



Rijksdienst voor Ondernemend
Nederland

National System The Netherlands

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Overview of the presentation

- Introduction
- Overview of main steps in primary process for GHG emissions and reporting
- Overview QA/QC cycle
- Update of methods and data collection
- Lessons learned



Introduction

- 2007: Initial review & approval of National System under KP
- 2015: Start of the National inventory arrangement under the UNFCCC (Convention; 24/CP.19)
- 2013: Establish, operate and seek to continuously improve national inventory systems, in accordance with UNFCCC requirements on national systems, (EU MMR article 5,1)
- 2015: national system for reporting on policies and measures and for reporting on projections (EU MMR article 13,1a)

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Netherlands Enterprise Agency, RVO.nl

- Single National Entity for The Netherlands since 2006
 - Submissions to the UNFCCC
 - National contact for all UNFCCC reviews
 - Responsible for **maintain** the National System and the National inventory arrangement
- KP reporting in NIR other than GHG emissions
- Responsible National system for reporting on policies and measures and for reporting on projections
- Coordinating **all** MMR reporting and submitting to the EU reporting system
- Coordinating National Communications and Biennial Reports

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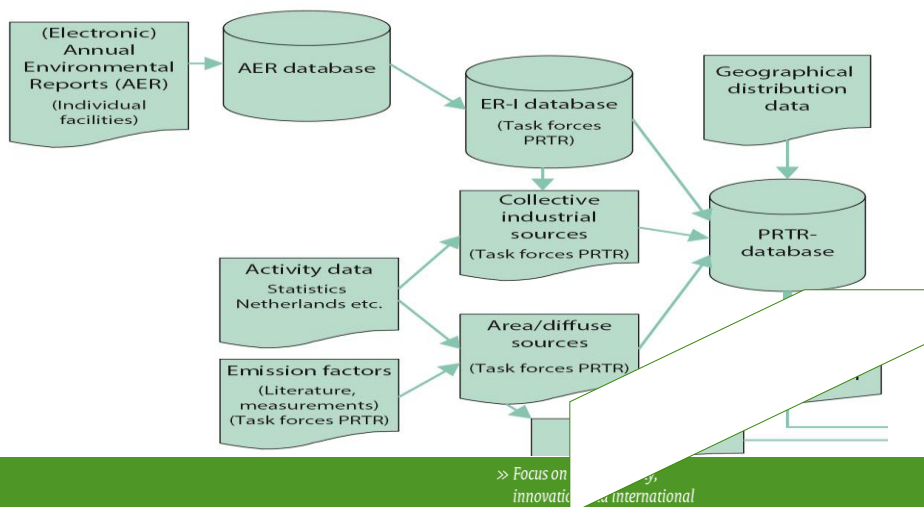
Decision in 2006 on the National System

- Single National Entity
 - Option A: incorporate in the existing structure of the Emissions Registration (ER)
 - Option B: a separate organisation
- Why a separate organisation?
 - Ensure high level of QA/QC for GHG emissions
 - Consistent checks on the UNFCCC+KP reporting rules
 - Improvement program to get the inventory on the requested level
 - Documentation of the methods for key sources
 - Counter-balance the scientific improvements in the emission registration

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Emissions Registration (ER)



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Organising the work within the ER

- General management
- Taskforce on Energy, Industry and Waste Management (ENINA)
Covers the emissions to air from the sectors Industry, Energy Production, Refineries and Waste Management
- Taskforce on Transportation
Covers the emissions to soil, water and air from the transportation sector (aviation, shipping, rail and road transport)
- Taskforce on Agriculture
Covers the calculation of emissions from agriculture and LULUCF to soil, water and air
- Taskforce on Water - MEWAT
This Taskforce calculates the emissions from all sectors to water
- Taskforce on Consumers and other sources of emissions - WESP
Covers emissions caused by consumers, trade and services.

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Involved organisations in the ER

Taskforce on Energy, Industry and Waste Management

- RIVM,
- TNO,
- Statistics Netherlands (CBS),
- Waste Management Department
- Deltares
- Fugro-Ecoplan

Taskforce on Transportation

- Netherlands Environmental Assessment Agency (PBL)
- Statistics Netherlands (CBS)
- Rijkswaterstaat,
- Deltares
- TNO

Taskforce on Agriculture

- RIVM,
- the Netherlands Environmental Assessment Agency (PBL),
- LEI,
- Alterra,
- Statistics Netherlands (CBS)
- Deltares

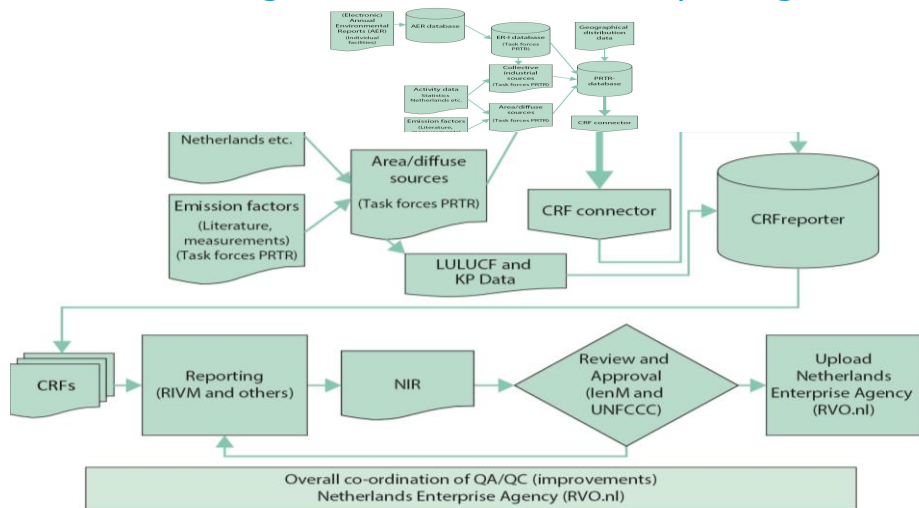
Taskforce on Consumers and other sources of emissions WESP

- RIVM,
- TNO
- Statistics Netherlands (CBS)

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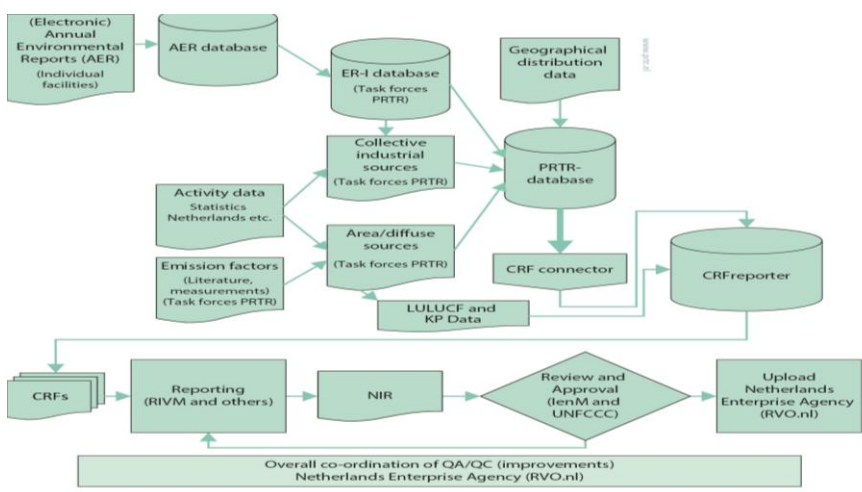
Emissions Registration (ER) + GHG reporting



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National System: Overview of the primary process for GHG emissions and removals





Additional KP reporting

Part II Supplementary Information required under Article 7, Paragraph 1

11 KP-LULUCF

12 Information on accounting of Kyoto units

13 Information on changes in the National System

14 Information on changes in the National Registry
15 Information on minimisation of adverse impacts in accordance with Article 3, paragraph 14

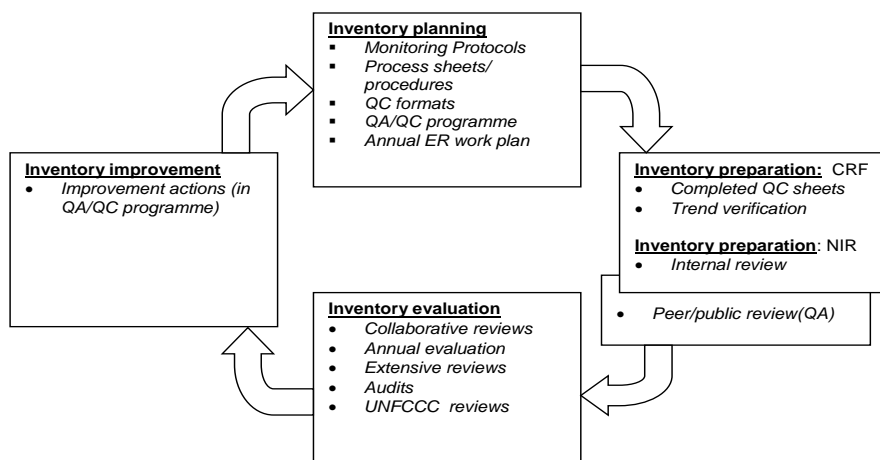
SEF tables

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Overview of QA/QC cycle



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QA/QC programme (1)

- Overall objective:
 - annual inventories sufficient quality to meet requirements under UNFCCC and EU:
 - transparency, consistency, comparability, completeness and accuracy (TCCCA)
- RVO.nl is the responsible organisation
- Implementation
 - By RVO.nl
 - Within the Emission Registration

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QAQC programme (2)

- QC activities
 - General QC procedures (ER)
 - Annual uncertainty analysis (ER)
- QA activities
 - Peer review (contracted experts)
 - Audit (RVO.nl)
 - Data consistency report (ER, RVO.nl, Nea, CBS)
- Archiving, documentation and facilitating reviews
 - Archiving of information on inventory, results QA/QC etc (ER)
- Evaluation and improvement (RVO.nl and ER)
 - Evaluation of inventory process
 - Evaluation of QAQC programme

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Monitoring protocols up to 2014

- Key documents of National System; legal basis and annual publication in the Government Gazette
- Standard content of (40) protocols
 - Description of methods
 - Emission factors
 - Activity data
 - Description of the working process
 - QA/QC
 - Uncertainties

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IPCC code	Description	Gases
All	Reference approach	CO ₂
1A1 1A2 1A4	Stationary combustion (fossil) *	CO ₂ N ₂ O CH ₄
1A1b 1B1b 1B2aiv 2A4i 2B1 2B4i 2B5i 2B5vii 2B5viii 2C1vi 2D2 2Giv	Process emissions (fossil)	CO ₂ N ₂ O CH ₄
1A2f 1A4c	Mobile equipment	CO ₂ N ₂ O CH ₄
1A3a	Inland aviation	CO ₂ N ₂ O CH ₄
1A3b	Road transport	CO ₂
1A3b	Road transport	N ₂ O CH ₄
1A3c	Rail transport	CO ₂ N ₂ O CH ₄
1A3d	Inland navigation	CO ₂ N ₂ O CH ₄
1A4c	Fisheries	CO ₂ N ₂ O CH ₄
1A5	Defence	CO ₂ N ₂ O CH ₄
1B2	Oil & gas production	CO ₂ CH ₄
1B2	Oil & gas distribution/transport	CO ₂ CH ₄
2A1 2A2 2A3 2A4ii 2A7i 2B5ix 2C1i 2C1vii 2C3 2Gi 2Gii 2Giii 2Gv 3A 3B 3C 3D	Process emissions (non-fossil)	CO ₂ N ₂ O CH ₄
2B2	Nitric acid	N ₂ O
2B5	Caprolactam	N ₂ O
2C3	Aluminium production	PFC
2E1	HCFC-22 production	HFC
2E3	HFC by product emissions	HFC
2F1	Stationary refrigeration	HFC
2F1	Mobile refrigeration	HFC
2F2, 2F4	Hard foams, Aerosols	HFC
2F8	Soundproof windows, Electron microscopes	SF ₆
2F8	Semi-conductors	SF ₆ PFC
2F8	Electrical equipment	SF ₆
4A	Enteric fermentation	CH ₄
4B	Manure management	N ₂ O
4B	Manure management	CH ₄
4D	Agricultural soils, indirect	N ₂ O
4D	Agricultural soils, direct	N ₂ O
5A	Forest	CO ₂
5D-5G	Soil	CO ₂
6A1	Waste disposal	CH ₄
6B	Waste water treatment	CH ₄ N ₂ O
6D	Large-scale composting	CH ₄ N ₂ O
Memo item	International bunker emissions	CO ₂ N ₂ O CH ₄
1A, (CO ₂ memo item)	Biomass	CO ₂ CH ₄ N ₂ O
5(KP-I KP-II)	KP LULUCF	CO ₂ CH ₄ N ₂ O



Methodology reports (2015 onwards)

- Describing methodologies and processes for estimating emissions and sinks, based on IPCC 2006 Guidelines
- Approved by NIE/RVO.nl (as a delegated task of the Ministry IenM) and the ER project leader
- Are published on the national system website (<http://english.rvo.nl/nie>) and listed in annual working plans of the ER.

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Methodology reports (2015 onwards)

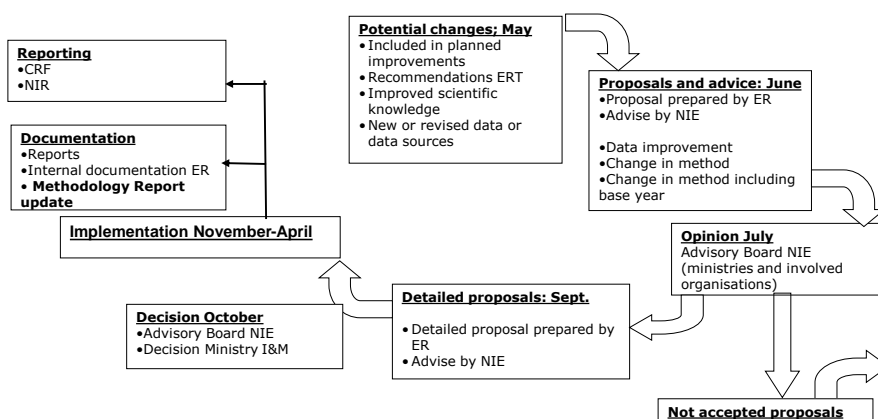
- More flexibility for the content
- Methodology Reports
 - Energy, Process and Waste
 - Transport
 - Agriculture
 - LULUCF
 - Energy small source
- Will improve in coming years

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Update of methods and data collection



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Advisory board NIE

- Participants
 - Ministry of Environment (Ministry IenM)
 - Ministry of Economic Affairs (Ministry EZ)
 - Netherlands Statistics (CBS)
 - Project manager Emission Registration (RIVM)
 - Netherlands Environmental Assessment Agency (PBL)
 - Netherlands Emission Authority (Nea)
- Advise on proposed changes of methods
- Feed back from the QA/QC process and inventory reviews
- Improvement and QA/QC plan

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Lessons learned

- Keep the number of legal documents as low as possible
- Difficult for experts to estimate for proposed changes of methods to estimate:
 - Impact on uncertainty
 - Expected change in emissions
- Ex-ante description of the update of a method to use to estimate the emissions is often not implemented and in practise ex-post update of the descriptions
- Involvement of Ministries in planned changes in methods improves the decisions making process of these improvements and good preparation for expected change of historical emissions for the Ministries

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Questions???

