Challenges/concerns, lessons learned and best practices with regards to sustaining national teams for mitigation assessments in the context of national communication preparation

Bonn, 20-21 June 2011

The Office of Natural Resources and Environmental Policy and Planning
Ministry of Natural Resources and Environment

Thailand

Outline of the Presentation

-Country background

-Status of National Communication and National Climate Change priorities

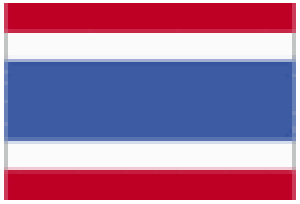
-Climate Change mitigation strategies and evaluation initiatives

-Institutional arrangements, data collection and archiving, financial concerns, capacity building initiatives

-Challenges/concerns

-Conclusion

Country background



- Total land area : 513,115 sq kms
- Population : 63.4 millions in 2008 and projected to be 71-77 millions in 2030
- Capital : Bangkok
  (Population 9.7 millions)
- Climate : Tropical moonsoon
- Religion : Buddhism (93-94%)
- Language : Thai
- Occupation : ~49% Agriculture, Industry 14%, services 37%

Status of SNC : Thailand submitted SNC on 24 March 2011

National climate change priorities :

National strategy on climate change management focused on

1.Build capacity to adapt and reduce vulnerabilities to climate change impacts

2.Promote greenhouse gas mitigation activities based on sustainable development

3.Support research and development to better understand climate change, its impacts and adaptation and mitigation options

4.Raise awareness and promote public participation

5.Build capacity of relevant personnel and institutions and establish a framework of coordination and integration

6.Support international cooperation to achieve the common goal of climate change mitigation and sustainable development

Climate Change Mitigation strategies

Mitigation strategy: Promote greenhouse gas mitigation activities based on sustainable development

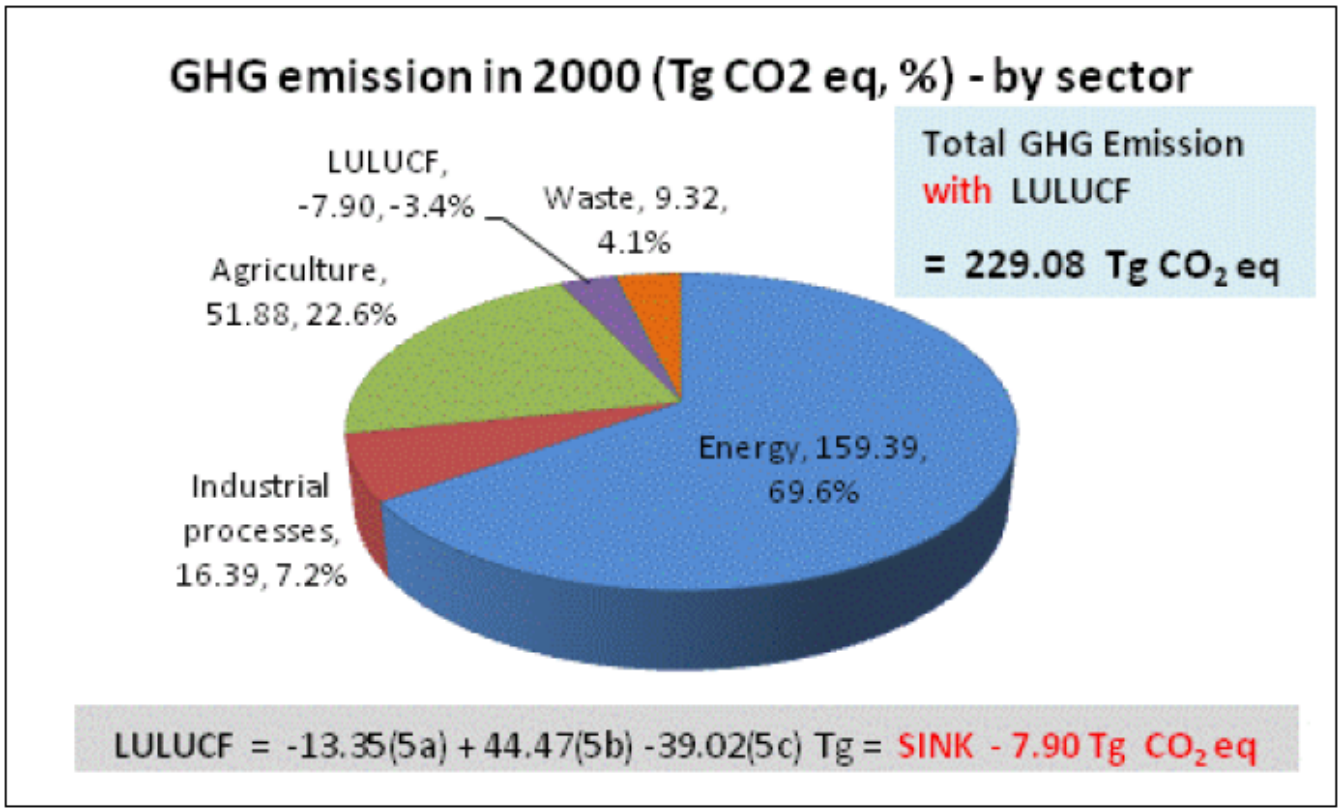
Goal : Reduce greenhouse gas emission and promote clean technologies

Guidelines :

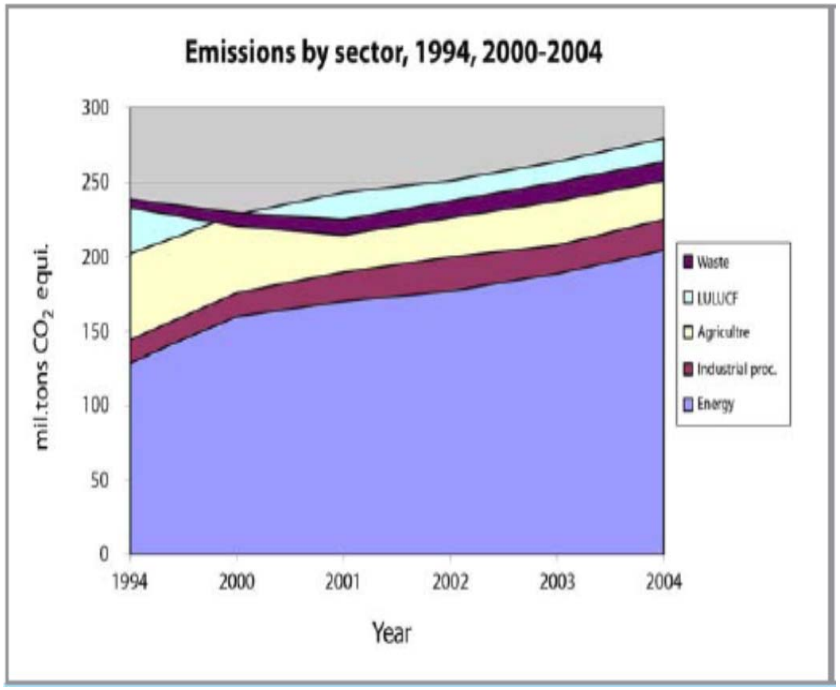
1) Promote greenhouse gas mitigation in the energy sector through improving energy efficiency, promoting renewable energy
2) Promote greenhouse gas mitigation in the waste sector
3) Promote greenhouse gas mitigation in the industrial sector
4) Promote greenhouse gas mitigation in the agricultural sector
5) Increase carbon sinks
6) Develop and promote mechanisms that support clean technology development

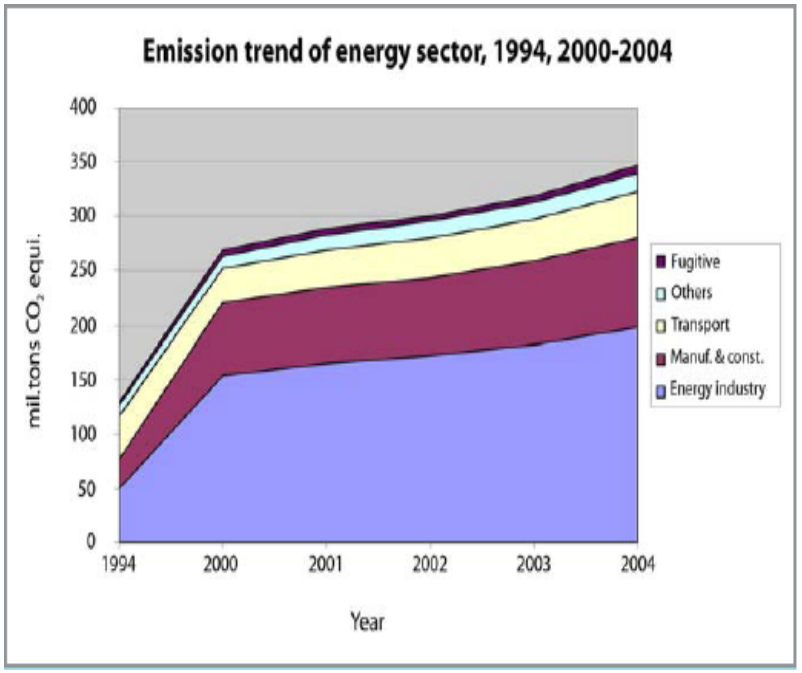
Climate change strategies was also take into account into the 11th National Economic and Social Development Plan

GHG Emission in 2000



Emission trend in of 1994, 2000-2004





The policy to promote GHG reduction in all sectors are

Energy sector:

- Energy conservation plan: Phase I (1995-1999), Phase II (2000-2004), and Phase III (2005-2011)
- Under these two phases, the electricity consumption was reduced by 883 megawatts, alternative energy for electricity was developed by more than 5.4 billion Gwh per year and for fuels by 430 million litres of crude oil equivalent per year or more than 20 million Baht.
- In the third phase of energy conservation, It is planed that by 2011, energy intensity reduce from 1.4:1 to 1:1.
- The contribution of renewable energy to total energy will increase from 0.5% to 8% by the end of the plan.

CO_2 reduction due to energy conservation during 1995-2007

Plan Period	Reduction of crude oil (in Ktoe)				CO_2 (mil.tons)
	Energy efficiency (per year)	Renewable energy (per year)	Total reduction per year	Total reduction	Total reduction
1995-1999	48.48	37.89	86.37	431.85	12.76
2000-2004	48.48	702.53	751.01	3,755.05	110.92
2005-2007	1,554.00	3,586.00	5,140.00	15,420.00	45.55
Total					169.23

Note: CO_2/Ktoe of crude oil = 2.954 thousand tons

Source: Adapted from Office of Energy Policy and Planning, Annual Report 2005 and Ministry of Energy, Energy Conservation Plan and Approach, Criteria, Conditions and Priority in Use of Energy Conservation Promotion Fund for 2008-2011

Thailand is implementing Phase II of the promotion of energy conservation and renewable energy plan (2008-2012). The plan aims to reduce energy demand by 7.8 million tons of crude oil equivalent (approximately 10.8% of demand in 2011). If this plan is successful, energy consumption in 2011 will be reduced by 16.7 million tons of oil equivalent and CO2, emission will be reduced by nearly 50 million tons. To achieve this, about 88 billion Baht (over US$ 2.7 billion) will have to be invested over the five-year period.

Policies to promote GHG reduction ….(cont.)

- **Agriculture sector :**

The ministry of Agriculture and Cooperatives defines the mitigation strategy for agriculture are

- Campaign to plough 20,000 thousand hectars of land for rice planting
- Plant 72,000 hectares with permanent trees
- Reduce agricultural field burning by 24,000 hectares, particularly in northern Thailand.

- **LULUCF sector :**

Thailand has conserved and expanded forest areas and community forests, and promoted reforestation in watershed areas. As a result, forest land in Thailand increased to about one-third of the total land area in 2008.

Since 2000, about 7,520 hectares have been planted by private sector, agencies and public participation. In 2006, Thailand had about 20,000 hectares of forest land with 2 to 10 year old trees, which half was planted and maintained by local communities.

Policies to promote GHG reduction ….(cont.)

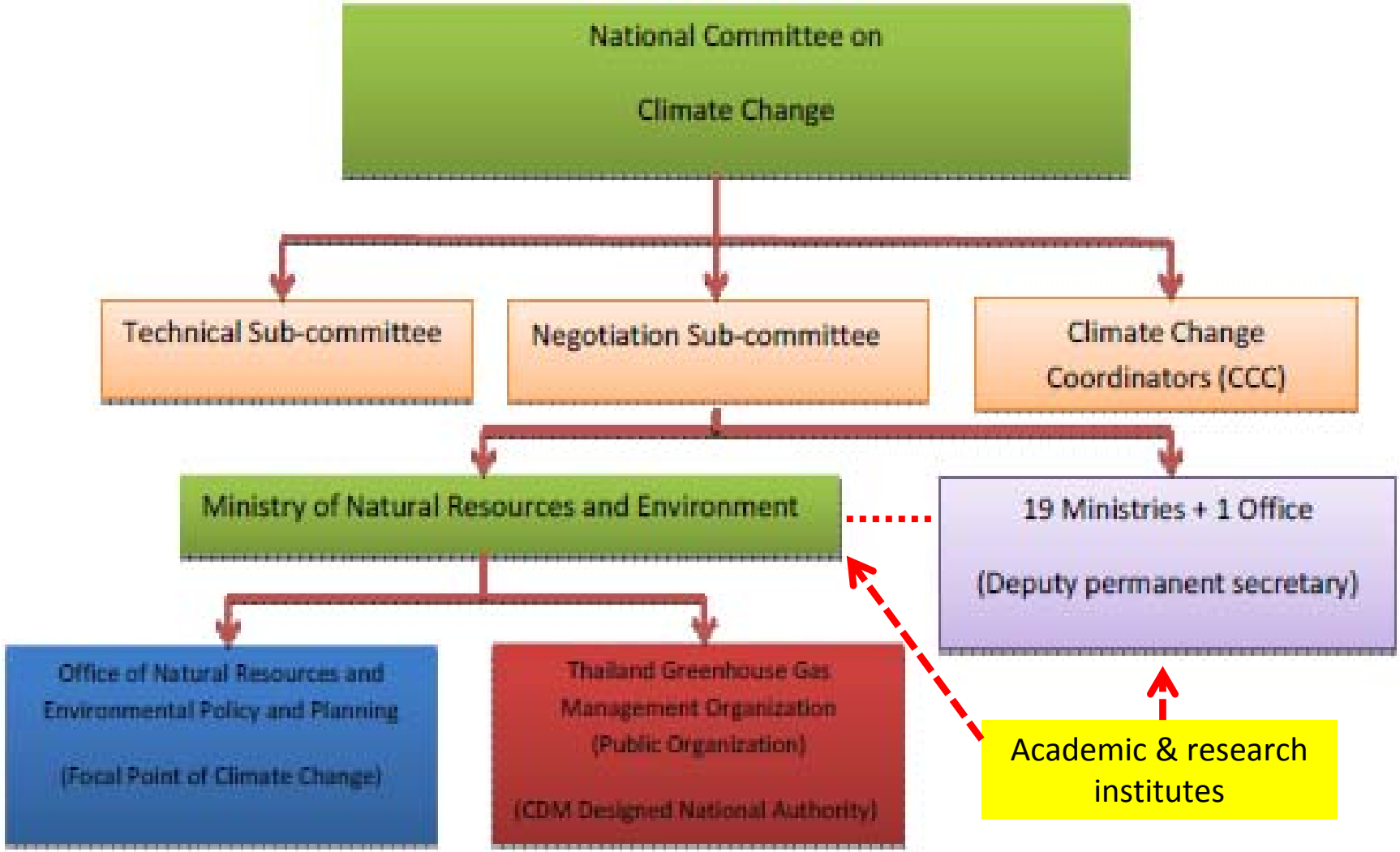
- **Clean development mechanism**

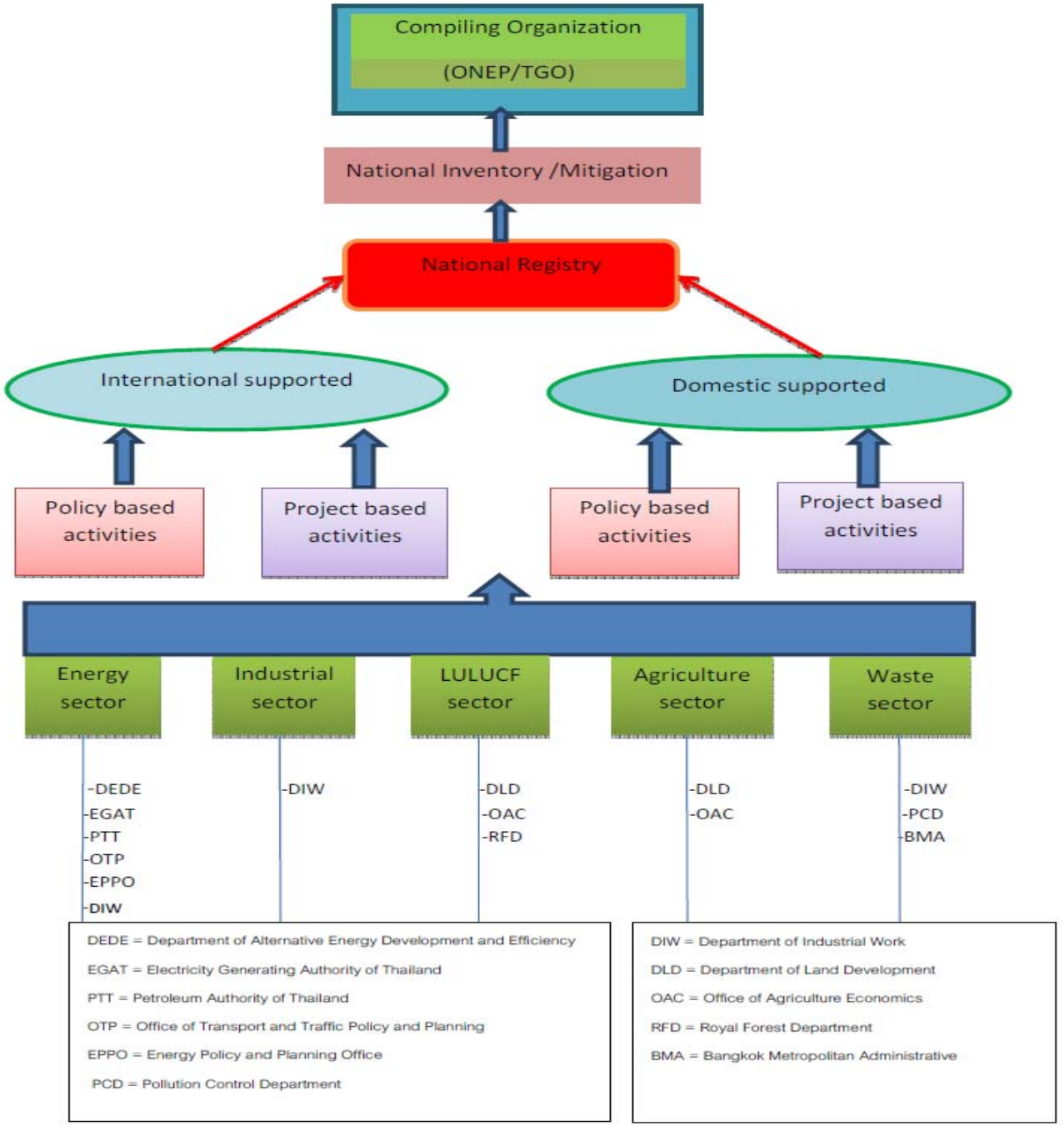
  Greenhouse gas mitigation using CDM mechanism was initiated after Thailand established the national criteria for CDM projects. Thailand's Greenhouse Gas Management Orgainzation, a public orgainzation, was established to act as DNA for CDM projects.

  As of 7 June 2011, Thailand had138CDM projects with the capacity to reduce GHG emissions by 8.54 million tons of CO_2 equivalent per year.

- Carbon foot print
- Carbon reduction lebel
- Coolmode

Institutional arrangements, data collection and archiving, financial concerns, capacity building initiatives




Compiling Organization
(ONEP/TGO)
National Inventory /Mitigation
National Registry
International supported
Domestic supported
Policy based activities
Project based activities
Policy based activities
Project based activities
Energy sector
Industrial sector
LULUCF sector
Agriculture sector
Waste sector
-DEDE
-EGAT
-PTT
-OTP
-EPPO
-DIW
-DIW
-DLD
-OAC
-RFD
-DLD
-OAC
-DIW
-PCD
-BMA
DEDE = Department of Alternative Energy Development and Efficiency
EGAT = Electricity Generating Authority of Thailand
PTT = Petroleum Authority of Thailand
OTP = Office of Transport and Traffic Policy and Planning
EPPO = Energy Policy and Planning Office
PCD = Pollution Control Department
DIW = Department of Industrial Work
DLD = Department of Land Development
OAC = Office of Agriculture Economics
RFD = Royal Forest Department
BMA = Bangkok Metropolitan Administrative

Factors challenges and concerns

- Establish core team: Related Agency + Expert consultants
- Active engagement of ministries/agencies awareness of importance of GHG inventory & mitigation
- Cooperation from related ministries/agencies should be enhanced.
- Request to other ministries/agencies should be made by National committee on climate change through climate change coordinators.
- Strengthening core team & capacity building for related agency QA/QC procedure and system need to be improved
- QA by third parties has not been operated
- Set up the domestic verification procedure and system
- Financial, technical and capacity supports for core team and related agency
- Strengthen data archived system