



LULUCF sector in Lithuania

dr. Ričardas Beniušis

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Overview

Enforcement Branch of the Compliance Committee/UNFCCC

Finding and consequences in 2011:

- Lithuania is not in compliance with the Guidelines for national systems for the estimation of anthropogenic greenhouse gas emissions by sources and removals by sinks under Article 5, paragraph 1, of the Kyoto Protocol;
- Lithuania does not meet the eligibility requirements under Article 6, 12 and 17 of the Kyoto Protocol.

Decision in 2012:

Lithuania is now fully eligible to participate in the mechanisms under Articles 6, 12 and 17 of the Kyoto Protocol.



Institutional responsibilities

- **Ministry of Environment of the Republic of Lithuania**
/Climate Change Policy Department/
 - A National Focal Point to the UNFCCC
- **Lithuanian Environmental Protection Agency**
/Climate Change Division/
 - A body responsible for the coordination of LULUCF and KP LULUCF (for other sectors too) reporting
- **Lithuanian State Forest Service**
/National forest inventory department/
 - Single body directly responsible for LULUCF & KP LULUCF data collecting and reporting



New legislation improves LULUCF reporting

Sept
2011

Resolution on forest land conversion to other land and compensation for converted forest land / Government resolution [No 1131](#) →
regulates human induced conversion of forest land to other land and compensation for lost FL.

Jan
2012

Regulation on National forest inventory by sampling method / Amendment of the Order of the Minister of Environment No D1-570 ([No D1-59](#)) →
launches country wise sample based monitoring of all land use and land use changes.

Jan
2012

Harmonised principles for data collection and reporting on LULUCF / Order of the Minister of Environment [No D1/27](#) →
sets the main principles for data collection and reporting on LULUCF.

Apr
2012

Rules for afforestation of non-forest land / Amendment of the Minister of Environment and Minister of Agriculture Order No 3D-130/D1-144 ([No 3D-239/D1-285](#)) →
determines human induced afforestation/reforestation registration routines.

May
2012

Inventory and registration of natural afforestation of non-forest land / Order of the Minister of Environment and Minister of Agriculture No [D1-409/3D-331](#) →
determines natural afforestation/reforestation inventory and assessment routines.

May
2012

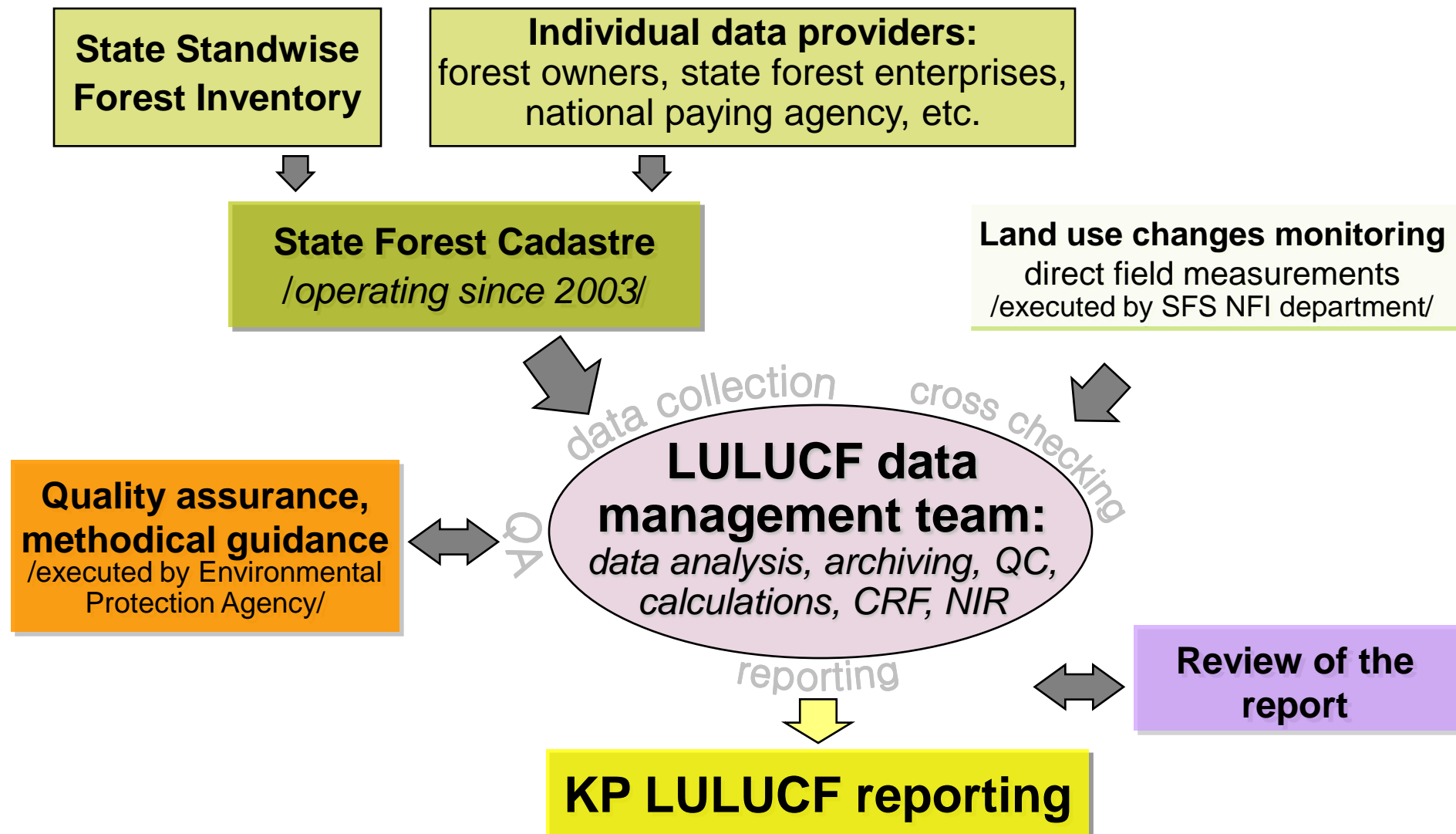
Regulation on State Forest Cadastre / Amendment of the Government resolution No 1255 ([No 570](#)) → *sets State Forest Cadastre as the main data provider for KP LULUCF.*

Dec
2012

Rules for national accounting of the land, introducing provisions on land use and land use change accounting in graphical form *will establish provisions on state's land use accounting in graphical form (GIS). Data will be used as an additional information for LULUCF accounting.*



System of KP LULUCF data collection & reporting





Forest inventory and reporting system in Lithuania

specific to LULUCF & KP LULUCF

- **National forest inventory by sampling method (NFI)**
 - country wide, uniform in design, continues, 5 year cycle (covering whole country each year), executed already 15th yrs.
- **Standwise forest inventory by complete survey of forest lands (SFI)**
 - region by region covers whole country in 10 years (10% of the country each year), executed already 90th yrs.
- **Forest land changes registration at State Forest Cadastre**
 - country wide, covers A/R/D areas, executed from 2003



Studies

uncovering land use and land use changes in 1990-2011

two studies implemented in 2012:

- Study “Forest land area changes in Lithuania during 1990-2011”
- Study “Changes of areas of croplands, grasslands, wetlands, settlements and other lands in Lithuania during 1990-2011”



Studies on land changes in 1990-2011



Forest land

Study 1



Cropland



Grassland



Wetland



Settlements



Other land

Study 2

"Changes of areas of Croplands, Grasslands, Wetlands, Settlements and Other lands in Lithuania during 1990-2011"

S a m p l i n g:

Land use and land use changes identified on yearly basis on uniform NFI sample plots grid

Period: 1990-2011

1990-2011

Covered: ~ 6 000 (forest land) sample plots

~ 10 000 (non-forest land) sample plots

As a result of both studies - matrix of all land use and land use changes prepared

G I S a p p r o a c h:

Period: analyzed 1946-2011, reported 1990-2011

-

Covered: entire forest land

-

Areas identified: afforestation/reforestation, deforestation, forest management

-

Result of Study 1 – GIS layers of A/R/D, FM prepared (for each year)

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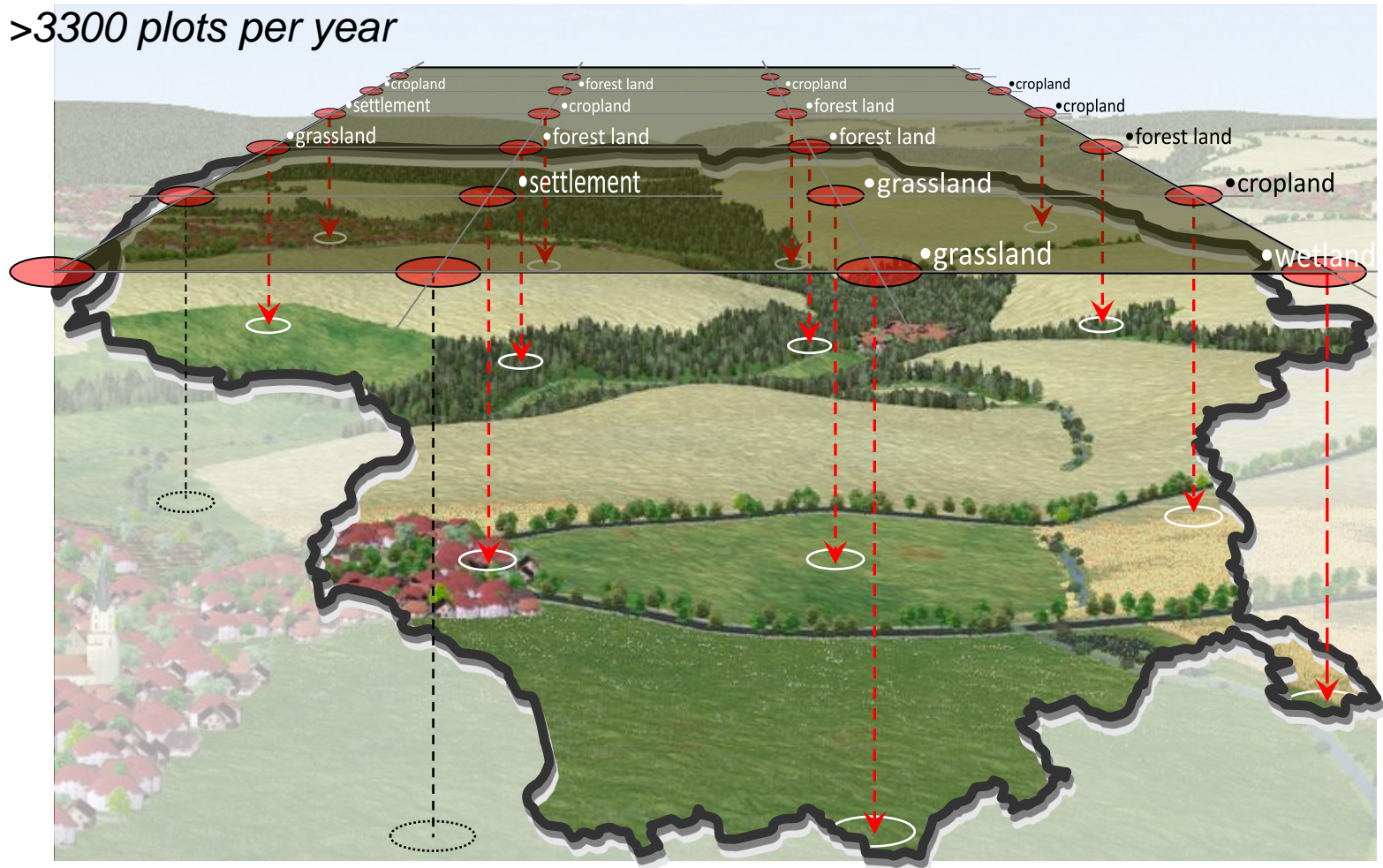
"Forest land changes in Lithuania during 1990-2011"



Land use and land use change monitoring

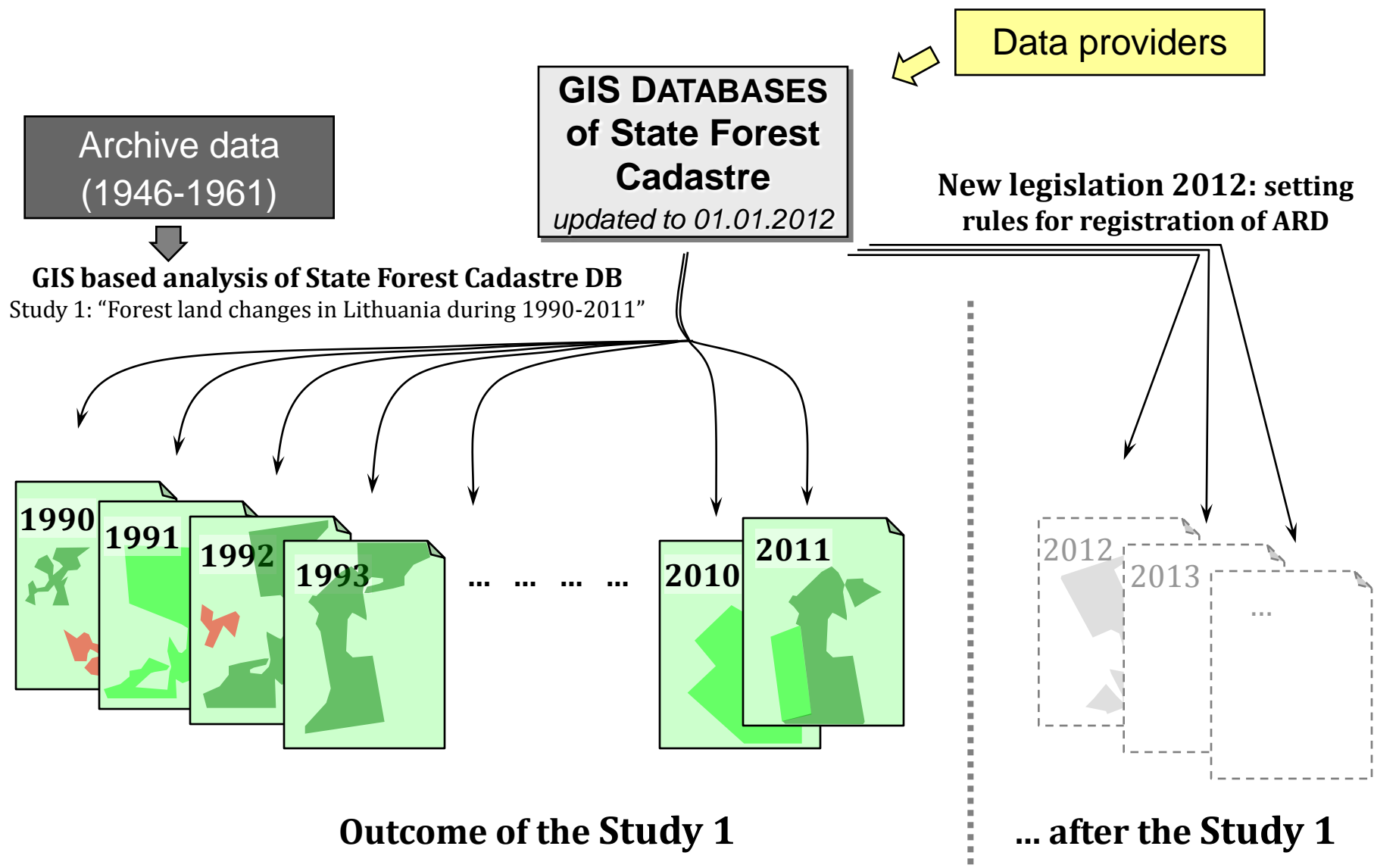
on all permanent National forest inventory sample plots;

- started from Apr. 2012, 4 crews, direct field measurements on >3300 plots per year



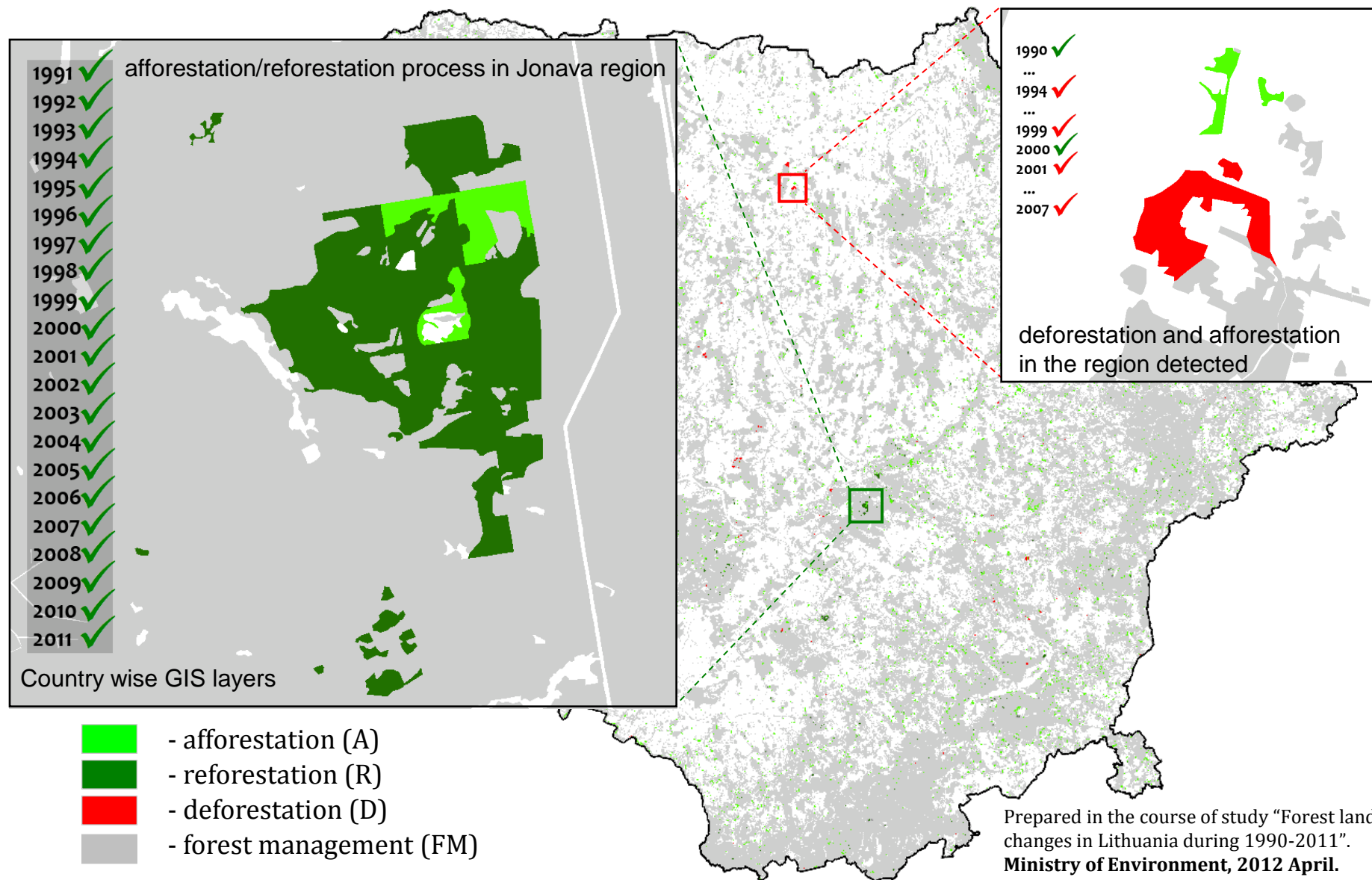


A/R/D yearly areas recovery and registration



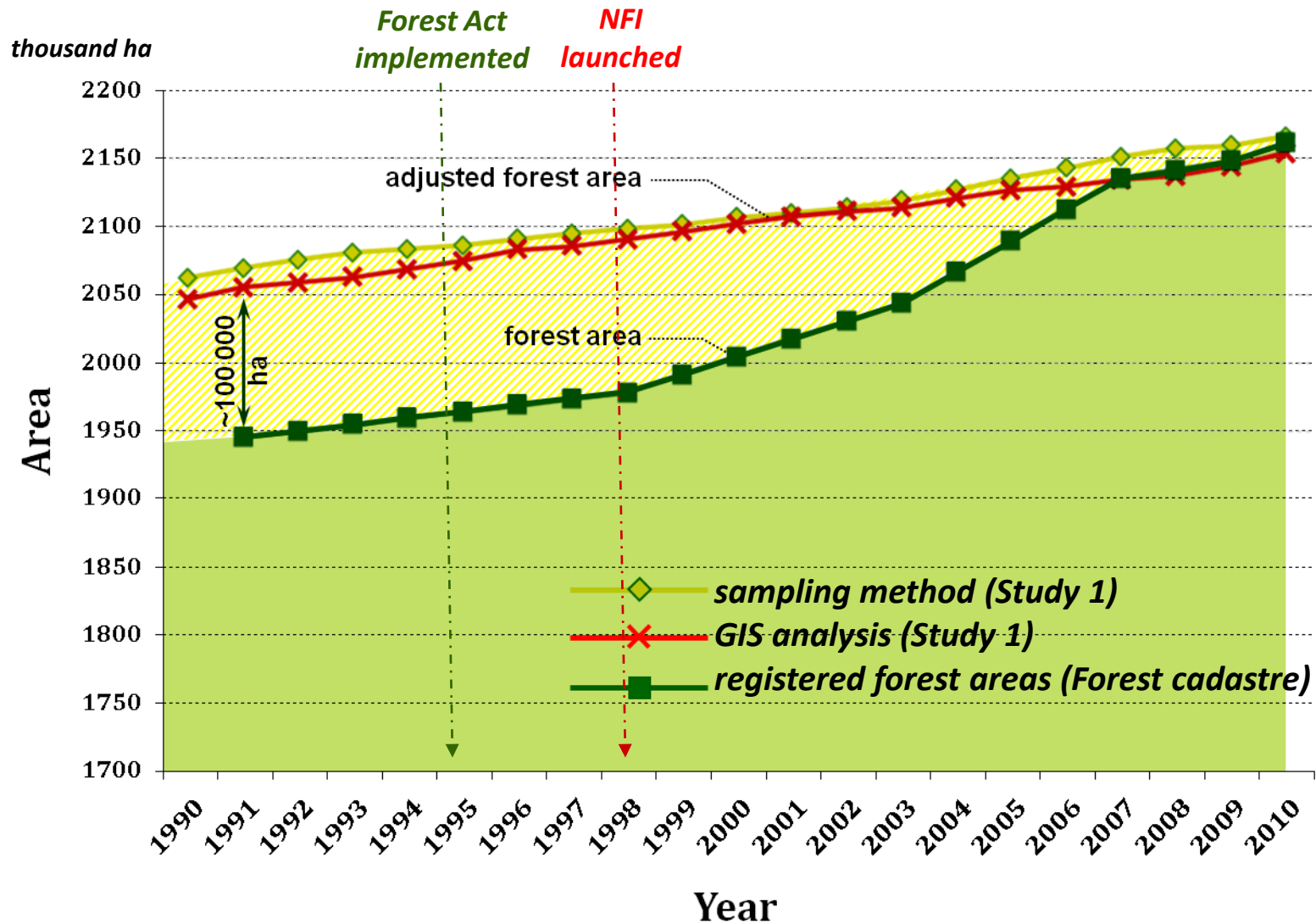


Study results: A/R/D changes in 1990-2011 recovered



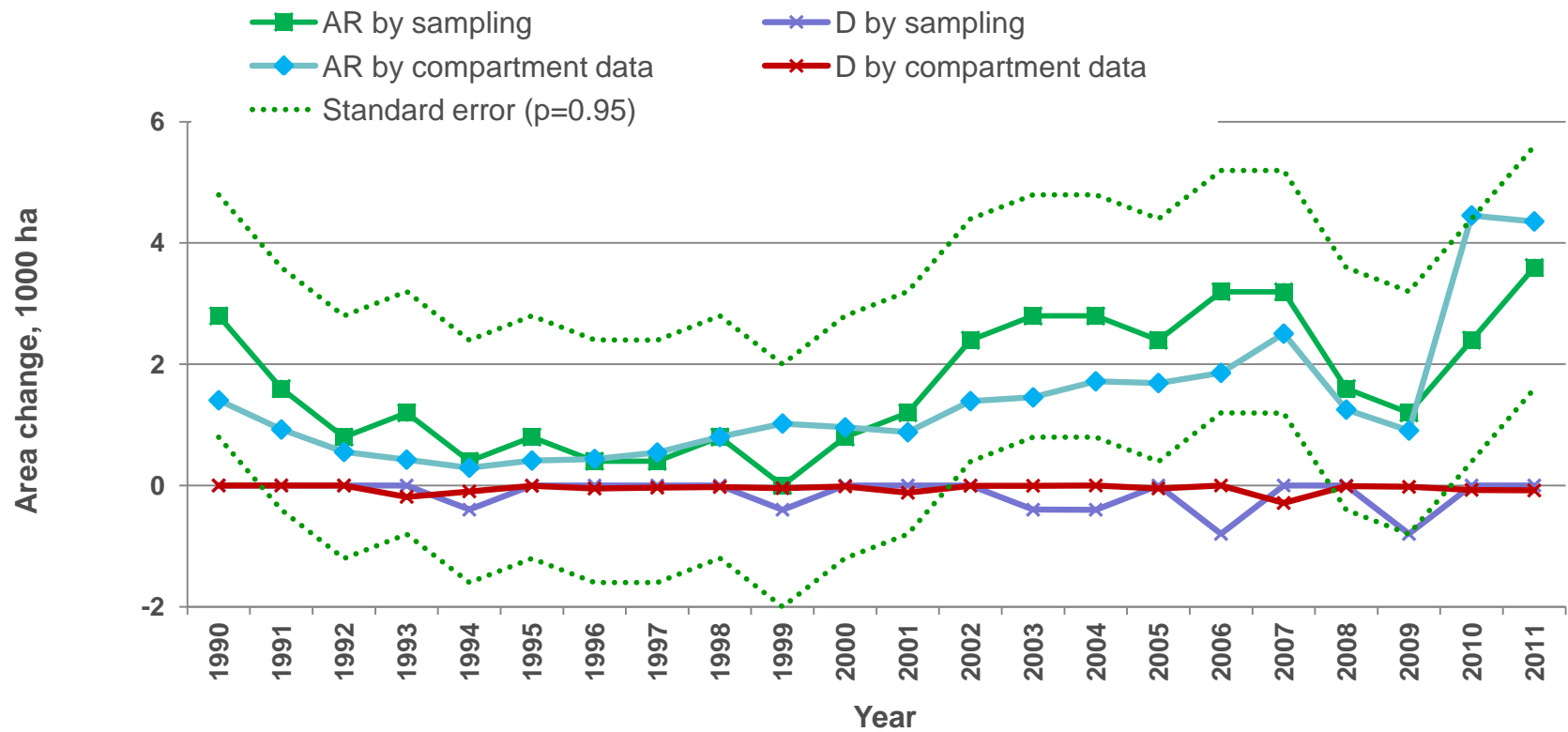


Total forest area





Dynamics of AR/D areas





Problems

Points of improvements according to ERT 2012:

- Improvements for carbon stock change method (calculation on the same area);
- Improvements for biomass assessment in Land converted to forest land;
- Improvements for assessment of biomass burning;
- Other improvements...;

Afforestation and reforestation of natural grasslands causes usually a loss of carbon in SOM in the early years.

It is recommended to provide a comprehensive evaluation of stock changes in SOM in afforested and reforested lands, e.g. afforested cropland, abandoned agricultural land, natural grassland, etc., to assess whether during the commitment period the pool is a net sink.

Difficulties with national data

Yasso model?

Data of neighboring countries?



Questions

NFI for the KYOTO PROTOCOL ???

ERT 2009

YES

ERT 2011

NO

ERT 2012

YES

Following IPCC GPG

Kyoto Protocol = Approach 3

NFI ≠ Approach 3 on ARD activities

NFI ≠ Kyoto Protocol

for present

system

How many Countries use NFI for the Kyoto Protocol and have confirmation of ERT?

Permanent sample plots of NFI and Cropland/Grassland management ?

Thank you!

