

A designing of Low Carbon Development in Cambodia toward 2050

THE 19TH AIM INTERNATIONAL WORKSHOP

December 13-14, 2013, Tsukuba, Japan

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Summary (Poster)

Cambodia is more vulnerable to the impacts of climate change that has caused a lot of human lives, properties, infrastructures, agriculture products, animals, and human health. The country has the population of about 15 million in 2013 and it is expected to increase to more than 23 million by 2050. Cambodia was a net sink country, offsetting approximately 5,142 Gg. CO₂eq in 1994 while in 2000 it became a net emitter with total national emission of 219 Gg. CO₂eq (Second National Communication). The Green House Gas (GHG) emission per capita is still very low comparing to neighboring countries with 0.3 tCO₂ in 2000 and it will expectedly be increased up to 1.3 tCO₂ equivalents in 2050. This value is still far behind the world per capita GHG emission limitation.

As an agricultural and low income country Cambodia has not obligatorily been committed to reducing CO₂ emission. However, with a long term economic development, Cambodia will contribute significantly the CO₂ emission which will make global warming from bad to worse if it does not have any intervention of abatement countermeasures and this calamity will cause direct impact on environment, economic growth, and social turmoil in Cambodia.

Therefore, the Low Carbon Development Plan (LCDP) is designed to reduce GHG emission and at the same time to ensure the economic growth, environmental protection and natural resource sustainability, and green investment attraction and green job creation. This plan will also support the implementation of Cambodia Climate Change Strategic Plan and the Nationally Appropriate Mitigation Action (NAMA) relatively both in quantitative and qualitative terms.

LCDP identified four tangible polices and a dozen strategies. A couple of numerical models is developed and used to conduct quantitative analysis of the strategies including: Extended Snapshot Tool (ExSS) and Agriculture, Forestry and other Land use Activity model (AFOLUA), and Waste model. The models project quantitative future activities and environmental loads, and identify measures to be implemented in order to achieve certain environmental and other targets.

Cambodia is expected to move towards a greener economy focusing on effectively applying natural resources sustainability and environmental protection, promotion of the intensive and green agriculture, green transport, green energy, low carbon transportation and infrastructure and green building, green job creation, green technology and investment, green finance and budget mobilization, promotion of sustainable coastal management and green shipping industry, and tourist attraction destination in the future.