

3rd National Forum on Climate Change

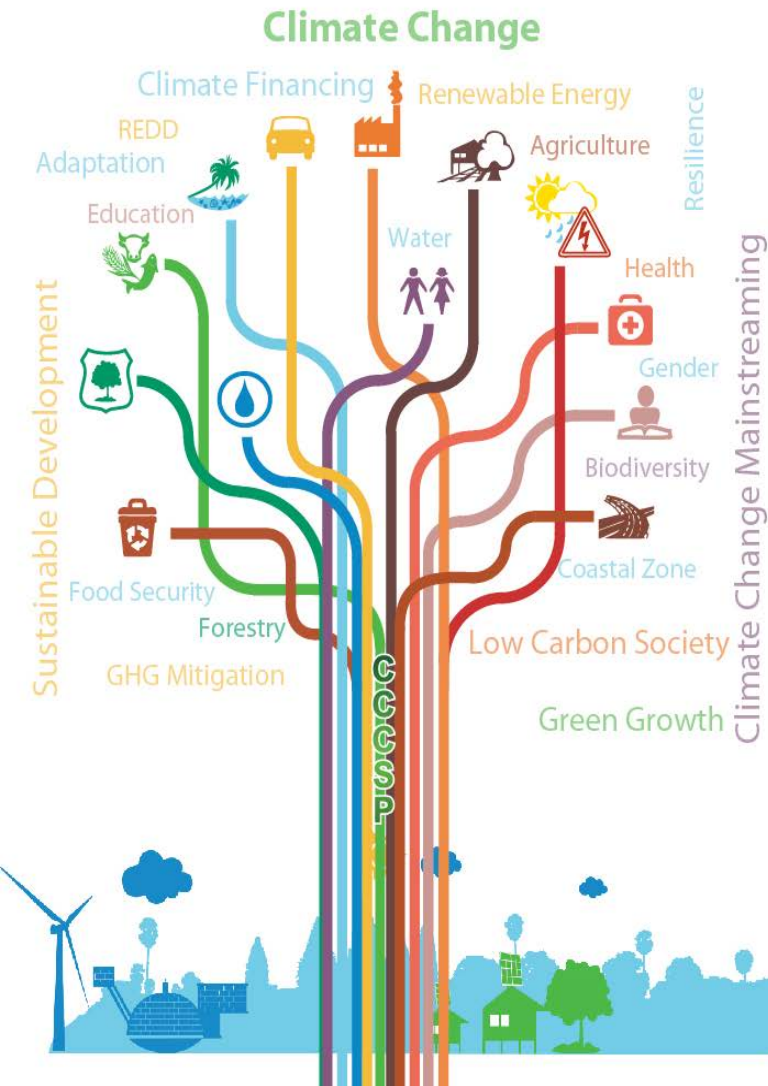
5 – 7 November 2013, Cambodia

“Taking Action for Sustainable Development in the Changing Climate”

Climate Change Strategic Plan for Manufacturing Industry and Energy Sectors

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CAMBODIA CLIMATE CHANGE ALLIANCE

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1. Introduction

- Industrial and Energy Development is playing important role in contribution and responsibility for the benefit of social, economical & environmental aspects in Cambodia

- The Climate Change Strategic Plan for manufacturing industry and energy is a roadmap:
 - For helping the private sector to plan for implementation and dealing with occurred problem related to Climate Change
 - For relevant government institutions, MIME and development partners in contributing and implementing for the National Climate Change of the sectors

- Purpose: to collaborate with other relevant sectors in implementation for Climate Change adaptation and mitigation

2. Climate Change Strategic Plan for Manufacturing Industry and Energy Sectors

A. Vision:

Sustainable manufacturing industry and energy development by adaptation, mitigation, prevention and reduction on Climate Change, with MIME's mandate reflected to global climate change context.

B. Mission:

Resilient development for short, medium and long terms strategies of climate change vision of MIME to ensure for long terms achievement and success.

- To prepare or support the legal system and policy framework
- To prepare or support the technical standards and guidelines
- To develop the structure, institutions and build the capacity for the stakeholders
- To develop mechanism, for communication, public awareness and information sharing

2. Climate Change Strategic Plan for Manufacturing Industry and Energy Sectors, cont

C. Main Objectives:

The Climate Change Strategic Plan for Manufacturing Industry and Energy Sectors is:

- To adopt, mitigate, prevent and reduce climate change impact from both sectors and
- To share all relevant data, information, knowledge and experiences to relevant sectors

2. Climate Change Strategic Plan for Manufacturing Industry and Energy Sectors, cont..

D. Industry Sector

Specific Action Plans:

- Hot-Spot and TEST (Transfer of Environmentally Sound Technology in the Cambodian Mekong River Basin)
- Energy Efficiency in Industry Sector
- Green Industry Award

2. Climate Change Strategic Plan for Manufacturing Industry and Energy Sectors, cont..

Hot-Spot and TEST

- Hot-Spot: Is to indentify, assess and prioritize of pollution in manufacturing industries by:
 - Preliminary evaluation
 - Detailed evaluation based on biodiversity, pollution control, socio-economic and water quality
 - Prioritization of pollution Hot-Spots
- TEST: Transfer of Environmentally Sound Technology by using four integrated approaches :
 - Cleaner Production (CP)
 - Environmental Management Accounting (EMA)
 - Environmental Management System (EMS)
 - Corporate Social Responsibility (CSR)

Cleaner Production (CP)

- Cleaner Production and Resource Efficiency is a large objective that not only focuses on technical factors such as social, economic and environment but also deeply analysis on implementation, environment protection and total productivity management. This procedure is used in both manufacturing and service enterprises for resource efficiency as materials, water and energy; reduces green house gas (GHG) other air emissions and wastes; and protect and reduce risk of health and safety for human.

Environmental Management Accounting (EMA)

- EMA focus on materials and related cost: the use of energy, water and materials, as well as the generation of waste and emissions, are directly related the environmental impacts of organizations and their products, material purchase costs and materials lost in waste and emissions are the most prominent cost drivers in many organizations. Especially in countries with low enforcement of legal compliance, relatively low labor costs, materials usage, energy consumption, and related losses are a significant cost driver.

Environmental Management System (EMS)

- EMS is a systematic approach for incorporating energy and environment goals and priorities (such as energy use and regulatory compliance) into routine operations.

EMS is a system of interconnected parts: Environmental policy; Planning; Implementation and operation; Check and corrective action; Management review; with the goal to managing, the activities have or can have environment impacts. In addition, EMS provides a mechanism ensuring that company: Think of environment; decide what company wants to do; works out how to do it; implements as planned; corrects deviations from plan; review its directions for the future for better performance.

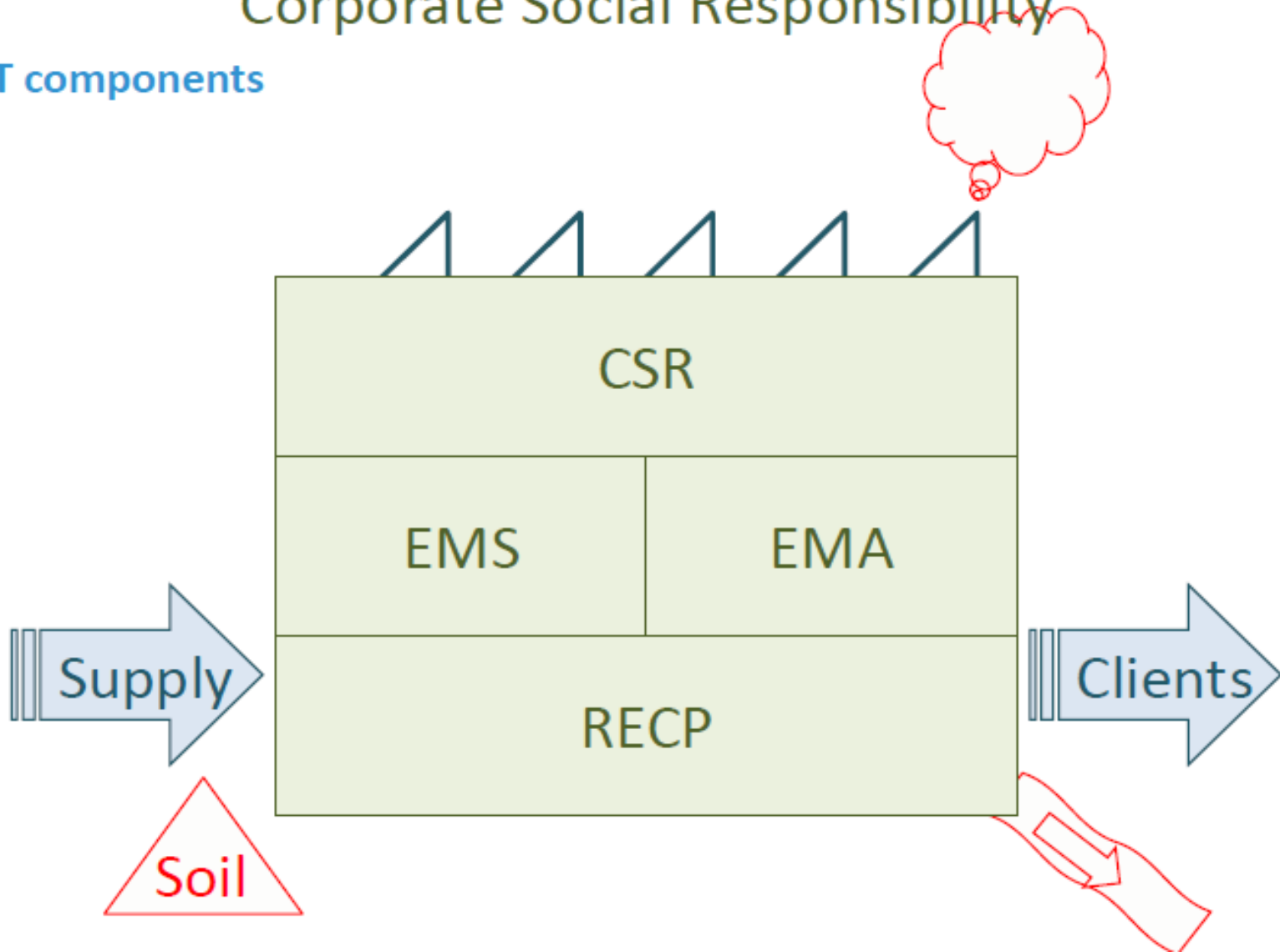
Corporate Social Responsibility (CSR):

- Responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behavior that:
- is consistent with sustainable development and the welfare of society;
- takes into account the expectations of stakeholders;
- is in compliance with applicable law and consistent with international norms of behavior;
- is integrated throughout the organization and in its relationships

There are 3 basic criteria: economic; environment; society.
Fundamental subjects of CSR are organizational governance; Human rights; labor practices; environment; fair operating practices; consumer issues; social development (community involvement and development)

Corporate Social Responsibility

TEST components



Financial, water and energy saving by implement TEST for demonstration companies

Company	Employees	Investment (USD)	Saving (USD/Yr)	Water Savings %	Energy Savings%
Food & Beverage Sector					
Anco Karem Tokta & Pheschak Co., Ltd	38	25,313	71,571	50.2	14.2
Cambodia Beverage Company Limited	450	43,400	65,113	17.9	0.2
Thai Hong Kiet	35	4,978	11,234	10.0	8.7
Chemical Sector					
Maestria Cambodia Co., Ltd	9	680	24,077	30.6	6.0
Pulp & Paper Sector					
Mondial Carton Manufacturing Co., Ltd	70	90,410	156,683	50.6	6.2
Textile Sectors					
GDM Enterprise Co., Ltd	1500	10,959	20,993	4.6	8.9
GDM (Cambodia) Brach	640	10,501	75,944	4.8	8.9
New ARCHID Garment Factory Limited	3800	2,850	42,110	22.2	8.8
Tak Sun Enterprise (Cambodia) Co., Ltd	1745	18,870	1,218,908	47.7	53.1
Total		207,961	1,686,633		
Estimated Environmental Benefits					
Water Saving [m3/Yr]	Energy Saving [Kwh/Yr]		Wastewater Reduction [m3/Yr]		CO2 Emission Reduction
407,671	3,791,366		450,667		70,738

2. Climate Change Strategic Plan for Manufacturing Industry and Energy Sectors, cont..

Industrial Energy Efficiency

- Energy efficiency, the greatest potential tool to concurrently address the basic goals of a country's energy policy - economic competitiveness, energy security and environmental sustainability.
- Implementing of energy efficiency means one can save money as well as reduction of environmental impact.

2. Climate Change Strategic Plan for Manufacturing Industry and Energy Sectors, cont..

Industrial Energy Efficiency

- The main goal of the project is to promote energy efficiency practices to reduce specific energy consumption and finally reduce GHG emissions in the Cambodian industrial sectors.
- Energy intensive sectors namely food processing, garment factory, rubber refinery, brick kiln and rice milling are selected.
- This objective is achieved by demonstrating the benefit of industrial energy efficiency, capacity building of relevant personnel, institutional strengthen, up-scaling of implementation.

2. Climate Change Strategic Plan for Manufacturing Industry and Energy Sectors, cont..

Green Industry Award

- To disseminate and broaden the activities in the field of climate change mitigation, Resource Efficiency and Cleaner Production (RECP), EMA, EMS and CSR.
- To stimulate and support other industries in whole Cambodia to undertake voluntarily activities in the field of climate change mitigation, Resource Efficiency and Cleaner Production (RECP), EMA, EMS and CSR.
- To raise environmental awareness in industries and in the public in general.

2. Climate Change Strategic Plan for Manufacturing Industry and Energy Sectors, cont..

E. Energy Sector

Specific Action Plan

Energy Sector Development :

- Policies Development in Energy Sector
 - To supply and produce with sufficient consumption in the whole country, with appropriate price, and sound quality, effectiveness and sustainability
 - To provide incentives to those energy producers with least environmental impact such as: hydro, natural gases, coals, biomass, biogases and solar energy production and other sources of energy supply for long term sustainability
- Environmentally Sound Energy Development:
 - Rural Energy-Electrification
 - Solar Energy for Households
 - Small/Medium Hydro power and
 - Renewable energy:
 - Solar energy
 - Wind energy
 - Bio-mass energy
 - Bio-gases energy

3. Conclusion

Climate Change Strategic Plan for Manufacturing Industry and Energy Sectors is crucial to adopt, mitigate, reduce and prevent the climate change of the sectors reflected to the country priority and global contexts.

The adoption and mitigation for climate change of the sectors are the changing of our behavior, practices and attitudes in according to the changing of social-economic and environment contexts through urgent measures to acquire the new knowledge, information, experiences and all levels of impact to our social, economy, environment and human being at all.

For the future expectation we will benefit triple dimension in term of economic, environment and society; particularly the money, water, energy will be saved and reduced the waste and GHG emission. The country moves gradually toward green.

Thank You !

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