamwork across relevant ministries and agencies to achieve a more holistic and integrative approach to sustainable development. This stems from lack of communication and information-sharing, which hampers inter-agency coordination and cooperation.
- ▶ **Lack of a Regional Coordinating Body:** Ensuring close and active cooperation by all six GMS countries in a well-structured and clearly mandated development program presents a serious challenge. The GMS lacks a truly regional body with the legal mandate to develop and monitor implementation of such a program.
- ▶ **Diverse legislative frameworks:** While all the GMS countries have legislative framework supporting sustainable development in place (at least in some form or the other), its extent and scope is diverse. This therefore poses the challenge of effectiveness of the legislative framework coupled with the problems arising due to the weak capacity of implementing these legislations.
- ▶ **Congestion of regional initiatives:** With so many donor-driven and bi- or multi-lateral initiatives ongoing in the GMS, coordinating the many entities & initiatives active in the sub-region remains a major challenge.
- ▶ **Weak civil society involvement:** The level of development and engagement of the civil society community varies widely among the GMS countries. In general, there remains wide scope for increasing and widening meaningful participation by independent non-government organizations in development processes from planning to implementation.
- ▶ **Private sector participation:** There is a similar variation in the level of development, organization and participation of the private business sector in development processes in countries of the sub-region. Rapid economic growth in recent years is leading to greater openness on the part of governments to provide mechanisms for stronger private sector participation.
- ▶ **Role of donor community:** A large number of donor initiatives in the GMS also results in a varied level of effectiveness and influence of the programs at the

grassroots level for the people of GMS. However, a constructive and coordinated engagement by international institutions needs to be encouraged and formalized.

- ▶ **Passive role of sub-regional scientific community:** The sub-regional scientific and research community needs to play a more active role in developing an integrated scientific perspective and consensus to support decision-making.

1.4 Sustainable Development in GMS: Common and Trans-Boundary Challenge and Priority¹¹

There exists a number of trans-boundary or regional issues in the context of sustainable development (economic, environmental and social aspects with strong inter-linkages and overlaps) in the GMS.

Watershed management in the Mekong river basin is an obvious example. Linked to it and also the economic integration of the region is the issue of hydropower. The sub-region has a high hydroelectric power potential. Most of this, however, is in Yunnan, Lao PDR and Myanmar, whereas the demand for power is concentrated in Thailand and Vietnam. Cooperation through regional power trading, therefore, is vital to ensuring the efficient allocation of power resources.

A host of **cross-border economic issues** – especially those related to the **development of local communities using the sustainable management of shared natural resources** requires regional cooperation.

Another potential area for cooperation is the **legitimate and sustainable trade in timber and wildlife resources** (in compliance with environmental / sustainability requirements), and, more generally, the **sustainable management of biodiversity / forests** extending across national boundaries. Air pollution, although generally a localized problem, poses a trans-boundary threat in the form of **forest fire and smoke haze**.

There is an ample scope for cooperation in information sharing with regard to socio-economic and environmental issues – including **early warning systems for health and environmental issues and potential disasters**.

Last but not the least, **poverty reduction** remains the greatest challenge and the most important cross-cutting issue while discussing the sustainable development challenges in the GMS.

All in all, sustainable development is the most prudent approach in addressing the various socio-economic development challenges in the region – especially **poverty alleviation and enhancing the quality of life for the peoples of GMS**.

¹¹ Note: These challenges and priorities for sub-regional cooperation are abstracted from the Sub-Regional Environmental Assessment Report prepared in 2006 for the second phase of the GMS Program's Strategic Environment Framework project. They refer specifically to the Mekong Basin but may be applied to the sub-region as a whole.

**SUSTAINABLE DEVELOPMENT STRATEGY
FOR THE GMS:
GOALS, PRINCIPLES AND
STRATEGIC APPROACH**

2 SUSTAINABLE DEVELOPMENT STRATEGY FOR THE GMS: GOALS, PRINCIPLES AND STRATEGIC APPROACH

2.1 The context

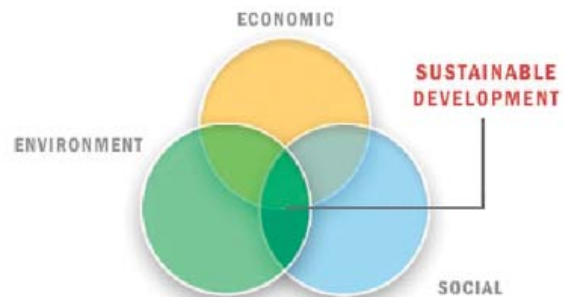
The current status and future trends along with the challenges and opportunities for the GMS discussed in Chapter 1 provide the context for developing a sub-regional sustainable development strategy for the GMS.

A thorough analysis of the issues, backed by a vast pool of information and reference materials from individual countries in the GMS as well as that for the sub-region as a whole, points to the following major themes that must be addressed in the SSDS for meeting the challenges of sustainable development and attaining the MDGs at the sub-regional level:

- ▶ Poverty alleviation through rapid and sustained economic development
- ▶ Sustainable management of shared environmental resources
- ▶ Nurturing human capital and leveraging the shared cultural heritage and identity (social dimension)

In order to address the above-mentioned 3 issues of concern, it is essential to have an appropriate institutional mechanism that is both efficient and effective, built on good governance as its backbone.

The above elements thus form the core of this sustainable development strategy for the GMS. They also reflect the three pillars – economic, environmental and social – of sustainable development.



2.2 Vision for the SSDS

At the first GMS Summit of Leaders held in Phnom Penh in November 2002, the vision was set for an integrated, harmonious and prosperous GMS characterized by steady economic growth, social progress and environmental sustainability. This was reaffirmed by the Governments of the GMS in the Kunming Declaration issued during the Second GMS summit in Kunming, Yunnan, China in July 2005.

Accordingly, this SSDS reaffirms this vision for an integrated, harmonious and prosperous GMS whose people enjoy a standard of living at par with that in the developed economies, and a quality of life that is among the best in the world.

This vision will be realized through a concerted effort of all the relevant stakeholders - governments, private sector, local communities, academia,

NGOs, financial institutions, and international organizations - by leveraging the sub-region's shared natural resources and rich cultural heritage for a dynamic economic development that is sustainable and does not endanger the future availabilities of these resources.

Environmental sustainability and economic development with equitable distribution of benefits among all the stakeholders – especially the underprivileged rural population – would thus be the cornerstones of the development process in the GMS.

2.3 Goals and target

The countries and the peoples of the GMS will continuously work together to pursue the above-described vision for the GMS. The overarching goal is to eradicate poverty in the sub-region and substantially uplift the quality of life of the sub-region's 300 million inhabitants. A number of qualitative and quantitative goals and targets shall serve as guideposts for attainment of the vision, which include the following:

- ▶ Reduce to half of 1990 levels the extent of extreme poverty and hunger in the GMS countries by 2015, in accordance with the Millennium Development Goals (MDGs).
- ▶ Achieve broad-based economic growth that brings benefits all the way down to the poorest segments of society, built on active engagement with the regional and global economy, while sustaining the natural resource base from which all economic activities are derived.
- ▶ Narrow the income disparities across and within the countries of the sub-region, and provide a stable overall economic environment marked by stable prices manifested in low rates of inflation, ample employment growth that keeps in pace with the sub-region's growing populations, and steadily rising per capita real incomes.
- ▶ Achieve universal primary education, with the target of ensuring that by 2015, all boys and girls are able to complete a full course of primary schooling.
- ▶ Achieve gender equality and the empowerment of women, with the target of eliminating gender disparity in primary and secondary education at all educational levels by 2015.
- ▶ Halt and reverse the spread of HIV/AIDS, avian flu, malaria and other communicable diseases by 2015.
- ▶ Curb and eventually eliminate illegal human trafficking, particularly of women and children, and other irregular migration that leads to undesirable, hazardous or illegal forms of employment.
- ▶ Ensure that all inhabitants of the GMS have access to sustainable and clean water supplies by 2015.
- ▶ Halt all illegal trans-boundary movement of illicit forest products, rare species, animals, pets and hazardous substances and waste by 2015.

- ▶ Develop at least 12 model sustainable tourism projects in the sub-region by 2015, where the local communities will be the key stakeholders and beneficiaries.
- ▶ Arrest and regulate rampant forest and biodiversity loss by 2015. As members of the United Nations, the GMS countries are all committed to the pursuit and attainment of the MDGs. Apart from their national initiatives in this regard, this SSDS can serve as the framework for coordinated action towards achieving the MDGs by 2015, using the proposed sub-regional implementation mechanisms.

In essence, then, the prime goal of the SSDS is a sustainable socio-economic development of the sub-region based on the three pillars of economic development, environmental protection and social well-being as manifested in the above goals and targets.

2.4 Guiding principle

For realizing the vision through this SSDS developed around each of the three dimensions of sustainable development, a number of core guiding principles guide the formulation of the sub-regional sustainable development strategy:

2.4.1 ECONOMIC DIMENSION

Maximizing resource efficiency through technological and management interventions

For maximum profitability, optimal use of all types of resources is essential, which leads to higher productivity. This is also a crucial factor for enhancing the competitiveness of the GMS in the global markets. Hence, all economic activities in the GMS must strive for the highest levels of efficiency. Moreover, this greatly helps in reducing negative impacts on the environment – i.e. reduced pollution loads and more efficient use of resources.

2.4.2 ENVIRONMENTAL DIMENSION

Ensuring environmental sustainability by conserving, recovering and increasing the natural capital for future generations

While pursuing rapid and robust economic development for poverty alleviation and wealth creation for the GMS, it is essential to minimize and mitigate the negative impacts on the eco-system and environment. It is especially essential to ensure that current economic activities do not entail any irreversible damage to the shared environment resources of the GMS, and that the natural capital is conserved, recovered and increased for the benefit of future generations. Of particular concern is impacts of economic activities on climate change through greenhouse gas emissions.

2.4.3 SOCIAL DIMENSION

Fairness and equitable distribution of the benefits of economic development

It is essential to ensure that the benefits of economic development are broad-based and well-dispersed in society and are thus distributed equitably. This

is especially important for the wealth generated using the shared natural resources. Thus, it is of utmost importance to ensure that the use and exploitation of these resources are made in an environmentally sustainable as well as a transparent, fair and equitable manner.

Cooperation based on mutual respect

Sub-regional cooperation based on mutual respect is at the heart of this SSDS, without which the sub-regional strategy is unlikely to succeed. This strategy therefore addresses the expectations and aspirations of the major stakeholders, who all strive to ensure the welfare of the entire populace of the GMS.

Respecting the rights and cultural heritage of indigenous¹² people

While undertaking any development project, it is essential to respect the culture, traditions and the rights of the indigenous local people. Any proposed interventions should be done only in a way that would be relevant and acceptable in the local context.

Good governance marked by transparency, accountability and inclusion

Good governance implies that society's goals and objectives are faithfully pursued by those vested with authority and power to promulgate and/or implement policies and rules of behavior. Key elements of sound governance include transparency and free access to information, accountability of public officials to the people, and ample opportunities for common people to participate in and influence governance processes.

2.5 Strategic approach

To address the various challenges confronting the sub-region as described in Chapter 1, and to realize the vision and development goals within the framework of the guiding principles outlined above, this SSDS is built on three primary strategic approaches outlined below and discussed in the subsequent chapters. These are in accordance with the economic, environmental and social dimensions of sustainable development.

2.5.1 POVERTY REDUCTION THROUGH INTEGRATED AND EQUITABLE ECONOMIC GROWTH

Poverty alleviation is the most important concern and hence the primary thrust for all the GMS countries. Majority of the population in the GMS live in rural areas and are engaged in agriculture or other traditional occupations largely dependent on the natural resource base, and lack basic needs such

¹² *Defining Indigenous People: There is no official definition of "Indigenous People" adopted by UN system. However, the most commonly accepted working definition reads as follows:*

Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal system.

(Source: <http://www.un.org/esa/socdev/unpfi/documents/PFI%202004%20WS.1%203%20Definition.doc>)

as health and sanitation. Needs and problems of the urban poor also need to be addressed, including ways to curb excessive migration from rural to urban areas.

Strategic interventions are therefore necessary to elevate the living standard of the rural population and provide them sustained livelihood options. The following strategic interventions will pursue this objective:

- ▶ Integrated community development
- ▶ Infrastructure (rural and urban) development
- ▶ Private enterprise development for enhancing resource efficiency, productivity, competitiveness and stability

2.5.2 SUSTAINABLE MANAGEMENT OF SHARED ENVIRONMENTAL RESOURCES

As the majority of the economic activities are highly dependent on the shared environmental and natural resources in the GMS, sustainable management of these precious resources is of utmost importance.

The strategic interventions to achieve this include:

- ▶ Capacity building and institutional strengthening for improved environmental management and protection of natural resources
- ▶ Common legal framework for prevention of environmental degradation including e.g. illegal trade of forest products
- ▶ Enhanced cooperation and information sharing for the sustainable management of shared environmental resources

2.5.3 NURTURING HUMAN AND SOCIAL CAPITAL FOR SUSTAINABLE DEVELOPMENT & MDGS

In order to realize the goals of regional sustainable development and to attain the MDGs, a broad framework of cooperation and capacity building is essential. Information sharing forms a crucial component of this approach.

The strategic thrusts in this area are:

- ▶ Cooperation for governance and human resource development
- ▶ Managing trans-boundary issues related to human capital
- ▶ Harnessing partnerships for sustainable development

Such a coordinative and cooperative framework and approach will be most effective in addressing key social and human development challenges confronting the sub-region such as gender inequality, health issues such as HIV/AIDS, human trafficking and irregular migration. A unique factor for the GMS worthy of special emphasis in the strategic approach is the rich shared cultural heritage and identity, which can greatly facilitate enhanced cooperation for pursuing sustainable development and attaining the MDGs.

**POVERTY REDUCTION
THROUGH SUSTAINED AND
EQUITABLE ECONOMIC GROWTH**

3 POVERTY REDUCTION THROUGH SUSTAINED AND EQUITABLE ECONOMIC GROWTH

3.1 The vision

The sub-regional sustainable development strategy (SSDS) envisions a transformation of the GMS into **an economically vibrant and prosperous region** from the one currently characterized by rampant poverty, especially in rural areas.

GMS will be a region where households & communities generate sufficient income to meet their basic needs, and poverty will no longer be considered a public problem. All will have access to basic amenities such as clean drinking water, sanitation, healthcare and education, and to vital services such as electricity and telecommunication.

The region's economic development will be marked by a sustained broad-based growth whose benefits are widely dispersed and enjoyed by all segments of society.

3.2 Goal and targets

In pursuit of eventual poverty eradication, a primary target, in accordance with the Millennium Development Goals, is **to halve extreme poverty and hunger in the countries of the sub-region by 2015**. This entails providing ample employment and livelihood opportunities for all, elevating income levels of the poor and ensuring their access to basic necessities such as water, sanitation, healthcare, nutrition, housing and basic education, while ensuring a healthy and sustaining environment for their lives and livelihoods.

Towards elevating income levels and reducing income disparities, the overriding goal is to achieve broad-based economic growth that brings benefits all the way down to the poorest segments of society, while sustaining the natural resource base from which all economic activities are derived. "Broad-based" implies that all production sectors, all social groups, and all geographic areas contribute to and benefit from dynamic growth of the economy. High levels of investment, both domestic and foreign, and a vibrant private sector are critical drivers for such broad-based economic growth. Supporting this will be a **stable overall economic environment** marked by (1) stable prices manifested in low rates of inflation, (2) ample employment growth that keeps in pace with the sub-region's growing populations, and (3) steadily rising per capita real incomes.

All these must take place in the context of globalization and international competitiveness, where the economies of the sub-region engage in and benefit from active trade, tourism and investment. This is inevitable with the emergence of the Asia-Pacific as the new focal point for the world economy in the 21st century. In particular, the sub-region must optimize the benefits from opportunities brought by more open trade under bilateral and multilateral arrangements such as the ASEAN Free Trade Area (AFTA), Asia-Pacific Economic Cooperation (APEC), and World

Trade Organization (WTO). Similarly, the GMS countries need to anticipate the benefits and challenges from the advancing ASEAN initiatives toward greater economic integration. At the same time, economic challenges and threats arising from global issues such as climate change, the weakening US dollar, and rising petroleum prices must be duly considered in plotting the economic course of the sub-region.

What is ultimately required for all this is improved resource efficiency and value creation for the goods and services produced in the GMS. From this will be generated a growing national wealth that can support the needed initiatives to uplift the lives of all the peoples of the sub-region especially of the poor, and to protect the natural environment.

3.3 Strategies and actions

To realize the sub-region's vision and goals/objectives, the economic strategy is built on three themes, namely: Integrated Community Development, Rural

Infrastructure Development, and Private Enterprise Development. Translating each of these into concrete initiatives will involve a conscious integration of the economic, social and environmental dimensions of sustainable development.

3.3.1 INTEGRATED COMMUNITY DEVELOPMENT

● Empowerment of Local Communities on Rights, Participation, and Development based on Sustainable Management of Local Natural Resources

High levels of poverty are prevalent in the rural areas of the GMS. Basic necessities such as water, sanitation, health care, nutrition, housing and basic education; and vital services such as energy and electric power, communication, connectivity etc. are highly inadequate in these areas. As such, there is a great need for an integrated community development approach focused on income generation as well as provision of basic necessities and infrastructure for the rural poor.

The rural populations in the GMS are heavily dependent on the sub-region's shared natural

Box 3-1: Thai Concept of Self-Sufficiency Economy

His Majesty King Bhumibol Adulyadej developed the philosophy of the Sufficiency Economy to lead his people to a balanced way of life and to be the main sustainable development theory for the country. The Sufficiency Economy is believed to adapt well within existing social and cultural structures in a given community, if the following two factors are met:

- subsistence production with equitable linkage between production / consumption
- the community has the potential to manage its own resources

As a result, the Sufficiency Economy should enable the community to maintain adequate population size, enable proper technology usage, preserve the richness of the ecosystems and survive without the necessity of intervention from external factors. The concept is now commonly included in many government projects.

The Self Sufficiency Economy theory has led to diverse interpretations by many different groups. However, His Majesty has rejected extreme perspectives on his ideology, stating that self-sufficiency does not require families to grow food and make clothes for themselves. But, each village should have some quantity of sufficiency. For instance, if agricultural production exceeds the amount needed for the village they should sell the remaining amount to a nearby village, close in distance, to avoid unnecessary transportation costs.

resources. To alleviate poverty among these groups, innovative approaches for income generation based on the sustainable management of these shared environmental resources will be explored and implemented.

To this end, strategy options include the following:

- ▶ Promote diversified development strategies, cognizant of indigenous potentials in the rural areas and which can actively spur indigenous development.
- ▶ Support rural areas in education and training and in the creation of non-agricultural jobs through enterprise development.
- ▶ Promote sustainable agriculture and fishery development, application of environmental measures and diversification of land utilization.
- ▶ Promote and support co-operation and information exchange within and between rural areas.

Since all these involve cross-border and regional concerns, it is essential to develop a mechanism for sub-regional coordination and cooperation, and for implementing sub-regional programs for community development and empowerment, and poverty alleviation.

Various existing approaches, such as the Thai approach of self-sufficiency economy (see Box 3-1) or the Green Productivity-Integrated Community Development (GP-ICD) in Vietnam, can serve as inspiration/demonstration for the formulation and implementation of such a sub-regional initiative.

● **Capacity Building of Local Authorities**

A major decisive factor in the success of community development efforts is the contribution and efforts by the local government agencies and their officers. This is so because in many cases the public services and support systems of the local public agencies provide the lifeline for the survival of rural communities.

In many instances, these local authorities are ill-equipped to effectively perform these tasks, not so much in physical/monetary terms but more in terms of skills and know-how, and capacity of their staff. It is therefore an important pre-requisite to undertake an extensive capacity building effort targeted at the local authorities and their staff. This can be made possible by leveraging existing national capacity building programs of the GMS countries. The capacity building/technical assistance programs of the various regional and international organizations (such as UNEP, ADB, World Bank, JICA, AOTS, ICLEI and ASEAN, among others) can be aligned to facilitate this capacity building of local authorities in the GMS.

● **Community-based Production and Value Creation**

The rural population of the GMS is largely dependent on the sub-region's natural resources and the environment, with agriculture being the primary source of livelihood of many. In most cases, this does not generate sufficient income for the rural communities as the supply chain is dominated by middlemen who

tend to obtain the major share of profits. In the fisheries sector, both legal and illegal taxes take away even more from fishers' earnings than the share of the middlemen does. As a result, the rural population cannot even meet their basic needs, let alone afford a good standard of living.

With very limited opportunities for exploiting the maximum potential of their labor and for earning additional income for a good standard of living, the rural populations in the GMS are caught in a seemingly endless cycle of poverty. To break away from this vicious cycle, the rural communities must be given opportunities to exploit the maximum potential of their produce and get their fair share of profits. For this, it is essential to add value to their existing traditional occupations and/or create new occupations matched with the available resources and skill sets of the local communities, in order to generate additional incomes therein.

Programs that can be implemented at the sub-regional level include establishment and/or strengthening of community-based production units for value adding/packaging of the local products, and training and appropriate technology interventions for local communities thereby enhancing the value chain in the GMS. Special emphasis must be placed on strengthening technology and production of local goods as well as assisting existing SMEs to enhance their productivity and quality to meet the demands of the international markets. All these are expected to promote additional income generation in the poor communities and contribute to wider prosperity within the GMS.

- **Regional Market Development for Promotion and Marketing of Local Goods Produced by Rural Communities and Women's Groups**

One important element of the poverty reduction and community development programs is to find a strong marketplace for the local goods produced by the communities and women's groups in GMS.

A regional level initiative and institutional mechanism can be developed to establish the marketing chains within and beyond the GMS, including into overseas markets. This can include a range of actions such as capacity building of local producers on quality, packaging, labeling etc., developing marketing channels (notably using ICT for directly linking sellers and

Box 3-2: Economic Corridors Development in the GMS

So far, 3 major economic corridors have been initiated in the GMS, namely: North-South Economic Corridor, East-West Economic Corridor and Southern Economic Corridor. These trans-boundary corridors provide positive and negative externalities economically, socially, environmentally, and culturally to the GMS member countries. These economic corridors can strengthen the spatial cohesion of the GMS and are an essential instrument for spatial development and for the co-operation among cities. The spatial concept of GMS Corridors can help in establishing connections between the sectoral policies of the SSDS, such as transport, infrastructure, economic development, urbanization, and environment.

buyers), R&D efforts for developing newer products using locally available resources, organizing small producers to be able to respond collectively to volume demands, and so on.

3.3.2 PRO-POOR INFRASTRUCTURE DEVELOPMENT

● Enhance and Maintain Access to Energy by the Poor

In today's economic and social environment, access to reliable and continuous supply of electricity is the primary requirement for development as well as an indicator of basic standard of living. However, many communities in GMS

still lack this important element of basic infrastructure and an urgent and concerted effort is required to alleviate the energy poverty in the region. While it is important to look at all economically viable options such as hydroelectric, coal and natural gas-based power generation plants, the countries in the GMS should also explore the potential of renewable and clean energy sources such as wind, solar or biomass-based energy with low cost and reasonable price. Small or micro-hydro power projects as well as cogeneration projects from industrial operations can also greatly contribute to ensuring energy sufficiency in the GMS.

A concerted and time-bound effort is required to realize this goal. A sub-regional high-level working group of decision makers composed of government agencies and international organizations – especially the bilateral or multilateral financial organizations – can work together to come up with cost-effective and environmentally sound solutions to enhance and maintain access to energy (primarily electricity) in the GMS, especially for the rural poor.

● Enhance and Maintain Transport & ICT Networks for the Poor

Sustainable and reliable transport networks, together with connectivity

Box 3-3: Local and Community Products Initiative in Thailand

“Local and Community Products” program of the Royal Thai Government (formerly known as “One Tambon One Product - OTOP”) is a local entrepreneurship stimulus program aimed to support the unique locally made and marketed products of each Thai tambon (village).

Drawing its inspiration from Japan's successful One Village One Product (OVOP) program, Thailand's OTOP program encouraged village communities to improve local product quality and marketing, selected one superior product from each tambon to receive formal branding as a “starred OTOP product”, and provided a local and international stage for the promotion of these products. OTOP products covered a large array of local products, including handicrafts, cotton and silk garments, pottery, fashion accessories, household items, and foods.

There were 36,000 OTOP groups across the country, with each having between 30 to 3,000 people per group. People believe that OTOP has helped incomes to be spread to many people in the villages. It has given people producing handicrafts to feel they can be part of the global economy.”

While OTOP has been largely successful for economic development, it could result in negative environmental impact due to lack of / inefficient production and management. Hence in order that OTOP projects are successful and effective in true sense, it is essential to integrate elements of capacity building and technical assistance focusing on environment-friendly production and good practices.

www.thai-otop-city.com | www.thaitambon.com/English/AboutTTB.htm

Box 3-4: Biomass-based Energy Generation in GMS

The ASEAN Plan of Action for Energy Cooperation 2004–2009 (www.aseansec.org/pdf/APAECO409.pdf) emphasizes Energy Efficiency and Conservation and New & Renewable Sources of Energy as the priority areas for regional cooperation.

Under this framework, ASEAN Foundation and the Asian Productivity Organization (APO) have launched a sub-regional project viz. Energy Efficiency and Renewable Energy for Small and Medium Enterprises in the Greater Mekong Sub-region of ASEAN: Reusing Biomass Waste in Industrial Boilers for Energy Recovery

The focus of this project is the industrial boilers those that burn non-renewable fuels such as coal, natural gas, diesel, and oil face which results in high costs as well as air emissions including greenhouse gases, which are a growing concern globally.

On the other hand this region is rich in renewable energy sources – primarily agro-waste biomass – such as rice husks, plant stalks, wood chips, straw, and other agricultural waste materials. Important technological developments – especially with regard to fluidized bed boilers – enable the use of these renewable energy sources in existing industrial boilers, with minimal cost for retrofitting and technology enhancement.

In view of the lack of awareness and technical competence amongst the SMEs in the GMS region, this project attempts to train and build capacity of the relevant stakeholders on energy efficiency and renewable energy projects for SMEs especially with a focus on industrial boilers. The main activities include regional workshops, training programs and e-learning modules. The project also aims for a wider dissemination of the energy efficiency and renewable energy concepts, practices and technologies through print and online publications

More Information: <http://www.apo-tokyo.org/biomassboiler/>

and communication infrastructure are basic prerequisites for socio-economic development in the current era of knowledge economies. It is therefore essential to bring the benefits of modern technological advancements to all – especially the rural poor and the students – and bridge the digital divide.

Hence, it is essential to enhance and maintain the transport and ICT networks to enhance connectivity and bring the benefits of the information revolution (television and internet) to all. Furthermore, GMS governments should invest in ICT along with primary and secondary education – especially in rural areas.

This will also facilitate greater market access for the local produce and open up many opportunities for accelerated economic development, thereby contributing to poverty alleviation. Moreover such enhanced connectivity for the remote rural population can make them feel part of the mainstream development process, which is in itself an important benefit.

Box 3-5: Knowledge Networking for Rural Development in Asia/Pacific Region

ENRAP (Knowledge Networking for Rural Development in Asia/Pacific Region), is a joint initiative of the International Fund for Agriculture Development (IFAD) and the International Development Research Center (IDRC) that seeks to assist IFAD funded rural development projects, manage and share knowledge generated within these projects in the Asia/Pacific region (including countries in GMS).

Towards this objective, it tests and promotes the use of information and communication technology (ICT) tools to disseminate project knowledge, supporting the key objectives of reducing poverty among the target rural communities. It explores how ICT tools can help strengthen networks locally, nationally and regionally and make knowledge sharing possible at all these levels around themes relevant for poverty reduction.

Countries in the region can benefit from free training materials, documents and databases available on the ENRAP website, technical advice, and allocation of working space on the ENRAP website.

For more information: <http://www.enrap.org/index.php?module=prKnmWang&func=downloadFile&did=759&disposition=view&kid=227&cid=23>

To realize this, there is a need to strengthen and transform some existing organization to become a sub-regional mechanism for the transportation and ICT network, to effect coordination among the individual national level activities and projects.

● **Primary/Secondary Education, Vocational Training**

While providing necessary hardware and infrastructure is an important prerequisite, this will be of little benefit unless there is a skilled human resource base that can optimize use of the infrastructure for the development of region. This is especially true in the case of ICT infrastructure.

It is therefore essential to ensure high quality primary and secondary education to all the peoples of GMS. Special vocational training mechanisms appropriate for the region is also very important to nurture the local talent and entrepreneurship.

In this age of internet and electronic commerce, it is essential to include internet literacy and proficiency in primary and secondary education catering to various user groups, especially the students and the youth.

A forum of all the relevant educational institutions and agencies can be convened at the sub-regional level to facilitate an exchange of information and possibly come up with sub-regional programs and activities to streamline initiatives pursuing common interests in primary and secondary education, vocational training and higher education.

● **Sustainable Urbanization**

Rural poverty is one of the major factors in rising urbanization, most often proceeding in a haphazard manner. This puts an enormous strain on available resources and results in severe environmental degradation. Even then, the life of the urban poor remains marked by misery and hardship.

In order to ensure sustainable development of the region, a concerted effort is needed to ensure a sustainable urbanization process, thereby guaranteeing a good quality of life for the urban population. This cannot succeed on its own unless corresponding measures to arrest the tide of migration to cities are implemented in the rural areas.

Box 3-6: Rung Arun / Dawn Project

The energy and environmental education project “Rung Arun” or the “Dawn” project as translated into English, was undertaken in order to enhance environmental awareness and encourage a more environmentally friendly behavior, based on adequate and correct information, among students, teachers, administrators and the local communities.

The project, which was among the largest of the integrated educational programs at the time, was implemented during 1997-2001 by the Thailand Environment Institute (TEI) in close collaboration with the Ministry of Education (MOE) and the National Energy Policy Office (NEPO). Through integrated learning processes, and through both formal and non-formal education, best practices were demonstrated in 600 primary and secondary schools throughout Thailand and in the surrounding communities. Strategies and concepts used to maximize participation and ensure sustainability, included the Participation, Integration, and Learning (PIL) strategy, the Whole School Approach (WSA), and the concept of Life Cycle Assessment (LCA), as well as the use of a range of innovative educational media.

http://www.apo-tokyo.org/gp/manila_conf02/resource_papers/narrative/chaiyod_bunyagidj2.pdf

For more information: <http://www.tei.or.th/>

A number of policies and programs already exist in most of the GMS countries to address these issues, but they usually lack an integrated and holistic approach. Effective coordination in planning and implementation – across various agencies within the countries as well as across countries within the region – is crucial for better utilization of available resources and for ensuring sustainable urbanization and improved quality of life, especially for the urban poor.

- **Regional cooperation for transfer of appropriate technology and R&D for rural infrastructure development**

Provision of infrastructure for the rural areas requires a special approach based on the application of appropriate technology, including those applying traditional knowledge, and using locally available materials. This includes construction of roads, electricity and telecommunication networks, as well as enhancement of healthcare facilities for the rural poor.

Such approach to rural infrastructure provision would benefit from strong regional cooperation and coordination to share and transfer appropriate technologies for rural infrastructure development. Such a sub-regional technology transfer program can also be supplemented by coordinated and concerted R&D efforts within the various research and academic organizations in the sub-region, with emphasis on clean water supply, communication systems, health care and sanitation, among others.

3.3.3 PRIVATE SECTOR DEVELOPMENT

- **Promote/Facilitate Cleaner & Eco-efficient Production for Improved Resource Efficiency, Productivity & Competitiveness of the SMEs**

The private sector is the main engine of growth for the sub-region. Measures to enhance the competitiveness of the private sector will include: (i) lowering production and distribution costs through efficient utilities/infrastructure services as well as improved resource efficiency; (ii) improving the skills and competencies of the labor force; (iii) training entrepreneurs for small and medium enterprise (SME) management, production, marketing and productivity enhancement; and (iv) expanding credit availability and accessibility for the provision of working capital. Better harmonization of the policy environment for private sector enterprises is also needed.

A clear emphasis on the adoption of cleaner and eco-efficient production technologies is essential. Various interventions to facilitate transfer, localization and commercial uptake of cleaner technologies are therefore essential.

- **Strengthen Capacity and Cooperation in Scientific Research, Monitoring and the Development and Transfer of Technology**

The SMEs in the GMS are generally operating with antiquated traditional technologies. Many make use of local resources to produce unique products for local consumption.

As such, modern technology solutions for efficiency improvements in industries may not always be suitable and appropriate for the SMEs in the sub-region. Hence, there is a strong need for local R&D in adaptive technology and transfer of appropriate technology for application to SMEs in the GMS.

All these call for the establishment of a regional cooperation and coordination mechanism that will facilitate joint R&D efforts and transfer of appropriate technologies for improving the competitiveness of the SMEs in the GMS. GMSARN provides a logical starting point for such a mechanism.

- **Promote and facilitate business partnerships**

For a strong and sustained economic growth, participation from the private sector and business enterprises is crucial. Strong business-to-business (B2B) partnerships as well as partnerships between businesses and communities would greatly facilitate and sustain this growth.

B2B partnerships are also crucial for regional economic integration that will create more opportunities for entrepreneurs in countries of the sub-region. These opportunities could be in the form of jointly developing and offering better and newer products, sourcing sustainable raw material supplies at competitive prices, tapping local skill sets and/or inexpensive labor, exploring newer markets and consolidating business positions through economies of scale. Moreover, such B2B partnerships, especially across the countries in the GMS, are also excellent vehicles for the transfer of technologies across the region and can ensure effective cooperation and trade facilitation among business sectors in the GMS.

Given the critical importance of promoting B2B partnerships for sustainable socio-economic development within the GMS, an appropriate institutional mechanism (e.g. a GMS Chamber of Commerce and Industry) needs to be developed and nurtured to facilitate continued dialogue, networking and partnerships among business enterprises in the sub-region.

- **Promote Sustainable Consumption and Production**

As a result of rapid economic development, the

Box 3-6: Sustainable Consumption and Production in the GMS Region

UNEP implemented a project: “Capacity Building for Implementation of UN Guidelines on Consumer Protection (sustainable consumption) in Asia” also known as SC.Asia, supported by the European Union, through its Asia Pro Eco program. This was a collaborative effort between the UNEP, Consumers International, the Center for Environment and Development, and the Danish Consumer Council.

The project was proposed as a means to respond to the call from governments in Asia to strengthen the capacity of Governments and other stakeholders to implement the UN Guidelines on sustainable consumption, and to share experiences regionally (Asia-Asia) and inter-regionally (Europe-Asia) on sustainable consumption practices.

The project involves six European countries and 12 Asian countries including Cambodia, P.R. China, Lao PDR, Thailand, and Vietnam). Salient project outcomes include: A practical guidance-manual, with governments as the primary target group, for how to promote sustainable consumption, training on specific sustainable consumption tools (at the Manila seminar) and draft National Action Plans on sustainable consumption, initiated as a training exercise at the Manila seminar.

<http://www.unep.fr/pc/sustain/policies/scasia.htm>

At the national level, Thailand approved its national action plan on Sustainable Consumption and Production – which is a first-of-its-kind effort by the national government in GMS.

Box 3-7: Business Councils for Sustainable Development

Thailand Business Council for Sustainable Development is a significant example of CSR practice by industries in GMS region. TBCSD was established in November 1993 and currently has a membership of 30 high profile business leaders from 28 companies (both Thai & MNC). The objective of the TBCSD is to promote environmental awareness within the business sector under the concept of “sustainable development”.

http://www.tei.or.th/tbcd/about_tbcd/index.html

Similar to Thailand, China Business Council for Sustainable Development is also actively promoting sustainable development concepts amongst businesses (*<http://english.cbcsd.org.cn>*) all over China, including Yunnan.

Vietnamese Chamber of Commerce and Industry (VCCI) has plans to launch Vietnam BCSD in near future.

http://www.wbcd.org/DocRoot/JrIirdRdNh9RGtGDU9Co/Regions_280807_proof%203.pdf

living standards and lifestyles of the populations within GMS, especially those in the urban areas, are expected to increasingly approach those of the developed economies in the Western world.

However, it is now widely acknowledged that the current energy-intensive, consumption-oriented lifestyles in Western economies is putting severe stress on natural resources and the environment, and amounts to living beyond the earth’s means. Maintaining such lifestyles and having peoples of the rapidly growing economies of Asia adopt similar lifestyles is not a viable path for the long term.

Shifting to more sustainable consumption and production (SCP) patterns was therefore adopted as one of the overarching objectives of sustainable development by the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg. SCP implies achieving economic growth while respecting environmental limits, finding ways to minimize damage to the environment and making use of the earth’s resources in a most efficient and sustainable manner.

In line with these global trends, the GMS needs to implement various programs and activities to promote SCP among its governments and its consumers. A number of programs can be launched under an umbrella program for SCP which includes, among other things, promotion of green public procurement, green purchasing, eco-labeling, and consumer awareness. GMS countries can align with ongoing activities of international agencies like UNEP or UN-DESA, as well as other initiatives such as the Marrakech Taskforce for the development of a 10-year framework on SCP.

- **Promote Sustainability & Corporate Social Responsibility to businesses for global competitiveness**

The notion of productivity and competitiveness has evolved over recent years, with environmental and social parameters playing an increasingly prominent role in profitability and overall business sustainability aside from traditional parameters of cost and quality.

**POVERTY REDUCTION
THROUGH SUSTAINED AND
EQUITABLE ECONOMIC GROWTH**

4 SUSTAINABLE MANAGEMENT OF SHARED ENVIRONMENTAL RESOURCES

4.1 The vision

The shared environmental resources in the sub-region are of prime importance in the economic and social development of the GMS. Thus, the SSDS envisions the GMS with its rich natural capital secured and growing, so as to continue meeting the needs of future generations. Shared environmental resources are managed sustainably and equitably, both across countries and across the different segments and levels of society. In line with this, the SSDS envisions a GMS wherein:

- Future generations continue to enjoy sustained benefits from the natural capital of the sub-region;
- People, particularly the rural poor, can continue to rely on value created by shared environmental resources for their livelihood;
- Local communities participate actively in the sustainable management of the shared natural resources in the sub-region; and
- People know and understand issues related to sustainability and make informed changes in their behavior towards sustainable lifestyles.

4.2 Goals and targets

Pursuit of the above vision requires a paradigm shift with regard to the management of shared environmental resources in the GMS, including its soil, water, forests, fisheries, energy resources and others.

Traditionally, environmental conservation was seen as the responsibility of the state and effected through a top-down command and control approach. As such, local communities often lost access to the natural resources which had traditionally been the very basis for their livelihoods. The paradigm shift, in contrast, would ensure the participation of the local communities in sustainable management and conservation of the shared environmental resources. In so doing, communities become partners in conservation even as they continue to benefit from these resources for the enhancement of their livelihoods.

A number of tangible and time-bound goals and targets shall be pursued, including:

- ▶ arrest and regulate rampant forest and biodiversity loss by 2015;
- ▶ ensure access to sustainable and clean water supplies to 100% of the GMS population by 2015;
- ▶ halt all illegal trans-boundary movement of illicit forest products, rare species, animals, pets and hazardous substances and waste by 2015; and
- ▶ develop at least 12 model sustainable tourism projects in the sub-region by 2015, where the local communities will be the key stakeholders and beneficiaries.

4.3 Strategies and actions

Towards realizing the vision and goals outlined above, a number of supporting strategies shall be undertaken, including extensive capacity building of stakeholders,

institutional and legal frameworks at the regional level for management of the environment and natural resources, and sustainable value creation from these resources for the benefit of local communities. These are discussed in greater detail below.

4.3.1 CONSERVATION AND VALUE CREATION FROM SHARED NATURAL RESOURCES

- **Ensure the Security and Sustainability of Shared Water Resources**

The Mekong River is the lifeline for the GMS, and there is definite need for an integrated and sustainable watershed management plan for the sub-region. This would ensure the long-term security and sustainability of the shared water resources for economic development and poverty alleviation in the GMS.

A coordinated and regional approach based on active consultation can facilitate optimal water use for meeting current demands along with advance planning to meet growing future demands, in the face of accelerating industrialization and urbanization in the sub-region. In particular, a regional mechanism for information collection and sharing, and regional level integrated planning, implementation and monitoring would promote improved responsiveness to the persistent challenges faced by the GMS in water resource management.

- **Sustainable Water Resources Development**

In order to ensure access to clean water supply to all people in the GMS, it is essential to undertake new water resources development projects, notably through construction of dams and reservoirs.

In developing such new water resources projects, co-ordination among the GMS countries is crucial in order to maximize the benefits therefrom, while ensuring minimal negative environmental and social impacts. The GMS countries need to develop and abide by a common code of conduct for this purpose.

To this end, the roles, functions and capacity of existing relevant institutions such as MRC can be strengthened and expanded to take effective responsibility for co-ordination and resolving any issues arising from both existing shared water resources and new water resources project development.

- **Ensure the Security and Sustainability of Forests and Biodiversity**

Forest cover in the GMS is dwindling at an alarming rate. Commercial logging

Box 4-1: Mekong River Commission

The 1995 Mekong Agreement and activities under Mekong River Commission (MRC) have been addressing integrated watershed management and development in the four countries of the lower Mekong Basin (Cambodia, Lao PDR, Thailand and Viet Nam). The Mekong Agreement provides a framework for a “coordinated and regional approach” to water resources management. In the MRC Strategic Plan 2006-2010 under the Basin Development Plan, procedures to this end were agreed upon by the member states based on the 1995 Mekong Agreement.

More details can be found at www.mrcmekong.org.

http://www.wbcsd.org/DocRoot/JrIirdRdNh9RGtGDU9Co/Regions_280807_proof%203.pdf

and log exports are subject to government regulation in the GMS countries, but enforcement has often been weak and countries' borders remain porous. The remaining natural forests that have not already been cleared are constantly under threat from human activities. Protecting this precious biodiversity reserve is of utmost importance, not only for GMS but also for the sake of global biodiversity. A concerted and time-bound initiative is required to address this serious issue. Among other things, this would involve zoning/land use planning for sustainable use of forest resources.

For the conservation and development of biodiversity in the GMS, a GMS ecological network could be developed which would employ a spatially coordinated approach among different GMS policies and corresponding national measures. The relationships between the elements of this network, such as wetlands, national parks, islands, coastal regions, and certain rural regions must be identified and coordinated at the GMS level with the active participation of the local and regional levels.

Box 4-2: Buffer Zone Management in the 3 Nature Reserves of Thanh Hoa province, Vietnam

http://vietnam.ded.de/cipp/ded/custom/pub/content/lang,2/oid,1850/ticket,g_u_e_s_t/~Buffer_Zone_Management_in_the_Pu_Luong_Nature_Reserve.html

Buffer zone management is often generally applied to simultaneously minimize human impact on core conservation while addressing the socio-economic needs and wants of the affected population (i.e. former resource users of the conservation area, who have traditional knowledge to make a sustainable use of natural resources in the "buffer zone").

The buffer zone management project in Thanh Hoa province in Vietnam was launched in March 2007 and is an extension of a project started in 2002 in cooperation with Fauna and Flora International, Forest protection Department and local communities, with a goal of the sustainable protection of the highly diverse fauna and flora of the areas.

Biodiversity is threatened mainly by illegal timber cutting and poaching. In such a case, community development approaches and awareness creation activities are supposed to change local people's attitude. In the community development component, work concentrates on income generating activities and improvement of infrastructure, especially water supply. A main effort is the introduction of timber plantations on eroded slopes, which previously were used for manioka cultivation. These plantations should not only satisfy the immediate needs of the local people for construction material, but also generate income in the long term.

In the awareness creation component village meetings are used to discuss about advantages of forest protection and traditional bonds towards the forest are revived. Promotional material like calenders, radio and TV broadcasting support these efforts.

In the component capacity building for institutions involved, especially staff of Forest Protection Department is trained on more participatory approaches to communicate with the local people, a challenging task, especially when conflicts arise.

The Doi Sam Muen Project in Chiang Mai Province in Thailand is another often cited example of successful buffer zone management project.

Moreover, while protecting the forests and biodiversity is essential, it is also important to create value from these precious resources in a sustainable manner for the benefit of the local communities, who have been traditionally dependent on these forest resources.

Approaches like buffer zone management (see Box 4-2) with local community participation, and development of eco-tourism destinations and products are some of the specific approaches that can be planned and implemented at the sub-regional level.

- **Promote and Facilitate Sustainable Tourism Development and Eco-tourism / Community-based Tourism Products**

Sustainable management of shared environmental resources is not confined to protection and conservation. It also involves value creation out of these environmental and natural resources for the benefit of the local communities, and ecotourism is one viable mode for such value creation.

Development of sustainable tourism destinations and packages/products can balance environmental sensitivities with generating income for the local rural poor population.

Such tourism products can leverage the natural capital and cultural heritage as the unique selling point for attracting tourists to the region, thereby accelerating economic activities. Packaging the GMS region as a whole can reduce the costs of promotion and marketing of the destinations. At the same time, it can highlight the distinctive identity of the sub-region as a unified entity.

It is important to recognize the important role played by the local communities in developing and managing such sustainable tourism destinations. Hence these important stakeholders must be among the first to reap the benefits therefrom.

- **Ensure Security and Sustainability of Fisheries**

The fishery of the Lower Mekong Basin is one of the most abundant river fisheries in the world. It is of vital importance to the people of GMS because: (1) many earn their livelihood from catching, preserving and marketing fish and other aquatic products and (2) they also depend on the fishery as their main source of animal protein. Although MRC research has indicated that the fishery is in generally good condition, the situation is fragile and could change quickly if not well managed, especially as developments in other sectors impose adverse impacts on aquatic life.

Fisheries thus comprise one of the most precious shared natural resources for the GMS, which need to be carefully and responsibly managed to ensure its

Box 4-3: ADB's Sustainable Tourism Strategy for GMS

Under the ADB's GMS program, a Sub-regional Technical Working Group on tourism has been established in 1993. The objective of this working group is to provide guidance and professional support for the implementation of sub-regional tourism projects.

GMS Sustainable Tourism Strategy (2006-2015) is an integrated sustainable tourism development master plan that can provide an excellent foundation to build on for the promotion of sustainable tourism in the region.

<http://www.adb.org/Projects/project.asp?id=37626>

security and sustainability in the long run. For this, an ongoing dialogue and cooperation among the various GMS countries is essential. This can, for instance, be achieved by establishing a special program or mechanism for fisheries under the aegis of existing institutions like MRC (see Box 4-4).

- **Strengthen Capacity and Cooperation in Mineral Resources Development**

GMS is endowed with rich mineral resources. However the capacity to fully tap its potential varies across the GMS countries. It would therefore be useful to leverage regional cooperation to strengthen capacities and facilitate cooperation in mineral resource development programs in the GMS.

There is need to develop an integrated and encompassing mineral resource management plan for the GMS. This would outline availabilities of mineral reserves and identify opportunities for bi- or multi-lateral regional cooperation for capacity building and/or developing of the mineral reserves to fully exploit the potential of such resources. A high-level steering committee, working group or similar other institutional arrangement can be developed to oversee and systematically undertake these tasks.

4.3.2 ADDRESSING TRANS-BOUNDARY ISSUES

- **Regulate and Manage Biodiversity and Trans-boundary Trade in Forest Products**

As indicated above, deforestation is one of the most critical issues for the governments and policy makers in the GMS to address. One of the prime concerns contributing to the problem is the illegal trans-boundary trade in forest products. This and similar issues cannot be addressed by individual governments acting in isolation. In these cases, sub-regional coordination and cooperation is essential.

Developing a regional mechanism to regulate and manage the trans-boundary movement and trade in forest products and curb illegal smuggling thereof is thus a priority concern in the SSDS. This will entail addressing a number of key elements, such as capacity building for relevant government agencies, forest certification and labeling programs, improved regulatory framework supported by a robust monitoring mechanism, local community participation and others.

Box 4-4: Sub-Regional Cooperation for Sustainable Fisheries Management

In 1995, the four countries of the lower Mekong Basin (Cambodia, Lao PDR, Thailand and Viet Nam) signed comprehensive water and related resources sharing agreement based on the principle of sustainable development. Conserving biodiversity is implicit within the concepts adopted, with a clear focus on FAO Guidelines for Responsible Fisheries.

[http://www.unep.org/bpsp/Fisheries/Fisheries%20Case%20Study%20Summaries/Coates\(Summary\).pdf](http://www.unep.org/bpsp/Fisheries/Fisheries%20Case%20Study%20Summaries/Coates(Summary).pdf)

Fisheries concerns are also addressed at the sub-regional level through the Working Group on Agriculture (WGA) under the ADB GMS Program. The WGA was initiated under the GMS Tenth Ministerial Conference in November 2001 to serve as an advisory body to GMS Ministerial-level Conferences on agricultural issues. The goal of GMS cooperation in agriculture is to help rural communities in the GMS reduce poverty through partnerships aimed at promoting food security and increased commercial income generating opportunities in agriculture. To this effect the WGA aims to improve sub-regional cooperation in agriculture and serves as an advisory body to GMS Ministerial-level Conferences on agricultural issues. The WGA has following as its strategic focus:

- Markets and market institutions
- Transfer of know-how, experiences and technology
- Public-private partnerships in the following subsectors: crops, livestock, fisheries, and forest and water resources.

<http://www.adb.org/GMS/Sector-Activities/agriculture.asp>

- **Control and reduce trans-boundary air pollution at source**

Incidences of trans-boundary air pollution – e.g. forest fires, smoke and haze, traffic, industrial air pollution such as acid rain – need a concerted effort by all the countries affected, pursued through a sub-regional level mechanism for cooperation and coordinated action. A possible model for this cooperation framework is the Malé Declaration on Control and Prevention of Air Pollution and Its Likely Transboundary Effects for South Asia (1998).

A regional institutional mechanism needs to be developed to study, predict and properly manage the incidences of trans-boundary air pollution. This could include establishment of a network of meteorological research organizations and other relevant experts, to develop an early warning system and emergency response mechanisms, among other things. Continuous information sharing and coordination among the GMS countries is essential to the effectiveness of such a system.

- **Regulate and manage trans-boundary movements of hazardous waste**

While the Basel Convention regulates the trans-boundary movements of hazardous waste, much needs to be done in this area in the GMS. This issue is expected to become even more serious with increasing levels of industrialization and its accompanying waste generation.

An extensive capacity building effort is a key prerequisite for effectively regulating and managing the trans-boundary movements of hazardous waste in the GMS. This needs to be supplemented by adequate financial support to develop and maintain the necessary infrastructure – including the required testing laboratories and equipment.

- **Sub-Regional Cooperation on Climate Change Mitigation and Adaptation**

While UNFCCC exists as the apex mechanism for coordinating the global agenda on climate change, countries and sub-regions such as GMS face unique concerns and problems in their efforts to address climate change.

Within the GMS, there is ample scope for cooperation and concerted action at the sub-regional level for mitigation and adaptation for climate change. This can address both GMS-specific concerns and international obligations regarding climate change.

Box 4-5: Cooperation for Forest Fires/Haze

In the wake of the Indonesian forest fires, haze and such trans-boundary problems for the last decade, the countries in South East Asia have been working together through various channels. Several ministerial meetings have been held in response to the issues such as haze.

Box 4-6: Basel Convention

Basel convention is the internationally accepted and established mechanism for the legitimate trans-boundary movement of hazardous waste. As the signatories of the Convention, governments need to follow strict procedures and protocols to authorize such movements.

For more information: www.basel.int

A possible mechanism to facilitate such dialogue and cooperation could be a GMS Forum on Climate Change, wherein concerned senior officials (e.g. national CDM focal points) can regularly meet to exchange information and map out strategies at sub-regional level. These can then be jointly represented at the international forums such as UNFCCC or other such relevant meetings.

- **Strengthen capacity and cooperation in agricultural development and the control of trans-boundary plant and animal pests and diseases**

Agriculture – broadly defined to include food and cash crops, livestock, fisheries and forestry – is the dominant economic activity in the GMS. Again, it is closely linked with the shared environmental and natural resources of the sub-region, and many issues in the sector are best addressed through sub-regional platforms.

The promotion of sustainable agriculture practices, for one, is essential to enhance agricultural productivity and reduce adverse environmental impacts (e.g., through excessive use of fertilizers, water etc.). Controlling the trans-boundary movement of plant and animal pests and diseases (e.g. avian flu) is another concern best addressed at the sub-regional level. A suitable regional mechanism can be developed to address both and other related issues. The mechanism would involve various elements such as capacity building of relevant government agencies, information sharing on best agricultural practices, improved regulatory framework supported by a robust monitoring mechanism, and use of ICT for agricultural development, among others.

As a particular example, the GMS countries can act to prevent an economic downfall and social/environmental disaster from outbreaks of SARS or Avian Flu, by setting up a regional focal point in one of the existing institutions. This focal point would undertake various surveys and studies to understand the issues involved in trans-boundary movement of pests, animals and diseases. Based on such studies, it can plan and implement capacity building activities for various stakeholder groups in the GMS. Such a mechanism can also serve as the central information center as well as disaster management focal point for the GMS in case of any such outbreak.

4.3.3 ADDRESSING SOCIAL VULNERABILITY LINKED TO NATURAL RESOURCES

- **Promoting Participatory Natural Resource Management**

With the bulk of the rural population in the GMS being dependent on the shared environmental resources for their livelihood, the SSDS seeks to minimize their social vulnerability associated with the depletion of the natural resource base.

As indicated earlier, a paradigm shift in the way the environmental resources are managed is envisaged, with traditional command-and-control approaches giving way to innovative participatory approaches. Here, communities and local people who are dependent on the shared environmental resources take responsibility for

their management and conservation. In doing so, they continue to depend on the natural resources for their needs, but at the same time ensure their sustainable management.

For this, a set of new policies and regulations would have to be promulgated emphasizing participatory natural resource management and stakeholder participation. A ministerial meeting of GMS countries can endorse a set of common guiding principles in this regard, which can then be supplemented by relevant national regulatory frameworks.

- **Developing an Early Warning System & Reducing Social Vulnerability to Environmental Disasters & Hazards**

One of the key objectives of the sub-regional cooperation and the SSDS is to mitigate the vulnerability of the GMS to disasters and hazards by developing an early warning system for potential environmental disasters such as typhoons, tsunami, earthquakes, and others.

A regional institutional mechanism can be developed to study, predict and properly manage the potential environmental hazards and disasters in the region. One important function of this mechanism would be predict and assess the risks associated with such potential disasters and propose necessary precautionary actions.

Box 4-7: ADB Project for Regional Partnership to Combat Bird Flu Threat

ADB launched a \$38 million grant project designed to counter the immediate threat to the Asia and Pacific region posed by avian influenza. The project, part of up to \$470 million in funds pledged by ADB to fight avian flu, provides resources urgently needed to help control and reduce the spread of the highly pathogenic H5N1 bird flu virus among poultry and to increase the region's preparedness for a potential human influenza pandemic. The project fits within a framework, where the international community pledged \$1.9 billion for the fight against avian flu.

Designed as a flexible response in close coordination with the Association of Southeast Asian Nations (ASEAN), UN Food and Agriculture Organization (FAO), World Health Organization (WHO), and others, the project will be undertaken in a harmonized way with these regional partners and other national and international initiatives over the next 2½ years.

It aims to prevent or rapidly control infection at source among birds, strengthening early detection, reporting and controlling bird flu outbreaks, and rapidly managing cases of human influenza caused by the H5N1 virus. The project will also help prepare the region for a possible pandemic by supporting regional interagency collaboration, regional cooperation in sharing information, and strengthening regional networks.

Within ASEAN, the project will also initially help the ASEAN Secretariat to strengthen its coordinating role in undertaking regional programs and work plans to control and eradicate avian flu in the animal sector and prevent its evolution into a human pandemic, in close partnership with FAO and WHO.

<http://www.asiadevbank.org/media/Articles/2006/9490-regional-bird-flu/>

A network of academic and relevant research organizations/experts can be used to develop an early warning system building upon the existing initiatives such as the software developed under the ADB's Strategic Environmental Framework. Information sharing and coordination among the GMS countries is extremely essential for the success of this program.

4.3.4 OTHER STRATEGIES

● **Establishing a Sustainability Knowledge Hub**

In order to ensure the impact and sustainability of all the efforts and policies under the SSDS, a well-informed and responsible society is essential to get the desired results of the various policy interventions. Widening public awareness on sustainable development towards an informed and knowledgeable society would entail disseminating up-to-date and accurate information relevant to the needs of the various stakeholders.

Establishment of a Sustainability Knowledge Hub specifically for the GMS will fill the need for an intelligence unit for policy makers and governments, and for an information clearinghouse for the general public. Rather than establish a new dedicated center for this purpose, this hub could be structured in the form of a network of organizations, professionals and information centers. This will not only ensure a synergy effect and pooling of resources but can also provide an easy access to all the various interested stakeholder groups throughout the GMS. Needless to say, this knowledge hub would harness IT to the maximum for a cost-effective and efficient delivery of information and sustainability knowledge.

Box 4-8: 3R Knowledge Hub at Asian Institute of Technology

The principle of reducing waste, reusing and recycling resources and products is often referred to as the "3R". The 3R Initiative was officially launched at the 3R Ministerial Conference hosted by the Government of Japan in April 2005, with an aim to promote global action on 3R. This resulted in strong commitment of governments and other stakeholders to implement 3R at local, national, and regional level. As a follow-up to this, the Asian Institute of Technology (AIT), UNEP Regional Resource Centre for Asia and the Pacific (UNEP RRC.AP), and United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) established regional Knowledge Hub on 3R (3RKH) with support from ADB in 2006.

3RKH aims to;

- Support and strengthen Asia-Pacific's regional capacity in generating innovative development concepts and technologies relevant to ADB and its developing member countries (DMC), and to promote networking among the regional institutes for knowledge dissemination.
- Mainstream new concepts in innovation, science, technology, management development, and related fields for the region.
- Promote information exchange and sharing of knowledge and information.

3RKH Website: <http://www.3rkh.net>

**NURTURING HUMAN AND SOCIAL CAPITAL
FOR SUSTAINABLE DEVELOPMENT**

5 NURTURING HUMAN AND SOCIAL CAPITAL FOR SUSTAINABLE DEVELOPMENT

5.1 The vision

The ultimate object of sustainable development is people, and its goal is ensuring, maintaining and securing the well-being of the people. The people of GMS, apart from sharing a common set of environmental resources dominated by the river ecosystem, also share a rich cultural heritage that values love, peace, compassion and overall wellness of all living beings. As such, environmental conservation and sustainable development are naturally imbedded in their value systems, and manifested in their indigenous knowledge and practices.

The SSDS envisions to substantially elevate human and social well-being in the GMS, and to leverage its rich cultural diversity and heritage along with its treasure of indigenous knowledge for the sustainable development of the sub-region.

5.2 Goal and targets

In pursuit of the vision of elevated human and social well-being in the GMS, the main objective would be to eradicate poverty in its multiple dimensions. To this end, a specific objective is to enhance regional cooperation in capacity building and human resources development, and to effectively address regional/ trans-boundary issues related to human rights.

In accordance with the Millennium Development Goals (MDGs), the GMS countries must meet several specific human and social welfare goals and targets by 2015. Among the MDG goals and targets, of particular significance for the sub-region are the following:

- Achieve universal primary education (Goal 2), where the target is to ensure that by 2015, all boys and girls are able to complete a full course of primary schooling.
- Promote gender equality and empower women (Goal 3), with the target of eliminating gender disparity in primary and secondary education at all levels of education by 2015.
- Combat HIV/AIDS, malaria and other diseases (Goal 6), with the target of halting and reversing the spread of HIV/AIDS.

Beyond the specific MDGs, and of particular concern to the GMS countries, a key objective is to curb and eventually eliminate illegal human trafficking, particularly of women and children, and other irregular migration that leads to undesirable, hazardous or illegal forms of employment.

5.3 Strategies and actions

5.3.1 COOPERATION FOR GOVERNANCE AND HUMAN RESOURCE DEVELOPMENT

- **Strengthen Cooperation in Human Resources Development in the context of Sustainable Development and the MDGs**

The concept of sustainable development with its three pillars – economic, environmental and social – remains new to most people in the sub-region,

including at the policymaking and policy implementation levels. Thus, understanding and implementing it continues to be a major challenge. Awareness of the MDGs, along with the appropriate approaches to attaining them, is also limited. Both are tasks that must involve the stakeholders in government, business and civil society, where awareness, appreciation, knowledge and capabilities tend to be mixed and unbalanced across and within the GMS countries.

It is thus desirable and essential that the GMS countries work together and help equip one another for an effective sub-region-wide thrust for sustainable development and MDG attainment. In particular, there are potential synergies in education and human resource development that may be tapped through closer cooperation. GMSARN already provides a venue for such cooperation, which can be further strengthened with additional support from the GMS governments in terms of both budget and policy.

Concerted efforts for environmental education at various levels starting from primary schools; ongoing training/awareness raising activities and continuing education programs for all the relevant stakeholders are particularly needed.

- **Strengthen Cooperation in improving Governance and Public Administration especially with regard to Environmental and Sustainable Development**

As the GMS moves ahead to address the new challenges of sustainable development and the MDGs, the existing public institutions will have to adapt to take up some new roles and responsibilities. As such, there is urgent need for improving the quality of governance and public administration, especially with regard to environmental and sustainable development-related issues.

Strengthening cooperation in improving governance and public administration across the region is therefore an important step. This is all the more essential since a number of elements of SSDS are to be implemented jointly by the GMS countries at the regional level. Hence, all the countries in the region need to have a common minimum level of capability in governance and public administration to achieve the desired results of such regional initiatives.

Box 5-1: HRD Initiatives under the GMS Program

The GMS Program, with support from ADB and other donors, helps the implementation of high priority sub-regional projects in transport, energy, environment, human resource development, tourism, agriculture etc. amongst others. Sub-regional Working Group on Human Resource Development (WGHRD), established under this GMS Economic Cooperation Program, serves as an advisory body on sub-regional HRD projects.

The Phnom Penh Plan for Development Management (PPP) was launched at the first GMS Summit in Phnom Penh, Cambodia in November 2002 and is a capacity-building initiative of the GMS countries funded by ADB through its Technical Assistance Special Fund. The New Zealand Agency for International Development, the Ministry of Foreign Affairs of the Government of France, and the Government of the People's Republic of China (PRC) through the PRC Regional Cooperation and Poverty Reduction Fund also provide financial assistance.

While the capacity building activities cover a wide range of activities, special focus could be directed towards strengthening the knowledge and skills base required for the pursuit and management of sustainable development and the MDGs.

<http://www.adb.org/GMS/Sector-Activities/hrd.asp> <http://www.adb.org/GMS/phnom-penh-plan/default.asp>

A strong framework for regional cooperation with specific and tangible targets therefore needs to be worked out with the competent authorities in the GMS countries, together with supporting institutional arrangements.

- **Strengthen Cooperation in Law Enforcement, Intelligence and Border Security to Prevent Illicit Drugs, Human Trafficking and other Trans-boundary Crime**

Cross-border crime in general – and trafficking of people and illicit drugs in particular – is a serious concern for the GMS. This seriously affects the efforts for socio-economic development and the overall wellbeing of inhabitants of the sub-region.

It is therefore essential to strengthen cooperation among the GMS countries in law enforcement, intelligence and border security to prevent illicit drugs, human trafficking and other trans-boundary crime. This includes enhanced information-sharing, common enforcement mechanisms, and aligning of rules and penalties, among other things.

The necessary sub-regional institutional framework with appropriate mandates and authorities needs to be established to operationalize this strategy.

5.3.2 MANAGING TRANS-BOUNDARY ISSUES RELATED TO HUMAN CAPITAL

- **Control & Prevent the Spread of HIV/AIDS & other Communicable Diseases**

Communicable diseases – especially deadly ones like HIV/AIDS – can exact tremendous costs on the human population. They take a heavy toll not only on the social well-being of the people, but on economic growth and welfare as well. Trans-boundary movement of people (especially migrant labor) further aggravates this problem. In view of their profound implications on human, social and economic welfare, combating the spread of such communicable diseases is included among the MDGs.

Box 5-2: Preventing HIV/AIDS in Cross-border Areas of the GMS



As the GMS countries have opened up their borders to tourism and trade, the increased cross-border movements have hastened the spread of drug abuse, human trafficking, and HIV/AIDS.

This ADB-UNESCO-SEAMEO project is aimed at developing and strengthening the preventive action necessary to tackle HIV/AIDS and the major factors contributing to its spread.

The project addresses three of the major factors contributing to the spread of HIV/AIDS in the GMS - high-risk behaviours, trafficking in girls and women, and drug abuse among highland minorities. The project will directly address the main problems and at-risk groups, in close cooperation with partner institutions, the private sector, community groups, educational establishments and local media. A range of information and communications technologies (ICT) will be employed and Information Communication Education materials developed – from radio and audiotapes to computer-based hardware – to achieve the objectives of the project.

http://hivaidsclearinghouse.unesco.org/ev.php?URL_ID=2622&URL_DO=DO_TOPIC&URL_SECTION=201&reload=1068025469

Also see: *HIV/AIDS Impact on Education Clearinghouse* http://hivaidsclearinghouse.unesco.org/ev.php?ID=1_201&ID2=DO_ROOT

The GMS has been particularly vulnerable to HIV/AIDS, and controlling and preventing the spread of the disease is a major challenge that calls for collective and concerted action at the sub-regional level by all the countries in the GMS. A strong collaboration supported with the necessary resources and institutional mechanisms is of utmost importance in combating these deadly diseases in the region. Mobilizing private sector and civil society initiatives is also crucial in making effective headway against this public health problem.

- **Manage labor migration and protect migrants' rights**

Migration of labor within the GMS and protection of the migrants' rights is an important human rights issue that is closely linked with socio-economic development of the GMS and has a direct bearing on the efforts for sustainable development and meeting the MDG challenges.

There is wide scope for enhanced cooperation among the GMS countries in managing the trans-boundary movement and migration of labor, and the protection of the migrants' rights. For one thing, it is possible to moderate labor migration by improving the environment for expanded livelihood and employment opportunities right in their home communities. But when and where labor migration does occur, measures can be taken to prevent exploitation, abuse and maltreatment of foreign workers and to protect their rights. It will take concerted action by all the GMS countries to ensure that the necessary legislative and institutional frameworks are put in place to ensure this.

5.3.3 HARNESSING PARTNERSHIPS FOR SUSTAINABLE DEVELOPMENT

- **Promote and Facilitate Civil Society Partnerships**

In the context of sustainable development and pursuit of the MDGs, civil society and NGOs play an equally important role to that of the governmental institutions. Public private partnerships form an important cornerstone for sustainable socio-economic development.

However, in view of the acknowledged capacity and competence gap between government and the private sector, a strong emphasis on capacity building for government is necessary. Similarly, civil society, NGOs and the academia would benefit from capacity building efforts on the issues related to sustainable development as well as managing public-private partnerships.

Similarly, partnerships among the businesses and NGOs in various countries as well as partnerships between private sectors and NGOs need to be promoted. This can ensure that various stakeholders make their contribution towards realizing the sustainable development vision in a transparent and accountable manner and different groups help each other in doing so.

While planning the regional initiatives and strategies, it is therefore essential to promote and facilitate all such partnerships in the region, which can play a great

catalytic role in promoting sustainable development and meeting the MDG. At times, there may be a need for a strategic/legislative framework at the national as well as at the sub-regional level to ensure active participation of civil society, and GMS countries should take the necessary action for the same.

- **Promote Religious and Cultural Understanding and Respect**

Today's world faces an unprecedented threat of terrorism and division among various peoples, often drawn along religious and cultural lines, that is directly affecting the peace and security of the entire humanity. It also has a major impact on economic development, more so for an emerging sub-region like GMS.

It is therefore prudent to promote religious and cultural understanding and respect among the people in GMS. At the outset, it may not appear to have direct bearing on the sustainable socio-economic development issues. However, such a strategy can undoubtedly lay a solid foundation for regional peace and harmony in the region thus, helping ensure long term sustainable development.

Such strategy can not be implemented on a once-through basis. Rather, it needs a sustained and long-term effort at all levels – from the schools, universities to mass media and various other social / cultural platforms.

While the outcomes of such a strategy may be hard to measure in hard monetary terms, there is no doubt that it would make a positive contribution to long run sustainable development in the GMS.

- **Center of Excellence on Human Development**

A number of strategies and ideas have been proposed with regard to nurturing human and social capital in the GMS. Moreover, a strong human resources development effort will ensure the successful implementation of the GMS-SSDS.

To achieve this, a Center of Excellence on Human Development for GMS could be established to address the sustainable development issues in the GMS from a social perspective. This center can specifically work in distinctive areas such as conflict management, indigenous intellectual property rights, and benefit sharing for local communities. The center can undertake “action-oriented research” projects and can be supported by the GMS countries as well as the international donor community in the initial phase. It can eventually become self-sufficient through revenues earned from the projects. The center may be established in some university or academic/social research organization within the sub-region.

**ENSURING IMPLEMENTATION,
MONITORING AND IMPACT**

6 ENSURING IMPLEMENTATION, MONITORING AND IMPACT

The preceding chapters have outlined various strategies and initiatives to help the GMS meet the challenges of sustainable development and attain the MDGs. Implementing these strategies and initiatives to achieve the desired outcomes is the key challenge.

Cooperation among the GMS countries is the cornerstone for success of these efforts and initiatives. The GMS countries have demonstrated a strong cooperative spirit for more than a decade, which can thus provide the solid foundation to formulate a joint plan of implementation and build a future success story.

Ensuring effective implementation of the SSDS requires its integration with existing strategies and the selective application of strategies suitable for each individual country. In the course of doing this, there is a need to undertake a gap analysis to avoid duplication and overlapping of initiatives. As an outcome of the gap analysis it would be possible to provide customized assistance package for each GMS country.

6.1 Some issues in implementing SSDS in GMS

6.1.1 CREATING AWARENESS ABOUT SSDS AMONG STAKEHOLDERS

The proposed SSDS concerns and involves participation from numerous stakeholders in the GMS. It is therefore essential that all stakeholders are aware of the SSDS and their expected roles in its implementation. Hence, creating awareness about the SSDS among various stakeholders is an important pre-requisite for its successful implementation.

6.1.2 CAPACITY BUILDING FOR GOVERNMENT OFFICIALS

Numerous studies and reports have identified the lack of awareness and capacity at all levels of government, both local and national, to address sustainable development issues. It is therefore of utmost importance to place strong emphasis on the ongoing capacity-building of government officials of the GMS, and plan more of such programs in the future to ensure an effective implementation of the SSDS.

6.1.3 SUSTAINABLE DEVELOPMENT EDUCATION

Sustainable development is about future generations. It is about protecting the natural, human and social capital and working out a development model that balances the pursuit of the economic, social and environmental dimensions of human welfare that the future generations can inherit. Indeed, the students in today's schools, colleges and universities – the successor generation of citizens and leaders of tomorrow - are the most important stakeholders in this endeavor.

Critical, then, to the long-term success and effective implementation of the SSDS is the need to ensure access to education by all young people in the GMS. It is equally important to integrate sustainable development concepts and principles in the education systems at all levels including formal, informal, professional, vocational etc. Specific training in the development and use of integration tools for SSDS implementation in the GMS would be a critical element in operationalizing the strategies embodied in the SSDS.

6.1.4 LEVERAGING CAPITAL MARKET INTEGRATION

The GMS has had a good track record of regional cooperation in the past, especially in the economic arena. However, the regional cooperation required for implementing the SSDS is expected to pose new challenges due to differences in political systems, social structures, varying levels of economic development and different value systems.

On the other hand, in certain areas a strong integration has already been established. For instance, the capital markets are already relatively well integrated in the GMS, and this can provide an excellent window of opportunity and foundation on which to build future collaborative efforts, especially in the context of implementing SSDS.

6.1.5 PUBLIC PRIVATE PARTNERSHIPS

While much work would have to be done by the public sector towards implementing the SSDS, public-private partnerships are expected to increasingly form the cornerstone of the implementation plans for the SSDS.

Innovative partnerships – including within countries including those at the community levels (as discussed in section 5.3.3) as well as at regional level – that bring together various partners from different sectors is expected to be the key to the long term success of the SSDS.

6.1.6 SSDS AND NSDS

In addition to the present SSDS, all the countries in GMS are developing their own National Sustainable Development Strategies (NSDS). While these NSDS would cover the issues of national importance, the SSDS covers the trans-boundary issues of regional importance. In any case, there will be an inherent overlap, linkage and connection between the issues in NSDS as well as those covered in the SSDS. It is important that consistency between the individual countries' NSDS and the SSDS is ensured.

6.1.7 SYNERGY AMONG VARIOUS INITIATIVES

As is evident from the discussion in chapter 1, there is currently a congestion of initiatives and efforts and various strategy papers being developed by numerous regional and international players. Also, there are a number of aid agencies and organizations launching their initiatives in the GMS which at times have a tendency for overlaps.

While developing the implementation plan for the SSDS, it is essential to ensure a synergy among the various initiatives by different organizations to avoid duplication and maximize the effectiveness of the available resources.

6.2 Institutional Arrangements

A strategy document such as the SSDS for GMS is only as good as its actual and faithful implementation. To implement the SSDS, it is important to define the institutional arrangements that will ensure that the strategies contained therein will be pursued, operationalized, implemented and monitored for maximum impact. Here, there is a choice between integrating the distinct elements of the strategy into the mandates and work programs of existing institutions with a sub-regional mandate on one hand, and

designating an appropriate focal institution with a clear mandate and authority to coordinate the sub-region's sustainable development efforts on the other.

6.2.1 INTEGRATION WITHIN EXISTING STRUCTURES

A less disruptive approach to implementing the SSDS would be to integrate the relevant component strategies into the work of various existing bodies, organizations or structures. Under this approach, a high-level ministerial forum or meeting may oversee the process and assign responsibilities and mandates to respective organizations in the region, and also monitor progress through a regular reporting mechanism.

While less disruptive and likely to be less costly as well, this arrangement would require a very high degree of coordination among the various players, especially the various governments of the GMS. In view of this, it is not clear how effective and successful such an arrangement might be.

6.2.2 SPECIFYING A FOCAL POINT IN-CHARGE OF IMPLEMENTING SSDS

The other approach would be to designate a focal institution with a clear mandate and authority to coordinate the sustainable development efforts in the GMS within existing institutions. Logically, it would seem appropriate to entrust this responsibility to one of the existing institutions with relevant mandate and authority rather than developing a new institution altogether. Candidate institutions in this regard would be the ASEAN mechanisms, the Mekong River Commission, and the Working Group on Environment (WGE) under the ADB GMS Economic Cooperation Program. Alternatively, a separate and distinct GMS Sustainable Development Forum may take the role of coordinating SSDS implementation. Each of these alternatives is considered briefly below. The final decision would have to rest on the GMS Ministers, and ultimately, the Heads of Government.

A. ASEAN

Among the various potential candidate institutions, considering their pros and cons/strengths and weaknesses, it appears that the Association of South East Asian Nations (ASEAN) could be the most practically feasible platform to drive the sustainable development initiatives in the GMS.

Compared to other institutions, ASEAN has a broad mandate covering myriad issues, as well as very strong political support, and is well supported by the member governments for its resource requirements. Moreover it has numerous functional arms such as Ministerial Meetings, High Level Working Groups which can greatly facilitate the implementation and monitoring of the SSDS.

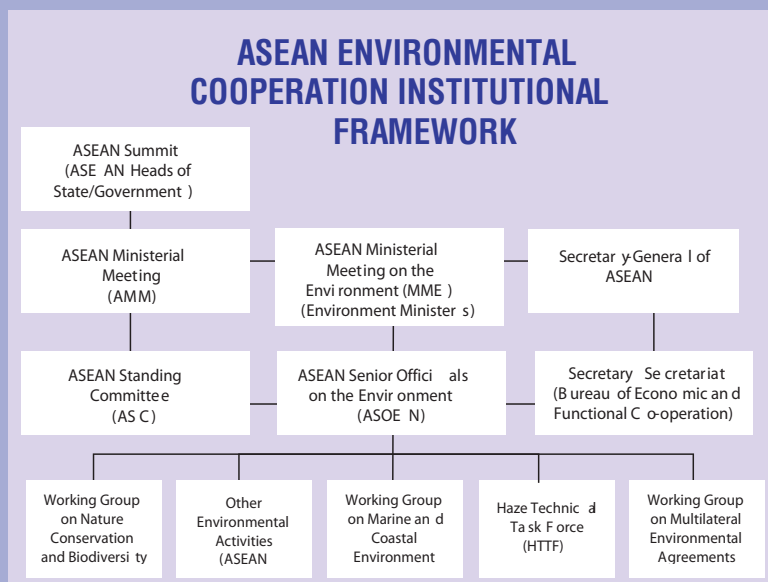
The specific roles and responsibilities for coordinating the implementation of SSDS will have to be devised in due course while developing the detailed action plan for various programs and projects to operationalize the various component strategies of the SSDS.

Association of Southeast Asian Nations

Except for China, all five countries in GMS are members of ASEAN, one of which (Thailand) is even a founding member. As such, ASEAN has historical influence and some degree of control over the GMS. In the ASEAN, matters pertaining to sustainable development in general—specifically those related to environment, UNCED, Agenda 21 and Johannesburg Summit - are handled by its institutional mechanism for environment.

Environmental cooperation in ASEAN formally started in 1978 when the first regional Environmental Program (ASEP-I) for 1978-1982 was developed and subsequently approved by the newly-formed Experts Group on Environment. The environmental agenda was further strengthened by several plans and programs such as ASEP-II (1983-1987), the Strategic Plan of Action on Environment (ASPEN, 1994-1998), ASPEN-II, 1999-2004, as well as other thematic and sector plans.

ASEAN’s institutional set-up on environment has evolved into its current structure (as shown in the figure below) based on experiences generated during its long history of environmental cooperation. It has four levels, namely:



- Heads of State/Government (ASEAN Summit) provides the vision and broad thrust for ASEAN co-operation in various sectors
- Environment Ministers are primarily responsible for policy matters related to the environment. They provide support and recommend policies on environment to Heads of States/Government and Ministers Foreign Affairs
- Senior Officials of the Environment (ASOEN) are heads of national environmental bodies tasked with the formulation, implementation and monitoring of regional programs and activities on environment.
- Working Groups are thematic subsidiaries that provides inputs and recommendations to ASOEN and eventually, to the Ministerial-level meetings on Environment (AMME).

The ASEAN Secretariat provides support to above-mentioned groups in terms of advice, information and coordination of activities.

The ASEAN’s institutional mechanism related to environment comprising the Ministerial Meeting and the various sectoral and thematic bodies could very well provide the foundation to the establishment of ASEAN’s formal institutional framework for sustainable development matters.

For More Information: www.aseansec.org

B. Mekong River Commission (MRC)

The Mekong River Commission could be another candidate for the focal institution. However, it has a rather limited mandate confined to water resources management, hence very limited areas of activity and corresponding expertise. It also includes only four out of the six GMS countries (i.e. excludes Myanmar and China). Thus, vesting MRC with the authority and mandate to coordinate SSDS implementation would entail drastic changes in the mandate and scope of MRC that would require a major diplomatic effort that is unlikely to be feasible at this time. In any case, MRC would be a very important stakeholder in the implementation of SSDS.

C. Working Group on Environment under the GMS Economic Cooperation Program

The Working Group on Environment (WGE) established under the GMS Economic Cooperation Program supported by ADB could also be a possible focal point that would be entrusted with the responsibility of implementing the SSDS. The WGE is very high-profile mechanism that can effectively undertake co-ordination efforts and engage the various existing institutions in the region to operationalize the various strategies of the SSDS.

However, the WGE is confined to environmental concerns, and has not so far been addressing the economic and social dimensions of sustainable development in a deliberate way. Vesting WGE with the authority and mandate to coordinate SSDS implementation would require expanding its scope and mandate to one that would effectively encroach on the mandates of other existing Working Groups under the ADB GMS Program. It would also require that representation in the WGE be modified to go beyond the environment ministries of the member countries, but also include representatives from ministries involved in economic and social affairs.

In effect, a WGE with this expanded mandate would have to assume a pre-eminent status over the other Working Groups, a prospect whose acceptability to all those concerned is unclear. Using WGE as the focal institution would also face the question of long term resource support, which is currently provided by the ADB under a distinct project that will not necessarily have an indefinite life span. These questions would first need to be addressed if this alternative for a focal institution was to be pursued.

D. GMS Sustainable Development Forum

Another possible mechanism for SSDS implementation would be the establishment of an inclusive GMS Sustainable Development Forum, which could consist of National Councils on Sustainable Development of each GMS country, the ADB Environment Operation Center which supports WGE, ADB GMS Program Working Groups including WGE, ASEAN Secretariat, Mekong River Commission, GMS

Academic and Research Network, Mekong Institute, Business Forum for GMS, and regional community service organizations.

The Steering Committee of this forum may comprise of Ministers and senior officials from either the planning or environment ministries of each GMS country, representatives from the Mekong Institute, MRC, GMSARN, GMS Business Forum, etc. The advantage of this approach would lie in its multi-stakeholder membership, which can make it potentially more effective than any inter-governmental forum, and gain wider support within the GMS countries. Its main drawback would be the additional cost it would entail to establish such a mechanism. Nonetheless, the Ministers and Leaders of the respective GMS countries may so decide to commit resources to its establishment and maintenance, given its advantages.

6.2.3 AD-HOC HIGH LEVEL MEETINGS FOR PRIORITIZATION OF ISSUES

Yet another possibility would be to convene high-level (e.g. ministerial level) meetings on an ad-hoc basis where 2-3 top priority issues are selected by consensus and the necessary institutional mechanism is established to ensure implementation within a stipulated time.

However, there is a risk that such an arrangement may lack legitimacy and influence and may not sustain in the long run, particularly due to its ad-hoc nature. On the other hand, implementing SSDS would require sustained and concerted efforts from the various players active in the GMS. This would include government agencies, NGOs, grass-root community level organizations, international organizations, international financial bodies etc. Thus, this option would appear to be the least attractive among the alternatives discussed.

6.3 Monitoring evaluation & reporting impact

A simple management principle says: “What gets measured gets managed”. In order to ensure an effective implementation of the SSDS in the GMS, it is essential to monitor the progress and impact of the various component strategies.

For this purpose, it is essential to develop the programs and projects for the various strategies in such a way that the mechanism for monitoring the progress and measuring the impact is intrinsically built in. An independent and participatory mechanism would be most appropriate for monitoring and evaluation of the effect of SSDS and make any necessary changes.

A high-level experts’ working group reporting to the Ministerial Conferences may be devised to handle the monitoring and impact evaluation at the GMS level. To ensure transparency, this working group would preferably also include members from NGOs, civil society, media, academia and international organizations, and may even decide to recruit independent third-party assessors.

It is essential to build the capacity of the relevant government and private organizations represented in this working group, so that they can understand and effectively undertake an independent, objective and critical assessment and evaluation of the impact of SSDS implementation.

It is also essential to develop and agree upon some objective and (to the extent possible) numeric indicators to measure the effectiveness and impact of various strategies. These indicators would include measures at the macro level for the entire SSDS as a whole (e.g. reduction in % of people below poverty line, or increase in the forest areas) or for specific strategies (e.g. no of people trained, reduction in trans-boundary movement of labor).

Since the GMS vision and objectives are closely linked with the MDGs, the first set of such indicators would naturally include the indicators of MDGs. Various such indicators have been presented together with the respective strategies in the preceding chapters.

All the GMS countries must commit themselves to provide the necessary information in an objective and transparent manner to facilitate such an independent assessment.

The independent assessment could also be undertaken by neutral reputed institutions or respected individual experts from within or outside the GMS. Relevant bi- or multi-lateral international organizations can provide support (technical more than financial) for such an objective evaluation.

The outcomes of this exercise need to be reported in a concise and objective manner to all the stakeholders, especially the relevant Ministers or Heads of State/ Government, to seek their advice and necessary changes in the SSDS, programs and activities.

It is the mutual trust, transparent information sharing and objective evaluation of the ongoing progress that will ensure the success of the SSDS in the GMS.

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ANNEX 1: LIST OF PARTICIPANTS FOR CONSULTATION WORKSHOP, JANUARY 2007

CONSULTATION WORKSHOP ON GREATER MEKONG SUBREGION SUSTAINABLE DEVELOPMENT STRATEGY (GMS - SSDS)

Project: Capacity Building for Promoting Sustainable Development
in the Greater Mekong Subregion

30-31 January 2007

Siam City Hotel, Bangkok, Thailand

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ANNEX 2: LIST OF PARTICIPANTS FOR REVIEW WORKSHOP IN, MAY 2007

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**Project: Capacity Building for Promoting Sustainable Development
in the Greater Mekong Subregion**

28 – 29 May 2007

The Imperial Mae Ping Hotel, Chiang Mai, THAILAND

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