

Part II of the National Inventory Report 2009 of the Czech Republic;
Submission under the Kyoto Protocol and the Climate Change Convention

Supplementary information under article 7.1 of the Kyoto Protocol
(voluntary reporting in accordance with decision 15/CMP.1)



Ministry of the Environment
of the Czech Republic



CZECH HYDROMETEOROLOGICAL INSTITUTE

Introduction

Article 7.1 describes the supplementary information required under the Kyoto Protocol, to be submitted with the annual inventory. Decision 15/CMP.1 “Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol” specifies requirements of the Article 7 of the Kyoto Protocol.

1. Changes in the National System

Extensive information on the national inventory system (NIS) is described in this National Inventory Report under the appropriate section as required by the UN FCCC guidelines. More extensive background information on the NIS is also included in the Czech Republic’s Initial Report. The Initial Review in 2007 concluded that the Czech Republic’s national system has been established in accordance with the guidelines. There have been no substantial changes in the NIS since the last submission and since the Czech Republic’s Initial Report except continuous improving.

2. Changes in the National Registry

General description and background information on the National registry has been included in the Czech Republic’s Initial Report, submitted to the UNFCCC. Czech national registry is fully compliant with registry requirements as defined by decisions 13/CMP.1 and 5/CMP.1 and also in IAR report. The Czech Republic has been completely eligible to connect ITL since 2007. On 16 October 2008, the Czech Registry Administrator and the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat completed the live connection between the UNFCCC International Transaction Log (ITL) and the Czech Registry. The whole process was synchronized between ITL, the European Union Community Independent Transaction Log (CITL) and 26 EU greenhouse gas emissions trading registries.

3. Updating CPR

Each Party included in Annex I shall maintain, in its national registry, a commitment period reserve which should not drop below 90 per cent of the Party’s assigned amount calculated pursuant to Article 3, paragraphs 7 and 8, of the Kyoto Protocol, or 100 per cent of five times the most recently reviewed inventory, whichever is lowest.

In the case of the Czech Republic, the relevant size of the Commitment Period Reserve is five times the most recent inventory (2007), which is calculated below:

$$5 \times 150,823,320 = \mathbf{754,116,602 \text{ t CO}_2 \text{ eq}}$$

4. Assigned Amount Information

The assigned amount pursuant to Article 3, paragraphs 7 and 8, has been calculated in accordance with the annex to decision 13/CMP.1. It amounts to 893,541,801 tonnes CO₂ equivalent. The Czech Republic has been fully eligible to the Kyoto protocol since 24 February 2008.

5. Other Issues

Annex I of this report includes voluntary reporting of emissions and removals arising from land use, land-use change and forestry (LULUCF) activities under Articles 3.3 and 3.4 of the Kyoto Protocol (KP).

Annex II of this report includes UN FCCC SEF tables.

I. Annex I

Emission and removal estimates from land use, land-use change and forestry (LULUCF) activities under Article 3.3 and 3.4 of the Kyoto Protocol: voluntary submission

I.1 Summary

The Czech Republic submits, on a voluntary basis, its emission and removal estimates arising from land use, land-use change and forestry (LULUCF) activities under Articles 3.3 and 3.4 of the Kyoto Protocol (KP). Art. 3.3 activities include Afforestation and Reforestation (AR¹) since 1990 and Deforestation (D). Of activities under Art. 3.4, Forest Management (FM) is the only activity elected by the Czech Republic for compliance with the Kyoto Protocol. The methodology is based on GPG for LULUCF (IPCC 2003) and it is linked to the greatest possible degree to the system of land-use change detection and emission inventory prepared under the Convention. The land-use change identification analytical system is based on annually reported data on land use in almost 13 000 cadastral units in the country. This submission uses the 2003 to 2007 period with its real activity data to mimic the actual KP commitment period (2008 – 2012). For this 5-year period, the estimated contribution of AR, D and FM reached -1.66, 1.05 and -25.8 Mt CO₂ eq., respectively. The contribution of FM varied from -7.31 Mt CO₂ eq. in 2005 (2010) to -1.19 Mt CO₂ eq. in 2007 (2012). With respect to the limitations to accounting for FM given by the prescribed cap of 0.32 Mt C (corresponding to a sink of -1.17 Mt CO₂) annually allocated to the Czech Republic, the accountable quantity for FM in 5-year period equals -5.87 Mt CO₂ eq. Hence, the entire accountable contribution of ARD and FM activities in the Czech Republic for the 1st Commitment Period (actual period of 2003-2007) would reach -6.47 Mt CO₂ eq.

I.2 General information

In its Initial Report under the Kyoto Protocol, the Czech Republic reported the required information with regard to the accounting for emissions and removals from land-use, land-use change and forestry (see unfccc.int). This includes information on the parameters of the forest definition, methods for identification of land areas associated with LULUCF activities, selection of activities under Article 3.4 of the Kyoto Protocol and the accounting period for emissions and removals resulting from LULUCF activities. This information is summarized below:

- For reporting LULUCF activities under Articles 3.3 and 3.4 of the Kyoto Protocol, forest land is defined as land with tree crown cover over at least 30 % (or equivalent stocking density) and an area of more than 0.05 hectares. Trees should reach a minimum height of 2 meters at maturity. Tree rows less than 20 meters wide are not considered to form a forest.
- Land areas associated with LULUCF activities will be identified within a geographic boundary encompassing units of land or land subject to multiple activities under Article 3.3 and 3.4 activities.
- The Czech Republic selected the optional activity of Forest Management (FM) under Article 3.4 of the Kyoto Protocol to be included in the accounting for the first commitment period.

¹ As both Afforestation and Reforestation under Article 3.3 are subject to the same provisions specified in the annex to draft decision -/CMP.1 (Land use, land-use change and forestry), attached to decision 11/CP.7, they can be reported together.

- The Czech Republic intends to account for the entire commitment period for the activities under Article 3.3 (Afforestation, Reforestation and Deforestation - ARD) and for Forest Management activity under Article 3.4.

With respect to FM, the Czech Republic adopts the broad definition (FCCC/CP/2001/13/Add.1; IPCC 2003). It reads “*Forest management*” is a system of practices for stewardship and use of forest land aimed at fulfilling relevant ecological (including biological diversity), economic and social functions of the forest in a sustainable manner.” This decision has implications for the area identification for FM as described below. No LULUCF joint implementation project under Art. 6 concerns the Czech Republic.

I.3 Methodology

This chapter describes the generic methodological approaches as applied to the LULUCF activities in this submission. Due to efforts to link the emission inventory under the Convention and that under the Kyoto Protocol, most of the methodological approaches are applicable identically in this voluntary submission and in Chapter 7 (LULUCF) of the 2009 NIR submission. Hence, reference is often made to the corresponding methodologies described in Chapter 7 of the NIR text, while additional and specific information related to Kyoto Protocol LULUCF activities is highlighted here. All the quantitative information related to this submission can be found in the appropriate tables of the “KP(LULUCF) v. 1.03” application. This Excel-based software tool was prepared and provided to us for voluntary reporting purposes by the UNFCCC Secretariat.

I.3.1 Land-related information

The key element of emission inventory both under the Convention as well as under the Kyoto Protocol is an adequate system of land use representation and land-use change identification. The adopted land-use representation and land-use change identification system has been gradually created since the 2007 NIR submission. It was radically improved in the 2008 NIR submission and further refined in 2009 NIR submission. The system has been developed so as to also fully meet the stringent requirements of activity reporting under the Kyoto Protocol. The current system of land-use representation and land-use change identification system as used here is exclusively based on the annually updated data from the Czech Office for Surveying, Mapping and Cadastre (COSMC; www.cuzk.cz) at the level of about 13 thousands individual cadastral units (Fig. 1). This system was created in several steps, including 1) source data assembly 2) linking land-use definitions 3) identification of land-use change 4) complementing time-series. These steps are described in detailed in Section 7.2.1 of the Czech NIR 2009 submission. The result is a system of consistent representation of land areas, ranking as Reporting Method 1 of the GPG for LULUCF (IPCC 2003), having the attributes of both Approach 2 and Approach 3 and permitting accounting for all mandatory land-use transitions in annual time steps.

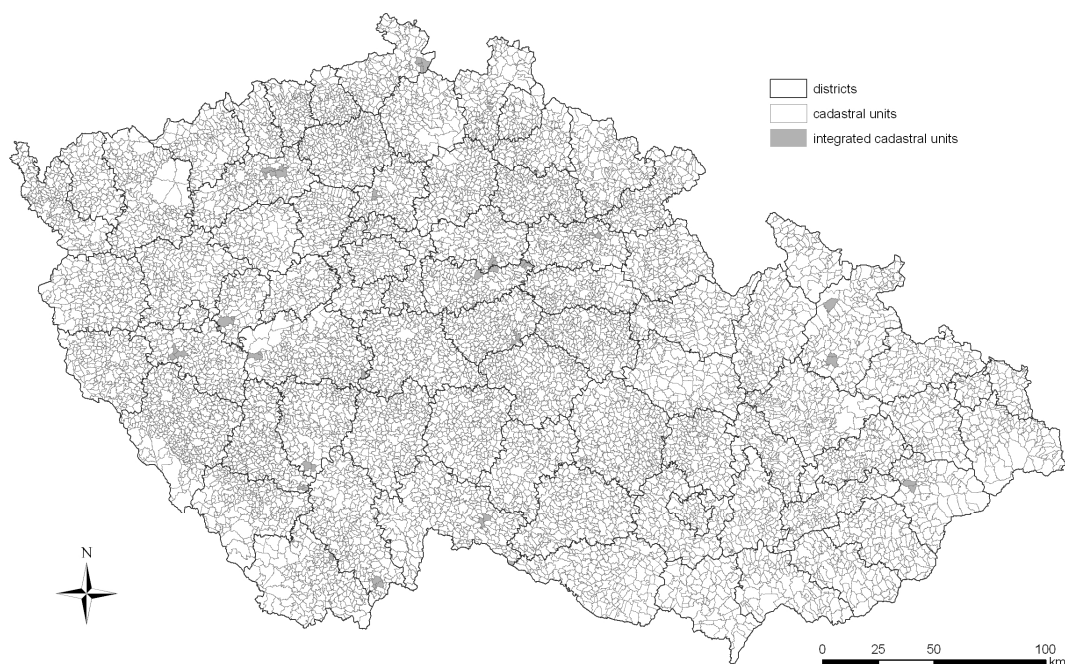


Fig. 1: The spatial detail of the latest land use representation and land-use change identification system used for detecting land use change associated with ARD activities. The areas of ARD were estimated on the level of individual cadastral units and, in rare (23 of 12 996) instances, for integrated cadastral units. The mean area of the unit entering analysis of land-use change was 6.07 km² (n=12 996) in 2007.

It is important to note that, due to the adoption of the broad definition of Forest Management, the concerned forest areas encompass the entire Forest Land category in the country, i.e., identically as used in the reporting under the Convention.

1.3.2 Emission estimation

The conceptual linkage between the AR, D and FM activities and the reporting based on land use categories under the Convention is as follows:

1. AR activity represents the following types of land-use conversions:
 - a. 5.A.2.1. *Cropland converted to Forest Land*
 - b. 5.A.2.2. *Grassland converted to Forest Land*
 - c. 5.A.2.3. *Wetlands converted to Forest Land*
 - d. 5.A.2.4. *Settlements converted to Forest Land*
2. D activity represents the following situations:
 - a. 5.B.2.1. *Forest land converted to Cropland*
 - b. 5.C.2.1. *Forest land converted to Grassland*
 - c. 5.D.2.1. *Forest land converted to Wetlands*
 - d. 5.E.2.1. *Forest land converted to Settlements*
3. FM activities affect emissions and removals correspondingly as described in category 5A2 *Forest land remaining Forest land*

The applicable methodology of GPG for LULUCF (IPCC 2003) for estimating emissions and removals for these categories is given in Chapter 3.2.2 for AR activities, while the emissions due to D are estimated based on the guidance given in Chapters 3.3.2, 3.4.2, 3.5.2 and 3.6.2

for the individual types of deforestation as listed above. The applied approaches, country-specific activity data and factors are described in detail in the NIR 2009 submission.

The emissions and/or removals of CO₂ are quantified for the changes in the individual ecosystem carbon pools, namely above-ground biomass, below-ground biomass, dead wood, litter and soil organic matter. Some methodological differences are a result of the fact that the Convention reporting uses only three pools, aggregating above and below-ground biomass into living biomass, and dead wood and litter into dead organic matter (see Table 3.1.2 in GPG for LULUCF, IPCC 2003).

Since the estimates of biomass carbon stock change on Forest Land under the Convention involve one default coefficient for the root/shoot ratio (R ; 0.23) and the equations of the default method involving multiplicative members, the attributing of carbon stock change to the below- and above-ground components, required for the reporting under Kyoto Protocol, was solely determined by R .

The estimation of carbon stock change in litter for AR and D activities was estimated jointly with the component of soil. This follows the methodology for soil carbon stock changes among Forest Land, Cropland and Grassland, based on interpreted soil carbon stock maps as described in 2009 NIR. Therefore, the notation key “IE” (included elsewhere) was used to indicate that the litter carbon stock change is estimated jointly with changes in the soil carbon pool.

In contrast, carbon stock change of litter and soil carbon pools under FM is not estimated as no net CO₂ emissions are assumed. For this, we use reasoning based on the peer-reviewed modeling analysis performed for the actual circumstances of FM in the country (Cienciala et al. 2008). This analytical study confirms that, for the range of scenarios with FM obeying sustainability principles as adopted in the country, no loss of carbon in soils is projected, including the likely effect of changing climatic conditions on soil decomposition. Therefore, the notation key “NR” is used for both litter and soil under FM activity.

The carbon stock change in deadwood was estimated for all types of D events. It was based on the mean deadwood volume for the individual categories of the reported lying deadwood according to the degree of decomposition (FMI 2007). These categories are defined as follows: i) basically solid wood; ii) peripheral layers soft, central hard; iii) peripheral layers hard, central soft; iv) totally rotten wood. The amount of carbon was estimated as the product of the wood volume, density weighted by mean growing stock volume of major tree species (0.433 t/m³), reduction coefficients of 0.8, 0.5, 0.5, 0.2 (Cerny et al. 2002; Carmona et al. 2002) applicable to the above decomposition categories, respectively, and the carbon fraction in the wood (0.5 t C/t biomass). For the FM activity, which resembles the category *5A1 Forest land remaining Forest land*, the Tier 1 assumption of GPG for LULUCF (IPCC 2003), resp. IPCC Guidelines (IPCC 2006) of no significant change was adopted. However, under the real circumstances of the Kyoto Protocol commitment period, the carbon stock change of deadwood for FM will most likely be revised using independent Tier 2 or Tier 3 estimation based on the results of the recently implemented statistical landscape inventory in the Czech Republic.

Additional emissions of CO₂ may arise from liming on forest soil. Note that liming on forest soil is not included in the Convention reporting, where the emission reporting concerning liming is restricted to the agricultural land-use categories of Cropland and Grassland.

Since some liming on Forest Land occurs in the Czech Republic, it is reported in this submission in the corresponding tables, using the methodology described in Section 3.3.1.2.1 of GPG for LULUCF (IPCC 2003). The activity data in terms of forest area and amount of limestone applied were taken from the national reports on Czech forestry (Green reports, e.g., MA 2009). In the 2003 to 2007 period, the amount of lime applied to forest soils varied from 2.57 to 16.8 kton/year and concerned an area ranging from 0.9 to 5.6 kha in those years.

Additional greenhouse gases (CO₂, CH₄ and N₂O) are quantified from biomass burning, while N₂O emissions should be reported from N-fertilization, soil drainage and Forest Land converted to Cropland. Of these activities, burning is confined to the activity of FM, hence matching the corresponding estimates under the Convention for the land-use category *5A1 Forest Land remaining Forest Land*. Soil drainage is not applicable for the reporting period. The N₂O emissions are reported for deforestation of the forest land that is converted to Cropland. This is identical as reported under the Convention for category *5.B.2.1*.

I.4 Areas and emission estimates for LULUCF activities

I.4.1 Identified areas of AR and D

The identified areas of the AR and D activities summed for the individual years in the 2003 to 2007 period are shown in Fig. 2. As the land-use identification system permits attribution of source land use categories for AR and target land-use categories for D, the shares of these categories are also identified in Fig. 2. It can be observed that the largest share of D is due to expansion of Settlements, which also includes land used for transport infrastructure and mining. However, as the gross AR is larger than D, the forest area is constantly increasing in this country (see also 2009 NIR text).

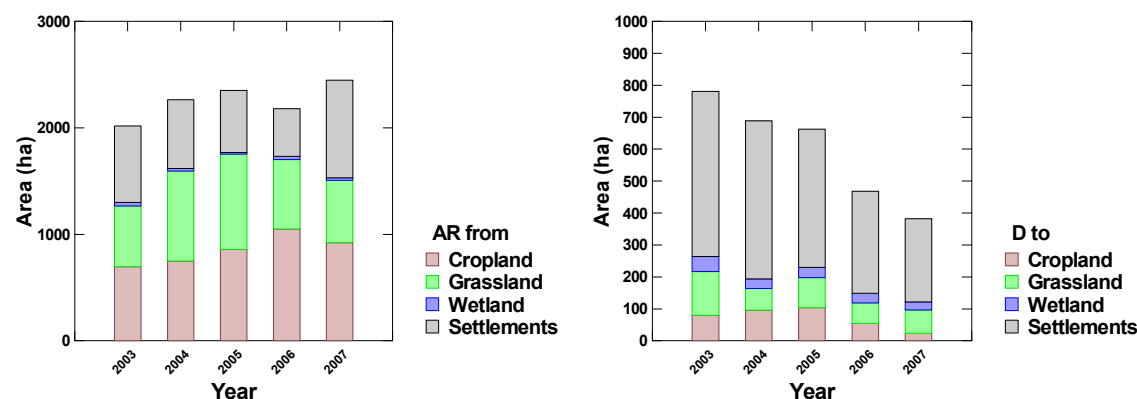


Fig. 2: The identified areas of AR (left) and D (right) for the reporting period, including source and target land-use categories. Note that, in the reporting tables, the reported years 2008 to 2012 correspond to the actual data from the years 2003 to 2007 as shown here.

Considering the small area of the country and its specific conditions, there is no applicable stratification that would justify reporting on smaller than a country-level unit. This is also supported by the attributes of the available activity data. However, the adopted land-use representation and land-use change identification system permit detailed spatial assessment and identification of AR and D activities at the level of the individual cadastral units. This is exemplified in Fig. 3 for the year 2007 (2012 in the reporting tables).

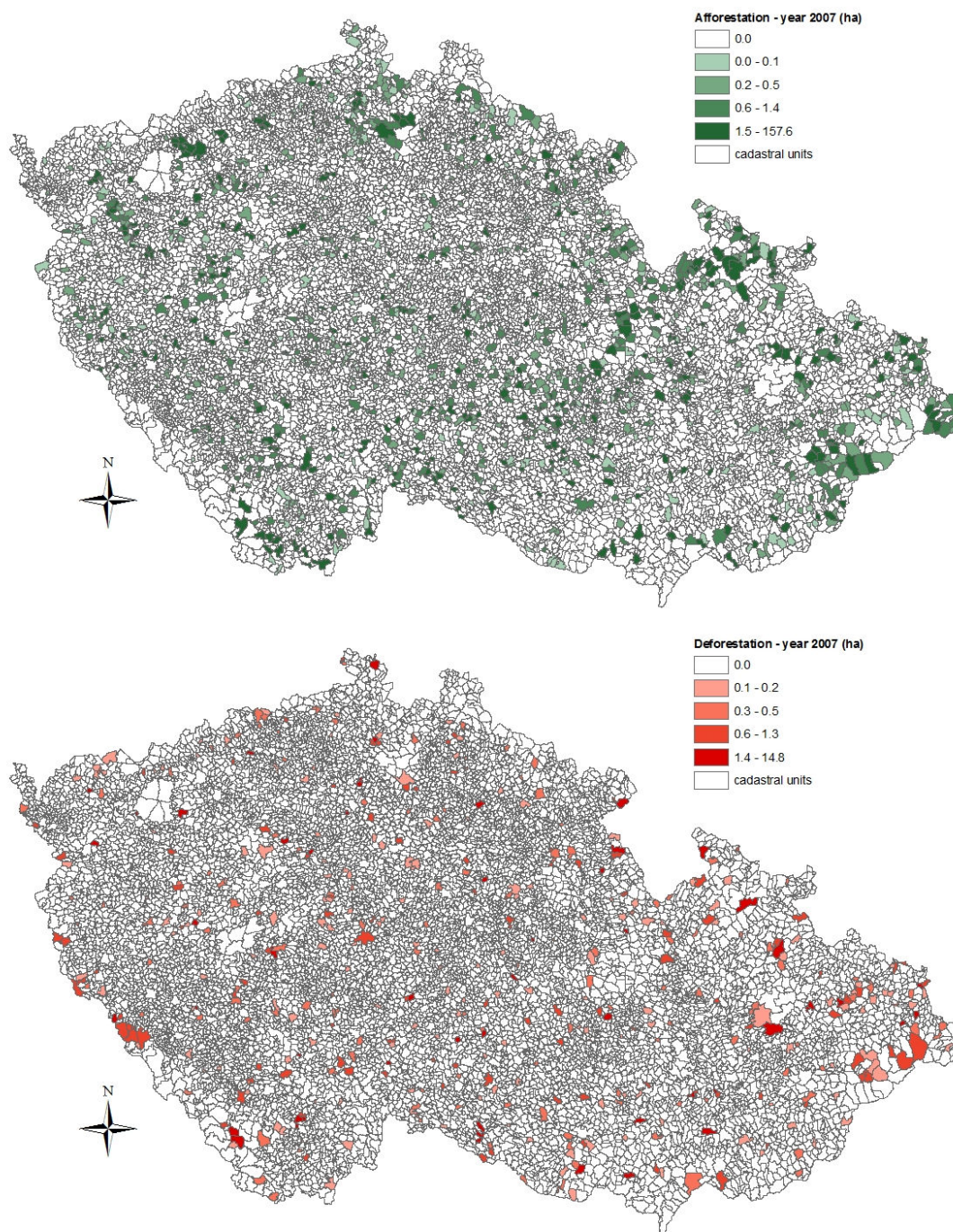


Fig. 3: Spatial identification of AR (top) and D (bottom) activities for the example year 2007 (2012 in the reporting tables). Each cadastral unit with non-zero occurrence of AR or D activity is identified and marked using the color scales in ha units.

1.4.2 Estimated emission and removals

The estimated emissions and removals for the AR, D and FM activities during the hypothetical commitment period 2008-2012, represented by the real data from 2003 to 2007, are shown in Fig. 4.

The emission estimates for AR range from -0.27 Mt C/year in 2003 to -0.39 Mt C/year in 2007. This trend in emission removals reflects the increasing tree growth rates in the newly

afforested areas, as well as the increasing area contributing to this category. The sum of emissions and removals due to AR equals -1.66 Mt C for the entire five-year period.

The emission estimates for D range from 0.27 Mt C/year in 2003 to 0.19 Mt C/year in 2007. The whole period shows a decreasing trend in emissions, which corresponds to the decreasing rate of D in terms of areas (Fig. 2 right). The sum of emissions and removals due to D equals 1.05 Mt C for the entire five-year period.

The emission estimates for the FM range represent removals of emissions that range from -7.31 Mt/year in 2003, to -3.96 and -1.19 Mt C/year in 2006 and 2007, respectively. This reflects the all-time high harvest volumes reported for 2006 and 2007 in the Czech Republic, partly resulting from the heavy salvage logging following the Kyrill windstorm in 2007. Note, however, that, in all instances (in 2007 only slightly), the estimated removals exceeded the prescribed cap of 0.32 Mt C/year (removals equal to -1.17 Mt CO₂) allocated for the FM accounting in the Czech Republic (Fig. 4). Hence, the accounting quantity for FM equals 1.60 Mt C, which equals removals of -5.87 Mt CO₂ for the entire (Commitment) period.

The totally accountable quantity amounts to the sum of AR, D and the FM contribution, which equals a total of -6.47 Mt CO₂ eq. for the entire (Commitment) period.

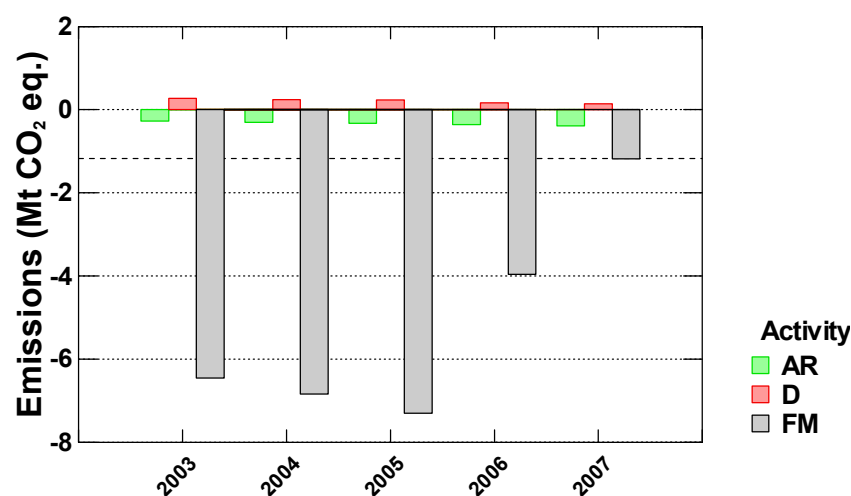


Fig. 4: The estimated emissions for AR, D and FM for the years 2003 to 2007 (used as 2008 to 2012 in the reporting tables). The dashed line shows the amount of the prescribed FM cap accountable for the emission reduction commitments of the Czech Republic.

The detailed data on the estimated emissions for all the mandatory categories, as well as other related underlying information, are reported in the corresponding tables of the “KP(LULUCF) v. 1.03” application (in file “KP_LULUCF_CZ_2009.zip”).

1.5 Complementary information

1.5.1 Uncertainty estimation

Uncertainty estimation is not provided in this voluntary reporting. The expected uncertainty can partly be assessed from the estimations provided in the current (2009) NIR submission. The uncertainty calculation is still “under construction” for the purpose of KP reporting. It will be implemented in the coming submission.

1.5.2 QA/QC

The emission estimates are based on the activity data taken from the official national sources and follow the recommendations of GPG for LULUCF. The data sources are verifiable and updated annually. All the input information and calculations are archived by the expert team and the coordinator of NIR. Hence, all the background data and calculations are verifiable. Other QA/QC elements were adopted in the same manner as described in Section 7.3.4 of the 2009 NIR submission. This section will undergo a further enhancement for the next submission.

1.5.3 Planned improvements

Apart from improving and/or enhancing the uncertainty assessment and QA/QC as noted above, the next submission under the KP will improve the overall transparency of the text and adopt the recommendations of the next in-country review of the Czech emission inventory in 2009.

We assume that a new CRF reporting tool will soon also be available for reporting under the KP and will replace the currently barely suitable application “KP(LULUCF) v. 1.03”.

I.6 References

2006 IPCC Guidelines for National Greenhouse Gas Inventories, Vol. 1-5, IPCC 2006

Carmona, M.R., Armesto, J.J., Aravena, J.C. & Perez, C.A. 2002. Coarse woody debris biomass in successional and primary temperate forests in Chiloe Island, Chile. *Forest Ecology and Management* 164: 265-275.

Černý, M., Cienciala, E., Russ, R. (2002): *Methodology for Carbon Stock Monitoring* (Ver. 3.2). Report for the Face Foundation. IFER - Institute of Forest Ecosystem Research, Jilove u Prahy, Czech Republic, 70 pp.

Cienciala, E., Exnerova, Z. & Schelhaas, M.J. 2008. Development of forest carbon stock and wood production in the Czech Republic until 2060. *Annals of Forest Science* 65: 603

Czech Republic's Initial Report under the Kyoto Protocol. Ministry of Environment of the Czech Republic, Prague, October 2006

FMI (2007): *National Forest Inventory in the Czech Republic 2001-2004*. Introduction, Methods, Results. Forest Management Institute, Brandys nad Labem, 224 pp

Good Practice Guidance for Land Use, Land Use Change and Forestry, IPCC 2003

MA (2008) *Report on the state of forests and forestry in the Czech Republic 2007* (Green Report). Ministry of Agriculture.

II. Annex II

UN FCCC SEF tables

Tables in MS Excel are in file “SEF_CZ_2009_1_13-47-40 15-4-2009.zip”

Table 1

Party Czech Republic
 Submission year 2009
 Reported year 2008
 Commitment period 1

Table 1. Total quantities of Kyoto Protocol units by account type at beginning of reported year

Account type	Unit type				
	AAUs	ERUs	RMUs	CERs	tCERs
Party holding accounts	NO	NO	NO	NO	NO
Entity holding accounts	NO	NO	NO	NO	NO
Article 3.3/3.4 net source cancellation accounts	NO	NO	NO	NO	NO
Non-compliance cancellation accounts	NO	NO	NO	NO	NO
Other cancellation accounts	NO	NO	NO	NO	NO
Retirement account	NO	NO	NO	NO	NO
tCER replacement account for expiry	NO	NO	NO	NO	NO
ICER replacement account for expiry	NO	NO	NO	NO	NO
ICER replacement account for reversal of storage	NO	NO	NO	NO	NO
ICER replacement account for non-submission of certification report	NO	NO	NO	NO	NO
Total	NO	NO	NO	NO	NO

Table 2(a)

Party Czech Republic
 Submission year 2009
 Reported year 2008
 Commitment period 1

Table 2 (a). Annual internal transactions

Transaction type	Additions							Subtractions						
	Unit type							Unit type						
	AAUs	ERUs	RMUs	CERs	tCERs	ICERs		AAUs	ERUs	RMUs	CERs	tCERs	ICERs	
Article 6 issuance and conversion														
Party-verified projects		NO						NO		NO				
Independently verified projects		NO						NO		NO				
Article 3.3 and 3.4 issuance or cancellation														
3.3 Afforestation and reforestation			NO					NO	NO	NO	NO			
3.3 Deforestation			NO					NO	NO	NO	NO			
3.4 Forest management			NO					NO	NO	NO	NO			
3.4 Cropland management			NO					NO	NO	NO	NO			
3.4 Grazing land management			NO					NO	NO	NO	NO			
3.4 Revegetation			NO					NO	NO	NO	NO			
Article 12 afforestation and reforestation														
Replacement of expired tCERs								NO	NO	NO	NO	NO		
Replacement of expired ICERs								NO	NO	NO	NO			
Replacement for reversal of storage								NO	NO	NO	NO		NO	
Replacement for non-submission of certification report								NO	NO	NO	NO		NO	
Other cancellation								NO	NO	NO	NO	NO	NO	
Sub-total		NO	NO					NO	NO	NO	NO	NO	NO	

Transaction type	Retirement						
	Unit type						
	AAUs	ERUs	RMUs	CERs	tCERs	ICERs	
Retirement	NO	NO	NO	NO	NO	NO	

Table 2 (b). Annual external transactions

	Additions						Subtractions					
	Unit type						Unit type					
	AAUs	ERUs	RMUs	CERs	tCERs	iCERs	AAUs	ERUs	RMUs	CERs	tCERs	iCERs
Transfers and acquisitions	AT	95840	NO	NO	4056	NO	NO	327106	NO	NO	NO	NO
	DE	5000	NO	NO	47301	NO	NO	8147068	NO	NO	NO	NO
	DK	46475	NO	NO	NO	NO	NO	899585	NO	NO	NO	NO
	ES	NO	NO	NO	NO	NO	NO	75000	NO	NO	NO	NO
	EU	NO	NO	NO	NO	NO	NO	1884071	NO	NO	NO	NO
	FR	747712	NO	NO	2388031	NO	NO	7728890	NO	NO	100450	NO
	GB	782000	NO	NO	1626050	NO	NO	11489825	NO	NO	NO	NO
	HU	NO	NO	NO	NO	NO	NO	40000	NO	NO	118	NO
	CH	NO	NO	NO	986602	NO	NO	NO	NO	NO	4500	NO
	IE	NO	NO	NO	NO	NO	NO	1000	NO	NO	NO	NO
	NL	1099000	NO	NO	NO	NO	NO	4749000	NO	NO	NO	NO
	PL	NO	NO	NO	NO	NO	NO	600	NO	NO	NO	NO
	RO	37000	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
	SK	3610583	NO	NO	NO	NO	NO	35712	NO	NO	617838	NO
Sub-total		6423610	NO	NO	5052040	NO	NO	35377857	NO	NO	722906	NO

Additional information

[illegible]

Table 2 (c). Total annual transactions

Total (Sum of tables 2a and 2b)	6423610	NO	NO	5052040	NO	NO	35377857	NO	NO	722906	NO	NO
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Table 3

Party Czech Republic
 Submission year 2009
 Reported year 2008
 Commitment period 1

Table 3. Expiry, cancellation and replacement

Transaction or event type	Expiry, cancellation and requirement to replace		Replacement					
	Unit type		Unit type					
	tCERs	ICERs	AAUs	ERUs	RMUs	CERs	tCERs	ICERs
Temporary CERs (tCERs)								
Expired in retirement and replacement accounts	NO							
Replacement of expired tCERs			NO	NO	NO	NO	NO	
Expired in holding accounts	NO							
Cancellation of tCERs expired in holding accounts	NO							
Long-term CERs (ICERs)								
Expired in retirement and replacement accounts		NO						
Replacement of expired ICERs			NO	NO	NO	NO		
Expired in holding accounts		NO						
Cancellation of ICERs expired in holding accounts		NO						
Subject to replacement for reversal of storage								
Replacement for reversal of storage			NO	NO	NO	NO		NO
Subject to replacement for non-submission of certification report		NO						
Replacement for non-submission of certification report			NO	NO	NO	NO	NO	NO
Total			NO	NO	NO	NO	NO	NO

Table 4

Party Czech Republic
 Submission year 2009
 Reported year 2008
 Commitment period 1

Table 4. Total quantities of Kyoto Protocol units by account type at end of reported year

Account type	Unit type				
	AAUs	ERUs	RMUs	CERs	ICERs
Party holding accounts	8.08E+08	NO	NO	NO	NO
Entity holding accounts	56992508	NO	NO	4329134	NO
Article 3.3/3.4 net source cancellation accounts	NO	NO	NO	NO	NO
Non-compliance cancellation accounts	NO	NO	NO	NO	NO
Other cancellation accounts	NO	NO	NO	NO	NO
Retirement account	NO	NO	NO	NO	NO
tCER replacement account for expiry	NO	NO	NO	NO	NO
ICER replacement account for expiry	NO	NO	NO	NO	NO
ICER replacement account for reversal of storage	NO	NO	NO	NO	NO
ICER replacement account for non-submission of certification report	NO	NO	NO	NO	NO
Total	8.65E+08	NO	NO	4329134	NO

Table 5 (a)

Party Czech Republic
 Submission year 2009
 Reported year 2008
 Commitment period 1

Table 5 (a). Summary information on additions and subtractions

	Additions							Subtractions						
	Unit type							Unit type						
	AAUs	ERUs	RMUs	CERs	tCERs	ICERs	AAUs	ERUs	RMUs	CERs	tCERs	ICERs	AAUs	ICERs
Starting values														
Issuance pursuant to Article 3.7 and 3.8	8.94E+08													
Non-compliance cancellation														
Carry-over	NO	NO		NO			NO	NO	NO	NO				
Sub-total	8.94E+08	NO		NO			NO	NO	NO	NO				
Annual transactions														
Year 0 (2007)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year 1 (2008)	6423610	NO	NO	5052040	NO	NO	35377857	NO	NO	722906	NO	NO	NO	NO
Year 2 (2009)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year 3 (2010)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year 4 (2011)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year 5 (2012)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year 6 (2013)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year 7 (2014)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year 8 (2015)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Sub-total	6423610	NO	NO	5052040	NO	NO	35377857	NO	NO	722906	NO	NO	NO	NO
Total	9E+08	NO	NO	5052040	NO	NO	35377857	NO	NO	722906	NO	NO	NO	NO

Table 5 (b); Table 5 (c)

Party Czech Republic
 Submission year 2009
 Reported year 2008
 Commitment period 1

Table 5 (b). Summary information on replacement

	Requirement for replacement		Replacement					
	Unit type		Unit type					
	tCERs	ICERs	AAUs	ERUs	RMUs	CERs	tCERs	ICERs
Previous CPs			NO	NO	NO	NO	NO	NO
Year 1 (2008)		NO	NO	NO	NO	NO	NO	NO
Year 2 (2009)		NO	NO	NO	NO	NO	NO	NO
Year 3 (2010)		NO	NO	NO	NO	NO	NO	NO
Year 4 (2011)		NO	NO	NO	NO	NO	NO	NO
Year 5 (2012)		NO	NO	NO	NO	NO	NO	NO
Year 6 (2013)	NO	NO	NO	NO	NO	NO	NO	NO
Year 7 (2014)	NO	NO	NO	NO	NO	NO	NO	NO
Year 8 (2015)	NO	NO	NO	NO	NO	NO	NO	NO
Total	NO	NO	NO	NO	NO	NO	NO	NO

Table 5 (c). Summary information on retirement

Year	Retirement					
	Unit type					
	AAUs	ERUs	RMUs	CERs	tCERs	ICERs
Year 1 (2008)	NO	NO	NO	NO	NO	NO
Year 2 (2009)	NO	NO	NO	NO	NO	NO
Year 3 (2010)	NO	NO	NO	NO	NO	NO
Year 4 (2011)	NO	NO	NO	NO	NO	NO
Year 5 (2012)	NO	NO	NO	NO	NO	NO
Year 6 (2013)	NO	NO	NO	NO	NO	NO
Year 7 (2014)	NO	NO	NO	NO	NO	NO
Year 8 (2015)	NO	NO	NO	NO	NO	NO
Total	NO	NO	NO	NO	NO	NO

Table 6 (a); Table 6 (b); Table 6 (c)

Party Czech Republic
 Submission year 2009
 Reported year 2008
 Commitment period 1

Table 6 (a). Memo item: Corrective transactions relating to additions and subtractions

		Additions					Subtractions				
		Unit type					Unit type				
		AAUs	ERUs	RMUs	CERs	tCERs	AAUs	ERUs	RMUs	CERs	tCERs

Table 6 (b). Memo item: Corrective transactions relating to replacement

		Requirement for replacement		Replacement						
		Unit type		Unit type						
		tCERs	ICERs	AAUs	ERUs	RMUs	CERs	tCERs	ICERs	

Table 6 (c). Memo item: Corrective transactions relating to retirement

		Retirement					
		Unit type					
		AAUs	ERUs	RMUs	CERs	tCERs	ICERs