

No. 2359/QĐ-TTg

Hanoi, December 22, 2015

DECIDE

APPROVAL OF THE NATIONAL SYSTEM OF GREENHOUSE GAS INVENTORIES

PRIME MINISTER

Pursuant to the Law on Government Organization dated December 25, 2001;

Pursuant to the Law on Environmental Protection dated 23/06/2014;

At the request of the Minister of Natural Resources and Environment,

DECIDE:

Article 1. Approving the National System of Greenhouse Gas Inventories with the following contents:

1. Objectives, scope and subjects of application to the National System on Greenhouse Gas Statistics

a) Goal

- Common objectives: Develop a National System for Greenhouse Gas Inventory, create a legal basis for greenhouse gas inventories in Viet Nam, comply with current Regulations of Viet Nam related to climate change response, and meet the requirements and obligations of a Member State to the UN Framework Convention on climate change (hereinafter referred to as the Climate Convention).

- Specific objectives:

+ Establish a national system of greenhouse gas inventories with sufficient capacity to carry out greenhouse gas inventories and develop biennial national reports on climate change for the management and monitoring of domestic greenhouse gas emissions;

Carry out biennial greenhouse gas inventories and develop National Reports on Climate Change for the Secretariat of the Climate Convention, ensuring the responsibilities of a State Party to the Climate Convention;

+ Serving the development of common emission scenarios;

+ Monitoring emission sources and greenhouse gas absorption tanks contributing to the implementation of the goals of developing a low-carbon economy and green growth in Vietnam;

+ Serving the measurement, reporting and appraisal of greenhouse gas emission mitigation activities in accordance with national conditions and greenhouse gas mitigation targets in Vietnam's Nationally Determined Contribution to the Climate Convention.

b) Scope and subjects of application

- This system provides for the organization, operation and coordination of greenhouse gas inventory by relevant ministries, branches, localities, organizations and enterprises in the National System on Greenhouse Gas Inventory;

- The national system of greenhouse gas inventory applies to ministries, branches and localities; organizations and enterprises involved in greenhouse gas emission and absorption activities in Vietnam and agencies that store, provide and use operation data and information on greenhouse gas inventory.

2. Main contents of the National System on Greenhouse Gas Inventory

The national system of greenhouse gas inventory includes:

a) The focal point of the National System for Greenhouse Gas Inventory is the Ministry of Natural Resources and Environment, which has the following responsibilities:

- Assume the prime responsibility for, and coordinate with concerned ministries and sectors in, organizing greenhouse gas inventory activities within the framework of formulating national reports on climate change:

+ Develop a biennial greenhouse gas inventory plan, including quality control and quality assurance;

+ Select methodology for greenhouse gas inventory, emission coefficient and develop guidelines related to greenhouse gas inventory;

+ Update and complete forms for collecting operational data and relevant information for greenhouse gas statistics;

+ Coordinate with the Ministry of Planning and Investment in collecting operation data and related information (according to the Annexes attached to this Decision) for greenhouse inventory;

+ Provide the Ministry of Planning and Investment with operational data and relevant information (according to Appendix VII attached to this Decision) within the management of the Ministry for greenhouse gas inventory;

- + Organizing the implementation of greenhouse gas inventory, quality control, quality assurance, development of technical reports on greenhouse gas inventory;
- + Organize the evaluation of technical reports on greenhouse gas inventory for the development of national reports on climate change.
- Organize the implementation and ensure the activities of the Steering Committee for the implementation of the Climate Convention and the Kyoto Protocol in the assessment and adoption of national reports on climate change, including the results of periodic greenhouse gas inventories;
- Submit to the Prime Minister and the Chairman of the National Committee on Climate Change for permission to send national reports on climate change to the Secretariat of the Climate Convention;
- Send the results of greenhouse gas inventory every two years to the Ministry of Planning and Investment to serve the statistics, storage, supply and use according to regulations.

b) Coordinating agencies in the National System for Greenhouse Gas Inventory.

- Ministry of Planning and Investment:

- + Coordinate with the Ministry of Natural Resources and Environment in guiding ministries, sectors, People's Committees of provinces, centrally-run cities and relevant enterprises to provide operation data and relevant information (according to the Annex attached to this Decision) for biennial greenhouse gas inventory as required by the Climate Convention;
- + Synthesize and provide operational data and relevant information to the focal point agency of the National System on Greenhouse Gas Inventory to conduct gas inventory every two years;
- + Manage, store, supply and use in accordance with regulations on operational data, relevant information and greenhouse gas inventory results.

- Ministry of Industry and Trade, within the management of the Ministry:

- + Coordinate with the Ministry of Planning and Investment in collecting and providing operational data and related information (according to Appendices I, IV, IX attached to this Decision) for greenhouse gas inventory;
- + Coordinate with the Ministry of Natural Resources and Environment in conducting a biennial greenhouse gas inventory;
- + Develop plans and organize the implementation of capacity building on inventory and monitoring of greenhouse gas emissions;
- + Manage the process of collecting and synthesizing operational data, relevant information and participating in quality control activities.

- The Ministry of Transport, within the scope of its management:

- + Coordinate with the Ministry of Planning and Investment in collecting and providing operational data and related information (according to Appendix II attached to this Decision) for greenhouse gas inventory;
- + Coordinate with the Ministry of Natural Resources and Environment in conducting a biennial greenhouse gas inventory;
- + Develop plans and organize the implementation of capacity building on inventory and monitoring of greenhouse gas emissions;
- + Manage the process of collecting and synthesizing operational data, relevant information and participating in quality control activities.

- The Ministry of Agriculture and Rural Development, under its management:

- + Coordinate with the Ministry of Planning and Investment in collecting and providing operational data and related information (according to Appendices V and VI attached to this Decision) for greenhouse gas inventory;
- + Coordinate with the Ministry of Natural Resources and Environment in conducting a biennial greenhouse gas inventory;
- + Develop plans and organize the implementation of capacity building on inventory and monitoring of greenhouse gas emissions;
- + Manage the process of collecting and synthesizing operational data, relevant information and participating in quality control activities.

- The Ministry of Construction, within the scope of its management:

- + Coordinate with the Ministry of Planning and Investment in collecting and providing operational data and related information (according to Appendix III attached to this Decision) for greenhouse gas inventory;
- + Coordinate with the Ministry of Natural Resources and Environment in conducting a biennial greenhouse gas inventory;
- + Develop plans and organize the implementation of capacity building on inventory and monitoring of greenhouse gas emissions;
- + Manage the process of collecting and synthesizing operational data, relevant information and participating in quality control activities.

- Ministry of Finance:

Balance the allocation of funds for greenhouse gas inventory in accordance with the Law on State Budget and current guiding documents.

- People's Committees of provinces and centrally run cities, within the scope of local management:

+ Coordinate with the Ministry of Planning and Investment in collecting and providing operational data and related information (according to Appendix VIII attached to this Decision) for greenhouse gas statistics;

+ Develop plans and organize the implementation of capacity building on inventory and monitoring of greenhouse gas emissions;

+ Manage the process of collecting and synthesizing data and participating in quality control activities.

- Organizations and enterprises related to greenhouse gas emission and absorption activities in Vietnam:

Provide operational data and relevant information for greenhouse gas inventory within the scope of operation of organizations and enterprises under the guidance of the Ministry of Planning and Investment.

3. Implementation solution

a) Review and supplement functions and tasks related to greenhouse gas inventory for ministries in the national system on greenhouse gas inventory;

b) Formation of the National System of Greenhouse Gas Inventory on the basis of existing organizations in ministries, sectors and localities;

c) Within the scope of management, ministries, sectors and localities in the National System on Greenhouse Gas Inventory shall conduct the review, supplementation and completion of relevant legal documents serving the work of greenhouse gas inventory and storage;

d) Strengthen coordination among agencies and organizations in the National System on Greenhouse Gas Inventory to conduct periodic greenhouse gas inventories;

dd) Formulate and implement plans to improve the capacity of agencies and organizations in the National System on Greenhouse Gas Inventory; gradually improve the National System of Greenhouse Gas Inventory;

e) Ensure the necessary resources for the National System of Greenhouse Gas Inventory to operate stably, sustainably and effectively;

g) Strengthen organization, capacity building, expand international cooperation to serve greenhouse gas inventory;

4. Plans and funds for periodic greenhouse gas inventories

a) Implementation plan

- Period 2016 - 2020:

+ Implementing the operation of the National System on Greenhouse Gas Inventory since 2016;

+ Reviewing, formulating, supplementing and completing policies and regulatory documents related to greenhouse gas inventory;

+ Complete the greenhouse gas inventory and prepare the greenhouse gas inventory technical report for the base year 2014 and 2016;

+ Building a greenhouse gas inventory database system;

+ Summarizing and evaluating the effectiveness of the National System on greenhouse gas inventory;

+ Develop a plan to complete the National System of Greenhouse Gas Inventory for the period after 2020.

- Post-2020 period:

+ Completing the national system of greenhouse gas inventory;

+ Strengthen the management and supervision of greenhouse gas emissions, measurement - reporting - verification of activities to reduce greenhouse gas emissions, serving the implementation of Vietnam's Nationally Determined Contribution to the Climate Convention;

+ Conduct biennial greenhouse gas inventories for the development of national reports on climate change, ensuring the responsibilities of a state party to the Climate Convention.

b) Funding for implementation

Funds for greenhouse gas inventory activities shall be allocated in the budget estimates of ministries, branches and localities in accordance with the Provisions of the Law on State Budget in accordance with the scale and nature of greenhouse gas inventory activities every two years as planned and used from supporting sources. Other assistance if any.

5. Implementation organization

a) The Ministry of Natural Resources and Environment - The focal point agency in the National System on Greenhouse Gas Inventory shall be responsible for organizing the implementation of this Decision and shall assume the prime responsibility for, and cooperate with concerned ministries and sectors in:

- Summarizing and evaluating the operation of the National Greenhouse Gas Inventory System in the period of 2016-2020; formulating a plan to complete the National System on Greenhouse Gas Inventory, submitting it to the Prime Minister for consideration and decision;

- Develop and implement activities to improve greenhouse gas inventory capacity for relevant ministries, sectors, localities and organizations.

b) The Ministry of Planning and Investment shall assume the prime responsibility for, and coordinate with concerned ministries, sectors and localities in, integrating the collection and synthesis of operational data and relevant information for greenhouse gas inventory into the national statistical indicator system in accordance with the law on statistics and this Decision;

c) The Ministry of Interior shall coordinate with relevant ministries in the National System on Greenhouse Gas Inventory to propose the Government to consider adding functions and tasks to serve the greenhouse gas inventory;

d) Ministries, sectors, localities and related organizations and enterprises shall organize the implementation of the tasks in this Decision.

Article 2. This Decision takes effect from the date of signing.

Article 3. Ministers, heads of ministerial-level agencies, heads of government-attached agencies, presidents of people's committees of provinces and centrally-run cities and related organizations and individuals shall be responsible for implementing this Decision./

PRIME MINISTER

Recipients:

- Prime Minister, Deputy Prime Ministers;
- Ministries, ministerial-level agencies, government-attached agencies;
- People's Committees of provinces and centrally-run cities;
- Office of the Central Committee of the Party;
- Office of the General Secretary;
- Office of the President;
- Office of the National Assembly;
- Central Committee of the Vietnam Fatherland Front;
- Central agency of mass organizations;
- VPCP: Organizing Committee; pcn, Assistant General Director, General Director of E-commerce, Departments: TH, KTTH, V.III, KGVX, TKBT;
- Luu: VT, KTN (3b).

Nguyen Tan Dung

APPENDIX I

ENERGY SECTOR ACTIVITY

DATA FORM *(Issued together with Decision No. 2359/QĐ-TTg dated December 22, 2015 of the Prime Minister)*

Supplier: Ministry of Industry and Trade

Sub-sector: Fuel burning

Inventory year:

Table 1: Fuel consumption in grid-connected power generation plants of Electricity of Vietnam (EVN)

Melancholy	Unit	Syracuse	Calorificp (TJ/unit)	Data sources
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Dầu diesel (DO)	A thousandinches			
Dầu mazut (FO)	A thousandinches			
Natural gas	Million m ³			
Birthsi	Trivia			
Other (if any)				

Table 2: Fuel consumption in self-used power plants

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Dầu DO	A thousandinches			
Dầu FO	A thousandinches			
Natural gas	Million m ³			
Birthisi	Trivia			
Other (nyes)				

Table 3: Fuel consumption in off-grid EVN power generation machines

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Dầu DO	A thousandinches			
Dầu FO	A thousandinches			
Natural gas	Million m ³			
Birthisi	Trivia			
Other (nyes)				

Table 4: Fuel burning consumption in iron and steel production industry

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Lignite	A thousandinches			
Coalc	A thousandinches			
Peat	A thousandinches			
Dà	A			

	thousandinches			
Dầu DO	A thousandinches			
Dầu FO	A thousandinches			
Liquefied mine gas(PLG)	A thousandinches			
Natural gas	Tribulationm ³			
Birthisi	Million kcal			
Other (nyes)				

Table 5: Consumption of combustionmaterials in the chemical and petrochemical manufacturing industry

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Lignite	A thousandinches			
Coalc	A thousandinches			
Peat	A thousandinches			
Dầ	A thousandinches			
Dầu DO	A thousandinches			
Dầu FO	A thousandinches			
PLG	A thousandinches			
Natural gas	Tribulationm ³			
Birthisi	Million kcal			
Other (nyes)				

Table 6: Fuel burning consumption in the cement and construction materials manufacturing industry

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			

Lignite	A thousandinches			
Coalc	A thousandinches			
Peat	A thousandinches			
Dầ	A thousandinches			
Dầ DO	A thousandinches			
Dầ FO	A thousandinches			
PLG	A thousandinches			
Natural gas	Tribulationm ³			
Birthisi	Million kcal			
Other (nyes)				

Table 7: Fuel consumption in the food and tobacco manufacturing industry

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Lignite	A thousandinches			
Coalc	A thousandinches			
Peat	A thousandinches			
Dầ	A thousandinches			
Dầ DO	A thousandinches			
Dầ FO	A thousandinches			
PLG	A thousandinches			
Natural gas	Tribulationm ³			
Birthisi	Million kcal			
Other (nyes)				

Table 8: Fuel consumption in the leather and textile industry

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Lignite	A thousandinches			
Coalc	A thousandinches			
Peat	A thousandinches			
Dầ	A thousandinches			
Dầu DO	A thousandinches			
Dầu FO	A thousandinches			
PLG	A thousandinches			
Natural gas	Tribulationm ³			
Birthisi	Million kcal			
Other (nyes)				

Table 9: Fuel consumption in the pulp and printing industry

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Lignite	A thousandinches			
Coalc	A thousandinches			
Peat	A thousandinches			
Dầ	A thousandinches			
Dầu DO	A thousandinches			
Dầu FO	A			

	thousandinches			
PLG	A thousandinches			
Natural gas	Tribulationm ³			
Birthsi	Million kcal			
Other (nyes)				

Table 10: Fuel consumption in other industries

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Lignite	A thousandinches			
Coalc	A thousandinches			
Peat	A thousandinches			
Dầ	A thousandinches			
Dầ DO	A thousandinches			
Dầ FO	A thousandinches			
PLG	A thousandinches			
Natural gas	Tribulationm ³			
Birthsi	Million kcal			
Other (nyes)				

Table 11: Fuel consumption in the service trade industry

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Dầ	A thousandinches			
Dầ DO	A thousandinches			

Dầu FO	A thousandinches			
PLG	A thousandinches			
Biogas	Million kcal			
Birthsi	Million kcal			
Other (nyes)				

Table 12: Fuel consumption in the civil industry

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Dầ	A thousandinches			
Dầu DO	A thousandinches			
Dầu FO	A thousandinches			
PLG	A thousandinches			
Biogas	Million kcal			
Birthsi	Million kcal			
Other (nyes)				

Table 13: Fuel consumption in the agricultural industry

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Gasoline	A thousandinches			
Oil DO	A thousandinches			
Dầu FO	A thousandinches			
Other (nyes)				

Table 14: Fuel consumption in the forestry industry

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Gasoline	A thousandinches			
Oil DO	A thousandinches			
Dầu FO	A thousandinches			
Other (nyes)				

Table 15: Fuel consumption in the fishery industry

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Anthracite	A thousandinches			
Bitumen coal	A thousandinches			
Gasoline	A thousandinches			
Oil DO	A thousandinches			
Dầu FO	A thousandinches			
Other (nyes)				

Table 16: Used as raw materials in production

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Lubricants	A thousandinches			
Asphalt	A thousandinches			
Coalandmines	A thousandinches			
Dầu beak	A thousandinches			
Other (nyes)	A thousandinches			

Subcategory: Emissions due to emission

Five inventories:

Table 1: Coalmining production

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Mining	A thousandinches			
Open-pit mining	A thousandinches			
Other (if any)				

Table 2: Oil and gas production

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Rawdầu	A thousandinches			
Gassing	Million m ³			
The air is unstoppable.	Million m ³			

Table 3: Output of finished gas in gas treatment plants

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Finished gas	Million m ³			

APPENDIX II

FORM OF ENERGY SECTOR ACTIVITIES RELATED TO TRANSPORT
(Issued together with Decision No. 2359/QĐ-TTg dated December 22, 2015 of the Prime Minister)

Sub-sector: Fuel burning

Supplier: Ministry of Transport

Five inventories:

Table 1: Fuel consumption in air traffic

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Jet gasoline	A thousandinches			
Xbng	A thousandinches			
Dầu DO	A thousandinches			
Dầu FO	A thousandinches			
Other (if any)				

Table 2: Fuel consumption in road traffic

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know
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				what to do.
Xbng	A thousandinches			
Dầu DO	A thousandinches			
Dầu FO	A thousandinches			
Other (if any)				

Table 3: Fuel consumption in railway transport

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Xbng	A thousandinches			
Dầu DO	A thousandinches			
Dầu FO	A thousandinches			
Other (if any)				

Table 4: Fuel consumption in river and sea transport

Melancholy	Unit	Syracuse	Low calorific value (TJ/unit)	Idon't know what to do.
Xbng	A thousandinches			
Dầu DO	A thousandinches			
Dầu FO	A thousandinches			
Other (if any)				

APPENDIX III

FORM OF DATA ON ACTIVITIES IN THE FIELD OF INDUSTRIAL PROCESSES RELATED TO CONSTRUCTION
(Issued together with Decision No. 2359/QĐ-TTg dated December 22, 2015 of the Prime Minister)

Sub-sector: Building materials

Supplier: Ministry of Construction

Five inventories:

Table 1: Cement and clinker production

Product	Unit	Amount	Data sources
Cement	A thousandinches		
Clinker	A thousandinches		

Table 2: Production and use of lime and dolomite

Product	Unit	Amount	Data sources
Lime	Omission		
Lime used	Omission		
Gemstonesused	Omission		

APPENDIX IV

FORM OF DATA ON INDUSTRIAL PROCESSES RELATED TO INDUSTRY AND TRADE
(Issued together with Decision No. 2359/QD-TTg dated December 22, 2015 of the Prime Minister)

Sub-sector: Chemical manufacturing

Supplier: Ministry of Industry and Trade

Five inventories:

Table 1: Production of acids, compounds of nitrogen and some others

Product	Unit	S ridiculous	Sources
Nitric acid (HNO ₃)	Omission		
Coalisused as a raw material for the production of HNO ₃	Omission		
Adipic acid (C ₆ H ₁₀ O ₄)	Omission		
Coalusedas raw material for the production of C ₆ H ₁₀ O ₄	Omission		
Ammonia (NH ₃)	Omission		
Gas used as raw materials for NH ₃ production	Omission		
Coke used as raw material for NH ₃ production	Omission		
Canxi thebua (CaC ₂)	Omission		
Coke used as raw material for CaC ₂ production	Omission		
Other (if any)			

Table 2: Production and use of soda (Na₂CO₃)

Product	Unit	S ridiculous	Sources
Production Na ₂ CO ₃	Omission		
Use Na ₂ CO ₃	Omission		

Sub-sector: Metallurgical industry

Five inventories:

Table 1: Production of cast iron, steel and iron-containing needles

Product	Unit	S ridiculous	Sources
Cast iron	Omission		
Coke used as a raw material for cast iron production	Omission		
Steel	Omission		

		River Delta	Midlands and Mountains	Central and Central Coast	Highlands		Delta	
Making field fertilizers	%							
Discharge into sewers	%							
Discharged into lakes, rivers, fields	%							
Bio-annealing	%							
Other (if any)	%							

^a: Including 10 provinces/cities: Vinh Phuc, Hanoi, Bac Ninh, Ha Nam, Hung Yen, Hai Duong, Hai Phong City, Thai Binh, Nam Dinh and Ninh Binh

^b: Including 15 provinces: Ha Giang, Cao Bang, Lao Cai, Bac Kan, Lang Son, Quang Ninh, Tuyen Quang, Yen Bai, Thai Nguyen, Phu Tho, Bac Giang, Lai Chau, Dien Bien, Son La and Hoa Binh

^c: Including 14 provinces/cities: Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri, Thua Thien-Hue, Da Nang City, Quang Nam, Quang Ngai, Binh Dinh, Phu Yen, KhanhHòa, Ninh Thuan v Binh Thuan

^d: Including 5 provinces: Kon Tum, Gia Lai, Dak Lak, Dak Nong and Lam Dong

^e: Including 6 provinces/cities: Ho Chi Minh City, Ba Ria-Vung Tau, Binh Duong, Binh Phuoc, Dong Nai and Tay Ninh

^g: Including 13 provinces/cities: CầnTho City, Long An, Tien Giang, Ben Tre, Vinh Long, Tra Vinh, Hau Giang, Soc Trang, Dong Thap, An Giang, Kien Giang, Bac Lieu and Ca Mau.

Sub-sector: Rice farming

Supplier: Ministry of Agriculture and Rural Development

Five inventories:

Ward1: Area of rice cultivated in spring crop

Type of cultivation	Unit	Ratio						Data sources
		Red River Delta	Northern Midlands and Mountains	North Central and Central Coast	Central Highlands	Southeast	Mekong Delta	
Rice cultivation	ha							
Actively irrigated rice	ha							
Rice is irrigated by rain	ha							
Rice	ha							
Other (if any)	ha							

Table 2: Area of rice under cultivation in autumn season

Type of cultivation	Unit	Ratio						Data sources
		Red River Delta	Northern Midlands and Mountains	North Central and Central Coast	Central Highlands	Southeast	Mekong Delta	
Rice cultivation	ha							
Actively irrigated rice	ha							

Rice is irrigated by rain	ha							
Rice	ha							
Other (if any)	ha							

Table 3: Rice area under eastern crop cultivation

Type of cultivation	Unit	Ratio						Data sources
		Red River Delta	Northern Midlands and Mountains	North Central and Central Coast	Central Highlands	Southeast	Mekong Delta	
Rice cultivation	ha							
Actively irrigated rice	ha							
Rice is irrigated by rain	ha							
Rice	ha							
Other (if any)	ha							

Sub-field: Farmland

Supplier: Ministry of Agriculture and Rural Development

Five inventories:

Table 1: Crop output by province/city

Province/city:

Type of crop	Unit	Syracuse	Data sources
Corn	A thousandinches		
Rice	A thousandinches		
Millet	A thousandinches		
Soybean	A thousandinches		
Potato	A thousandinches		
Sweet potato	A thousandinches		
Sán	A thousandinches		
Sugar cane	A thousandinches		
Peanut	A thousandinches		

Legumes	A thousandinches		
Other (if any)			

Sub-field: Burning grasslands (savanna)

Supplier: Ministry of Agriculture and Rural Development

Five inventories:

Table 1: Area of burned grassland and shrubs

Area	Unit	Amount	Data sources
Ohmy	ha		
Shrub	ha		

APPENDIX VI

FORM FOR COLLECTION OF DATA ON LAND USE, LAND USE CHANGE AND FORESTRY (LULUCF)
(Issued together with Decision No. 2359/QĐ-TTg dated December 22, 2015 of the Prime Minister)

- Category: **Forest lands**

Supplier: Ministry of Agriculture and Rural Development

Five inventories:

Table 1: Area of forested land areas

Forest type	Units	Syracuse						Data sources
		^a Red River Delta	^b Northern Midlands and Mountains	^c North Central and Central Coast	^d Central Highlands	^e Southeast	^g Mekong Delta	
Evergreen broadleaf - Very rich	ha							
Evergreen broadleaf - Rich	ha							
Evergreen broadleaf - Medium	ha							
Evergreen broadleaf - Poor	ha							
Evergreen broadleaf - yet reserves	ha							
Deciduous broadleaf - Rich R	ha							
Deciduous broadleaf - Rich	ha							
Deciduous broadleaf - Medium	ha							
Deciduous broadleaf - Poor	ha							
Deciduous broadleaf - no reserves yet	ha							
Half-deciduous broad leaves - Very rich	ha							
Half-deciduous broad leaves -	ha							

Rich								
Wide leaves half deciduous - medium	ha							
Wide leaves half deciduous - medium	ha							
Half-deciduous broadleaf - Poor	ha							
Half-deciduous broad leaves - no reserves yet	ha							
Needle	ha							
Delivery of fallen leaves and conifers	ha							
Bamboo	ha							
Delivery of fallen leaves and bamboo	ha							
Mangrove	ha							
Rocky mountains	ha							
Woodland	ha							

^a: Including 10 provinces/cities: Vinh Phuc, Hanoi, Bac Ninh, Ha Nam, Hung Yen, Hai Duong, Hai Phong City, Thai Binh, Nam Dinh and Ninh Binh

^b: Including 15 provinces: Ha Giang, Cao Bang, Lao Cai, Bac Kan, Lang Son, Quang Ninh, Tuyen Quang, Yen Bai, Thai Nguyen, Phu Tho, Bac Giang, Lai Chau, Dien Bien, Son La and Hoa Binh

^c: Including 14 provinces/cities: Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri, Thua Thien-Hue, Da Nang City, Quang Nam, Quang Ngai, Binh Dinh, Phu Yen, Khanh Hoa, Ninh Thuan v Binh Thuan

^d: Including 5 provinces: Kon Tum, Gia Lai, Dak Lak, Dak Nong and Lam Dong

^e: Including 6 provinces/cities: Ho Chi Minh City, Ba Ria-Vung Tau, Binh Duong, Binh Phuoc, Dong Nai and Tay Ninh

^g: Including 13 provinces/cities: Can Tho City, Long An, Tien Giang, Ben Tre, Vinh Long, Tra Vinh, Hau Giang, Soc Trang, Dong Thap, An Giang, Kien Giang, Bac Lieu and Ca Mau.

Table 2: Forest reserves

Forest type	Units	Syracuse						Data sources
		Red River Delta	Northern Midlands and Mountains	North Central and Central Coast	Central Highlands	Southeast	Mekong Delta	
Evergreen broadleaf - Very rich	m ³							
Evergreen broadleaf - Rich	m ³							
Evergreen broadleaf - Medium	m ³							
Evergreen broadleaf - Poor	m ³							
Evergreen broadleaf - yet reserves	m ³							

Deciduous broadleaf - Rich R	m ³							
Deciduous broadleaf - Rich	m ³							
Deciduous broadleaf - Medium	m ³							
Deciduous broadleaf - Poor	m ³							
Deciduous broadleaf - no reserves yet	m ³							
Half-deciduous broad leaves - Very rich	m ³							
Half-deciduous broad leaves - Rich	m ³							
Wide leaves half deciduous - medium	m ³							
Wide leaves half deciduous - medium	m ³							
Half-deciduous broadleaf - Poor	m ³							
Half-deciduous broad leaves - no reserves yet	m ³							
Needle	m ³							
Delivery of fallen leaves and conifers	m ³							
Bamboo	Thousand trees							
Delivery of fallen leaves and bamboo	m ³							
Mangrove	m ³							
Rocky mountains	m ³							
Woodland	m ³							

Table 3: Wood output harvested from forests

Production	Units	Syracuse						Data sources
		Red River Delta	Northern Midlands and Mountains	North Central and Central Coast	Central Highlands	Southeast	Mekong Delta	
From natural forests	m ³							
From the woods	m ³							
Illegal mining	m ³							
Bamboo	Thousand							

	trees							
Firewood collection	m ³							

Table 4: Forest area lost

Area	Units	Syracuse						Data sources
		Red River Delta	Northern Midlands and Mountains	North Central and Central Coast	Central Highlands	Southeast	Mekong Delta	
Burnt forests	ha							
Forests cut down	ha							
Forests are used for other purposes (mines, industrial parks, hydropower, agricultural land, residential land,...)	ha							

Table 5: Area of peat and mineral land

Area	Units	Syracuse						Data sources
		Red River Delta	Northern Midlands and Mountains	North Central and Central Coast	Central Highlands	Southeast	Mekong Delta	
Peatland (organic soil)	ha							
Mineral soils	ha							

Sub-field: Arable land

Supplier: Ministry of Agriculture and Rural Development

Five inventories:

Table 1: Area of arable land

Arable land	Units	Syracuse						Data sources
		Red River Delta	Northern Midlands and Mountains	North Central and Central Coast	Central Highlands	Southeast	Mekong Delta	
Rice paddies	ha							
Other annual crops	ha							
Soil perennials	ha							

APPENDIX VII

FORM FOR COLLECTION OF LULUCF ACTIVITIES RELATED TO ENVIRONMENTAL RESOURCES (Issued together with Decision No. 2359/QĐ-TTg dated December 22, 2015 of the Prime Minister)

Sub-sectors: Grasslands, wetlands, residential and other lands

Defense/ security	CQ A																					
Production, business, non-agriculture	Cs k																					
Have a public purpose	Cc c																					
Religion, beliefs	TT N																					
Cemeteries, cemeteries	NT D																					
Salt making	L M U																					
Other agriculture	NK H																					
Other nonfarms	PN K																					
Unused flat land	Bc s																					
Unused hills and mountains	Dc s																					
Rocky mountains without forests	NC S																					
Other increases																						
TOTAL INCREASE																						

APPENDIX VIII

WASTE SECTOR OPERATION

DATA FORM (Issued together with Decision No. 2359/QĐ-TTg dated December 22, 2015 of the Prime Minister)

Subcategory: Landfill

Supplier: People's Committees of provinces/cities

Five inventories:

Table 1: Volume of solid waste buried by province/city

Province/city:

Type of garbage	Unit	Syracuse	Idon't know what to do.
Municipal solid waste is landfilled	t/day		
Rural domestic solid waste is landfilled	t/day		
Industrial solid waste is landfilled	t/day		

Table 2: Solid waste composition in urban and rural areas by province/city

Province/city:

Success	Unit	Town	Rural	Idon't know what to do.
Food, organic matterdecomposes	%			
Garden garbage (leaves, small branches, grass ...)	%			
- Catton, Catton cover	%			
Wood chips	%			
Rags, rags	%			
Nappy	%			
Resin	%			
Rubber, leather	%			
Metal	%			
Glass, crockery	%			
Sewage sludge	%			
Other types of garbage	%			

Table 3: Composition of solid waste of industrial parks by province/city

Province/city:

Success	Unit	Proportion	Data sources
Compostable organic matter	%		
Waste cloth, rags	%		
Paper, paperboard	%		
Sprouts and products from sprouts	%		
Plastic, waste, paint	%		
Rubber, leather	%		
Construction rubbish	%		
Different	%		

Table 4: Characteristics of solid waste landfills by province/city

Province/city:

Character	Unit	Amount	Idon't know what to do.
Burial ground in the area	Bank		
Large-scale landfills (cities, towns, districts)	Bank		
- Unmanaged burial ground* - depth > 5m	Bank		
- Unmanaged burial ground* - depth < 5m	Bank		
- Managed burial grounds** - anaerobic	Bank		
- Managed burial ground** - semi-aerobic	Bank		
- Total area of large-scale landfills	m ²		
Number of small-scale (commune-level) burial sites	Bank		
- Unmanaged burial ground* - depth > 5m	Bank		
- Unmanaged burial ground - depth < 5m	Bank		
- Total area of small-scale landfills	m ²		
Other burial grounds (if any)	Bank		
- Total area	m ²		

*: Unsanitary burial grounds

** : Landfill with bulldozed garbage, compacted, covered with layers of garbage, with covering materials to prevent water from seeping through, with ventilation system, with garbage water collection system, with garbage moisture regulation system

Sub-field: Incinerators

Supplier: People's Committee of provinces/ cities

Five inventories:

Table 1: Volume of solid waste treated by incinerator by province/city

Province/city:

Waste type	Unit	Amount	Idon't know what to do.
Municipal solid waste	Year		
Hazardous solid waste	Year		
Fats	Year		
Conventional industrial solid waste	Year		
Other (if any)	tons/ year		

APPENDIX IX

FORM OF DATA ON WASTE ACTIVITIES RELATED TO INDUSTRY AND TRADE
(Issued together with Decision No. 2359/QĐ-TTg dated December 22, 2015 of the Prime Minister)

Sub-sector: Wastewater

Supplier: Ministry CMr. Thuong

Five inventories:

Table 1: Output of manufactured goods nationwide

Product	Unit	Syracuse	Data sources
Syracuse	Inches/year		
Non-ferrous metals	Inches/year		
Fertilizer	Inches/year		
Food	Inches/year		
Beer	Thousand liters/year		
Alcohol	Thousand l/year		
Dairy products	Inches/year		
Sugar	Inches/year		
Fisheries	Inches/year		
Coffee	Inches/year		
Freshwater	Thousand liters/year		
Gibbons	Inches/year		
Bastard	Inches/year		
Rubber	Inches/year		
Other (if any)			