Current Status of LCS and AIM studies in Vietnam

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Update of legislation system

New legislative documents relating to LCS in the last two years:

- *The National Green Growth Strategy for the period 2011-2020 with a vision to 2050 (approved on 25/9/2012)*

  a/ Overall objectives:

  - green growth, as a mean to achieve the low carbon economy and to enrich natural capital, will become the principal direction in sustainable economic development;
  - reduction of GHG emissions and increased capability to absorb GHG will be gradually becoming compulsory and important indicators in social-economic development.

  b/ Three strategic tasks:

  - Low carbon growth,
  - Greening Production, and
  - Greening of lifestyle

Update of legislation system

- *The National Green Growth Strategy for the period 2011-2020 with a vision to 2050 (approved on 25/9/2012) (cont.)*

  c/ Targets:

  - 2011-2020: Reduce intensity of GHG emissions by 8-10% as compared to the base year of 2010, energy consumption per unit of gross domestic product (GDP) by 1-1.5% per year. Reduce GHG emissions in the energy sector by 10% relative to business as usual (BAU) and by a further 10% with international support.
  - 2030: Reduce GHG emissions by 1.5-2% per year. Reduce GHG emissions in the energy sector by 20% relative to BAU and by a further 10% with international support.
  - 2050: Reduce GHG emission by 1.5-2% per year

Update of legislation system

- *National Action Plan to Respond to Climate Change, period 2012-2020*

  was approved by the PM on Oct. 5, 2012, which includes in its objectives “Reduction of GHG emission and development of economy toward low-carbon economy”. In details, there are 17 prioritized programs relating to GHG emission reduction in various aspects of the economy recommended in this Action Plan for implementation from now to 2020

Update of legislation system

- *The Plan to Manage GHG Emissions and Establish a Carbon Trading Scheme into the Worl Market* was approved in the Decision No.1775/QĐ-TTg on November 21, 2012

  a/ Objectives of the Plan:

  - Carrying out the UNFCCC and other related treaties that Viet Nam has involved in;
  - Taking opportunities to develop a low carbon economy and green growth in the country;
  - Joining the international community's efforts in mitigate GHG emissions and contributing to sustainable development.

  b/ GHG mitigation targets in 2020: *(Base year 2005)*

  - *Energy: 8%*
  - *Agriculture: 20%*
  - *LULUCF: 20%*
  - *Waste: 5%*

Update of legislation system

- *The Plan to Manage GHG Emissions and Establish a Carbon Trading Scheme into the Worl Market* was approved in the Decision No.1775/QĐ-TTg on November 21, 2012 (cont.)

  c/ Other important missions:

  – To assess technology needs, disseminate and apply potential mitigation technologies which reduce emissions and increase the capability of GHG removal in Vietnam;
  – To develop the framework of Vietnam's NAMA Program , to register and implement NAMA activities;
  – To establish the national measuring, reporting and verifying system (MRV) for domestic GHG emission reduction activities;

Recent activities relating to GHG mitigation and LCS

1. **GHG inventory**: Inventory for the year of 2005 just finalized in May 2013. There have been three official inventories up to now.

   - In the inventory of 2005, LULUCF appears to be a big sink, Then, the total emission seems to be almost the same as the inventory of 2000! (*need more elaborate in this issues*)

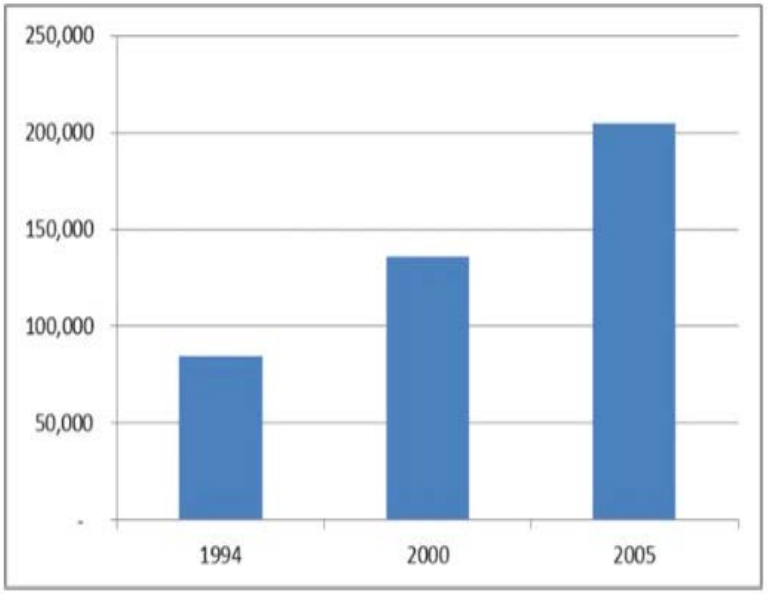
Sectors	1994	2000	2005
1. Energy	25,637	52,773	101,564
2. Industrial Processes	3,807	10,006	14,591
3. Agriculture	52,450	65,091	80,583
4. LULUCF	19,380	15,105	-49,755
5. Waste	2,565	7,925	8,118
Total (mill tons of CO2 eq)	103,839	150,900	155,101

Recent activities relating to GHG mitigation and LCS

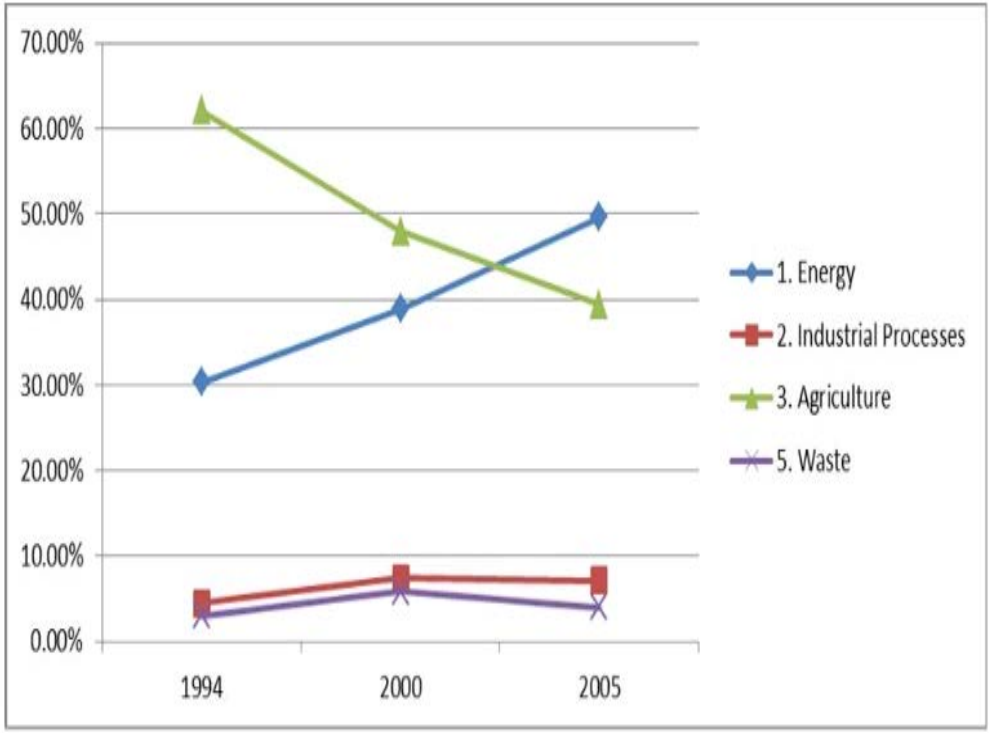
1. GHG inventory: (cont.)

If we do not take into account LULUCF, then the tendency of GHG emission in Vietnam would be seen as follows:

Total emission by years



Shares of contribution among sectors



Recent activities relating to GHG mitigation and LCS

1. **GHG inventory**: (cont.)

   Some conclusions:

   - In practice, emission from industrial processes and waste accounted for only some small shares and no significant changes of contributions from these sources can be expected in near future,
   - Energy and agriculture are the two main sources of GHG emission. However, there will be a big change in the shares of emission in these two sectors,

   Energy is projected to be the largest source, with 470.8 million tonnes of CO2e, comprising 91.3% of total emissions in 2030 (SNC)

Recent activities relating to GHG mitigation and LCS

2. CDM activities

- Update data by 3/2013:

The number of CDM projects are recognized EB rank

Rank	Country	Number of projects
1	China	3.518
2	India	1.224
3	Brazil	273
4	**Vietnam**	**236**
5	Mexico	171
6	Malaysia	131
7	Indonesia	128
8	Thailand	118

Number of given CER by EB

Rank	Country	Number of given CER
1	China	784.609.278
2	India	170.900.208
3	Korea	107.092.128
4	Brazil	81.949.573
5	Mexico	20.261.692
6	Chile	13.894.106
7	Argentina	13.307.448
8	Egypt	10.023.479
9	**Vietnam**	8.011.910
10	Indonesia	7.901.334

However, there is no more new CDM project by now as CER price drops too low → some other mechanism must be created.

Recent activities relating to GHG mitigation and LCS

3. NAMAs

- In summary, most of ambitious NAMAs in Vietnam are in planning stage, although there have been significant activities in wind-power and biogas development (MARD & MOIT).
- Some typical activities in MONRE:
  - ❖ to assess potential NAMA to implement in some important sectors within a project of Partnership for Market Readiness (DMHCC).
  - ❖ development of options for a national structure for an MRV mechanism for NAMA (ISPONRE).
  - ❖ project of "Facilitating Implementation and Readiness for Mitigation" (FIRM) (UNEP supports DMHCC)
  - ❖ GIZ support s IMHEN to set up NAMA in waste management

Application of AIM for research in Vietnam

- AIM has been introduced into Vietnam since 2010, initially with demonstration for energy sector with ExSS module.
- The KU has helped ISPONRE to train some key staff for using AIM tool for estimation of mitigation potentials of Vietnam in various sectors.
- Currently, ISPONRE is trying to use this model (ExSS-Waste model) to forecast GHG emission and develop scenario of GHG mitigation for the waste sector of Vietnam with support from KU. The work is in progress.
- Data collection for the AIM model and the suitability of the model for using currently available data seem to be the major challenges for its application in practice. Some compromised solution is should be found!

Challenges for LCS development and AIM application in Vietnam

The main disadvantages in following low carbon development also comes from the characteristics of a developing country, such as Vietnam, typically:

- the historically low price of basic commodities, including the price of energy and electricity, hinder the implementation of new technologies to save materials and energy due to the high initial investment.
- the instability of the production in Vietnam, especially small scale productions in some sectors, do not encourage the entrepreneurs to decide a long-term investment with high-technology to meet criteria of low carbon development. Many businesses would better rely on low-tech with high consumption of (cheap) energy and materials for quick recovery of investment and earn short term benefits.
- there is not yet any strict requirement (with due enforcement) that a business must meet certain criteria of low-emission. The only driver affecting decisions of the entrepreneur is the expected benefit from investment. As long as the benefit of low-carbon growth can not be proven, it would be more likely that the low-tech investment would continue dominating.

Challenges for LCS development and AIM application in Vietnam

- The major challenge for LCS development in Vietnam now is to find some new market mechanism to replace CDM, which is acceptable by the businesses in win-win basis.
- Some popular mechanisms abroad can not be applied in Vietnam, for instance: fit in tariff for renewable energy: national budget can not afford for the burden of subsidy.
- To deploy application of AIM in Vietnam, the key difficulty is data availability for the model with suitable assumption of future tendency of social development in Vietnam. Two ways to solve this problem:
  - Find way to improve data collection to meet the requirements of the model, or
  - Improve/modify the model structure to some suitable form to use currently available data

THANK YOU