

សិក្ខាសាលា

ស្តីពីការអភិវឌ្ឍន៍ការបញ្ចេញកបូន តាមបែបបរិមាណ និងជាប្រព័ន្ធ **៩** សម្រាប់កម្ពុជា

គោលនយោបាយ យុទ្ធ **៩** សាស្ត្រ និងផែនការសកម្មភាព
នៃប្រសិទ្ធ **៩** ភាពថាមពល នៅព្រះរាជាណាចក្រកម្ពុជា

ដោយ លោក តូច សុវណ្ណា

ប្រធាននាយកដ្ឋានបច្ចេកទេសថាមពល

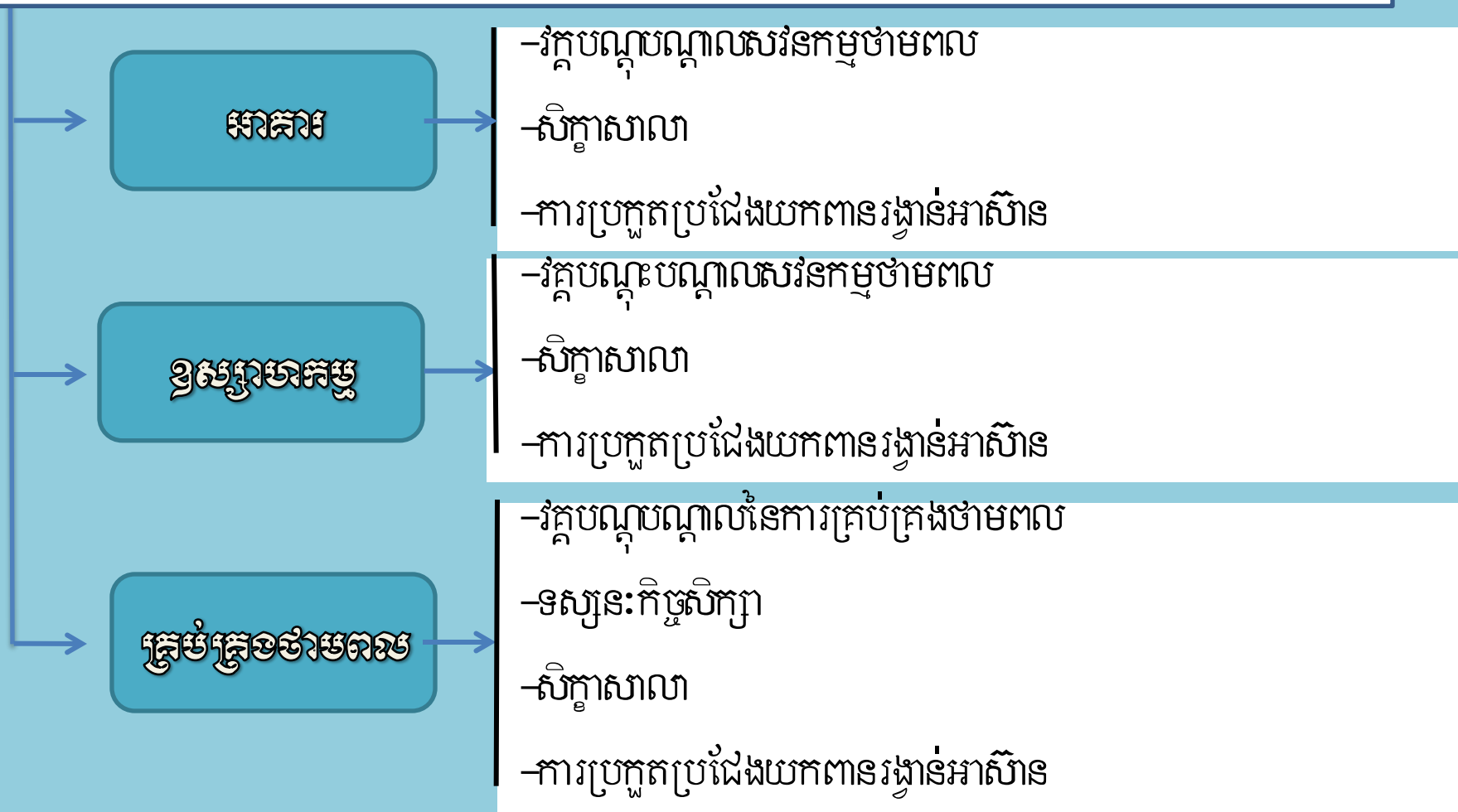
ក្រសួងឧស្សាហកម្ម រ៉ែ និង ថាមពល

ថ្ងៃទី២២ ខែមេសាឆ្នាំ២០១២ សណ្ឋាគារហ៊ីម៉ាវ"រី

សកម្មភាពប្រសិទ្ធ § ភាព និង ការអភិរក្សថាមពលក្នុងប្រទេសកម្ពុជា

កិច្ចសហប្រតិបត្តិការថាមពលអាស៊ាន-កម្ពុជា ស្តីពីការអភិរក្ស និង

ប្រសិទ្ធ § ភាពថាមពល (២០០១-បច្ចុប្បន្ន)



ពាន រង្វាន់អាស៊ាន អាកាសប្រសិទ្ធិភាពថាមពល



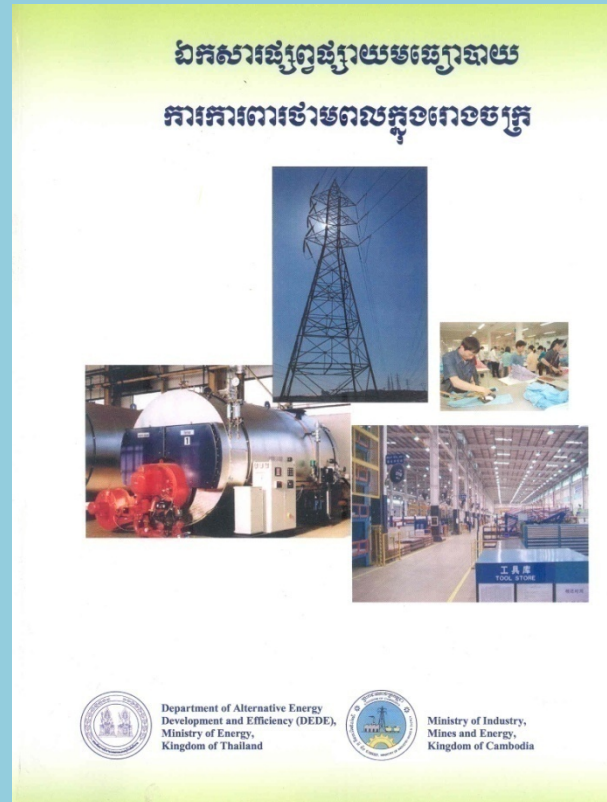
គំរោងកិច្ចសហប្រតិបត្តិការថាមពលរវាងប្រទេសកម្ពុជា និង
ប្រទេសថៃឡង់ដ៍ (២០០៦)

វគ្គបណ្តុះបណ្តាល

សវនកម្មថាមពល

សិក្ខាសាលា

ឯកសារដែលបានបោះផ្សាយ

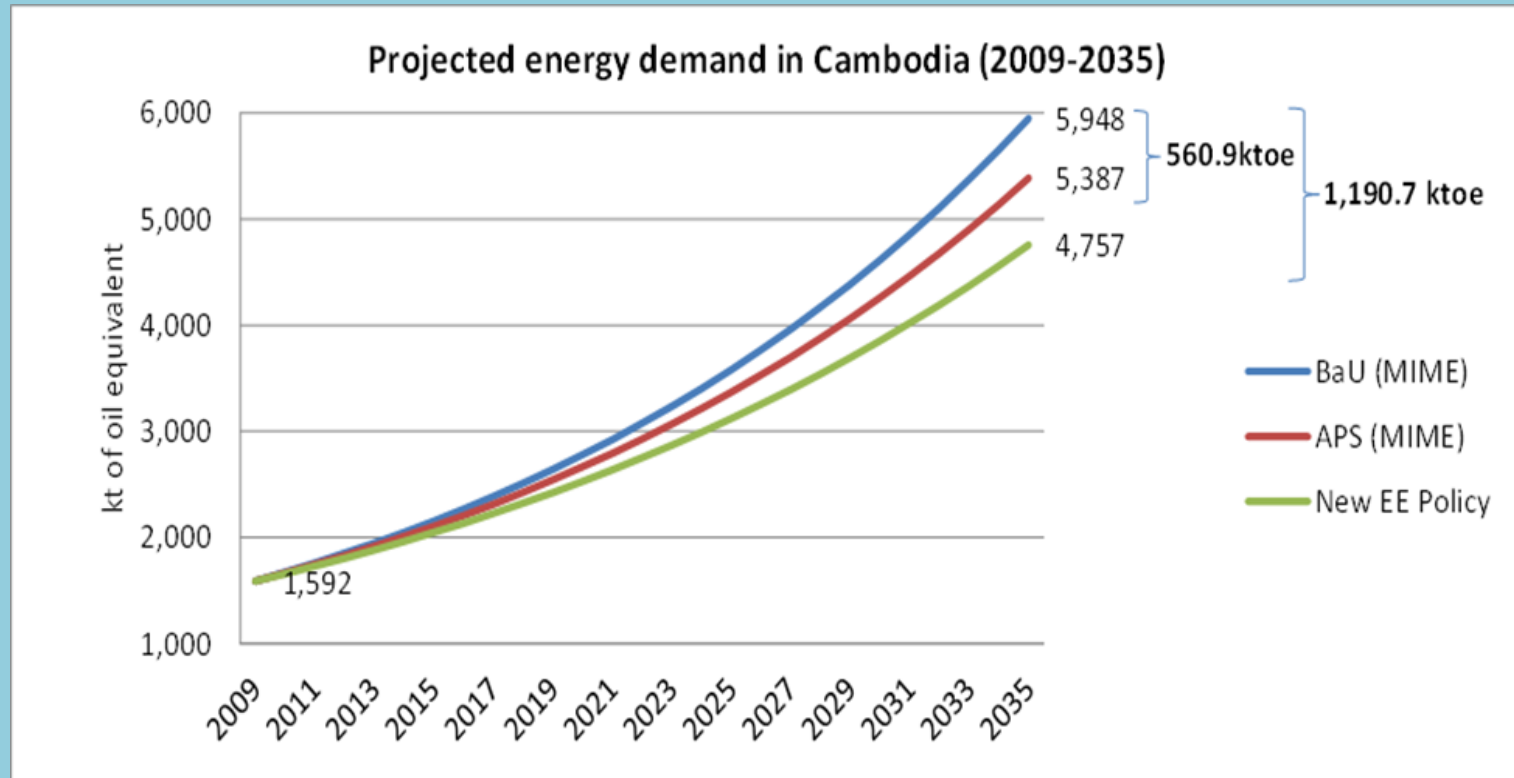


Priority Areas for Energy Efficiency

The analysis of energy efficiency potentials during the inception phase was focused on the following areas of main interest identified by MIME:

- ▶ Energy efficiency in **industry**
- ▶ Energy efficiency of **end-user products**
- ▶ Energy efficiency in **buildings**
- ▶ Energy Efficiency of **rural electricity generation and distribution**
- ▶ Efficient use of **biomass resources** for residential and industrial purposes

Projected Future Energy Demand in Cambodia



By implementing the recommendations described in the inception report, the national projected energy consumption annual growth rate can be reduced from 5.2% down to 4.3%, representing an **overall reduction of future energy demand of 20% by 2035**, compared to the business as usual projections.

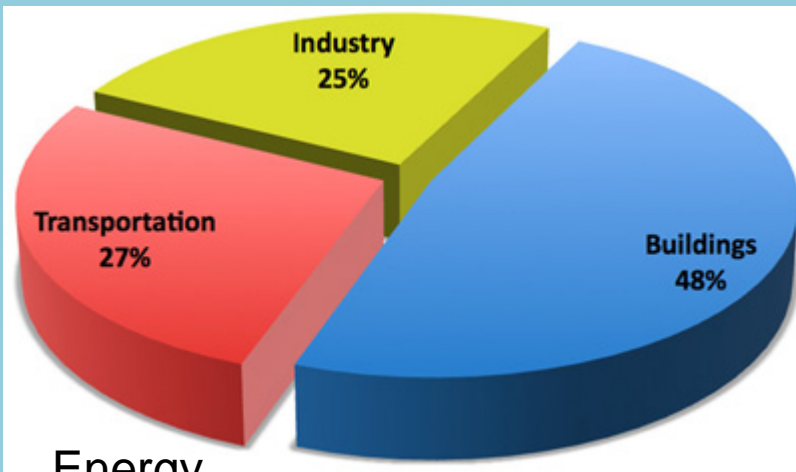
Energy Saving Targets by Sectors

Priority Sector	Energy saving target
Rice mills	Up to 70%
Garment industry	20 to 35%
Ice factories	Up to 80% of diesel
Food industry	15-20%
Rubber factories	25%
Brick factories	Up to 70%
Commercial buildings	20 to 30%
Charcoal production	30 to 40%
Domestic cooking	Up to 50%
Rural energy enterprises	Up to 80%
Residential electricity demand	Up to 50%

The Building Sector

Phnom Penh, 26 March 2013

Building energy consumption



Energy
consumption,
USA



Robot building,
Thailand

Buildings consume **42 %** of electricity (globally).

Savings Potential

Buildings can be designed to use **no electricity** from the grid.



Diamond building, Malaysia

Savings from Policy



Savings of **20 %** or more **energy efficiency building code**.

Savings of **30 %** for **energy management program**.

Saving of **30 %** or more for **green buildings**.

Action Plan

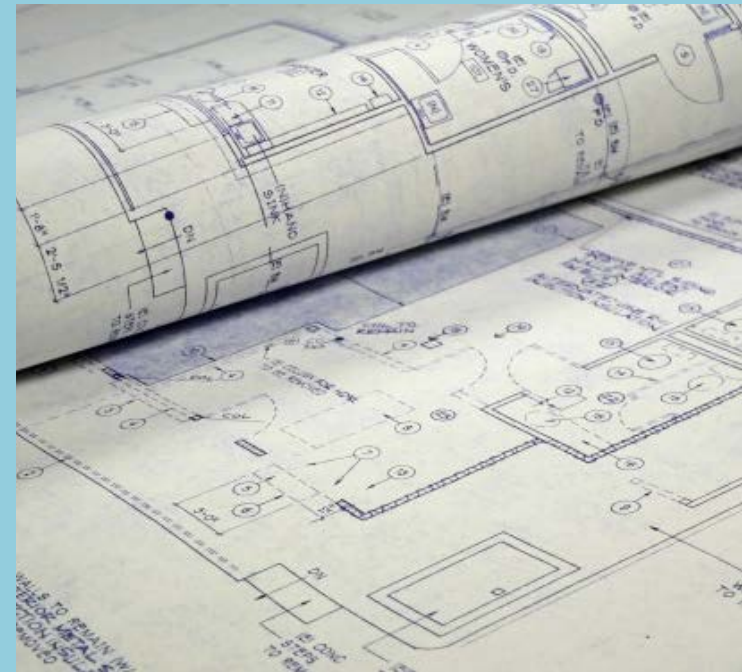
Objectives

1. **New** buildings
2. **Existing** buildings
3. **Public** buildings
4. Education and awareness

Objective 1: New Buildings

Activities 1+2: **Energy Efficiency Building code**

- Specifies EE measures before building is built
- Administered by MOLMUP+C
- MIME to assist in content and updates of code
- Funding: international and fees



Objective 1: New Buildings

Activity 3: Energy efficiency building requirements are attached to **large developments** and **luxury hotels**

- Administered by CDC
- MIME to assist CDC and MOLMUP+C
- Funding: international and fees



Camko City

Objective 2: Existing Buildings

Activity 1: **Energy manager program**

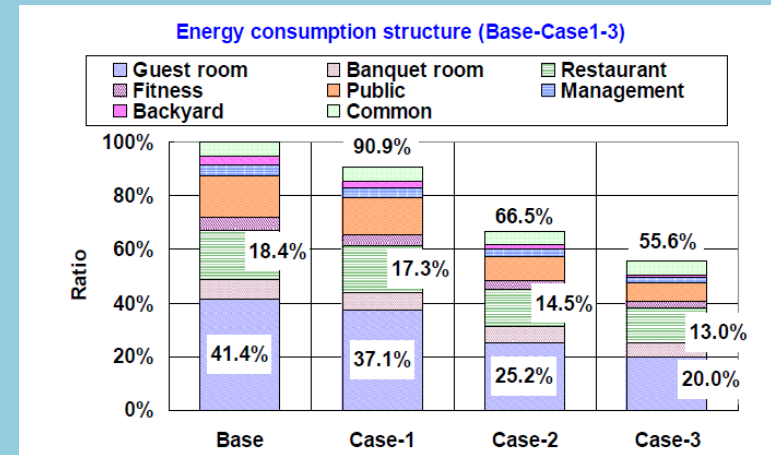
- Operation of existing buildings.
- Appoint energy manager.
- Report energy data.
- Administered by **MIME**
- Funding: Japan



Sofitel Phnom Penh

Objective 2: Existing Buildings

Activity 2: Energy data base at MIME



Energy Audit results

Activity 3: Training and certification of Energy managers

Objective 3: Public Buildings

Activity 1: A **green standard** is applied to all new public buildings

- A higher standard is possible
- Address wider environmental issues
- Already written



Objective 4: Education and awareness of energy efficiency in buildings has increased

Activity 1: Education of **architecture students**

Activity 2: Education of **architects**

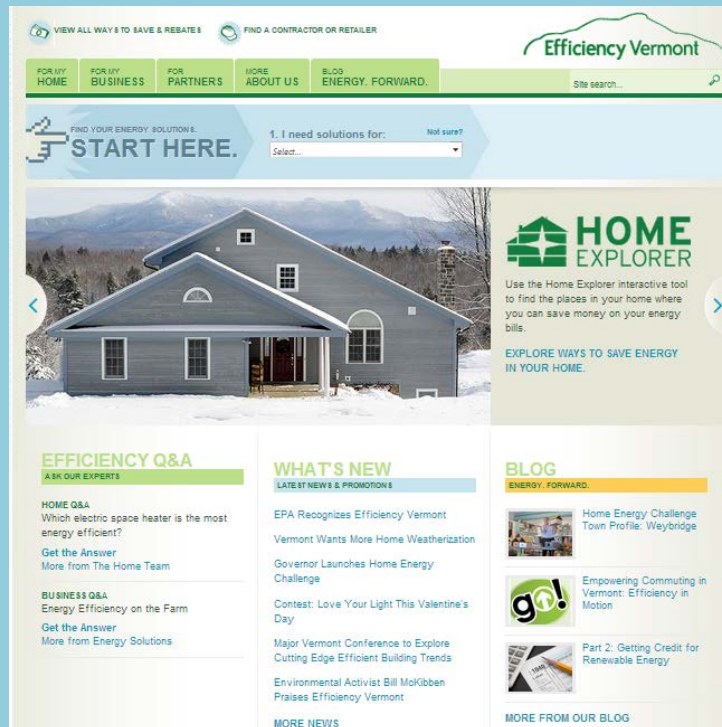


Norton University

Objective 4

Activity 3: Energy efficiency information center at MIME

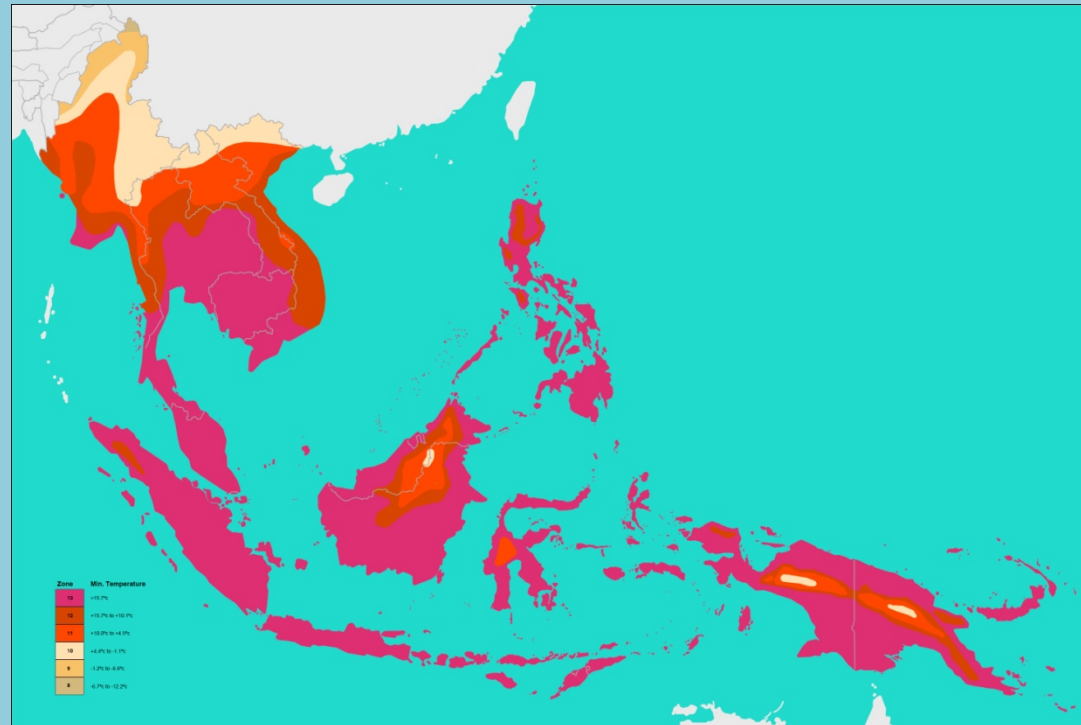
- Website with best practices
- Staff assists with energy audits
- Lend equipment

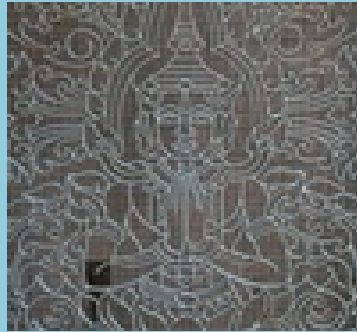
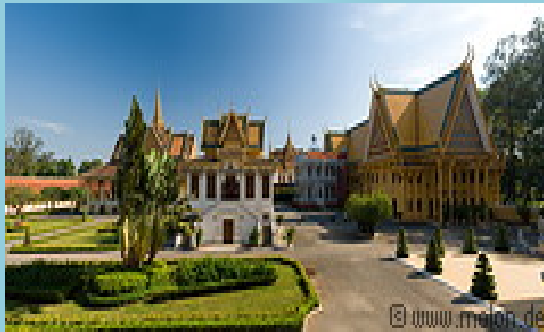


Objective 4

Activity 4: **Study tours** of energy efficient buildings in the region

Activity 5: **Public lectures** by architects with energy efficient building projects





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