ForestNavigator

D5.2 Report on HWP contribution potentials to EU forest sector mitigation

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Abstract

The D5.2 report analyzes CO_2 emissions and removals arising from Harvested Wood Products (HWP) with a focus on five out of a total of 18 calculated scenarios, including alternative levels for wood demand and wood uses as defined in the ForestNavigator project (see D5.1). The estimates are based on the two pool-based approaches as described by the Intergovernmental Panel on Climate Change (IPCC), applied at the country scale and aggregated at the EU scale. The results show the determined HWP contribution to biogenic CO_2 emissions and removals associated with the production or the consumption of wood products both for the historical development and the future period 2024-2050, including an overview of the uncertainties due to the underlying data, the modeling framework and its assumptions. The results will serve as a basis for calibrating the HWP pool calculator to be integrated in the ForestNavigator WP6-7 policy modelling toolbox.

Keywords

Harvested Wood Products, biogenic CO_2 emissions and removals, approaches, wood use

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Abbreviations

CEN	European Committee for Standardization (French for: Comité Européen de Normalisation
EU	European Union
FLrFL	Forest Land remaining Forest Land
FMRL	Forest Management Reference Level
FN	ForestNavigator project
GHG	Greenhouse gas
HWP	Harvested Wood Products
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
LCA	Life cycle assessment
LULUCF	Land use, land-use change and forestry
NES	Not elsewhere specified
UNFCCC	United Nations Framework Convention on Climate Change
WP	Work Package

Executive summary

This report presents the results of the estimation of historic and future CO_2 emissions and removals arising from Harvested Wood Products (HWP), which are based on the D5.1 ForestNavigator (FN) report. After a background chapter where we explain the underlying methodologies and the applied models GLOBIOM and WoodCarbonMonitor, our results focus on the following five out of 18 scenarios calculated in ForestNavigator. These scenarios examine relevant and currently discussed policy concepts:

- The **"baseline" scenario** extrapolates the latest development in the field of bioenergy demand and the use of wood in the construction sector and maintains baseline developments in recycling rates for mechanical wood fibers.
- The **"high harvest" scenario** includes the highest level of harvest among the scenarios evaluated in this report. It considers high bioenergy demand, high consumption of timber for the construction sector, and baseline recycling of wood.
- The **"high harvest + circularity" scenario** includes assumptions on increasing the share of recycled wood fibers from the mechanical industry over time, in addition to the underlying assumptions from the "high harvest" scenario.
- The **"baseline + high construction" scenario** differs from the "baseline" scenario by increasing the demand from the construction sector.
- The **"low harvest" scenario** assumes the lowest harvest level in this report due to a low wood demand for bioenergy, relatively low wood use in the construction sector, and a high recycling rate for mechanical wood fibers.

The results presentation and subsequent discussion focus on the analysis at the EU level. These aggregate results for the HWP contribution are based exclusively on the results of the calculations for the EU Member States. Due to data availability and quality, and to ensure compatibility with the project results on carbon estimates in forests, we apply the two HWP approaches based on the pool concept (i.e. production and stock change approaches). They differ mainly in how traded HWPs are accounted for in the estimation and, therefore, yield different results for CO_2 emissions and removals arising from HWP. The underlying country-specific information is included in two Annexes. Since the available historical activity data of the countries differ considerably, which also affects the EU results, a further focus of the discussion is the evaluation of uncertainties associated with the estimation of the historic and future time series of the HWP contribution, including:

- the lack of sufficiently robust or available historical data on HWP for some countries,
- the general quality of the available time series for the countries in terms of the completeness of the respective HWP data,
- high variability and often contrary historical trends in the development of the production of individual semi-finished wood products and their raw materials in the EU Member States, as well as their import and export volumes, and
- uncertainties concerning the transition in the time series from historical to scenario data on HWP production and trade.

The analysis reveals that the wood demand projections for some of the countries are still preliminary and would benefit from further modelling calibrations in GLOBIOM. This will be done in the ForestNavigator project during the cross-scale alignment of GLOBIOM and national forest models (i.e., Italy, Czechia, Italy, and Sweden) under a common baseline scenario.

1. Introduction

Wood consists of 50% carbon in its dry matter and is part of the biogenic carbon cycle. The material use of this renewable resource can contribute to climate change mitigation through the delayed release of this biogenic carbon.

In addition to forests as part of the biogenic carbon cycle and the non-biogenic / fossil greenhouse gas (GHG) emissions associated with the processing of timber into consumer goods in the wood-based manufacturing industries and their subsequent usage in various market segments (see D5.1 and D5.3 FN reports), biogenic emissions along the processing and utilization chain of wood represents the third major effect that must be considered when estimating the overall impact of the forest-based sector on the GHG balance.

Numerous scientific studies have addressed the impact of the use of harvested wood products (HWP) on the biogenic carbon storage effect, especially since it has become increasingly relevant in climate policy (UNFCCC 1997d; UNFCCC 1997b; UNFCCC 1997c; Brown et al. 1998; UNFCCC 2003). And so it quickly became apparent that, due to the different approaches to calculating the delayed release of biogenic carbon, the estimation of the HWP contribution also contained a component that could only be solved politically, in addition to purely technical and methodological issues. In this context, the term “approach” has a special meaning, which will be discussed in more detail in chapter 2.1. This relates to the question of how traded HWP or the carbon they contain are taken into account in a country's GHG balance. In the course of negotiations among member states of the United Nations Framework Convention on Climate Change (UNFCCC 1992) on the design of rules for accounting for HWP in the land use, land use change and forestry (LULUCF) sector under the Kyoto Protocol (UNFCCC 1997a), these were initially suspended by Decision 11/CP.7 in Marrakesh (UNFCCC 2002). Accordingly, the HWP contribution to CO_2 emissions and removals during the first Kyoto Protocol commitment period was based on the assumption of instantaneous oxidation (i.e. an assumption of a steady-state carbon pool in HWP with no net impact on countries’ GHG balances, see IPCC 2003, Rüter et al. 2014 and Rüter et al. 2019).

In 2012, the UNFCCC Parties were finally able to agree on one global approach in the course of discussions on an extension of the Kyoto Protocol for a second commitment period, in particular, to avoid double counting of GHG associated with traded carbon in HWP (UNFCCC 2012, Rüter 2017). Since then, the production approach has been used for reporting under both the Kyoto Protocol and its subsequent Paris Agreement, which were transposed into European law with the LULUCF Regulation (European Union 2013; European Union 2018; European Union 2023).

Nevertheless, there is no single “correct” or “right” approach. Rather, the question to be answered in connection with the use of wood and its GHG mitigation or reduction potential is decisive. On the one hand, this may relate more to the supply side, i.e. the question of the effects of different forest management regimes on the availability of the raw material and its downstream use or concepts such as how increased material use of wood in buildings or the implementation of circular concepts in the use of the raw material affect the GHG balance of the forest-based sector.

The aim of this report is to analyze CO_2 emissions and removals arising from HWP according to the scenarios, including alternative levels of wood demands and wood uses as defined in the ForestNavigator D5.1. The estimate of the HWP contribution relies on using two alternative approaches as described by the Intergovernmental Panel on Climate Change (IPCC), applied at the country scale and aggregated at the EU scale. The results of this assessment are expected to disclose the potential contribution of the HWP pool to sectorial mitigation during the period 2020-2050, including an indication of the uncertainties due to the underlying data and assumptions. At the same time, the results will serve as a basis for calibrating the HWP pool calculator to be

integrated in WP6-7 policy modelling toolbox. In order to keep this paper clear and concise, only the key results of five selected scenarios out of a total of 18 calculated scenarios are presented here.

2. Methodological framework

2.1. IPCC methodology and applied system boundaries

As for all other GHG categories or sectors, the reports published by the IPCC Task Force for National Greenhouse Gas Inventories are also relevant for estimating the contribution of HWP to biogenic CO_2 emissions and removals (IPCC 1997; IPCC 2003; IPCC 2006; IPCC 2014 and IPCC 2019). These guidelines contain the latest scientific methodological information on how to estimate CO_2 emissions and removals in line with good practice and furthermore provide information on the conceptual differences between different possible approaches to calculating the HWP contribution.

In this context, particular attention is drawn to the meaning of two terms that have often been used interchangeably but which make a significant difference when estimating the HWP contribution (see Cowie et al. 2006). While the term "method" refers to the set of calculations required to implement a particular approach for estimating CO_2 emissions and removals by HWP, the term "approach" in this context comprises a conceptual aspect for estimating CO_2 emissions and removals (see Brown et al. 1998; UNFCCC 2003; Cowie et al. 2006). The latter involves two conceptual frameworks, one based on estimating the HWP contribution using changes in carbon stocks in defined HWP pools (i.e. the production and the stock-change approaches) and the other (i.e. the atmospheric flow approach) based on identifying and quantifying actual CO_2 emissions along the entire forest and wood chain. The next section provides an overview and further description of these approaches.

2.1.1. Approaches for estimating the HWP contribution

The **atmospheric-flow approach**, which implements the latter concept, theoretically counter-calculates the forest increment with all the carbon losses along the entire forest and wood chain in the form of CO_2 emissions into the atmosphere. However, in practice, a comprehensive physical measurement of fluxes and CO_2 emissions into the atmosphere along the wood processing chain is technically difficult.

Therefore, UNFCCC decisions and also the EU LULUCF regulation refer to the pool concept by defining pools that are to be considered when estimating CO_2 emissions and removals (UNFCCC 2012; European Union 2018; European Union 2023). For forests, this has already been established under the Kyoto-Protocol's Marrakesh Accords, which state that "each Party included in Annex I shall account for all changes in the following carbon pools: above-ground biomass, below-ground biomass, litter, dead wood, and soil organic carbon" (UNFCCC 2002).

In the absence of any data describing CO_2 emissions due to wood used along the forest and wood chain that would allow easy implementation of the atmospheric-flow approach, also IPCC generally proposes modelling and calculations on the basis of annually available statistical data on the production and foreign trade of semi-finished wood products.

Since every export of a product also corresponds to an import in another country, the question of how to allocate and consider the respective data time series impacts the activity data and carbon quantities used to calculate a country's CO_2 emissions budget. As explained further in Rüter et al. 2019, an "approach" thus also defines which activity data in which combination are to be included in a country's estimate and which CO_2 emissions and removals arising from HWP are finally reported.

In contrast to the flux-oriented atmospheric-flow approach, which must be carefully adapted to the data and estimates related to biogenic CO_2 emissions from forests and for which almost all potentially available data also on imported woody biomass is supposed to be used to enable a consistent estimate of CO_2 emissions from woody biomass, the two pool-based approaches described below (i.e. production and stock-change approach) in essence aim to track year-to-year changes in carbon stocks in the HWP pool and then infer the CO_2 emissions and removals arising from HWP from these stock changes. The focus of these approaches is, therefore, implicitly to estimate the effect of delaying CO_2 emissions by using wood as a material. CO_2 emissions from woody biomass arising from its energetic use along the processing chain are determined either as carbon loss from the upstream forest carbon pool or using the algorithms provided by the IPCC to estimate the stored carbon quantities.

As mentioned in the introduction, in 2012, the international community under UNFCCC agreed on the **production approach** for estimating and reporting greenhouse gas emissions and removals by HWP, so that from a global perspective, transparency, completeness and consistency in calculations and reported estimates are ensured and, in particular, double or missing counting of emissions and removals is avoided (UNFCCC 2012; European Union 2018; European Union 2023).

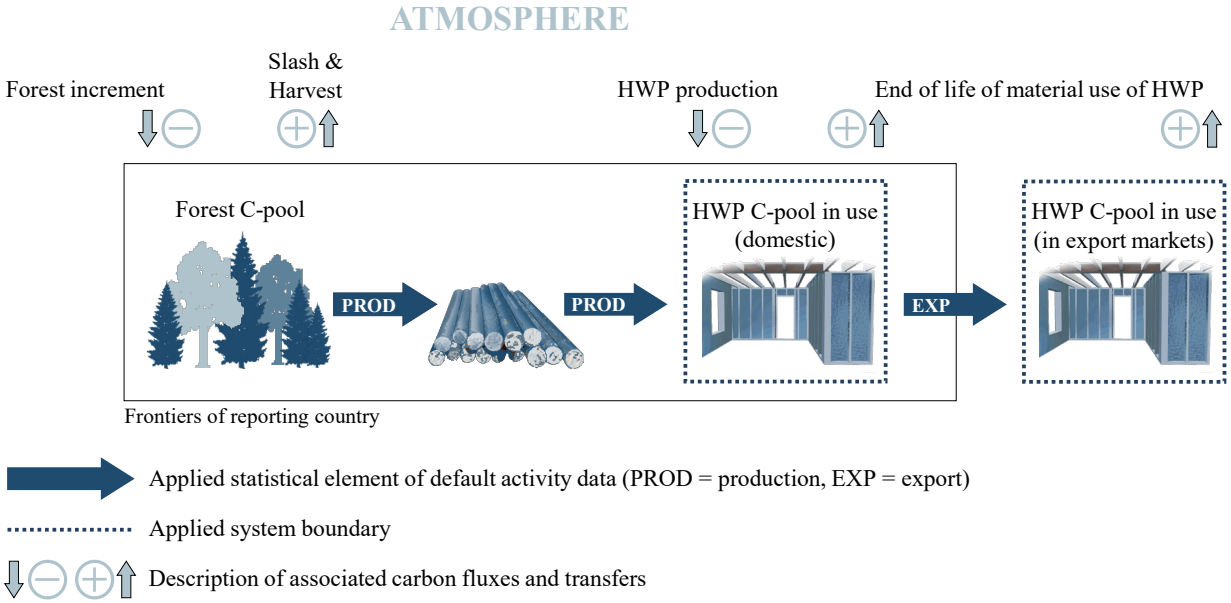

Figure 2.1.1-A: Conceptual illustration of the 'production' approach, estimating CO_2 emissions and removals arising from the carbon stock in the HWP pool in use on the basis of production data of HWP (Rüter et al. 2019)

This approach is particularly useful for analyzing the possible effects of different forest management options and the resulting supply of woody biomass because the analyzed carbon pool is fed exclusively by domestically produced HWP originating from domestic forests that are used for material purposes. Since the HWP pool consists of all products made from wood that is harvested domestically, it contains not just those products consumed domestically but also its exported products that are exported and used in other countries. In other words, when applying the production approach, the "producing country" reports carbon stock changes from HWP produced by that country, regardless of where the HWP are consumed and used (Rüter et al. 2019). The conceptual framework and the system boundaries of the production approach are shown in Figure 2.1.1-A.

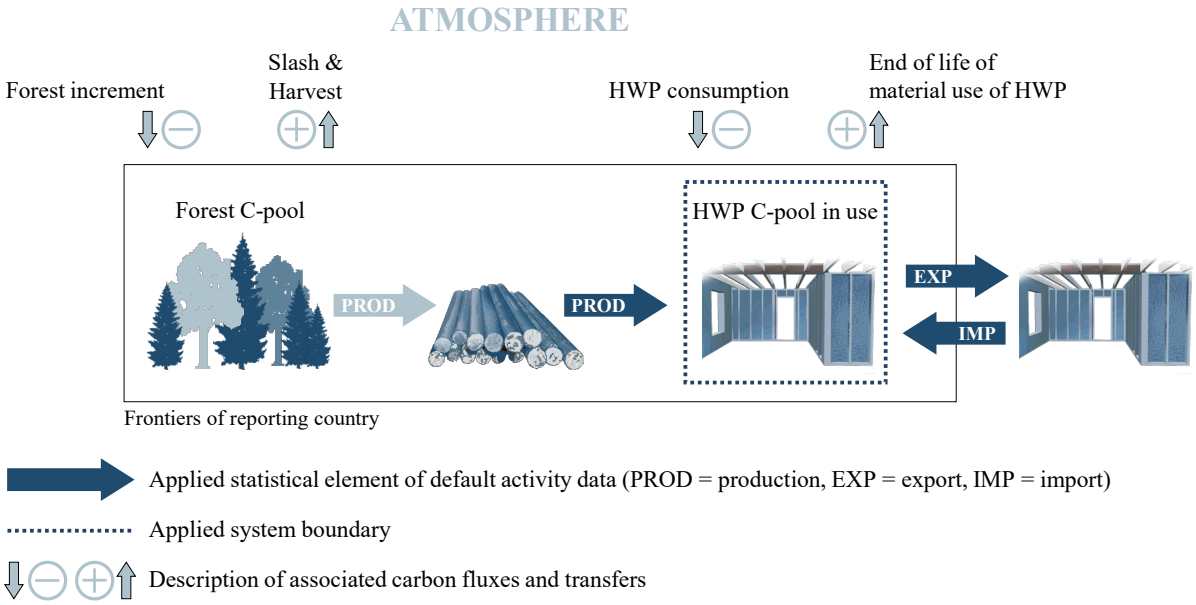

Figure 2.1.1-B: Conceptual illustration of the 'stock-change' approach, estimating CO2 emissions and removals arising from the carbon stock in the HWP pool in use on the basis of calculated consumption data of HWP (Rüter et al. 2019)

In contrast, the **stock-change approach** should be used to analyze the impacts on biogenic CO_2 emissions and removals of the calculated domestic wood consumption in general or in specific markets (e.g. in the construction sector), especially if the origin of the wood used is not initially the focus of the analysis. This approach involves estimating changes in carbon stocks in the HWP pool within the national boundaries and could thus characterized as a rather demand-oriented approach. Hence, carbon stock changes in the HWP pool are reported by the country where the wood products are used (Rüter et al. 2019). When implementing this approach on the basis of the suggested IPCC tier 1 and 2 methodology (see below), the relevant statistical time series on the semi-finished wood products thus also include the imports of the relevant commodities, whereas the exports are excluded from the activity datasets. The conceptual framework and the system boundaries of the stock-change approach are shown in Figure 2.1.1-B.

The stock-change approach with a focus on the biogenic CO_2 emissions and removals of the calculated domestic consumption of HWP is also of relevance in the context of analyzing the fossil GHG emissions associated with the production and subsequent consumption of wood in relevant markets. Since the total GHG impact of the sector also forms the basis for estimating potential substitution effects (see D5.3), information on the use of wood-containing product systems in country-specific markets (e.g. in the construction sector), whose emissions balance is assessed by means of LCA using the Global Warming Potential indicator (GWP) (CEN 2019; ISO 2017; ISO 2018; ISO 2021; ISO 2022), can only be combined consistently with information on the forest and wood sectors' biogenic CO_2 balance on the basis of the calculated wood consumption within these markets. Further information on this methodological proceeding can be found, for example, in Hafner and Rüter (2018) and Rüter (2023a), based on the example of the use of wood in buildings in Germany.

2.1.2. Applied methods for calculating carbon stock changes in HWP

The following is a brief description of the individual calculation steps of the IPCC's methodological guidance, as laid out for the tier 1 method of the 2019 Refinements (Rüter et al. 2019) and as implemented in the WoodCarbonMonitor calculation model for estimating the HWP contribution

to biogenic CO_2 emissions and removals using the proposed approaches (see chapter 2.2.1 and Annex of Rüter 2017).

Since no feasible information on the HWP-originating land-use categories is available for most of the EU member states from the annual National Inventory Documents (NID), the requirement as set out in the European LULUCF regulation and as described also in the relevant chapter on HWP of IPCC's 2013 Revised Supplementary Methods and Good Practice Guidance arising from the Kyoto-Protocol (KP Supplement) (Rüter et al. 2014) on the basis of UNFCCC Decision 2.CMP.7 (UNFCCC 2012) and in the IPCC 2019 Refinement (Equation 12.10) to only consider wood from existing forest land (FLrFL) and afforested land (see European Union 2018; European Union 2023) was not implemented for this deliverable.

In the first step, the relevant domestic feedstock factors for calculating the share of HWP from domestic harvest, i.e. in order to exclude carbon in imported HWP, are calculated by using Equation 12.8 from the IPCC 2019 Refinement (Rüter et al. 2019) relevant for the production approach. This includes the following raw material commodities:

- industrial roundwood (coniferous and non-coniferous)
- pulpwood
- recovered paper.

In the second step, the relevant activity data are compiled depending on the chosen approach. Equations 12.9 and 12.7 are applied for the production approach, and for the stock-change approach, Equation 12.6 is used. For calculating the relevant carbon inflow, the relevant statistical time series on production import and export of semi-finished wood products retrieved from the FAOSTAT database (FAO 2025) are combined accordingly with the suggested carbon conversion factors as suggested in Table 12.1 for the following solid wood commodity classes:

- Coniferous sawnwood
- Non-coniferous sawnwood
- Veneer sheets
- Plywood
- Particle board
- Oriented strandboard (OSB)
- Hardboard (HDF)
- Fibreboard compressed
- Medium-density fibreboard (MDF)
- Other board / Insulating board (LDF)

In addition, the following subcategories of the aggregated commodity class paper and paperboard are processed accordingly.

- Newsprint
- Uncoated mechanical
- Uncoated woodfree
- Coated papers
- Household and sanitary
- Case materials
- Folding boxboards
- Wrapping papers
- Other packaging
- Paper and paperboard NES

Finally, the exponential decay function contained in Equation 12.2 of the 2019 Refinements is used to calculate the biogenic CO_2 emissions and removals based on changes in the relevant carbon stocks for the selected approach (cf. also Equation 12.3, Rüter et al. 2019). This method was developed by Pingoud and Wagner (2006).

As described in the guidelines, the availability of the above-listed activity data series on production and trade varies. For most EU member states, the FAO statistics provide data on the HWP commodity classes since 1961. For eight countries, however, activity data are available only from a later year (1991, 1992, 1993 or 2000), which has implications for the estimated steady state of the initial carbon stock in HWP and, in consequence, on the uncertainties associated with the estimated CO_2 emissions and removals arising from HWP. In order to decrease the uncertainties associated with those time series and the initial value of the carbon stock in HWP as described in Chapter 12.4.2 of the 2019 Refinement, the initial carbon stock is calculated in line with the suggested *good practice* on the basis of Equation12.4 with $C(t_0)$=1990. In the case that data is only available from a later year, the equation is used in conjunction with the available statistics data of the particular first five years.

The actual CO_2 emissions and removals arising from HWP are finally calculated based on Equation 12.1 of the 2019 Refinement.

2.2. Applied models

2.2.1. WoodCarbonMonitor

The WoodCarbonMonitor, developed by Rüter (2017), is a model that estimates GHG effects from HWP based on the annual carbon inflow to the carbon pool in HWP. It constitutes a development of the IPCC HWP model as suggested by Pingoud et al. (2006) and is an integral part of the German national GHG reporting framework for LULUCF. It has already been applied for estimating the HWP contribution to the Forest Management Reference Levels (FMRL) of several European countries during the second commitment period of the Kyoto Protocol (Rüter 2011 and UNFCCC 2011) and enables estimating historical as well as projected GHG emissions and removals associated with harvested wood.

The model implements different reporting approaches presented by the IPCC (i.e. stock-change, production and atmospheric flow approach) and further methodological elements provided in the latest IPCC guidelines on HWP (see chapter 2.1, Rüter et al. 2014; Rüter et al. 2019), which can be combined with each other via a user interface (Figure 2.2.1-A). The options also allow tracking and differentiation of carbon impacts related to the origin of the wood harvest. This includes an assignment of the products to the land-use categories from which they originate via the woody raw materials contained in the respective HWP commodities (i.e. industrial roundwood, pulp and recovered paper) and the forestry activities associated with their production.

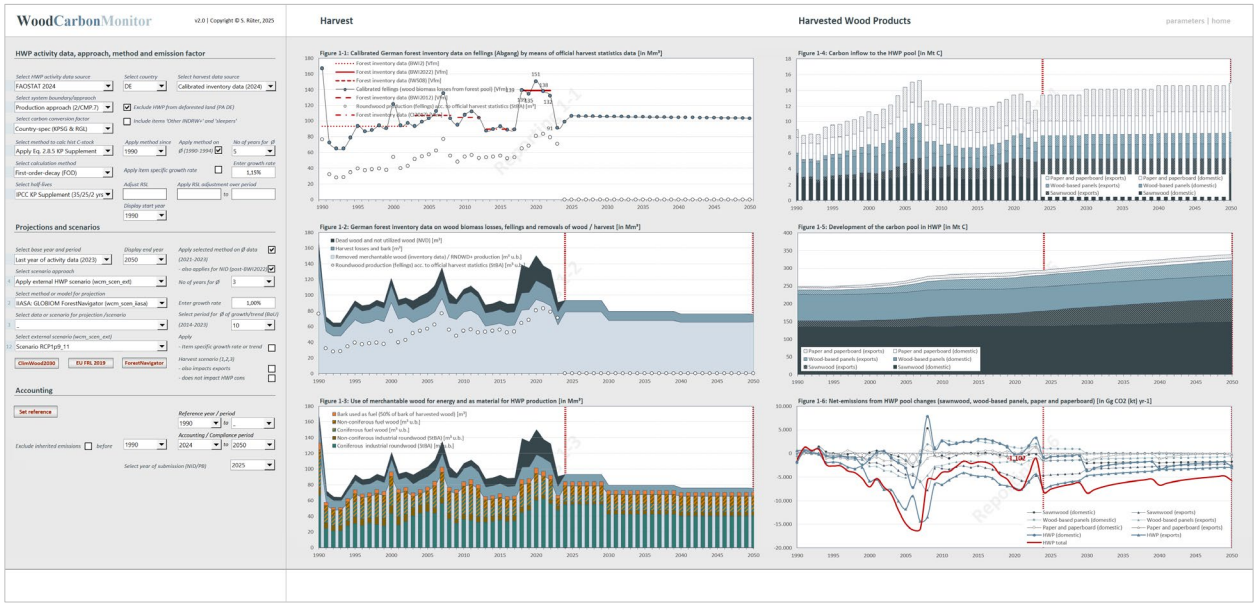

Figure 2.2.1-A: WoodCarbonMonitor user interface (Rüter 2017)

Besides its integrated interface to national models providing harvest data (Rock et al. 2022), the WoodCarbonMonitor can also use the harvest quantities and HWP raw materials traded as predicted by the GLOBIOM model for a calculation (see Rüter et al. 2016). This interface has been developed and further specified for the present project.

The WoodCarbonMonitor covers all HWP commodity data as included in FAOSTAT (FAO 2025) for all 27 EU member states and major HWP-producing countries. It furthermore includes detailed and representative information derived from life cycle assessment (LCA), information for solid wood product commodities that is derived from forest-based industries in German-speaking countries (Rüter and Diederichs 2012). This country-specific information allows for estimating the GHG impact of the further processing of semi-finished wood products into finished products and/or their use in various market sectors, such as the construction sector (Hafner and Rüter 2018; Rüter 2023b).

2.2.2. GLOBIOM

GLOBIOM (IIASA) is a global spatially explicit agricultural and forest sector partial equilibrium economic model (Havlik et al., 2011, 2014). GLOBIOM includes forestry, forest-based industry, and bioenergy modules as described in Lauri et al. (2021). The model is solved recursively for each 10-year period by maximizing the economic surplus (societal welfare). The supply side of the model is based on the 0.5° to 2° grid resolution while the demand side and trade are based on 59 economic regions. The alignment of the forestry module, the forest-based industry module, and the bioenergy module is achieved by a material mass balance in the model calibration.

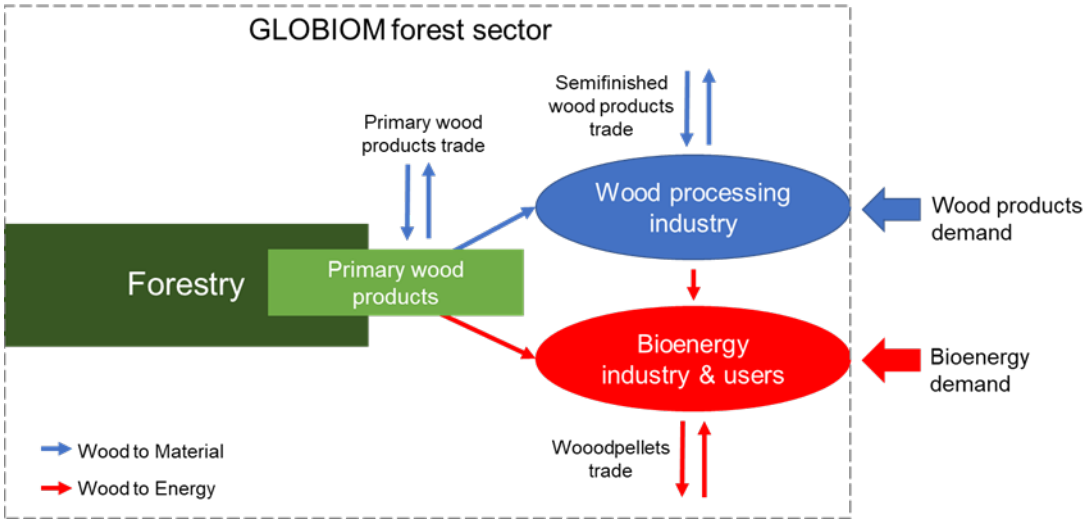

Figure 2.2.2-A: GLOBIOM forest sector representation

Forest industry and wood pellets production capacities at the country level are based on FAOSTAT production data for 2000-2010–2020 (FAO 2024). After 2020, production capacities evolve according to investment dynamics, where investment decisions are made by comparing the current period income and annualized investment costs. Forest-based industry and wood pellet production are modelled by using Leontief production technologies, which have fixed input-output coefficients. The substitution between inputs can be controlled by defining minimum/maximum shares for their use.

Semi-finished product demands are based on constant elasticity demand functions, which are parametrized by reference volumes, reference prices, and elasticity coefficients. Exceptions are modern bioenergy demands that are exogeneous and conventionally based on the SSP-RCP scenario data and exogenous demands aligned to SSP-RCPs from energy sector models (in this specific case to the PRIMES energy model). Traditional bioenergy demand is assumed to stay constant over time.

Reference production and consumption primary and semifinished products volumes are based on FAOSTAT for 2000–2020 (FAO, 2024). After 2020, the reference volumes are shifted over time based on GDP and population growth according to SSP-RCP scenario data (IIASA 2020). The elasticity parameters of the demand functions are based on econometric estimates from Buongiorno et al. (2003), Buongiorno (2015) and Morland et al. (2018).

Trade is modelled by using bilateral trade flows. Bilateral trade volumes are based on BACI trade data for 2000–2020 (Gaulier and Zignago 2010). After 2020, trade volumes evolve according to endogenous trade dynamics, which depend on constant elasticity trade-cost functions that are parametrized by historical trade volumes and transport costs. Transport costs are estimated from the difference between world import and export values similar to Buongiorno et al. (2003).

Coniferous (C) and non-coniferous (NC) biomass separation is applied for all products except fiberboard, paper and paperboard, and bioenergy products. The separation is not applied for these products, because they are often produced from a mixture of C and NC biomass. The separation is based on FAOSTAT data where available (FAO 2024), or is approximated by using regional C and NC biomass resource balances when FAOSTAT data is not available.

Recycled (R) biomass can be used in the model to substitute virgin fibers in wood-based products production. Due to material losses and the ageing of recycled biomass it is not possible to substitute all virgin fibers with R biomass, but there are maximum technical shares for R biomass use.

Biomass supply is based on spatially explicit harvest potentials, spatially explicit harvest costs, spatially explicit transportation costs and forest/management type specific land-use change costs. Harvest potentials are based on increment data from the Global Forest Model (G4M) (Gusti and Kindermann 2011).

The forestry module includes five harvested primary wood products: sawlogs, pulpwood, other industrial roundwood, fuelwood, and logging residues.

The forest industry module includes the following semi-finished products:

- three mechanical forest industry products: sawnwood, plywood, fiberboard
- four pulp grades: chemical pulp, mechanical pulp, recycled pulp, other fiber pulp
- four paper and paperboard grades: newsprint, printing and writing papers, packaging materials, other papers
- four forest industry by-products: woodchips, sawdust, bark, black liquor
- two recycled products: recycled paper, recycled wood

The bioenergy module includes two final products (i.e. traditional bioenergy and modern bioenergy) and one intermediate product (i.e. wood pellets). In the version of the model applied in ForestNavigator, we have further included six new final products/product aggregates: construction, furniture, wood packaging, paper and paperboards, wood-based textiles, and bioplastic.

Accordingly, the demand functions for semi-finished products (chemical pulp, mechanical pulp, dissolving pulp, sawnwood, plywood, fiberboard) were replaced by demand functions for these sectorial final products aggregates. This was introduced to model a range of scenarios, including changes in the demand for final products. For further details on the model description, please see D5.1 FN report. To the scope of the present assessment of HWP pool in WoodCarbonMonitor, the GLOBIOM model was recursively solved in 10-year time steps for the period 2000-2050 according to the D5.1 wood demand scenarios.

The exchange between the two models was conducted with a standardized template to automate reading the GLOBIOM output variables. The output template included at the country level for each 10-year time-step:

- harvest volumes for primary wood assortments
- production volume of semi-finished wood products
- trade volumes (import and export separately reported) for primary and semifinished wood assortments.

To ensure alignment of traded volumes in the WoodCarbonMonitor, a post-calibration of export and import volumes to FAOSTAT 2020 levels was performed at the country level.

2.3. Description of scenarios

The scenarios assessed in this report are based on the ones presented in D.5.1. A subset of 17 scenarios from the D5.1 scenarios were considered. Under the general assumptions of SSP-RCP demand growth, we considered alternative levels of demand for bioenergy, construction wood, and circularity in wood use.

In all considered scenarios, the consumption of semi-finished products is based on FAOSTAT calibration for the historical period 2000-2020. After 2020, the demand for harvested wood products was generally shifted by population and GDP growth and by using history-based income-elasticities. However, the projection of bioenergy and construction wood in the scenarios was matched to exogenous demand levels.

The development in population and GDP for the EU was derived from the EU Reference 2020 Scenario (European Commission 2021), for the rest of the word the alignment of the demands was obtained by consider the SSP2 (IIASA 2020). The derived final products consumption is based on the semifinished products consumption and a country level share of final products use according to Mantau et al. (2010).

The bioenergy demand is exogenous to the model and based on three scenarios from the PRIMES energy model. The PRIMES scenarios considered the same policy objective (EU climate neutrality) but different levels of biomass demand for bioenergy for achieving the target, resulting in the scenarios “lowBIOEN”,”baseBIOEN”, and “highBIOEN”. At the same time, for consistency, the bioenergy demand in the ROW was assumed to be aligned to the ones under the MESSAGE energy model RCP1p9.

For construction sector, we have considered three levels of wood demands, one following the developments of population and GDP (baseCONST), one where the wood for construction remains at the present level (lowCONST) and one with a major increase in construction sector demand compared to the baseline (highCONST).

We have considered scenarios with different assumptions on “recycled wood” (recovered mechanical forest industry products). These include a baseline (baseCIRCU) where recycled wood can increase up to a maximum threshold of 50% over time (with recycled wood used for fiberboard and bioenergy) and another where the share of wood recycling can increase up to 75% (HighCIRCU), in this latter case, we allow also reuse of wood for the same application (e.g. sawnwood can be used again as sawnwood).

The different levels of demand for bioenergy, construction and recycling rates were combined together in the scenarios presented in Table 2.2.2-A. The Baseline was assumed as a scenario where we have intermediate levels of bioenergy and construction wood demand and the baseline level of circularity (BaseBIOEN_BaseCIRCU_BaseCONST). Out of the 18 scenarios, five were deemed of high interest for the HWP pool, based on their impact on harvest levels observed in D5.1. Accordingly, these scenarios were further analyzed in the following main results.

Table 2.2.2-A: Scenarios in D5.2 and their mapping to demand growth assumptions in D5.1.

D.5.2 Scenario name	***GLOBIOM scenario name (5.1)***	***Main demand assumptions***
RCP1p9	HighBIOEN_BaseCIRCU_BaseCONST	High Bioenergy demand Baseline Circular economy Baseline Construction demand Baseline Textile demand
RCP1p9_1	HighBIOEN_HighCIRCU_BaseCONST	High Bioenergy demand High Circular economy Baseline Construction demand Baseline Textile demand

RCP1p9_2 (High harvest)	HighBIOEN_BaseCIRCU_HighCONST	High Bioenergy demand Baseline Circular economy High Construction demand Baseline Textile demand
RCP1p9_3 (High harvest + Circularity)	HighBIOEN_HighCIRCU_HighCONST	High Bioenergy demand High Circular economy High Construction demand Baseline Textile demand
RCP1p9_4	LowBIOEN_BaseCIRCU_BaseCONST	Low Bioenergy demand Baseline Circular economy Baseline Construction demand Baseline Textile demand
RCP1p9_5	LowBIOEN_HighCIRCU_BaseCONST	Low Bioenergy demand High Circular economy Baseline Construction demand Baseline Textile demand
RCP1p9_6	LowBIOEN_BaseCIRCU_HighCONST	Low Bioenergy demand Baseline Circular economy High Construction demand Baseline Textile demand
RCP1p9_7	LowBIOEN_HighCIRCU_HighCONST	Low Bioenergy demand High Circular economy High Construction demand Baseline Textile demand
RCP1p9_8	HighBIOEN_BaseCIRCU_LowCONST	High Bioenergy demand Baseline Circular economy Low Construction demand Baseline Textile demand
RCP1p9_9	HighBIOEN_HighCIRCU_LowCONST	High Bioenergy demand High Circular economy Low Construction demand Baseline Textile demand
RCP1p9_10	LowBIOEN_BaseCIRCU_LowCONST	Low Bioenergy demand Baseline Circular economy Low Construction demand Baseline Textile demand
RCP1p9_11 (Low harvest)	LowBIOEN_HighCIRCU_LowCONST	Low Bioenergy demand High Circular economy Low Construction demand Baseline Textile demand
RCP1p9_12 (Baseline)	BaseBIOEN_BaseCIRCU_BaseCONST	Baseline Bioenergy demand Baseline Circular economy Baseline Construction demand Baseline Textile demand
RCP1p9_13	BaseBIOEN_HighCIRCU_BaseCONST	Baseline Bioenergy demand High Circular economy Baseline Construction demand Baseline Textile demand
RCP1p9_14 (Baseline + High Construction)	BaseBIOEN_BaseCIRCU_HighCONST	Baseline Bioenergy demand Baseline Circular economy High Construction demand Baseline Textile demand
RCP1p9_15	BaseBIOEN_HighCIRCU_HighCONST	Baseline Bioenergy demand High Circular economy High Construction demand Baseline Textile demand
RCP1p9_16	BaseBIOEN_BaseCIRCU_LowCONST	Baseline Bioenergy demand Baseline Circular economy Low Construction demand Baseline Textile demand
RCP1p9_17	BaseBIOEN_HighCIRCU_LowCONST	Baseline Bioenergy demand High Circular economy Low Construction demand Baseline Textile demand

3. Biogenic CO_2 emissions and removals arising from HWP

This chapter presents the relevant results of the calculations of work package T5.2, whereby chapter 3.1 contains a short description of the main GLOBIOM results on the change in production and trade of the relevant commodities for the selected scenarios which were used for the scenario analysis. Chapter 3.2 contains the aggregated results of CO_2 emissions and removals arising from HWP for EU27 as calculated with the WoodCarbonMonitor.

Since only 24 countries provide sufficient and feasible data on the production and foreign trade of semi-finished wood products at the FAOSTAT database (FAO 2025), the aggregated EU results on the HWP contribution could only be based on the values of those 24 member states. Included are:

Austria, Belgium, Bulgaria, Czechia, Germany, Denmark, Estonia, Spain, Finland, France, Greece, Croatia, Hungary, Ireland, Italy, Lithuania, Latvia, the Netherlands, Poland, Portugal, Romania, Sweden, Slovenia, and Slovakia.

Those country-specific results contain detailed information as used for the "baseline" scenario (RCP 1p9_12) and are presented in Annex I.

3.1. Main GLOBIOM results for selected scenarios

In this report, we emphasize five selected scenarios. Below we describe the scenarios with their main results for the particular future supply (i.e. harvest and production) and/or demand/consumption of relevant HWP commodities:

"Baseline" scenario (RCP1p9_12): The baseline scenario extrapolates the latest development in the field of bioenergy demand and the use of wood in the construction sector and maintaining baseline development in recycling rates for mechanical wood fibers. Under this scenario, there is an increase in roundwood harvest (sawlogs, pulpwood and fuelwood) of 13 % between 2020 and the 2040s decade due to both to an increasing demand for bioenergy and for wood for the construction sector, with the harvest level stabilizing afterwards (by 2050). Looking only at the production of industrial roundwood (sawlogs and pulpwood), it increases by 18 % during the same period.

"High harvest" scenario (RCP1p9_2): This scenario includes the highest level of harvest among the scenarios evaluated in this report. It considers high bioenergy demand, high consumption of timber for the construction sector, and baseline recycling of wood. Industrial roundwood harvest increases over time by 42%. Both harvest of sawlogs (+49 Mm^3) and pulpwood (+48 Mm^3) show a significant increase over the Baseline level by 2050.

"High harvest + circularity" scenario (RCP1p9_3): In addition to the underlying assumptions on the high harvest levels for bioenergy and construction wood as contained in the "high harvest" scenario (RCP1p9_2), this scenario also includes assumptions on increasing the share of recycled wood fibers from mechanical industry over time. This scenario is therefore intended to improve understanding of the role of circularity in wood use. The industrial roundwood harvest increases over time by 38%, that is 20% more than under the Baseline and 4% less than under the "High harvest" scenario. Under the "High harvest + high circularity" scenario, harvest of sawlogs remains similar than under the Baseline (+6 Mm^3), given the reuse of sawnwood, whereas pulpwood harvest is significantly larger (+72 Mm^3).

"Baseline + high construction" scenario (RCP1p9_14): In contrast to the "baseline" scenario, this scenario differs in its assumptions regarding the development of the construction sector within the EU (high construction demand). Under this scenario, the harvest of industrial roundwood increases by 27% over time, which is 9% more than under the Baseline.

"Low harvest" scenario (RCP1p9_11): This scenario assumes a low harvest level (lowest in this report) due to a low demand of wood for bioenergy, relatively low wood use in the construction sector and a high recycling rate for mechanical wood fibers. Under this scenario, the industrial roundwood harvest level remains almost at the same level as in 2020, with a 1% increase over time by 2050,

Additional results of all the calculated ForestNavigator scenarios (see Table 2.2.2-A) can be found in the tables in Annex II.

3.2. Aggregated EU results for the HWP contribution

The results presentation discriminates between the two applied carbon pool-based approaches as introduced in chapter 2.1. The results on biogenic CO_2 emissions and removals arising from the HWP pool at the EU level are furthermore made up exclusively of the results of the calculations for the EU member states. Due to the availability of FAO data starting in different years, which for some countries only begins in 1992, 1993 or 2000, the initial value of the carbon pool magnitude and the stock-change based on it must always be calculated individually for each country. Simply adding up the available data on the production and foreign trade of semi-finished wood products of all member states and calculating the HWP contribution at the EU level would result in a significant overestimation of the carbon storage effect in wood products within the EU.

In particular, for the production approach, Annex I of this report contains further detailed information that contributes to an understanding of the partially diverging dynamics of the development of biogenic CO2 emissions and removals in the EU member states. It thus also includes figures on the time series for the respective carbon inflow into the HWP pool and the underlying raw material factors calculated on the basis of the available country data.

3.2.1. HWP on the basis of the production approach

Figure 3.2.1-A shows the estimate of the HWP contribution to biogenic CO_2 emissions and removals for the "baseline" scenario (RCP 1p9_12) within EU27 based on the country-by-country calculations presented in in Annex I using the production approach.

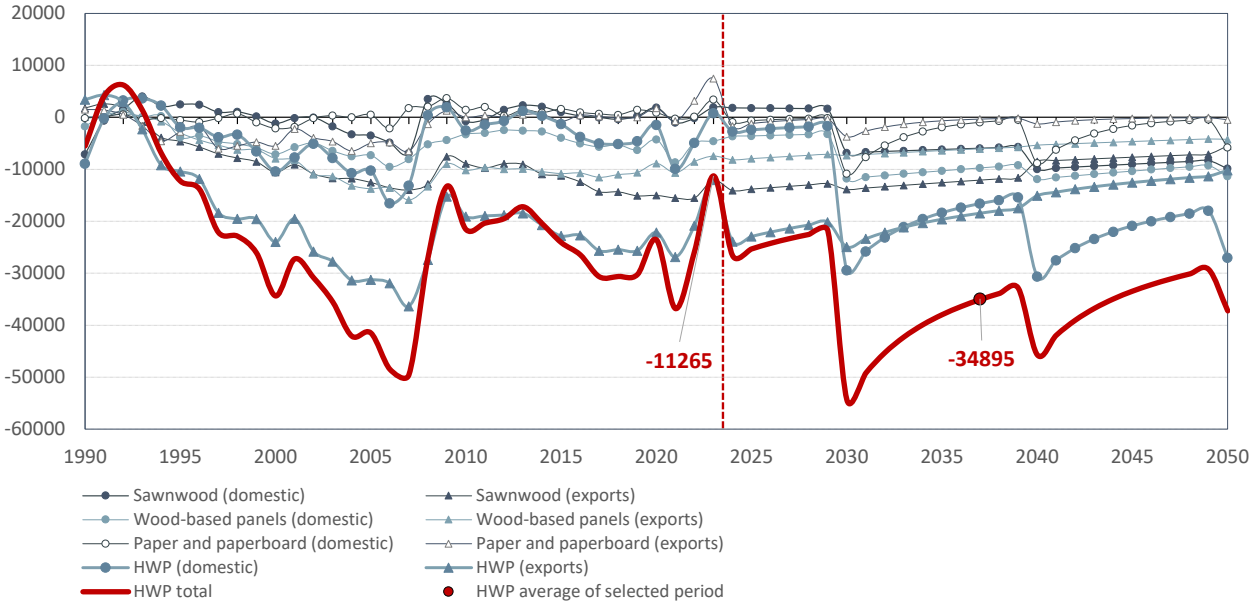

Figure 3.2.1-A: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach within EU [in kt CO_2]

Under this "baseline" scenario, at EU level, by 2050 there is a 13 % increase in sawnwood production and a 23 % increase in fiberboard (i.e. particle board, oriented strand board, low-medium- and high-density fiber boards), and pulp production increases by 19 %. Under the Baseline EU remains a net importer of industrial roundwood, but its level of net-import decreases by 2 % over time, hence, the share of internally sourced industrial roundwood is relatively stable. However, this development is very country-specific and differs from this EU average in individual cases (see also Annex I (selected country-specific results). In most cases, however, this leads to an increase in the domestic production of semi-finished wood products (i. e., HWP) derived from domestically produced sawlogs and pulpwood (relevant under the production approach) and an increased semi-finished products export. However, the increase in this export is transient due to the long-term reduction of EU trade competitiveness towards the year 2050.

The increase in semi-finished wood products being manufactured from domestic harvest in most of the EU member states has a direct impact on the changes of the respective HWP pools within the relevant countries and its associated sink effect, which increases for the EU as a whole by around 40 % on average during the same period (i. e. as compared to the average CO_2 emissions and removals from 2019 to 2023, see Table 3.2.1-A). The increase in the sink effect of the HWP pool at the EU level is due to the increase in the sink in 16 countries, with the increase being mainly due to the three countries Italy, France and Germany.

Table 3.2.1-A: Country-overview on the total emissions and removals arising from HWP for the baseline scenario under the production approach [in kt CO_2]

	2000	2010	2020	2021	2022	2023	Ø 19-23	Ø 24-29	Ø 30-39	Ø 40-49	2050	(Ø40-49) - (Ø19-23)
IT	-2269	319	-244	-1354	-139	486	-369	-651	-3155	-4473	-5293	**-4104**
FR	-3212	1244	2665	-238	771	2235	1422	2003	-274	-1418	-2038	**-2840**
DE	-7727	-4677	-7795	-7927	-4726	-1532	-5570	-7437	-8871	-7757	-7260	**-2187**
SE	-2261	-2343	-2463	-3097	-2657	-681	-2242	-2968	-3553	-3625	-4180	**-1383**
DK	230	285	120	145	132	142	133	127	-818	-790	-843	**-923**
FI	-5263	-505	716	-1594	-1303	1047	-456	-1019	-1364	-1192	-928	**-736**
SK	-835	-1343	-167	-322	-104	-222	-290	-233	-815	-803	-734	**-513**
BE	238	316	1413	1215	771	363	851	909	550	397	66	**-454**
PT	-280	326	427	136	256	904	411	369	-93	-22	-52	**-433**
PL	-4115	-5491	-6598	-8166	-5577	-4547	-6622	-5372	-8329	-7053	-6963	**-431**
GR	282	-134	156	163	159	155	149	6	-210	-228	-222	**-377**
HU	198	119	-418	-591	-402	-453	-493	-349	-946	-825	-833	**-332**
ES	-2945	594	-953	-1681	-1822	-1772	-1645	-769	-2043	-1923	-2200	**-278**
NL	186	173	-181	-436	-143	490	-28	86	-306	-262	-358	**-234**
SL	-28	-120	-53	-40	-141	-92	-115	-77	-218	-323	-367	**-208**
LT	-521	-739	-539	-1053	-1280	-981	-932	-421	-951	-1103	-1110	**-172**
HR	-17	-207	-589	-595	-503	-259	-519	-548	-661	-496	-429	**23**
EE	-965	-983	-911	-851	-804	-502	-814	-818	-816	-743	-616	**71**
RO	-660	-3292	-3966	-3531	-2232	-1742	-3133	-3447	-3709	-2984	-2704	**149**
IE	-839	-517	-556	-532	-572	-559	-558	-477	-390	-345	-375	**213**
BG	72	-526	-815	-1074	-1025	-1022	-937	-599	-630	-561	-496	**376**
AT	-384	-1071	608	-799	-917	278	-227	598	467	255	-4	**482**
LV	-2345	-1769	-1963	-2361	-1754	-2077	-1966	-1691	-881	-775	-728	**1190**
CZ	-882	-1250	-1450	-2195	-1753	-925	-1568	-1194	-2817	1557	1543	**3125**
EU27	**-34344**	**-21590**	**-23557**	**-36779**	**-25763**	**-11265**	**-25518**	**-23969**	**-40836**	**-35493**	**-37123**	**-9975**

For Italy, as an example, the GLOBIOM estimate on increased harvest and industrial roundwood consumption under the "baseline" scenario (RCP 1p9_12) leads to a twelvefold increase of the total HWP sink by the 2040s decade (i.e. -4473 kt CO_2/yr on average) as compared to the five-years average from 2019 to 2023. This would in turn be almost entirely due to an estimated increase in the domestic consumption of domestically produced wood-based panels and sawnwood from domestic harvest (Table 3.2.1-B). For France, the "baseline" scenario (RCP 1p9_12) assumes that the HWP contribution will turn from a historic net source of 1422 kt CO_2/yr on average (2019-2023) to a net sink of -1418 kt CO_2/yr on average by the 2040s. For Germany, the average sink from the total HWP pool over the last five years would increase by a further -2187 kt/yr in the 2040s decade (Table 3.2.1-A).

As in Italy, this development within the two countries is driven by the calculated domestic consumption of solid wood products, which in Germany is mainly due to wood-based panels and in France due to sawnwood. By contrast, the opposite development is forecast for some countries, particularly for Czechia and Latvia, under the "baseline" scenario (RCP 1p9_12). The reasons for these opposite developments may lie both in the country-specific assumptions on future harvest patterns or the predicted production amounts of semi-finished wood products and their foreign trade, as well as in the very country-specific dynamics of the carbon stocks in the particular HWP pool. For example, a slowdown in the growth of carbon stock that has grown very dynamically in the past can cause a sink effect to decrease or even cause the HWP pool to become a source of biogenic CO_2 emissions. This also applies to any sub-segments of the HWP pool; in the case of the production approach, in particular to the HWP produced and consumed domestically as shown in Table 3.2.1-B for the "baseline" scenario (RCP 1p9_12) and to the exported HWP.

Table 3.2.1-B: Country-overview on emissions and removals arising from domestically consumed HWP from domestic HWP production for the baseline scenario under the production approach [in kt CO_2]

	2000	2010	2020	2021	2022	2023	Ø 19-23	Ø 24-29	Ø 30-39	Ø 40-49	2050	(Ø40-49) - (Ø19-23)
DE	-1745	2078	-500	-317	1344	2978	905	-949	-4326	-4254	-4272	**-5159**
IT	-1505	524	254	-91	289	353	149	-143	-2578	-3931	-4802	**-4080**
FR	-1115	1450	2924	285	957	2159	1745	2432	207	-1159	-1849	**-2904**
SE	-736	-1160	451	-1038	-272	769	-170	44	-1533	-2112	-2964	**-1943**
FI	-1582	-152	497	72	-464	807	314	378	-668	-884	-1490	**-1199**
DK	161	352	200	192	185	179	193	163	-755	-773	-837	**-966**
ES	-1983	1894	-3	-383	-930	-1165	-656	132	-1394	-1574	-2036	**-918**
RO	942	-450	-1888	-1466	-910	-662	-1424	-1669	-2580	-2183	-2057	**-759**
HU	470	541	319	-7	265	245	155	256	-220	-269	-317	**-424**
SK	-359	-1116	58	263	239	173	127	34	-295	-282	-248	**-408**
GR	284	-85	160	162	158	154	150	61	-202	-232	-236	**-382**
PT	-525	-482	-23	146	53	326	168	54	-257	-199	-153	**-367**
HR	206	66	62	272	244	177	154	24	-194	-155	-163	**-309**
IE	-473	188	3	62	10	12	56	0	-111	-186	-290	**-242**
SL	-6	214	191	147	93	138	156	163	-7	-81	-166	**-237**
BE	41	-213	369	359	182	-65	225	233	97	16	-237	**-209**
EE	-282	-644	-324	-323	-422	-302	-358	-283	-458	-536	-525	**-178**
NL	117	28	-20	-109	19	65	-6	13	-90	-101	-179	**-95**
AT	207	161	292	-274	-433	88	-48	337	243	-89	-428	**-41**
LV	-388	-460	65	-201	175	-407	-20	70	61	44	25	**65**
LT	-104	-563	-226	-429	-687	-478	-441	-165	-348	-303	-385	**139**
BG	378	-24	-368	-631	-738	-738	-573	-246	-373	-289	-269	**284**
PL	-2626	-4500	-4915	-6131	-4054	-3650	-5004	-3992	-5018	-4159	-4062	**845**
CZ	241	-157	977	-481	-230	-368	185	927	422	1096	915	**911**
EU27	**-10381**	**-2511**	**-1445**	**-9921**	**-4926**	**787**	**-4019**	**-2128**	**-20376**	**-22595**	**-27025**	**-18576**

Further details on the country-specific dynamics under the “baseline” scenario for the production approach can be obtained in the relevant sections of Annex I, which contain country-specific results in as well as in the relevant tables of the Annex II.

For the EU as a whole, the diverging developments of the four relevant scenarios "high harvest" (RCP 1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) as compared to the “baseline” scenario (RCP 1p9_12) are shown in Figure 3.2.1-B.

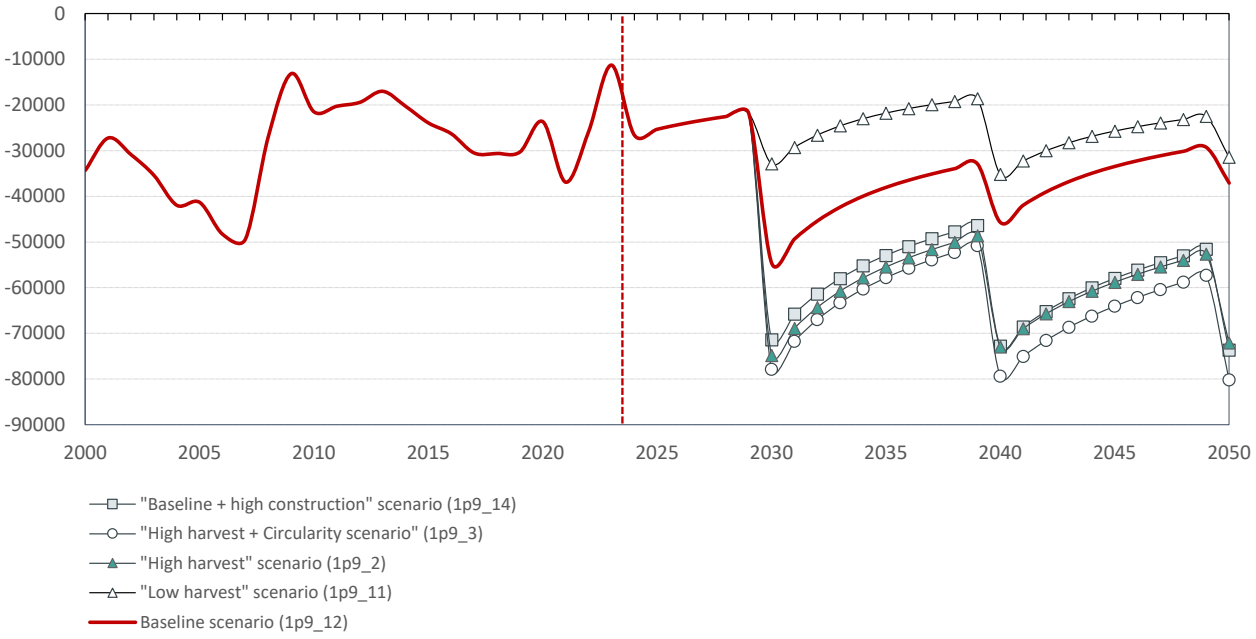

Figure 3.2.1-B: HWP contribution for selected scenarios on the basis of the production approach for EU [in kt CO_2]

Under the "Low harvest" scenario (RCP 1p9_11), there is a reduction of pulp production (-8 %) over time due to lower demand for black liquor for bioenergy, while sawnwood and fibreboard production continues to increase at levels comparable to the Baseline (+14 % and 11 % respectively). At the same time, under this low woody biomass demand scenario, we assist in a strong reduction of industrial roundwood net import (-44 %). Consequently, we observe a moderate increase in the HWP sink by 12 % on average until the 2040s compared to average of the last five years (2019-2023) for the EU, but a smaller increase in the HWP pool and a 23 % lower associated sink effect as compared to the "baseline" scenario.

Under the "Baseline + high construction" scenario (RCP 1p9_14), over time, there is a 30 % increase of sawnwood production, a doubling of the fiberboard production and a 17 % increase of pulp production (similar pulp production increase as under the "baseline" scenario), hence, main changes relates to solid wood products if compared to the baseline. Under the same scenario, there is a 10 % increase in industrial roundwood net import due to the higher EU27 wood demand than under the "baseline" scenario. This has significant implications for the projected development of the HWP pool and its associated change in CO_2 emissions and removals, which is expected to result in a 70 % larger sink during the 2040s than in the "baseline" scenario.

The "High harvest" scenario results in slightly higher outcomes in the HWP sink from the year 2030 when the respective runs of the ForestNavigator scenarios begin to differ. This is due to a predicted increase in sawnwood production of 39 % over time. Added to this is an 84 % increase in fiberboard and a 32 % increase in pulpwood production. The large increase in pulpwood-based products, in turn, is driven by an increase in black liquor demand (i.e. due to the high demand for bioenergy), while the large increase in sawn wood is driven by an increase in construction demand. Under this scenario, we furthermore observe also an 85 % increase in industrial roundwood net import due to the sharp increase in wood demand in EU27.

Under the "High harvest + high circularity" scenario, finally, over time, there is a 51 % increase in sawn wood, a 79 % increase in fiberboard and a 38 % increase in pulpwood production. Under this scenario, we also observe a 37% increase in industrial roundwood net import. Hence, if compared to the high harvest scenario, there is a significantly lower industrial roundwood net import due to the circularity in wood use that also leads to a relatively lower level of harvest and achieving higher

production due to the relatively higher economic competitiveness of the EU27 forest sector. Based on this data, the WoodCarbonMonitor calculates the highest sink for the EU as a whole in the 2040s when comparing these five scenarios. According to this, it amounts to an average of -66 Mt CO_2 for this decade, which is 87% more than in the baseline scenario and even 2.7 times higher than in the period from 2019 to 2023.

Further results for the calculated ForestNavigator scenarios using the production approach are included in Table 3.2.1-C, discriminating also between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

Table 3.2.1-C: Aggregated EU27 CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios [in kt CO_2]

years	2000	2005	2010	2015	2020	2021	2022	2023	*Scenario*	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-23970	-43273	-43527	-41467
									1p9_1	-23970	-43742	-43972	-46025
									1p9_2	-23970	-58708	-61083	-72261
									1p9_3	-23970	-61199	-66537	-80403
									1p9_4	-23970	-31032	-28305	-33137
									1p9_5	-23970	-30816	-32317	-38024
									1p9_6	-23970	-49132	-58487	-74440
									1p9_7	-23970	-54274	-65659	-82862
									1p9_8	-23970	-36908	-38800	-36598
									1p9_9	-23970	-37124	-39222	-40228
									1p9_10	-23970	-24669	-23150	-26282
									1p9_11	-23970	-23687	-27289	-31487
HWP $_{total}$	-34344	-41459	-21590	-24084	-23557	-36779	-25763	-11265	*1p9_12*	-23970	-40836	-35493	-37123
									1p9_13	-23970	-42517	-39419	-42389
									1p9_14	-23970	-56024	-60352	-73835
									1p9_15	-23970	-59969	-67290	-82068
									1p9_16	-23970	-34185	-33117	-32443
									1p9_17	-23970	-35386	-34010	-36090

years	2000	2005	2010	2015	2020	2021	2022	2023	*Scenario*	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-2127	-21801	-24423	-27143
									1p9_1	-2127	-24419	-26506	-31045
									1p9_2	-2127	-37753	-46502	-63671
									1p9_3	-2127	-41701	-53826	-73648
									1p9_4	-2127	-17329	-19260	-24804
									1p9_5	-2127	-18366	-23395	-30453
									1p9_6	-2127	-33367	-48527	-68466
									1p9_7	-2127	-38406	-57406	-79236
									1p9_8	-2127	-15387	-17835	-20522
									1p9_9	-2127	-17121	-19705	-22861
									1p9_10	-2127	-11146	-14024	-18315
									1p9_11	-2127	-10924	-16847	-21990
HWP $_{dom}$	-10381	-10241	-2511	-1288	-1445	-9921	-4926	787	*1p9_12*	-2127	-20376	-22595	-27025
									1p9_13	-2127	-23667	-26516	-32210
									1p9_14	-2127	-36395	-51234	-68985
									1p9_15	-2127	-40777	-58750	-79093
									1p9_16	-2127	-13937	-17753	-20839
									1p9_17	-2127	-16024	-19572	-23388

									1p9	-21842	-21473	-19104	-14324
									1p9_1	-21842	-19324	-17465	-14980
									1p9_2	-21842	-20955	-14581	-8590
									1p9_3	-21842	-19498	-12710	-6756
									1p9_4	-21842	-13702	-9045	-8333
									1p9_5	-21842	-12450	-8922	-7571
									1p9_6	-21842	-15764	-9960	-5973
									1p9_7	-21842	-15868	-8253	-3626
									1p9_8	-21842	-21521	-20966	-16076
									1p9_9	-21842	-20002	-19517	-17367
									1p9_10	-21842	-13524	-9127	-7967
									1p9_11	-21842	-12763	-10442	-9497
HWP $_{exp}$	-23963	-31218	-19078	-22796	-22111	-26859	-20837	-12052	***1p9_12***	-21842	-20460	-12898	-10098
									1p9_13	-21842	-18850	-12903	-10180
									1p9_14	-21842	-19629	-9119	-4850
									1p9_15	-21842	-19191	-8540	-2975
									1p9_16	-21842	-20247	-15364	-11604
									1p9_17	-21842	-19363	-14439	-12702

3.2.2. HWP on the basis of the stock-change approach

As for the results of the production approach, the calculations for the stock-change approach for the EU-27 are based on country-by-country calculations, the results of which are presented in detail in Annex I (selected country-specific results). It is important to note that the data used to calculate the ForestNavigator scenarios under the stock-change approach, namely the respective country-specific production quantities of semi-finished wood products and their traded amounts are exactly the same as for the production approach.

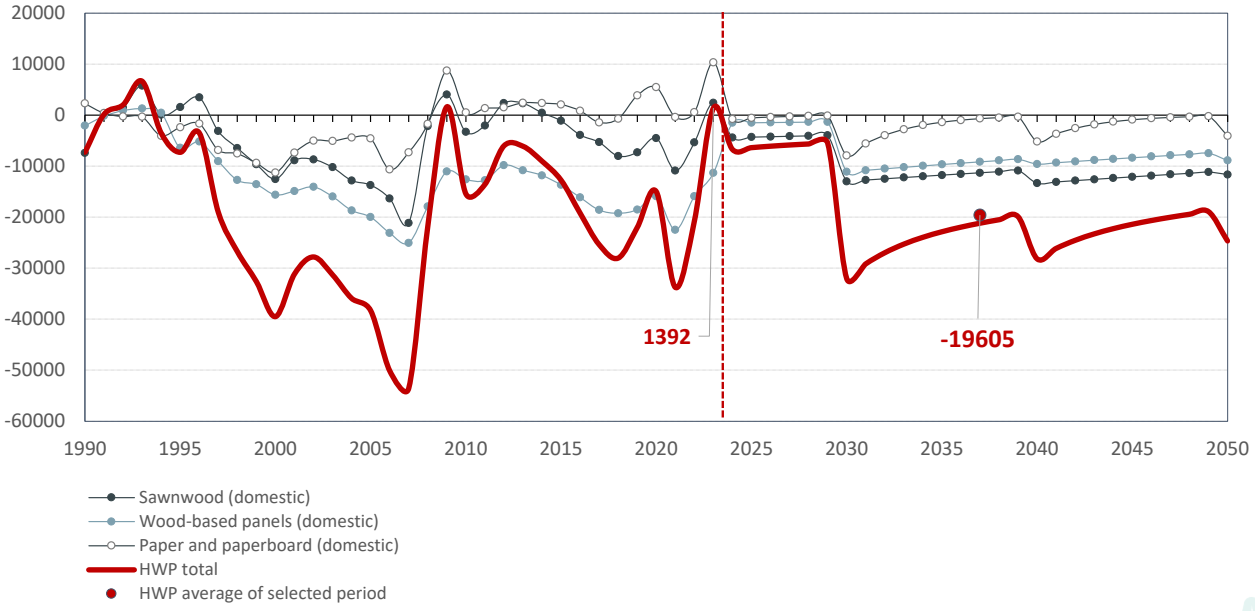

Figure 3.2.2-A: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for EU [in kt CO_2]

Figure 3.2.2-A presents the entire time series of the HWP contribution to biogenic CO_2 emissions and removals for the "baseline" scenario (RCP1p9_12) within EU27 using the stock-change approach, whereby the subtotals of the three aggregated semi-finished wood product groups of sawnwood, wood-based materials and paper and paperboard are also shown.

Just as with the production approach, the development of CO_2 emissions and removals arising from HWP in the EU member states vary considerably (see Table 3.2.2-A).

Table 3.2.2-A: Country-overview on emissions and removals arising from domestically consumed HWP for the baseline scenario under the stock-change approach [in kt CO_2]

	2000	2010	2020	2021	2022	2023	Ø 19-23	Ø 24-29	Ø 30-39	Ø 40-49	2050	(Ø40-49) - (Ø19-23)
DE	-6629	-167	-1099	-2890	2349	7752	1162	683	-2771	-2292	-1784	**-3455**
FR	-3862	-422	3509	-117	488	2920	1794	3144	454	-575	-1428	**-2368**
IT	-5775	-66	3660	1807	-433	1524	1388	2250	-111	-436	-1202	**-1823**
SE	-2133	-2109	-149	-1608	-1050	877	-709	-619	-1844	-2067	-2599	**-1358**
FI	-2463	-621	199	-263	-424	1387	272	35	-832	-854	-1348	**-1126**
BE	-60	-84	-99	-1319	-285	685	-281	386	-715	-1150	-1759	**-868**
DK	-1032	366	-729	-747	-753	-761	-731	-744	-1452	-1372	-1452	**-641**
NL	-229	812	465	-411	1183	855	582	195	-44	35	55	**-547**
AT	-2109	-1394	-1744	-2516	-1941	-328	-1628	-1065	-2156	-2063	-2206	**-435**
GR	-800	-291	255	248	240	250	240	304	179	162	193	**-77**
SK	-799	-1877	-810	-440	-555	-63	-519	-660	-755	-560	-421	**-41**
HR	-54	-96	-344	-123	41	-407	-261	-284	-368	-284	-253	**-23**
SL	-183	-304	-508	-236	-201	-58	-288	-282	-317	-282	-307	**6**
IE	-788	429	-86	6	-184	-142	-57	342	132	40	-99	**97**
HU	-171	525	-181	-614	-340	-364	-449	-11	-358	-308	-323	**140**
ES	-5798	3679	1345	-221	-1082	-205	-10	2063	681	349	-155	**358**
PT	-1089	-887	-643	-582	-692	-409	-557	-48	-264	-185	-65	**372**
LV	-647	-814	-1063	-1687	-590	-704	-964	-908	-775	-582	-482	**382**
RO	739	-1101	-3365	-3050	-2363	-1933	-2830	-2313	-2887	-2333	-2145	**497**
EE	-568	-1237	-1580	-1959	-1642	-973	-1538	-1309	-1277	-1036	-855	**502**
CZ	-649	-765	-56	-2025	-1433	-1003	-913	84	-424	-401	-595	**513**
BG	292	-257	-546	-899	-1143	-1079	-867	-379	-454	-328	-271	**538**
LT	-432	-1134	-1697	-2276	-2125	-1164	-1845	-1389	-1153	-744	-647	**1101**
PL	-4264	-7608	-9725	-11846	-7842	-5265	-9024	-5496	-6870	-5211	-4514	**3812**
EU27	**-39504**	**-15423**	**-14990**	**-33768**	**-20777**	**1392**	**-18033**	**-6020**	**-24380**	**-22477**	**-24661**	**-4444**

While the same six countries (i.e. Germany, Italy, France, Sweden, Finland and Denmark) experience an increase in the sink effect in the 2040s compared to their historical values, which differ only slightly from the production approach in the order in which it occurs, the slower increase of the HWP pool under the stock-change approach, particularly in Poland and Lithuania, slows down the sink effect in the EU as a whole. Nevertheless, it should be noted that the HWP pool development, especially for these later countries, still represents a sink, which in Poland alone, at an average of -5211 kt CO2 in the period 2040-2049, is approximately 17% higher than the increase of the HWP contribution during that period within the EU.

Under the “baseline” scenario (RCP1p9_12), total EU remains a net exporter of sawnwood and fiberboard products with a slight variation of their volumes over time (-2 %, + 4%) by 2050. At the same time, there is a growth in net export of paper and paperboard products over time (+ 23%). Overall, this leads to an increase in the sink within the EU as a whole of 25 % on average during the 2040s as compared to average of the last five historic years (2019-2023).

When comparing this HWP contribution to the CO_2 emissions and removals estimated under the production approach for total EU, not only is the estimated total sink lower (i.e. 70 % of the value estimated using the production approach for the years 2019-2023), but also the increase in the sink is slower. As a result, the HWP contribution estimated under the baseline scenario for the EU as a whole in the 2040s based on the stock-change approach is -22.5 Mt CO2, which corresponds to a 12% lower projected increase than under the production approach (see Table 3.2.1-B).

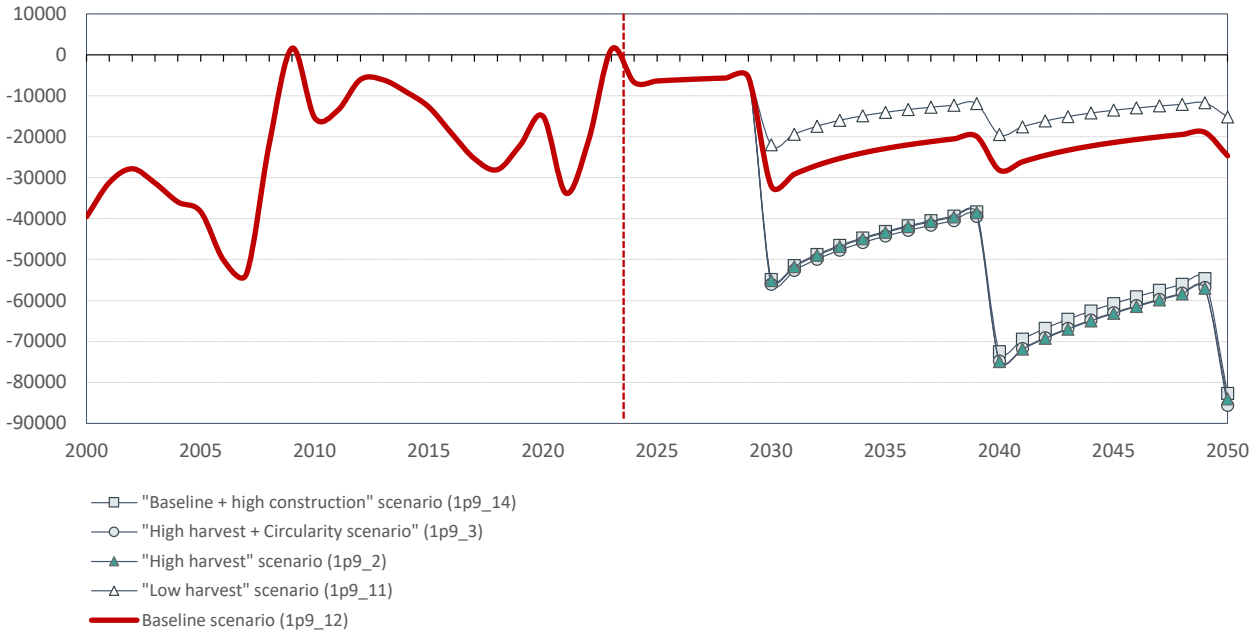

Figure 3.2.2-B: HWP contribution for selected scenarios on the basis of the stock-change approach for EU [in kt CO_2]

Under the “low harvest” scenario, over time, the EU increases its net export of sawnwood by 37% and the net export of paper and paperboard products by 8%. Therefore, under this scenario, there is less net export than under the “baseline” scenario in the paper and paperboard sector, due to the reduction of bioenergy demand and the associated relatively low black liquor demand. Similar as under the production approach, we see for the EU a moderate average increase in the HWP sink until the 2040s. In contrast to the production approach, the relative increase in the HWP pool as compared to the “baseline” scenario is lower.

The same applies also to the other three scenarios analyzed here: overall, the carbon storage effect determined in the HWP pool using the stock-change approach, i.e. considering only semi-finished wood products consumed within the EU, contributes less to the sink effect than when using the production approach. This is mainly due to the allocation of foreign trade and the respective assumed dynamics of the development of imports and exports of the relevant commodities in relation to their historical development.

In detail, under the “Baseline + high construction” scenario, over time, the EU reduces its net export of sawnwood by 52% due to the high internal demand, and at the same time the net export of fiberboard by 28%. However, there is a 24% increase in net export of paper and paperboard products, which is a similar level observed under the baseline.

Under the “High harvest” scenario, over time, the EU reduces its net export of sawnwood by 29% due to the high internal demand, and halves its net export of fiberboard. However, there is a 27% increase in export of paper and paperboard products, which is a similar level under the Baseline.

Under the “High harvest + high circularity” scenario, over time, the EU reduces its net export of sawnwood by 6% and by 5-fold the one for fiberboard, while at the same time increases paper and paperboard net export by 28%. Hence, if we compare this scenario to the “High harvest” (without high circularity), we can observe higher net-export volume of EU towards the rest of the world (particularly for sawnwood), due to the increased economic competitiveness in producing semifinished products when using more recycled wood, compared to the rest of the world.

4. Discussion of the results and next steps

In this report, we presented the impacts of alternative scenarios for wood demand and use on the associated CO_2 emissions and removals from HWP. Scenarios in line with and defined in ForestNavigator D5.1. For this, we applied two HWP approaches based on the pool concept (i.e. production and stock change approaches), as suggested by data availability and quality and compatibility with project results on in-forest carbon estimates.

The two approaches essentially differ due to how traded HWP are considered in the estimation and, in consequence, yield different results for CO_2 emissions and removals arising from HWP. However, when it comes to avoiding fossil GHG emissions (i.e., substitution impacts from D5.3), the method described in D5.3 of ForestNavigator does not distinguish between domestic and imported wood supplies. It assumes that substitution cases and ratios are the same regardless of the wood's origin. For estimating the overall impact of the forest-based sector on the GHG balance, the assumptions on the origin of the relevant wood quantities used for estimating potential substitution impacts should be aligned with the approach used for biogenic CO_2 emissions and removals.

This report focuses on the analysis of the EU-level results for selected scenarios, which examine relevant and currently discussed policy concepts. However, these aggregated results on the HWP contribution for the EU are based on the results of the calculations for the EU member states, whose available historic activity data differ considerably. This leads to uncertainties in the presented results for the EU, which can be broken down as follows:

- The historic and future HWP contribution to CO_2 emissions and removals could only be calculated for 24 member states due to the **lack of sufficiently robust or historically available data** on HWP. This includes data on the development of production of roundwood or other woody feedstock for the subsequent manufacturing of semi-finished wood products as well as the trade of those sawnwood, wood-based panels, and paper and paperboard commodities.

  For countries included in the assessment, in the case of missing data, the IPCC guidelines provide for the assumption of a “steady-state” HWP pool, in which it is assumed that the carbon inflow into the HWP pool is equal to the annual outflow (see chapter 12.4.1.2 in Rüter et al. 2019): “The CO_2 emissions and removals arising from the HWP pool should be estimated explicitly if possible, but activity data are needed to do this, e.g. as required for the Tier 1 methods as a minimum” (see also chapter 2.1.2). In consequence, for the countries with missing data, this assumption, previously also referred to as “instantaneous oxidation” (Pingoud et al. 2006; UNFCCC 2012; Rüter et al. 2014), was made.

- Another source of uncertainties is related to the **quality of the available time series** in terms of completeness of the respective datasets on all the HWP categories, including their feedstock classes (see chapter 2.1.2). In addition to possible gaps in the time series for the actual semi-finished wood products, namely the subcategories of sawnwood, wood-based panels, and paper and paperboard, which are freely accessible in the FAOSTAT database (FAO 2025) and can therefore be traced, missing data also has a particular impact on the calculation of the domestic feedstock factors that are to be applied in line with IPCC requirements when using the production approach. In order to flag potential implications of gaps and uncertainties related to the use of these factors, the time series for these factors are presented in figures type B in the country-specific results in the Annex I.

The historical trends for the development of the production and import and export volumes of individual semi-finished wood products and their raw materials often develop in opposite

directions in EU Member States. For example, harvest amounts or the export of a particular product group has continuously increased in one country, but **opposite trends can be observed** in another country. This variability is also reflected in the scenarios. Therefore, observed EU-level trends for certain scenarios cannot be transferred 1:1 to the Member States.Further uncertainties concern the transition in the time series from the historical to scenario data on HWP production and trade.

GLOBIOM was used to calculate HWP future production and trade levels to develop input assumptions for the scenarios. The model was calibrated to the year 2020, which is why it misses the production/consumption decreases of HWP in almost all the countries within the last few years (see country-specific results in the Annex I). In addition, the different scenarios only start to diverge from 2030 onwards. Against this background, the results on CO_2 emissions and removals arising from HWP for the decade of the 20s to the 30s are of limited significance.

Some scenario results might seem counterintuitive, which is the consequence of the GLOBIOM model's structure and high reliance on supply, demand, and trade economic competitiveness. One of them is the relative increase in the level of HWP production observed in the scenario of "high circularity". In this specific case, we observe that the reuse/recycling of wood fibers in wood industries causes a reduction of production costs in the EU relative to the rest of the world. Consequently, the EU increases both its domestic consumption and net exports to other regions. This is a global demand-driven result that is not directly connected to the EU internal regional dynamics, where one would expect a reduction in HWP production due to the lower level of harvest, but the interaction between supply and demand leads to the opposite outcome. A similar effect can be seen when considering a scenario with high bioenergy demand, where we observe an increase in the production of pulp-based products that is mediated by the increase in price for black liquor (driven by the high bioenergy demand price). Hence, also in this case we observe a result that is counterintuitive for the scenario. These types of effects would not have been observed if the model would not account for global economic dynamics and cross-sectorial interactions. Hence, present results for the HWP emissions and removals are significantly impacted by the underlying economic assumptions made in GLOBIOM.

Last but not least, the calculation of historic time series of CO_2 emissions and removals arising from HWP in the WoodCarbonMonitor is based on data available on an annual basis (see chapters 2.1.2 and 2.2.1). Since the GLOBIOM scenario data are based on ten-year averages for production and foreign trade of the relevant commodities (see chapter 2.2.2), we observe discontinuities in the time series at the specific years where a new GLOBIOM output is considered (every 10 years: 2030, 2040, 2050). In these specific points, WoodCarbonMonitor receives updates on production and trade volumes from GLOBIOM, which results in a typical **saw-tooth pattern for the projected CO_2 emissions and removals** under the different scenarios. This is due to the fact that the respective carbon stock in the compartments of the country- and product category-specific HWP pool develops towards dynamic equilibrium over the period of constant carbon inflow. In consequence, we avoid to compare emission values for these specific years but rather used averages for each decade (e.g ø 2030-2039).

In conclusion, the wood demand projections for some of the countries are still preliminary and will benefit from further modelling calibrations in GLOBIOM. This is to be done in the cross-scale alignment of GLOBIOM and national forest models taking place in WP6 (Italy, Czechia, Italy, Sweden) under a common baseline scenario, hence, impacts on the HWP projections under a more harmonized baseline based on interfacing GLOBIOM and national models would be possible compared to the ones presented in this report.

5. References

Brown, S., Lim, B. and Schlamadinger, B. (1998) Evaluating Approaches for Estimating Net Emissions of Carbon Dioxide from Forest Harvesting and Wood Products. IPCC/OECD/IEA Programme on National Greenhouse Gas Inventories, 20 S. <http://www.ipcc-nggip.iges.or.jp/public/mtdocs/pdfiles/dakar.pdf>

Buongiorno, J. (2015) Income and time dependence of forest product demand elasticities and implications for forecasting. *Silva Fennica* **49**(5): 1395.

Buongiorno, J., Zhu, S., Zhang, D., Turner, J. and Tomberlin, D. (2003) The Global Forest Products Model. Burlington: Academic Press, 301 S.

CEN (2019) Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products. *EN 15804:2012+A2:2019*.

Cowie, A., Pingoud, K. and Schlamadinger, B. (2006) Stock changes or fluxes? Resolving terminological confusion in the debate on land-use change and forestry. *Clim Pol* **6**: 161-179.

European Commission (2021) Directorate-General for Climate Action, Directorate-General for Energy, Directorate-General for Mobility and Transport, De Vita, A., Capros, P. et al., EU reference scenario 2020 – Energy, transport and GHG emissions – Trends to 2050. Publications Office, 184 S. <https://data.europa.eu/doi/10.2833/35750>

European Union (2013) DECISION No 529/2013/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 May 2013 on accounting rules on greenhouse gas emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities. Official Journal of the European Union L 165/80 of 18 June 2013.

European Union (2018) REGULATION (EU) 2018/841 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU. Official Journal of the European Union L 156/25 of 19. June 2018.

European Union (2023) REGULATION (EU) 2023/839 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 April 2023 amending Regulation (EU) 2018/841 as regards the scope, simplifying the reporting and compliance rules, and setting out the targets of the Member States for 2030, and Regulation (EU) 2018/1999 as regards improvement in monitoring, reporting, tracking of progress and review. Official Journal of the European Union L 107/1 of 19 April 2023.

FAO (2024) FAOSTAT-Forestry Database [online]. Food and Agriculture Organization of the United Nations (FAO), http://www.fao.org/faostat/en/#data/FO (20 März 2024)

FAO (2025) FAOSTAT-Forestry Database [online]. Food and Agriculture Organization of the United Nations (FAO), https://www.fao.org/faostat/en/#data/FO (05 January 2025)

Gaulier, G. and Zignago, S. (2010) BACI: International Trade Database at the Product-level, The 1994-2007 Version. CEPII, Working Paper No 2010 – 23, 35 S. <https://www.cepii.fr/pdf_pub/wp/2010/wp2010-23.pdf>

Gusti, M. and Kindermann, G. (2011) An approach to modeling landuse change and forest management on a global scale. In: Kacprzyk, J., Pina, N., and Filipe, J. (Hrsg.) SIMULTECH-2011. Proceedings of 1st International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Noordwijkerhout, The Netherlands 29 - 31 July 2011, S 180-185

Hafner, A. and Rüter, S. (2018) Method for assessing the national implications of environmental impacts from timber buildings - an exemplary study for residential buildings in Germany. *Wood and Fiber Science* **50**(Special Issue): 139-154.

IIASA (2020) SSP Database [online]. https://tntcat.iiasa.ac.at/SspDb

IPCC (1997) Greenhouse Gas Inventory Workbook. In: Houghton, J.T., Meira Filho, L.G., Lim, B., Treanton, K., Mamaty, I., Bonduki, Y., Griggs, D.J., and Callander, B.A. (Hrsg.) IEA/OECD, IPCC National Greenhouse Gas Inventories Programme, Technical Support Unit, Revised 1996 IPCC Guidelines for Greenhouse Gas Inventories Volume 2, 22 S. <http://www.ipcc-nggip.iges.or.jp/public/gl/invs5.html>

IPCC (2003) Good Practice Guidance for Land Use, Land-Use Change and Forestry. In: Penman, J., Gytarsky, M., Hiraishi, T., Krug, T., Kruger, D., Pipatti, R., Buendia, L., Miwa, K., Ngara, T., Tanabe, K., and Wagner, F. (Hrsg.). Intergovernmental Panel of Climate Change (IPCC), IPCC/IGES, Hayama, Japan.

IPCC (2006) IPCC Guidelines for Greenhouse Gas Inventories - Vol 4 Agriculture, Forestry and other Land Use. In: Eggleston, S., Buendia, L., Miwa, K., Ngara, T., and Tanabe, K. (Hrsg.). IEA/OECD, IPCC National Greenhouse Gas Inventories Programme, Technical Support Unit, Hayama, Kanagawa, Japan.

IPCC (2014) 2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol. In: Hiraishi, T., Krug, T., Tanabe, K., Srivastava, N., Baasansuren, J., Fukuda, M., and Troxler, T.G. (Hrsg.) IPCC, Switzerland, 268 S. <http://www.ipcc-nggip.iges.or.jp/public/kpsg/pdf/KP_Supplement_Entire_Report.pdf>

IPCC (2019) 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories - Vol 4 Agriculture, Forestry and Other Land Use. In: Calvo Buendia, E., Tanabe, K., Kranjc, A., Baasansuren, J., Fukuda, M., Ngarize, S., Osako, A., Pyrozhenko, Y., Shermanau, P., and Federici, S. (Hrsg.). National Greenhouse Gas Inventories ProgrammeTechnical Support Unit, IPCC, Switzerland S. ...

ISO (2017) Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services. *ISO 21930:2017(E)*.

ISO (2018) Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification. *ISO 14067:2018*.

ISO (2021) Environmental management - Life cycle assessment - Principles and framework. *EN ISO 14040:2006+A1:2020*.

ISO (2022) Sustainability in buildings and civil engineering works — Framework for methods of assessment of the environmental, social and economic performance of construction works as a basis for sustainability assessment. *ISO 21931-1:2022*.

Lauri, P., Forsell, N., Di Fulvio, F., Snäll, T. and Havlik, P. (2021) Material substitution between coniferous, non-coniferous and recycled biomass – Impacts on forest industry raw material use and regional competitiveness. *Forest Policy and Economics* **132**: 102588.

Mantau, U., Saal, U., Prins, K., Steierer, F., Lindner, M., Verkerk, P.J., Eggers, J., Leek, N., Oldenburger, J., Asikainen, A. and Anttila, P. (2010) EUwood - Real potential for changes in growth and use of EU forests. 160 S.

Morland, C., Schier, F., Janzen, N. and Weimar, H. (2018) Supply and demand functions for global wood markets: Specification and plausibility testing of econometric models within the global forest sector. *Forest Policy and Economics* **92**: 92-105.

Pingoud, K., Skog, K.E., Martino, D.L., Tonosaki, M., Xiaoquan, Z. and Ford-Robertson, J. (2006) Harvested Wood Products (Chapter 12). In: Eggleston, S., Buendia, L., Miwa, K., Ngara, T., and Tanabe, K. (Hrsg.). IPCC Guidelines for Greenhouse Gas Inventories - Vol 4 Agriculture, Forestry and other Land Use. IEA/OECD, IPCC National Greenhouse Gas Inventories Programme, Technical Support Unit, Hayama, Kanagawa, Japan. S. 33.

Pingoud, K. and Wagner, F. (2006) Methane Emissions from Landfills and Carbon Dynamics of Harvested Wood Products: The First-Order Decay Revisited. *Mitigation and Adaptation Strategies for Global Change* **11**(5): 961-978.

Rock, J., Dunger, K., Rüter, S. and Stümer, W. (2022) National Forestry Accounting Plan for Germany – annotated and revised edition. Johann Heinrich von Thünen-Institute, Thünen Working Paper 185, 44 S. <https://literatur.thuenen.de/digbib_extern/dn064291.pdf>

Rüter, S. (2011) Projection of Net Emissions from Harvested Wood Products in European Countries : For the period 2013-2020. Thünen-Institute of Wood Research Report No: 2011/01, 63 S. <http://literatur.vti.bund.de/digbib_extern/dn048901.pdf>

Rüter, S. (2017) Der Beitrag der stofflichen Nutzung von Holz zum Klimaschutz – Das Modell WoodCarbonMonitor. Technische Universität München, Wissenschaftszentrum Weihenstephan für Ernährung, Landnutzung und Umwelt, Dissertation, 270 S. <https://mediatum.ub.tum.de/doc/1295127/1295127.pdf>

Rüter, S. (2023a) Abschätzung von Substitutionspotentialen der Holznutzung und ihre Bedeutung im Kontext der Treibhausgas-Berichterstattung. Johann Heinrich von Thünen-Institut, Thünen Working Paper 214, 50 S.

Rüter, S. (2023) Holzbau und Klimaschutz – der Beitrag der Holzverwendung. In: Burri, S., Rossel, K., and Uebersax, K. (Hrsg.) 27. Internationales Holzbau-Forum (IHF), Band II 30. November und 1. Dezember 2023: Aus der Praxis – Für die Praxis, Innsbruck, Austria, 30. November 2023, 17-24 S.

Rüter, S., Alfredsen, G., de Aquino Ximenes, F., Guendehou, S., Pingoud, K., Tsunetsugu, Y. and McCusker, A. (2014) Harvested Wood Products. In: Hiraishi, T., Krug, T., Tanabe, K., Srivastava, N., Jamsranjav, B., Fukuda, M., and Troxler, G.T. (Hrsg.). 2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol.Section 2.8 IPCC, Switzerland S 109-134.

Rüter, S. and Diederichs, S. (2012) Ökobilanz-Basisdaten für Bauprodukte aus Holz. Thünen-Institute of Wood Research Report No: 2012/01, 316 S. <http://www.fnr-server.de/ftp/pdf/berichte/22028808.pdf>

Rüter, S., Matthews, R.W., Lundblad, M., Sato, A. and Hassan, R.A. (2019) Harvested Wood Products. In: Calvo Buendia, E., Tanabe, K., Kranjc, A., Baasansuren, J., Fukuda, M., Ngarize, S., Osako, A., Pyrozhenko, Y., Shermanau, P., and Federici, S. (Hrsg.). 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.Chapter 12, Volume 4 Agriculture, Forestry and Other Land Use IPCC, Switzerland S. 49.

Rüter, S., Werner, F., Forsell, N., Prins, K., Vial, E. and Levet, A.-L. (2016) ClimWood2030: Climate benefits of material substitution by forest biomass and harvested wood products: Perspective 2030 - Final Report. Johann Heinrich von Thünen-Institut Thünen Rep 42, 142 S.

UNFCCC (1992) United Nations Framework Convention on Climate Change. *FCCC/INFORMAL/84*.

UNFCCC (1997a) Kyoto Protocoll to the United Nations Framework Convention on Climate Change (UNFCCC). 21 S. <http://unfccc.int/resource/docs/convkp/kpeng.html>

UNFCCC (1997b) Report of the AGBM on its eighth session, held in Kyoto, 30 November 1997. Addendum II: Response from Parties on Issues related to Sinks. Note by the secretariat, *FCCC/AGBM/1997/MISC.4/Add.2*.

UNFCCC (1997c) Report of the AGBM on its eighth session, held in Kyoto, 30 November 1997. Addendum: Response from Parties on Issues related to Sinks. Note by the secretariat, *FCCC/AGBM/1997/MISC.4/Add.1*.

UNFCCC (1997d) Report of the AGBM on its eighth session, held in Kyoto, 30 November 1997. Response from Parties on Issues related to Sinks. Note by the secretariat, *FCCC/AGBM/1997/MISC.4*.

UNFCCC (2002) Report of the COP on its seventh Session, held at Marrakesh from 29 October to 10 November 2001. The Marrakesh Accords: Decision 11/CP.7 on Land use, land use change and forestry. Addendum, *FCCC/CP/2001/13/Add.1*.

UNFCCC (2003) Estimation, Reporting and Accounting of Harvested Wood Products. Technical Paper, *FCCC/TP/2003/7*.

UNFCCC (2011) Forest Management Reference Levels [online]. United Nations Framework Convention on Climate Change, https://unfccc.int/topics/land-use/workstreams/land-use--land-use-change-and-forestry-lulucf/forest-management-reference-levels (25 January 2025)

UNFCCC (2012) Report of the CMP on its seventh session, held in Durban from 28 November to 11 December 2011, Addendum: Decision 2/CMP.7 on Land use, land-use change and forestry. *FCCC/KP/CMP/2011/10/Add.1*.

Annex I (selected country-specific results)

This Annex covers country-specific results. These follow the same structure and contain detailed information as used for the “baseline” scenario (RCP 1p9_12).

For each country results are presented in the following order: starting with the relevant information necessary for applying the **production approach** (see chapter 2.1.1). This includes **figure A**, which illustrates the country-specific harvest amounts represented by the particular domestic production of

- *industrial roundwood*, made up of *stem- and pulpwood* and *other industrial roundwood* (poles etc) as well as
- *fuel wood*.

All those wood harvest classes are further subdivided into coniferous and non-coniferous assortements.

Figure B shows the country-specific time series of the relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} which are to be applied in line with IPCC requirements under the production approach for calculating the share of domestically manufactured semi-finished wood products originating from the relevant domestic forests (see chapter 2.1.2). The figure is also important because the country-specific data quality can be estimated based on the historical data of this time series. For example, if individual years are missing from the FAOSTAT database or if total exports exceed the quantities of production and import of a product group in a given year, the missing value for the respective year corresponds to a missing carbon inflow into the product pool, which has a significant impact on the CO_2 balance to be determined. At the same time, the comparison of the historical development of these factors with the assumed future time series allows the assumptions made under the baseline scenario to be classified and their plausibility to be checked.

Furthermore, **Figure C** presents the calculated carbon inflow to the particular segments of the quantities of carbon in the three aggregated commodity groups: sawnwood, wood-based panels, and paper and paperboard. These commodity groups originate from domestic forests and are consumed domestically (HWP_{DOM}) or exported (HWP_{EXP}).

Figure D contains the detailed results on historic and projected biogenic CO_2 emissions and removals arising from HWP following the production approach for baseline scenario, that is complemented with figures E showing the deviations for the four other selected scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) (see Chapter 3).

The two **figures E and F** illustrate the country-specific results for the biogenic CO_2 emissions and removals arising from HWP as shown in the later two figures C and D but on the basis of the stock-change approach (see chapter 2.1.1).

Austria (AT)

For Austria, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure AT-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

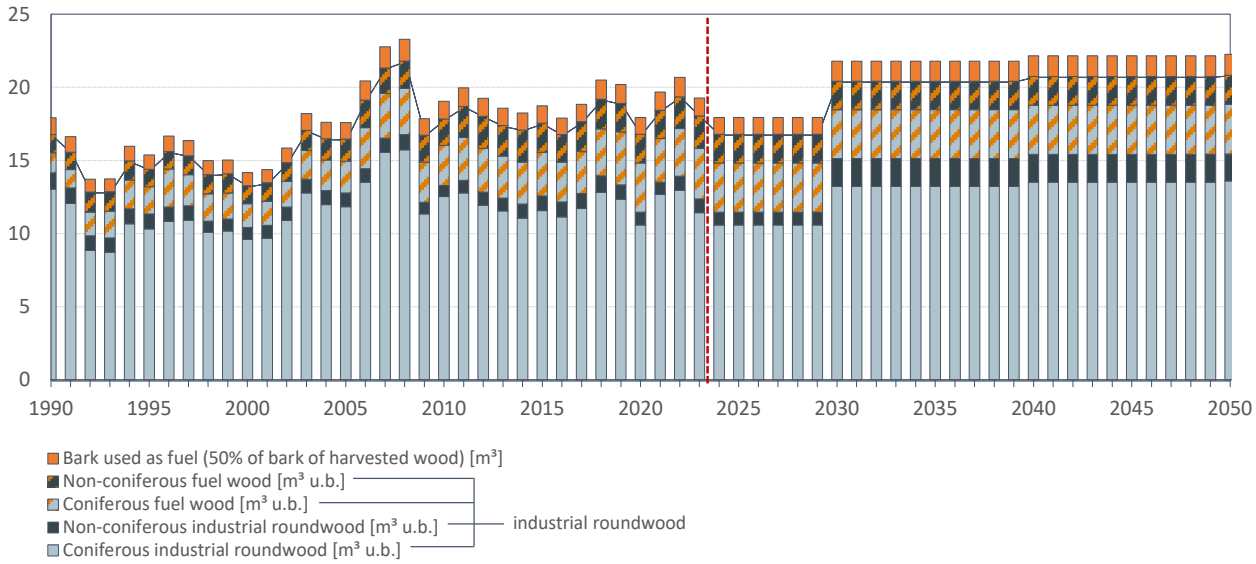

Figure AT-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Austria [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure AT-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the baseline scenario RCP1p9_12.

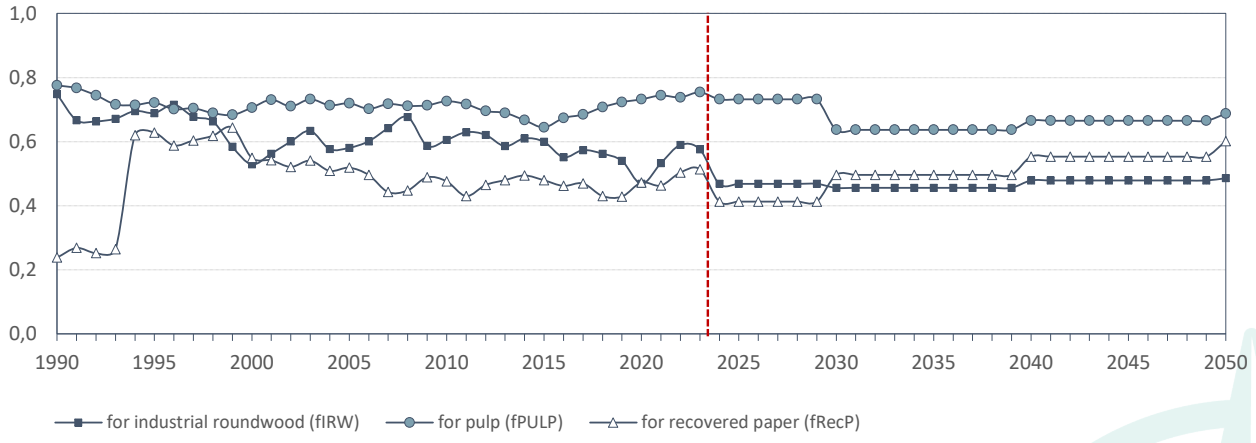

Figure AT-B: Historic and future development of the applied domestic feedstock factors for Austria

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-AT-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure AT-C shows the results for the "baseline" scenario (RCP1p9_12).

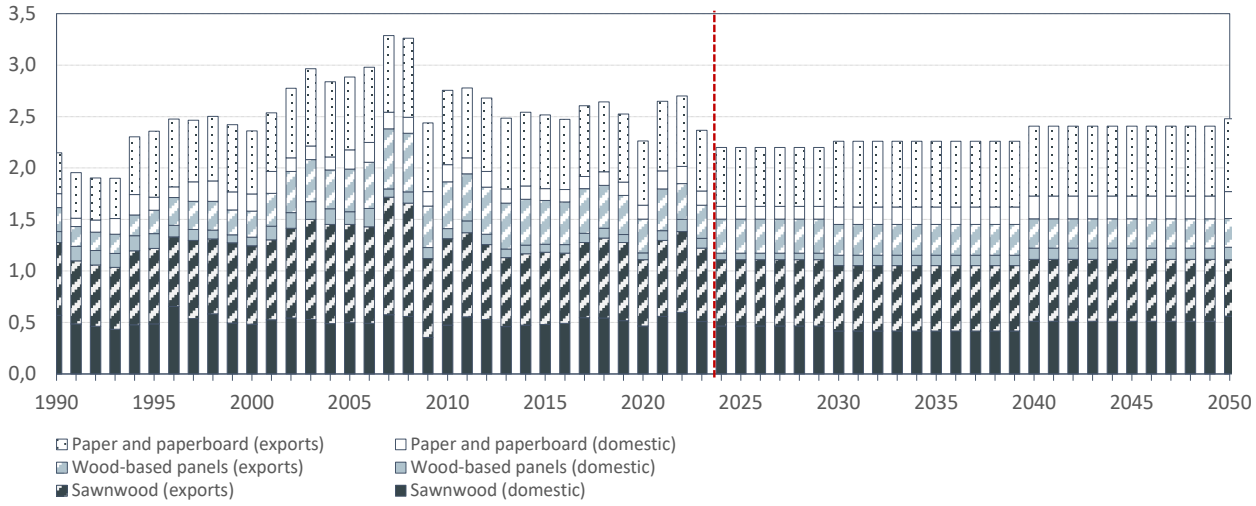

Figure AT-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Austria [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool is calculated using the methods following the production approach.

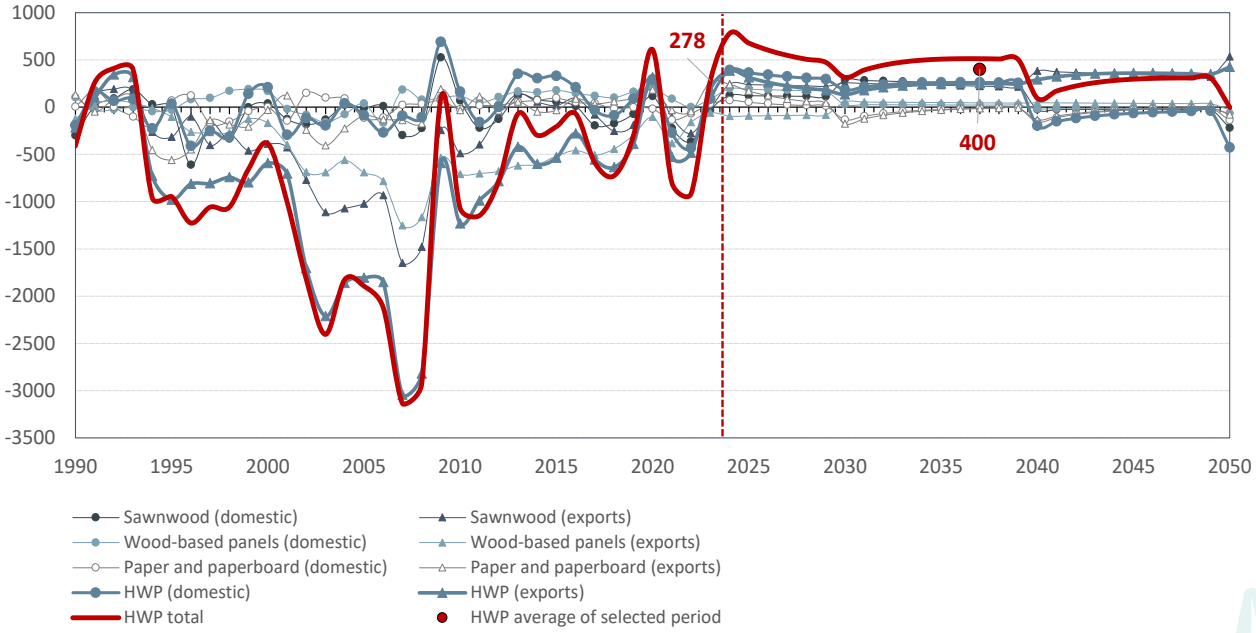

Figure AT-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for baseline scenario following the production approach for Austria [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure AT-D, Table ANX-AT-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

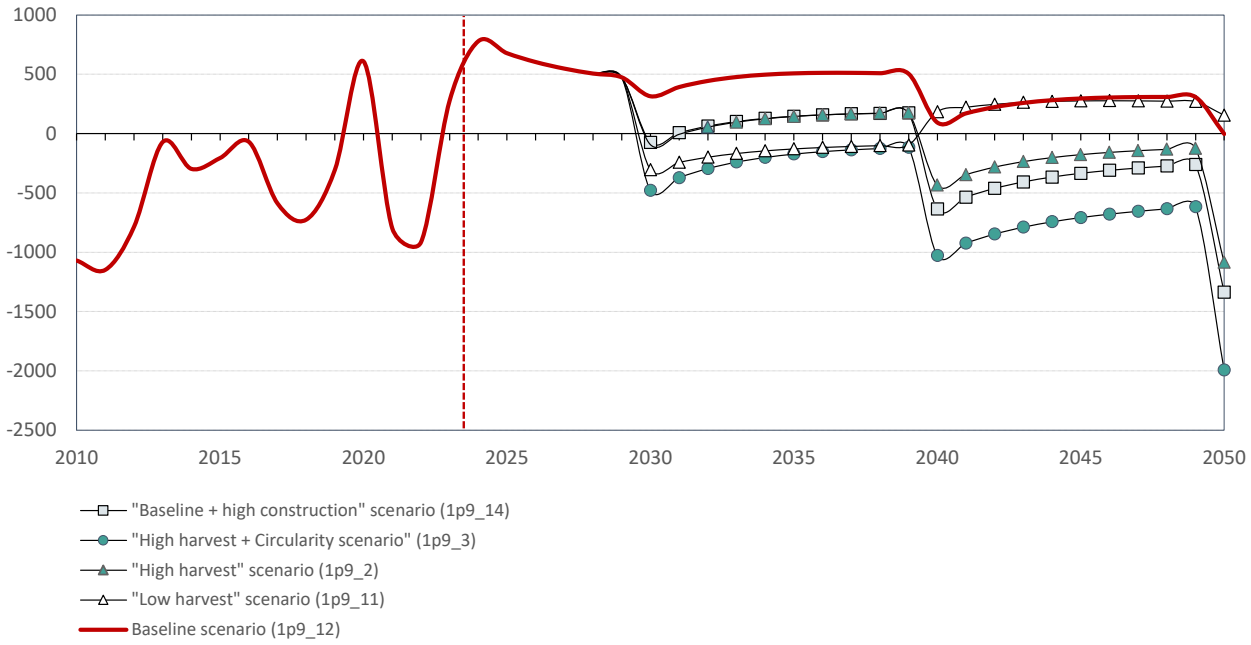

Figure AT-E: HWP contribution for selected scenarios on the basis of the production approach for Austria [in kt CO_2]

Figure AT-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Austria applying baseline scenario RCP1p9_12 in Figure AT-F.

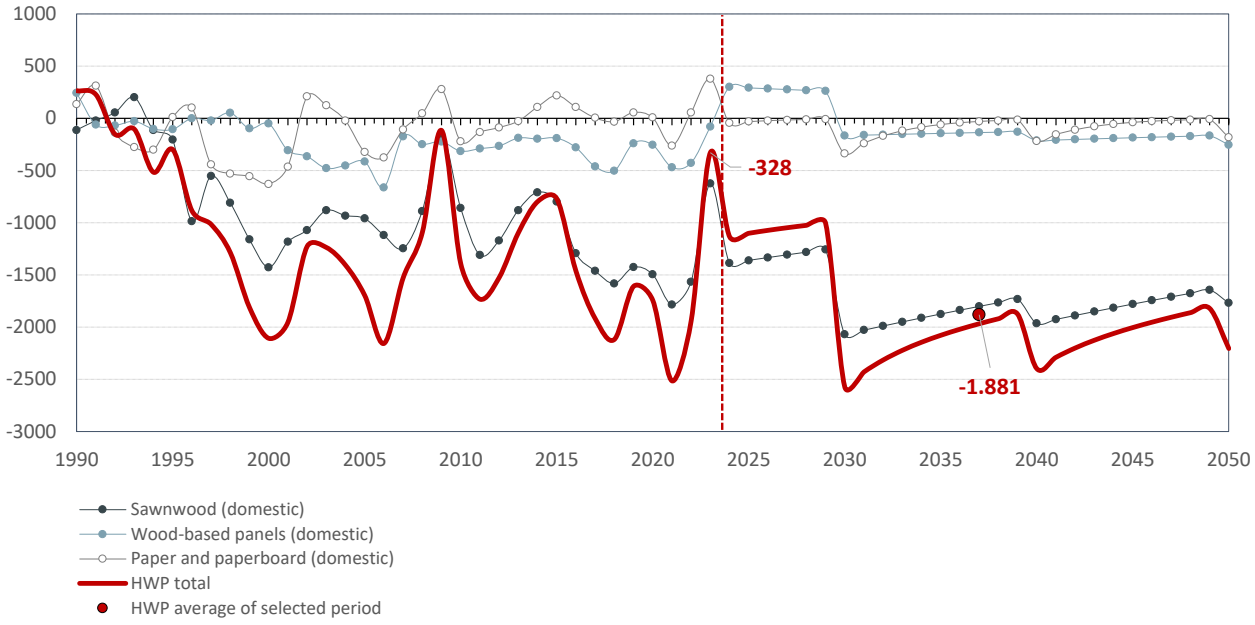

Figure AT-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Austria [in kt CO_2]

Analogous to the illustration for the production approach, Figure AT-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Austria are contained in Table ANX-AT-C in the Annex II.

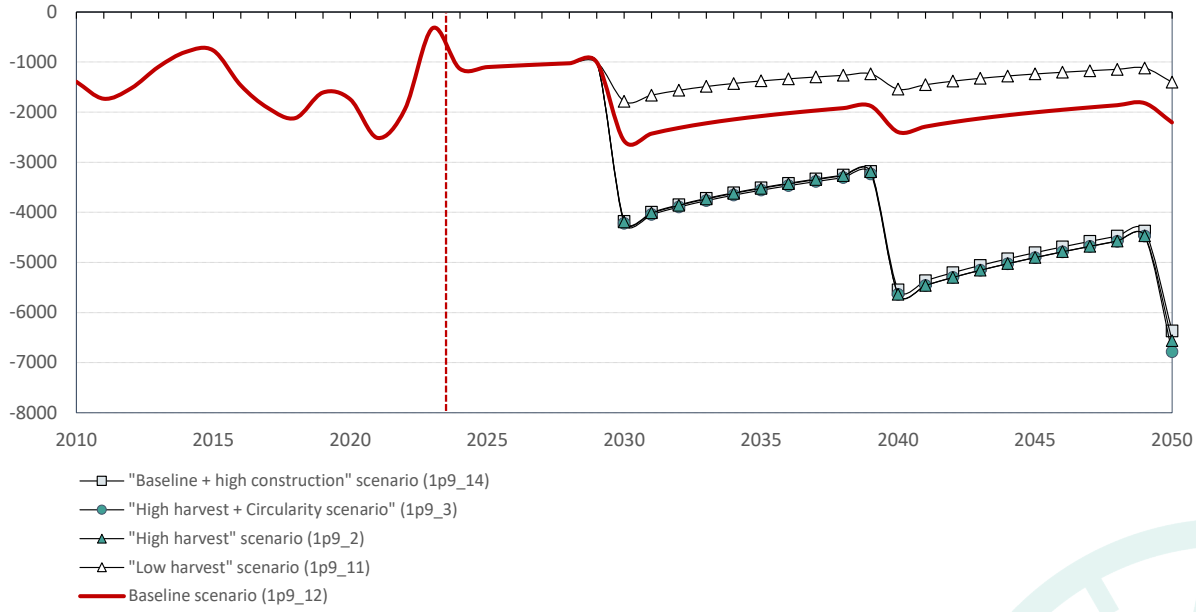

Figure AT-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Austria [in kt CO2]

Belgium (BE)

For Belgium, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 2000 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure BE-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

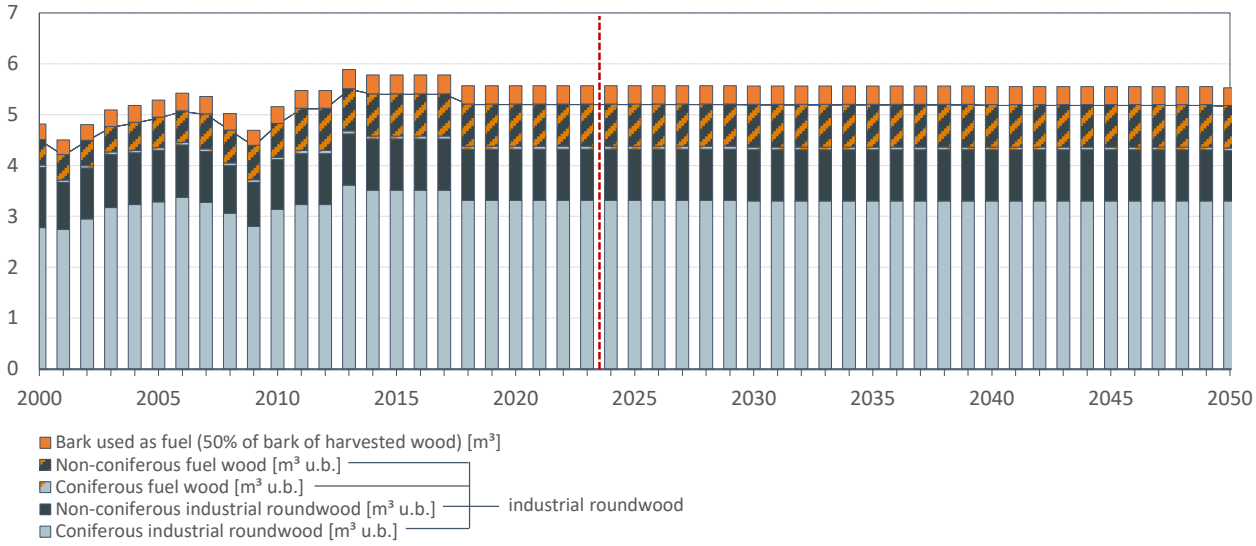

Figure BE-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Belgium [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure BE-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

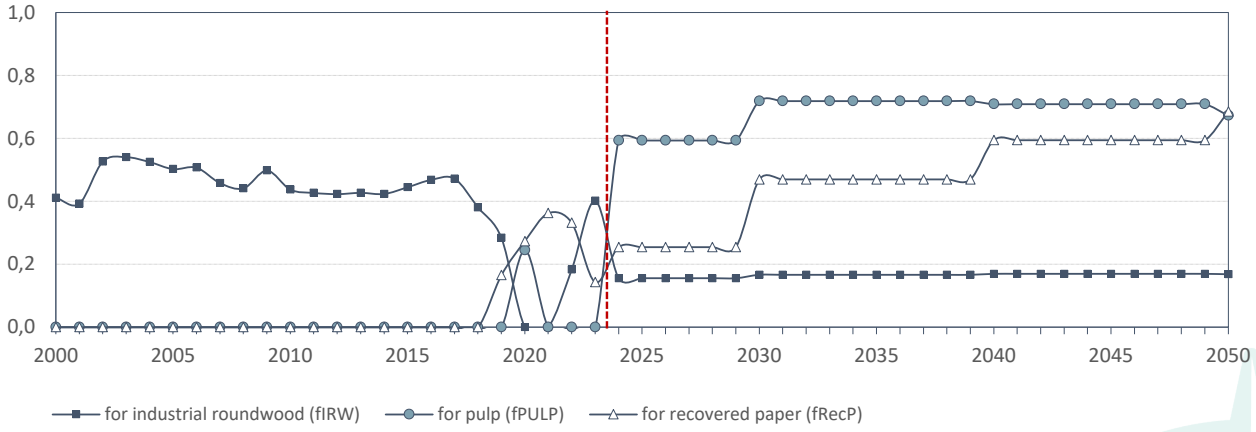

Figure BE-B: Historic and future development of the applied domestic feedstock factors for Belgium

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-BE-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure BE-C shows the results for Scenario (RCP1p9_12).

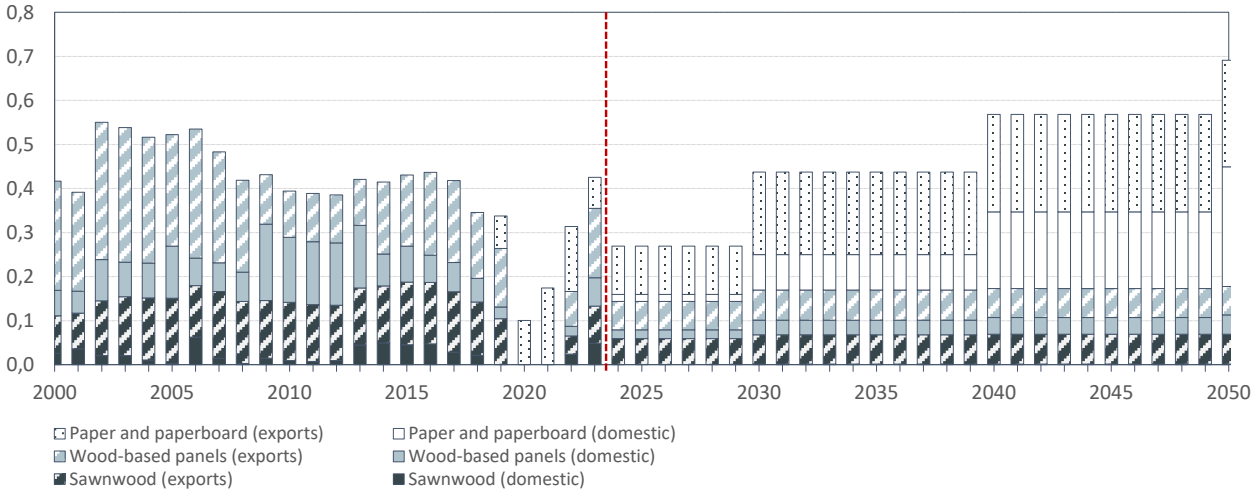

Figure BE-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Belgium [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

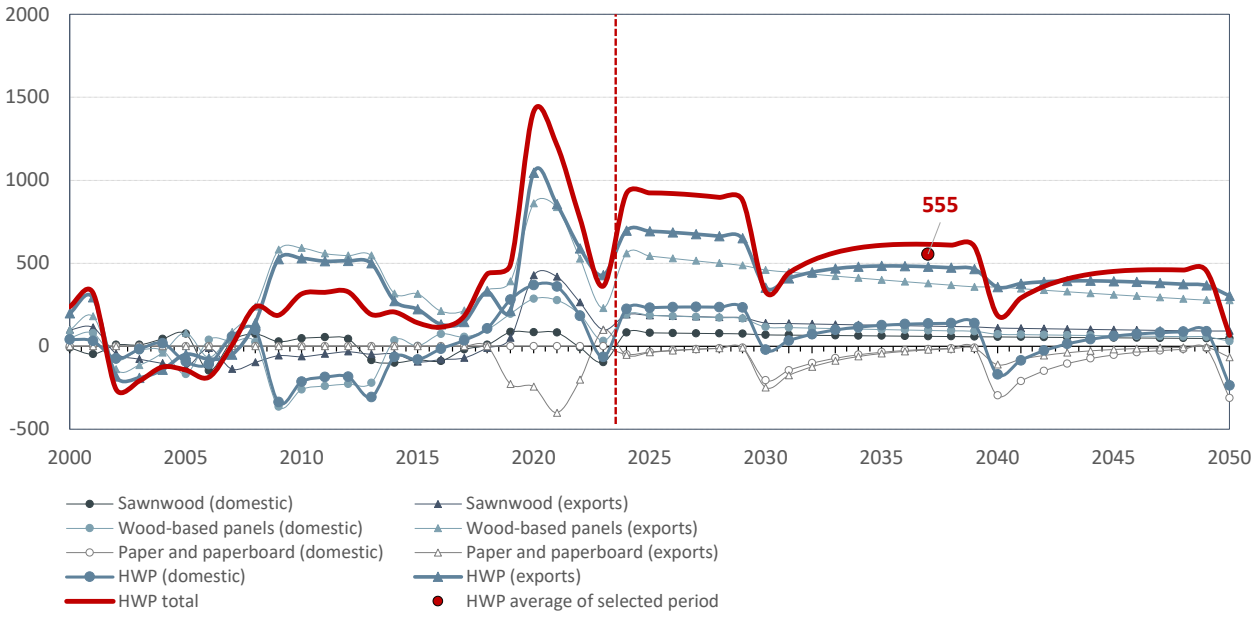

Figure BE-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Belgium [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure BE-D, Table ANX-BE-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

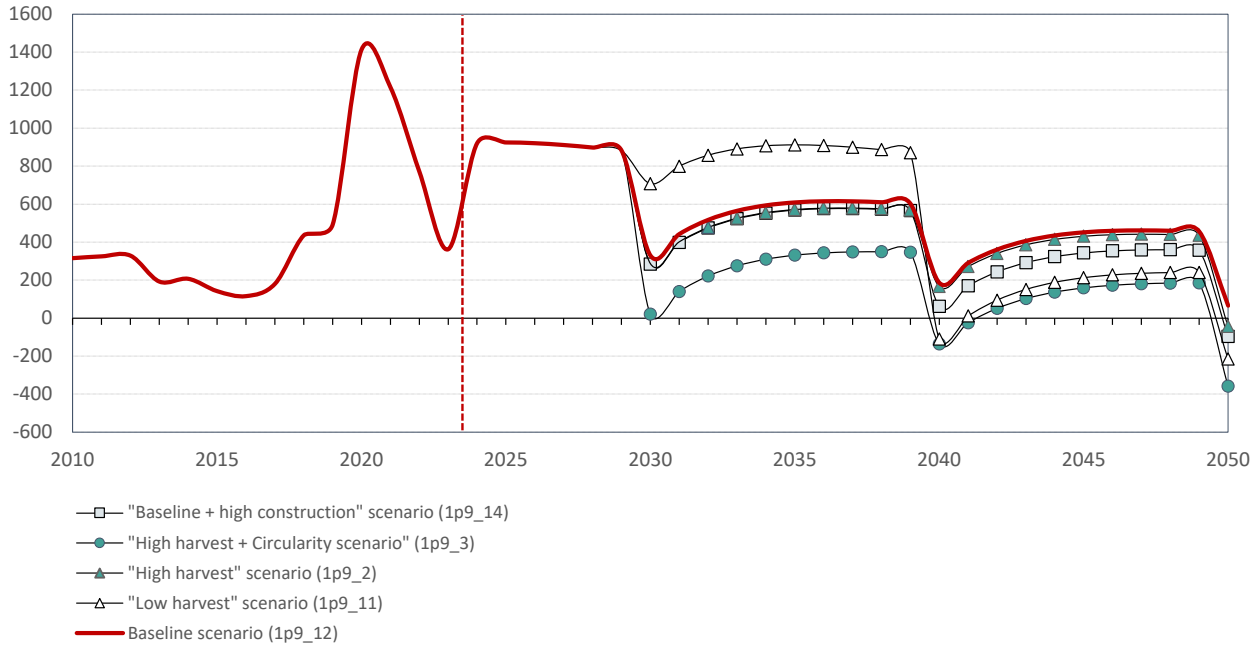

Figure BE-E: HWP contribution for selected scenarios on the basis of the production approach for Belgium [in kt CO_2]

Figure BE-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Belgium applying baseline scenario (RCP1p9_12) in Figure BE-F.

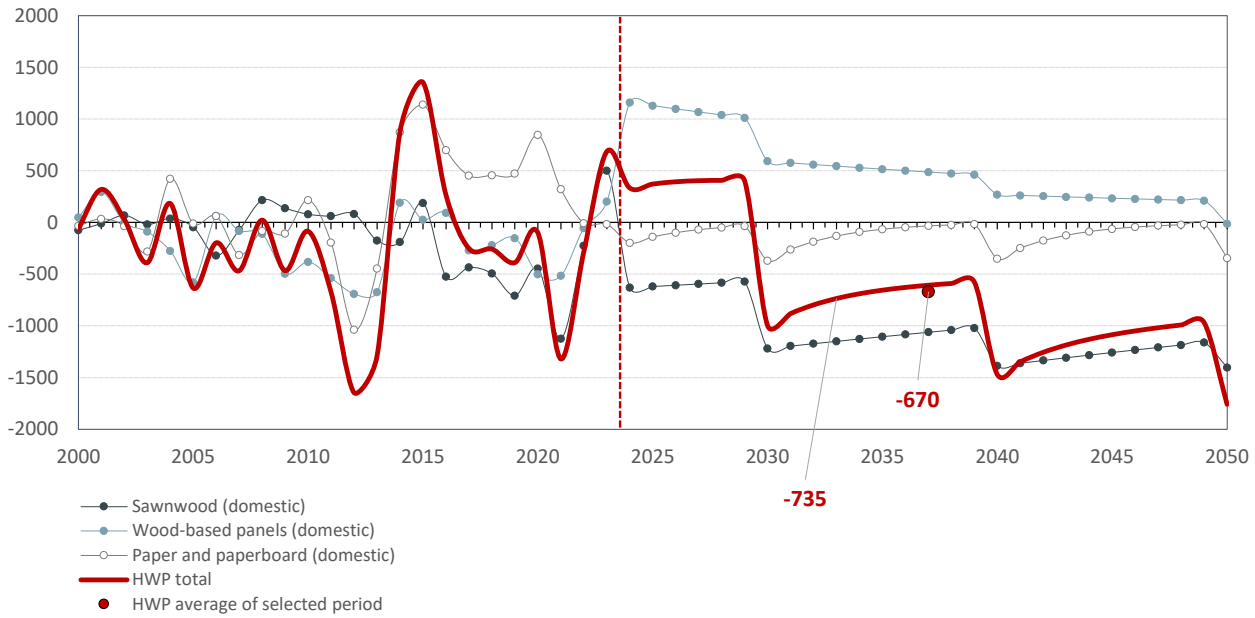

Figure BE-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Belgium [in kt CO_2]

Analogous to the illustration for the production approach, Figure BE-0-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Belgium are contained in Table ANX-BE-0-C in the Annex 2.

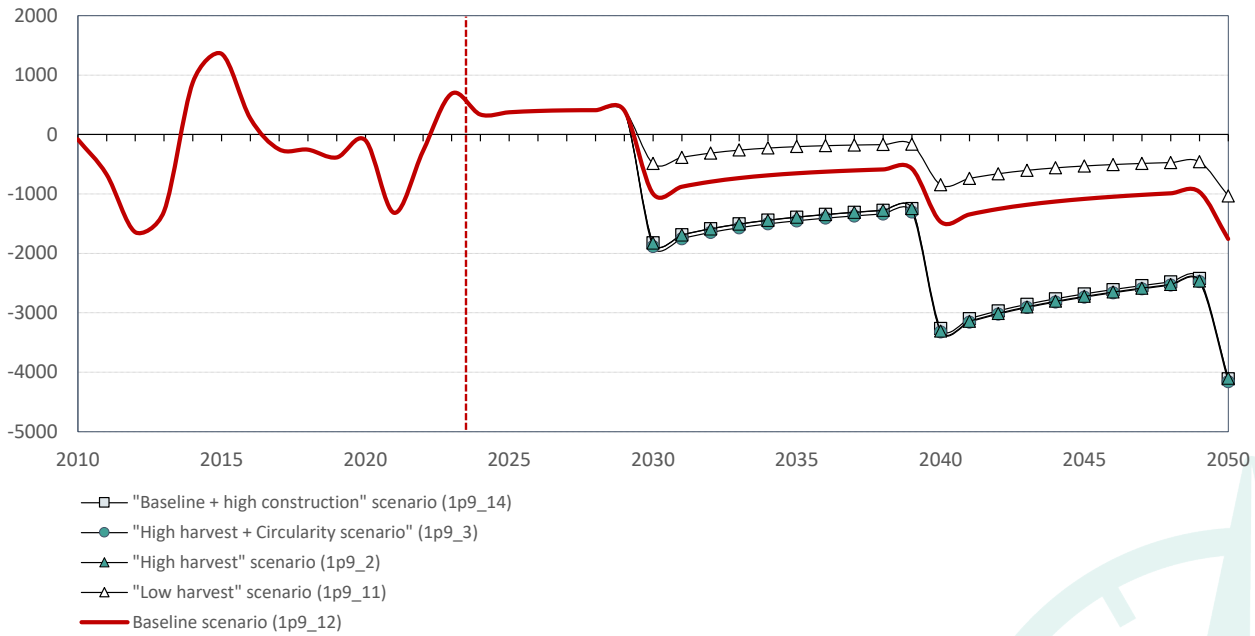

Figure BE-0-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Belgium [in kt CO_2]

Bulgaria (BG)

For Bulgaria, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure BG-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

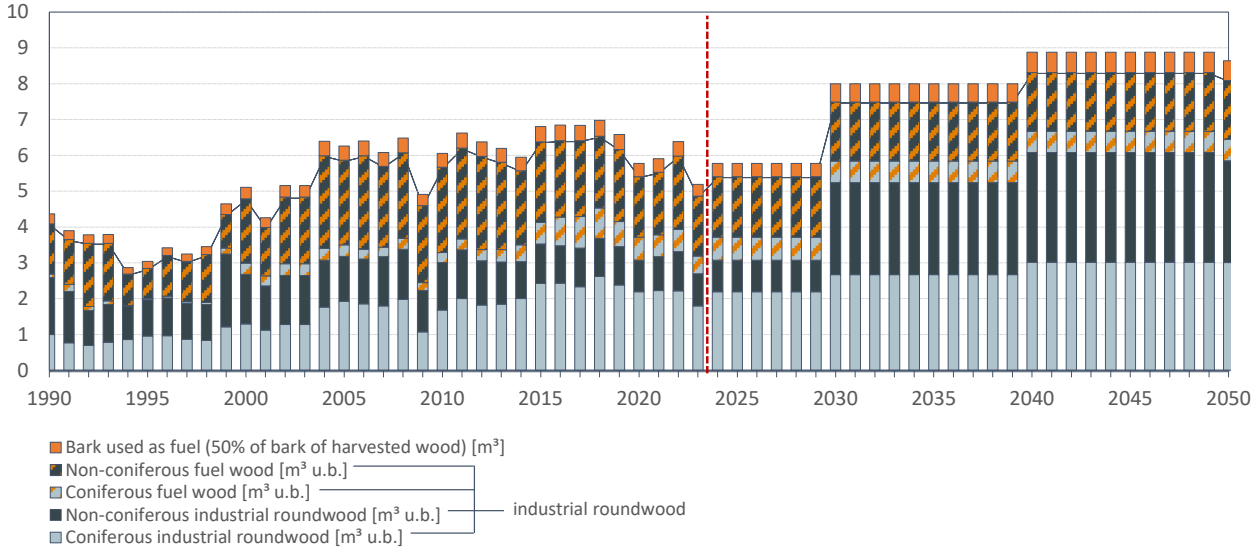

Figure BG-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Bulgaria [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure BG-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario RCP1p9_12.

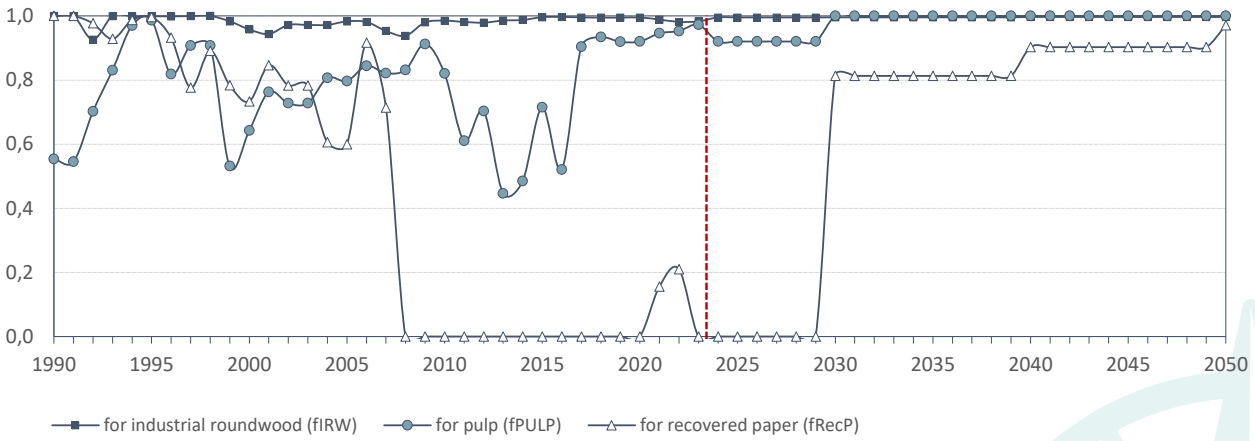

Figure BG-B: Historic and future development of the applied domestic feedstock factors for Bulgaria

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-BG-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure BG-C shows the results for the "baseline" scenario (RCP1p9_12).

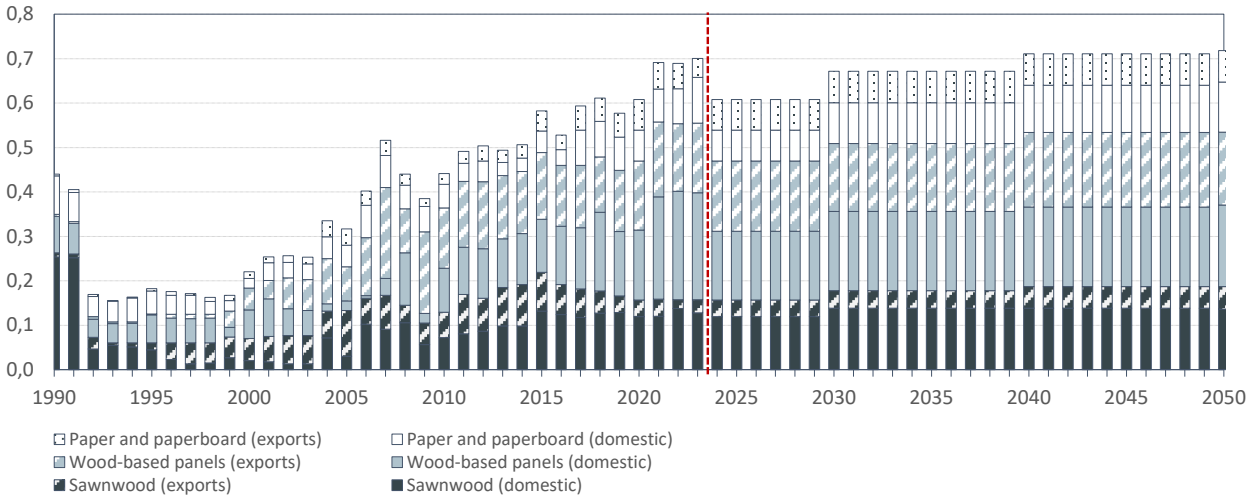

Figure BG-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Bulgaria [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

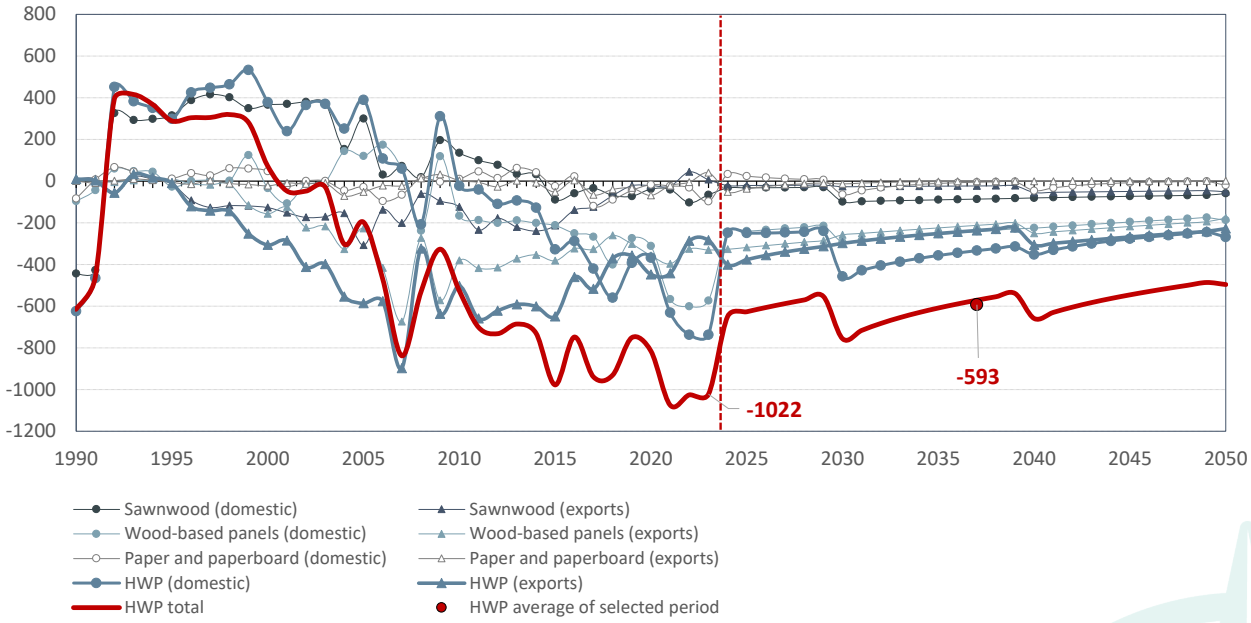

Figure BG-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Bulgaria [in kt CO_2]

In addition to the resulting time series following the “baseline” scenario (RCP1p9_12) as shown in Figure BG-D, Table ANX-BG-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

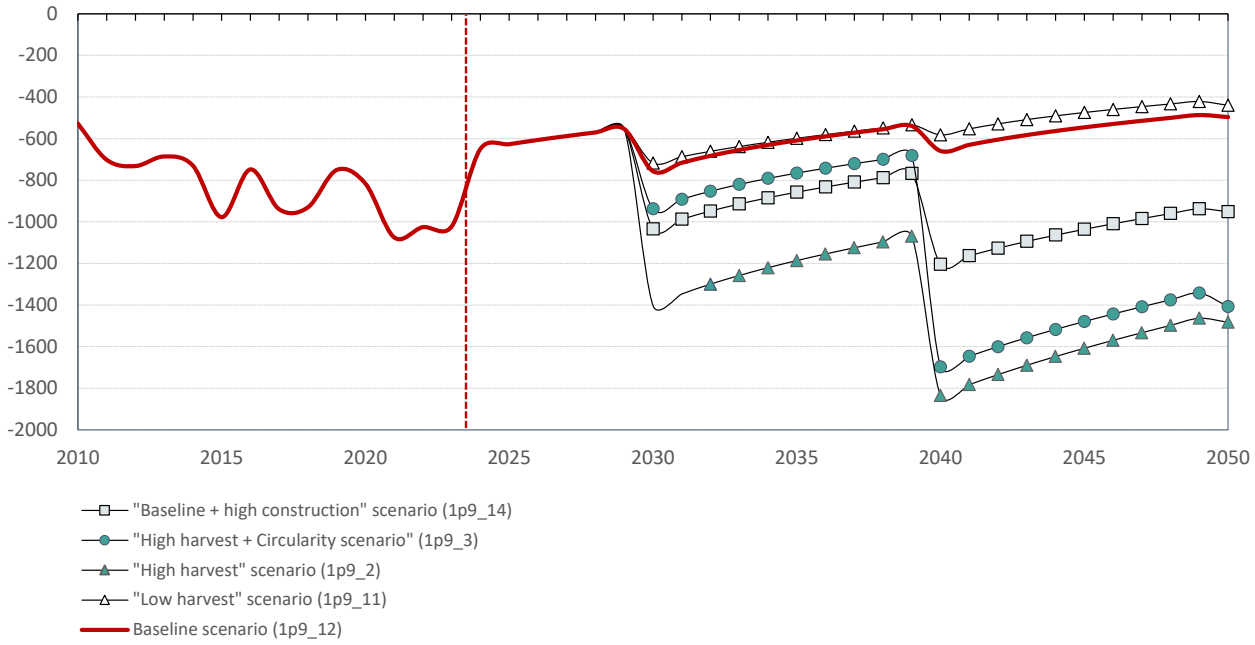

Figure BG-E: HWP contribution for selected scenarios on the basis of the production approach for Bulgaria [in kt CO_2]

Figure AT-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Bulgaria applying the "baseline" scenario (RCP1p9_12) in Figure BG-F.

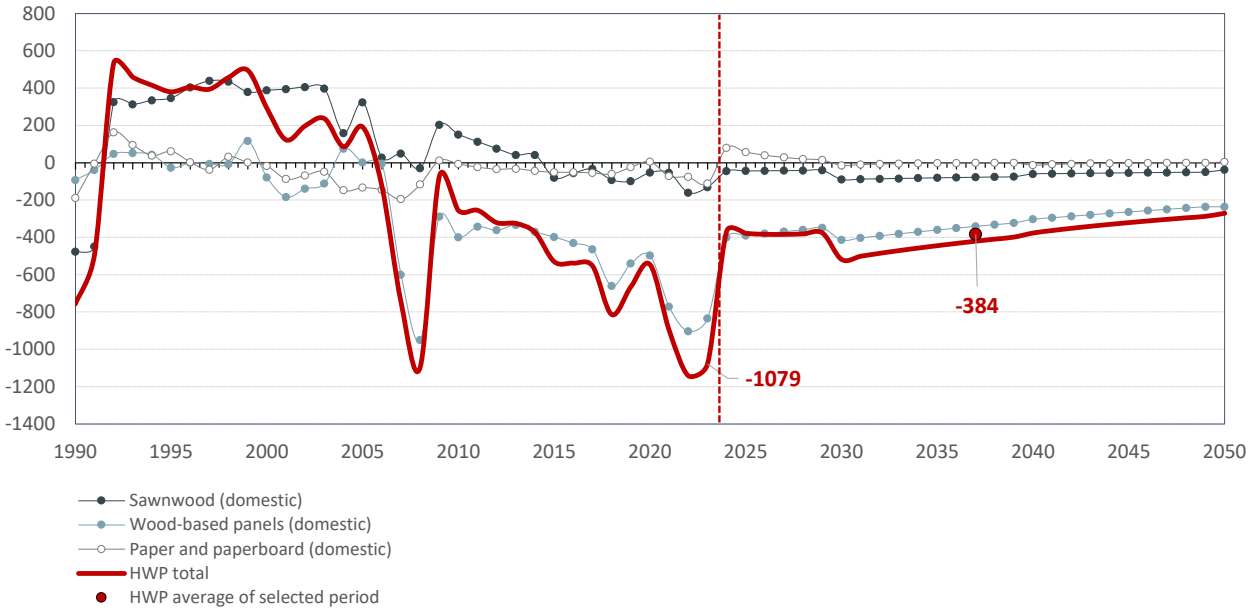

Figure BG-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Bulgaria [in kt CO_2]

Analogous to the illustration for the production approach, Figure BG-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Bulgaria are contained in

Table ANX-BG-0-C in the Annex II.

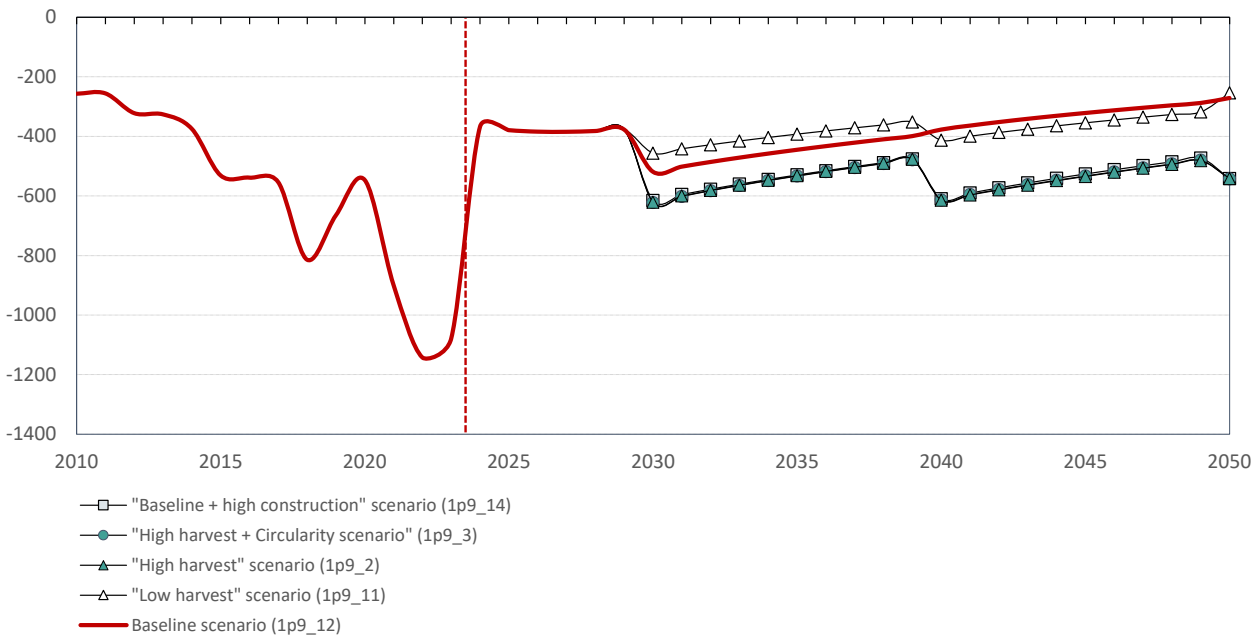

Figure BG-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Bulgaria [in kt CO2]

Czechia (CZ)

For Czechia, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1992 to 2023. In order to complement the missing years since 1990, for the sake of completeness the data determined proportionally from the data of Czechoslovakia were used, which were also used for the estimation of the HWP contribution to the FMRL of the Czech Republic (UNFCCC 2011).

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure DE-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

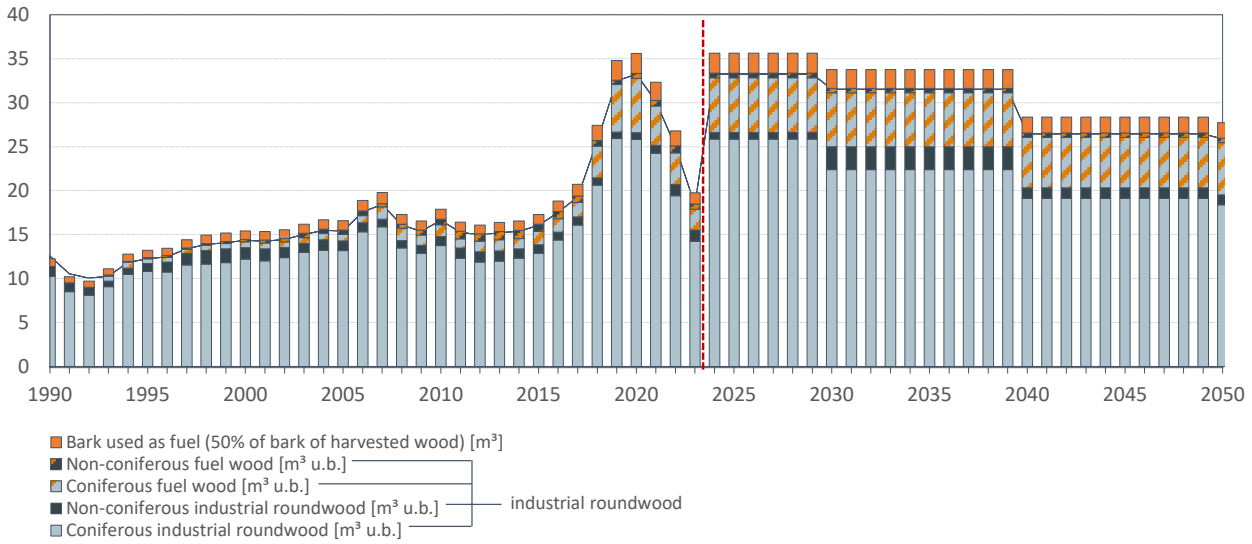

Figure CZ-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Czechia [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure CZ-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

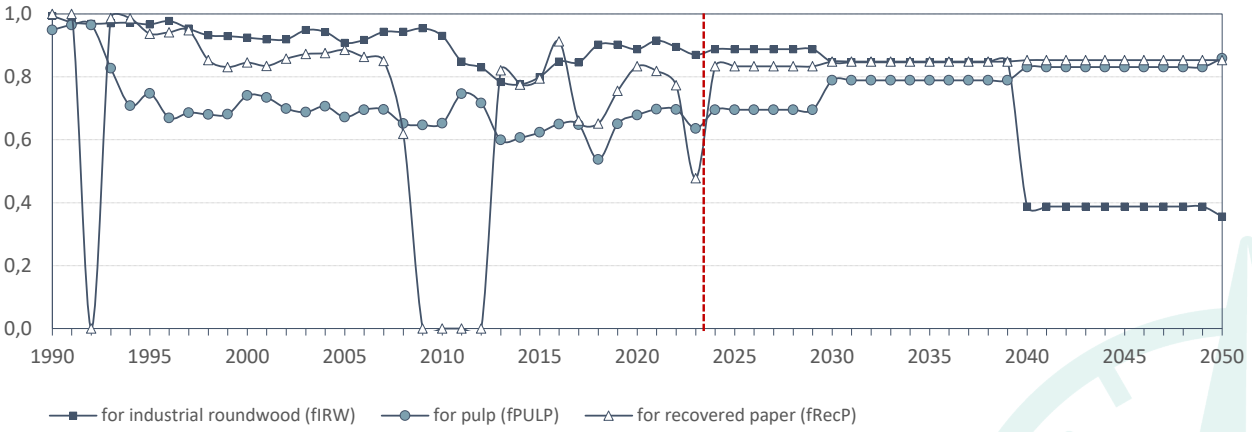

Figure CZ-B: Historic and future development of the applied domestic feedstock factors for Czechia

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-CZ-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure CZ-C shows the results for the "baseline" scenario (RCP1p9_12).

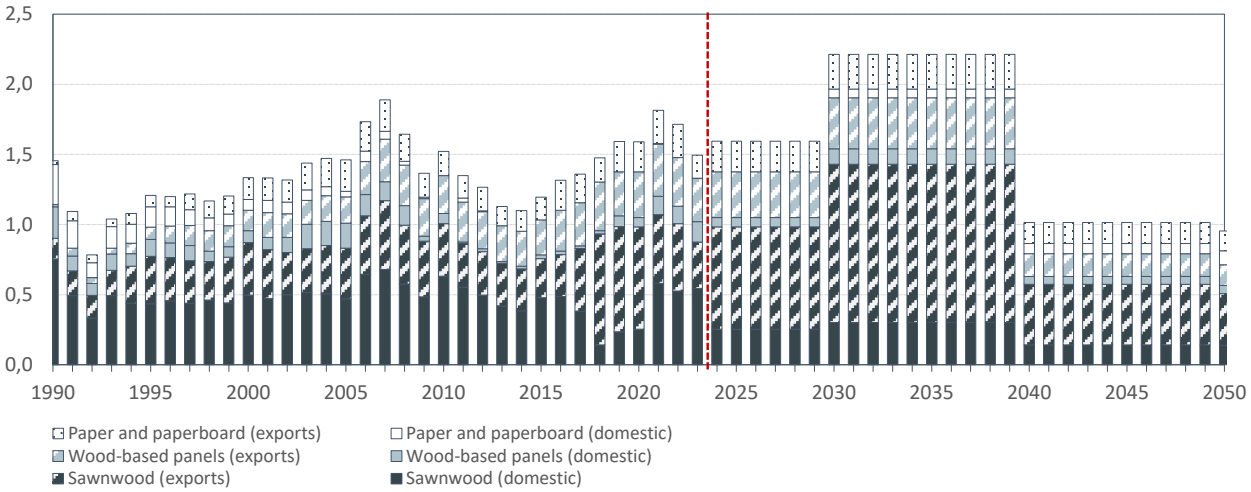

Figure CZ-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Czechia [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

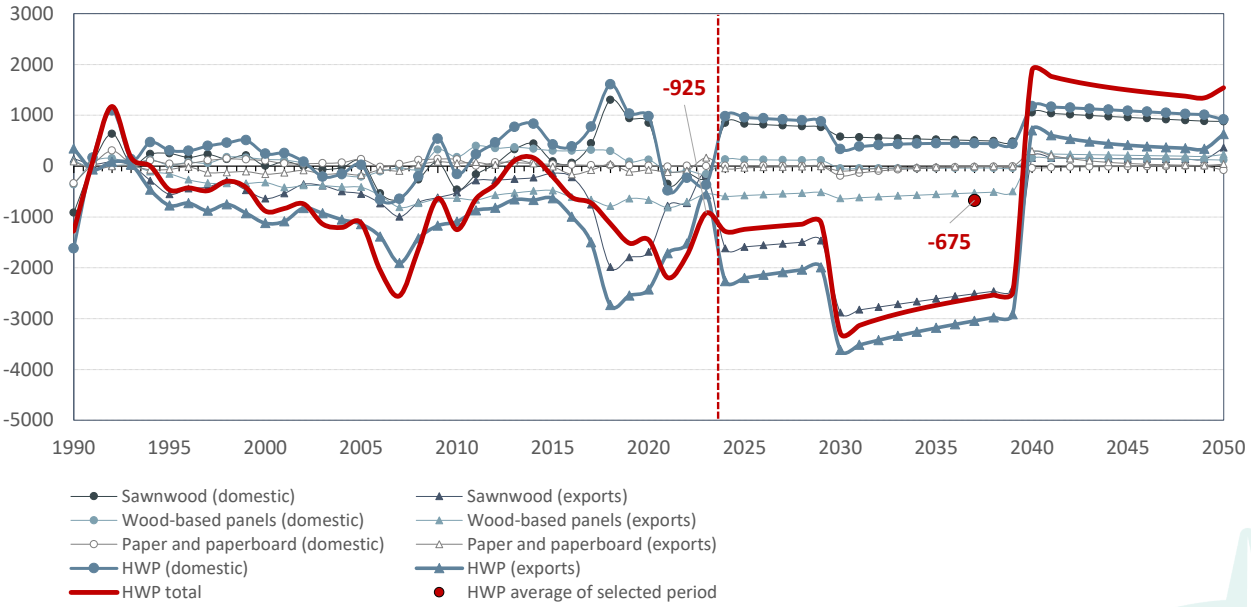

Figure CZ-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Czechia [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure CZ-D, Table ANX-CZ-0-B in the Annex II includes all average results for the GLOBIOM-inherent

modelling time periods for the calculated ForestNavigator scenarios. That table furthermore discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

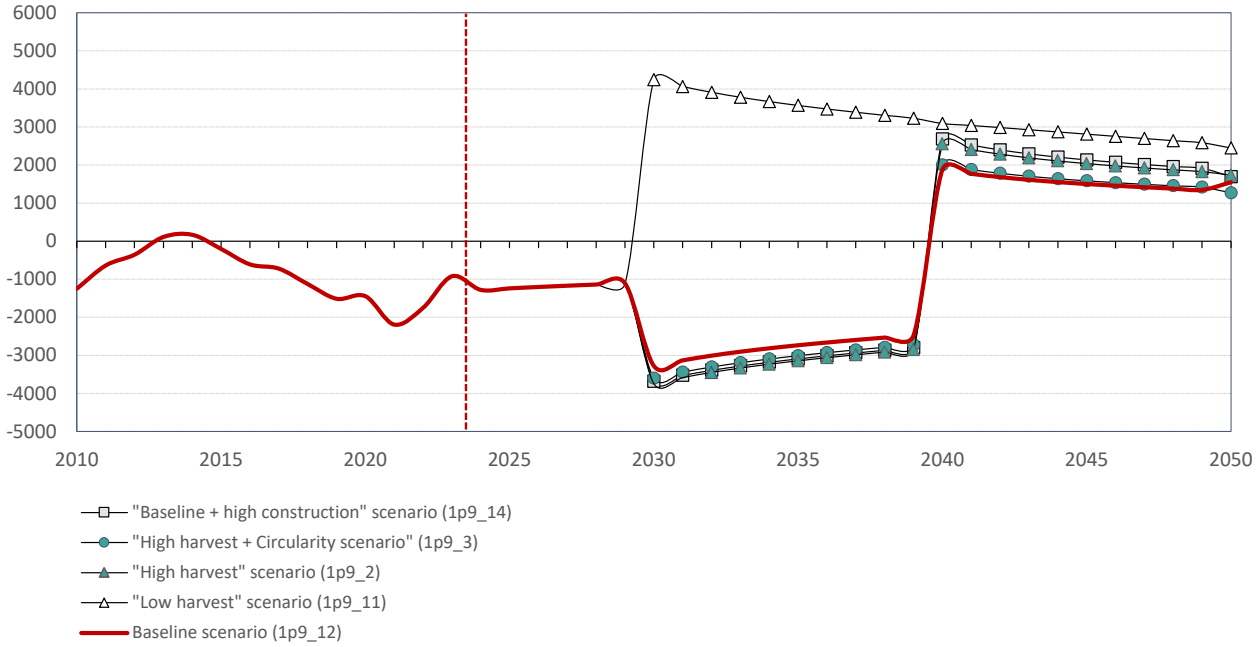

Figure CZ-E: HWP contribution for selected scenarios on the basis of the production approach for Czechia [in kt CO_2]

Figure CZ-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Czechia applying "baseline" scenario (RCP1p9_12) in Figure CZ-F.

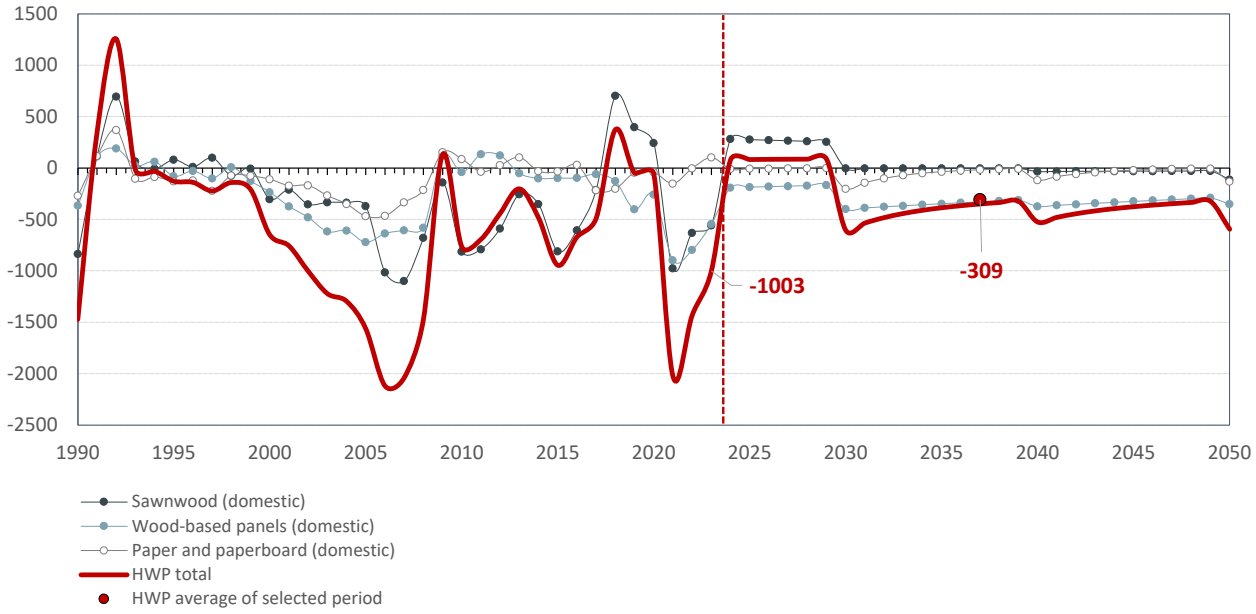

Figure CZ-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Czechia [in kt CO_2]

Analogous to the illustration for the production approach, Figure CZ-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Czechia are contained in

Table ANX-CZ-0-C in the Annex II.

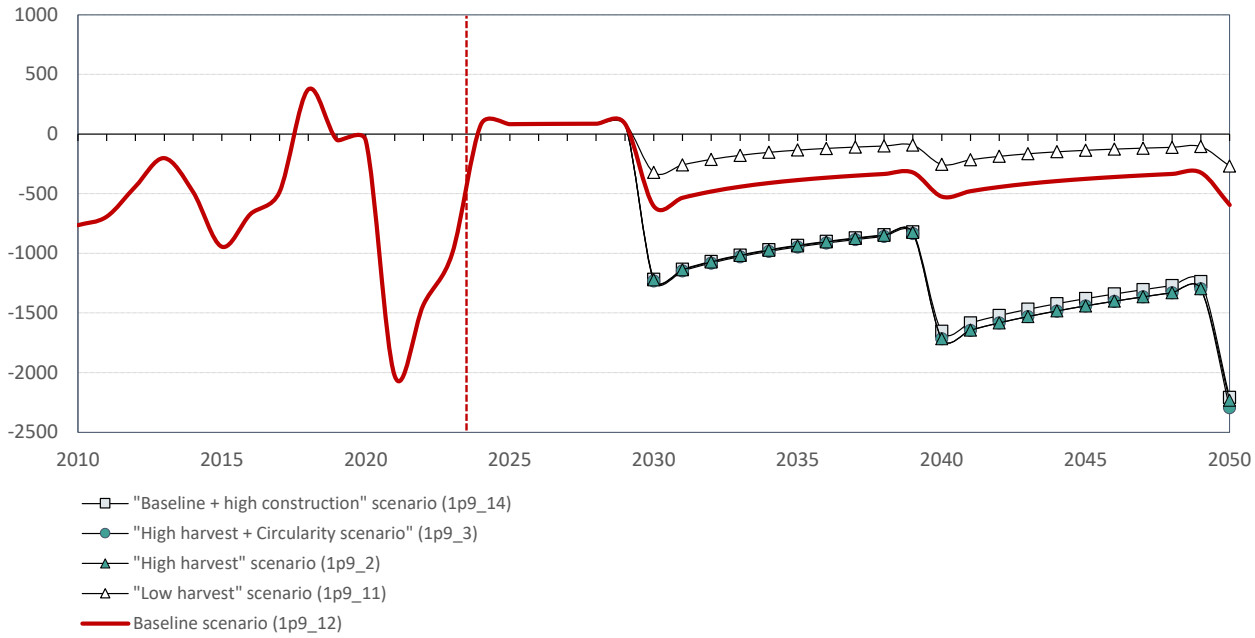

Figure CZ-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Czechia [in kt CO_2]

Germany (DE)

For Germany, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure DE-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

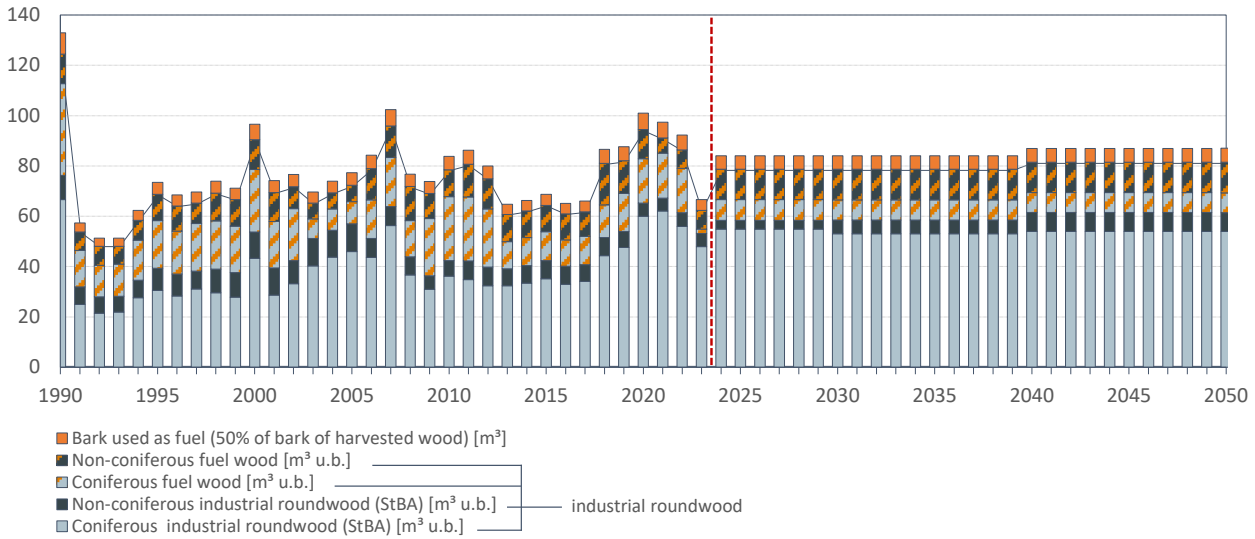

Figure DE-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Germany [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure DE-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

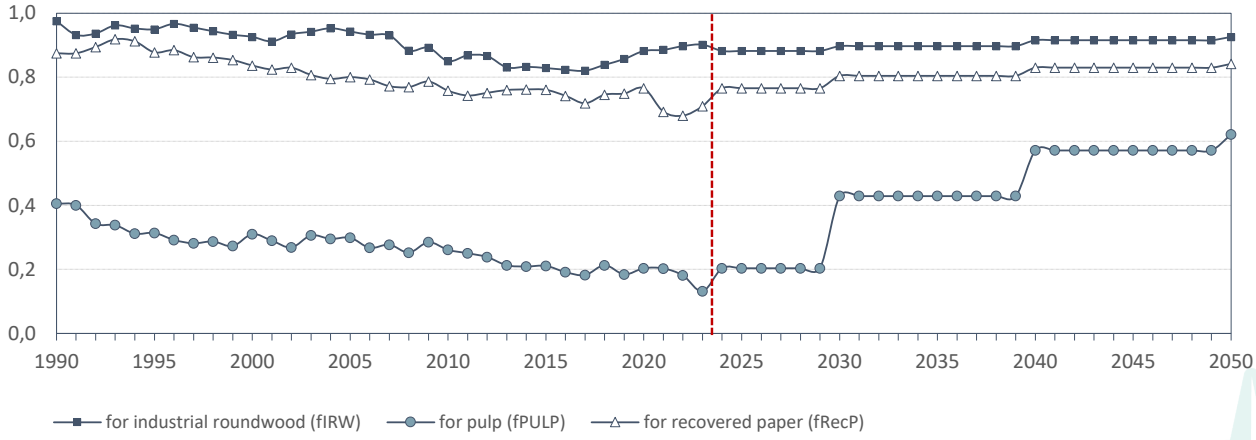

Figure DE-B: Historic and future development of the applied domestic feedstock factors for Germany

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-DE-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure DE-C shows the results for the "baseline" scenario (RCP1p9_12).

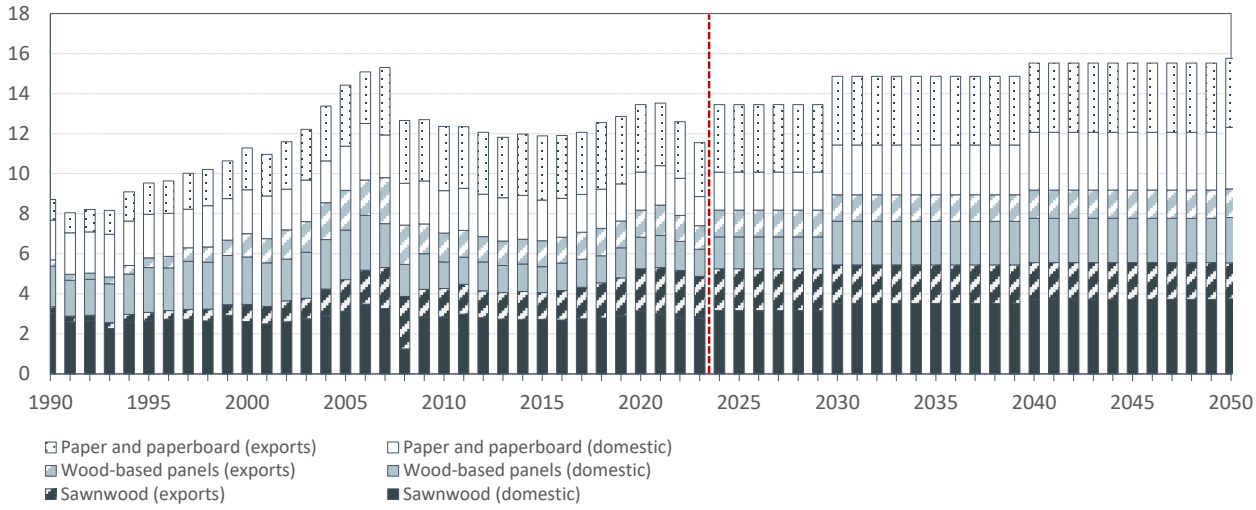

Figure DE-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Germany [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

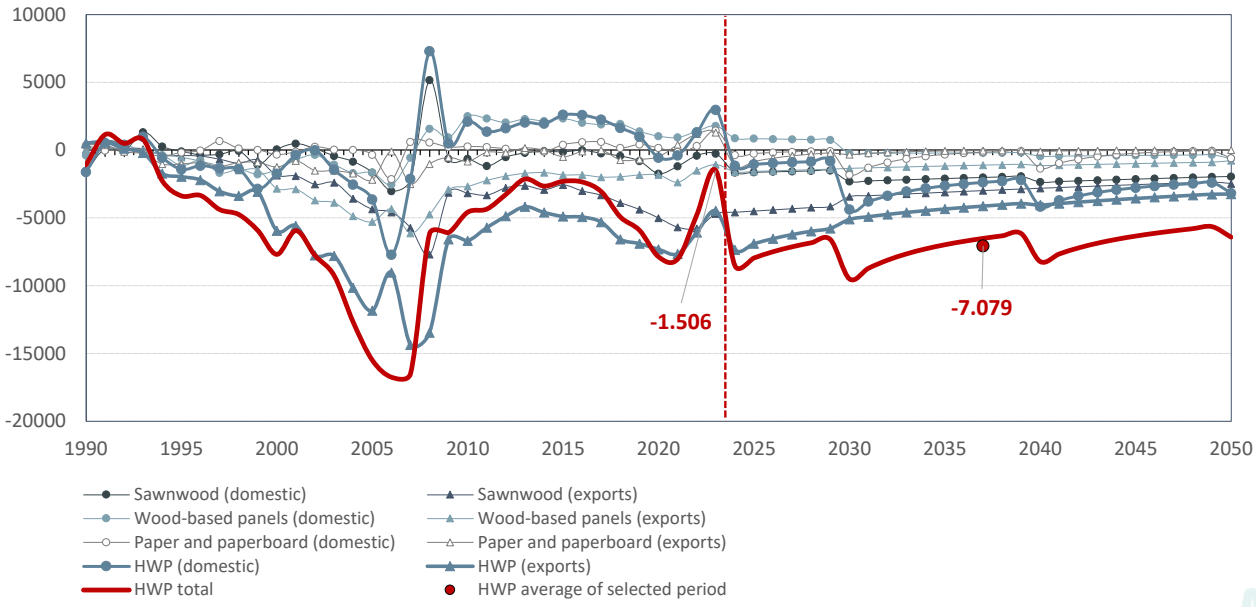

Figure DE-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Germany [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure DE-D,

Table ANX-DE-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

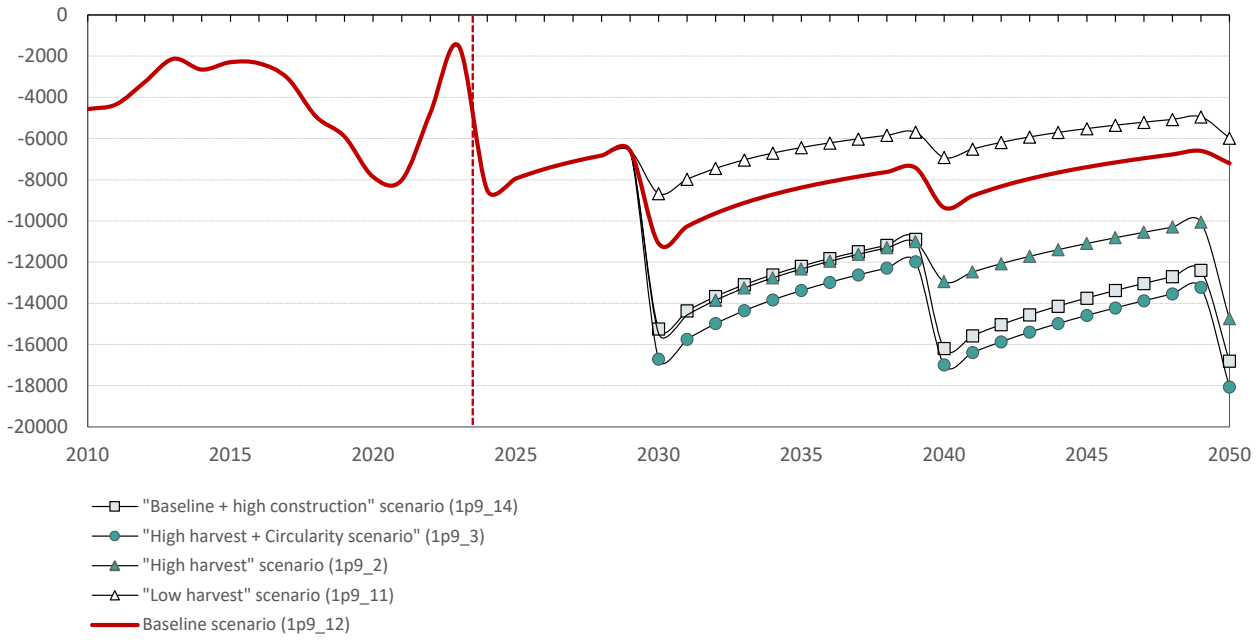

Figure DE-E: HWP contribution for selected scenarios on the basis of the production approach for Germany [in kt CO_2]

Figure DE-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Germany applying the "baseline" scenario (RCP1p9_12) in Figure DE-F.

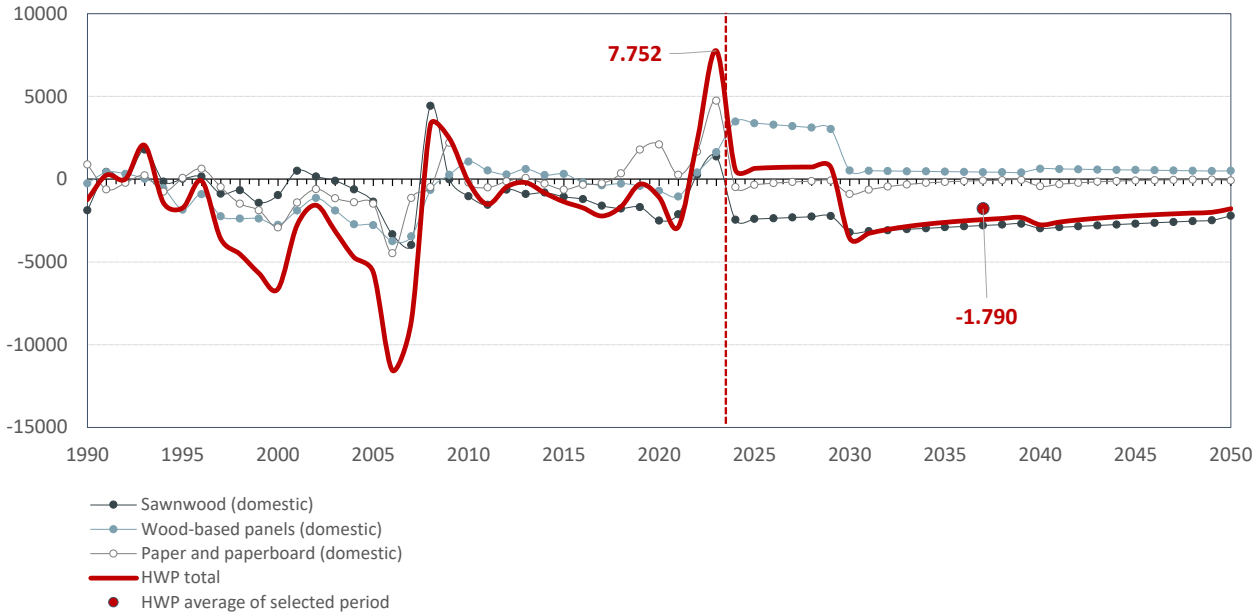

Figure DE-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Germany [in kt CO_2]

Analogous to the illustration for the production approach, Figure DE-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Austria are contained in

Table ANX-DE-0-C in the Annex II.

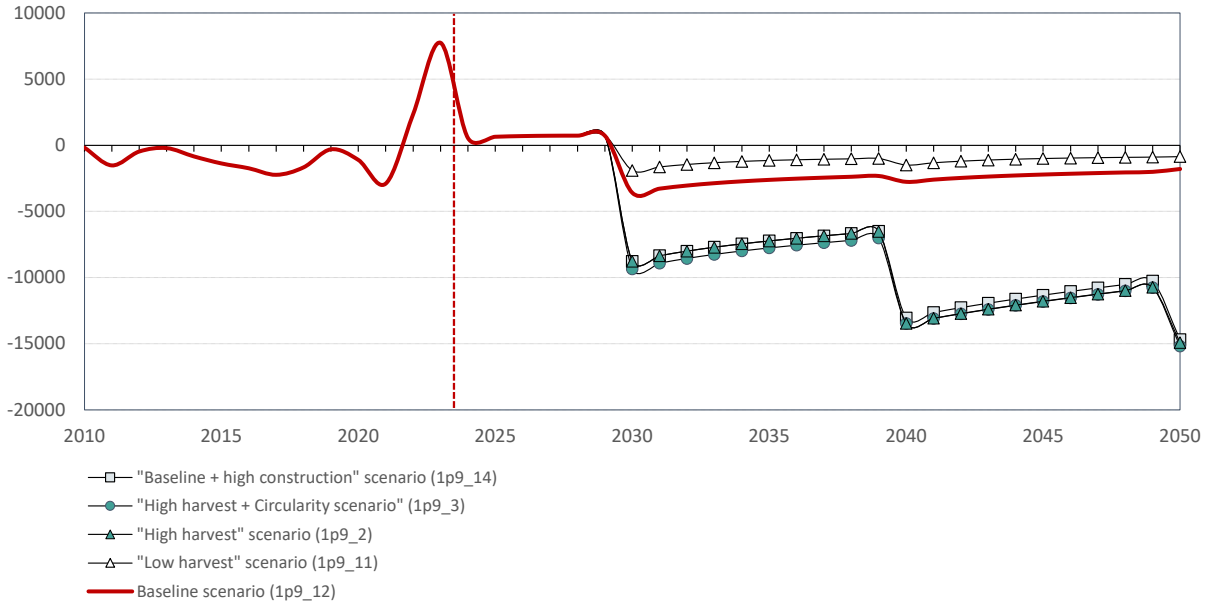

Figure DE-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Germany [in kt CO_2]

Denmark (DK)

For Denmark, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure DK-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

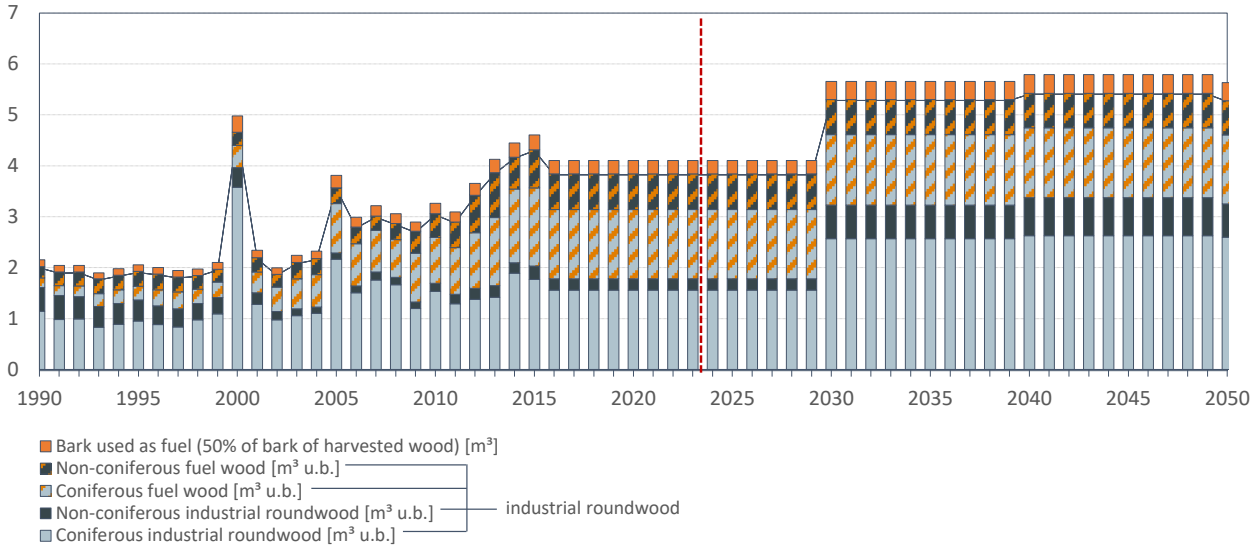

Figure DK-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Denmark [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure DK-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

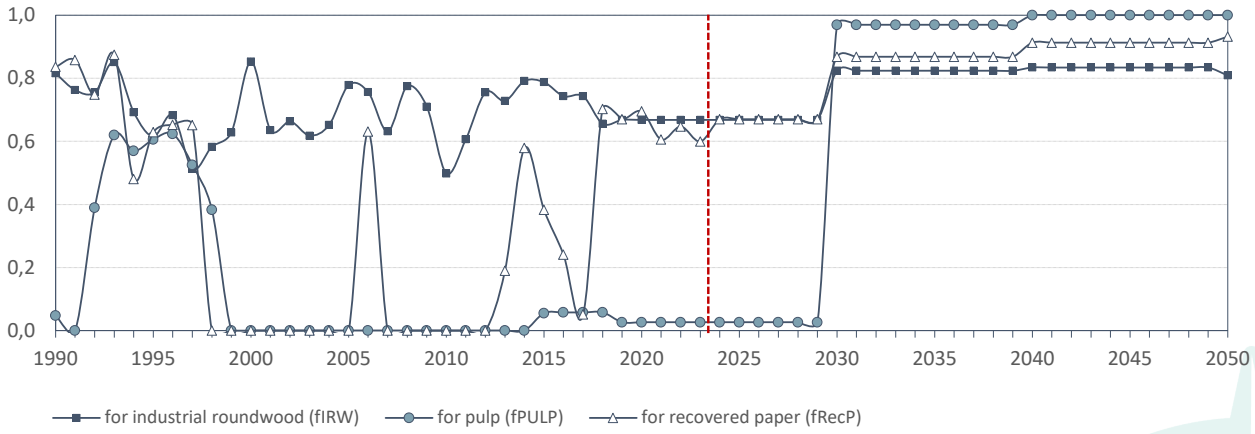

Figure DK-B: Historic and future development of the applied domestic feedstock factors for Denmark

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-DK-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure DK-C shows the results for the "baseline" scenario (RCP1p9_12).

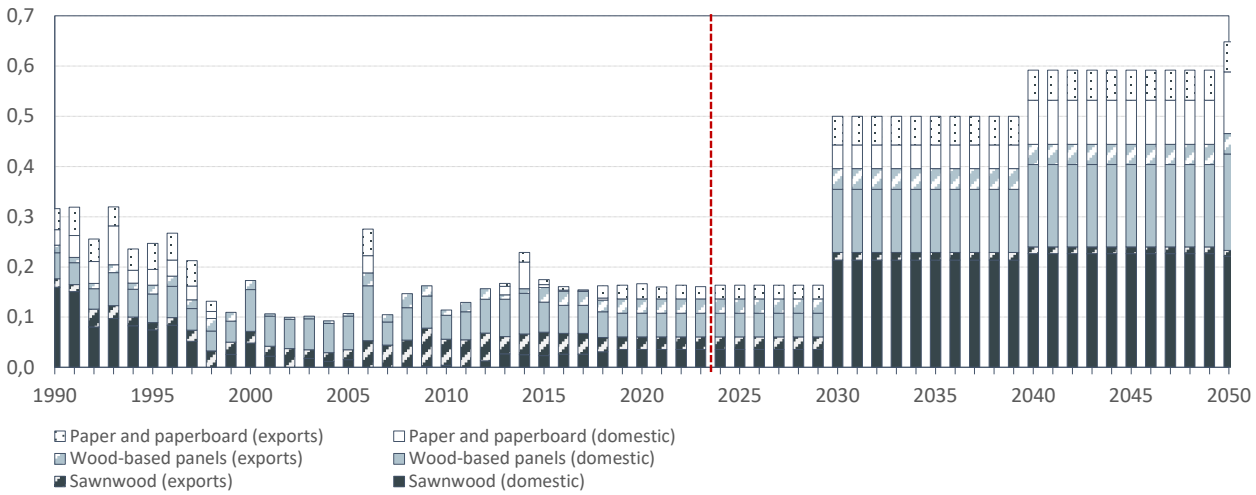

Figure DK-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Denmark [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

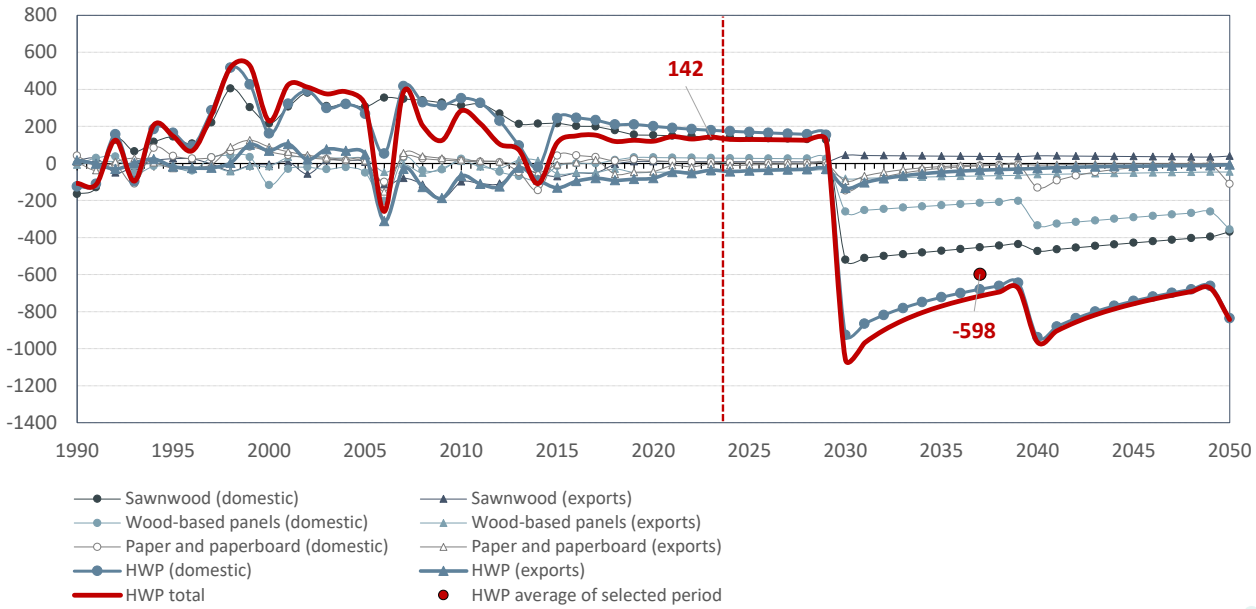

Figure DK-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Denmark [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure DK-D, Table ANX-DK-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table

furthermore discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

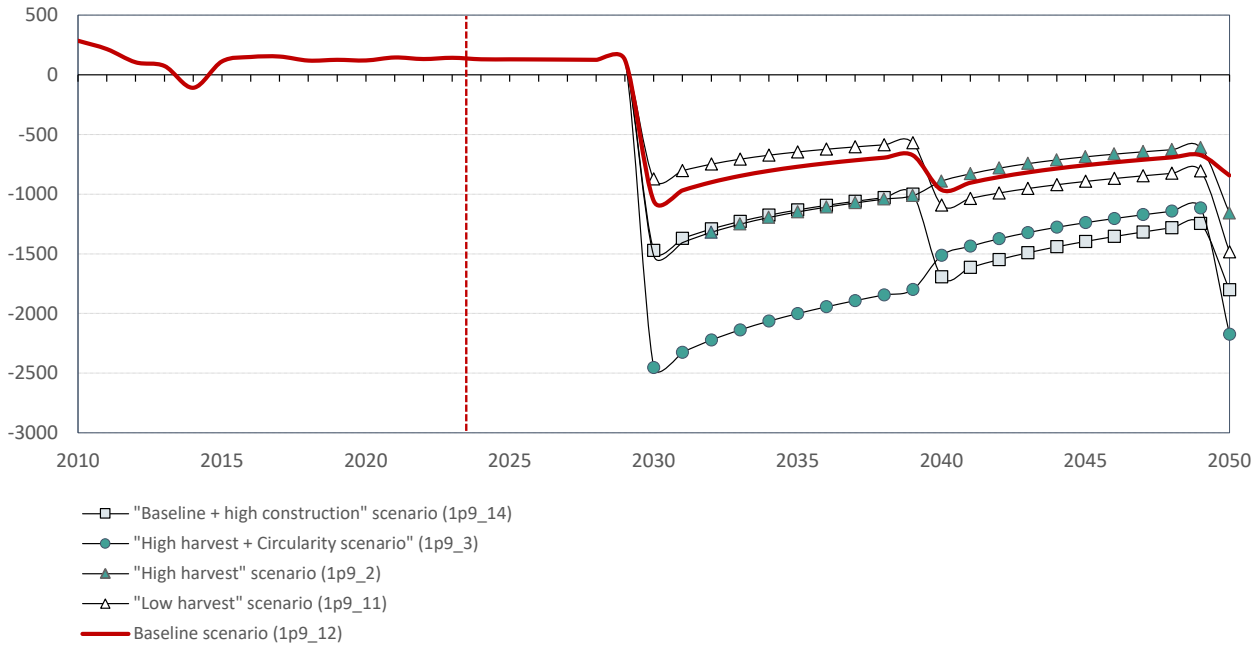

Figure DK-E: HWP contribution for selected scenarios on the basis of the stock-change approach for Czechia [in kt CO_2]

Figure DK-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Denmark applying the "baseline" scenario (RCP1p9_12) in Figure DK-F.

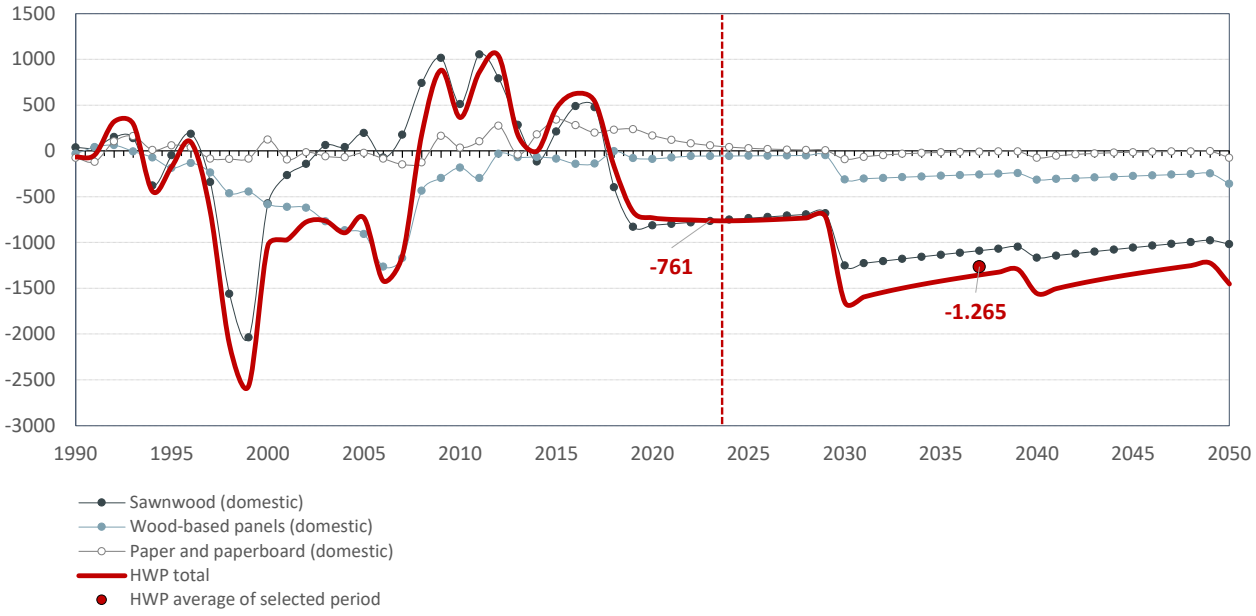

Figure DK-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Denmark [in kt CO_2]

Analogous to the illustration for the production approach, Figure DK-G *illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Denmark are contained in*

Table ANX-DK-0-C in the Annex II.

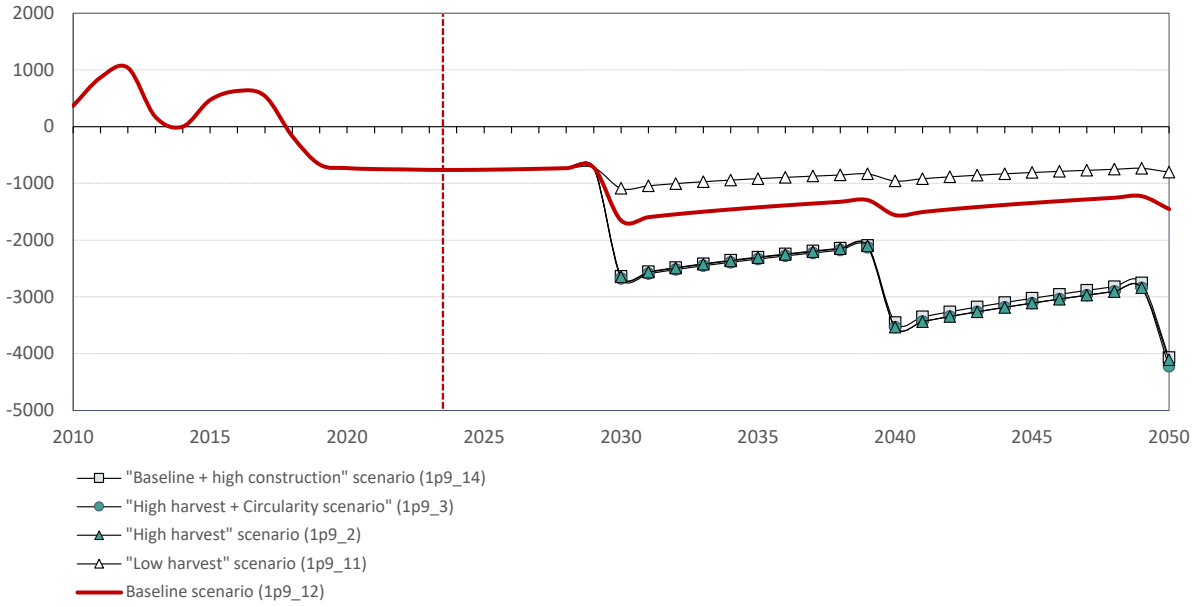

Figure DK-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Denmark [in kt CO_2]

Estonia (EE)

For Estonia, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1992 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure EE-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

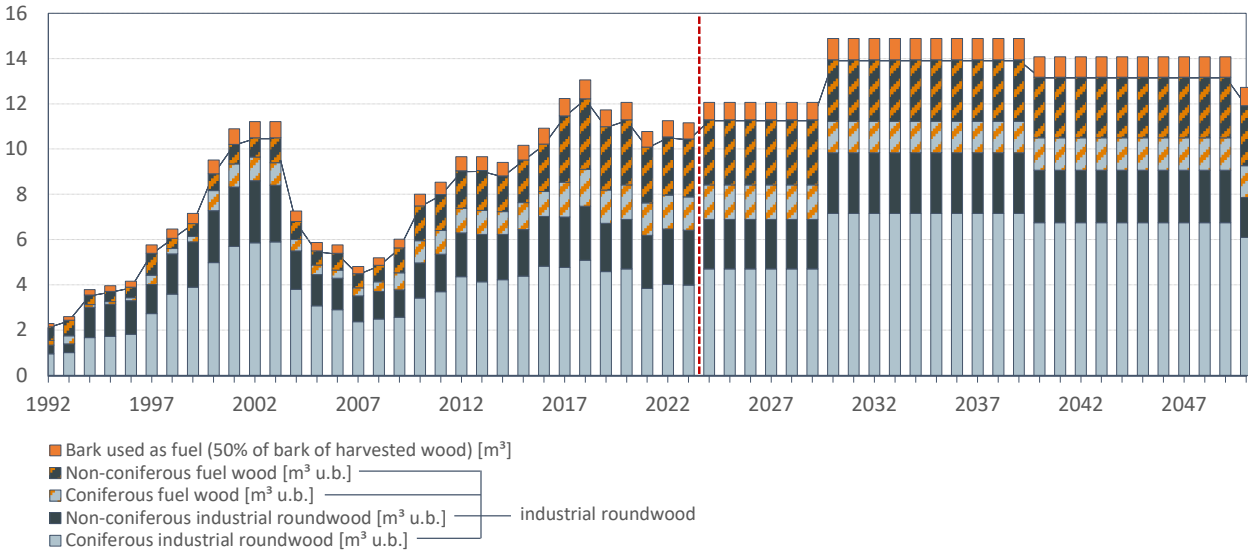

Figure EE-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Estonia [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure EE-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

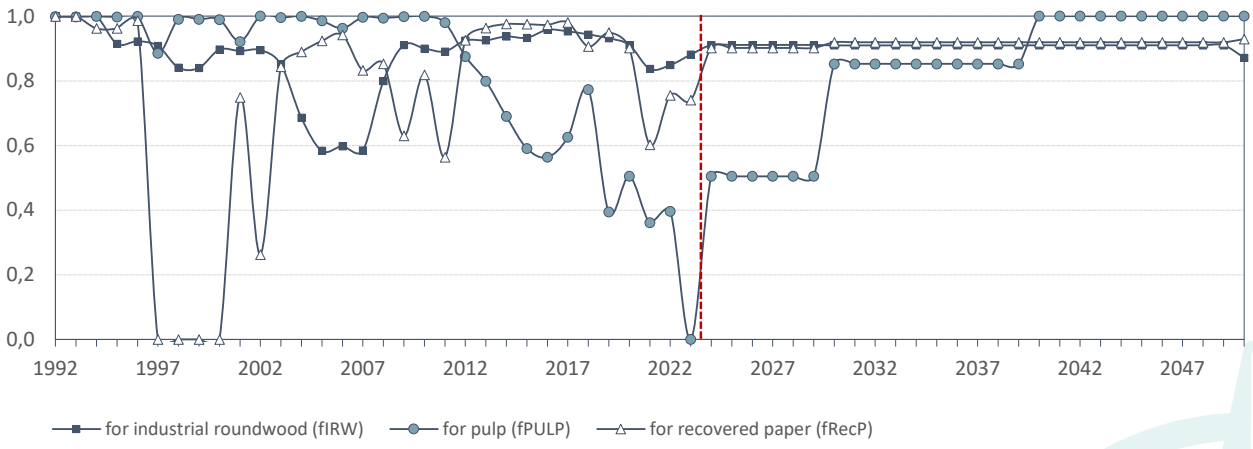

Figure EE-B: Historic and future development of the applied domestic feedstock factors for Estonia

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-EE-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure EE-C shows the results for the "baseline" scenario (RCP1p9_12).

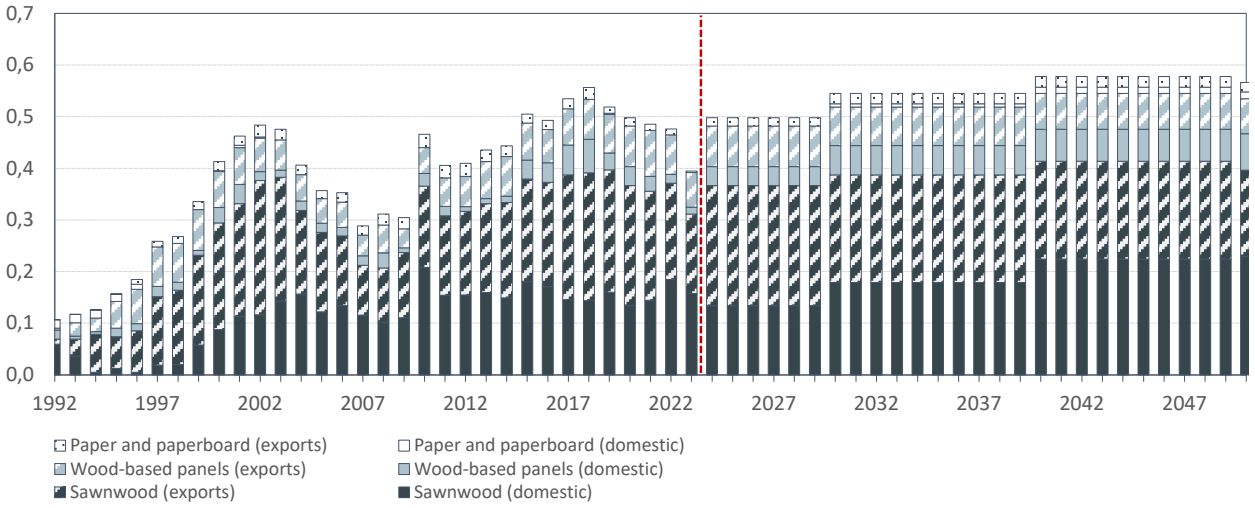

Figure EE-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Estonia [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

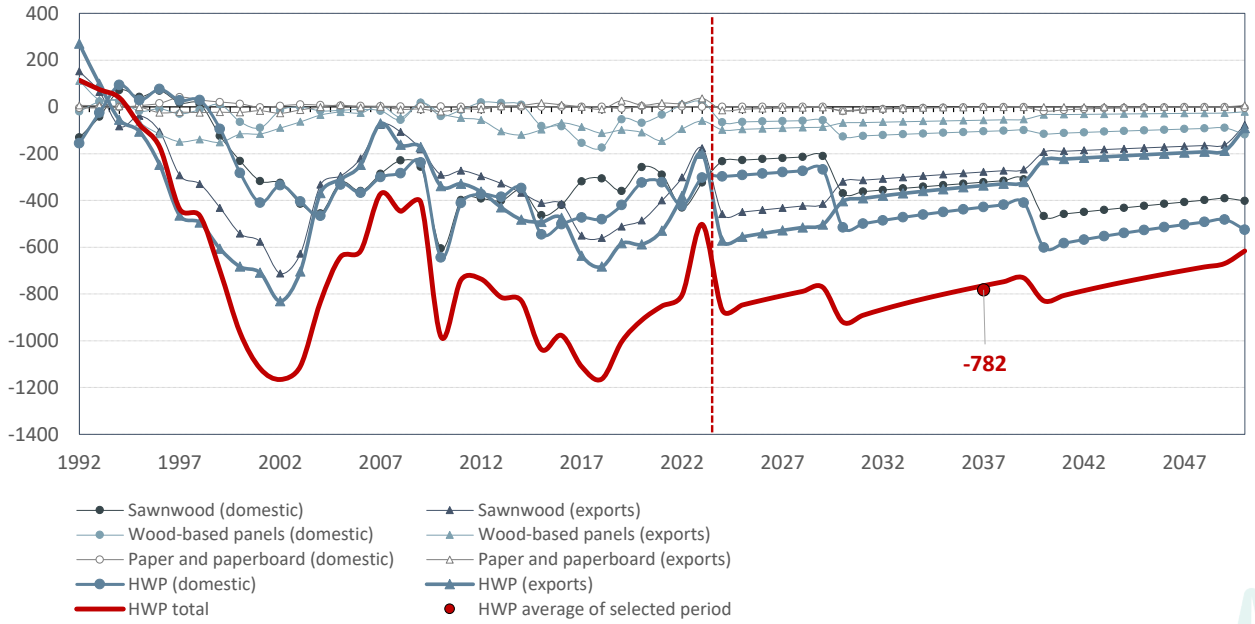

Figure EE-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Estonia [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure EE-D, Table ANX-EE-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

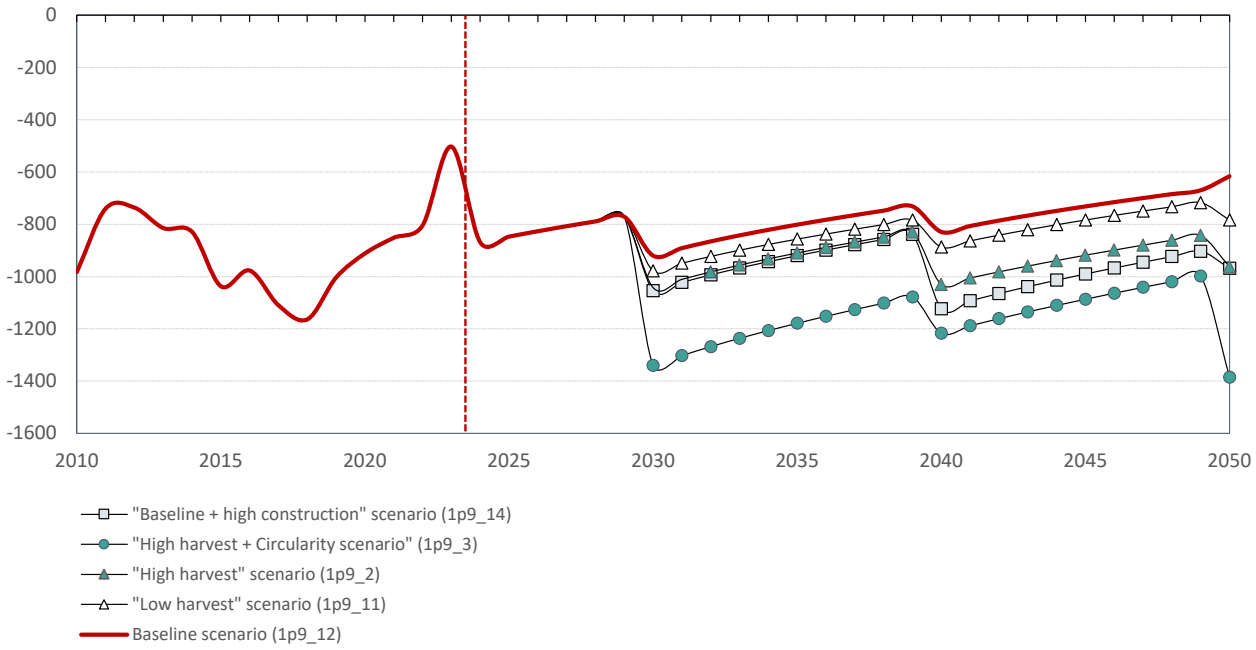

Figure EE-E: HWP contribution for selected scenarios on the basis of the stock-change approach for Estonia [in kt CO2]

Figure EE-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Estonia applying "baseline" scenario (RCP1p9_12) in Figure EE-F.

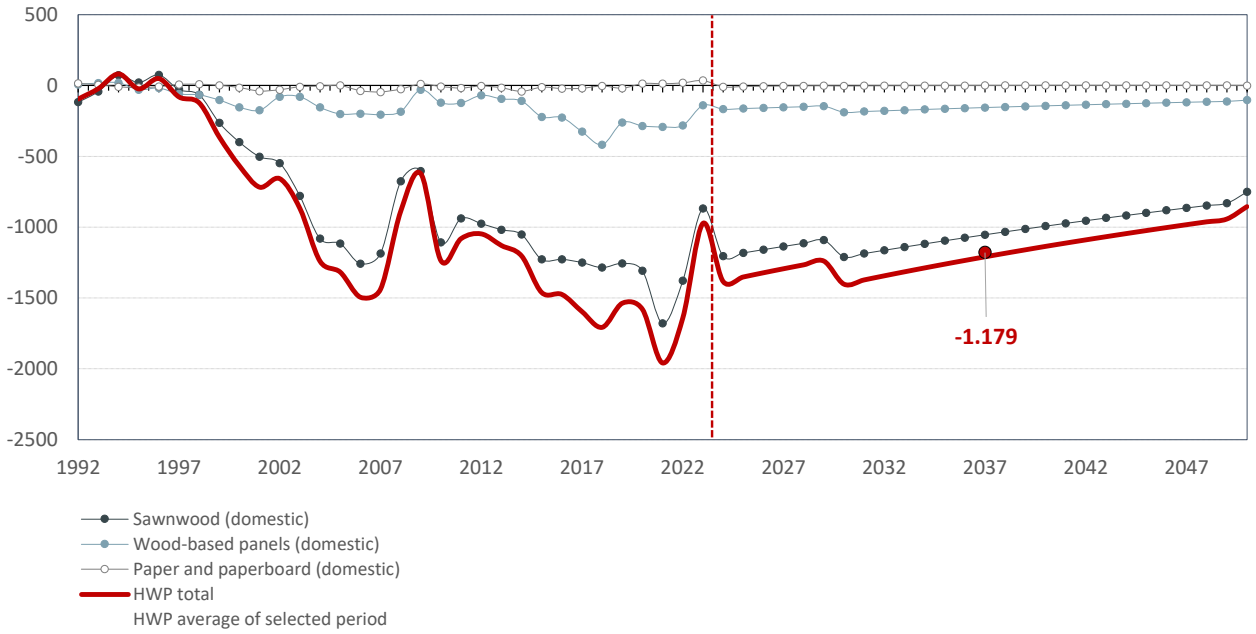

Figure EE-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Estonia [in kt CO_2]

Analogous to the illustration for the production approach, Figure EE-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Estonia are contained in Table ANX-EE-0-C in the Annex II.

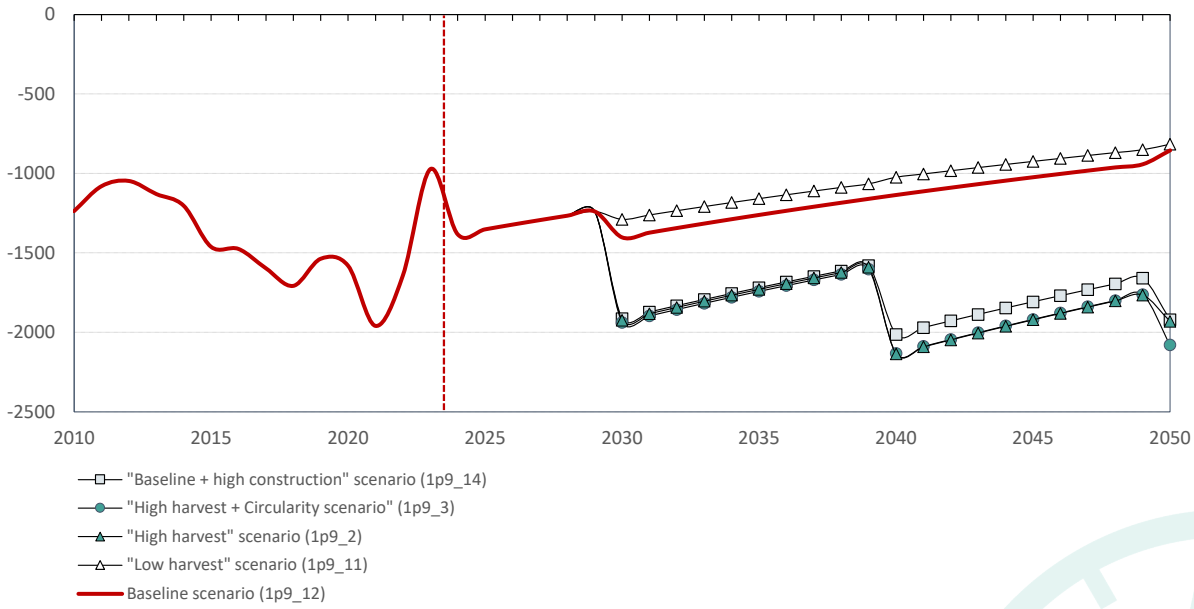

Figure EE-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Estonia [in kt CO_2]

Spain (ES)

For Spain, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure ES-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

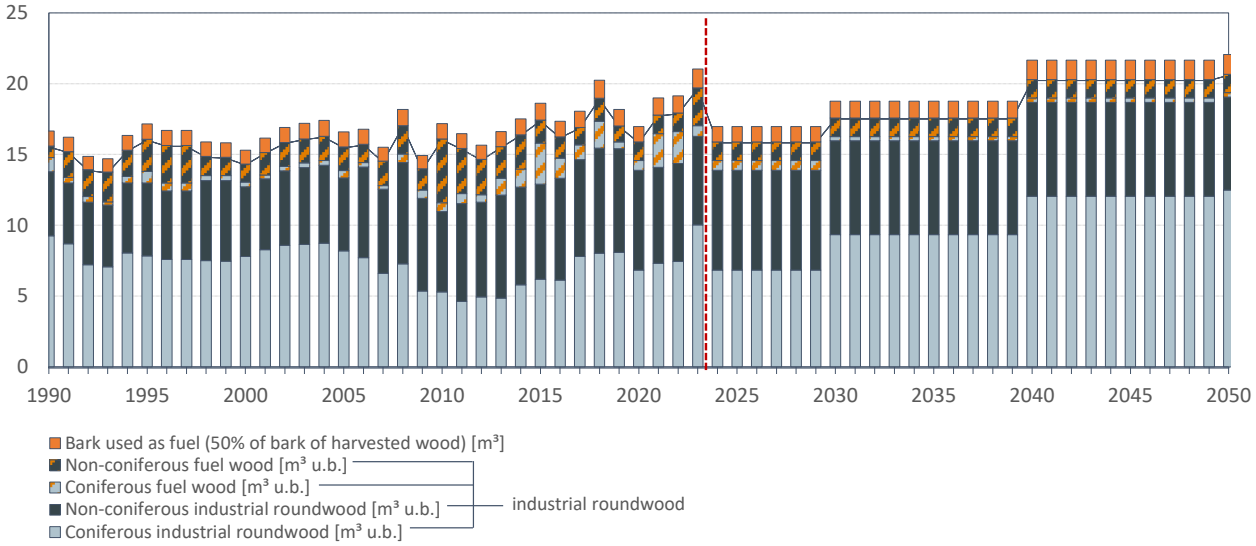

Figure ES-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Spain [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure ES-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

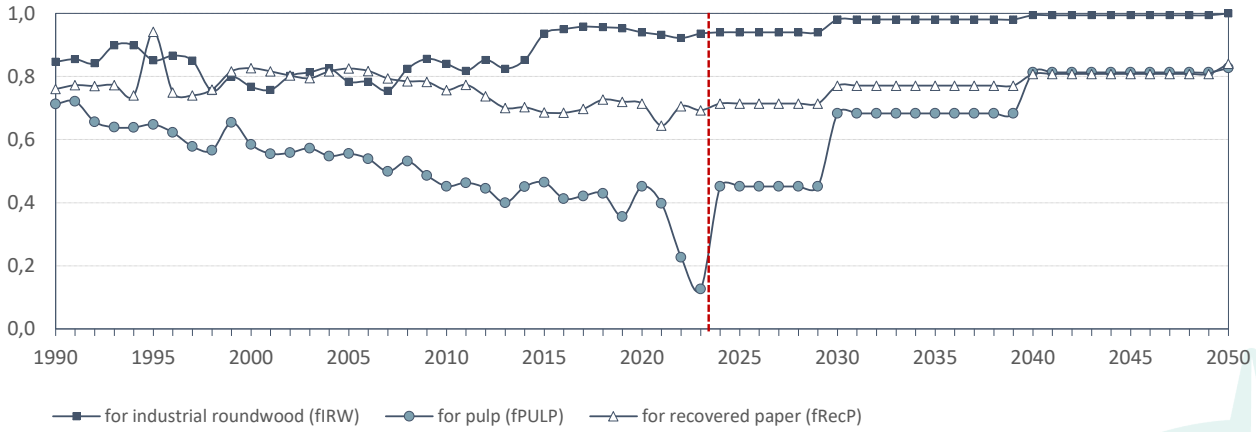

Figure ES-B: Historic and future development of the applied domestic feedstock factors for Spain

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-ES-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure ES-C shows the results for the "baseline" scenario RCP1p9_12.

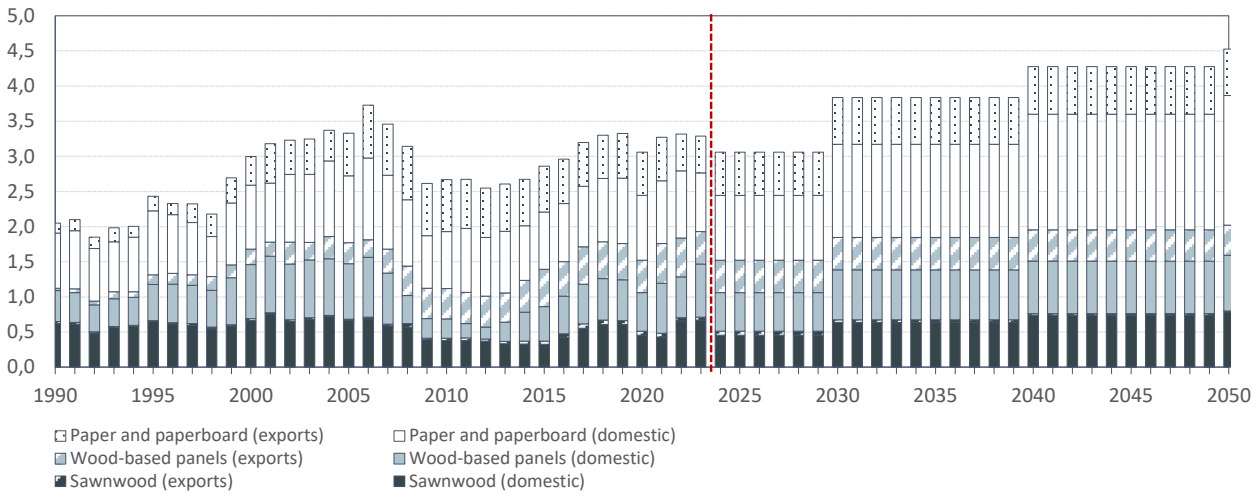

Figure ES-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Spain [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

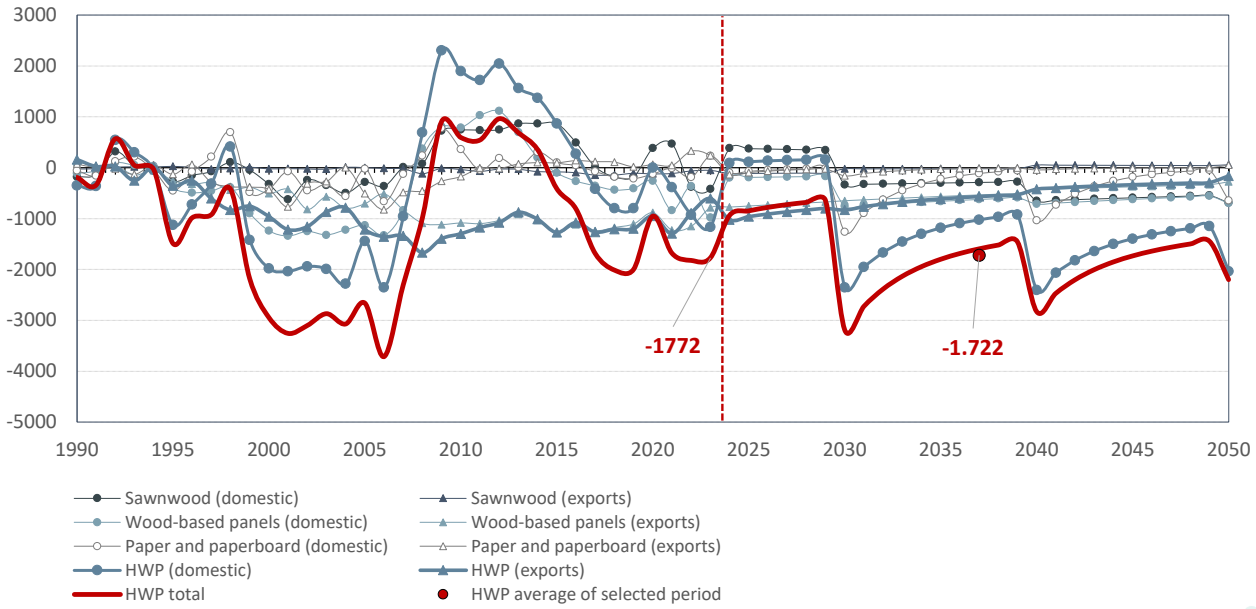

Figure ES-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Spain [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure ES-D, Table ANX-ES-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. The table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

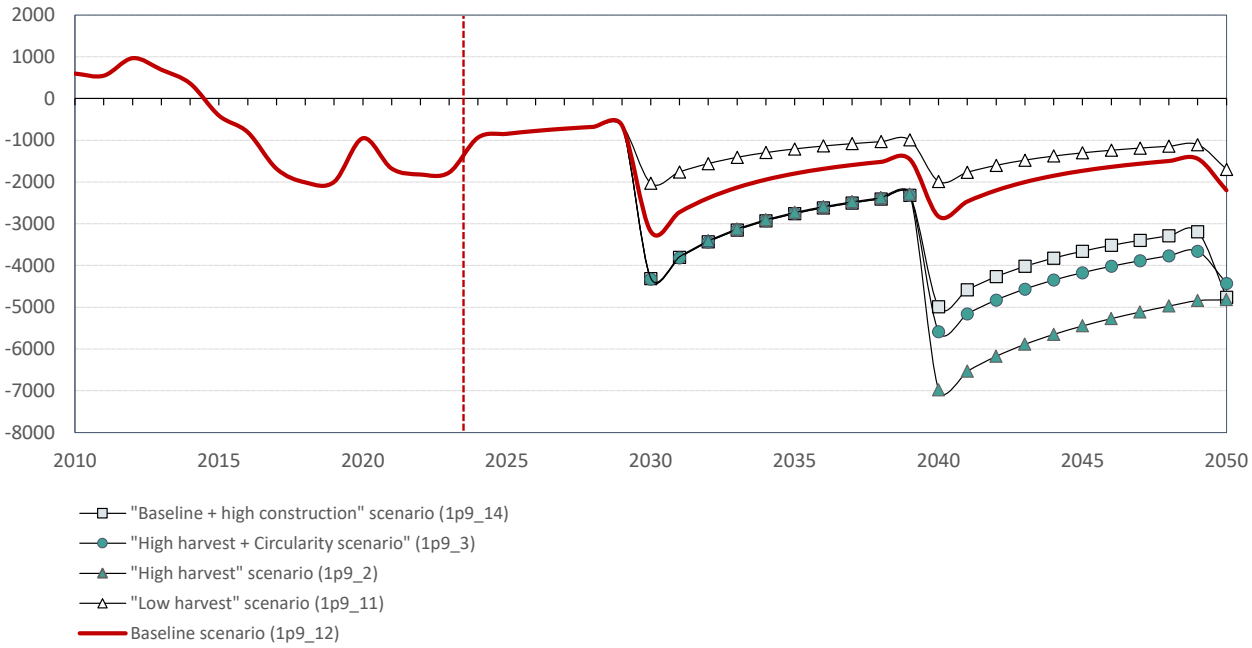

Figure ES-E: HWP contribution for selected scenarios on the basis of the production approach for Spain [in kt CO_2]

Figure ES-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Spain applying the "baseline" scenario (RCP1p9_12) in Figure ES-F.

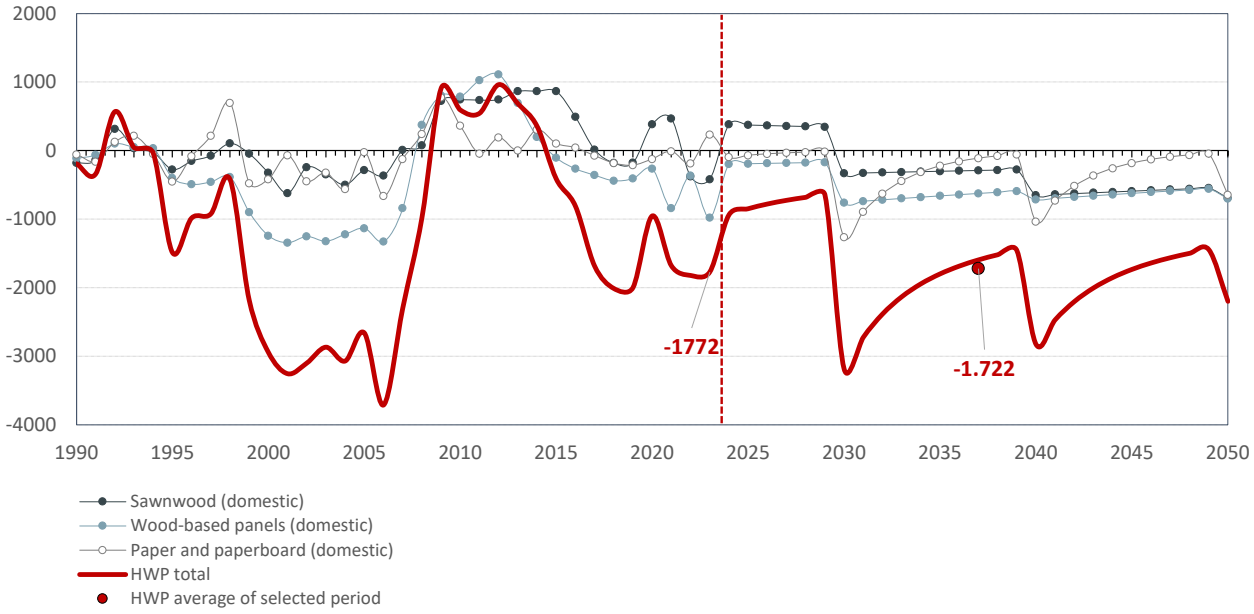

Figure ES-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for scenario RCP1p9_12 following the stock-change approach for Spain [in kt CO_2]

Analogous to the illustration for the production approach, Figure ES-G *illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Spain are contained in*

Table ANX-ES-0-C in the Annex II.

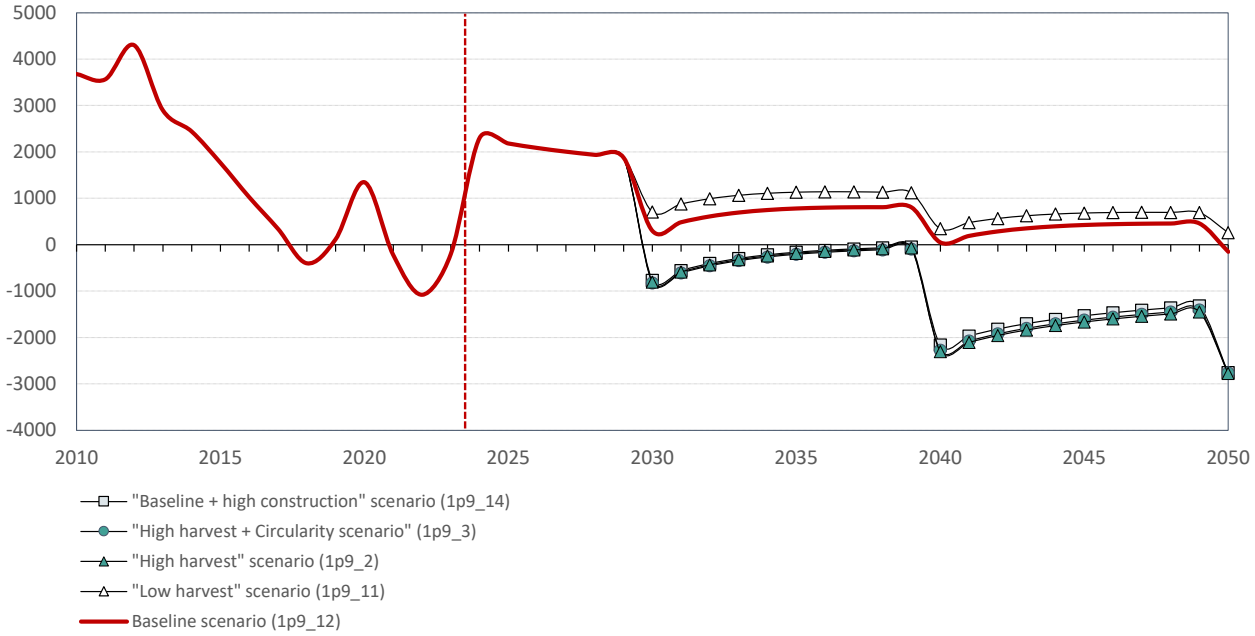

Figure ES-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Spain [in kt CO_2]

Finland (FI)

For Finland, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure FI-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

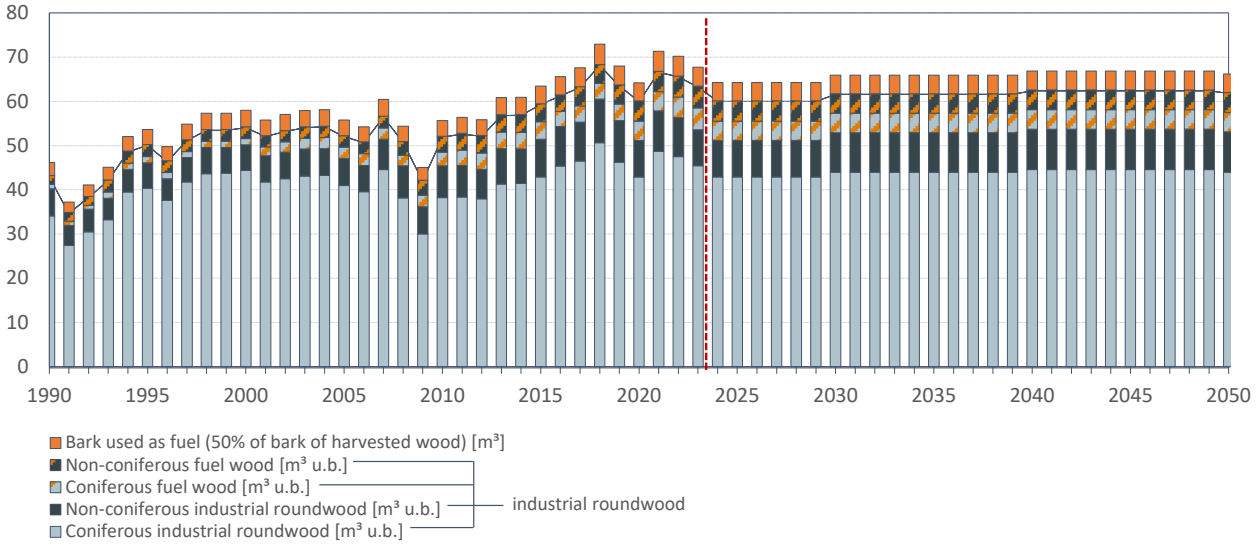

Figure FI-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Finland [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure FI-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

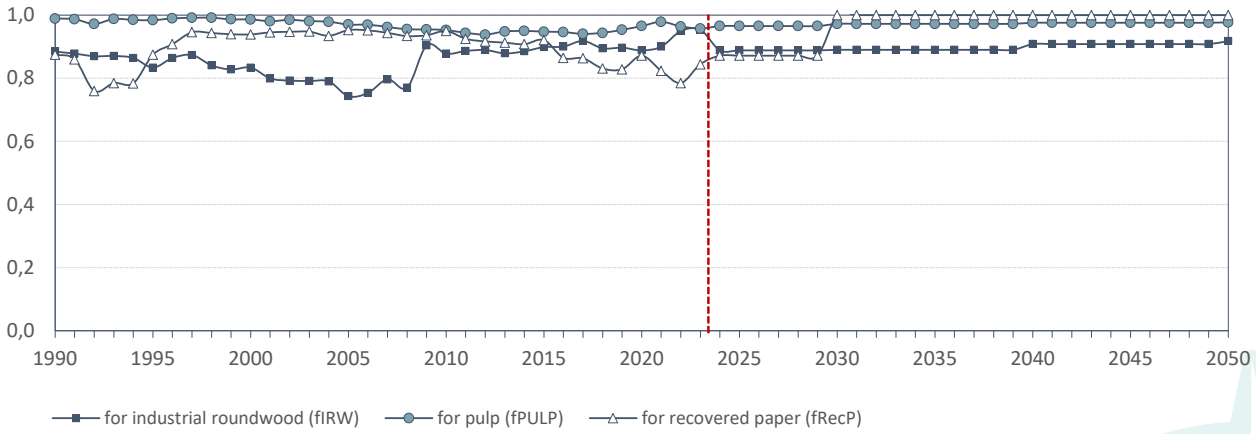

Figure FI-B: Historic and future development of the applied domestic feedstock factors for Finland

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-FI-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure FI-C shows the results for the "baseline" scenario (RCP1p9_12).

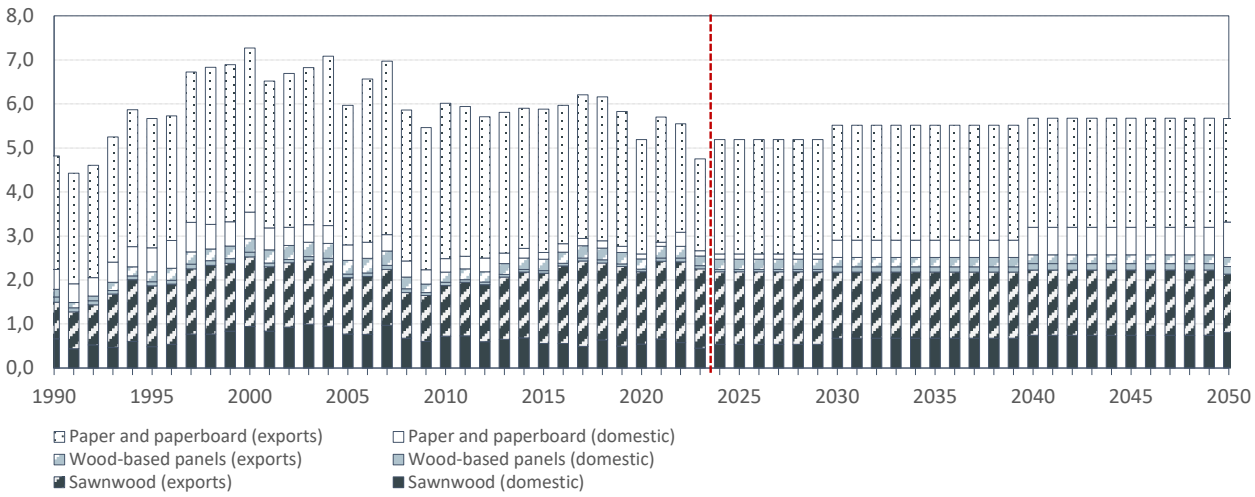

Figure FI-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Finland [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

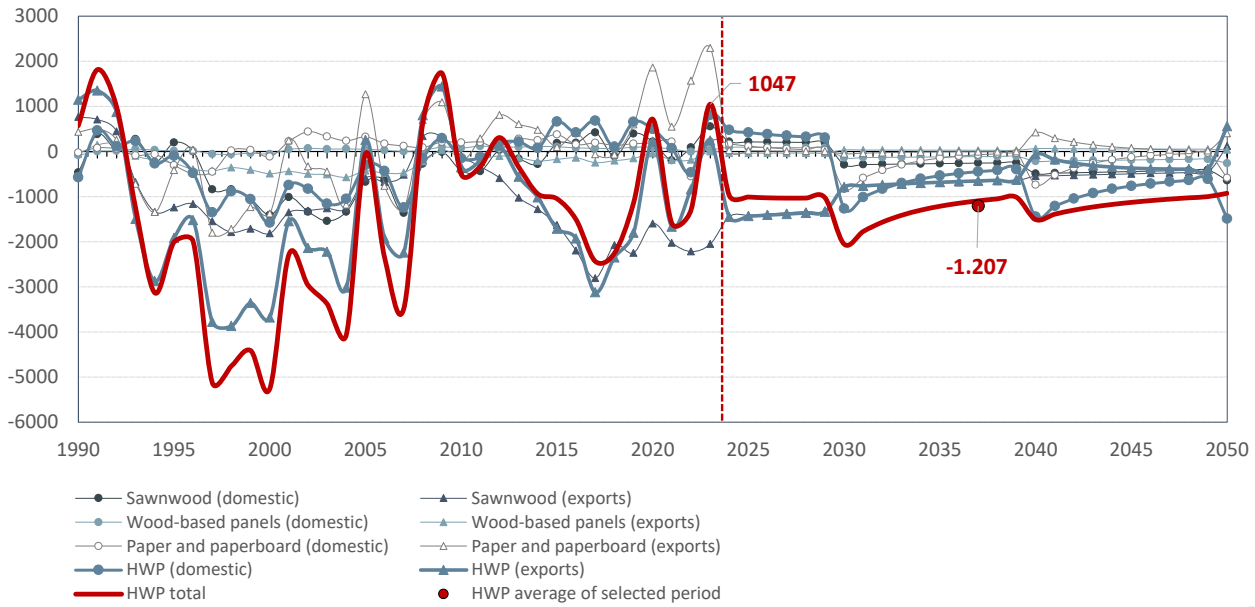

Figure FI-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for scenario RCP1p9_12 following the production approach for Finland [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure FI-D, Table ANX-FI-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

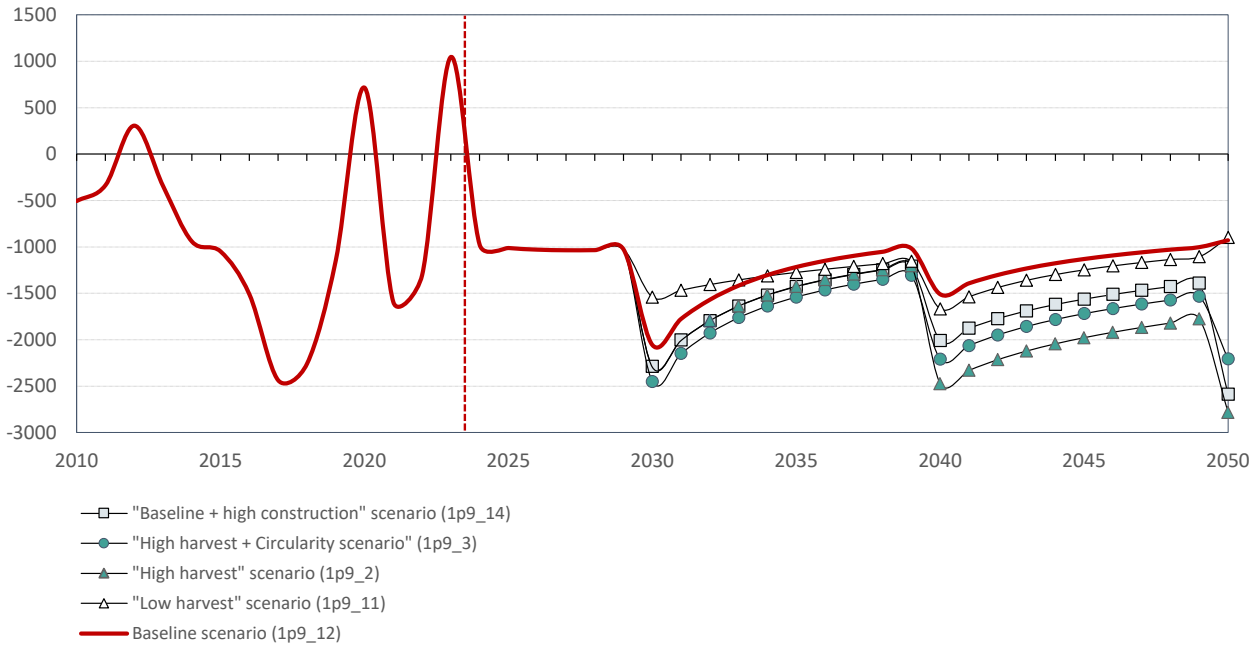

Figure FI-E: HWP contribution for selected scenarios on the basis of the production approach for Finland [in kt CO_2]

Figure FI-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Finland applying the "baseline" scenario (RCP1p9_12) in Figure FI-F.

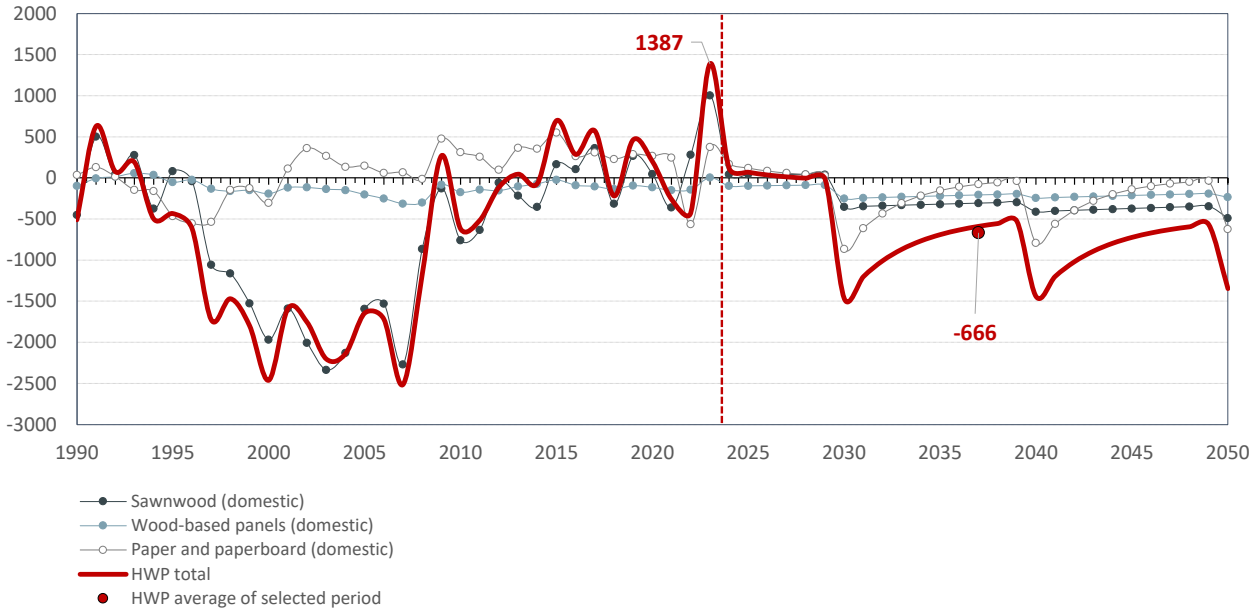

Figure FI-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Finland [in kt CO_2]

Analogous to the illustration for the production approach, Figure FI-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Finland are contained in Table ANX-FI-0-C in the Annex II.

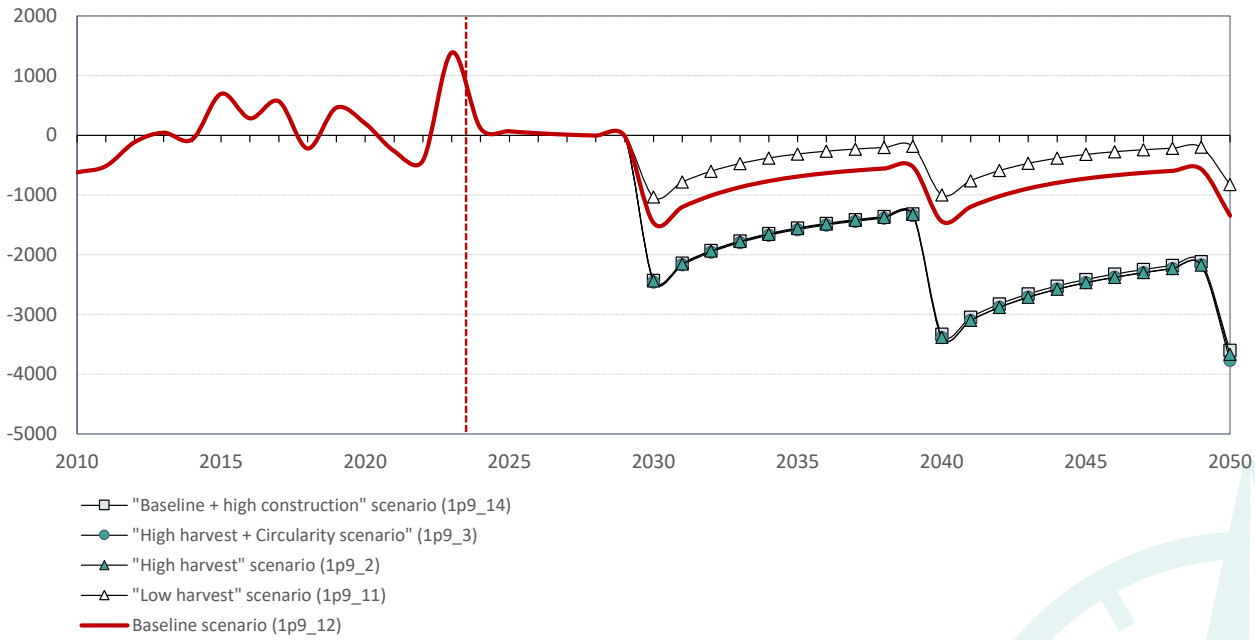

Figure FI-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Finland [in kt CO_2]

France (FR)

For France, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure FR-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

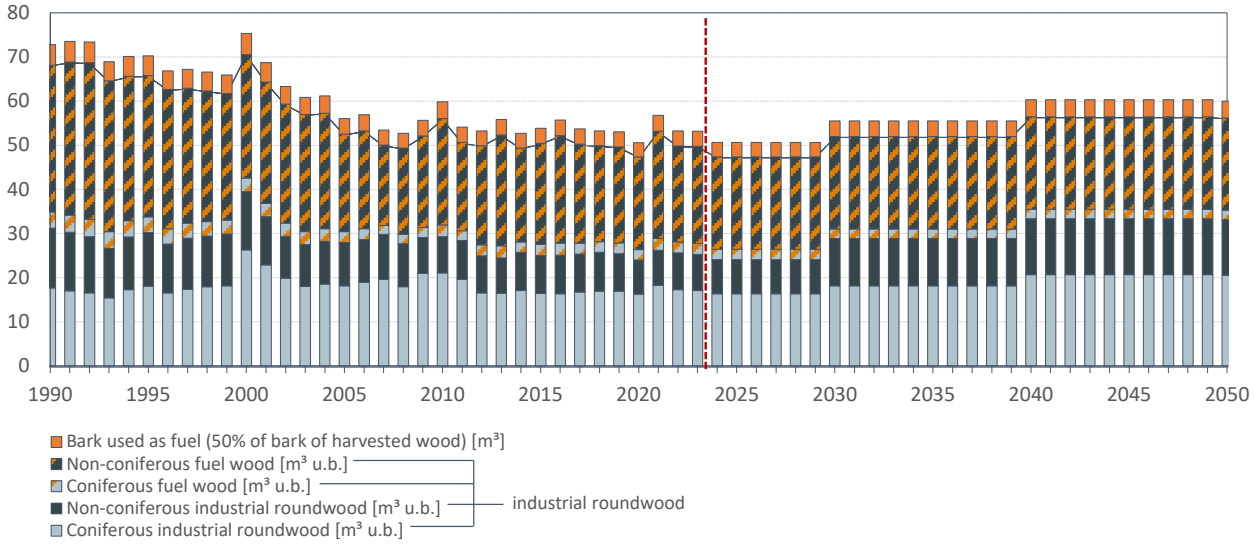

Figure FR-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in France [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure FR-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

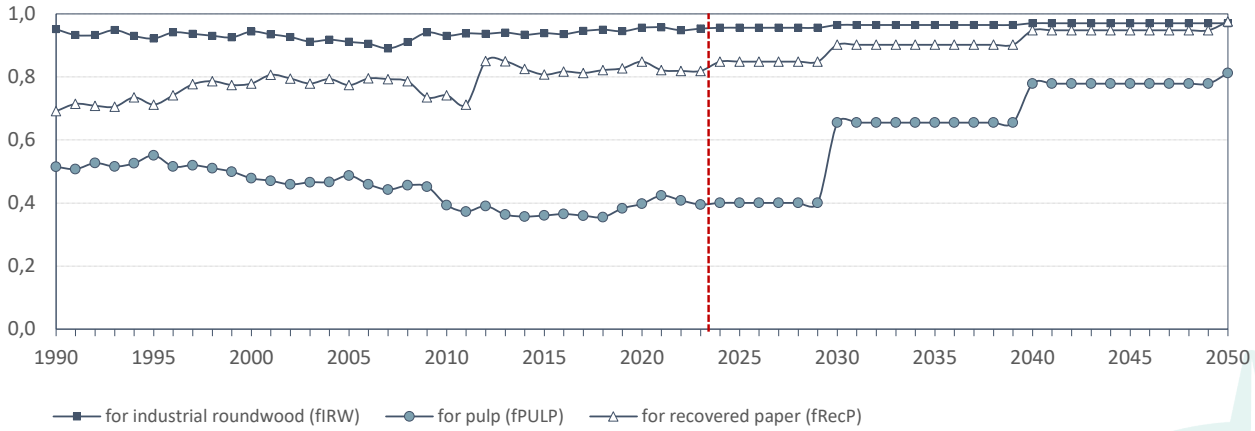

Figure FR-B: Historic and future development of the applied domestic feedstock factors for France

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-FR-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure FR-C shows the results for the "baseline" scenario (RCP1p9_12).

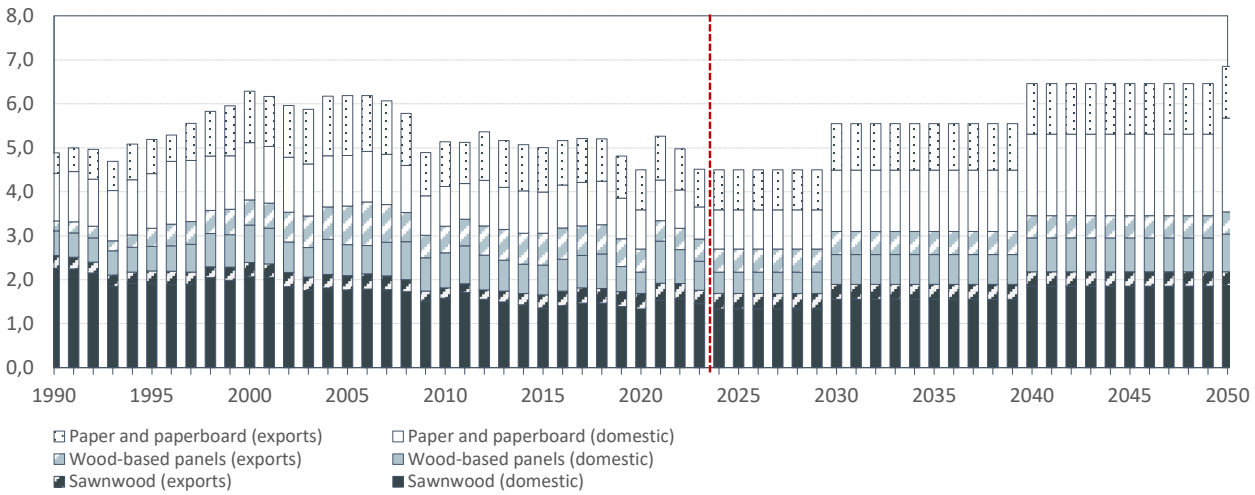

Figure FR-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for France [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

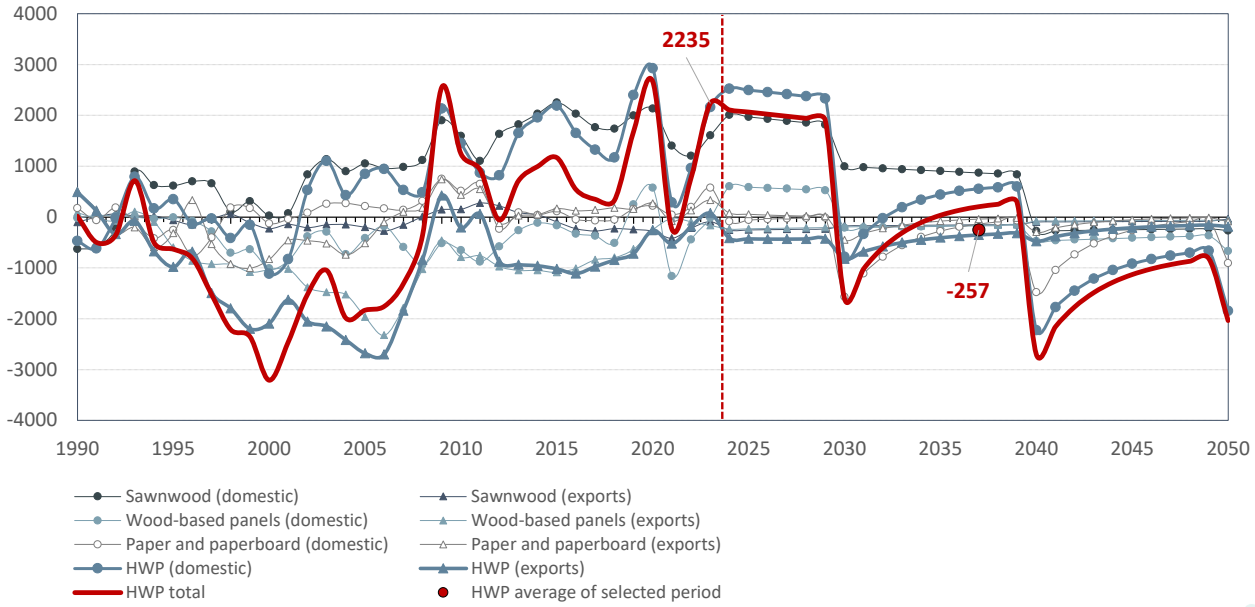

Figure FR-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for France [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure FR-D, Table ANX-FR-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

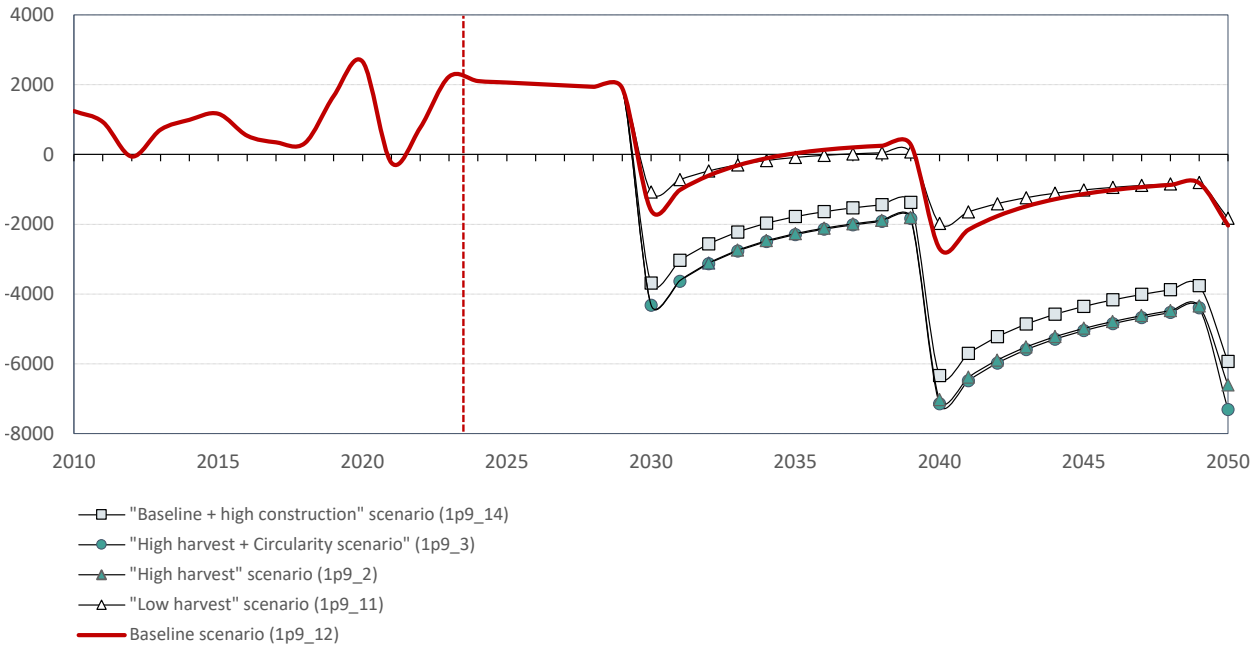

Figure FR-E: HWP contribution for selected scenarios on the basis of the production approach for France [in kt CO_2]

Figure FR-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for France applying the "baseline" scenario (RCP1p9_12) in Figure FR-F.

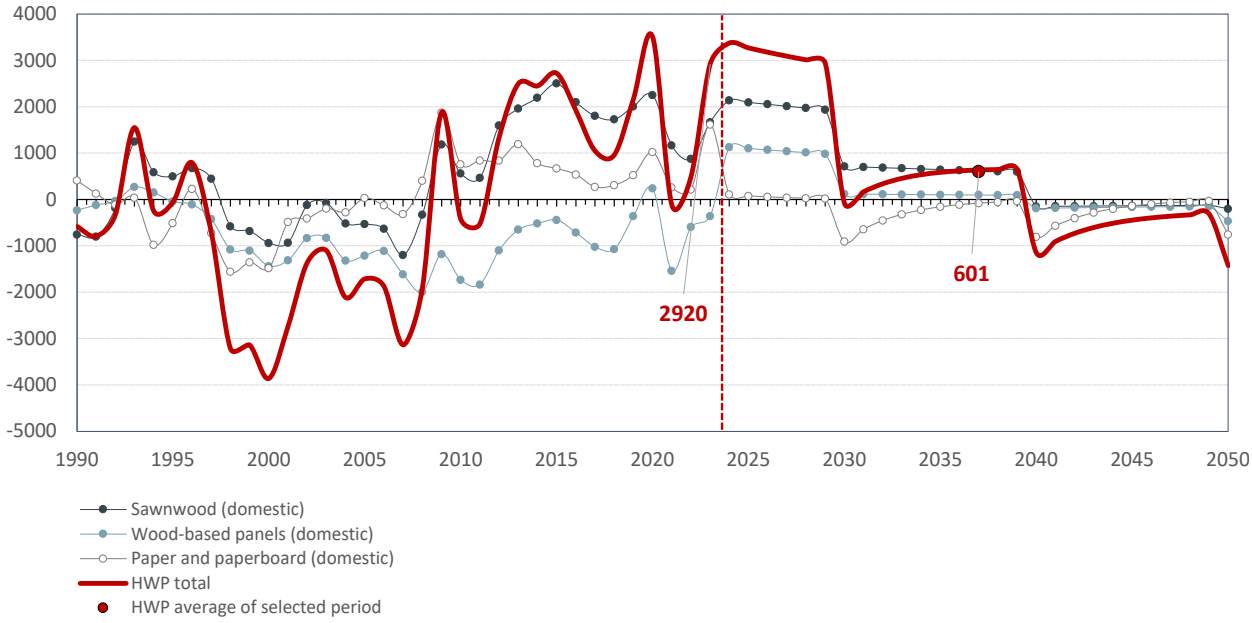

Figure FR-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for France [in kt CO_2]

Analogous to the illustration for the production approach, Figure FR-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for France are contained in Table ANX-FR-0-C in the Annex II.

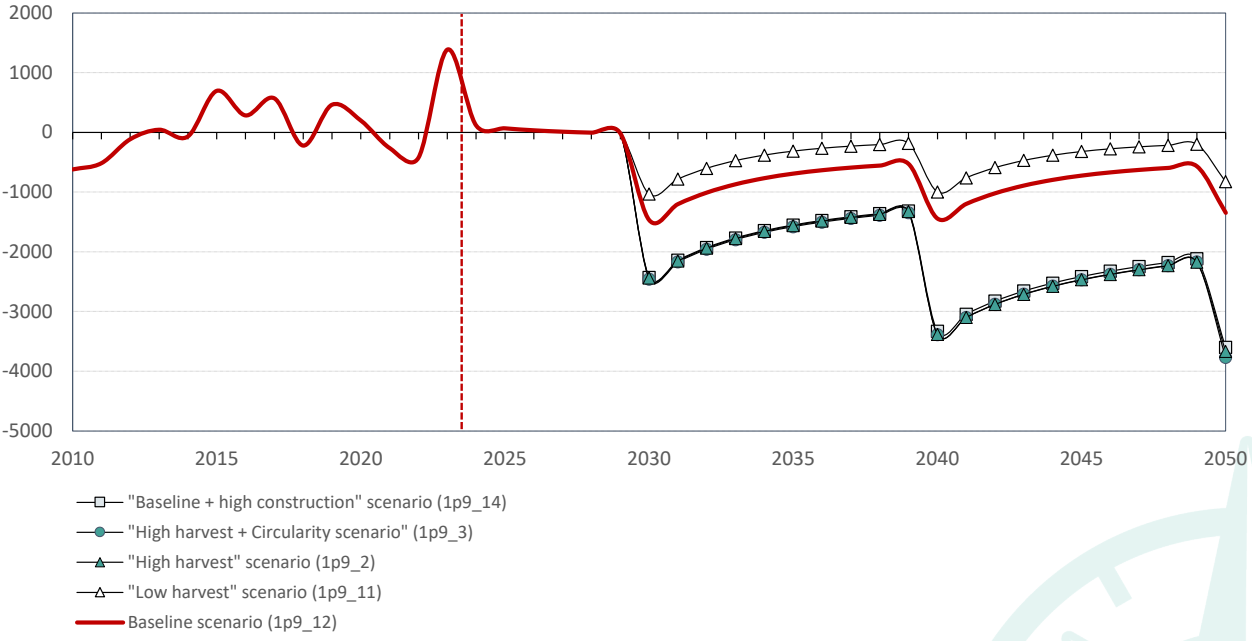

Figure FR-G: HWP contribution for selected scenarios on the basis of the stock-change approach for France [in kt CO2]

Greece (GR)

For Greece, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure GR-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

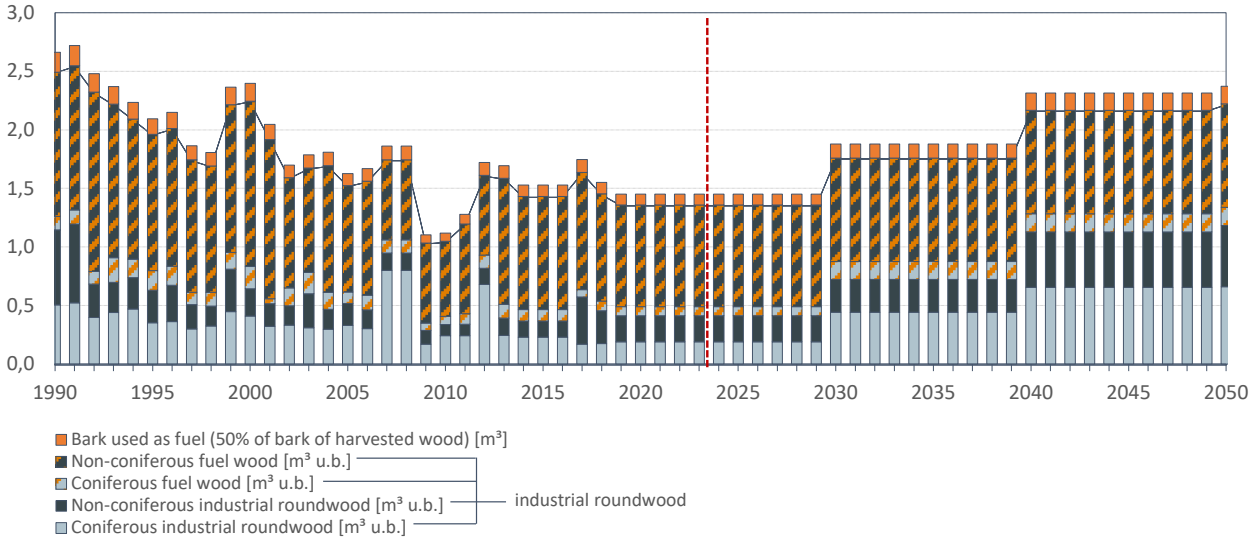

Figure GR-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Greece [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure GR-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

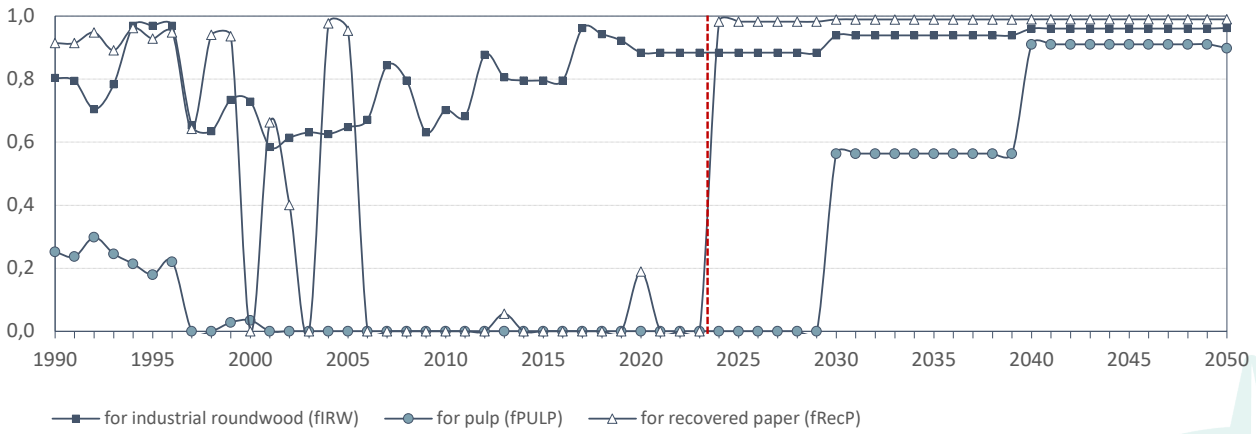

Figure GR-B: Historic and future development of the applied domestic feedstock factors for Greece

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-GR -0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure GR-C shows the results for the "baseline" scenario (RCP1p9_12).

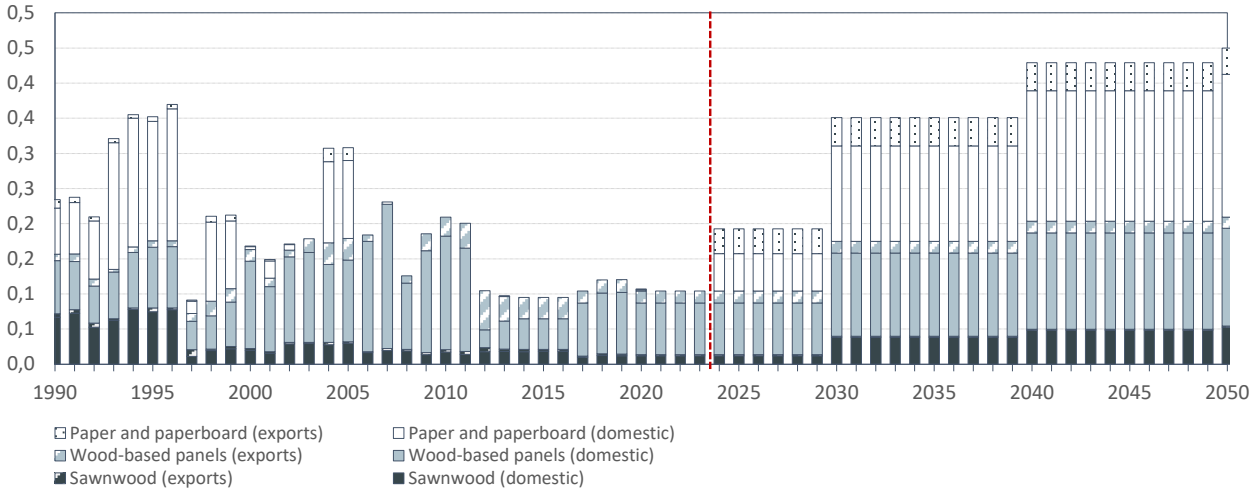

Figure GR-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Greece [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach

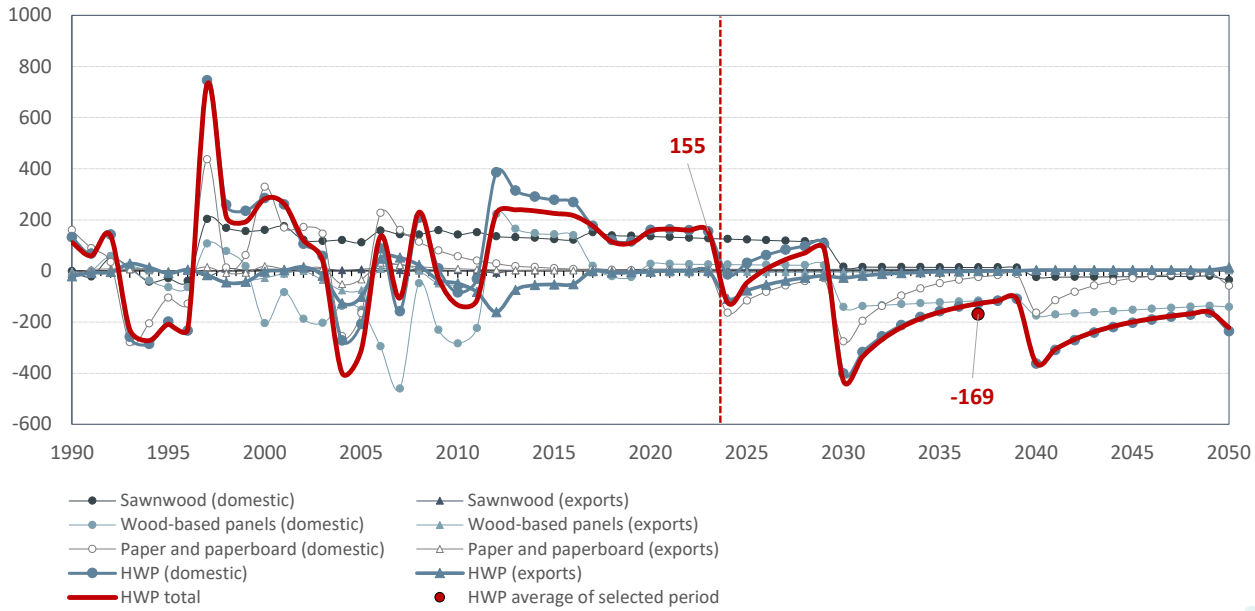

Figure GR-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Greece [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure GR-D, Table ANX-GR-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table

furthermore discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

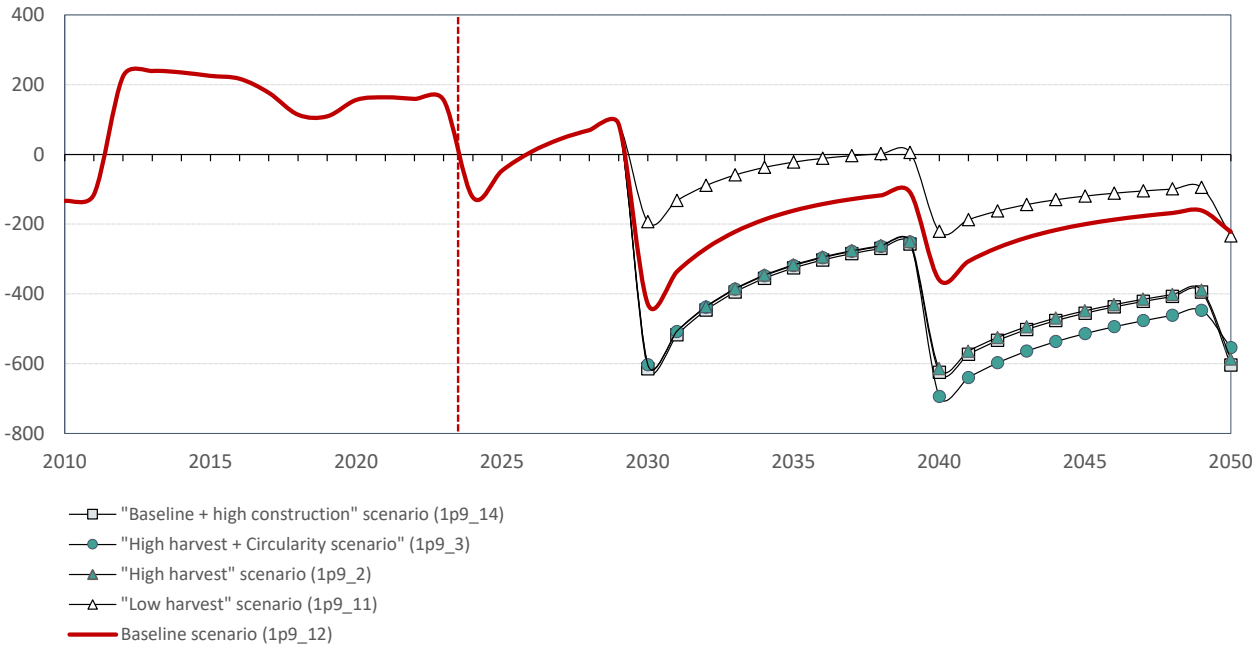

Figure GR-E: HWP contribution for selected scenarios on the basis of the production approach for Greece [in kt CO_2]

Figure GR-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Greece applying the "baseline" scenario (RCP1p9_12) in Figure GR-F.

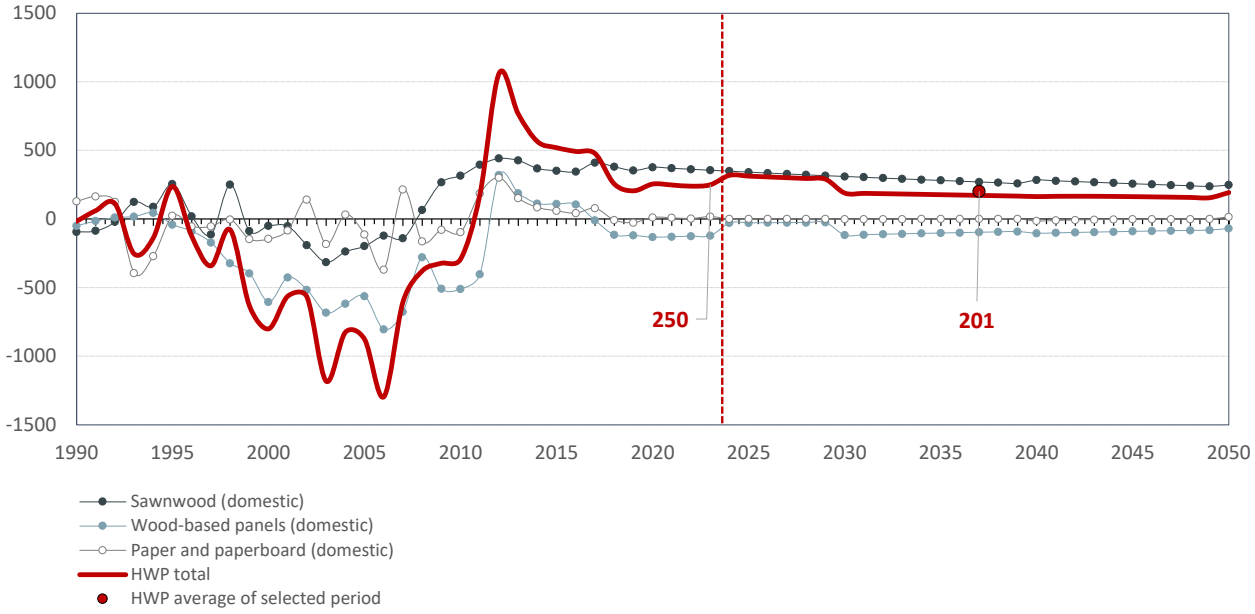

Figure GR-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Greece [in kt CO_2]

Analogous to the illustration for the production approach, Figure GR-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Greece are contained in

in the Annex II.

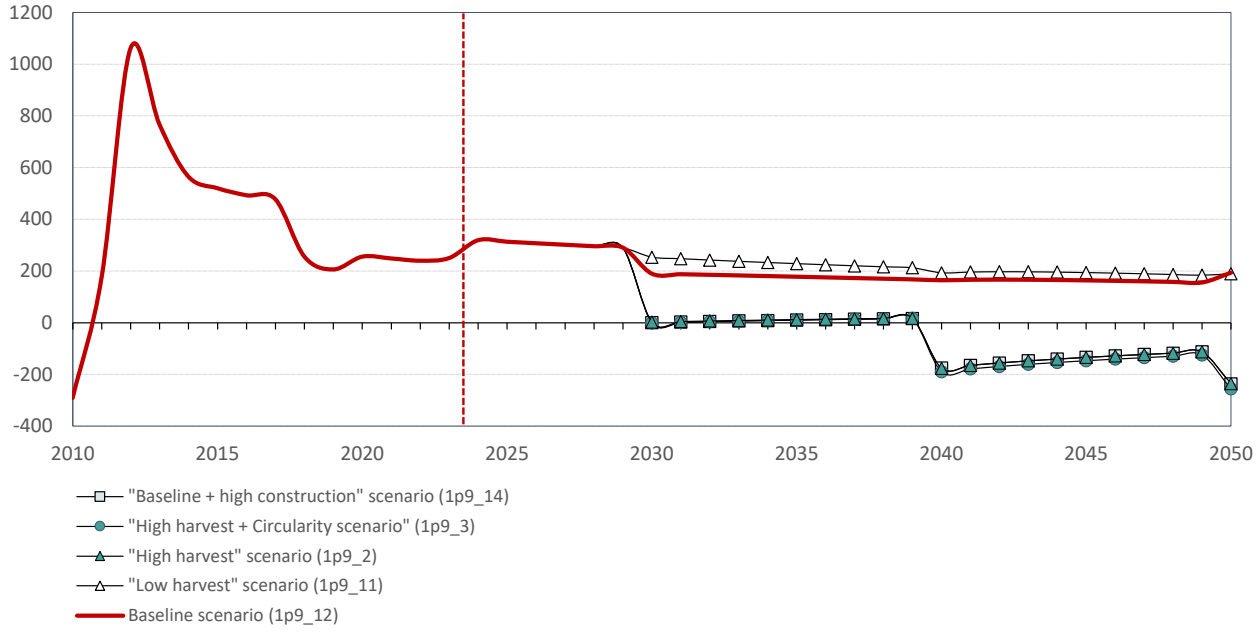

Figure GR-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Greece [in kt CO_2]

Croatia (HR)

For Croatia, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1992 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure HR-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

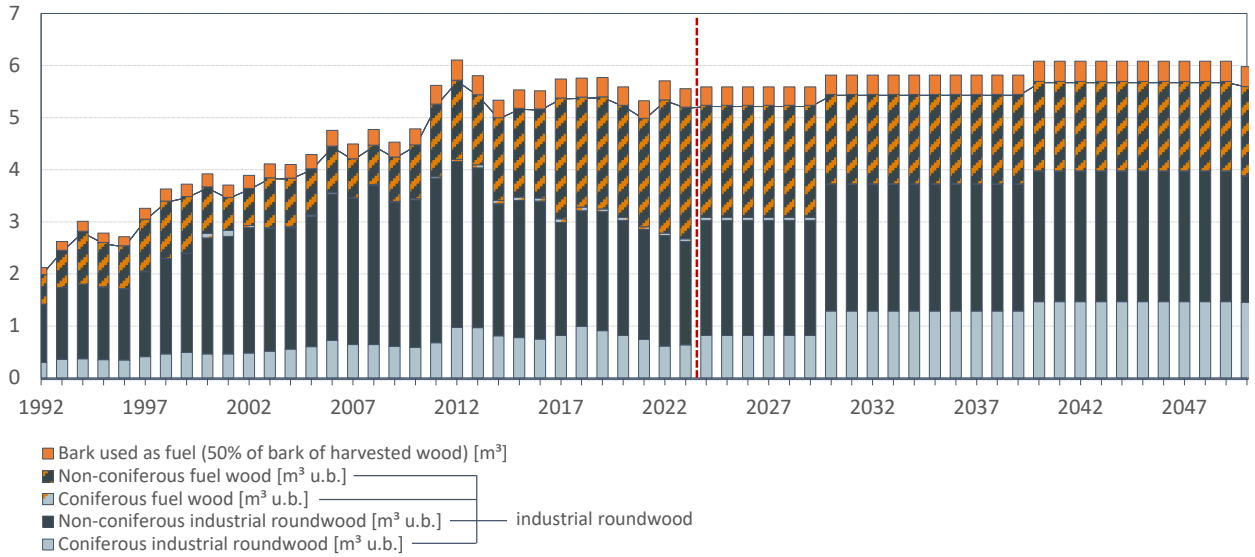

Figure HR-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Croatia [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure HR-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

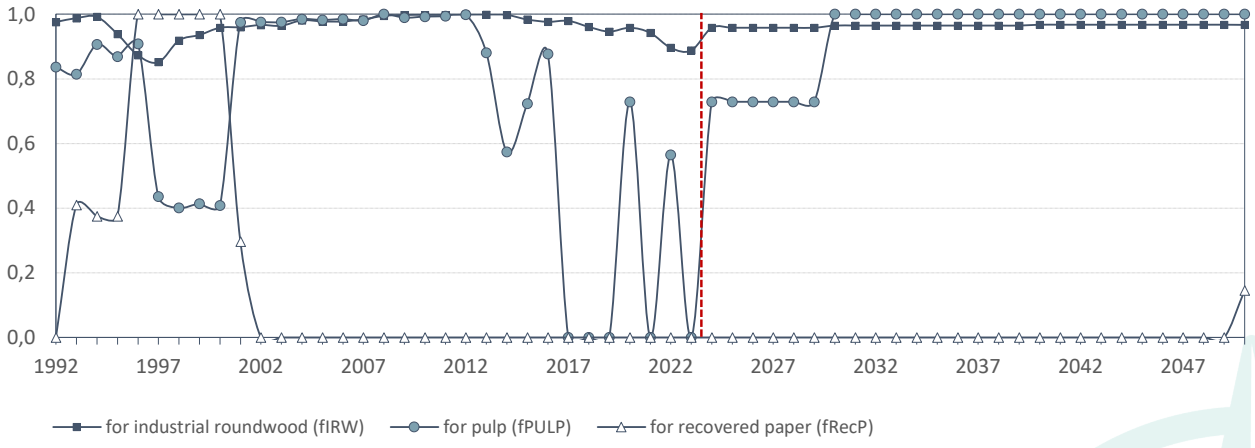

Figure HR-B: Historic and future development of the applied domestic feedstock factors for Croatia

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-HR-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure HR-C shows the results for the "baseline" scenario (RCP1p9_12).

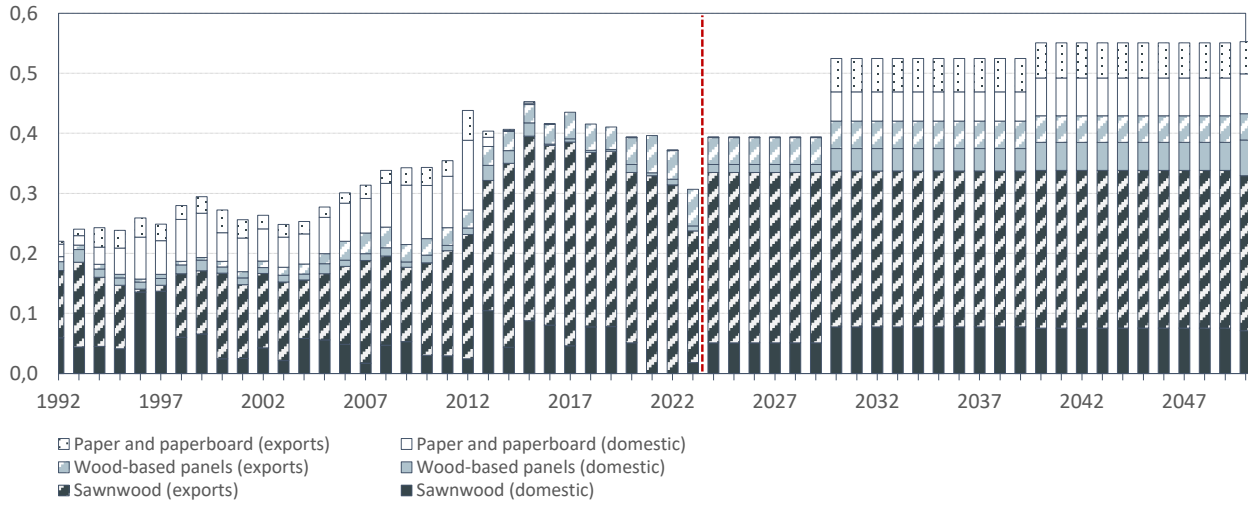

Figure HR-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Croatia [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

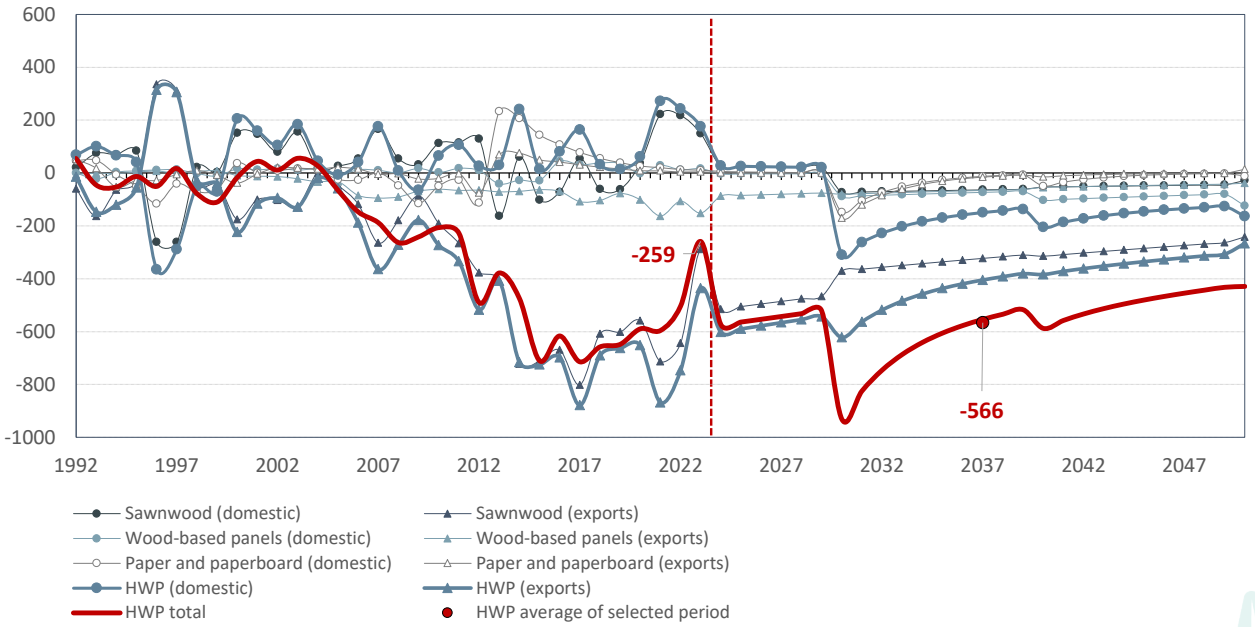

Figure HR-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Croatia [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure HR-D, Table ANX-HR-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table

furthermore discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

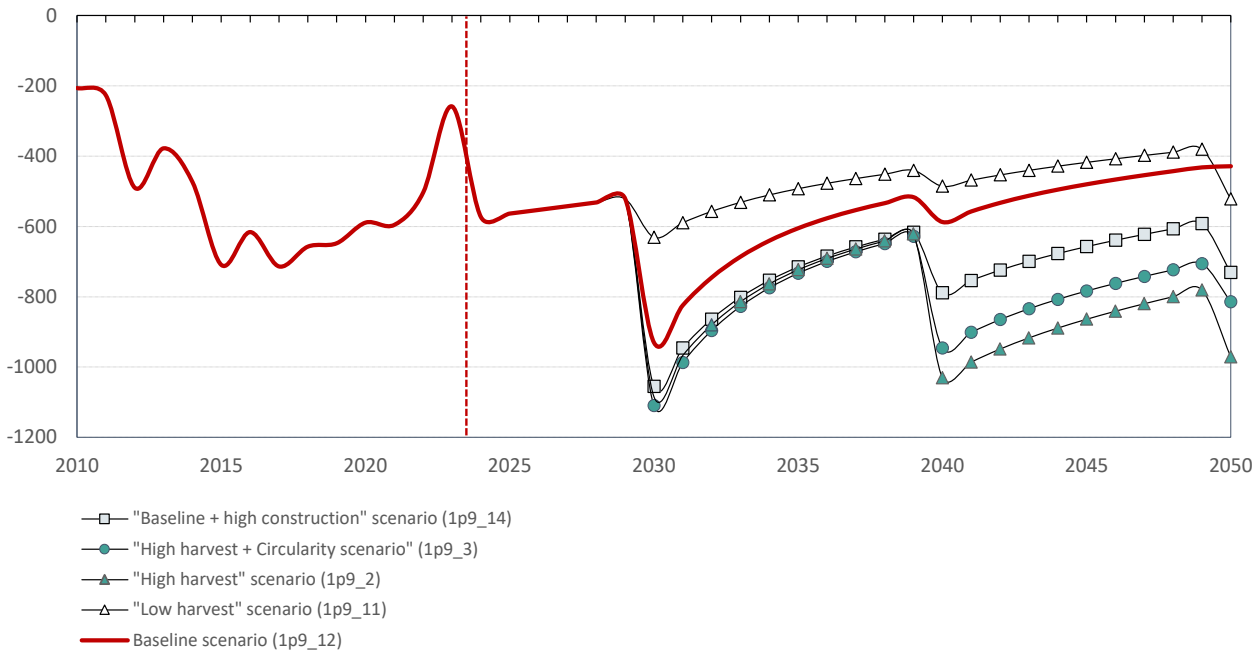

Figure HR-E: HWP contribution for selected scenarios on the basis of the production approach for Croatia [in kt CO_2]

Figure HR-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Croatia applying the "baseline" scenario (RCP1p9_12) in Figure HR-F.

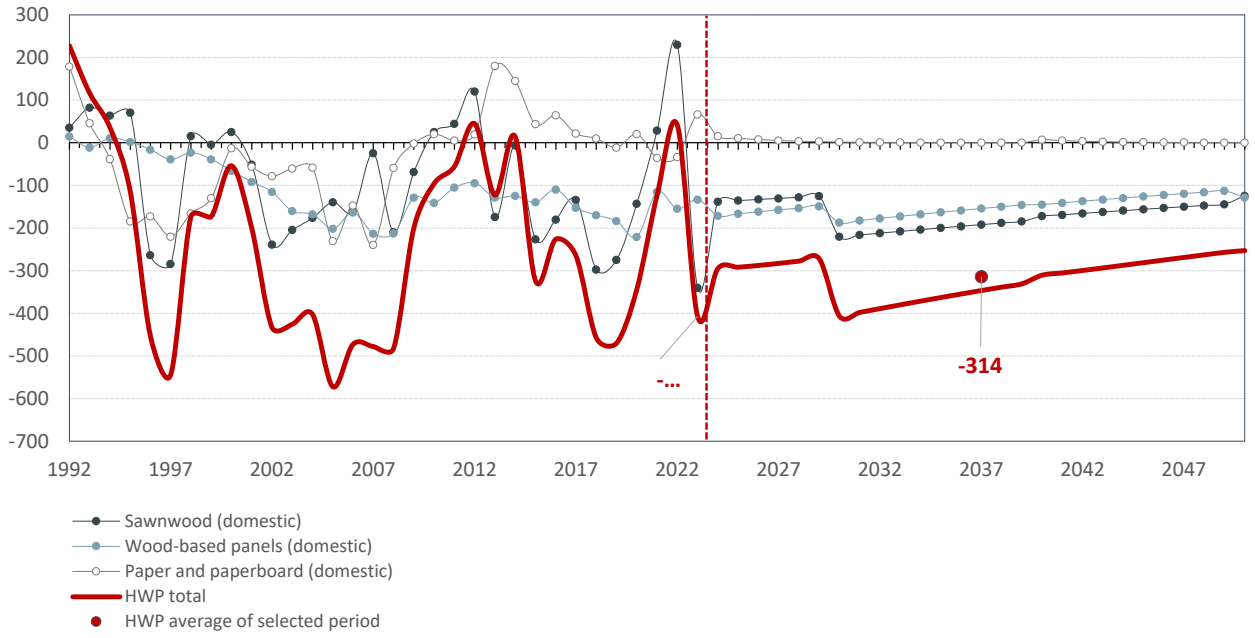

Figure HR-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Croatia [in kt CO_2]

Analogous to the illustration for the production approach, Figure HR-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Croatia are contained in Table ANX-HR-0-C in the Annex II.

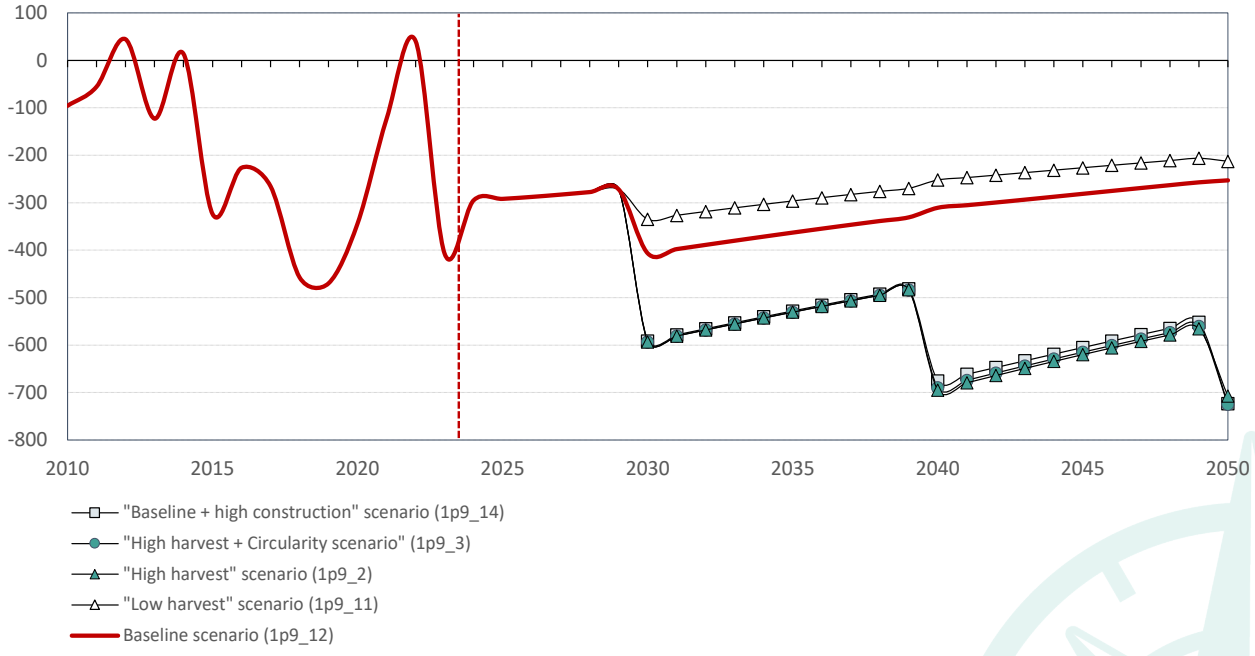

Figure HR-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Croatia [in kt CO_2]

Hungary (HU)

For Hungary, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure HU-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

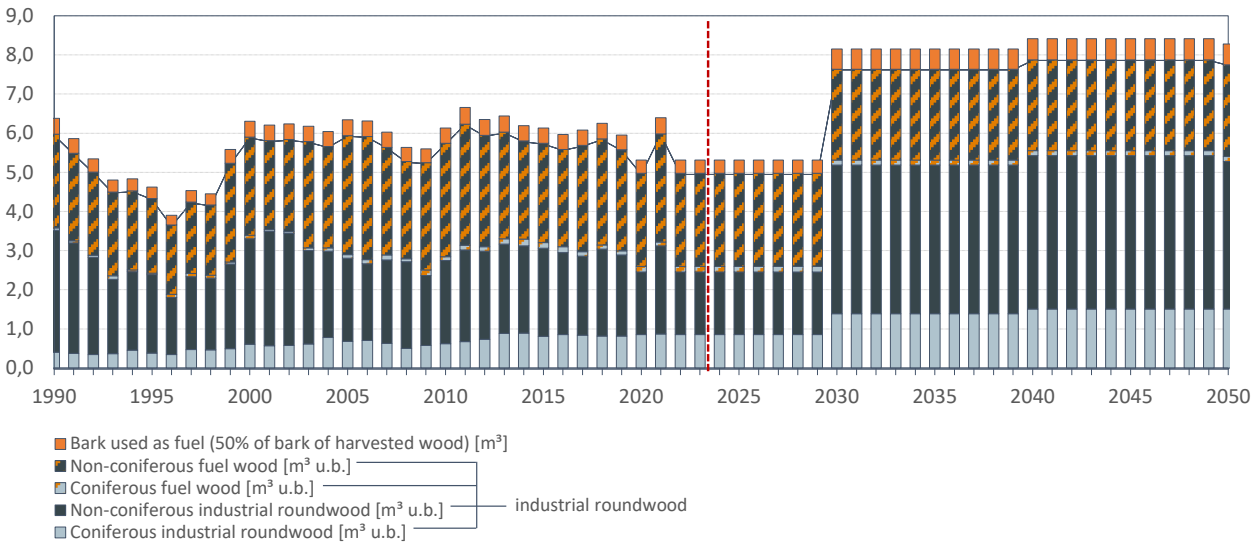

Figure HU-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Hungary [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure HU-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

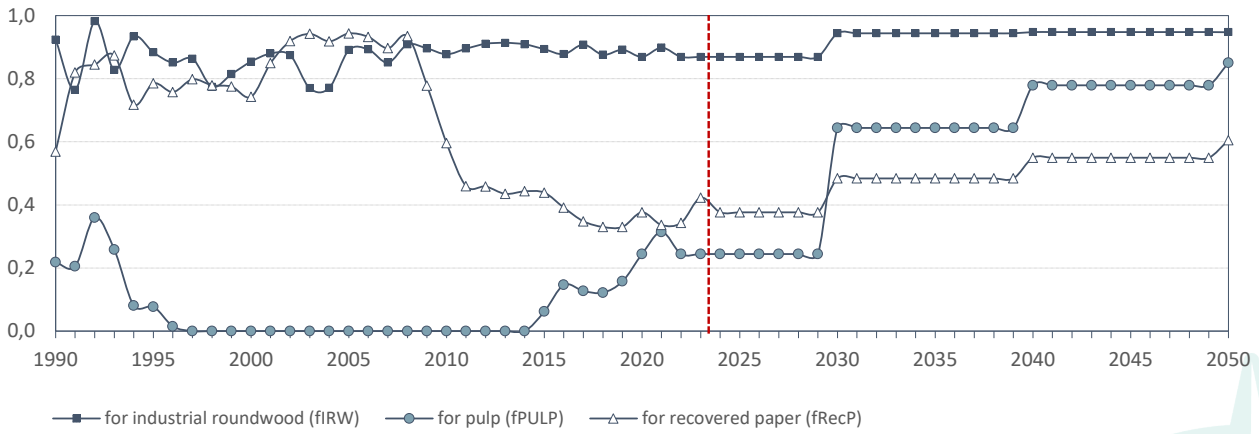

Figure HU-B: Historic and future development of the applied domestic feedstock factors for Hungary

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-HU-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure HU-C shows the results for the "baseline" scenario (RCP1p9_12).

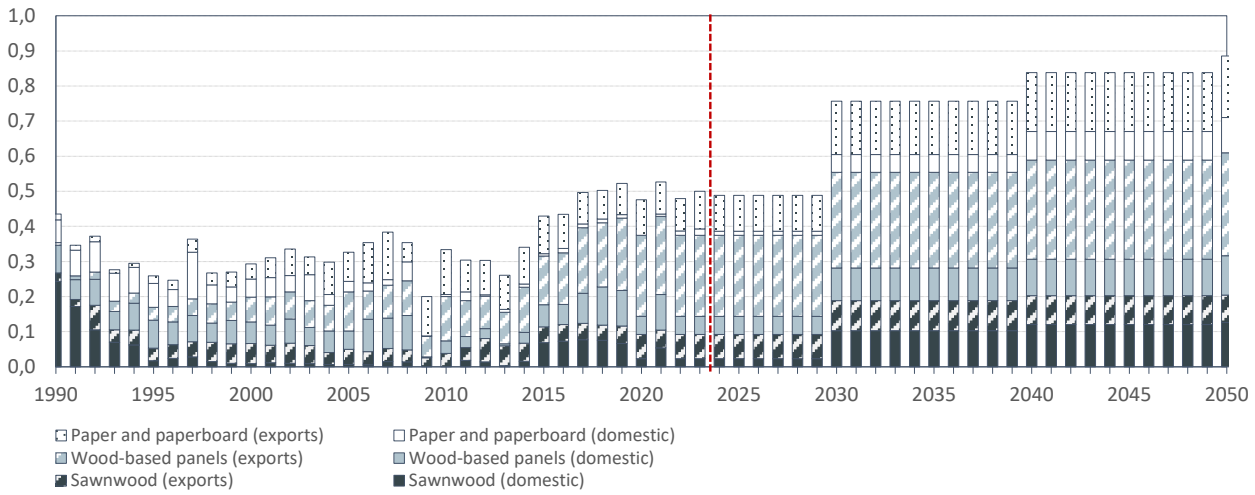

Figure HU-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Hungary [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

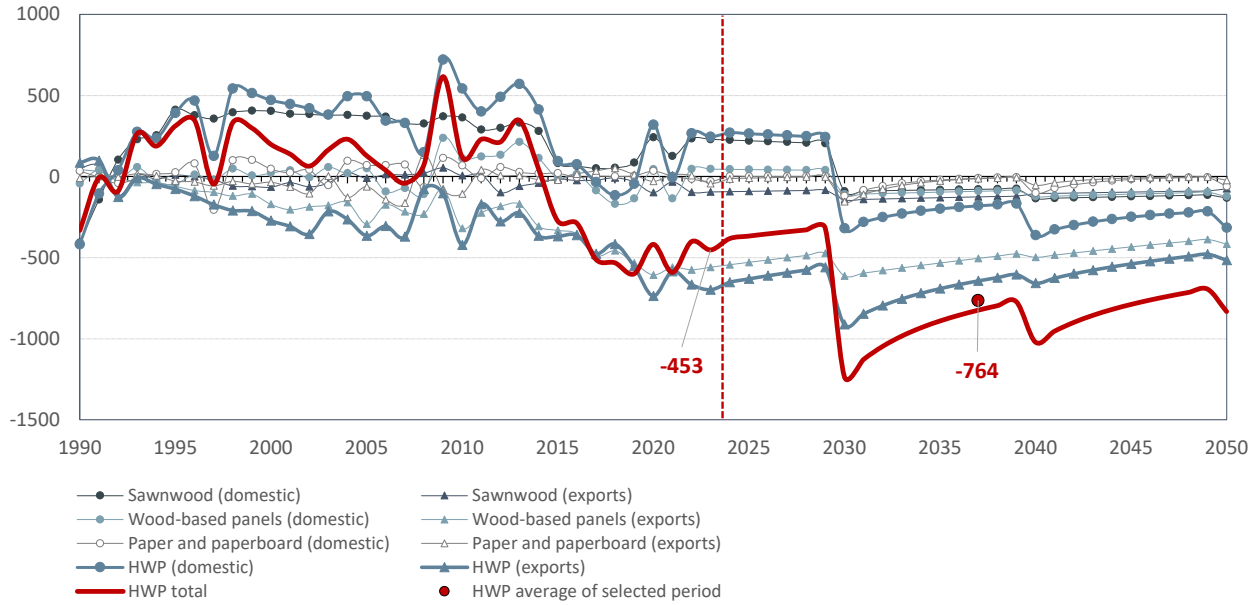

Figure HU-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Hungary [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure HU-D, Table ANX-HU-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table

furthermore discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

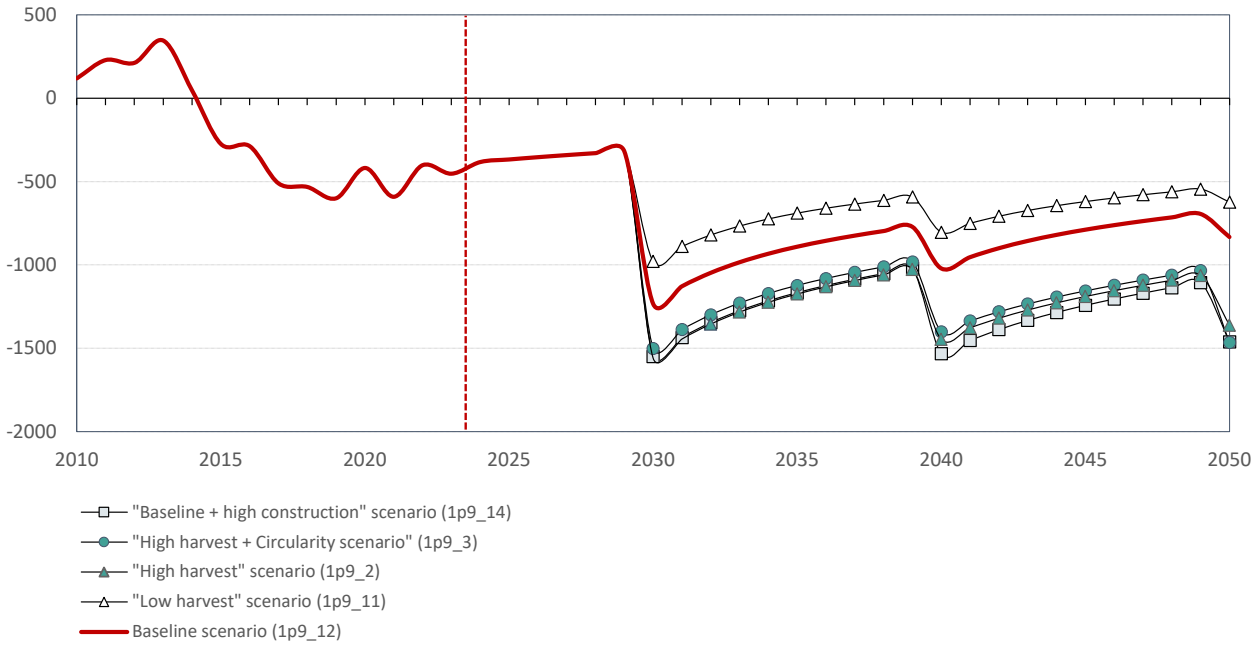

Figure HU-E: HWP contribution for selected scenarios on the basis of the production approach for Hungary [in kt CO_2]

Figure HU-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Hungary applying the "baseline" scenario (RCP1p9_12) in Figure HU-F.

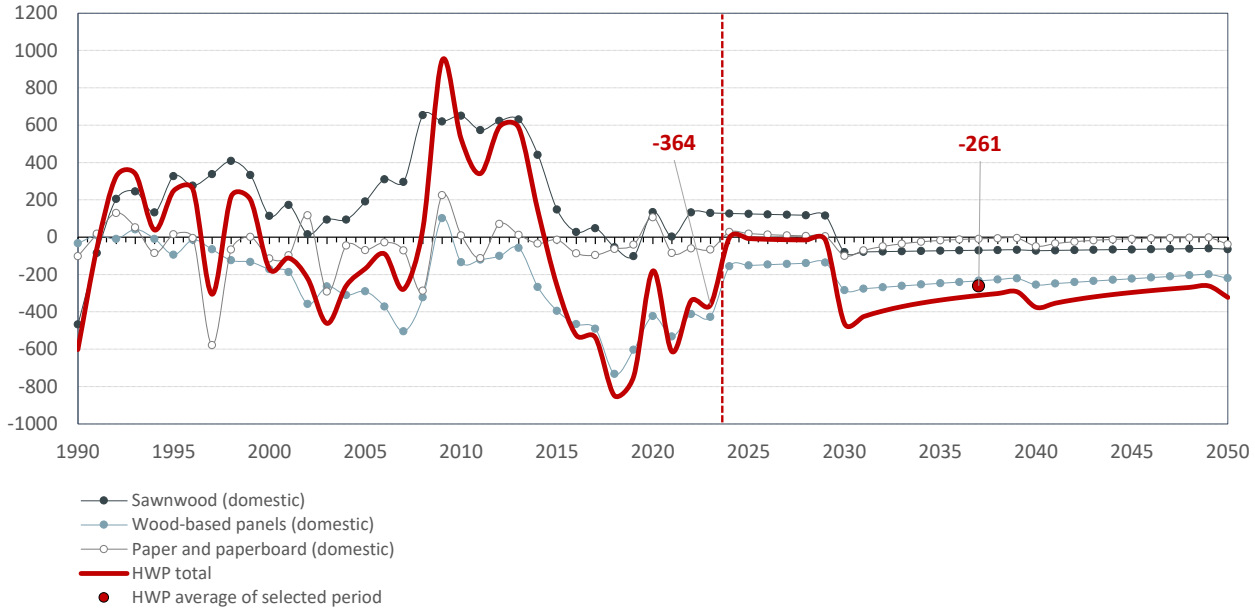

Figure HU-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Hungary [in kt CO_2]

Analogous to the illustration for the production approach, Figure HU-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Hungary are contained in Table ANX-HU-0-C in the Annex II.

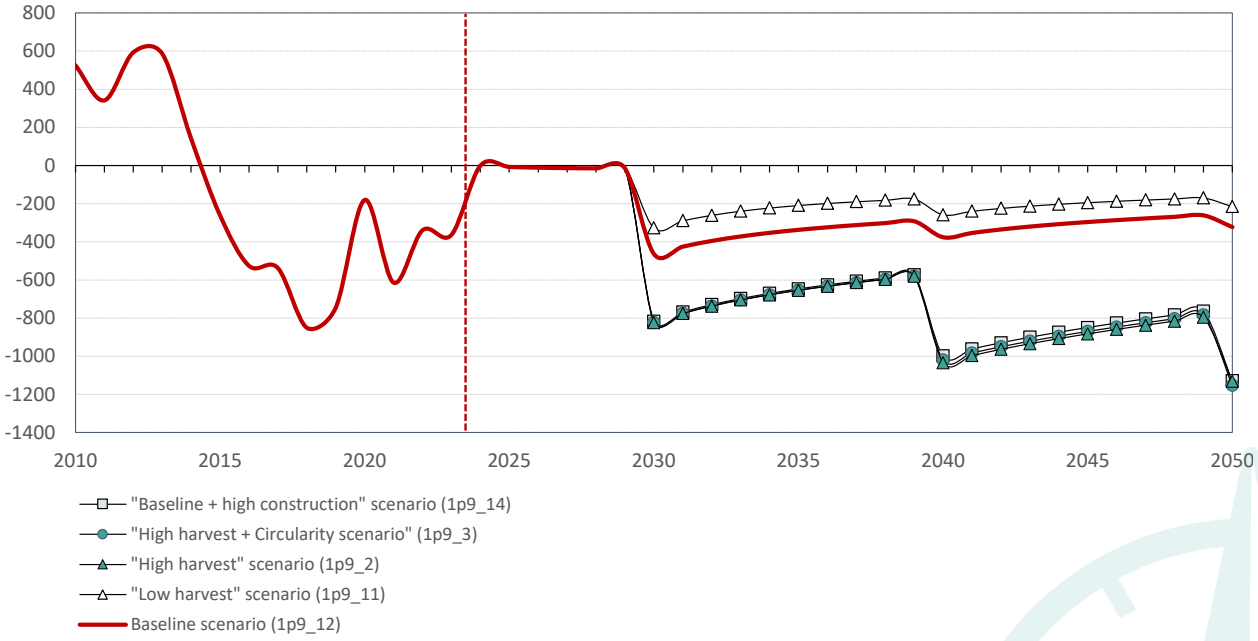

Figure HU-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Hungary [in kt CO_2]

Ireland (IE)

For Ireland, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the baseline scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure IE-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

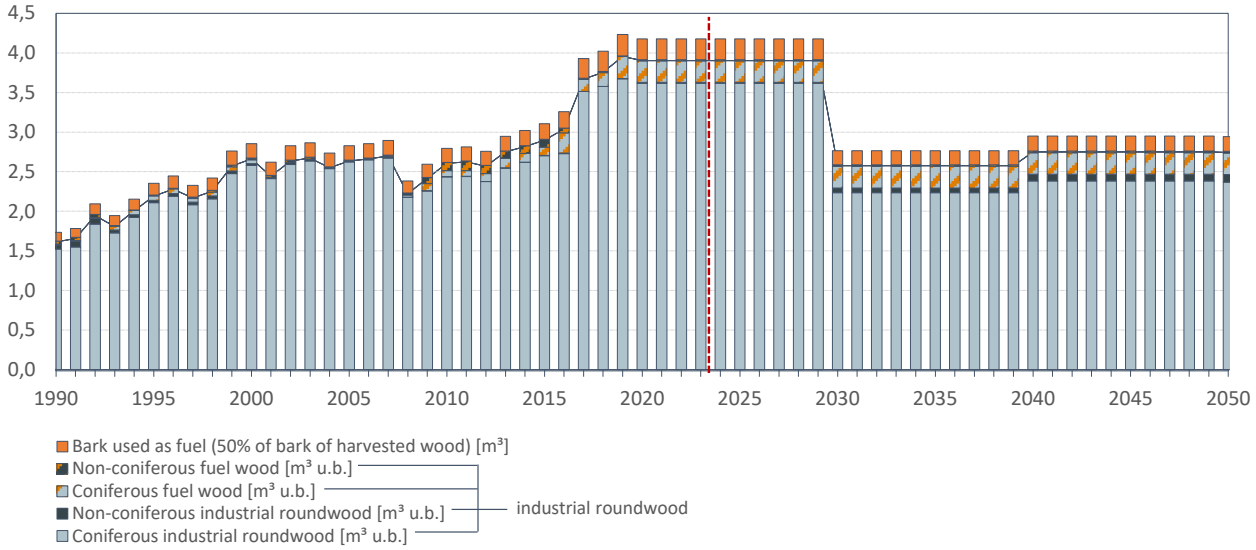

Figure IE-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Ireland [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure IE-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

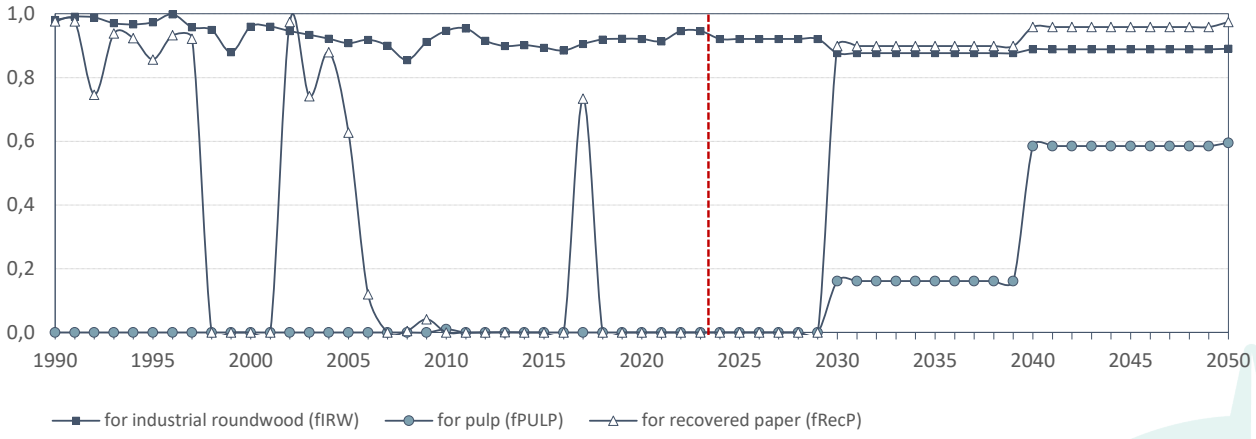

Figure IE-B: Historic and future development of the applied domestic feedstock factors for Ireland

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-IE-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure IE-C shows the results for the "baseline" scenario (RCP1p9_12).

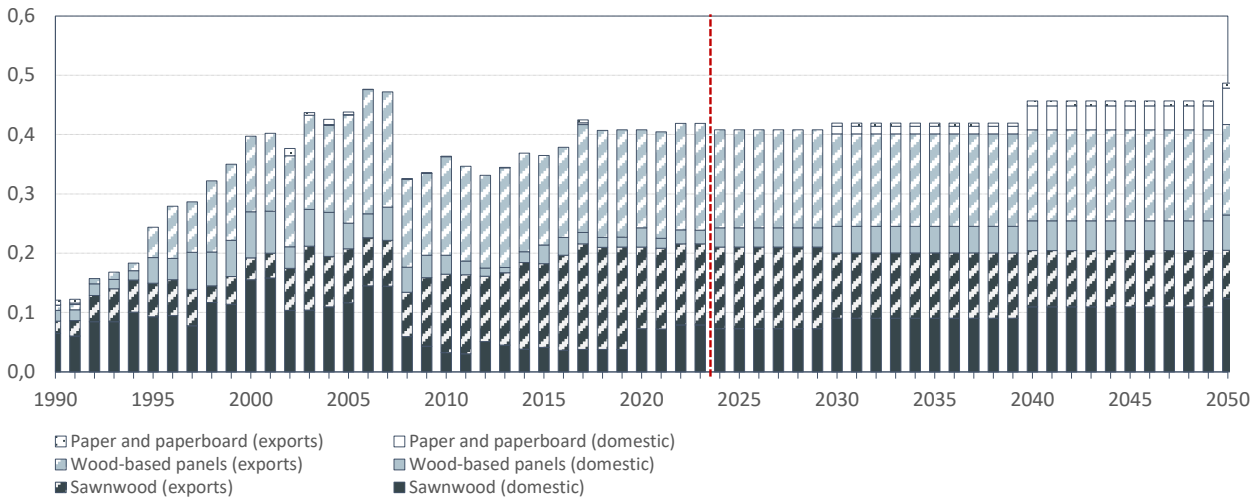

Figure IE-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Ireland [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

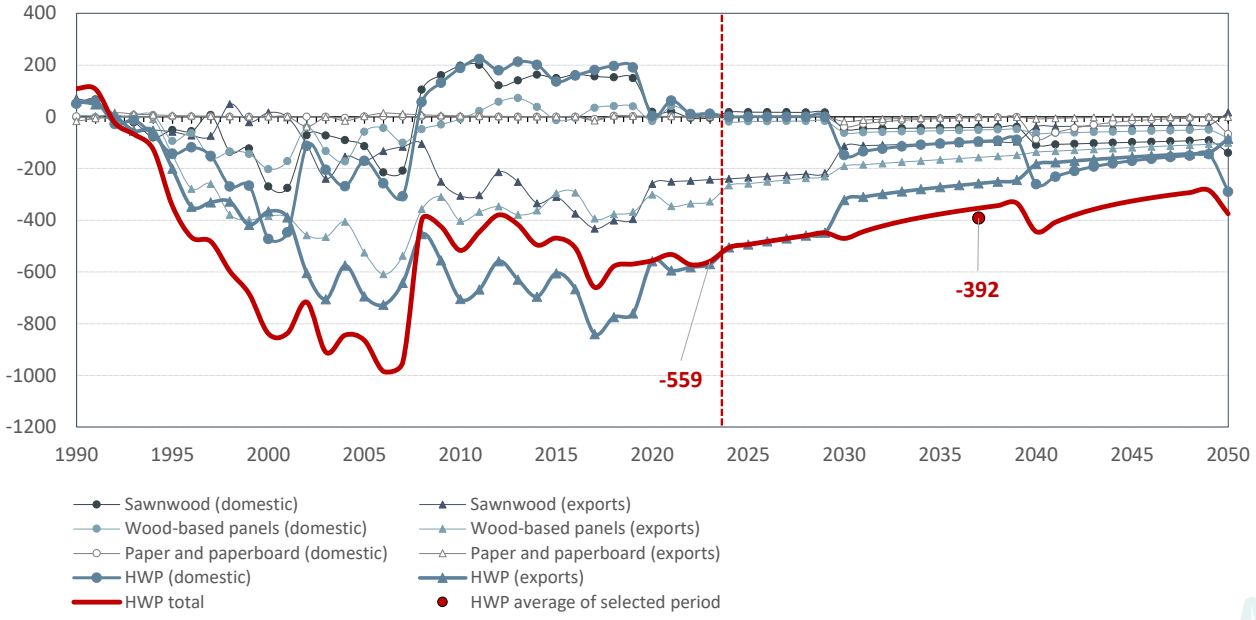

Figure IE-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Ireland [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure IE-D, Table ANX-IE-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

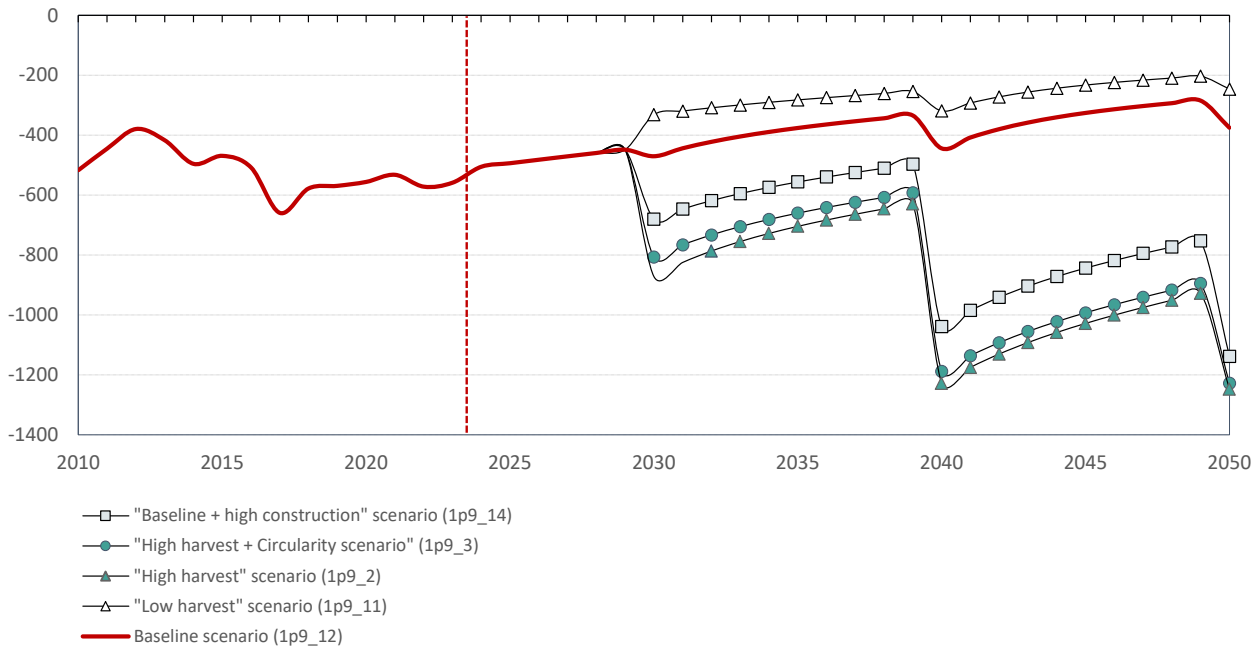

Figure IE-E: HWP contribution for selected scenarios on the basis of the production approach for Ireland [in kt CO_2]

Figure IE-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Ireland applying the "baseline" scenario (RCP1p9_12) in Figure IE-F.

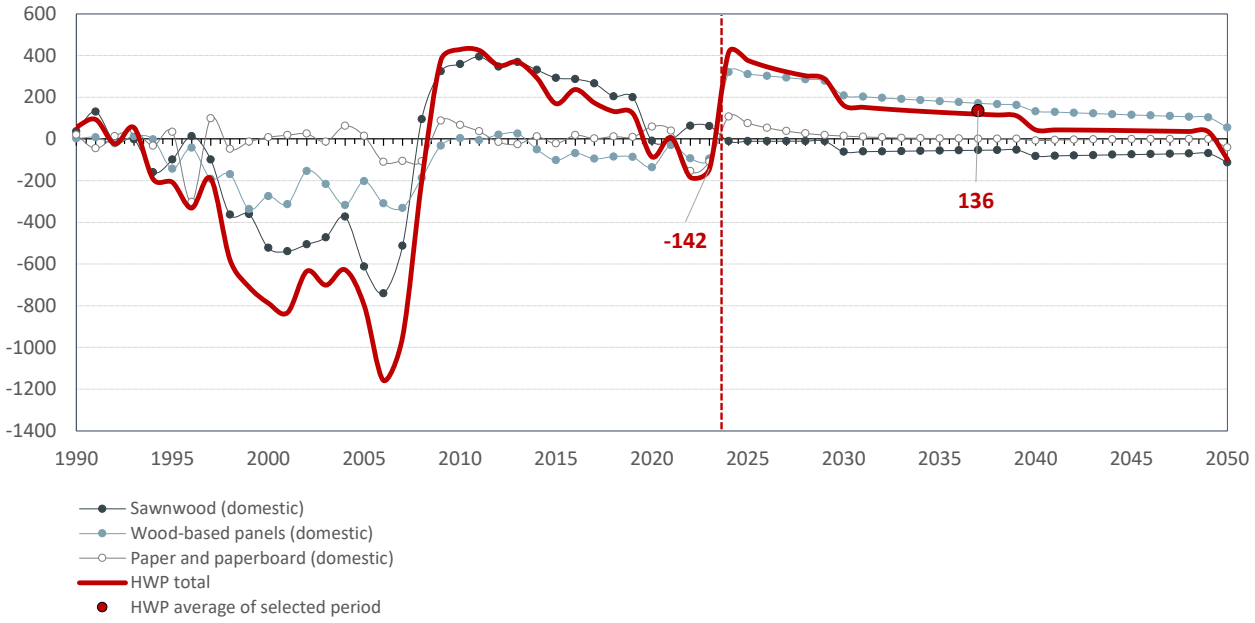

Figure IE-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Ireland [in kt CO_2]

Analogous to the illustration for the production approach, Figure IE-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Austria are contained in Table ANX-IE-0-C in the Annex II.

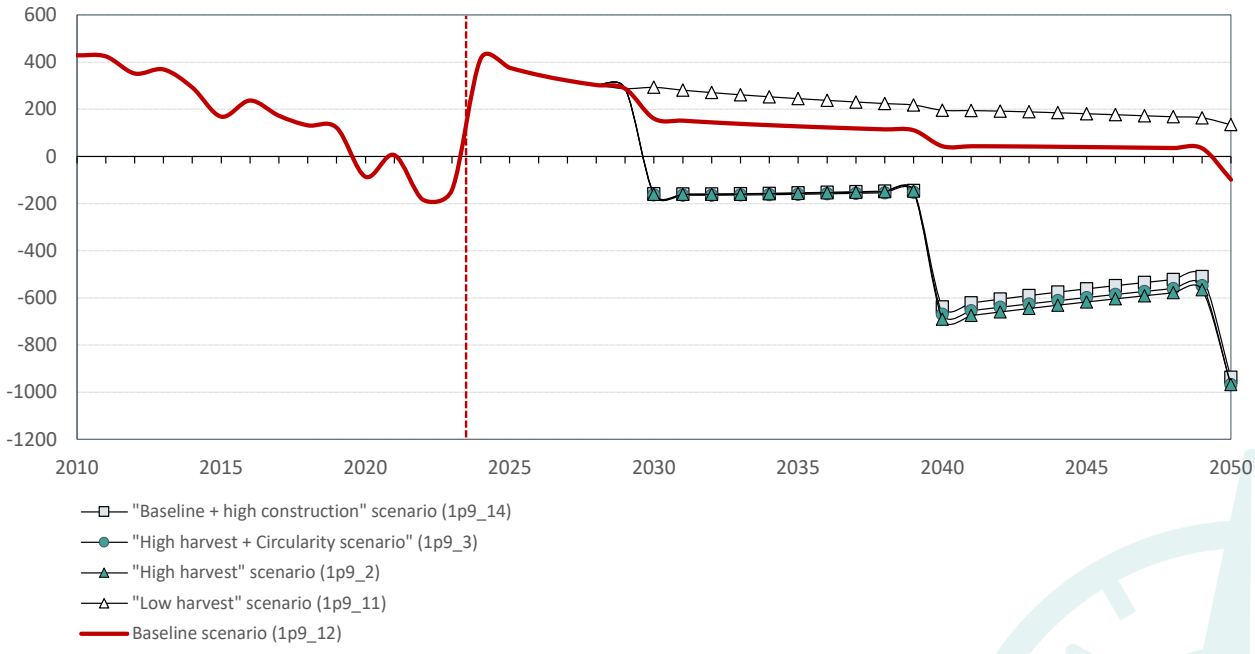

Figure IE-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Ireland [in kt CO_2]

Italy (IT)

For Italy, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure IT-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

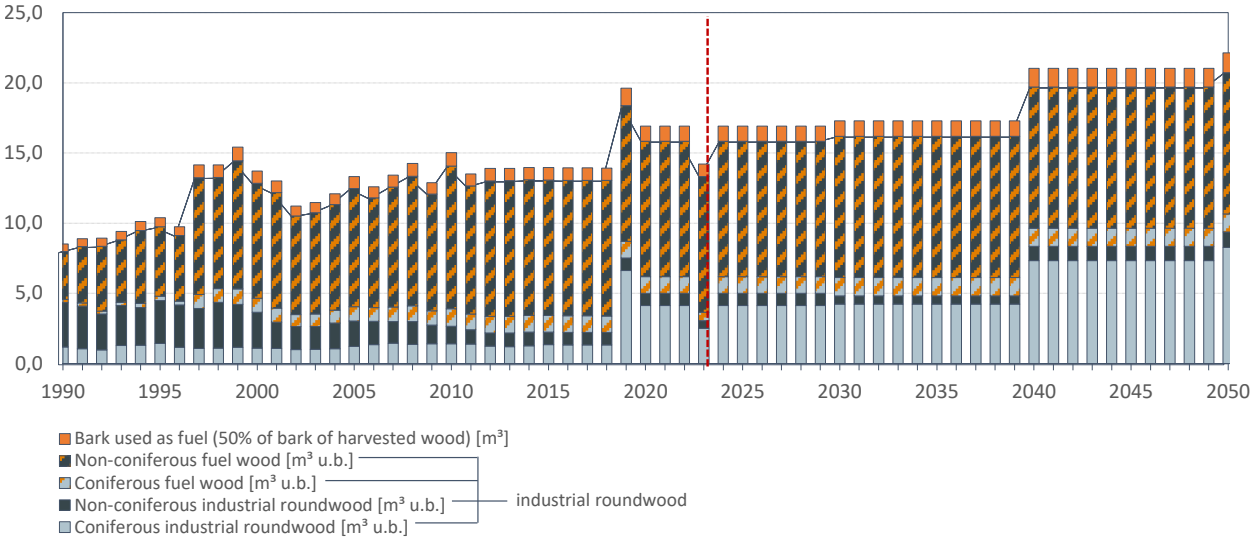

Figure IT-A: Historic and future harvest acc. to scenario RCP1p9_12 for industrial roundwood and fuel wood in Italy [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure IT-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

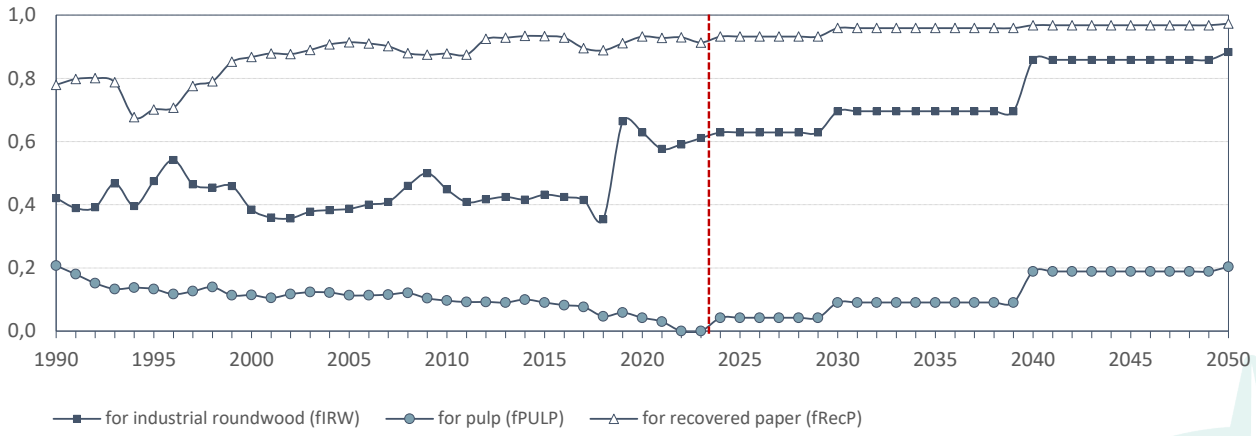

Figure IT-B: Historic and future development of the applied domestic feedstock factors for Italy

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-IT-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure IT-C shows the results for the "baseline" scenario (RCP1p9_12).

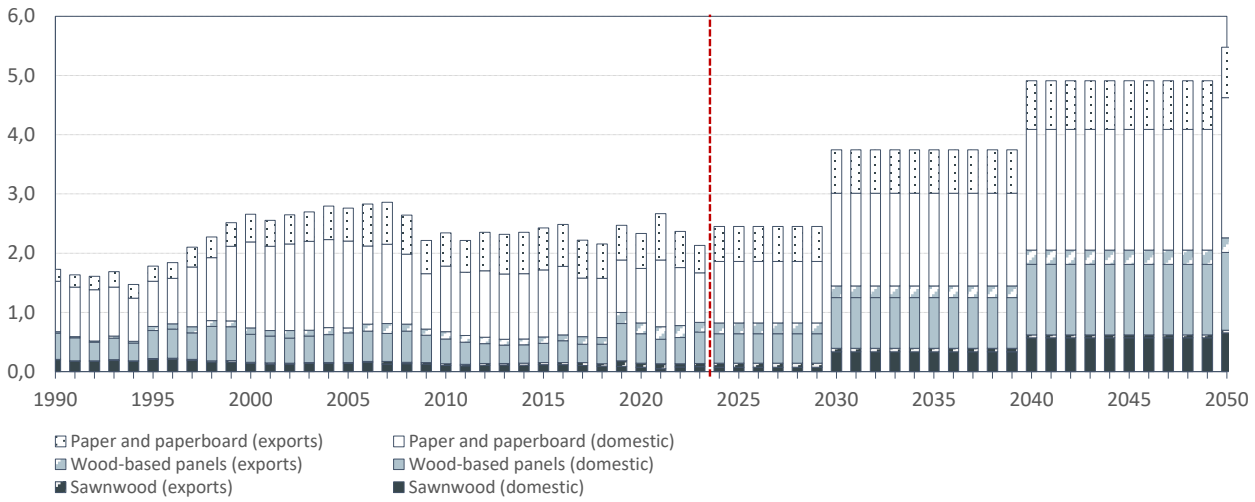

Figure IT-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Italy [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

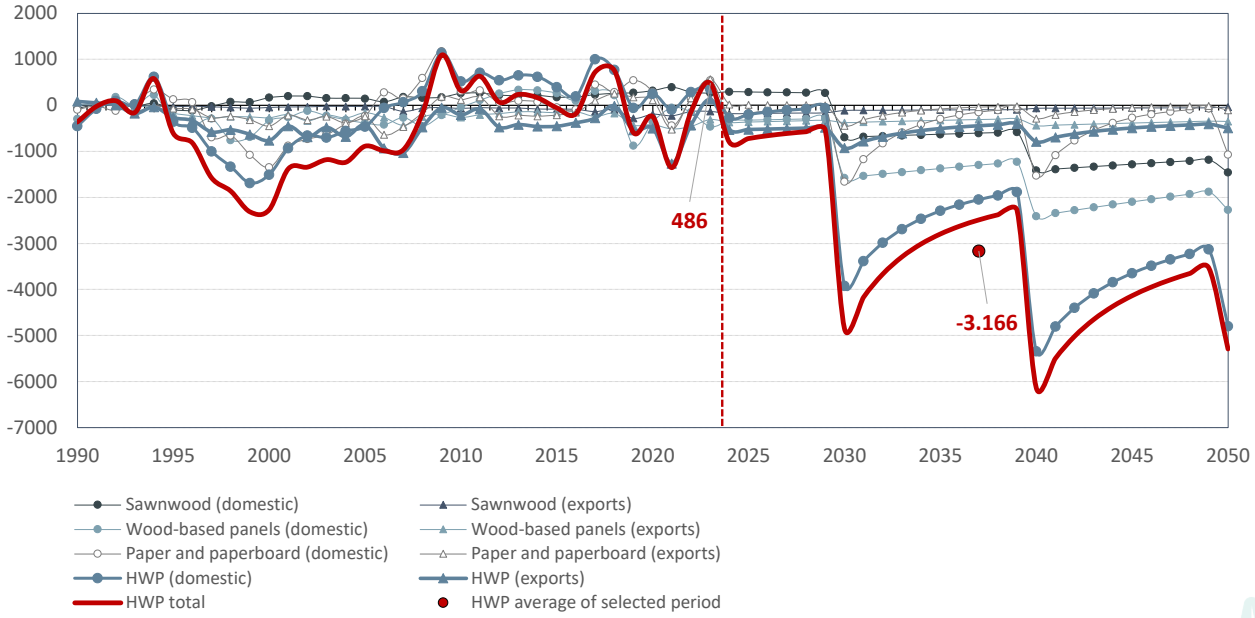

Figure IT-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Italy [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure IT-D, Table ANX-IT-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

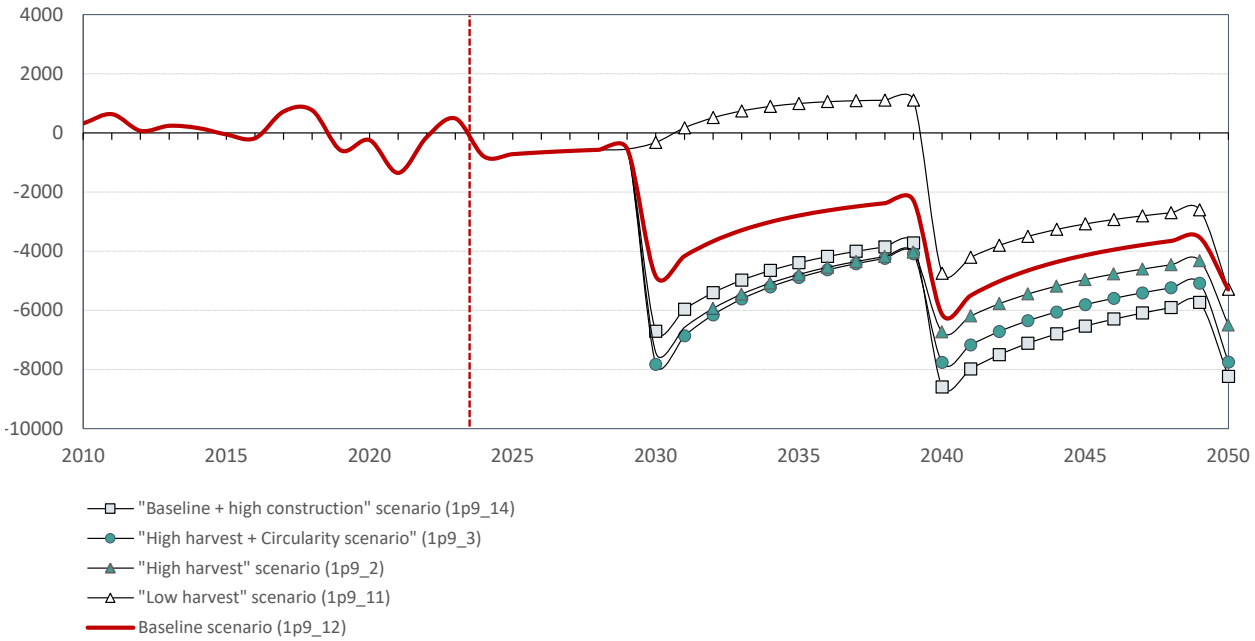

Figure IT-E: HWP contribution for selected scenarios on the basis of the production approach for Italy [in kt CO_2]

Figure IT-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Italy applying the "baseline" scenario (RCP1p9_12) in Figure IT-F.

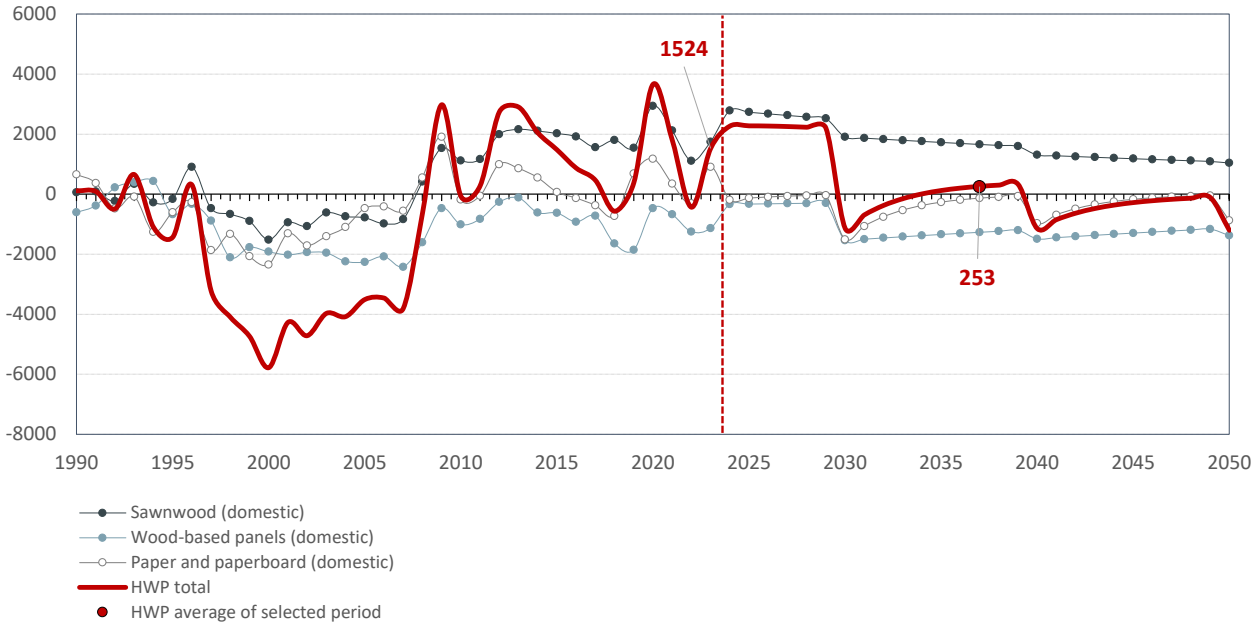

Figure IT-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Italy [in kt CO_2]

Analogous to the illustration for the production approach, Figure IT-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Italy are contained in Table ANX-IT-0-C in the Annex II.

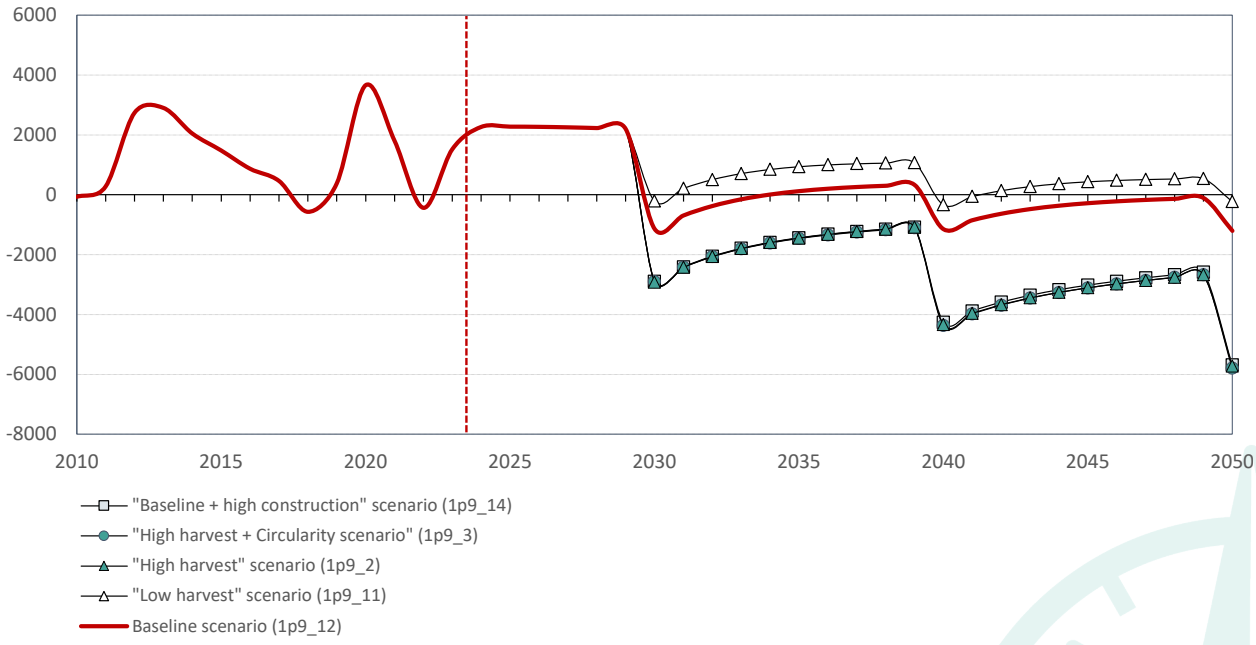

Figure IT-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Italy [in kt CO_2]

Lithuania (LT)

For Lithuania, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1992 to 2023.

For the baseline scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure LT-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

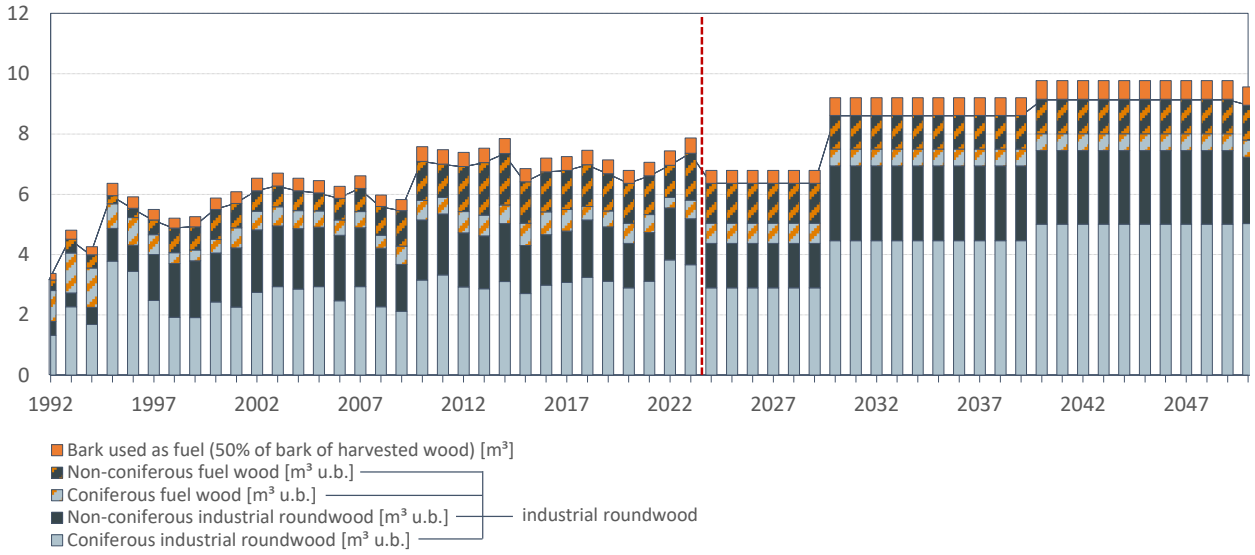

Figure LT-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Lithuania [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood Figure LT-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the “baseline” scenario (RCP1p9_12).

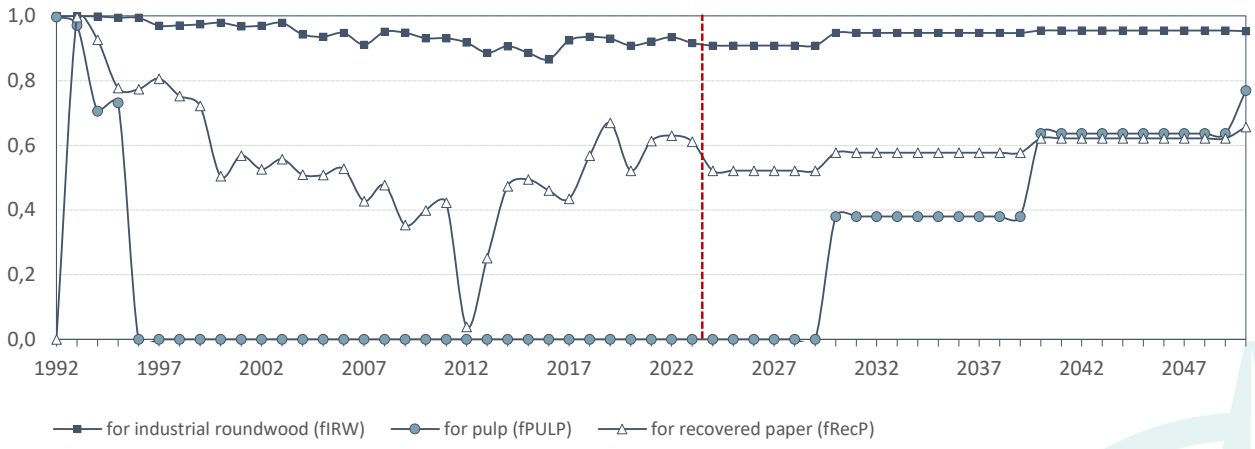

Figure LT-B: Historic and future development of the applied domestic feedstock factors for Lithuania

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-LT-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure LT-C shows the results for the "baseline" scenario (RCP1p9_12).

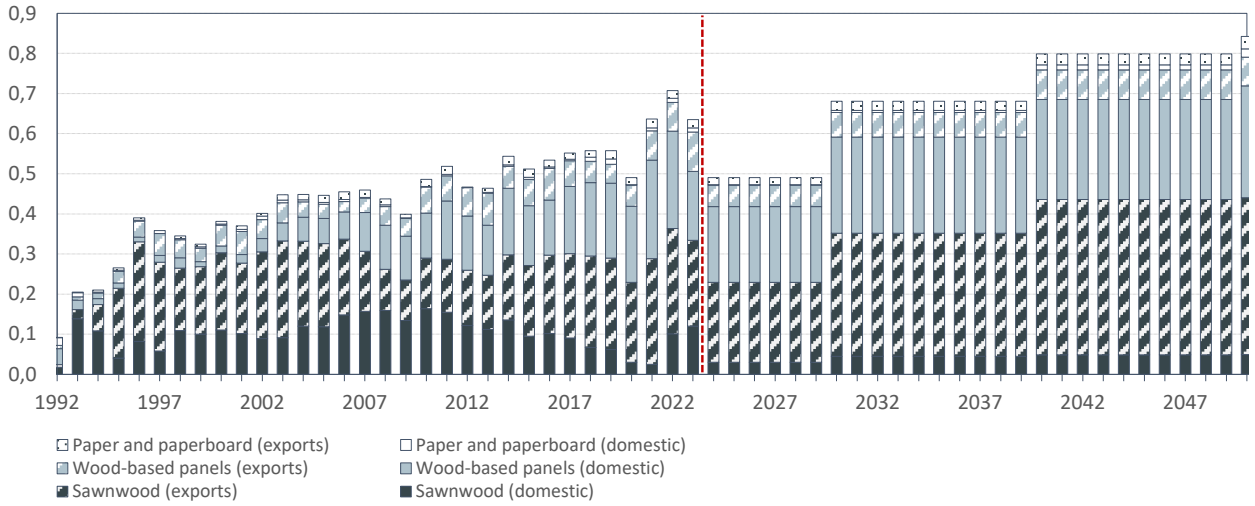

Figure LT-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Lithuania [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

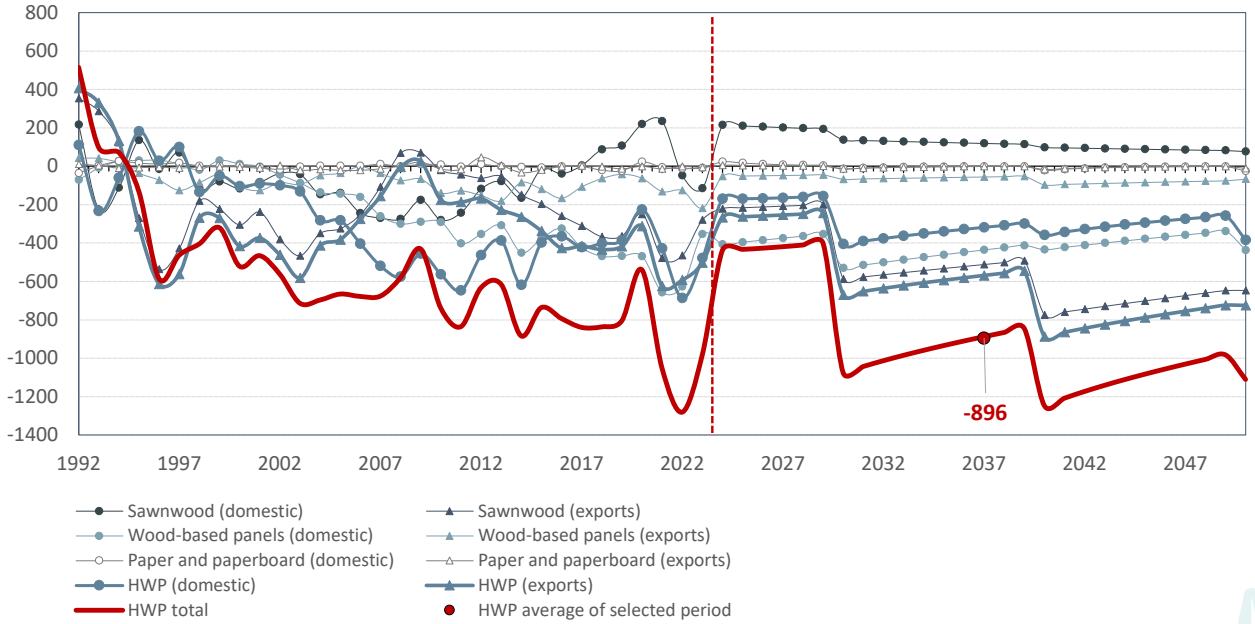

Figure LT-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Lithuania [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure LT-D, Table ANX-LT-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

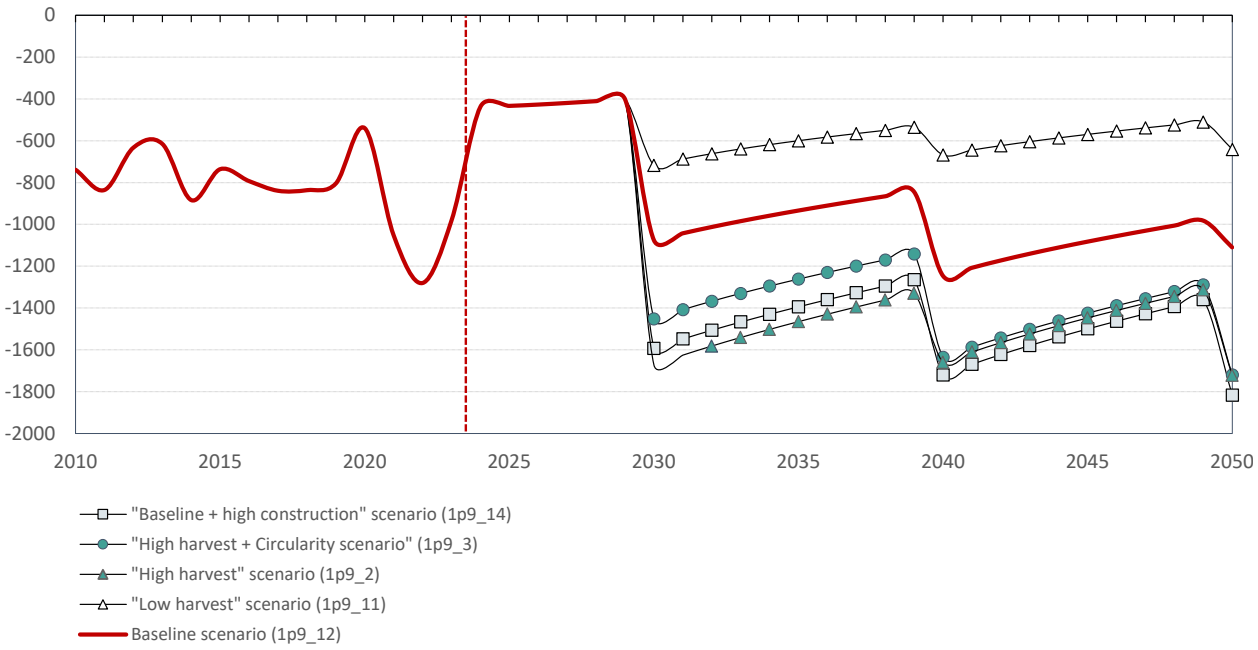

Figure LT-E: HWP contribution for selected scenarios on the basis of the production approach for Lithuania [in kt CO_2]

Table ANX-LT-0-B illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Lithuania applying the "baseline" scenario (RCP1p9_12) in Figure LT-F.

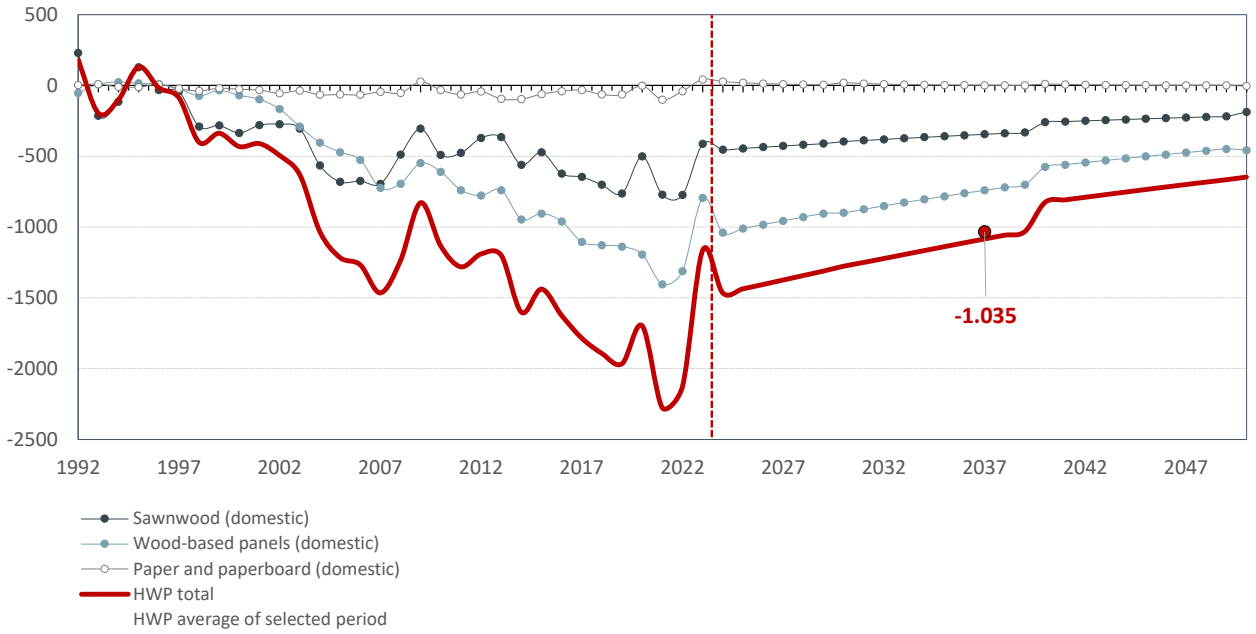

Figure LT-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Lithuania [in kt CO_2]

Analogous to the illustration for the production approach, Figure LT-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Lithuania are contained in Table ANX-LT-0-C in the Annex II.

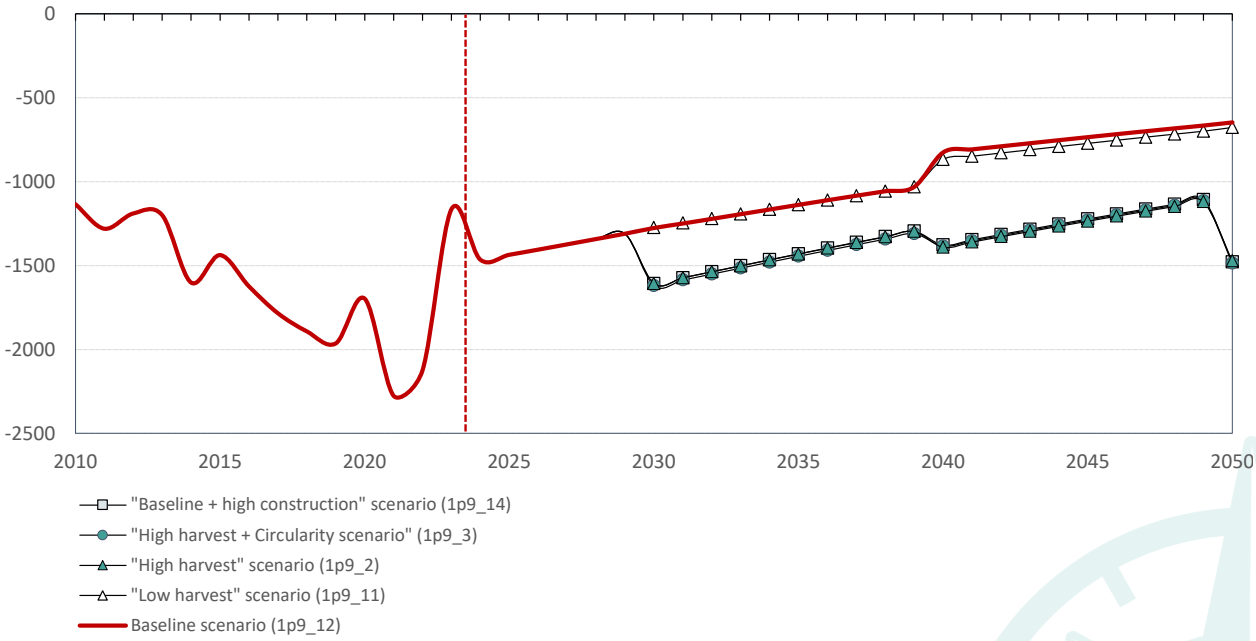

Figure LT-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Lithuania [in kt CO_2]

Latvia (LV)

For Latvia, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1992 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure LV-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

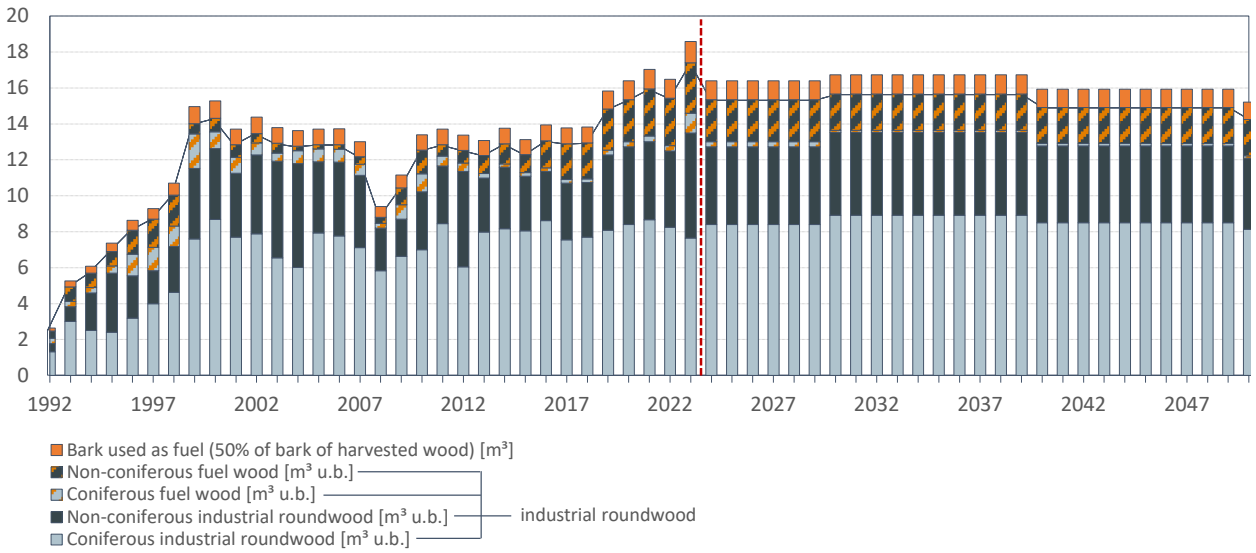

Figure LV-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Latvia [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure LV-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

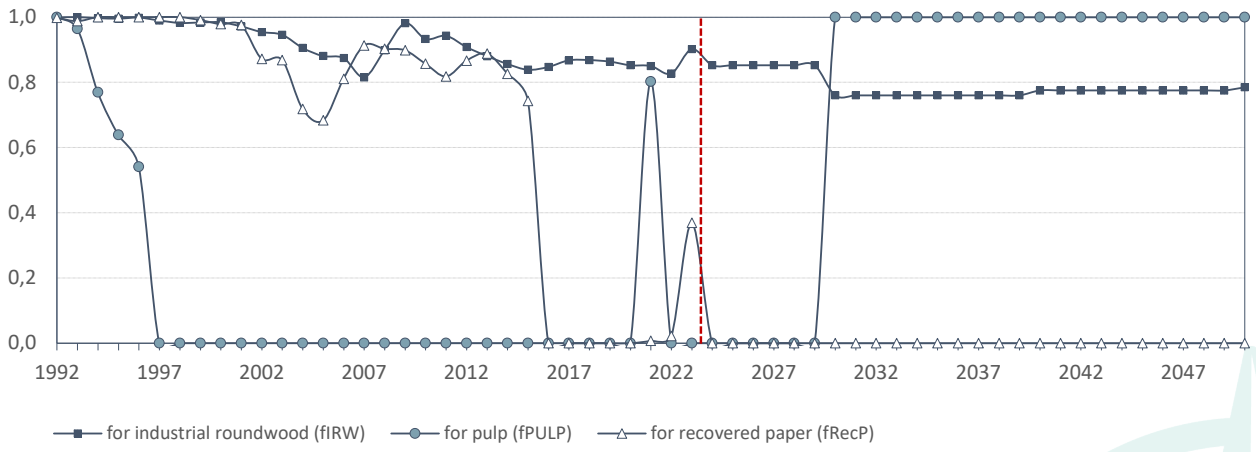

Figure LV-B: Historic and future development of the applied domestic feedstock factors for Latvia

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-LV-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure LV-C shows the results for the "baseline" scenario (RCP1p9_12).

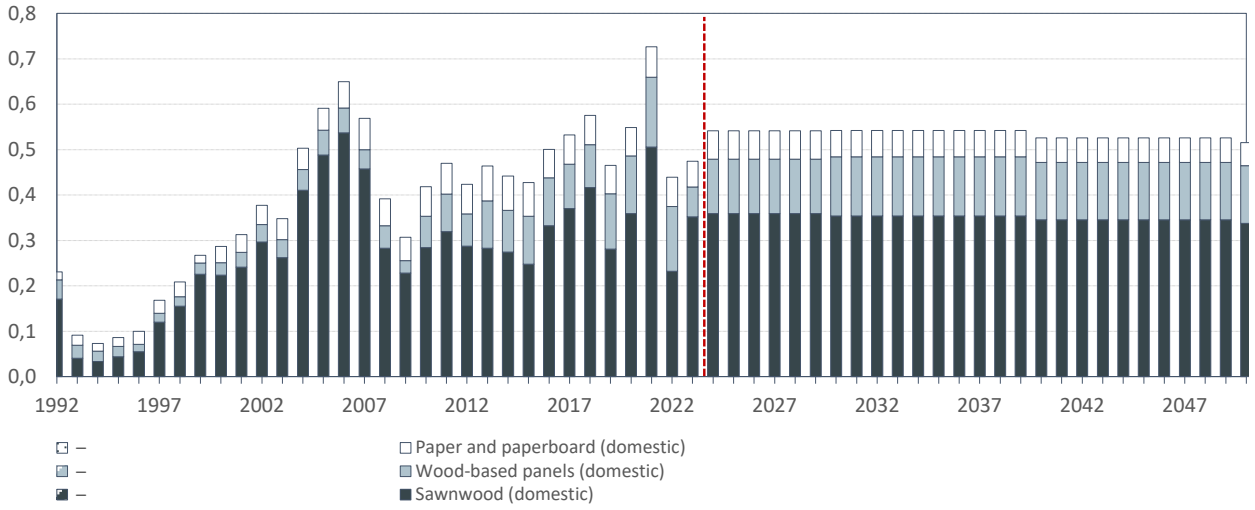

Figure LV-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Latvia [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

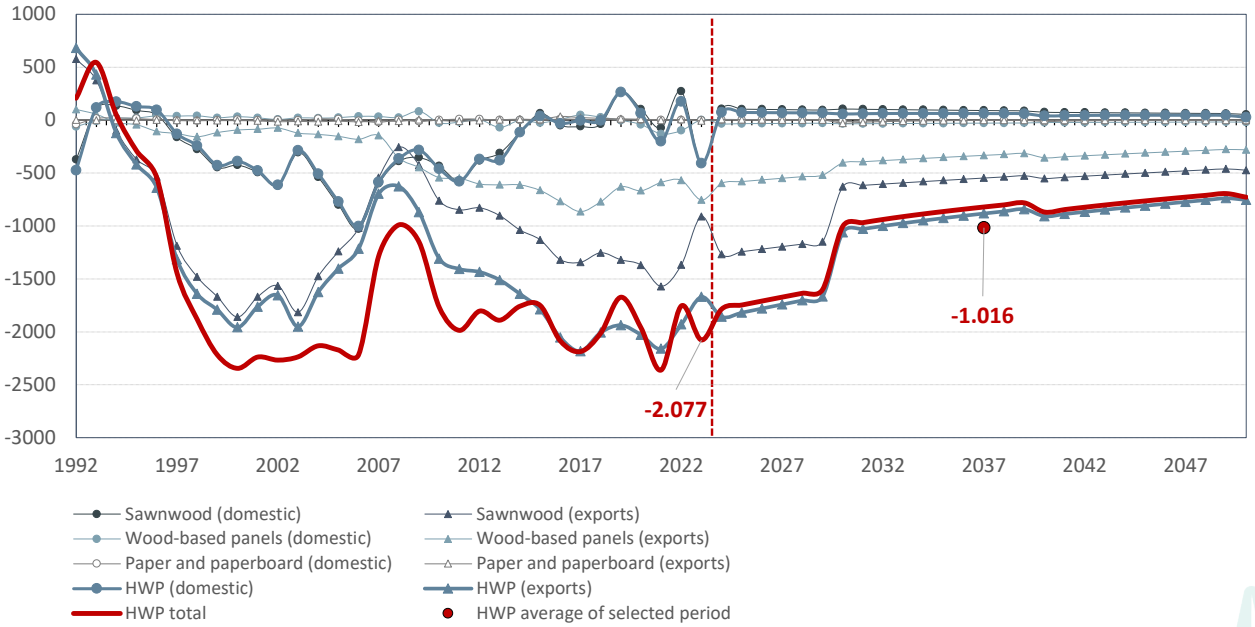

Figure LV-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Latvia [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure LV-D, Table ANX-LV-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

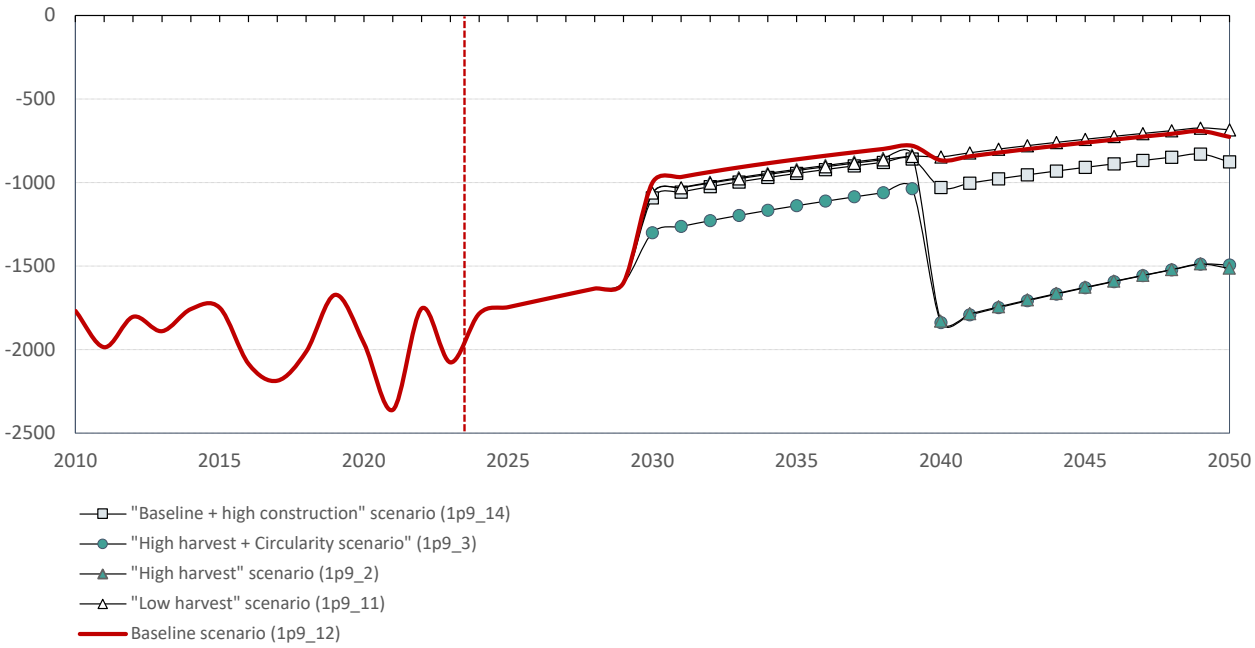

Figure LV-E: HWP contribution for selected scenarios on the basis of the production approach for Latvia [in kt CO_2]

Figure LV-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Latvia applying the "baseline" scenario (RCP1p9_12) in Figure LV-F.

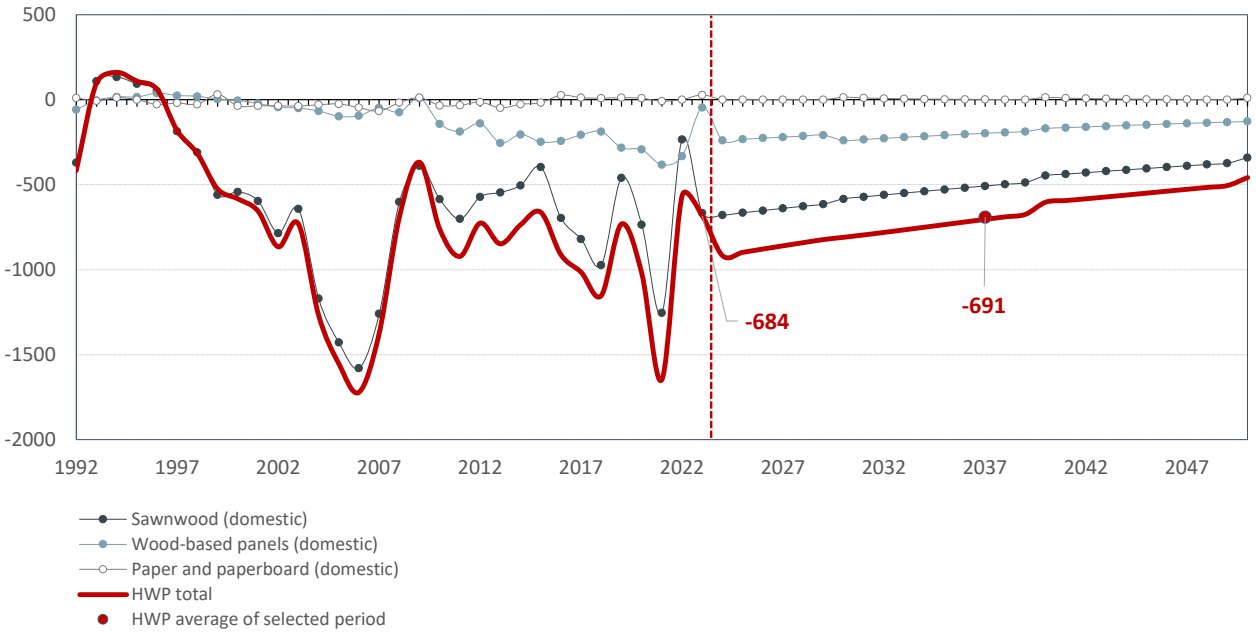

Figure LV-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Latvia [in kt CO_2]

Analogous to the illustration for the production approach, Figure LV-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Latvia are contained in Table ANX-LV-0-C in the Annex II.

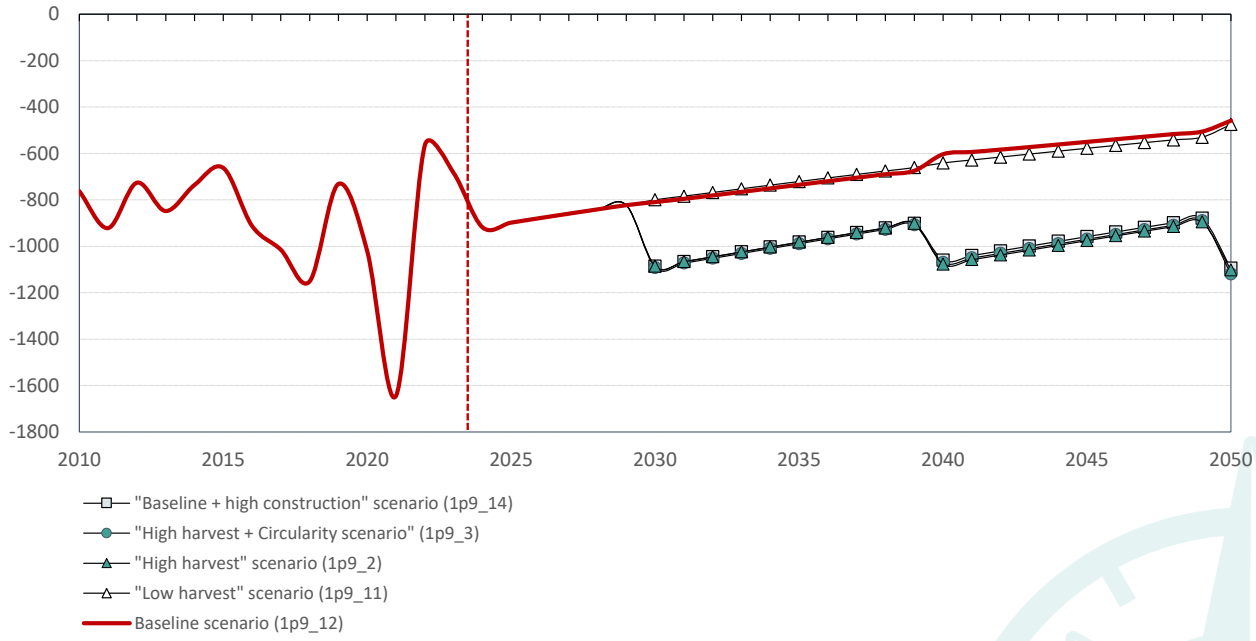

Figure LV-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Latvia [in kt CO_2]

The Netherlands (NL)

For the Netherlands, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure NL-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

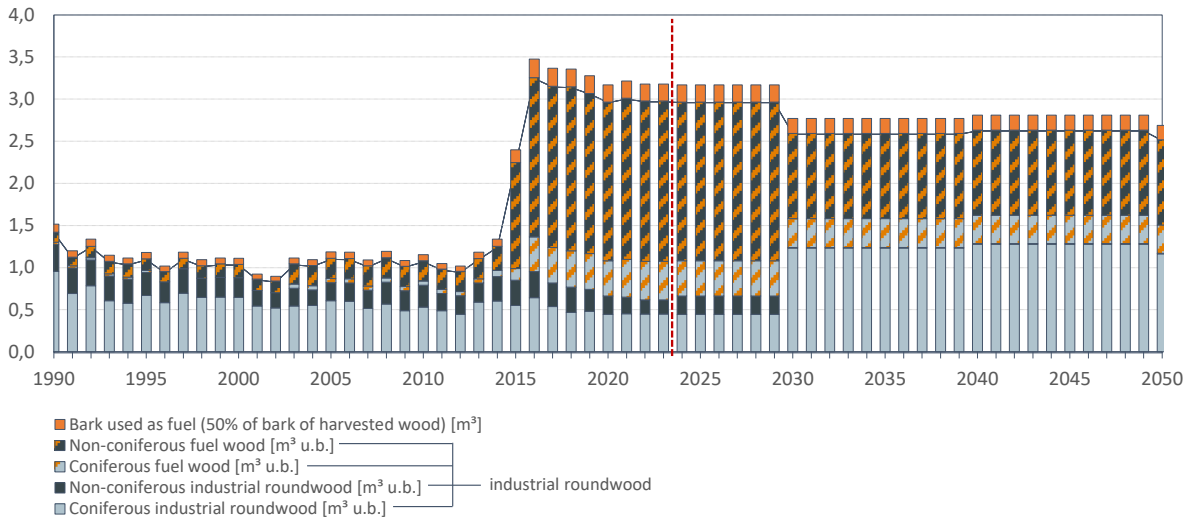

Figure NL-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in the Netherlands [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure NL-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

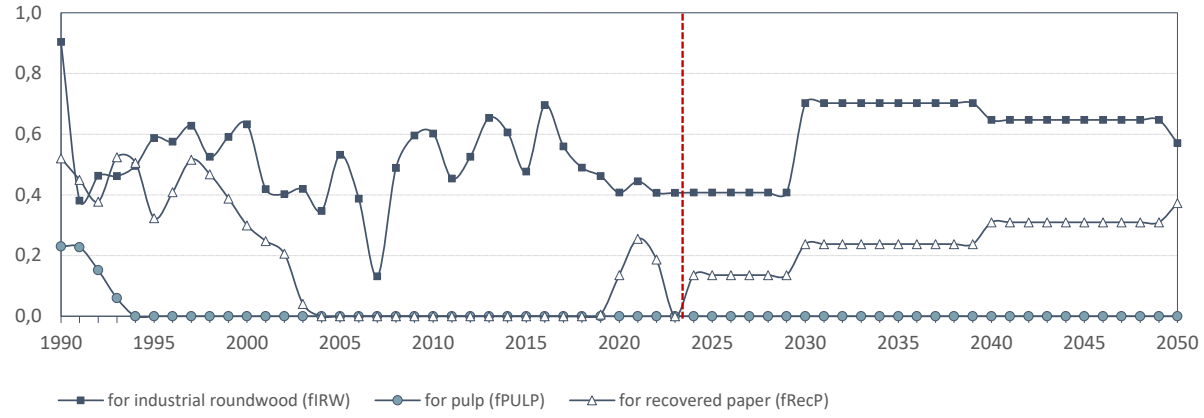

Figure NL-B: Historic and future development of the applied domestic feedstock factors for the Netherlands

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-NL-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure NL-C shows the results for the "baseline" scenario (RCP1p9_12).

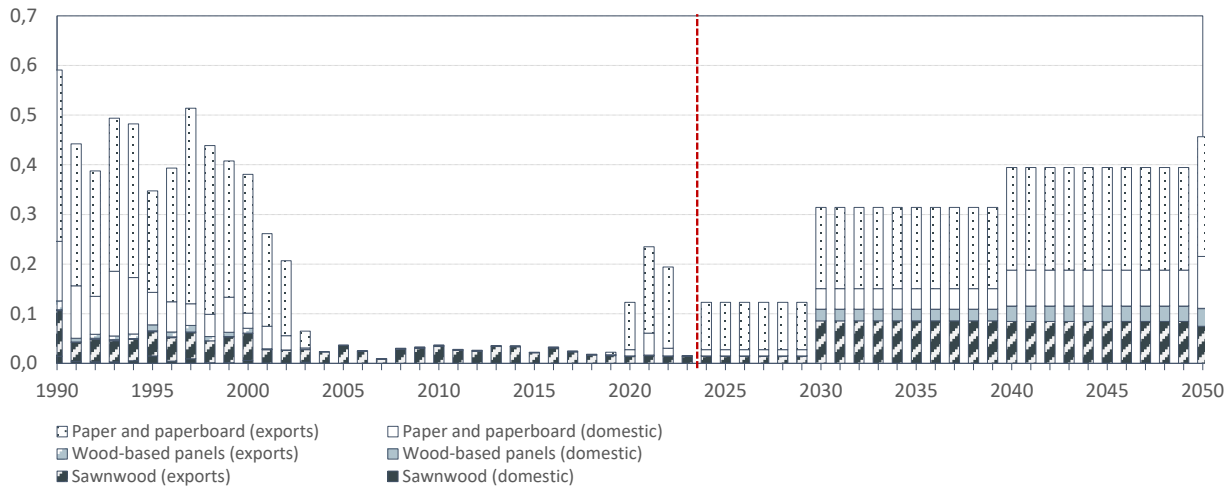

Figure NL-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for the Netherlands [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

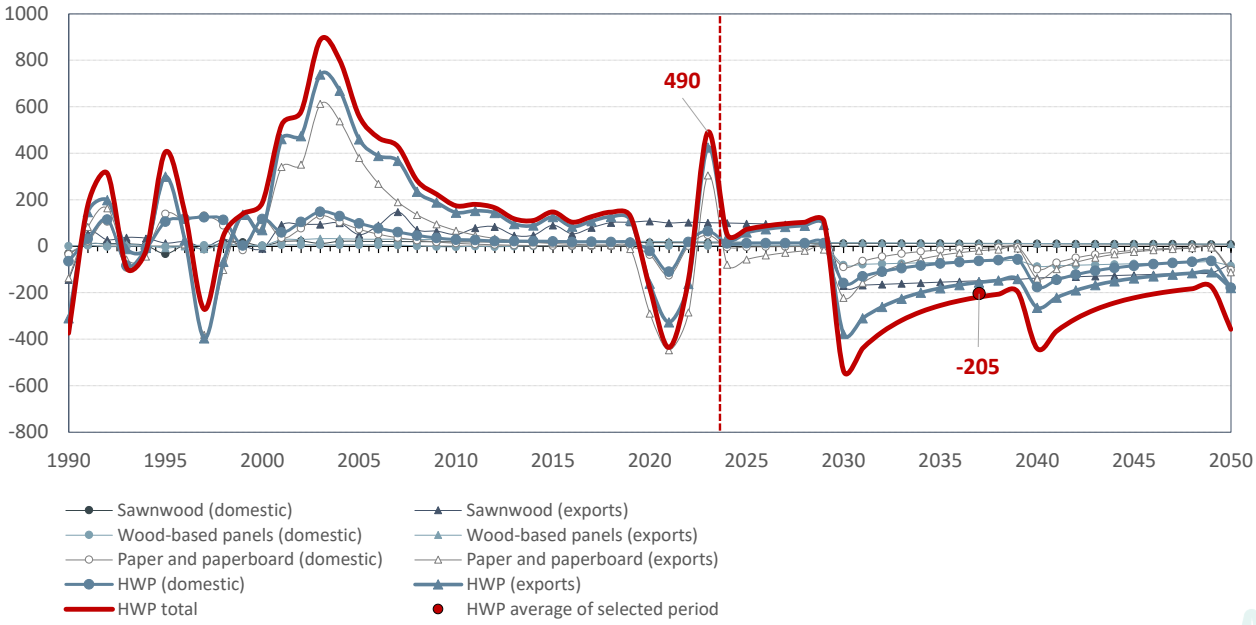

Figure NL-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for the Netherlands [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure NL-D, Table ANX-NL-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

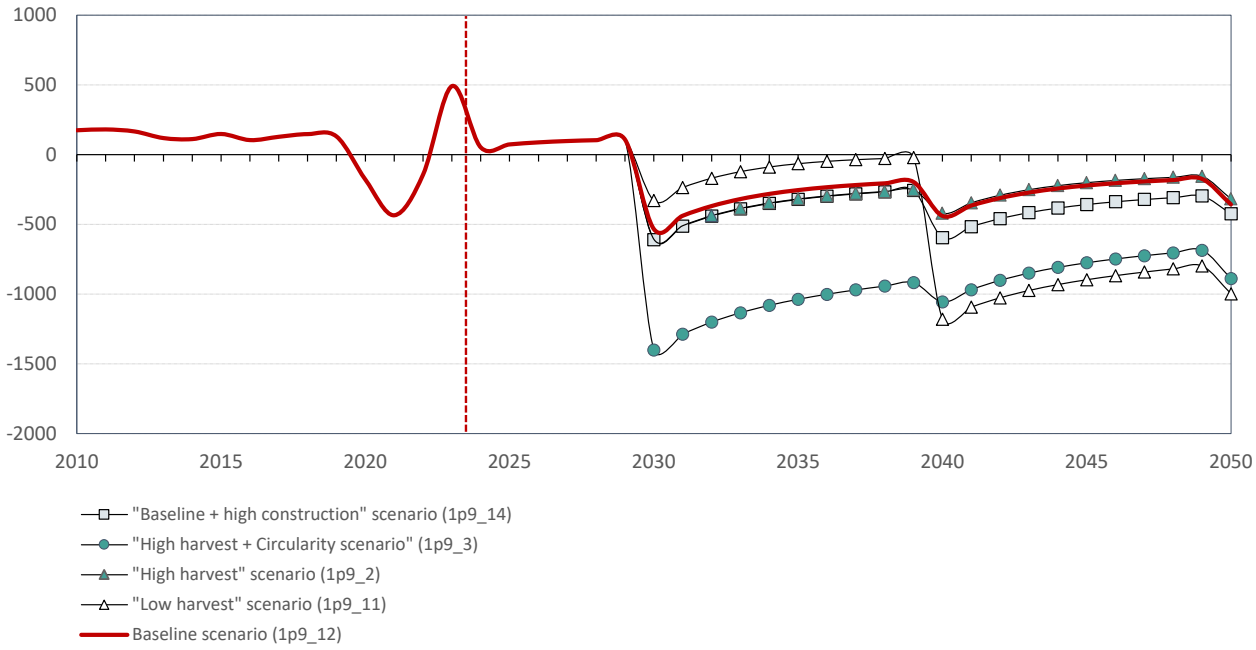

Figure NL-E: HWP contribution for selected scenarios on the basis of the production approach for the Netherlands [in kt CO_2]

Figure NL-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for the Netherlands applying the "baseline" scenario (RCP1p9_12) in Figure NL-F.

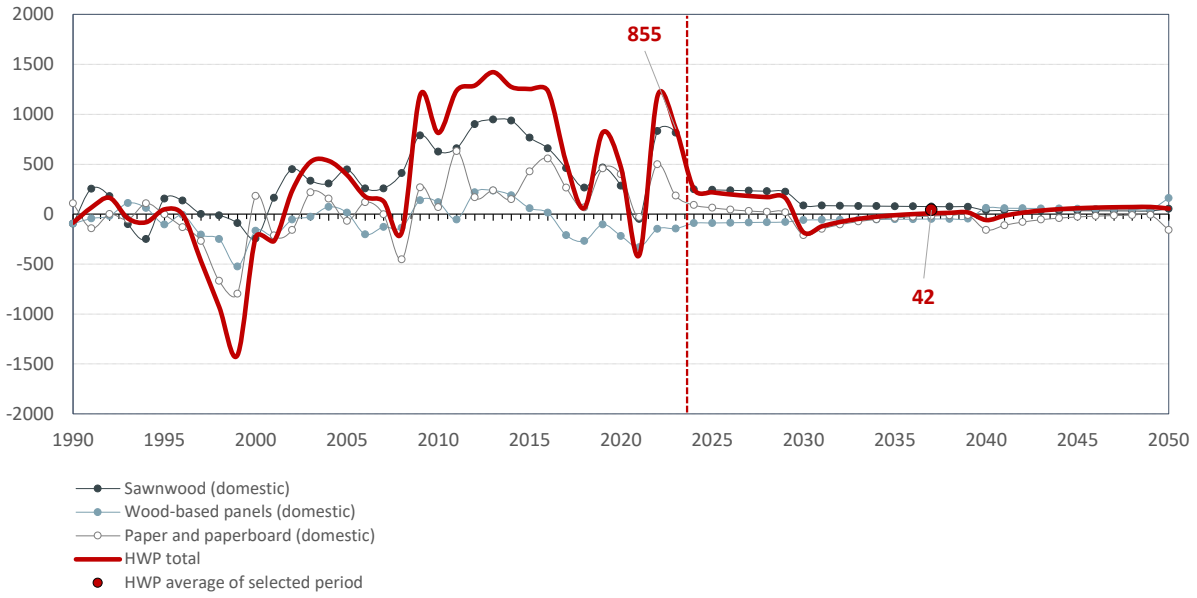

Figure NL-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for scenario RCP1p9_12 following the stock-change approach for the Netherlands [in kt CO_2]

Analogous to the illustration for the production approach, Figure NL-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for the Netherlands are contained in Table ANX-NL-0-C in the Annex II.

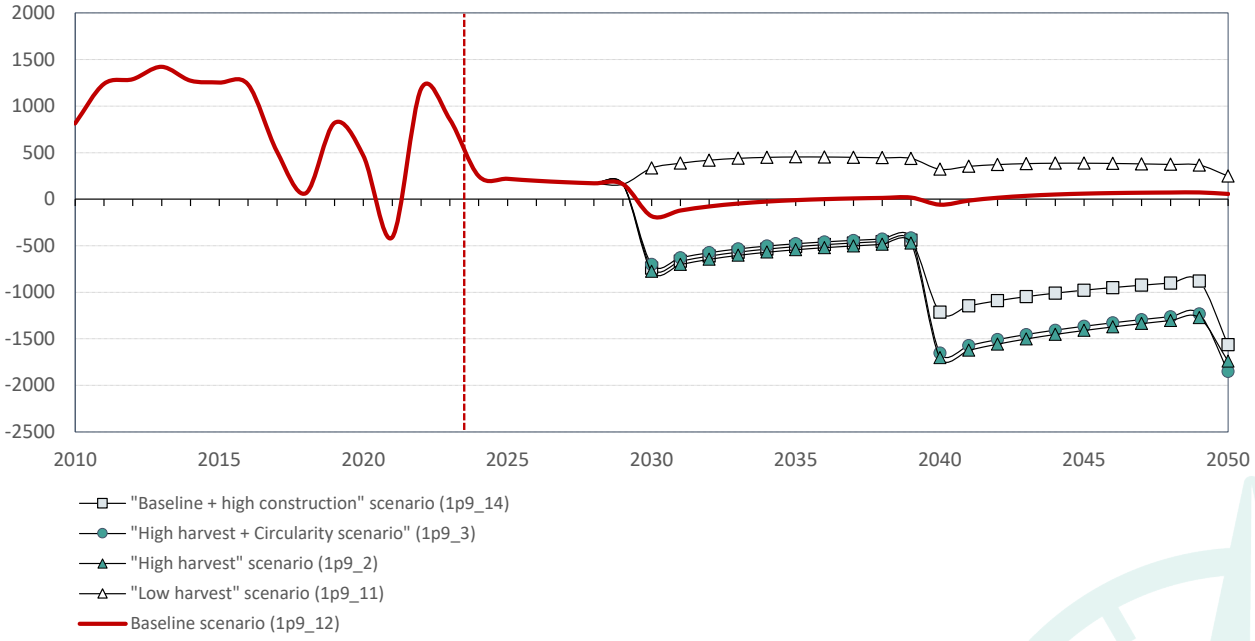

Figure NL-G: HWP contribution for selected scenarios on the basis of the stock-change approach for the Netherlands [in kt CO_2]

Poland (PL)

For Poland, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure PL-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

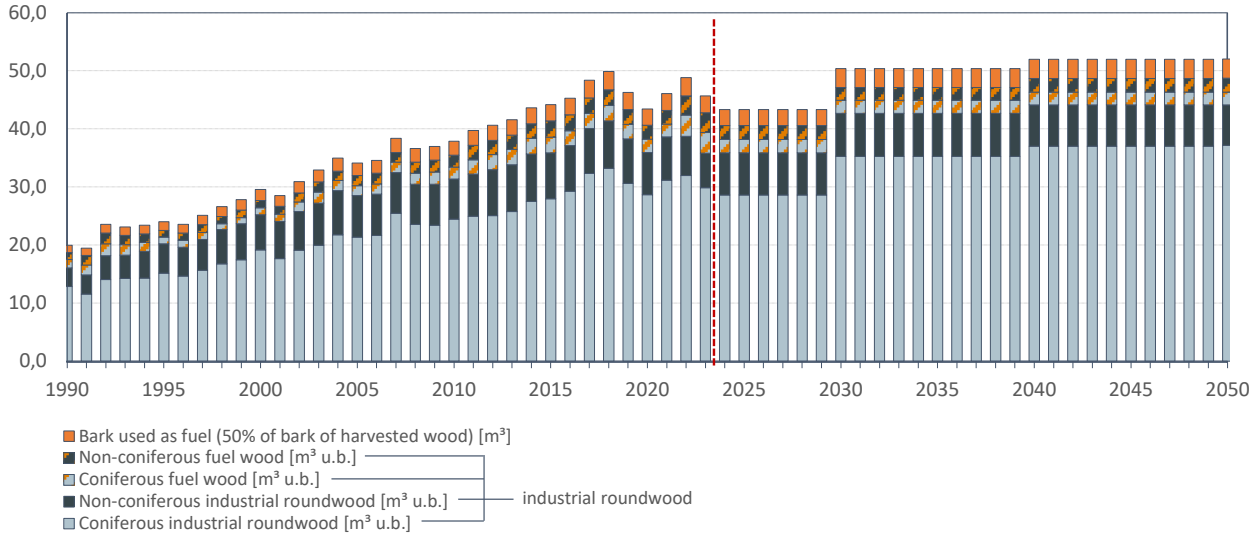

Figure PL-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Poland [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure PL-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

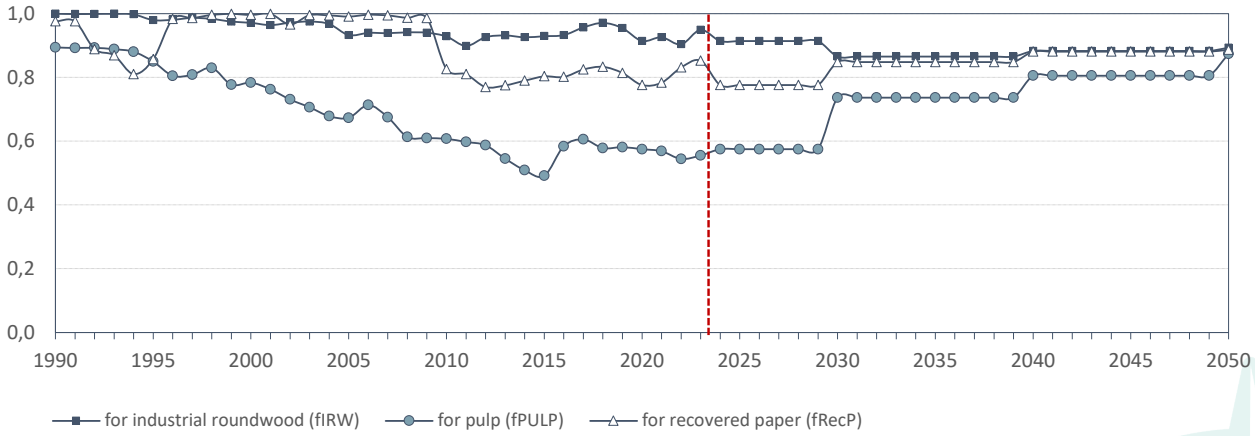

Figure PL-B: Historic and future development of the applied domestic feedstock factors for Poland

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-PL-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure PL-C shows the results for the "baseline" scenario (RCP1p9_12).

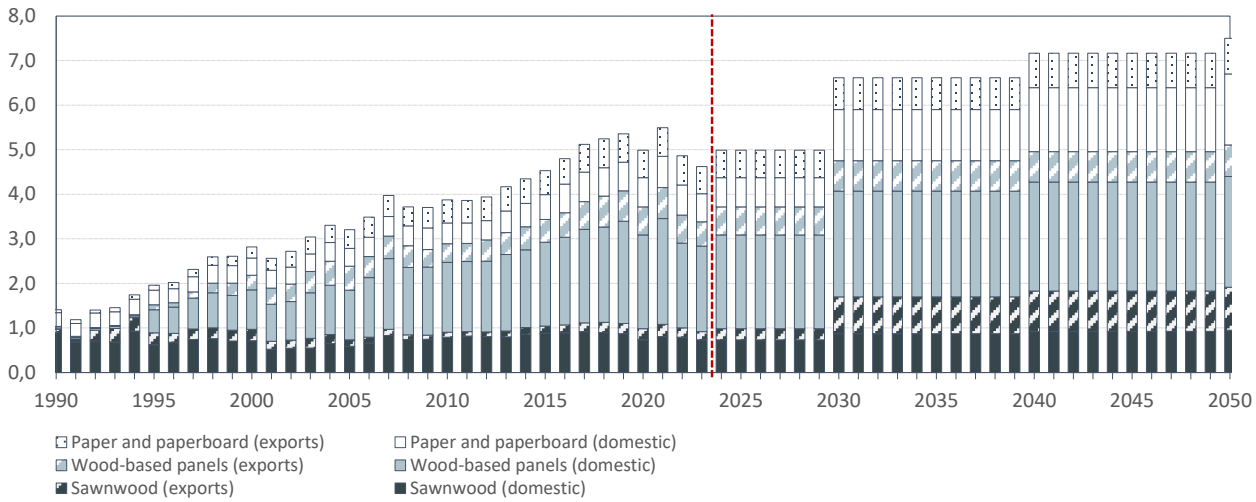

Figure PL-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Poland [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

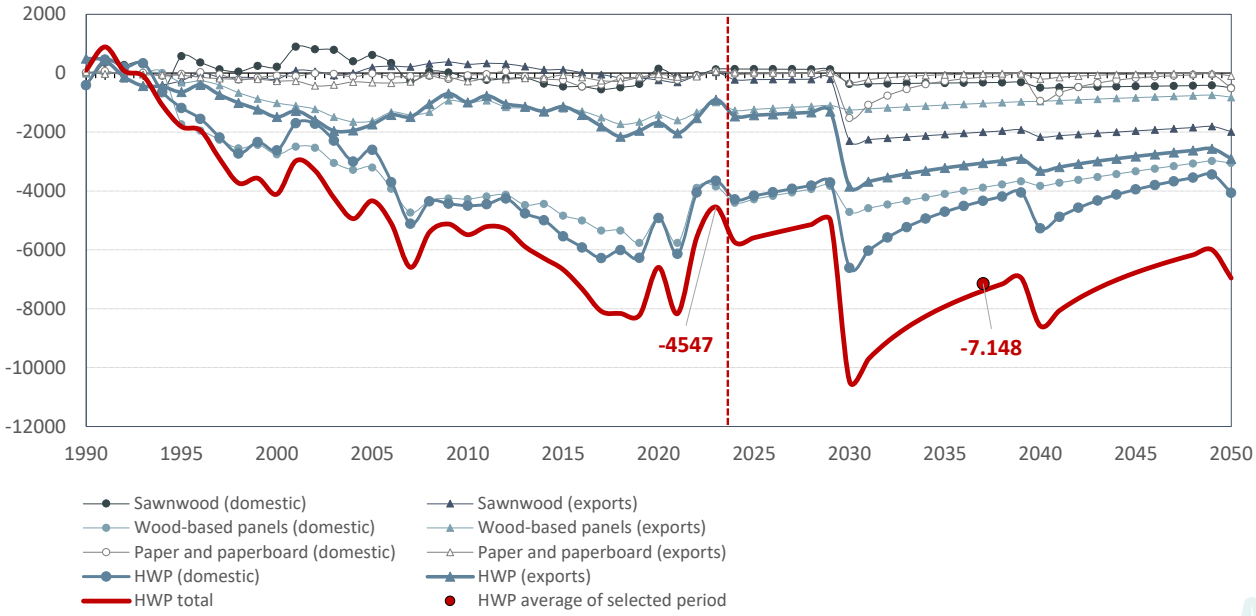

Figure PL-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Poland [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure PL-D, Table ANX-PL-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

Figure PL-E: HWP contribution for selected scenarios on the basis of the production approach for Poland [in kt CO_2]

Figure PL-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Poland applying the "baseline" scenario (RCP1p9_12) in Figure PL-F.

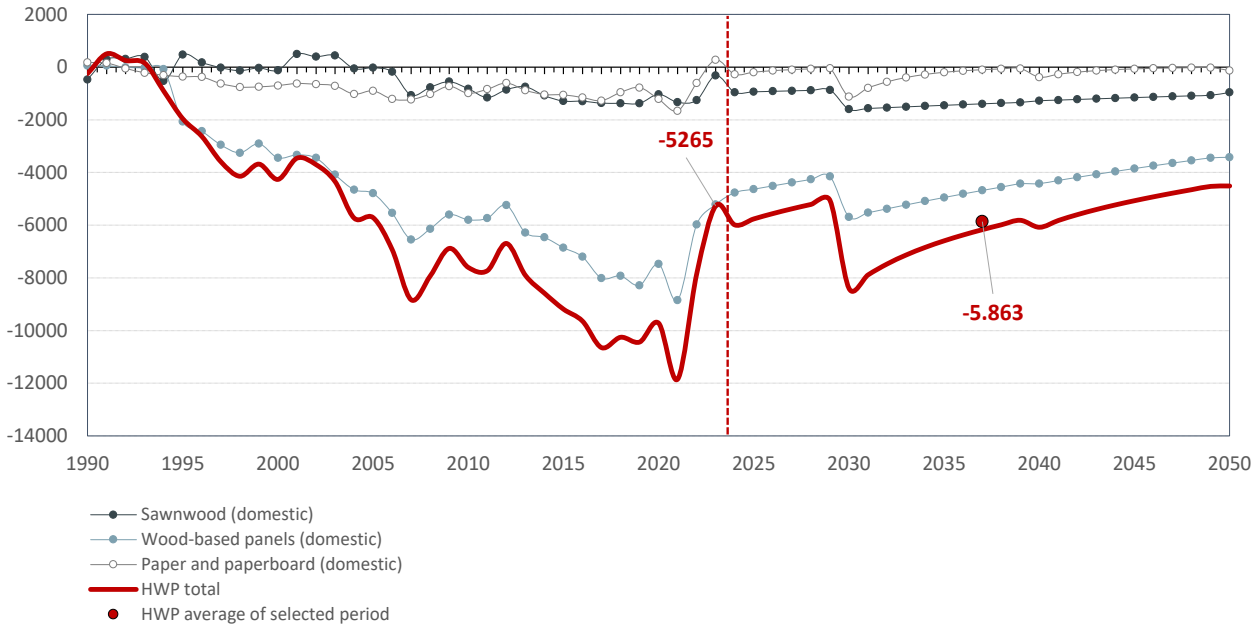

Figure PL-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Poland [in kt CO_2]

Analogous to the illustration for the production approach, Figure PL-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Poland are contained in Table ANX-PL-0-C in the Annex II.

Figure PL-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Poland [in kt CO_2]

Portugal (PT)

For Portugal, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure PT-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

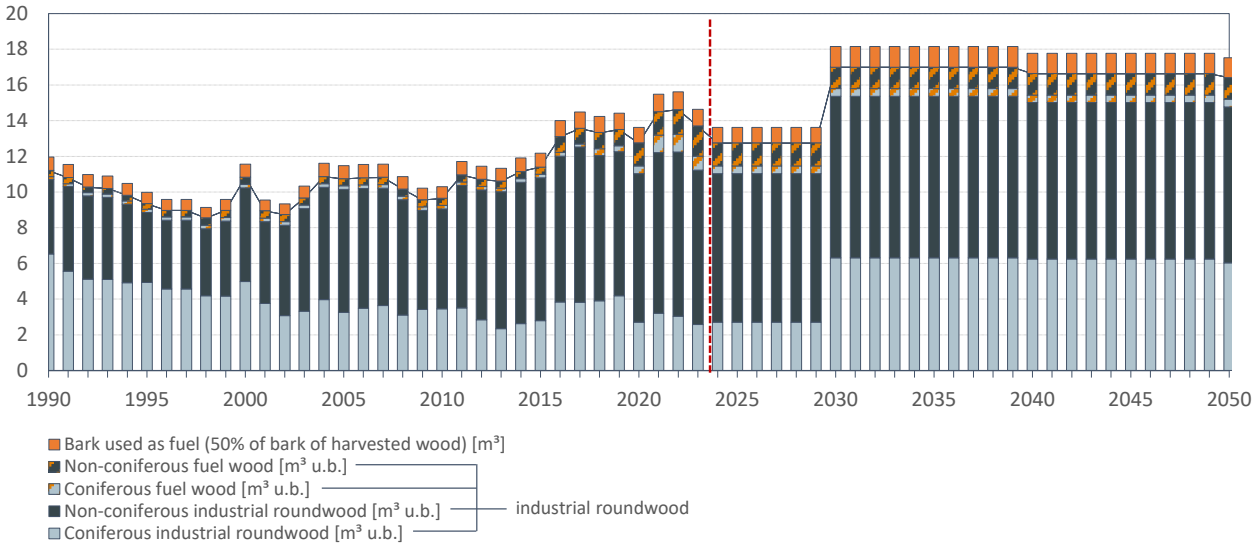

Figure PT-A: Historic and future harvest acc. to scenario RCP1p9_12 for industrial roundwood and fuel wood in Portugal [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure PT-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

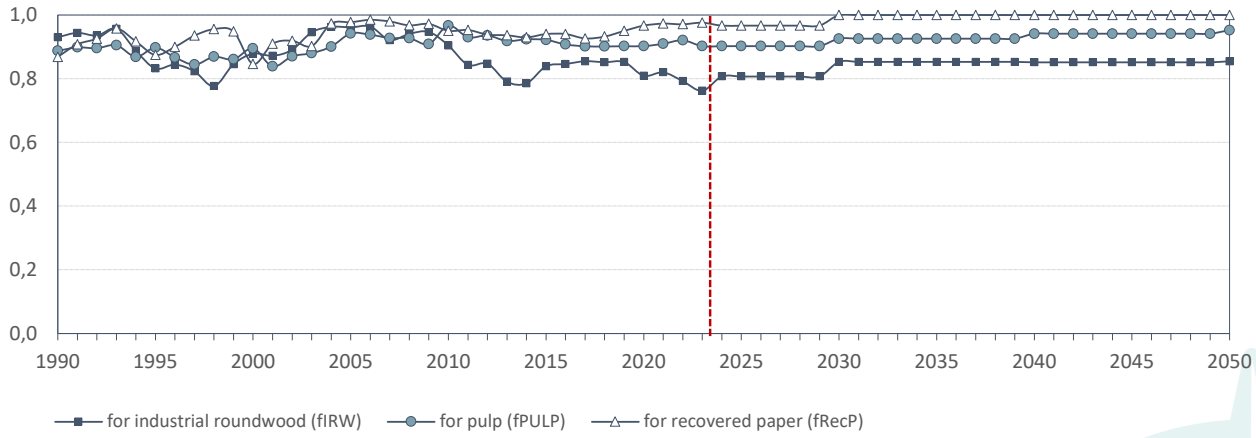

Figure PT-B: Historic and future development of the applied domestic feedstock factors for Portugal

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-PT-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure PT-C shows the results for the "baseline" scenario (RCP1p9_12).

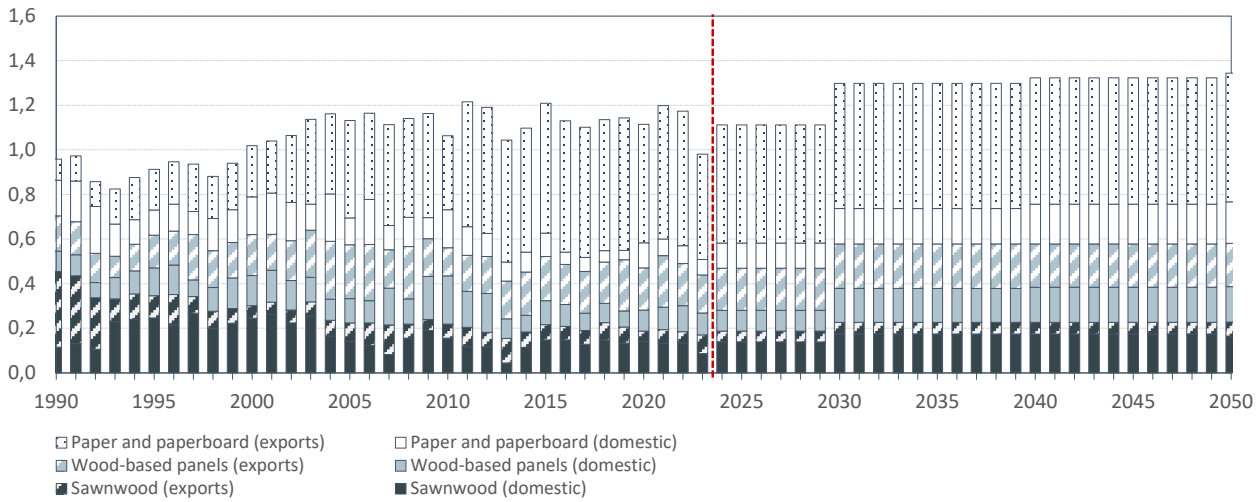

Figure PT-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Portugal [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

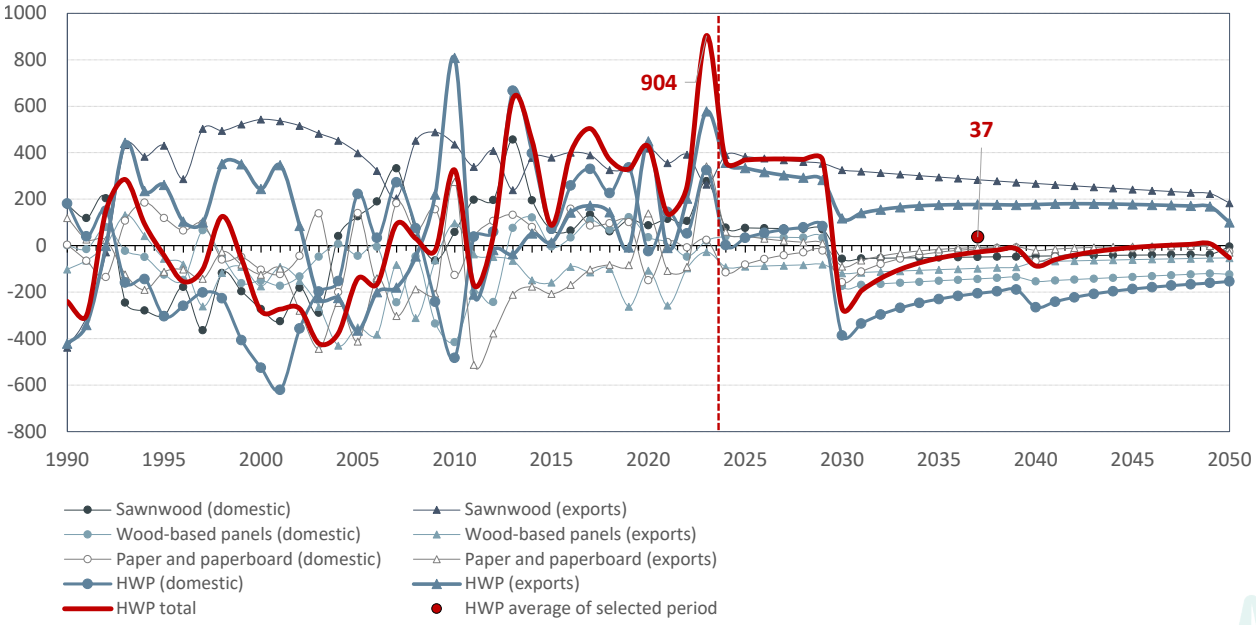

Figure PT-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Portugal [in kt CO_2]

In addition to the resulting time series following scenario RCP1p9_12 as shown in Figure PT-D, Table ANX-PT-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore discriminates

between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

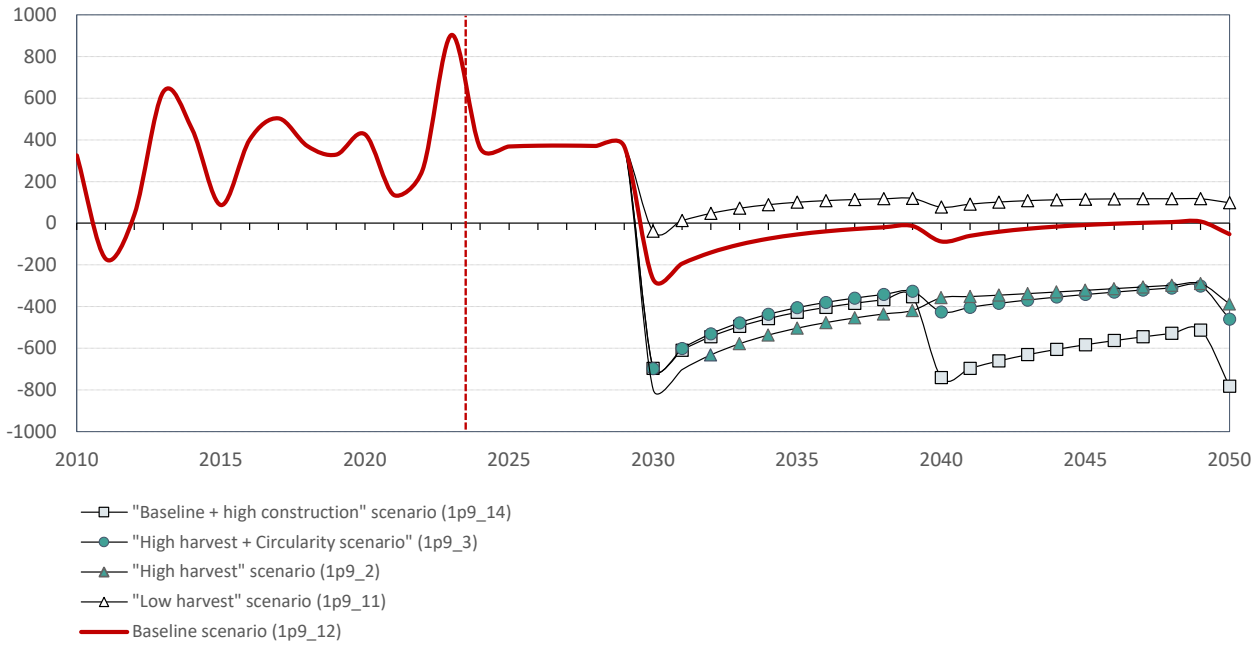

Figure PT-E: HWP contribution for selected scenarios on the basis of the production approach for Portugal [in kt CO_2]

Figure PT-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Portugal applying the "baseline" scenario (RCP1p9_12) in Figure PT-F.

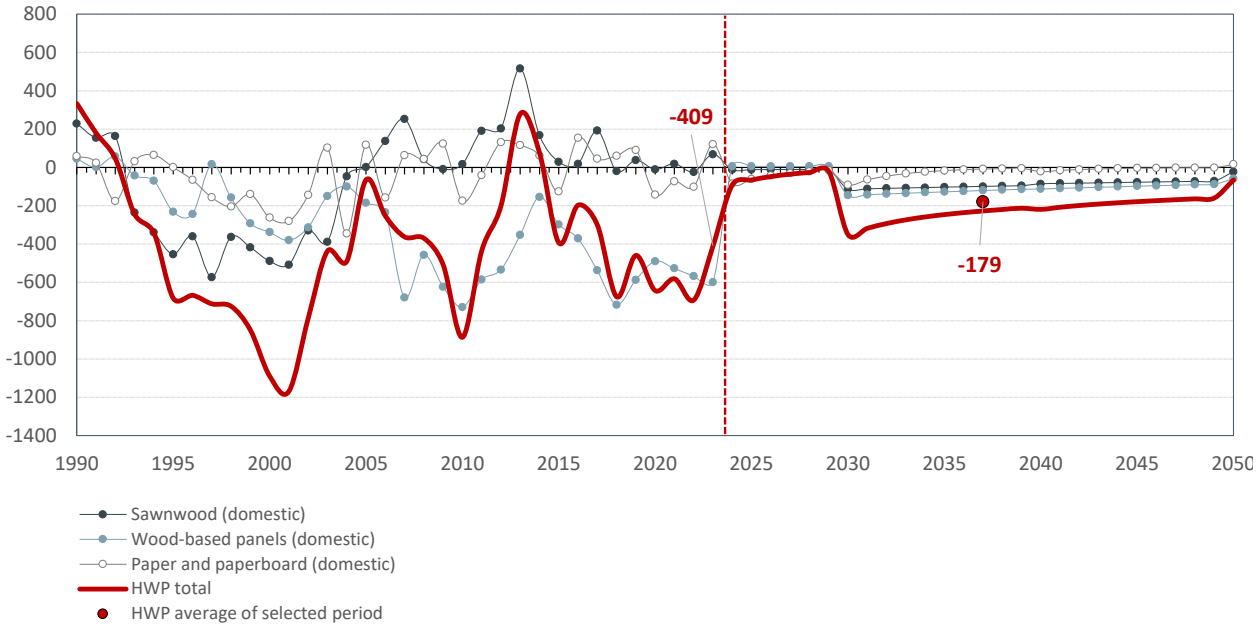

Figure PT-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Portugal [in kt CO_2]

Analogous to the illustration for the production approach, Figure PT-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Portugal are contained in Table ANX-PT-0-C in the Annex II.

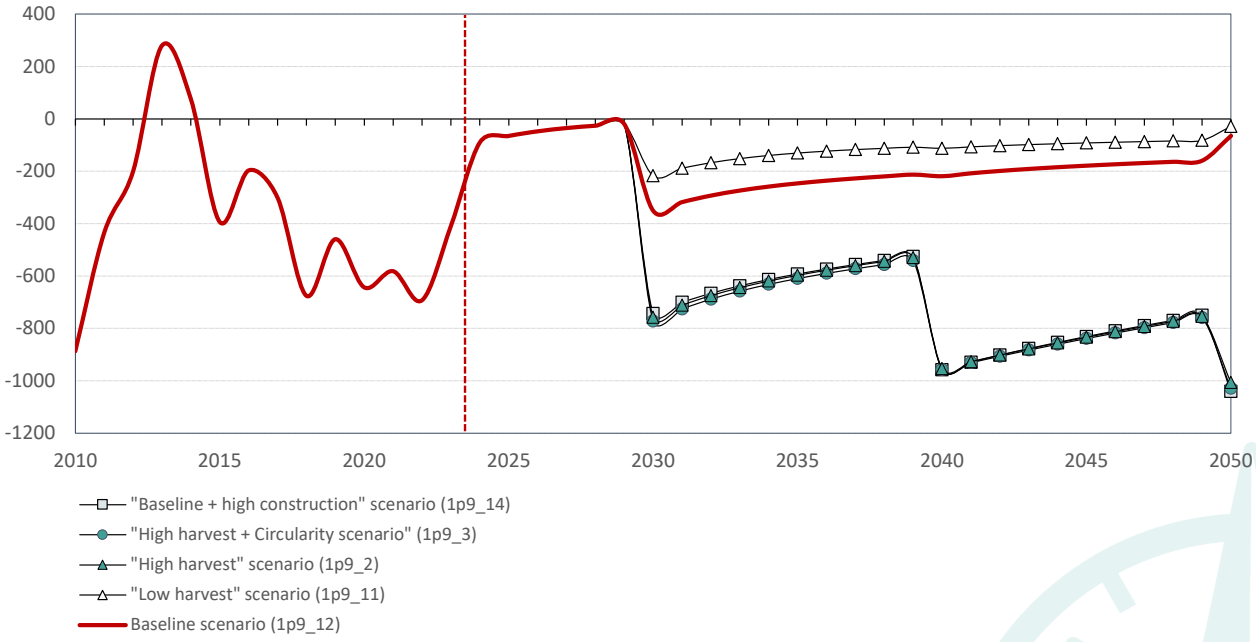

Figure PT-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Portugal [in kt CO2]

Romania (RO)

For Romania, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure RO-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

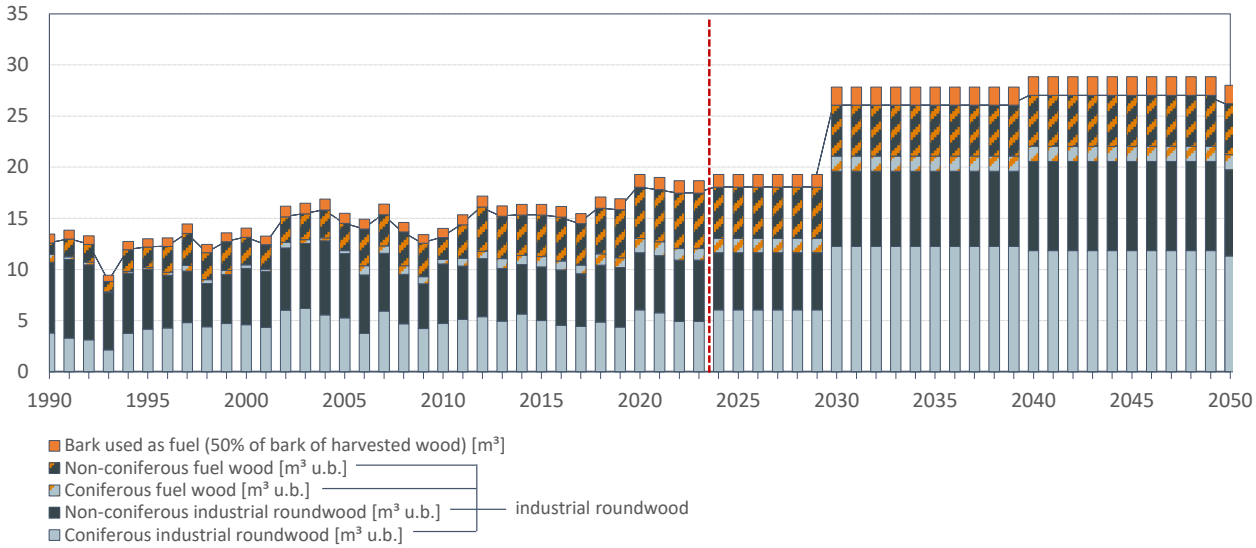

Figure RO-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Romania [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure RO-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

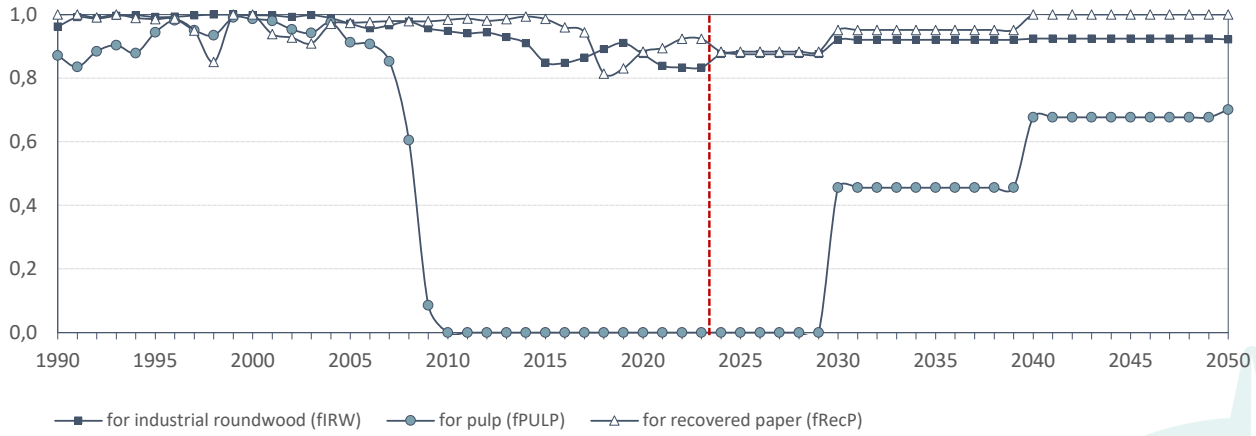

Figure RO-B: Historic and future development of the applied domestic feedstock factors for Romania

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-RO-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure RO-C shows the results for the "baseline" scenario (RCP1p9_12).

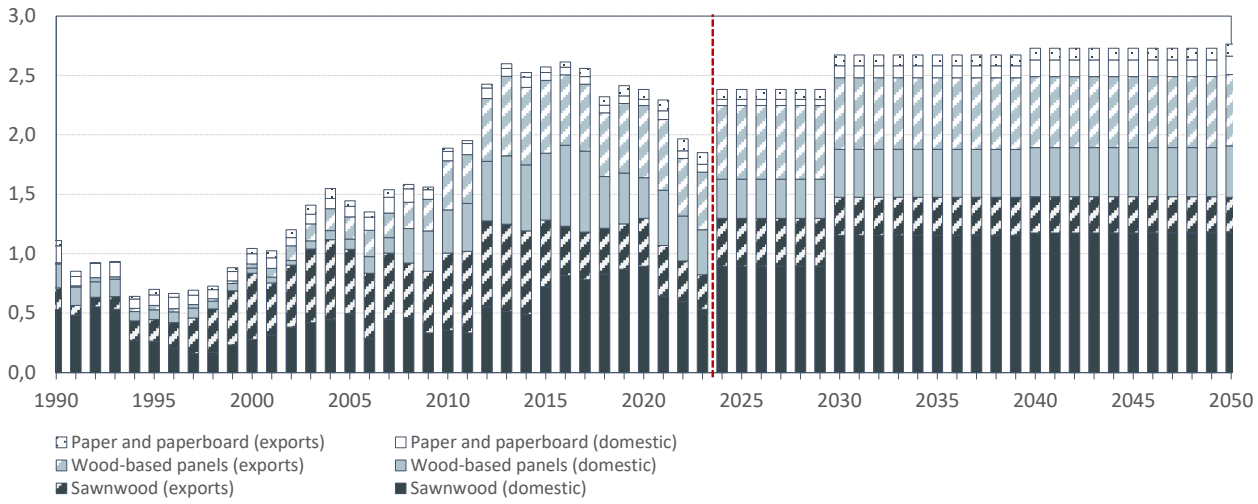

Figure RO-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Romania [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

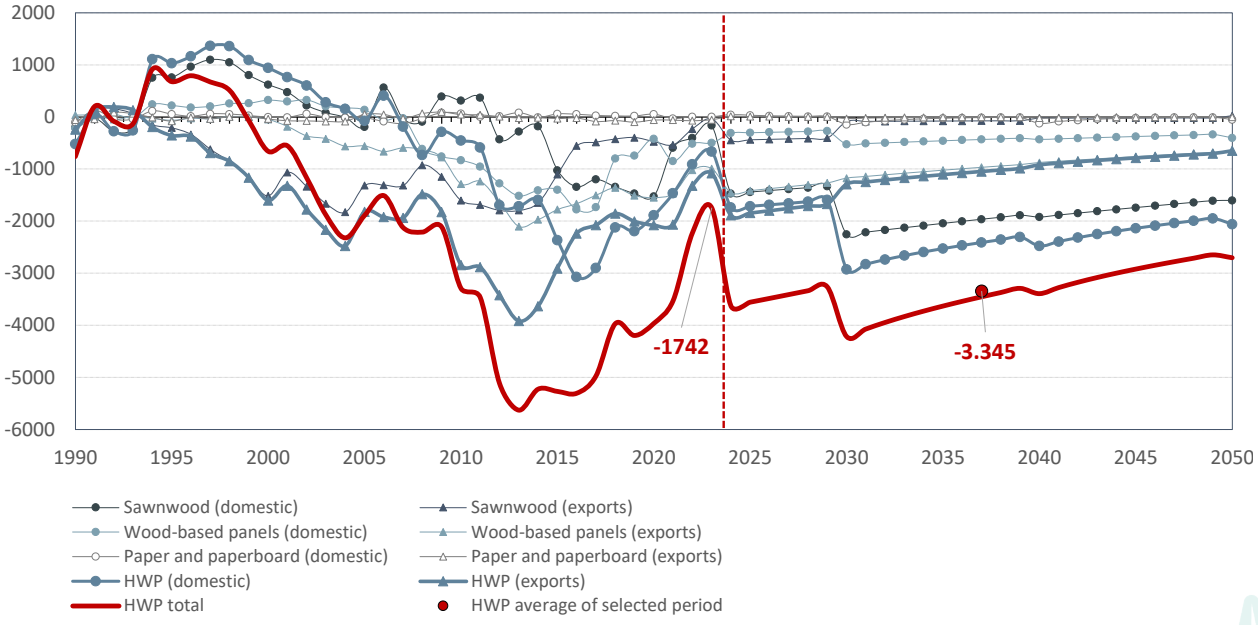

Figure RO-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Romania [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure RO-D, Table ANX-RO-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table

furthermore discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

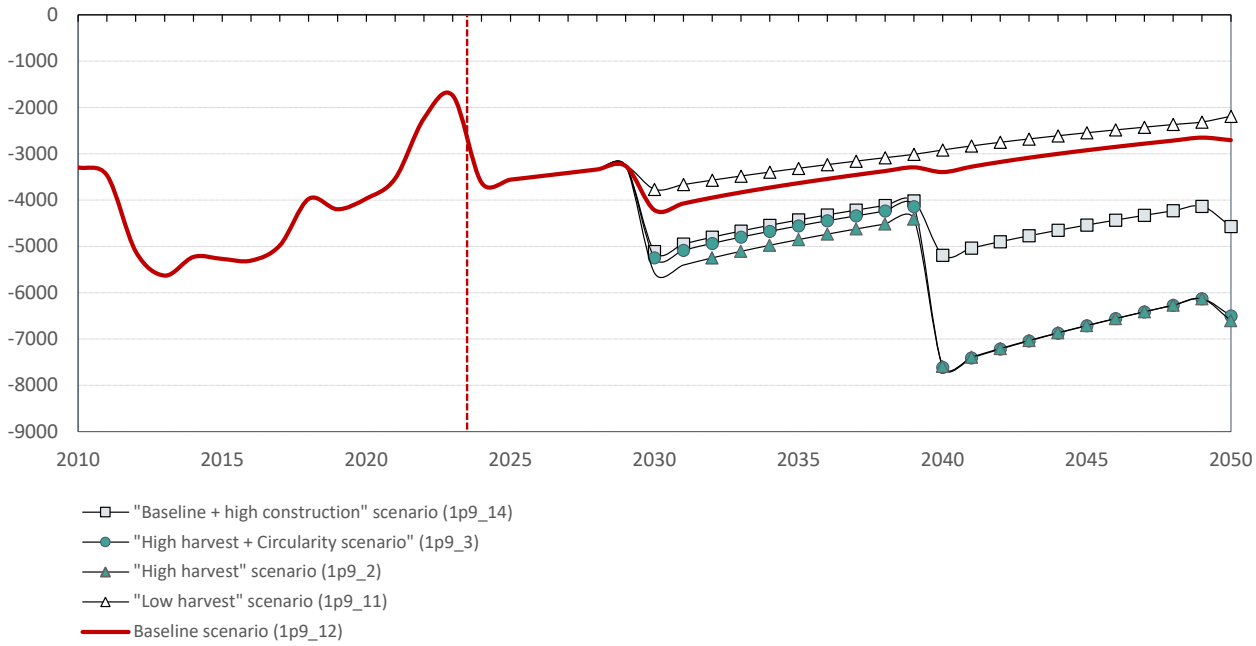

Figure RO-E: HWP contribution for selected scenarios on the basis of the production approach for Romania [in kt CO_2]

Figure RO-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Romania applying the "baseline" scenario (RCP1p9_12) in Figure RO-F.

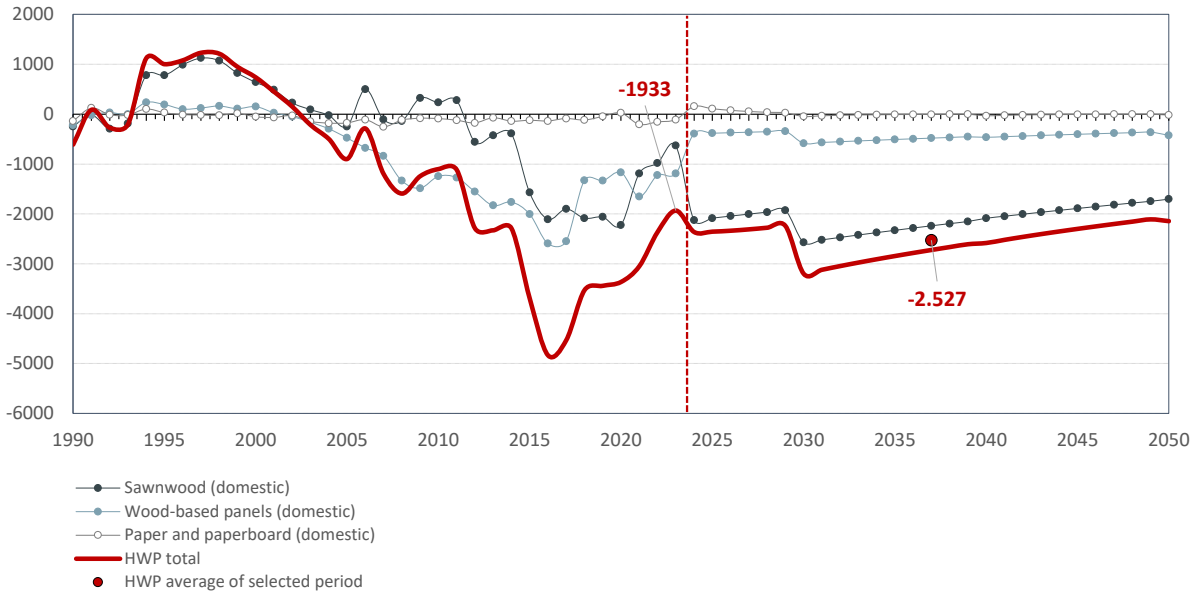

Figure RO-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Romania [in kt CO_2]

Analogous to the illustration for the production approach, Figure RO-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Austria are contained in Table ANX-RO-0-C in the Annex II.

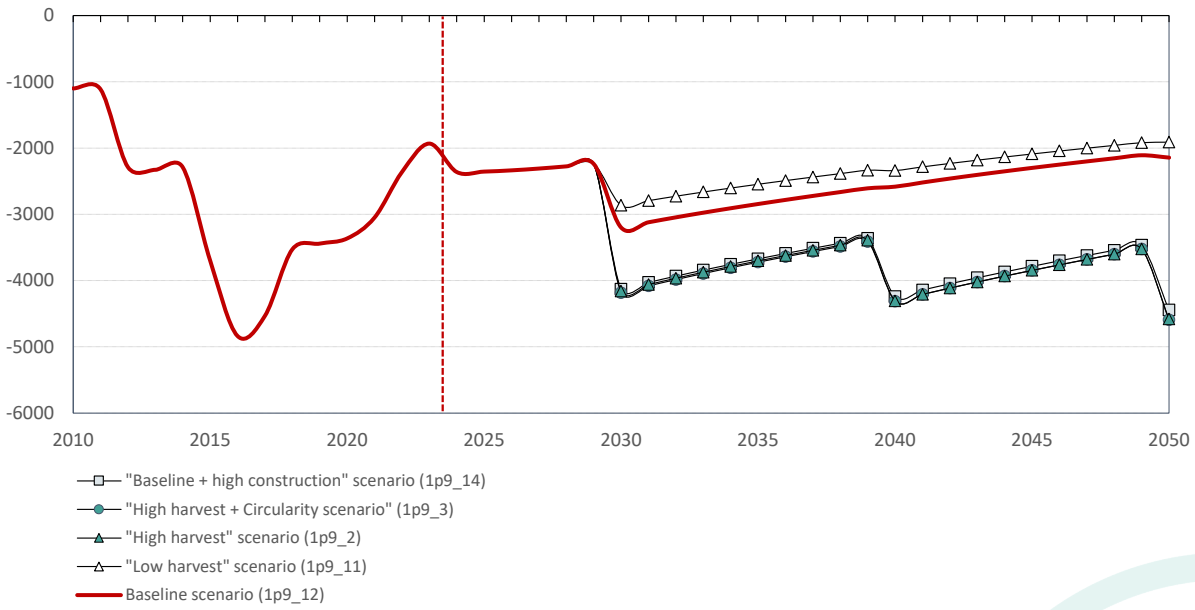

Figure RO-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Romania [in kt CO2]

Sweden (SE)

For Sweden, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1961 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure DE-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

Figure SE-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Sweden [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure DE-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

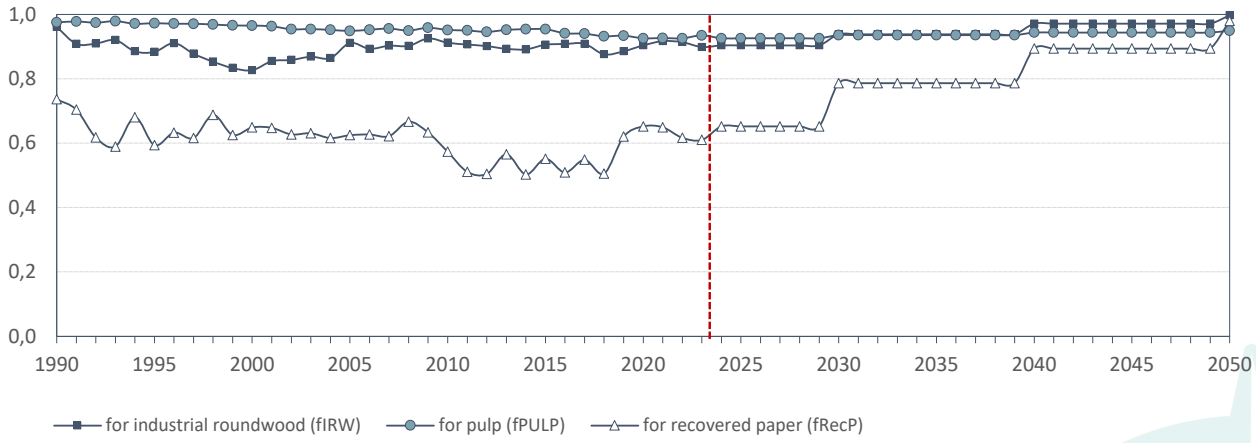

Figure SE-B: Historic and future development of the applied domestic feedstock factors for Sweden

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-SE-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure SE-C shows the results for the "baseline" scenario (RCP1p9_12).

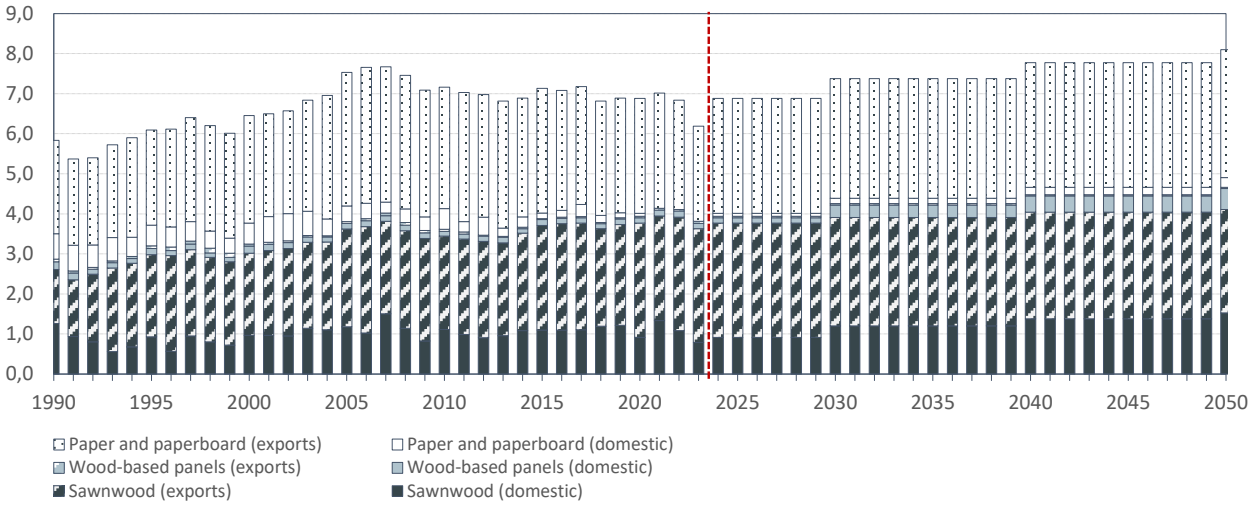

Figure SE-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Sweden [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

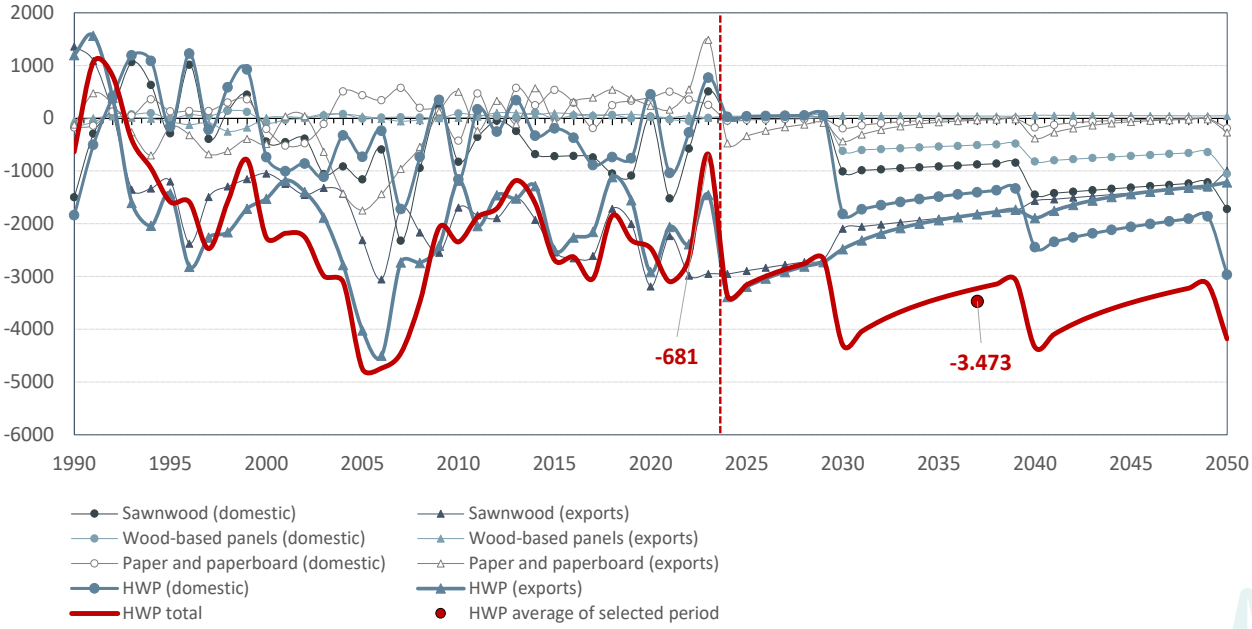

Figure SE-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Sweden [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure SE-D, Table ANX-SE-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

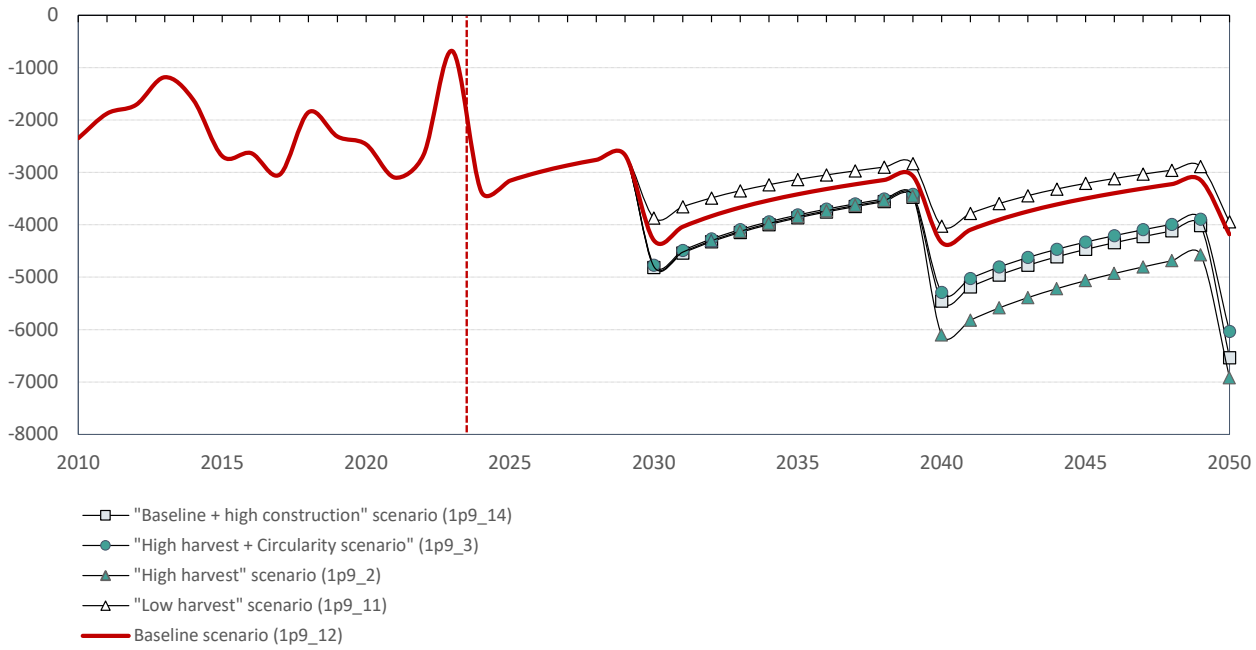

Figure SE-E: HWP contribution for selected scenarios on the basis of the production approach for Sweden [in kt CO_2]

Figure SE-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Sweden applying the "baseline" scenario (RCP1p9_12) in Figure SE-F.

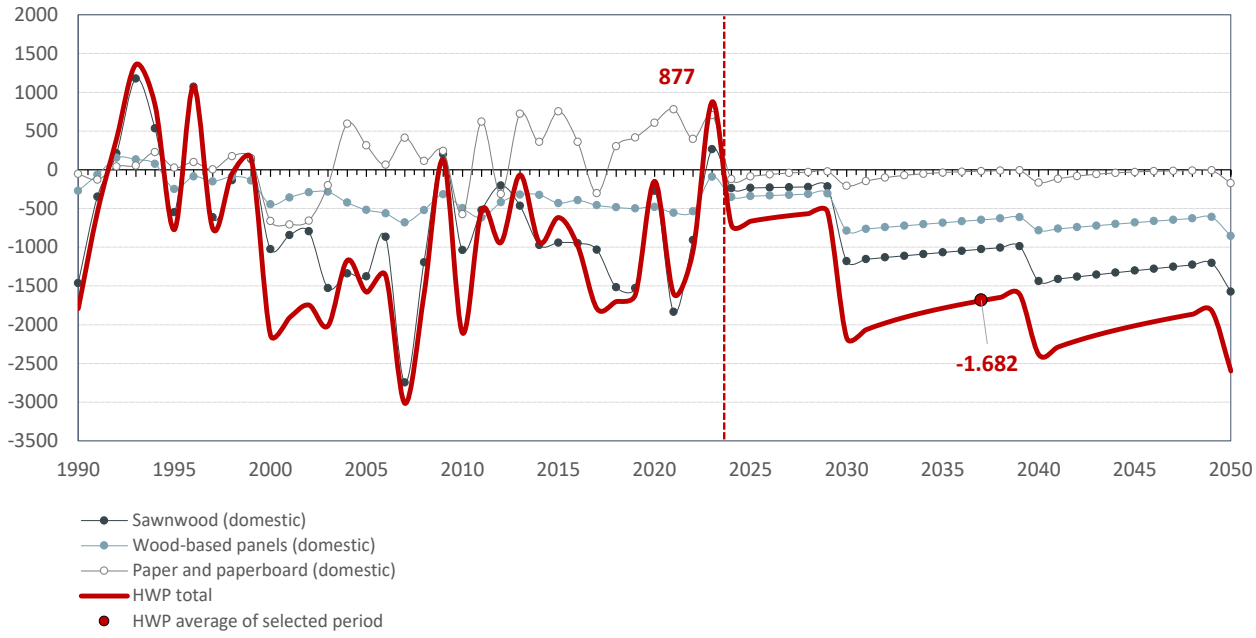

Figure SE-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Sweden [in kt CO_2]

Analogous to the illustration for the production approach, Figure SE-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Sweden are contained in Table ANX-SE-0-C in the Annex II.

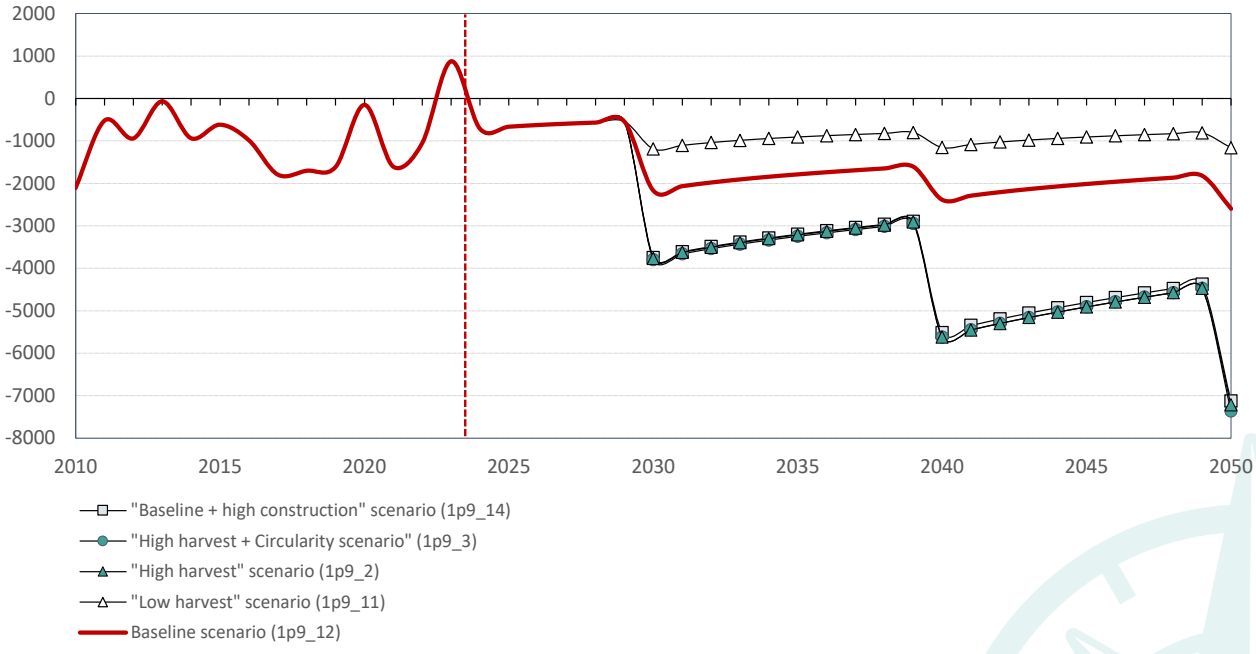

Figure SE-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Sweden [in kt CO_2]

Slovenia (SL)

For Slovenia, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1992 to 2023.

For the "baseline scenario" (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure SL-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

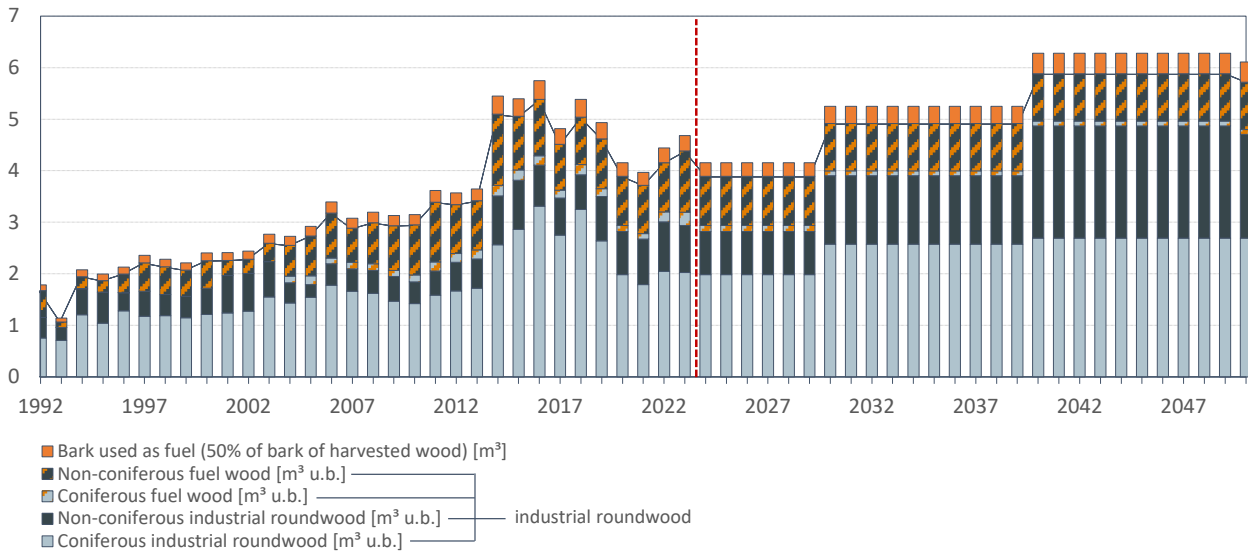

Figure SL-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Slovenia [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure SL-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

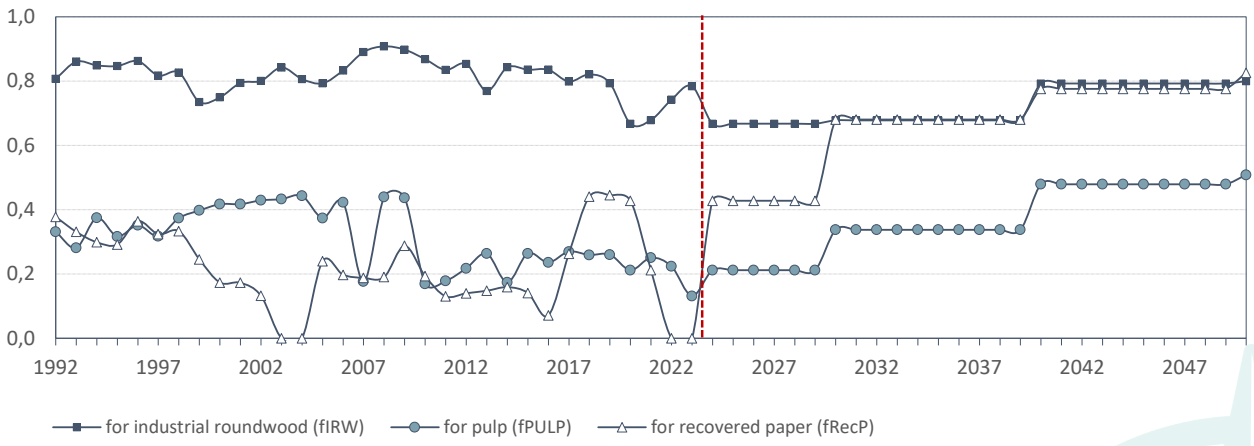

Figure SL-B: Historic and future development of the applied domestic feedstock factors for Slovenia

Additional results of those calculaton parameters relevant for the production approach (see chapter 2.1.1) for all calculated ForestNavigator scenarios and the GLOBIOM-inherent modelling

time periods 2024-2029, 2030-2039 and 2040-2049 up to 2050 can be found in Table ANX-SL-0-A in the Annex II.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure SL-C shows the results for the "baseline" scenario (RCP1p9_12).

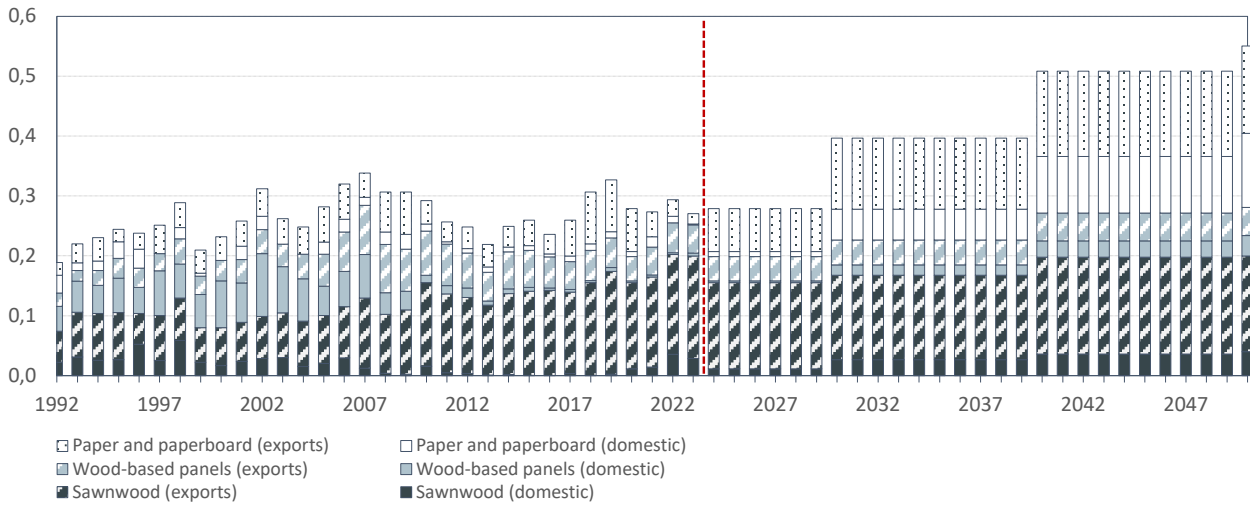

Figure SL-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Slovenia [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

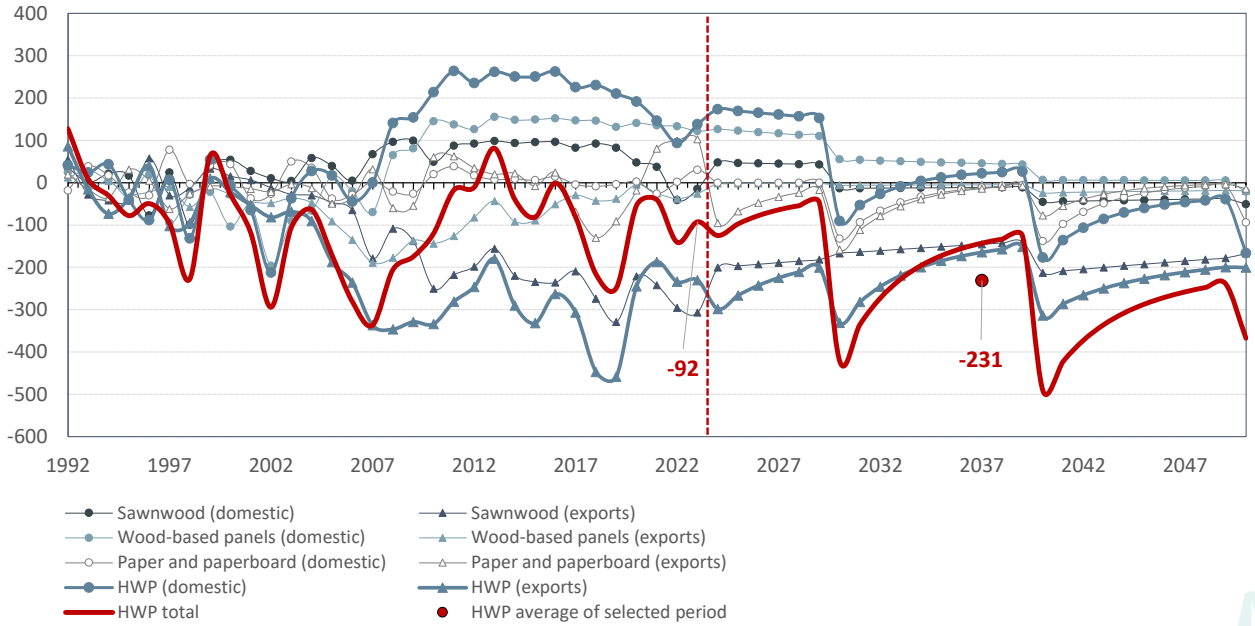

Figure SL-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Slovenia [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure SL-D, Table ANX-SL-0-B in the Annex II includes all average results for the GLOBIOM-inherent modelling time periods for the calculated ForestNavigator scenarios. That table furthermore

discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

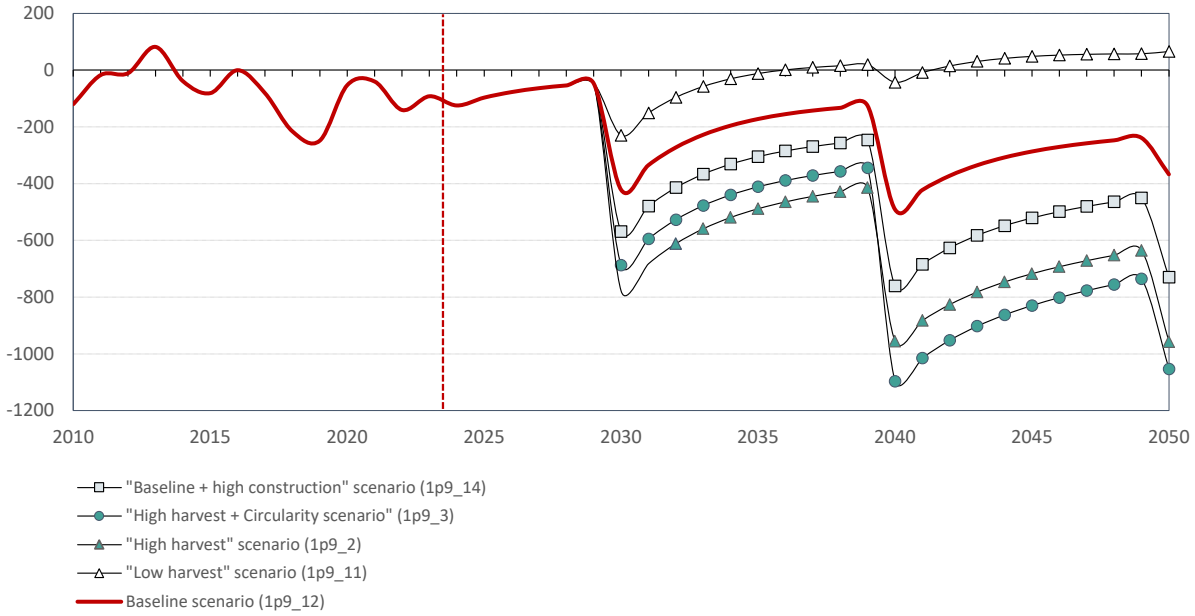

Figure SL-E: HWP contribution for selected scenarios on the basis of the production approach for Slovenia [in kt CO_2]

Figure SL-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Slovenia applying the "baseline" scenario (RCP1p9_12) in Figure SL-F.

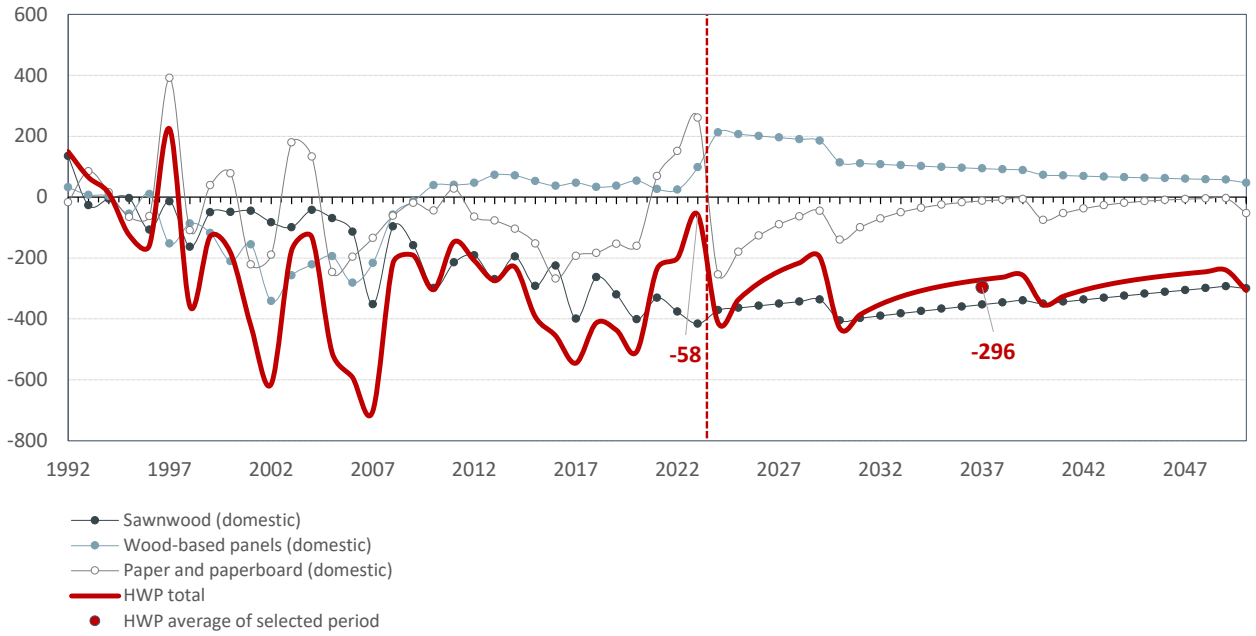

Figure SL-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the stock-change approach for Slovenia [in kt CO_2]

Analogous to the illustration for the production approach, Figure SL-G illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Austria are contained in

in the Annex II.

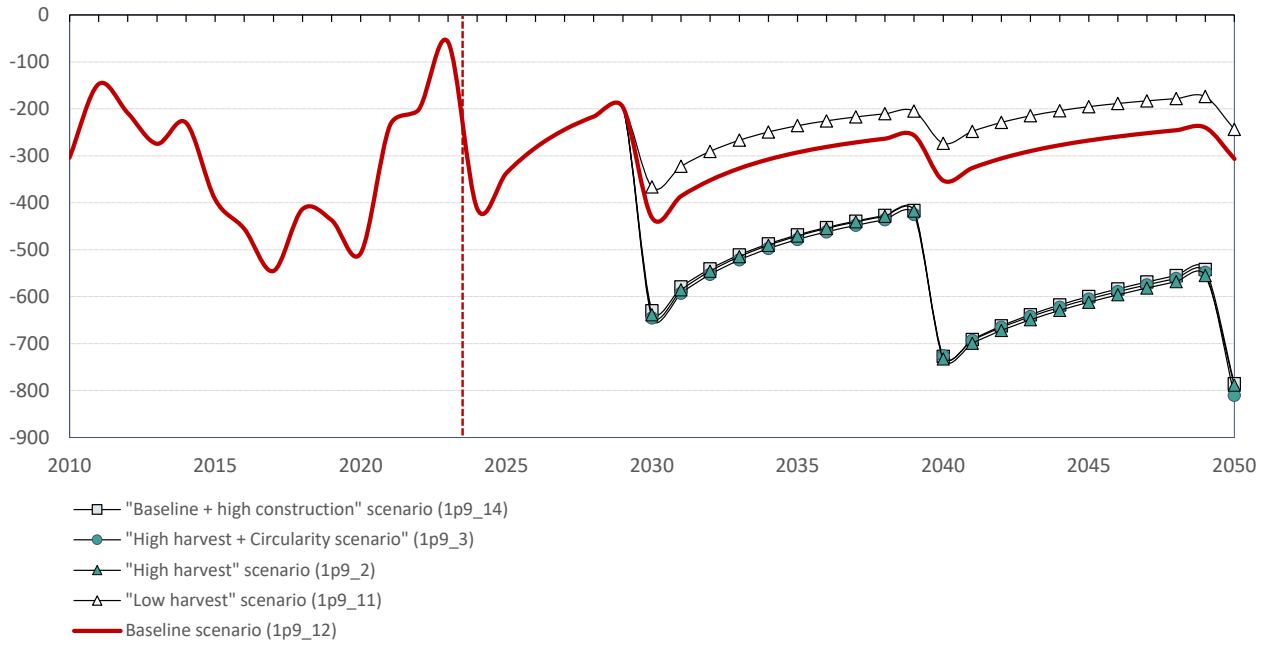

Figure SL-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Slovenia [in kt CO_2]

Slovakia (SK)

For Slovakia, the relevant activity data for HWP are available from the FAOSTAT database (FAO 2024) for the years 1993 to 2023.

For the "baseline" scenario (RCP1p9_12), the historic and projected harvest amounts, relevant for the calculation of the share of wood biomass originating from domestic origin applied in the **production approach** (see Chapter 2.1), are illustrated in Figure SK-A. The time series of annual roundwood production is broken down into coniferous and non-coniferous industrial roundwood used for the subsequent manufacturing of the semi-finished wood product commodities (HWP) and fuel wood.

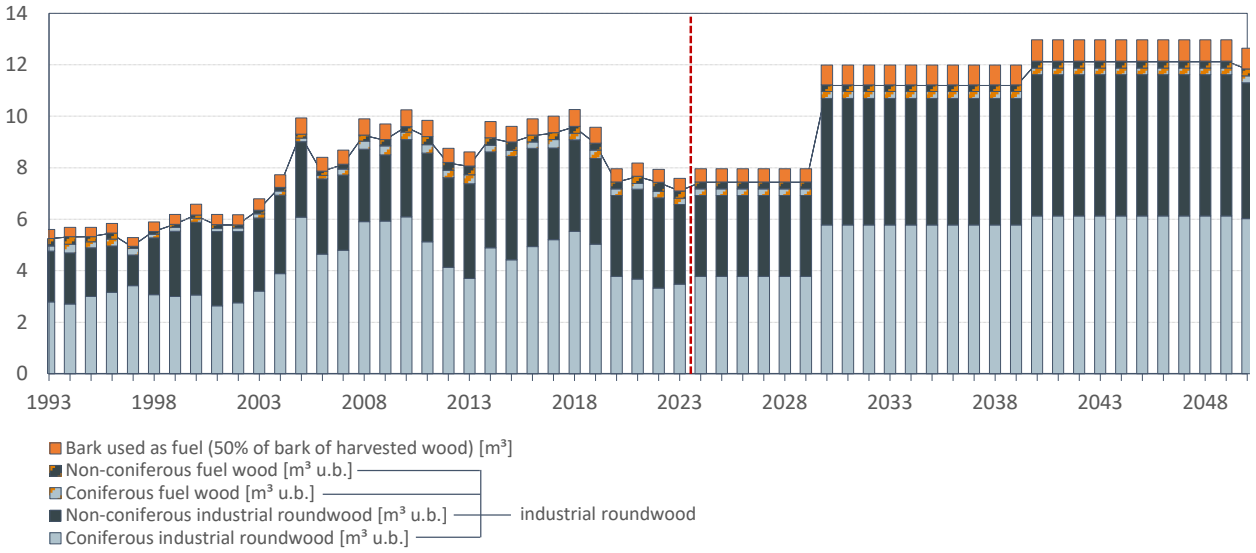

Figure SK-A: Historic and future harvest acc. to the baseline scenario for industrial roundwood and fuel wood in Slovakia [in Mm³]

Based on the values for the production and the domestic consumption of woody feedstock for the subsequent processing of semi-finished products deemed for the material use of wood, Figure SK-B shows the historic time series of relevant domestic feedstock factors f_{INDRW}, f_{PULP} and f_{RecP} as described in chapter 2.1. and its assumed future development for the "baseline" scenario (RCP1p9_12).

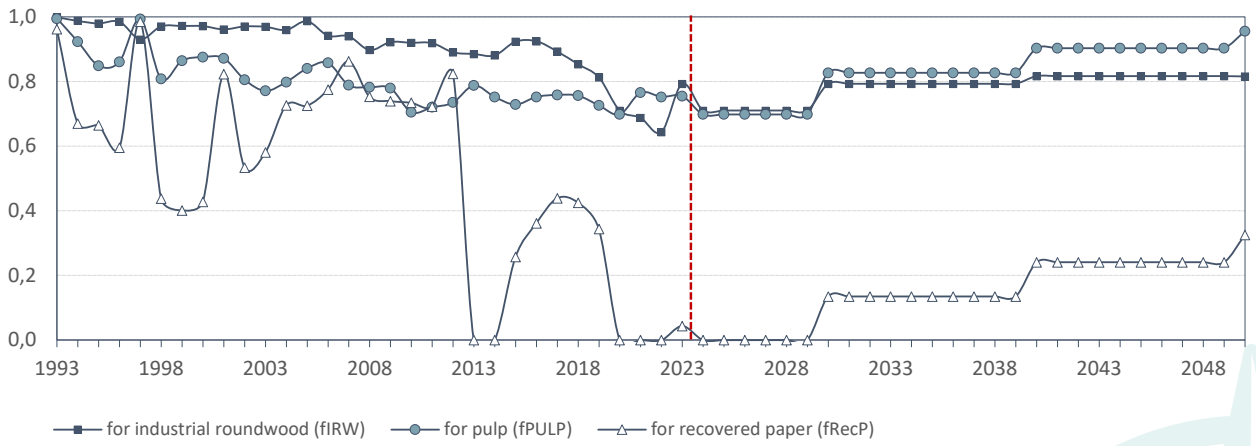

Figure SK-B: Historic and future development of the applied domestic feedstock factors for Slovakia

Further results for the four additional scenarios (see chapter 2.1.1) of those calculaton parameters relevant for the production approach can be found in subsequent Table ANX-SK-0-A for the model-relevant periods until 2050.

As a result of combining the data on the annual production of the relevant HWP commodities with these feedstock factors (see section 2.1.2), the carbon inflow to the HWP pool following the production approach is calculated. Figure SK-C shows the results for the "baseline" scenario (RCP1p9_12).

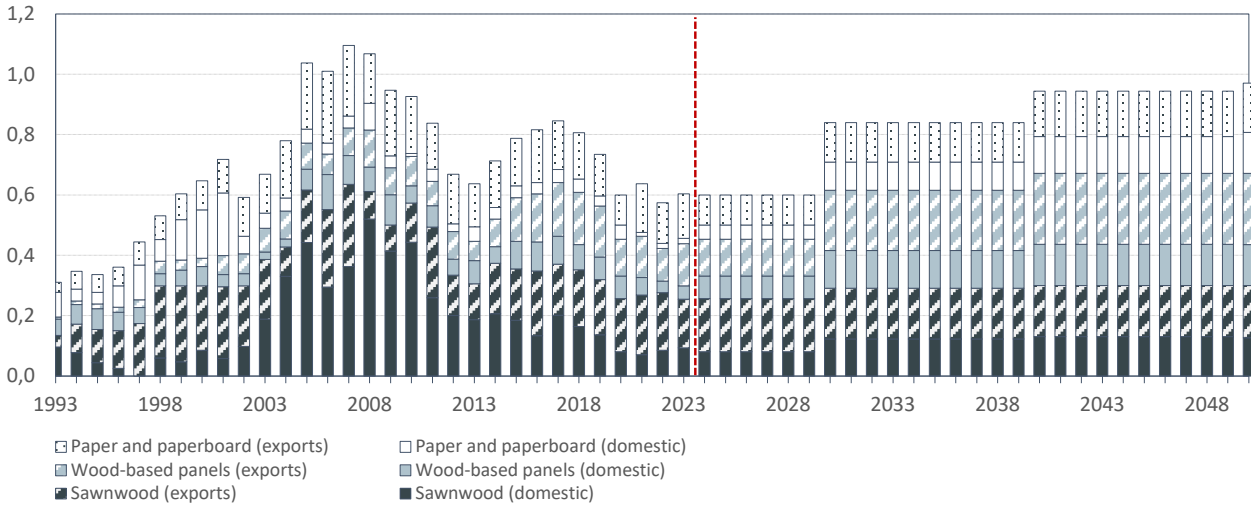

Figure SK-C: Calculated historic and future carbon inflow on the basis of to the HWP pool applying the production approach for Slovakia [in kt C]

Subsequently, the historical and projected biogenic CO_2 emissions and removals associated with the HWP pool were calculated using the methods following the production approach.

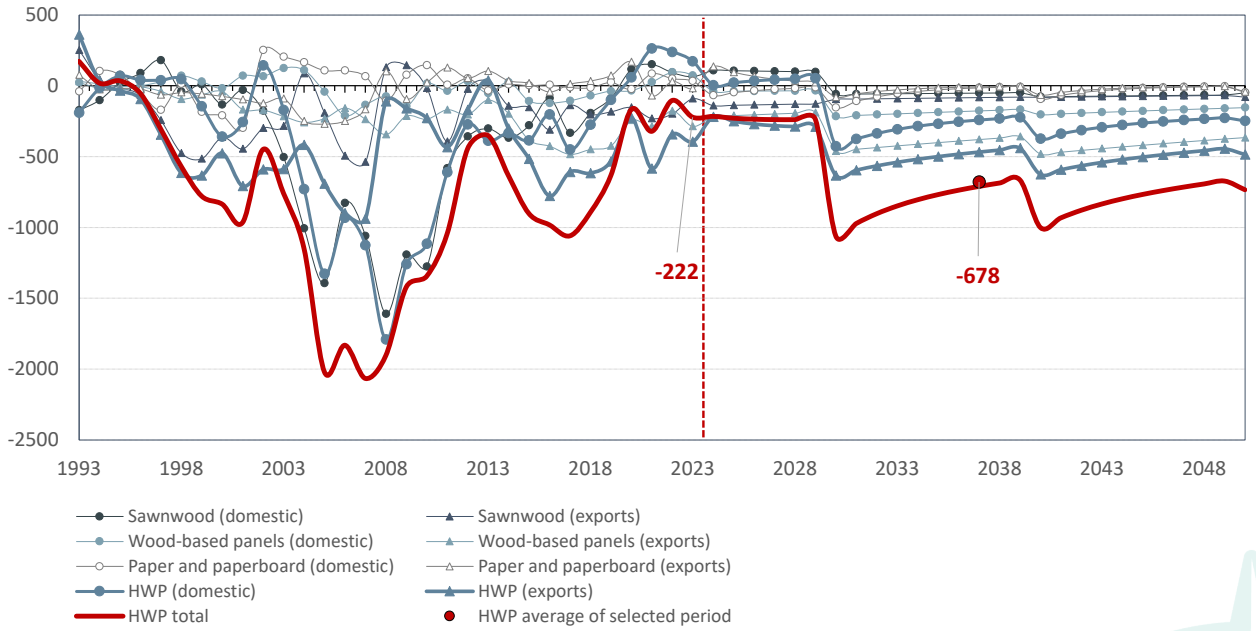

Figure SK-D: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for the baseline scenario following the production approach for Slovakia [in kt CO_2]

In addition to the resulting time series following the "baseline" scenario (RCP1p9_12) as shown in Figure SK-D, Table ANX-SK-0-B in the Annex II includes all average results for the GLOBIOM-inherent

modelling time periods for the calculated ForestNavigator scenarios. That table furthermore discriminates between the contribution of domestically consumed (HWP_{DOM}) and exported (HWP_{EXP}) products originating from domestic forests.

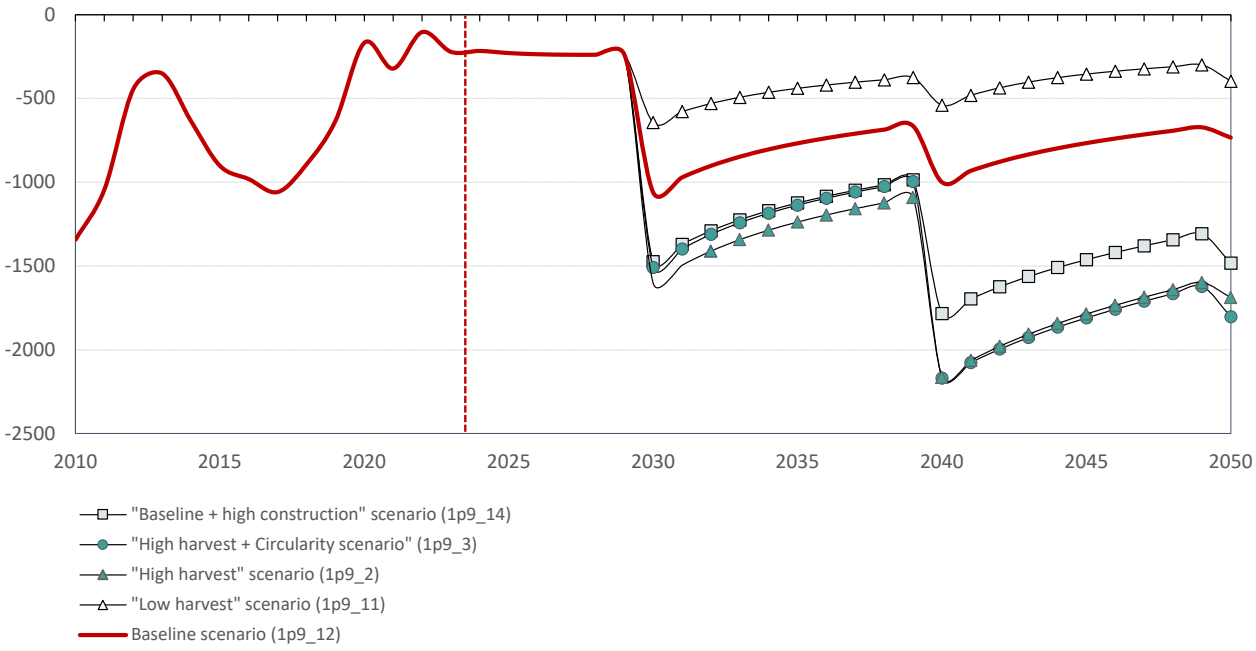

Figure SK-E: HWP contribution for selected scenarios on the basis of the production approach for Slovakia [in kt CO_2]

Figure SK-E illustrates the deviations of another four relevant scenarios "high harvest" (1p9_2), "high harvest + circularity" (RCP 1p9_3), "low harvest" (RCP 1p9_11), and "baseline + high construction" (RCP 1p9_14) from the “baseline” scenario (RCP1p9_12) for the production approach.

The results for biogenic CO_2 emissions and removals associated with the entire calculated domestic consumption of all semi-finished wood products – regardless of the country of origin of their woody feedstock (i.e. including imported and excluding exported HWP) – are determined using the **stock-change approach** and are shown for Slovakia applying the "baseline" scenario (RCP1p9_12) in Figure SK-F.

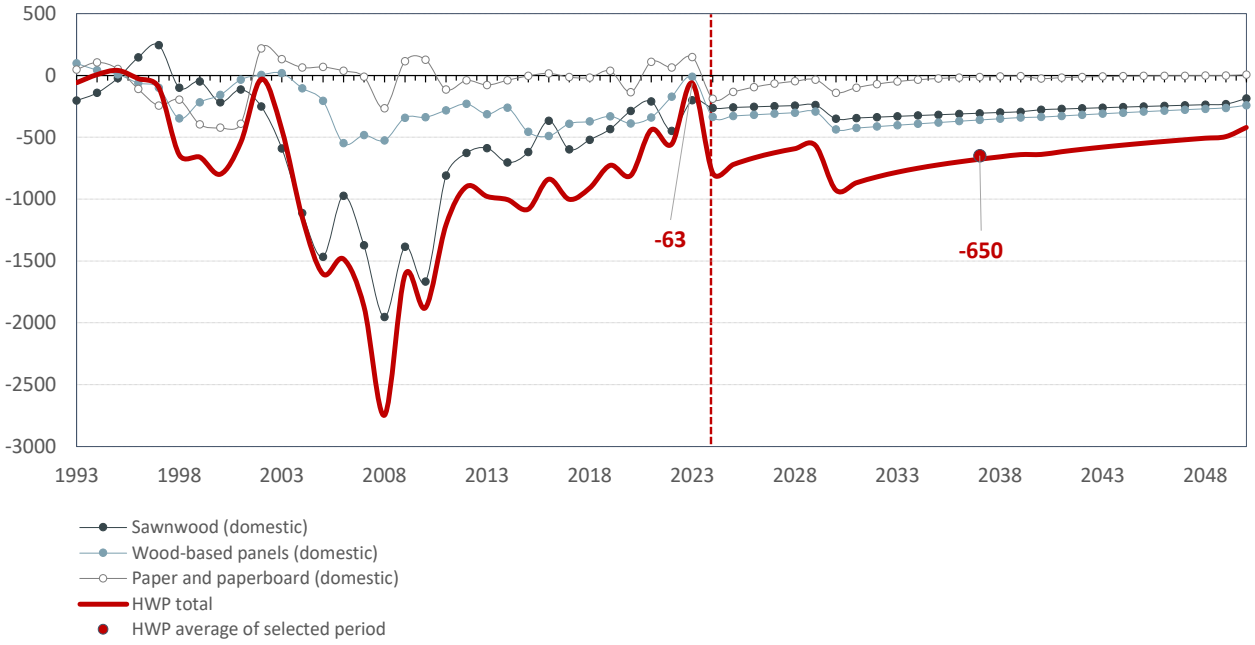

Figure SK-F: Historic and projected biogenic CO_2 emissions and removals associated with the HWP pool for scenario RCP1p9_12 following the stock-change approach for Slovakia [in kt CO_2]

Analogous to the illustration for the production approach, *Figure SK-G* illustrates the deviations of the four selected scenarios from the "baseline" scenario (RCP1p9_12) for the stock-change approach and additional results for the stock-change approach for Slovakia are contained in Table ANX-SK-0-C in the Annex II.

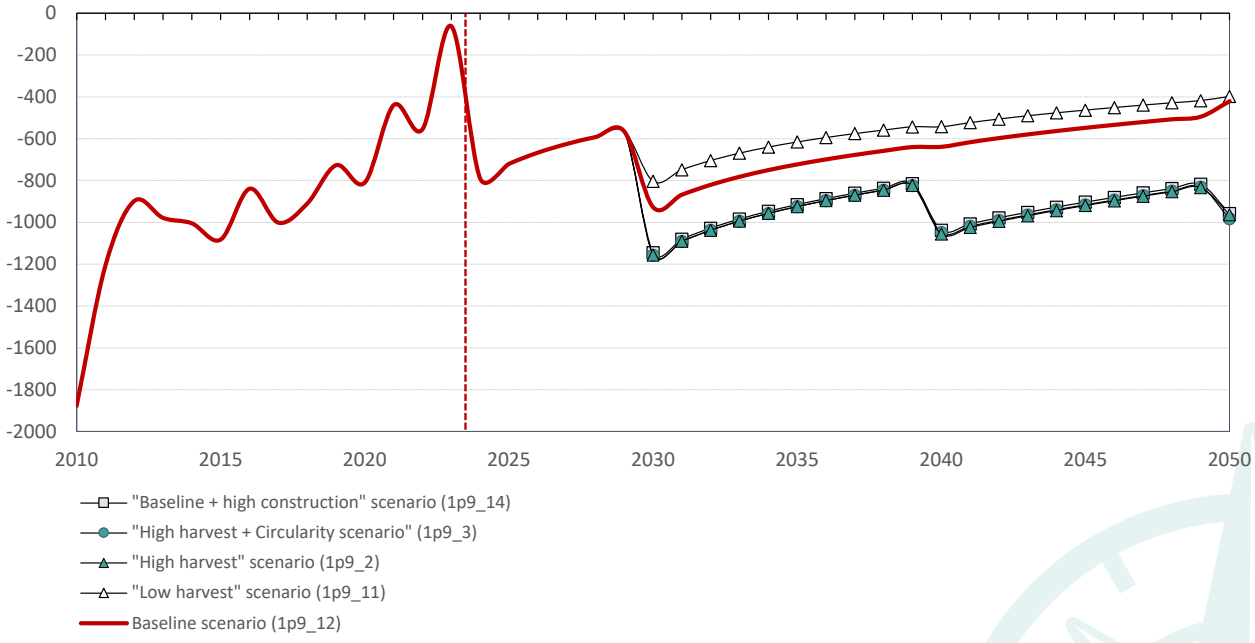

Figure SK-G: HWP contribution for selected scenarios on the basis of the stock-change approach for Slovakia [in kt CO2]

Annex II (additional country-specific information)

This Annex includes country-specific information on the results for biogenic CO_2 emissions and removals from the HWP carbon pool of all calculated ForestNavigator scenarios.

Austria (AT)

Table ANX-AT-A: Domestic feedstock factors for the ForestNavigator scenarios for Austria

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,468	0,456	0,430	0,471
									1p9_1	0,468	0,471	0,430	0,471
									1p9_2	0,468	0,451	0,430	0,471
									1p9_3	0,468	0,477	0,430	0,471
									1p9_4	0,468	0,466	0,423	0,465
									1p9_5	0,468	0,500	0,422	0,462
									1p9_6	0,468	0,447	0,423	0,465
									1p9_7	0,468	0,505	0,421	0,461
									1p9_8	0,468	0,455	0,430	0,471
									1p9_9	0,468	0,471	0,429	0,471
									1p9_10	0,468	0,471	0,423	0,465
									1p9_11	0,468	0,501	0,422	0,463
f_{INDRW}	0,748	0,689	0,605	0,599	0,468	0,533	0,589	0,576	***1p9_12***	0,468	0,454	0,429	0,470
									1p9_13	0,468	0,468	0,429	0,471
									1p9_14	0,468	0,443	0,429	0,470
									1p9_15	0,468	0,471	0,430	0,471
									1p9_16	0,468	0,452	0,430	0,471
									1p9_17	0,468	0,468	0,429	0,471
									1p9	0,732	0,637	0,666	0,688
									1p9_1	0,732	0,637	0,642	0,678
									1p9_2	0,732	0,637	0,658	0,678
									1p9_3	0,732	0,636	0,667	0,699
									1p9_4	0,732	0,617	0,633	0,629
									1p9_5	0,732	0,548	0,571	0,570
									1p9_6	0,732	0,618	0,624	0,618
									1p9_7	0,732	0,527	0,533	0,530
									1p9_8	0,732	0,637	0,639	0,670
									1p9_9	0,732	0,638	0,637	0,673
									1p9_10	0,732	0,617	0,633	0,629
									1p9_11	0,732	0,560	0,575	0,575
f_{PULP}	0,706	0,720	0,726	0,645	0,732	0,744	0,738	0,754	***1p9_12***	0,732	0,640	0,688	0,695
									1p9_13	0,732	0,638	0,734	0,763
									1p9_14	0,732	0,641	0,693	0,693
									1p9_15	0,732	0,637	0,687	0,727
									1p9_16	0,732	0,637	0,735	0,748
									1p9_17	0,732	0,637	0,718	0,748

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,413	0,496	0,553	0,602
									1p9_1	0,413	0,496	0,553	0,601
									1p9_2	0,413	0,496	0,553	0,600
									1p9_3	0,413	0,497	0,554	0,602
									1p9_4	0,413	0,465	0,518	0,563
									1p9_5	0,413	0,457	0,504	0,548
									1p9_6	0,413	0,465	0,518	0,563
									1p9_7	0,413	0,452	0,498	0,541
									1p9_8	0,413	0,496	0,553	0,602
									1p9_9	0,413	0,496	0,552	0,601
									1p9_10	0,413	0,465	0,518	0,563
									1p9_11	0,413	0,458	0,510	0,558
f_{RecP}	0,549	0,519	0,476	0,480	0,472	0,463	0,504	0,514	***1p9_12***	0,413	0,494	0,550	0,598
									1p9_13	0,413	0,496	0,552	0,600
									1p9_14	0,413	0,492	0,548	0,595
									1p9_15	0,413	0,496	0,552	0,599
									1p9_16	0,413	0,496	0,553	0,601
									1p9_17	0,413	0,496	0,549	0,597

Table ANX-AT-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Austria [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	598	446	165	1
									1p9_1	598	-136	-254	-335
									1p9_2	598	100	-223	-1.085
									1p9_3	598	-229	-762	-1.991
									1p9_4	598	493	233	-145
									1p9_5	598	-401	161	-205
									1p9_6	598	93	-442	-1.334
									1p9_7	598	-449	-951	-2.035
									1p9_8	598	484	271	122
									1p9_9	598	-70	-72	15
									1p9_10	598	542	398	250
									1p9_11	598	-161	257	156
$'WP_{total}$	-384	-1893	-1071	-206	608	-799	-917	278	***1p9_12***	598	467	255	-4
									1p9_13	598	-105	-54	-327
									1p9_14	598	104	-387	-1.338
									1p9_15	598	-183	-1.070	-1.953
									1p9_16	598	509	368	231
									1p9_17	598	-31	50	-231

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	337	246	-160	-470
									1p9_1	337	-240	-543	-795
									1p9_2	337	-180	-646	-1.639
									1p9_3	337	-333	-1.081	-2.472
									1p9_4	337	330	-22	-368
									1p9_5	337	-364	-336	-714
									1p9_6	337	-236	-895	-1.894
									1p9_7	337	-442	-1.399	-2.614
									1p9_8	337	338	65	-187
									1p9_9	337	7	-153	-268
									1p9_10	337	477	204	-75
									1p9_11	337	-91	-20	-207
IWP $_{dom}$	207	-86	161	330	292	-274	-433	88	***1p9_12***	337	243	-89	-428
									1p9_13	337	-227	-406	-762
									1p9_14	337	-232	-879	-1.899
									1p9_15	337	-323	-1.442	-2.524
									1p9_16	337	347	117	-140
									1p9_17	337	21	-20	-258
									1p9	261	200	325	470
									1p9_1	261	104	289	460
									1p9_2	261	280	423	555
									1p9_3	261	105	320	481
									1p9_4	261	163	255	223
									1p9_5	261	-37	496	509
									1p9_6	261	329	453	560
									1p9_7	261	-7	448	579
									1p9_8	261	147	206	309
									1p9_9	261	-78	81	283
									1p9_10	261	65	194	325
									1p9_11	261	-69	277	363
HWP $_{exp}$	-592	-1807	-1231	-536	316	-526	-484	190	***1p9_12***	261	224	344	424
									1p9_13	261	122	352	435
									1p9_14	261	336	492	561
									1p9_15	261	141	372	571
									1p9_16	261	162	251	371
									1p9_17	261	-51	69	26

Table ANX-AT-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Austria [in kt CO_2]

years	2000	2005	2010	2015	2020	2021	2022	2023	*Scenario*	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-1.065	-2.128	-2.224	-2.315
									1p9_1	-1.065	-2.196	-2.280	-2.616
									1p9_2	-1.065	-3.617	-4.998	-6.560
									1p9_3	-1.065	-3.654	-5.001	-6.784
									1p9_4	-1.065	-2.064	-2.089	-2.178
									1p9_5	-1.065	-2.199	-2.248	-2.620
									1p9_6	-1.065	-3.586	-4.824	-6.310
									1p9_7	-1.065	-3.635	-5.017	-6.757
									1p9_8	-1.065	-1.422	-1.298	-1.376
									1p9_9	-1.065	-1.445	-1.293	-1.383
									1p9_10	-1.065	-1.412	-1.255	-1.361
									1p9_11	-1.065	-1.443	-1.286	-1.403
HWP_{total}	-2109	-1698	-1394	-769	-1744	-2516	-1941	-328	***1p9_12***	-1.065	-2.156	-2.063	-2.206
									1p9_13	-1.065	-2.196	-2.234	-2.622
									1p9_14	-1.065	-3.607	-4.904	-6.370
									1p9_15	-1.065	-3.654	-5.024	-6.736
									1p9_16	-1.065	-1.422	-1.269	-1.368
									1p9_17	-1.065	-1.444	-1.278	-1.385

Belgium (BE)

Table ANX-BE-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Belgium

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,156	0,167	0,297	0,318
									1p9_1	0,156	0,166	0,297	0,318
									1p9_2	0,156	0,163	0,297	0,318
									1p9_3	0,156	0,168	0,297	0,318
									1p9_4	0,156	0,163	0,298	0,322
									1p9_5	0,156	0,143	0,298	0,322
									1p9_6	0,156	0,159	0,298	0,321
									1p9_7	0,156	0,167	0,298	0,321
									1p9_8	0,156	0,168	0,297	0,318
									1p9_9	0,156	0,165	0,297	0,320
									1p9_10	0,156	0,166	0,298	0,322
									1p9_11	0,156	0,067	0,298	0,322
f_{INDRW}	0,000	0,000	0,437	0,445	0,000	0,000	0,183	0,402	***1p9_12***	0,156	0,166	0,298	0,318
									1p9_13	0,156	0,166	0,298	0,318
									1p9_14	0,156	0,164	0,298	0,318
									1p9_15	0,156	0,167	0,298	0,318
									1p9_16	0,156	0,168	0,298	0,318
									1p9_17	0,156	0,165	0,298	0,320
									1p9	0,594	0,719	0,477	0,495
									1p9_1	0,594	0,719	0,525	0,533
									1p9_2	0,594	0,719	0,546	0,542
									1p9_3	0,594	0,715	0,540	0,548
									1p9_4	0,594	0,594	0,496	0,432
									1p9_5	0,594	0,650	0,612	0,508
									1p9_6	0,594	0,562	0,480	0,422
									1p9_7	0,594	0,647	0,544	0,460
									1p9_8	0,594	0,719	0,459	0,482
									1p9_9	0,594	0,731	0,519	0,531
									1p9_10	0,594	0,594	0,499	0,434
									1p9_11	0,594	0,649	0,639	0,526
f_{PULP}	0,000	0,000	0,000	0,000	0,245	0,000	0,000	0,000	***1p9_12***	0,594	0,719	0,709	0,673
									1p9_13	0,594	0,719	0,705	0,670
									1p9_14	0,594	0,719	0,701	0,666
									1p9_15	0,594	0,715	0,693	0,661
									1p9_16	0,594	0,719	0,708	0,672
									1p9_17	0,594	0,733	0,739	0,699

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,254	0,470	0,586	0,680
									1p9_1	0,254	0,470	0,609	0,689
									1p9_2	0,254	0,470	0,608	0,694
									1p9_3	0,254	0,470	0,609	0,691
									1p9_4	0,254	0,470	0,600	0,689
									1p9_5	0,254	0,470	0,602	0,691
									1p9_6	0,254	0,470	0,602	0,691
									1p9_7	0,254	0,470	0,599	0,690
									1p9_8	0,254	0,470	0,574	0,673
									1p9_9	0,254	0,470	0,598	0,684
									1p9_10	0,254	0,470	0,601	0,691
									1p9_11	0,254	0,470	0,601	0,690
f_{RecP}	0,000	0,000	0,000	0,000	0,273	0,362	0,332	0,143	***1p9_12***	0,254	0,470	0,594	0,685
									1p9_13	0,254	0,470	0,592	0,681
									1p9_14	0,254	0,470	0,596	0,683
									1p9_15	0,254	0,470	0,595	0,683
									1p9_16	0,254	0,470	0,594	0,685
									1p9_17	0,254	0,470	0,590	0,681

Table ANX-BE-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Belgium [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	909	554	467	92
									1p9_1	909	404	278	-115
									1p9_2	909	512	376	-44
									1p9_3	909	269	101	-358
									1p9_4	909	564	380	35
									1p9_5	909	508	112	-298
									1p9_6	909	513	271	-153
									1p9_7	909	271	-154	-642
									1p9_8	909	569	495	107
									1p9_9	909	477	373	-31
									1p9_10	909	574	397	63
									1p9_11	909	864	149	-215
HWP_{total}	238	-143	316	142	1413	1215	771	363	***1p9_12***	909	550	397	66
									1p9_13	909	405	122	-243
									1p9_14	909	509	286	-96
									1p9_15	909	273	-102	-500
									1p9_16	909	565	409	97
									1p9_17	909	477	225	-128

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	233	104	33	-226
									1p9_1	233	-3	-77	-384
									1p9_2	233	55	-30	-348
									1p9_3	233	-123	-249	-632
									1p9_4	233	85	6	-238
									1p9_5	233	24	-189	-508
									1p9_6	233	32	-98	-415
									1p9_7	233	-128	-448	-854
									1p9_8	233	124	62	-198
									1p9_9	233	60	-7	-297
									1p9_10	233	106	28	-207
									1p9_11	233	148	-104	-388
HWP $_{dom}$	41	-93	-213	-81	369	359	182	-65	***1p9_12***	233	97	16	-237
									1p9_13	233	-3	-191	-482
									1p9_14	233	54	-81	-381
									1p9_15	233	-122	-413	-753
									1p9_16	233	122	38	-203
									1p9_17	233	60	-86	-365
									1p9	677	451	433	317
									1p9_1	677	407	355	269
									1p9_2	677	457	406	303
									1p9_3	677	392	350	274
									1p9_4	677	479	375	273
									1p9_5	677	484	301	210
									1p9_6	677	480	369	262
									1p9_7	677	398	294	212
									1p9_8	677	445	432	305
									1p9_9	677	417	380	266
									1p9_10	677	468	369	270
									1p9_11	677	716	253	173
HWP $_{exp}$	197	-49	529	222	1045	856	589	428	***1p9_12***	677	453	380	303
									1p9_13	677	408	313	239
									1p9_14	677	456	367	285
									1p9_15	677	395	310	253
									1p9_16	677	444	371	300
									1p9_17	677	417	312	236

Table ANX-BE-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Belgium [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	386	-726	-1.262	-1.736
									1p9_1	386	-768	-1.248	-1.767
									1p9_2	386	-1.463	-2.811	-4.102
									1p9_3	386	-1.524	-2.824	-4.161
									1p9_4	386	-713	-1.145	-1.759
									1p9_5	386	-767	-1.222	-1.777
									1p9_6	386	-1.443	-2.767	-4.077
									1p9_7	386	-1.523	-2.803	-4.177
									1p9_8	386	-246	-599	-1.026
									1p9_9	386	-256	-595	-1.027
									1p9_10	386	-239	-578	-1.026
									1p9_11	386	-258	-585	-1.033
HWP_{total}	-60	-634	-84	1355	-99	-1319	-285	685	1p9_12	386	-715	-1.150	-1.759
									1p9_13	386	-768	-1.222	-1.788
									1p9_14	386	-1.461	-2.769	-4.111
									1p9_15	386	-1.524	-2.831	-4.173
									1p9_16	386	-245	-579	-1.026
									1p9_17	386	-260	-583	-1.031

Bulgaria (BG)

Table ANX-BG-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Bulgaria

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,995	0,996	0,146	0,976
									1p9_1	0,995	0,997	0,119	0,984
									1p9_2	0,995	0,997	0,155	0,972
									1p9_3	0,995	0,997	0,116	0,985
									1p9_4	0,995	0,995	0,176	0,940
									1p9_5	0,995	0,995	0,176	0,941
									1p9_6	0,995	0,996	0,177	0,940
									1p9_7	0,995	0,996	0,176	0,941
									1p9_8	0,995	0,996	0,145	0,977
									1p9_9	0,995	0,996	0,119	0,984
									1p9_10	0,995	0,995	0,176	0,940
									1p9_11	0,995	0,995	0,176	0,940
f_{INDRW}	1,000	0,999	0,985	0,996	0,995	0,989	0,982	0,983	***1p9_12***	0,995	0,996	0,163	0,966
									1p9_13	0,995	0,996	0,140	0,979
									1p9_14	0,995	0,996	0,165	0,964
									1p9_15	0,995	0,996	0,143	0,978
									1p9_16	0,995	0,996	0,162	0,966
									1p9_17	0,995	0,996	0,142	0,978
									1p9	0,920	0,997	0,998	0,998
									1p9_1	0,920	0,997	0,998	0,998
									1p9_2	0,920	0,997	0,998	0,998
									1p9_3	0,920	0,997	0,998	0,998
									1p9_4	0,920	0,996	0,996	0,996
									1p9_5	0,920	0,996	0,996	0,996
									1p9_6	0,920	0,996	0,996	0,996
									1p9_7	0,920	0,996	0,996	0,996
									1p9_8	0,920	0,997	0,998	0,998
									1p9_9	0,920	0,997	0,998	0,998
									1p9_10	0,920	0,996	0,996	0,996
									1p9_11	0,920	0,996	0,996	0,996
f_{PULP}	0,642	0,797	0,821	0,715	0,920	0,946	0,953	0,973	***1p9_12***	0,920	1,000	1,000	1,000
									1p9_13	0,920	1,000	1,000	1,000
									1p9_14	0,920	1,000	1,000	1,000
									1p9_15	0,920	1,000	1,000	1,000
									1p9_16	0,920	1,000	1,000	1,000
									1p9_17	0,920	1,000	1,000	1,000

									1p9	0,000	0,732	0,833	0,961
									1p9_1	0,000	0,596	0,748	0,956
									1p9_2	0,000	0,776	0,925	0,976
									1p9_3	0,000	0,580	0,843	0,962
									1p9_4	0,000	0,882	0,965	0,987
									1p9_5	0,000	0,881	0,965	0,987
									1p9_6	0,000	0,883	0,965	0,988
									1p9_7	0,000	0,881	0,965	0,987
									1p9_8	0,000	0,723	0,828	0,959
									1p9_9	0,000	0,593	0,747	0,956
									1p9_10	0,000	0,882	0,965	0,987
									1p9_11	0,000	0,882	0,965	0,987
f_{RecP}	0,734	0,599	0,000	0,000	0,000	0,156	0,210	0,000	***1p9_12***	0,000	0,813	0,903	0,971
									1p9_13	0,000	0,702	0,866	0,965
									1p9_14	0,000	0,824	0,934	0,978
									1p9_15	0,000	0,715	0,855	0,963
									1p9_16	0,000	0,811	0,904	0,971
									1p9_17	0,000	0,710	0,877	0,968

Table ANX-BG-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Bulgaria [in kt CO_2]

	2000	**2005**	**2010**	**2015**	**2020**	**2021**	**2022**	**2023**	***Scenario***	**Ø 24-29**	**Ø 30-39**	**Ø 40-49**	**2050**
									1p9	-599	-672	-1.237	-1.089
									1p9_1	-599	-681	-1.226	-1.081
									1p9_2	-599	-1.216	-1.636	-1.483
									1p9_3	-599	-790	-1.507	-1.407
									1p9_4	-599	-596	-487	-442
									1p9_5	-599	-619	-492	-441
									1p9_6	-599	-785	-700	-781
									1p9_7	-599	-748	-665	-624
									1p9_8	-599	-644	-1.286	-1.115
									1p9_9	-599	-654	-1.221	-1.066
									1p9_10	-599	-598	-485	-437
									1p9_11	-599	-615	-490	-440
HWP_{total}	72	-197	-526	-977	-815	-1074	-1025	-1022	***1p9_12***	-599	-630	-561	-496
									1p9_13	-599	-639	-566	-497
									1p9_14	-599	-882	-1.058	-951
									1p9_15	-599	-758	-788	-773
									1p9_16	-599	-621	-562	-495
									1p9_17	-599	-637	-567	-497

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-246	-369	-325	-253
									1p9_1	-246	-371	-291	-280
									1p9_2	-246	-463	-506	-540
									1p9_3	-246	-464	-504	-541
									1p9_4	-246	-353	-286	-276
									1p9_5	-246	-359	-289	-262
									1p9_6	-246	-448	-496	-539
									1p9_7	-246	-450	-494	-540
									1p9_8	-246	-324	-331	-239
									1p9_9	-246	-325	-329	-241
									1p9_10	-246	-308	-322	-253
									1p9_11	-246	-311	-322	-255
HWP $_{dom}$	378	389	-24	-328	-368	-631	-738	-738	***1p9_12***	-246	-373	-289	-269
									1p9_13	-246	-374	-287	-251
									1p9_14	-246	-459	-497	-539
									1p9_15	-246	-463	-500	-536
									1p9_16	-246	-322	-323	-245
									1p9_17	-246	-324	-321	-246
									1p9	-352	-303	-912	-836
									1p9_1	-352	-310	-935	-801
									1p9_2	-352	-753	-1.130	-943
									1p9_3	-352	-326	-1.003	-867
									1p9_4	-352	-243	-201	-167
									1p9_5	-352	-260	-203	-179
									1p9_6	-352	-337	-204	-242
									1p9_7	-352	-298	-171	-84
									1p9_8	-352	-319	-955	-875
									1p9_9	-352	-330	-892	-825
									1p9_10	-352	-291	-163	-184
									1p9_11	-352	-304	-168	-184
HWP $_{exp}$	-306	-586	-503	-649	-448	-443	-287	-284	***1p9_12***	-352	-257	-272	-227
									1p9_13	-352	-265	-280	-246
									1p9_14	-352	-423	-560	-412
									1p9_15	-352	-296	-288	-236
									1p9_16	-352	-299	-239	-250
									1p9_17	-352	-313	-246	-251

Table ANX-BG-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Bulgaria [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-379	-450	-363	-254
									1p9_1	-379	-451	-329	-281
									1p9_2	-379	-544	-544	-541
									1p9_3	-379	-545	-543	-542
									1p9_4	-379	-446	-327	-277
									1p9_5	-379	-450	-328	-261
									1p9_6	-379	-540	-536	-542
									1p9_7	-379	-542	-534	-543
									1p9_8	-379	-403	-370	-240
									1p9_9	-379	-403	-367	-242
									1p9_10	-379	-398	-362	-254
									1p9_11	-379	-401	-362	-254
HWP $_{total}$	292	191	-257	-531	-546	-899	-1143	-1079	***1p9_12***	-379	-454	-328	-271
									1p9_13	-379	-456	-326	-254
									1p9_14	-379	-540	-537	-542
									1p9_15	-379	-544	-539	-539
									1p9_16	-379	-402	-363	-248
									1p9_17	-379	-403	-361	-248

Czechia (CZ)

Table ANX-CZ-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Czechia

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,888	0,859	0,839	0,723
									1p9_1	0,888	0,864	0,837	0,727
									1p9_2	0,888	0,859	0,839	0,723
									1p9_3	0,888	0,865	0,839	0,724
									1p9_4	0,888	0,000	0,841	0,719
									1p9_5	0,888	0,000	0,841	0,719
									1p9_6	0,888	0,384	0,841	0,719
									1p9_7	0,888	0,514	0,842	0,718
									1p9_8	0,888	0,855	0,838	0,725
									1p9_9	0,888	0,862	0,837	0,727
									1p9_10	0,888	0,000	0,841	0,719
									1p9_11	0,888	0,000	0,841	0,719
f_{INDRW}	0,993	0,967	0,930	0,800	0,888	0,915	0,895	0,870	***1p9_12***	0,888	0,846	0,836	0,727
									1p9_13	0,888	0,848	0,838	0,726
									1p9_14	0,888	0,854	0,837	0,727
									1p9_15	0,888	0,859	0,838	0,725
									1p9_16	0,888	0,809	0,838	0,725
									1p9_17	0,888	0,845	0,838	0,726
									1p9	0,695	0,783	0,675	0,746
									1p9_1	0,695	0,788	0,713	0,773
									1p9_2	0,695	0,783	0,727	0,780
									1p9_3	0,695	0,784	0,742	0,796
									1p9_4	0,695	0,776	0,818	0,829
									1p9_5	0,695	0,776	0,814	0,828
									1p9_6	0,695	0,776	0,818	0,805
									1p9_7	0,695	0,774	0,808	0,819
									1p9_8	0,695	0,786	0,667	0,740
									1p9_9	0,695	0,788	0,714	0,773
									1p9_10	0,695	0,776	0,818	0,830
									1p9_11	0,695	0,776	0,816	0,828
f_{PULP}	0,740	0,672	0,652	0,623	0,678	0,697	0,696	0,636	***1p9_12***	0,695	0,789	0,831	0,859
									1p9_13	0,695	0,786	0,829	0,858
									1p9_14	0,695	0,788	0,832	0,854
									1p9_15	0,695	0,785	0,826	0,855
									1p9_16	0,695	0,785	0,829	0,857
									1p9_17	0,695	0,787	0,829	0,858

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,833	0,862	0,893	0,893
									1p9_1	0,833	0,849	0,877	0,882
									1p9_2	0,833	0,862	0,881	0,881
									1p9_3	0,833	0,860	0,882	0,882
									1p9_4	0,833	0,872	0,884	0,897
									1p9_5	0,833	0,872	0,890	0,901
									1p9_6	0,833	0,872	0,884	0,901
									1p9_7	0,833	0,875	0,899	0,910
									1p9_8	0,833	0,856	0,892	0,892
									1p9_9	0,833	0,850	0,880	0,886
									1p9_10	0,833	0,872	0,884	0,897
									1p9_11	0,833	0,872	0,887	0,901
f_{RecP}	0,845	0,886	0,000	0,795	0,833	0,819	0,773	0,477	***1p9_12***	0,833	0,849	0,853	0,853
									1p9_13	0,833	0,854	0,861	0,861
									1p9_14	0,833	0,850	0,852	0,852
									1p9_15	0,833	0,857	0,869	0,869
									1p9_16	0,833	0,857	0,860	0,860
									1p9_17	0,833	0,854	0,859	0,859

Table ANX-CZ-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Czechia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-1.194	-3.045	2.197	2.040
									1p9_1	-1.194	-2.226	1.847	1.653
									1p9_2	-1.194	-3.230	2.119	1.735
									1p9_3	-1.194	-3.094	1.649	1.271
									1p9_4	-1.194	3.661	2.842	2.452
									1p9_5	-1.194	3.661	2.834	2.458
									1p9_6	-1.194	915	-898	-104
									1p9_7	-1.194	-110	-306	-193
									1p9_8	-1.194	-2.174	2.424	2.123
									1p9_9	-1.194	-1.846	1.928	1.690
									1p9_10	-1.194	3.661	2.842	2.452
									1p9_11	-1.194	3.661	2.838	2.446
HWP_{total}	-882	-1117	-1250	-208	-1450	-2195	-1753	-925	***1p9_12***	-1.194	-2.817	1.557	1.543
									1p9_13	-1.194	-2.117	525	964
									1p9_14	-1.194	-3.176	2.219	1.694
									1p9_15	-1.194	-3.101	1.354	1.133
									1p9_16	-1.194	-2.141	-324	978
									1p9_17	-1.194	-1.699	528	1.021

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	927	407	1.251	1.052
									1p9_1	927	403	1.140	936
									1p9_2	927	-7	1.095	746
									1p9_3	927	-33	926	529
									1p9_4	927	1.822	1.473	1.273
									1p9_5	927	1.822	1.471	1.273
									1p9_6	927	1.009	124	66
									1p9_7	927	697	267	-35
									1p9_8	927	615	1.327	1.132
									1p9_9	927	608	1.196	1.001
									1p9_10	927	1.822	1.473	1.273
									1p9_11	927	1.822	1.472	1.270
HWP $_{dom}$	241	24	-157	426	977	-481	-230	-368	***1p9_12***	927	422	1.096	915
									1p9_13	927	431	845	780
									1p9_14	927	1	1.134	723
									1p9_15	927	-15	817	465
									1p9_16	927	666	734	819
									1p9_17	927	631	908	869
									1p9	-2.121	-3.452	946	988
									1p9_1	-2.121	-2.629	707	718
									1p9_2	-2.121	-3.223	1.024	989
									1p9_3	-2.121	-3.062	723	742
									1p9_4	-2.121	1.839	1.369	1.179
									1p9_5	-2.121	1.839	1.363	1.184
									1p9_6	-2.121	-94	-1.021	-170
									1p9_7	-2.121	-807	-572	-158
									1p9_8	-2.121	-2.790	1.097	991
									1p9_9	-2.121	-2.454	733	689
									1p9_10	-2.121	1.839	1.369	1.180
									1p9_11	-2.121	1.839	1.366	1.176
HWP $_{exp}$	-1123	-1141	-1093	-634	-2427	-1714	-1523	-557	***1p9_12***	-2.121	-3.239	461	628
									1p9_13	-2.121	-2.548	-320	184
									1p9_14	-2.121	-3.176	1.085	971
									1p9_15	-2.121	-3.086	537	668
									1p9_16	-2.121	-2.807	-1.058	158
									1p9_17	-2.121	-2.330	-380	152

Table ANX-CZ-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Czechia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	84	-424	-430	-605
									1p9_1	84	-429	-399	-607
									1p9_2	84	-981	-1.479	-2.230
									1p9_3	84	-991	-1.480	-2.295
									1p9_4	84	-409	-412	-574
									1p9_5	84	-422	-413	-581
									1p9_6	84	-957	-1.417	-2.191
									1p9_7	84	-974	-1.438	-2.244
									1p9_8	84	-170	-163	-285
									1p9_9	84	-170	-159	-287
									1p9_10	84	-161	-152	-265
									1p9_11	84	-168	-157	-268
HWP $_{total}$	-649	-1563	-765	-945	-56	-2025	-1433	-1003	***1p9_12***	84	-424	-401	-595
									1p9_13	84	-424	-415	-598
									1p9_14	84	-977	-1.418	-2.206
									1p9_15	84	-982	-1.484	-2.296
									1p9_16	84	-171	-155	-284
									1p9_17	84	-170	-157	-284

Germany (DE)

Table ANX-DE-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Germany

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,882	0,901	0,773	0,217
									1p9_1	0,882	0,896	0,773	0,217
									1p9_2	0,882	0,899	0,773	0,217
									1p9_3	0,882	0,902	0,773	0,217
									1p9_4	0,882	0,893	0,773	0,217
									1p9_5	0,882	0,878	0,773	0,217
									1p9_6	0,882	0,895	0,773	0,217
									1p9_7	0,882	0,895	0,773	0,217
									1p9_8	0,882	0,901	0,773	0,217
									1p9_9	0,882	0,894	0,773	0,217
									1p9_10	0,882	0,891	0,773	0,217
									1p9_11	0,882	0,870	0,773	0,217
f_{INDRW}	0,974	0,949	0,850	0,829	0,882	0,885	0,897	0,902	1p9_12	0,882	0,897	0,773	0,217
									1p9_13	0,882	0,891	0,773	0,217
									1p9_14	0,882	0,898	0,773	0,217
									1p9_15	0,882	0,901	0,773	0,217
									1p9_16	0,882	0,895	0,773	0,217
									1p9_17	0,882	0,886	0,773	0,217
									1p9	0,203	0,432	0,468	0,585
									1p9_1	0,203	0,432	0,504	0,620
									1p9_2	0,203	0,411	0,446	0,497
									1p9_3	0,203	0,431	0,488	0,558
									1p9_4	0,203	0,408	0,537	0,594
									1p9_5	0,203	0,369	0,430	0,481
									1p9_6	0,203	0,373	0,397	0,397
									1p9_7	0,203	0,321	0,383	0,433
									1p9_8	0,203	0,432	0,507	0,619
									1p9_9	0,203	0,432	0,516	0,629
									1p9_10	0,203	0,418	0,532	0,587
									1p9_11	0,203	0,390	0,451	0,502
f_{PULP}	0,310	0,299	0,261	0,210	0,203	0,202	0,180	0,131	1p9_12	0,203	0,429	0,571	0,621
									1p9_13	0,203	0,434	0,579	0,638
									1p9_14	0,203	0,394	0,462	0,513
									1p9_15	0,203	0,414	0,567	0,618
									1p9_16	0,203	0,431	0,575	0,633
									1p9_17	0,203	0,432	0,578	0,633

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,765	0,804	0,827	0,843
									1p9_1	0,765	0,804	0,826	0,841
									1p9_2	0,765	0,803	0,825	0,841
									1p9_3	0,765	0,804	0,825	0,841
									1p9_4	0,765	0,804	0,832	0,844
									1p9_5	0,765	0,804	0,832	0,843
									1p9_6	0,765	0,804	0,832	0,843
									1p9_7	0,765	0,804	0,832	0,843
									1p9_8	0,765	0,804	0,827	0,843
									1p9_9	0,765	0,804	0,827	0,841
									1p9_10	0,765	0,805	0,832	0,844
									1p9_11	0,765	0,804	0,832	0,843
f_{RecP}	0,836	0,800	0,758	0,760	0,765	0,692	0,680	0,710	1p9_12	0,765	0,804	0,830	0,841
									1p9_13	0,765	0,804	0,831	0,842
									1p9_14	0,765	0,803	0,826	0,841
									1p9_15	0,765	0,803	0,827	0,841
									1p9_16	0,765	0,804	0,831	0,843
									1p9_17	0,765	0,804	0,831	0,842

Table ANX-DE-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Germany [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-7.437	-9.241	-7.817	-7.569
									1p9_1	-7.437	-9.193	-8.036	-8.137
									1p9_2	-7.437	-12.905	-11.469	-14.902
									1p9_3	-7.437	-13.988	-15.057	-18.237
									1p9_4	-7.437	-8.655	-7.303	-6.946
									1p9_5	-7.437	-8.443	-6.893	-7.013
									1p9_6	-7.437	-12.569	-13.830	-16.765
									1p9_7	-7.437	-13.518	-15.481	-18.532
									1p9_8	-7.437	-7.901	-6.504	-6.422
									1p9_9	-7.437	-7.706	-6.931	-7.082
									1p9_10	-7.437	-7.417	-6.100	-5.831
									1p9_11	-7.437	-6.820	-5.747	-5.992
HWP_{total}	-7727	-15649	-4677	-2466	-7795	-7927	-4726	-1532	1p9_12	-7.437	-8.871	-7.757	-7.260
									1p9_13	-7.437	-9.026	-7.849	-7.504
									1p9_14	-7.437	-12.743	-14.188	-16.946
									1p9_15	-7.437	-13.923	-16.247	-18.925
									1p9_16	-7.437	-7.550	-6.717	-6.309
									1p9_17	-7.437	-7.423	-6.681	-6.448

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-949	-4.574	-4.669	-4.635
									1p9_1	-949	-4.582	-4.805	-4.823
									1p9_2	-949	-8.324	-8.702	-12.845
									1p9_3	-949	-9.276	-11.968	-15.943
									1p9_4	-949	-4.195	-3.954	-4.133
									1p9_5	-949	-4.121	-3.945	-4.130
									1p9_6	-949	-8.105	-10.931	-14.625
									1p9_7	-949	-8.996	-12.525	-16.265
									1p9_8	-949	-3.254	-3.073	-3.565
									1p9_9	-949	-3.131	-3.259	-3.585
									1p9_10	-949	-2.942	-2.868	-3.158
									1p9_11	-949	-2.584	-2.481	-2.903
HWP $_{dom}$	-1745	-3712	2078	2523	-500	-317	1344	2978	*1p9_12*	-949	-4.326	-4.254	-4.272
									1p9_13	-949	-4.475	-4.499	-4.448
									1p9_14	-949	-8.210	-11.133	-14.695
									1p9_15	-949	-9.232	-13.025	-16.608
									1p9_16	-949	-3.047	-3.116	-3.300
									1p9_17	-949	-2.954	-3.035	-3.191
									1p9	-6.488	-4.667	-3.148	-2.934
									1p9_1	-6.488	-4.612	-3.231	-3.314
									1p9_2	-6.488	-4.582	-2.767	-2.057
									1p9_3	-6.488	-4.712	-3.089	-2.293
									1p9_4	-6.488	-4.459	-3.350	-2.813
									1p9_5	-6.488	-4.322	-2.948	-2.883
									1p9_6	-6.488	-4.464	-2.899	-2.141
									1p9_7	-6.488	-4.522	-2.956	-2.267
									1p9_8	-6.488	-4.647	-3.430	-2.856
									1p9_9	-6.488	-4.575	-3.672	-3.497
									1p9_10	-6.488	-4.475	-3.232	-2.673
									1p9_11	-6.488	-4.236	-3.267	-3.089
HWP $_{exp}$	-5982	-11938	-6755	-4989	-7295	-7610	-6070	-4510	*1p9_12*	-6.488	-4.546	-3.503	-2.988
									1p9_13	-6.488	-4.551	-3.350	-3.056
									1p9_14	-6.488	-4.533	-3.055	-2.252
									1p9_15	-6.488	-4.691	-3.223	-2.317
									1p9_16	-6.488	-4.504	-3.601	-3.009
									1p9_17	-6.488	-4.468	-3.646	-3.257

Table ANX-DE-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Germany [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	683	-2.774	-2.943	-1.975
									1p9_1	683	-2.888	-2.945	-2.150
									1p9_2	683	-7.463	-12.008	-14.920
									1p9_3	683	-8.002	-12.026	-15.193
									1p9_4	683	-2.656	-2.111	-1.637
									1p9_5	683	-2.879	-2.736	-2.117
									1p9_6	683	-7.447	-11.551	-14.399
									1p9_7	683	-7.993	-12.012	-15.104
									1p9_8	683	-1.289	-1.127	-1.017
									1p9_9	683	-1.301	-1.093	-939
									1p9_10	683	-1.192	-1.005	-827
									1p9_11	683	-1.290	-1.094	-863
ΔWP_{total}	-6629	-5618	-167	-1365	-1099	-2890	2349	7752	1p9_12	683	-2.771	-2.292	-1.784
									1p9_13	683	-2.888	-2.690	-2.121
									1p9_14	683	-7.459	-11.551	-14.691
									1p9_15	683	-7.987	-11.960	-15.152
									1p9_16	683	-1.254	-1.070	-863
									1p9_17	683	-1.293	-1.079	-860

Denmark (DK)

Table ANX-DK-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Denmark

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,668	0,832	0,711	0,266
									1p9_1	0,668	0,811	0,706	0,318
									1p9_2	0,668	0,838	0,711	0,266
									1p9_3	0,668	0,839	0,711	0,267
									1p9_4	0,668	0,801	0,706	0,267
									1p9_5	0,668	0,764	0,705	0,267
									1p9_6	0,668	0,826	0,705	0,267
									1p9_7	0,668	0,809	0,705	0,267
									1p9_8	0,668	0,828	0,711	0,266
									1p9_9	0,668	0,787	0,703	0,339
									1p9_10	0,668	0,792	0,706	0,267
									1p9_11	0,668	0,704	0,705	0,267
f_{INDRW}	0,816	0,615	0,498	0,788	0,668	0,668	0,668	0,668	1p9_12	0,668	0,824	0,710	0,267
									1p9_13	0,668	0,804	0,707	0,294
									1p9_14	0,668	0,836	0,710	0,267
									1p9_15	0,668	0,837	0,711	0,266
									1p9_16	0,668	0,811	0,710	0,267
									1p9_17	0,668	0,771	0,704	0,328
									1p9	0,026	1,000	0,146	0,194
									1p9_1	0,026	1,000	0,670	0,740
									1p9_2	0,026	1,000	0,262	0,308
									1p9_3	0,026	0,979	0,234	0,310
									1p9_4	0,026	0,807	0,768	0,729
									1p9_5	0,026	0,812	0,788	0,753
									1p9_6	0,026	0,807	0,771	0,737
									1p9_7	0,026	0,807	0,782	0,745
									1p9_8	0,026	1,000	0,238	0,311
									1p9_9	0,026	1,000	0,736	0,806
									1p9_10	0,026	0,807	0,769	0,732
									1p9_11	0,026	0,815	0,792	0,769
f_{PULP}	0,000	0,000	0,000	0,055	0,026	0,026	0,026	0,026	1p9_12	0,026	0,969	1,000	1,000
									1p9_13	0,026	1,000	1,000	1,000
									1p9_14	0,026	0,990	1,000	1,000
									1p9_15	0,026	1,000	1,000	0,999
									1p9_16	0,026	0,979	1,000	1,000
									1p9_17	0,026	1,000	1,000	1,000

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,670	0,875	0,912	0,933
									1p9_1	0,670	0,850	0,907	0,930
									1p9_2	0,670	0,875	0,915	0,933
									1p9_3	0,670	0,875	0,915	0,934
									1p9_4	0,670	0,847	0,904	0,927
									1p9_5	0,670	0,845	0,903	0,926
									1p9_6	0,670	0,847	0,903	0,927
									1p9_7	0,670	0,844	0,903	0,926
									1p9_8	0,670	0,875	0,907	0,930
									1p9_9	0,670	0,835	0,896	0,926
									1p9_10	0,670	0,847	0,904	0,927
									1p9_11	0,670	0,844	0,903	0,927
f_{RecP}	0,000	0,000	0,000	0,383	0,695	0,606	0,647	0,599	1p9_12	0,670	0,868	0,913	0,932
									1p9_13	0,670	0,855	0,909	0,930
									1p9_14	0,670	0,870	0,914	0,932
									1p9_15	0,670	0,874	0,915	0,933
									1p9_16	0,670	0,870	0,913	0,932
									1p9_17	0,670	0,842	0,904	0,928

Table ANX-DK-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Denmark [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	127	-872	-642	-689
									1p9_1	127	-1.338	-1.024	-1.385
									1p9_2	127	-1.207	-719	-1.158
									1p9_3	127	-2.068	-1.280	-2.175
									1p9_4	127	-630	-808	-955
									1p9_5	127	-1.182	-1.383	-2.143
									1p9_6	127	-1.085	-1.364	-1.929
									1p9_7	127	-1.972	-2.901	-3.943
									1p9_8	127	-717	-581	-618
									1p9_9	127	-858	-864	-1.092
									1p9_10	127	-466	-698	-789
									1p9_11	127	-684	-923	-1.485
HWP_{total}	230	316	285	113	120	145	132	142	1p9_12	127	-818	-790	-843
									1p9_13	127	-1.302	-1.721	-2.228
									1p9_14	127	-1.186	-1.439	-1.802
									1p9_15	127	-2.036	-2.877	-3.722
									1p9_16	127	-581	-665	-795
									1p9_17	127	-819	-1.228	-1.612

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	163	-826	-688	-725
									1p9_1	163	-1.298	-1.047	-1.403
									1p9_2	163	-1.159	-763	-1.203
									1p9_3	163	-2.021	-1.318	-2.212
									1p9_4	163	-592	-689	-802
									1p9_5	163	-1.152	-1.400	-2.146
									1p9_6	163	-1.043	-1.358	-1.931
									1p9_7	163	-1.934	-2.901	-3.949
									1p9_8	163	-672	-623	-648
									1p9_9	163	-825	-885	-1.108
									1p9_10	163	-430	-585	-669
									1p9_11	163	-666	-944	-1.490
HWP $_{dom}$	161	267	352	244	200	192	185	179	*1p9_12*	163	-755	-773	-837
									1p9_13	163	-1.264	-1.720	-2.230
									1p9_14	163	-1.139	-1.435	-1.815
									1p9_15	163	-1.990	-2.884	-3.737
									1p9_16	163	-540	-659	-729
									1p9_17	163	-789	-1.229	-1.610
									1p9	-36	-46	46	37
									1p9_1	-36	-39	23	19
									1p9_2	-36	-47	45	45
									1p9_3	-36	-47	38	37
									1p9_4	-36	-37	-119	-153
									1p9_5	-36	-30	17	3
									1p9_6	-36	-42	-5	2
									1p9_7	-36	-39	0	6
									1p9_8	-36	-45	43	30
									1p9_9	-36	-33	21	15
									1p9_10	-36	-36	-113	-120
									1p9_11	-36	-18	21	6
HWP $_{exp}$	69	49	-67	-132	-80	-47	-53	-36	*1p9_12*	-36	-63	-17	-7
									1p9_13	-36	-38	-1	2
									1p9_14	-36	-46	-4	13
									1p9_15	-36	-47	6	15
									1p9_16	-36	-41	-6	-66
									1p9_17	-36	-30	0	-1

Table ANX-DK-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Denmark [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-744	-1.455	-1.441	-1.461
									1p9_1	-744	-1.487	-1.410	-1.552
									1p9_2	-744	-2.351	-3.163	-4.106
									1p9_3	-744	-2.376	-3.160	-4.220
									1p9_4	-744	-1.468	-1.342	-1.403
									1p9_5	-744	-1.486	-1.412	-1.555
									1p9_6	-744	-2.333	-3.077	-4.056
									1p9_7	-744	-2.386	-3.155	-4.237
									1p9_8	-744	-934	-834	-798
									1p9_9	-744	-942	-824	-798
									1p9_10	-744	-929	-816	-794
									1p9_11	-744	-940	-828	-800
HWP $_{total}$	-1032	-732	366	468	-729	-747	-753	-761	***1p9_12***	-744	-1.452	-1.372	-1.452
									1p9_13	-744	-1.487	-1.407	-1.557
									1p9_14	-744	-2.341	-3.077	-4.066
									1p9_15	-744	-2.385	-3.161	-4.237
									1p9_16	-744	-931	-822	-795
									1p9_17	-744	-941	-831	-800

Estonia (EE)

Table ANX-EE-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Estonia

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,911	0,914	0,906	0,679
									1p9_1	0,911	0,945	0,902	0,691
									1p9_2	0,911	0,914	0,906	0,679
									1p9_3	0,911	0,934	0,905	0,680
									1p9_4	0,911	0,898	0,907	0,674
									1p9_5	0,911	0,944	0,906	0,675
									1p9_6	0,911	0,901	0,907	0,674
									1p9_7	0,911	0,945	0,906	0,676
									1p9_8	0,911	0,914	0,906	0,679
									1p9_9	0,911	0,945	0,902	0,690
									1p9_10	0,911	0,899	0,907	0,674
									1p9_11	0,911	0,943	0,907	0,675
f_{INDRW}	0,000	0,915	0,900	0,933	0,911	0,837	0,849	0,881	1p9_12	0,911	0,910	0,906	0,679
									1p9_13	0,911	0,945	0,902	0,691
									1p9_14	0,911	0,914	0,906	0,679
									1p9_15	0,911	0,933	0,906	0,678
									1p9_16	0,911	0,905	0,906	0,679
									1p9_17	0,911	0,945	0,902	0,690
									1p9	0,505	0,847	0,970	0,978
									1p9_1	0,505	0,859	0,973	0,979
									1p9_2	0,505	0,847	0,971	0,978
									1p9_3	0,505	0,841	0,971	0,976
									1p9_4	0,505	0,803	0,965	0,969
									1p9_5	0,505	0,794	0,963	0,971
									1p9_6	0,505	0,797	0,958	0,917
									1p9_7	0,505	0,788	0,948	0,958
									1p9_8	0,505	0,847	0,965	0,974
									1p9_9	0,505	0,858	0,972	0,979
									1p9_10	0,505	0,802	0,966	0,970
									1p9_11	0,505	0,798	0,965	0,972
f_{PULP}	0,989	0,985	0,999	0,591	0,505	0,362	0,396	0,000	1p9_12	0,505	0,853	1,000	1,000
									1p9_13	0,505	0,863	1,000	1,000
									1p9_14	0,505	0,852	1,000	1,000
									1p9_15	0,505	0,844	0,993	0,994
									1p9_16	0,505	0,853	1,000	1,000
									1p9_17	0,505	0,860	1,000	1,000

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,902	0,920	0,920	0,930
									1p9_1	0,902	0,902	0,907	0,907
									1p9_2	0,902	0,920	0,925	0,932
									1p9_3	0,902	0,918	0,921	0,921
									1p9_4	0,902	0,925	0,934	0,940
									1p9_5	0,902	0,923	0,923	0,927
									1p9_6	0,902	0,924	0,934	0,940
									1p9_7	0,902	0,922	0,932	0,939
									1p9_8	0,902	0,920	0,920	0,931
									1p9_9	0,902	0,903	0,906	0,906
									1p9_10	0,902	0,925	0,931	0,938
									1p9_11	0,902	0,924	0,924	0,929
f_{RecP}	0,000	0,924	0,819	0,976	0,902	0,602	0,756	0,740	*1p9_12*	0,902	0,920	0,920	0,930
									1p9_13	0,902	0,902	0,902	0,902
									1p9_14	0,902	0,920	0,923	0,930
									1p9_15	0,902	0,920	0,923	0,927
									1p9_16	0,902	0,920	0,920	0,930
									1p9_17	0,902	0,902	0,902	0,902

Table ANX-EE-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Estonia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-818	-810	-738	-545
									1p9_1	-818	-980	-870	-774
									1p9_2	-818	-927	-932	-963
									1p9_3	-818	-1.199	-1.103	-1.385
									1p9_4	-818	-778	-768	-705
									1p9_5	-818	-975	-891	-853
									1p9_6	-818	-923	-1.052	-1.051
									1p9_7	-818	-1.181	-1.499	-1.722
									1p9_8	-818	-775	-716	-526
									1p9_9	-818	-904	-824	-750
									1p9_10	-818	-745	-715	-668
									1p9_11	-818	-873	-797	-784
IWPtotal	-965	-642	-983	-1037	-911	-851	-804	-502	*1p9_12*	-818	-816	-743	-616
									1p9_13	-818	-976	-857	-815
									1p9_14	-818	-938	-1.006	-969
									1p9_15	-818	-1.180	-1.486	-1.697
									1p9_16	-818	-775	-698	-594
									1p9_17	-818	-908	-782	-723

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-283	-455	-543	-499
									1p9_1	-283	-594	-645	-656
									1p9_2	-283	-574	-809	-970
									1p9_3	-283	-826	-963	-1.343
									1p9_4	-283	-441	-549	-571
									1p9_5	-283	-592	-651	-707
									1p9_6	-283	-584	-870	-1.035
									1p9_7	-283	-797	-1.283	-1.621
									1p9_8	-283	-421	-486	-458
									1p9_9	-283	-508	-547	-587
									1p9_10	-283	-408	-495	-528
									1p9_11	-283	-488	-550	-623
HWPdom	-282	-332	-644	-545	-324	-323	-422	-302	*1p9_12*	-283	-458	-536	-525
									1p9_13	-283	-590	-633	-690
									1p9_14	-283	-584	-821	-936
									1p9_15	-283	-807	-1.279	-1.603
									1p9_16	-283	-423	-489	-499
										-283	-512	-546	-596
									1p9	-535	-355	-195	-47
									1p9_1	-535	-385	-225	-118
									1p9_2	-535	-353	-123	7
									1p9_3	-535	-373	-139	-43
									1p9_4	-535	-337	-219	-134
									1p9_5	-535	-384	-239	-146
									1p9_6	-535	-339	-181	-17
									1p9_7	-535	-385	-216	-102
									1p9_8	-535	-353	-230	-68
									1p9_9	-535	-396	-277	-163
									1p9_10	-535	-337	-220	-140
									1p9_11	-535	-385	-247	-161
HWPexp	-683	-309	-339	-492	-587	-529	-382	-200	*1p9_12*	-535	-359	-207	-91
									1p9_13	-535	-385	-224	-125
									1p9_14	-535	-353	-185	-33
									1p9_15	-535	-373	-207	-94
									1p9_16	-535	-351	-209	-95
									1p9_17	-535	-395	-236	-127

Table ANX-EE-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Estonia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-1.309	-1.291	-1.068	-880
									1p9_1	-1.309	-1.291	-1.067	-912
									1p9_2	-1.309	-1.752	-1.946	-1.931
									1p9_3	-1.309	-1.764	-1.942	-2.079
									1p9_4	-1.309	-1.276	-1.034	-842
									1p9_5	-1.309	-1.298	-1.060	-928
									1p9_6	-1.309	-1.730	-1.816	-1.893
									1p9_7	-1.309	-1.761	-1.903	-2.050
									1p9_8	-1.309	-1.167	-943	-824
									1p9_9	-1.309	-1.173	-947	-828
									1p9_10	-1.309	-1.161	-928	-805
									1p9_11	-1.309	-1.174	-936	-816
HWP_{total}	-568	-1317	-1237	-1461	-1580	-1959	-1642	-973	1p9_12	-1.309	-1.277	-1.036	-855
									1p9_13	-1.309	-1.291	-1.055	-934
									1p9_14	-1.309	-1.741	-1.831	-1.922
									1p9_15	-1.309	-1.764	-1.903	-2.049
									1p9_16	-1.309	-1.162	-938	-814
									1p9_17	-1.309	-1.173	-940	-828

Spain (ES)

Table ANX-ES-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Spain

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,940	0,982	0,725	0,280
									1p9_1	0,940	0,980	0,725	0,281
									1p9_2	0,940	0,983	0,724	0,281
									1p9_3	0,940	0,983	0,724	0,281
									1p9_4	0,940	0,976	0,725	0,275
									1p9_5	0,940	0,972	0,725	0,275
									1p9_6	0,940	0,978	0,725	0,275
									1p9_7	0,940	0,976	0,725	0,275
									1p9_8	0,940	0,981	0,725	0,280
									1p9_9	0,940	0,979	0,725	0,280
									1p9_10	0,940	0,976	0,725	0,275
									1p9_11	0,940	0,971	0,725	0,275
f_{INDRW}	0,846	0,851	0,840	0,936	0,940	0,932	0,922	0,936	1p9_12	0,940	0,981	0,725	0,277
									1p9_13	0,940	0,979	0,725	0,279
									1p9_14	0,940	0,982	0,725	0,279
									1p9_15	0,940	0,981	0,725	0,280
									1p9_16	0,940	0,980	0,725	0,277
									1p9_17	0,940	0,978	0,725	0,279
									1p9	0,451	0,697	0,833	0,856
									1p9_1	0,451	0,701	0,832	0,894
									1p9_2	0,451	0,701	0,828	0,777
									1p9_3	0,451	0,702	0,829	0,890
									1p9_4	0,451	0,475	0,516	0,540
									1p9_5	0,451	0,475	0,508	0,526
									1p9_6	0,451	0,475	0,515	0,537
									1p9_7	0,451	0,474	0,506	0,526
									1p9_8	0,451	0,696	0,842	0,876
									1p9_9	0,451	0,699	0,832	0,894
									1p9_10	0,451	0,475	0,516	0,540
									1p9_11	0,451	0,476	0,515	0,530
f_{PULP}	0,584	0,555	0,452	0,464	0,451	0,397	0,227	0,126	1p9_12	0,451	0,683	0,813	0,827
									1p9_13	0,451	0,693	0,816	0,833
									1p9_14	0,451	0,691	0,818	0,837
									1p9_15	0,451	0,697	0,819	0,841
									1p9_16	0,451	0,682	0,812	0,824
									1p9_17	0,451	0,692	0,815	0,831

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,714	0,768	0,801	0,836
									1p9_1	0,714	0,767	0,801	0,832
									1p9_2	0,714	0,767	0,801	0,830
									1p9_3	0,714	0,767	0,800	0,834
									1p9_4	0,714	0,771	0,807	0,839
									1p9_5	0,714	0,771	0,808	0,839
									1p9_6	0,714	0,771	0,808	0,839
									1p9_7	0,714	0,771	0,807	0,839
									1p9_8	0,714	0,768	0,802	0,836
									1p9_9	0,714	0,768	0,801	0,832
									1p9_10	0,714	0,771	0,807	0,838
									1p9_11	0,714	0,771	0,807	0,839
f_{RecP}	0,826	0,825	0,757	0,686	0,714	0,644	0,705	0,692	1p9_12	0,714	0,771	0,808	0,840
									1p9_13	0,714	0,769	0,808	0,838
									1p9_14	0,714	0,770	0,806	0,838
									1p9_15	0,714	0,768	0,806	0,836
									1p9_16	0,714	0,771	0,808	0,840
									1p9_17	0,714	0,770	0,808	0,839

Table ANX-ES-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Spain [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-769	-2.051	-3.772	-2.555
									1p9_1	-769	-2.000	-3.044	-3.088
									1p9_2	-769	-2.999	-5.686	-4.822
									1p9_3	-769	-3.024	-4.400	-4.427
									1p9_4	-769	-1.715	-1.588	-2.002
									1p9_5	-769	-1.727	-1.710	-2.127
									1p9_6	-769	-2.685	-3.616	-4.581
									1p9_7	-769	-2.731	-3.646	-4.655
									1p9_8	-769	-1.655	-3.421	-2.236
									1p9_9	-769	-1.654	-2.562	-2.633
									1p9_10	-769	-1.348	-1.364	-1.734
									1p9_11	-769	-1.349	-1.417	-1.695
HWP_{total}	-2945	-2661	594	-412	-953	-1681	-1822	-1772	1p9_12	-769	-2.043	-1.923	-2.200
									1p9_13	-769	-1.988	-1.870	-2.170
									1p9_14	-769	-3.023	-3.873	-4.760
									1p9_15	-769	-2.991	-3.817	-4.747
									1p9_16	-769	-1.638	-1.606	-1.784
									1p9_17	-769	-1.670	-1.610	-1.781

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	132	-1.430	-1.802	-1.582
									1p9_1	132	-1.385	-1.781	-2.238
									1p9_2	132	-2.363	-3.668	-3.847
									1p9_3	132	-2.388	-3.627	-4.039
									1p9_4	132	-1.158	-1.287	-1.862
									1p9_5	132	-1.180	-1.429	-2.001
									1p9_6	132	-2.119	-3.316	-4.437
									1p9_7	132	-2.171	-3.351	-4.510
									1p9_8	132	-1.040	-1.384	-1.263
									1p9_9	132	-1.041	-1.363	-1.776
									1p9_10	132	-796	-1.060	-1.519
									1p9_11	132	-806	-1.137	-1.536
HWP $_{dom}$	-5798	-4857	3679	1765	1345	-221	-1082	-205	*1p9_12*	132	-1.394	-1.574	-2.036
									1p9_13	132	-1.375	-1.560	-2.054
									1p9_14	132	-2.355	-3.525	-4.611
									1p9_15	132	-2.366	-3.491	-4.610
									1p9_16	132	-1.010	-1.287	-1.614
									1p9_17	132	-1.030	-1.282	-1.608
									1p9	-902	-621	-1.971	-973
									1p9_1	-902	-615	-1.262	-850
									1p9_2	-902	-636	-2.018	-974
									1p9_3	-902	-636	-773	-389
									1p9_4	-902	-556	-301	-140
									1p9_5	-902	-547	-281	-126
									1p9_6	-902	-567	-300	-144
									1p9_7	-902	-560	-295	-144
									1p9_8	-902	-615	-2.037	-973
									1p9_9	-902	-612	-1.199	-857
									1p9_10	-902	-552	-304	-216
									1p9_11	-902	-544	-281	-160
HWP $_{exp}$	#WERT!	#WERT!	#WERT!	#WERT!	#WERT!	#WERT!	#WERT!	#WERT!	*1p9_12*	-902	-650	-349	-164
									1p9_13	-902	-614	-311	-116
									1p9_14	-902	-668	-348	-149
									1p9_15	-902	-624	-325	-136
									1p9_16	-902	-628	-318	-170
									1p9_17	-902	-640	-328	-173

Table ANX-ES-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Spain [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	2.063	645	107	-46
									1p9_1	2.063	682	126	-238
									1p9_2	2.063	-300	-1.771	-2.776
									1p9_3	2.063	-321	-1.733	-2.762
									1p9_4	2.063	733	449	-154
									1p9_5	2.063	690	332	-220
									1p9_6	2.063	-247	-1.568	-2.668
									1p9_7	2.063	-314	-1.618	-2.737
									1p9_8	2.063	1.040	549	347
									1p9_9	2.063	1.032	557	268
									1p9_10	2.063	1.073	646	295
									1p9_11	2.063	1.040	612	259
HWP_{total}	-5798	-4857	3679	1765	1345	-221	-1082	-205	1p9_12	2.063	681	349	-155
									1p9_13	2.063	686	331	-206
									1p9_14	2.063	-275	-1.636	-2.758
									1p9_15	2.063	-317	-1.620	-2.772
									1p9_16	2.063	1.056	618	275
									1p9_17	2.063	1.037	610	269

Finland (FI)

Table ANX-FI-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Finland

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,889	0,893	0,897	0,925
									1p9_1	0,890	0,896	0,897	0,925
									1p9_2	0,889	0,893	0,897	0,925
									1p9_3	0,891	0,899	0,897	0,925
									1p9_4	0,891	0,901	0,889	0,924
									1p9_5	0,891	0,902	0,892	0,925
									1p9_6	0,891	0,903	0,890	0,924
									1p9_7	0,891	0,902	0,894	0,925
									1p9_8	0,889	0,893	0,897	0,925
									1p9_9	0,890	0,895	0,897	0,925
									1p9_10	0,891	0,901	0,889	0,924
									1p9_11	0,891	0,902	0,892	0,925
f_{INDRW}	0,885	0,834	0,878	0,899	0,889	0,900	0,950	0,954	1p9_12	0,889	0,890	0,897	0,925
									1p9_13	0,889	0,893	0,897	0,925
									1p9_14	0,889	0,889	0,897	0,925
									1p9_15	0,890	0,895	0,897	0,925
									1p9_16	0,889	0,891	0,897	0,925
									1p9_17	0,889	0,893	0,897	0,925
									1p9	0,965	0,970	0,958	0,964
									1p9_1	0,965	0,967	0,968	0,972
									1p9_2	0,965	0,970	0,968	0,973
									1p9_3	0,965	0,967	0,970	0,974
									1p9_4	0,965	0,890	0,898	0,906
									1p9_5	0,965	0,889	0,899	0,906
									1p9_6	0,965	0,889	0,898	0,905
									1p9_7	0,965	0,888	0,897	0,905
									1p9_8	0,965	0,969	0,958	0,964
									1p9_9	0,965	0,967	0,956	0,963
									1p9_10	0,965	0,890	0,898	0,906
									1p9_11	0,965	0,888	0,897	0,904
f_{PULP}	0,986	0,970	0,952	0,947	0,965	0,979	0,964	0,957	1p9_12	0,965	0,972	0,976	0,977
									1p9_13	0,965	0,969	0,974	0,977
									1p9_14	0,965	0,972	0,976	0,977
									1p9_15	0,965	0,968	0,973	0,976
									1p9_16	0,965	0,972	0,976	0,978
									1p9_17	0,965	0,969	0,974	0,977

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,871	1,001	1,001	1,001
									1p9_1	0,871	1,001	1,001	1,001
									1p9_2	0,871	1,001	1,001	1,001
									1p9_3	0,871	1,001	1,001	1,001
									1p9_4	0,871	0,959	1,001	1,001
									1p9_5	0,871	0,977	1,001	1,001
									1p9_6	0,871	0,963	1,001	1,001
									1p9_7	0,871	0,985	1,001	1,001
									1p9_8	0,871	1,001	1,001	1,001
									1p9_9	0,871	1,001	1,001	1,001
									1p9_10	0,871	0,959	1,001	1,001
									1p9_11	0,871	0,973	1,001	1,001
f_{RecP}	0,939	0,953	0,950	0,921	0,871	0,823	0,785	0,844	1p9_12	0,871	1,000	1,000	1,000
									1p9_13	0,871	1,000	1,000	1,000
									1p9_14	0,871	1,000	1,000	1,000
									1p9_15	0,871	1,000	1,000	1,000
									1p9_16	0,871	1,000	1,000	1,000
									1p9_17	0,871	1,000	1,000	1,000

Table ANX-FI-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Finland [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-1.027	-1.368	-1.201	-1.066
									1p9_1	-1.027	-1.459	-1.343	-1.415
									1p9_2	-1.027	-1.578	-2.056	-2.784
									1p9_3	-1.027	-1.700	-1.798	-2.209
									1p9_4	-1.027	-882	-550	-892
									1p9_5	-1.027	-1.328	-1.328	-1.419
									1p9_6	-1.027	-1.572	-2.089	-2.801
									1p9_7	-1.027	-1.620	-1.795	-2.104
									1p9_8	-1.027	-1.315	-1.137	-920
									1p9_9	-1.027	-1.397	-1.254	-1.138
									1p9_10	-1.027	-730	-325	-572
									1p9_11	-1.027	-1.315	-1.317	-899
HWP_{total}	-5263	-50	-505	-1049	716	-1594	-1303	1047	1p9_12	-1.027	-1.364	-1.192	-928
									1p9_13	-1.027	-1.425	-1.283	-1.378
									1p9_14	-1.027	-1.579	-1.633	-2.587
									1p9_15	-1.027	-1.631	-1.711	-2.035
									1p9_16	-1.027	-1.315	-1.122	-616
									1p9_17	-1.027	-1.353	-1.219	-1.336

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	357	-679	-1.011	-1.489
									1p9_1	357	-712	-958	-1.603
									1p9_2	357	-1.463	-2.545	-3.682
									1p9_3	357	-1.504	-2.555	-3.776
									1p9_4	357	-617	-913	-1.454
									1p9_5	357	-697	-979	-1.559
									1p9_6	357	-1.443	-2.448	-3.634
									1p9_7	357	-1.446	-2.477	-3.700
									1p9_8	357	-318	-503	-1.011
									1p9_9	357	-351	-546	-1.038
									1p9_10	357	-288	-519	-1.057
									1p9_11	357	-319	-530	-1.013
HWP $_{dom}$	-1582	-302	-152	661	497	72	-464	807	*1p9_12*	357	-668	-884	-1.490
									1p9_13	357	-710	-983	-1.575
									1p9_14	357	-1.439	-2.443	-3.579
									1p9_15	357	-1.482	-2.494	-3.757
									1p9_16	357	-313	-488	-1.000
									1p9_17	357	-346	-532	-1.052
									1p9	-1.385	-689	-190	423
									1p9_1	-1.385	-747	-385	188
									1p9_2	-1.385	-115	489	899
									1p9_3	-1.385	-196	758	1.567
									1p9_4	-1.385	-265	362	561
									1p9_5	-1.385	-631	-350	140
									1p9_6	-1.385	-129	359	833
									1p9_7	-1.385	-174	682	1.596
									1p9_8	-1.385	-997	-634	91
									1p9_9	-1.385	-1.046	-708	-100
									1p9_10	-1.385	-442	193	485
									1p9_11	-1.385	-996	-787	114
HWP $_{exp}$	-3681	252	-353	-1710	219	-1666	-839	239	*1p9_12*	-1.385	-696	-307	563
									1p9_13	-1.385	-714	-300	196
									1p9_14	-1.385	-140	809	992
									1p9_15	-1.385	-149	784	1.722
									1p9_16	-1.385	-1.002	-635	384
									1p9_17	-1.385	-1.007	-686	-284

Table ANX-FI-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Finland [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	35	-838	-976	-1.329
									1p9_1	35	-864	-892	-1.439
									1p9_2	35	-1.714	-2.621	-3.665
									1p9_3	35	-1.731	-2.619	-3.769
									1p9_4	35	-781	-849	-1.248
									1p9_5	35	-869	-937	-1.415
									1p9_6	35	-1.689	-2.494	-3.562
									1p9_7	35	-1.692	-2.556	-3.708
									1p9_8	35	-433	-427	-818
									1p9_9	35	-464	-455	-839
									1p9_10	35	-413	-405	-773
									1p9_11	35	-447	-446	-827
HWP_{total}	-2463	-1646	-621	695	199	-263	-424	1387	1p9_12	35	-832	-854	-1.348
									1p9_13	35	-871	-941	-1.419
									1p9_14	35	-1.703	-2.567	-3.599
									1p9_15	35	-1.729	-2.578	-3.764
									1p9_16	35	-431	-422	-819
									1p9_17	35	-464	-451	-849

France (FR)

Table ANX-FR-0-A: Domestic feedstock factors for the ForestNavigator scenarios for France

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,956	0,967	0,860	0,374
									1p9_1	0,956	0,963	0,860	0,374
									1p9_2	0,956	0,971	0,860	0,375
									1p9_3	0,956	0,966	0,860	0,376
									1p9_4	0,956	0,961	0,861	0,368
									1p9_5	0,956	0,953	0,861	0,365
									1p9_6	0,956	0,963	0,861	0,368
									1p9_7	0,956	0,956	0,861	0,366
									1p9_8	0,956	0,966	0,860	0,374
									1p9_9	0,956	0,962	0,859	0,373
									1p9_10	0,956	0,961	0,861	0,368
									1p9_11	0,956	0,952	0,861	0,365
f_{INDRW}	0,951	0,922	0,931	0,939	0,956	0,957	0,948	0,953	1p9_12	0,956	0,965	0,859	0,370
									1p9_13	0,956	0,961	0,858	0,369
									1p9_14	0,956	0,969	0,860	0,371
									1p9_15	0,956	0,965	0,859	0,371
									1p9_16	0,956	0,964	0,859	0,369
									1p9_17	0,956	0,960	0,858	0,368
									1p9	0,400	0,671	0,818	0,883
									1p9_1	0,400	0,668	0,815	0,880
									1p9_2	0,400	0,673	0,801	0,852
									1p9_3	0,400	0,676	0,819	0,878
									1p9_4	0,400	0,603	0,640	0,661
									1p9_5	0,400	0,488	0,522	0,539
									1p9_6	0,400	0,603	0,640	0,661
									1p9_7	0,400	0,485	0,520	0,537
									1p9_8	0,400	0,671	0,818	0,885
									1p9_9	0,400	0,661	0,813	0,880
									1p9_10	0,400	0,601	0,639	0,659
									1p9_11	0,400	0,488	0,522	0,538
f_{PULP}	0,478	0,487	0,393	0,360	0,397	0,423	0,408	0,395	1p9_12	0,400	0,655	0,778	0,812
									1p9_13	0,400	0,642	0,768	0,798
									1p9_14	0,400	0,660	0,784	0,812
									1p9_15	0,400	0,654	0,781	0,804
									1p9_16	0,400	0,651	0,775	0,808
									1p9_17	0,400	0,637	0,764	0,798

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,849	0,906	0,947	0,982
									1p9_1	0,849	0,906	0,948	0,982
									1p9_2	0,849	0,907	0,951	0,983
									1p9_3	0,849	0,908	0,950	0,984
									1p9_4	0,849	0,912	0,955	0,984
									1p9_5	0,849	0,912	0,955	0,984
									1p9_6	0,849	0,912	0,955	0,984
									1p9_7	0,849	0,912	0,955	0,984
									1p9_8	0,849	0,905	0,947	0,981
									1p9_9	0,849	0,902	0,944	0,978
									1p9_10	0,849	0,912	0,955	0,984
									1p9_11	0,849	0,912	0,955	0,984
f_{RecP}	0,779	0,774	0,741	0,807	0,849	0,822	0,819	0,819	*1p9_12*	0,849	0,902	0,948	0,976
									1p9_13	0,849	0,896	0,943	0,969
									1p9_14	0,849	0,904	0,949	0,979
									1p9_15	0,849	0,901	0,947	0,979
									1p9_16	0,849	0,901	0,947	0,975
									1p9_17	0,849	0,893	0,941	0,965

Table ANX-FR-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for France [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	2.003	-788	-2.492	-2.993
									1p9_1	2.003	-1.377	-2.668	-3.423
									1p9_2	2.003	-2.631	-5.326	-6.609
									1p9_3	2.003	-2.659	-5.403	-7.314
									1p9_4	2.003	59	-229	-1.018
									1p9_5	2.003	-906	-1.659	-2.894
									1p9_6	2.003	-896	-2.123	-4.711
									1p9_7	2.003	-2.207	-4.631	-6.721
									1p9_8	2.003	-75	-1.668	-2.087
									1p9_9	2.003	-708	-2.071	-2.497
									1p9_10	2.003	411	74	-561
									1p9_11	2.003	-274	-1.191	-1.829
HWP_{total}	-3212	-1833	1244	1169	2665	-238	771	2235	*1p9_12*	2.003	-274	-1.418	-2.038
									1p9_13	2.003	-1.298	-2.078	-3.119
									1p9_14	2.003	-2.126	-4.688	-5.932
									1p9_15	2.003	-2.606	-5.059	-6.977
									1p9_16	2.003	36	-1.067	-1.541
									1p9_17	2.003	-630	-1.563	-2.018

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	2.432	-331	-2.003	-2.665
									1p9_1	2.432	-943	-2.347	-3.182
									1p9_2	2.432	-2.136	-5.038	-6.368
									1p9_3	2.432	-2.199	-5.111	-7.045
									1p9_4	2.432	521	152	-655
									1p9_5	2.432	-569	-1.514	-2.783
									1p9_6	2.432	-444	-1.811	-4.368
									1p9_7	2.432	-1.847	-4.437	-6.547
									1p9_8	2.432	365	-1.193	-1.768
									1p9_9	2.432	-287	-1.603	-2.141
									1p9_10	2.432	847	409	-244
									1p9_11	2.432	56	-1.046	-1.730
HWP $_{dom}$	-1115	849	1450	2188	2924	285	957	2159	*1p9_12*	2.432	207	-1.159	-1.849
									1p9_13	2.432	-882	-1.861	-3.018
									1p9_14	2.432	-1.599	-4.370	-5.678
									1p9_15	2.432	-2.158	-4.800	-6.813
									1p9_16	2.432	486	-827	-1.375
									1p9_17	2.432	-226	-1.352	-1.916
									1p9	-428	-457	-489	-328
									1p9_1	-428	-434	-320	-241
									1p9_2	-428	-495	-287	-241
									1p9_3	-428	-461	-292	-268
									1p9_4	-428	-462	-381	-363
									1p9_5	-428	-338	-146	-112
									1p9_6	-428	-453	-312	-343
									1p9_7	-428	-360	-194	-174
									1p9_8	-428	-439	-475	-318
									1p9_9	-428	-421	-468	-356
									1p9_10	-428	-436	-335	-317
									1p9_11	-428	-330	-145	-99
HWP $_{exp}$	-2096	-2682	-206	-1019	-260	-523	-186	76	*1p9_12*	-428	-481	-258	-189
									1p9_13	-428	-416	-217	-102
									1p9_14	-428	-527	-318	-254
									1p9_15	-428	-448	-259	-165
									1p9_16	-428	-450	-240	-166
									1p9_17	-428	-404	-211	-102

Table ANX-FR-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for France [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	3.144	268	-975	-1.543
									1p9_1	3.144	202	-975	-1.718
									1p9_2	3.144	-1.010	-3.816	-5.461
									1p9_3	3.144	-1.076	-3.819	-5.646
									1p9_4	3.144	465	-283	-1.418
									1p9_5	3.144	216	-654	-1.765
									1p9_6	3.144	-877	-3.400	-5.331
									1p9_7	3.144	-1.066	-3.691	-5.674
									1p9_8	3.144	871	-205	-573
									1p9_9	3.144	864	-207	-644
									1p9_10	3.144	936	-64	-601
									1p9_11	3.144	860	-151	-658
HWP $_{total}$	-3862	-1715	-422	2724	3509	-117	488	2920	***1p9_12***	3.144	454	-575	-1.428
									1p9_13	3.144	201	-660	-1.789
									1p9_14	3.144	-967	-3.606	-5.330
									1p9_15	3.144	-1.076	-3.687	-5.697
									1p9_16	3.144	899	-129	-641
									1p9_17	3.144	863	-143	-645

Greece (GR)

Table ANX-GR -0-A: Domestic feedstock factors for the ForestNavigator scenarios for Greece

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,884	0,940	0,984	0,251
									1p9_1	0,884	0,912	0,984	0,246
									1p9_2	0,884	0,949	0,984	0,251
									1p9_3	0,884	0,937	0,984	0,249
									1p9_4	0,884	0,871	0,984	0,239
									1p9_5	0,884	0,802	0,984	0,240
									1p9_6	0,884	0,910	0,984	0,238
									1p9_7	0,884	0,865	0,984	0,238
									1p9_8	0,884	0,936	0,984	0,250
									1p9_9	0,884	0,908	0,984	0,248
									1p9_10	0,884	0,867	0,984	0,238
									1p9_11	0,884	0,794	0,984	0,240
f_{INDRW}	0,803	0,970	0,702	0,796	0,884	0,884	0,884	0,884	1p9_12	0,884	0,939	0,984	0,256
									1p9_13	0,884	0,912	0,984	0,248
									1p9_14	0,884	0,950	0,984	0,255
									1p9_15	0,884	0,934	0,984	0,251
									1p9_16	0,884	0,934	0,984	0,257
									1p9_17	0,884	0,897	0,984	0,248
									1p9	0,000	0,481	0,878	0,934
									1p9_1	0,000	0,373	0,921	0,918
									1p9_2	0,000	0,475	0,611	0,665
									1p9_3	0,000	0,438	0,597	0,670
									1p9_4	0,000	0,000	0,203	0,231
									1p9_5	0,000	0,046	0,284	0,326
									1p9_6	0,000	0,000	0,009	0,001
									1p9_7	0,000	0,000	0,165	0,134
									1p9_8	0,000	0,460	0,893	0,936
									1p9_9	0,000	0,409	0,897	0,928
									1p9_10	0,000	0,000	0,214	0,241
									1p9_11	0,000	0,053	0,300	0,344
f_{PULP}	0,035	0,000	0,000	0,000	0,000	0,000	0,000	0,000	1p9_12	0,000	0,563	0,910	0,898
									1p9_13	0,000	0,416	0,896	0,879
									1p9_14	0,000	0,546	0,765	0,777
									1p9_15	0,000	0,471	0,847	0,858
									1p9_16	0,000	0,568	0,896	0,886
									1p9_17	0,000	0,417	0,895	0,881

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,982	0,989	0,990	0,990
									1p9_1	0,982	0,989	0,990	0,990
									1p9_2	0,982	0,989	0,990	0,990
									1p9_3	0,982	0,989	0,990	0,990
									1p9_4	0,982	0,989	0,990	0,990
									1p9_5	0,982	0,989	0,990	0,990
									1p9_6	0,982	0,989	0,990	0,990
									1p9_7	0,982	0,989	0,990	0,990
									1p9_8	0,982	0,989	0,990	0,990
									1p9_9	0,982	0,989	0,990	0,990
									1p9_10	0,982	0,989	0,990	0,990
									1p9_11	0,982	0,989	0,990	0,990
f_{RecP}	0,000	0,954	0,000	0,000	0,189	0,000	0,000	0,000	*1p9_12*	0,982	0,989	0,990	0,990
									1p9_13	0,982	0,989	0,990	0,990
									1p9_14	0,982	0,989	0,990	0,990
									1p9_15	0,982	0,989	0,990	0,990
									1p9_16	0,982	0,989	0,990	0,990
									1p9_17	0,982	0,989	0,990	0,990

Table ANX-GR-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Greece [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	6	-214	-239	-200
									1p9_1	6	-191	-286	-168
									1p9_2	6	-368	-475	-587
									1p9_3	6	-369	-543	-554
									1p9_4	6	-91	-159	-216
									1p9_5	6	-98	-174	-238
									1p9_6	6	-299	-485	-628
									1p9_7	6	-282	-479	-674
									1p9_8	6	-162	-211	-169
									1p9_9	6	-124	-220	-119
									1p9_10	6	-41	-124	-198
									1p9_11	6	-54	-137	-234
HWP_{total}	282	-310	-134	225	156	163	159	155	*1p9_12*	6	-210	-228	-222
									1p9_13	6	-188	-154	-173
									1p9_14	6	-377	-483	-604
									1p9_15	6	-369	-506	-667
									1p9_16	6	-160	-193	-194
									1p9_17	6	-124	-128	-151

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	61	-206	-242	-212
									1p9_1	61	-185	-288	-187
									1p9_2	61	-359	-481	-599
									1p9_3	61	-362	-548	-572
									1p9_4	61	-89	-167	-230
									1p9_5	61	-100	-183	-251
									1p9_6	61	-294	-492	-640
									1p9_7	61	-279	-487	-686
									1p9_8	61	-155	-215	-182
									1p9_9	61	-119	-223	-138
									1p9_10	61	-38	-132	-212
									1p9_11	61	-56	-147	-246
HWP $_{dom}$	284	-208	-85	277	160	162	158	154	*1p9_12*	61	-202	-232	-236
									1p9_13	61	-182	-165	-192
									1p9_14	61	-368	-487	-618
									1p9_15	61	-361	-512	-681
									1p9_16	61	-152	-197	-209
									1p9_17	61	-119	-138	-169
									1p9	-54	-8	4	12
									1p9_1	-54	-6	3	19
									1p9_2	-54	-8	6	12
									1p9_3	-54	-8	6	18
									1p9_4	-54	-3	8	13
									1p9_5	-54	2	9	13
									1p9_6	-54	-5	7	12
									1p9_7	-54	-2	8	12
									1p9_8	-54	-7	3	13
									1p9_9	-54	-6	3	20
									1p9_10	-54	-2	8	13
									1p9_11	-54	2	10	12
HWP $_{exp}$	-3	-102	-48	-53	-3	1	1	1	*1p9_12*	-54	-8	4	14
									1p9_13	-54	-6	11	19
									1p9_14	-54	-9	4	14
									1p9_15	-54	-8	6	14
									1p9_16	-54	-8	4	15
									1p9_17	-54	-5	10	18

Table ANX-GR-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Greece [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	304	179	158	206
									1p9_1	304	180	141	187
									1p9_2	304	11	-140	-235
									1p9_3	304	9	-153	-256
									1p9_4	304	185	161	197
									1p9_5	304	182	157	175
									1p9_6	304	19	-148	-250
									1p9_7	304	14	-147	-259
									1p9_8	304	228	194	225
									1p9_9	304	227	190	213
									1p9_10	304	240	199	208
									1p9_11	304	232	193	190
HWP $_{total}$	-800	-877	-291	520	255	248	240	250	***1p9_12***	304	179	162	193
									1p9_13	304	179	159	179
									1p9_14	304	9	-140	-236
									1p9_15	304	9	-152	-259
									1p9_16	304	228	197	206
									1p9_17	304	227	195	203

Croatia (HR)

Table ANX-HR-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Croatia

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,958	0,966	0,000	0,147
									1p9_1	0,958	0,966	0,000	0,152
									1p9_2	0,958	0,966	0,000	0,146
									1p9_3	0,958	0,967	0,000	0,153
									1p9_4	0,958	0,958	0,000	0,052
									1p9_5	0,958	0,955	0,000	0,054
									1p9_6	0,958	0,959	0,000	0,052
									1p9_7	0,958	0,958	0,000	0,055
									1p9_8	0,958	0,965	0,000	0,146
									1p9_9	0,958	0,966	0,000	0,151
									1p9_10	0,958	0,957	0,000	0,052
									1p9_11	0,958	0,954	0,000	0,053
f_{INDRW}	0,000	0,939	0,998	0,984	0,958	0,942	0,896	0,888	1p9_12	0,958	0,965	0,000	0,136
									1p9_13	0,958	0,965	0,000	0,145
									1p9_14	0,958	0,966	0,000	0,136
									1p9_15	0,958	0,966	0,000	0,147
									1p9_16	0,958	0,965	0,000	0,136
									1p9_17	0,958	0,965	0,000	0,143
									1p9	0,729	1,000	1,000	1,000
									1p9_1	0,729	1,000	1,000	1,000
									1p9_2	0,729	1,000	1,000	1,000
									1p9_3	0,729	1,000	1,000	1,000
									1p9_4	0,729	1,000	1,000	1,000
									1p9_5	0,729	1,000	1,000	1,000
									1p9_6	0,729	1,000	1,000	1,000
									1p9_7	0,729	1,000	1,000	1,000
									1p9_8	0,729	1,000	1,000	1,000
									1p9_9	0,729	1,000	1,000	1,000
									1p9_10	0,729	1,000	1,000	1,000
									1p9_11	0,729	1,000	1,000	1,000
f_{PULP}	0,408	0,982	0,993	0,723	0,729	0,000	0,565	0,000	1p9_12	0,729	1,000	1,000	1,000
									1p9_13	0,729	1,000	1,000	1,000
									1p9_14	0,729	1,000	1,000	1,000
									1p9_15	0,729	1,000	1,000	1,000
									1p9_16	0,729	1,000	1,000	1,000
									1p9_17	0,729	1,000	1,000	1,000

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,000	0,000	0,000	0,000
									1p9_1	0,000	0,000	0,000	0,000
									1p9_2	0,000	0,000	0,000	0,000
									1p9_3	0,000	0,000	0,000	0,000
									1p9_4	0,000	0,000	0,000	0,325
									1p9_5	0,000	0,000	0,000	0,327
									1p9_6	0,000	0,000	0,000	0,325
									1p9_7	0,000	0,000	0,000	0,326
									1p9_8	0,000	0,000	0,000	0,000
									1p9_9	0,000	0,000	0,000	0,000
									1p9_10	0,000	0,000	0,000	0,325
									1p9_11	0,000	0,000	0,000	0,327
f_{RecP}	1,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	1p9_12	0,000	0,000	0,000	0,146
									1p9_13	0,000	0,000	0,000	0,110
									1p9_14	0,000	0,000	0,000	0,156
									1p9_15	0,000	0,000	0,000	0,054
									1p9_16	0,000	0,000	0,000	0,153
									1p9_17	0,000	0,000	0,000	0,143

Table ANX-HR-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Croatia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-548	-659	-535	-479
									1p9_1	-548	-664	-543	-493
									1p9_2	-548	-785	-888	-971
									1p9_3	-548	-798	-807	-814
									1p9_4	-548	-568	-424	-419
									1p9_5	-548	-560	-463	-543
									1p9_6	-548	-684	-638	-845
									1p9_7	-548	-694	-650	-816
									1p9_8	-548	-627	-529	-459
									1p9_9	-548	-630	-513	-470
									1p9_10	-548	-523	-376	-396
									1p9_11	-548	-514	-427	-522
HWP_{total}	-17	-65	-207	-710	-589	-595	-503	-259	1p9_12	-548	-661	-496	-429
									1p9_13	-548	-654	-491	-434
									1p9_14	-548	-773	-676	-731
									1p9_15	-548	-785	-672	-690
									1p9_16	-548	-616	-466	-453
									1p9_17	-548	-620	-463	-426

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	24	-196	-170	-171
									1p9_1	24	-200	-169	-166
									1p9_2	24	-342	-462	-586
									1p9_3	24	-345	-453	-579
									1p9_4	24	-153	-149	-206
									1p9_5	24	-155	-150	-205
									1p9_6	24	-295	-422	-631
									1p9_7	24	-301	-425	-628
									1p9_8	24	-132	-118	-134
									1p9_9	24	-137	-116	-130
									1p9_10	24	-90	-88	-171
									1p9_11	24	-81	-81	-165
HWP $_{dom}$	206	-7	66	15	62	272	244	177	*1p9_12*	24	-194	-155	-163
									1p9_13	24	-196	-165	-151
									1p9_14	24	-336	-444	-586
									1p9_15	24	-342	-443	-570
									1p9_16	24	-128	-103	-130
									1p9_17	24	-134	-101	-119
									1p9	-572	-463	-366	-308
									1p9_1	-572	-464	-374	-327
									1p9_2	-572	-443	-426	-385
									1p9_3	-572	-452	-355	-236
									1p9_4	-572	-415	-275	-213
									1p9_5	-572	-405	-313	-338
									1p9_6	-572	-389	-216	-214
									1p9_7	-572	-393	-226	-189
									1p9_8	-572	-494	-411	-325
									1p9_9	-572	-492	-397	-340
									1p9_10	-572	-433	-288	-225
									1p9_11	-572	-433	-346	-357
HWP $_{exp}$	-223	-59	-273	-724	-651	-868	-747	-436	*1p9_12*	-572	-467	-341	-266
									1p9_13	-572	-457	-326	-284
									1p9_14	-572	-437	-233	-145
									1p9_15	-572	-442	-229	-119
									1p9_16	-572	-488	-363	-324
									1p9_17	-572	-486	-362	-307

Table ANX-HR-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Croatia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-284	-369	-294	-248
									1p9_1	-284	-371	-294	-248
									1p9_2	-284	-538	-628	-707
									1p9_3	-284	-538	-624	-725
									1p9_4	-284	-368	-297	-250
									1p9_5	-284	-373	-302	-255
									1p9_6	-284	-530	-610	-725
									1p9_7	-284	-539	-615	-734
									1p9_8	-284	-296	-233	-205
									1p9_9	-284	-298	-232	-203
									1p9_10	-284	-296	-227	-209
									1p9_11	-284	-301	-229	-213
HWP_{total}	-54	-572	-96	-323	-344	-123	41	-407	1p9_12	-284	-368	-284	-253
									1p9_13	-284	-370	-301	-252
									1p9_14	-284	-535	-613	-723
									1p9_15	-284	-538	-617	-734
									1p9_16	-284	-296	-228	-207
									1p9_17	-284	-298	-228	-209

Hungary (HU)

Table ANX-HU-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Hungary

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,869	0,946	0,397	0,231
									1p9_1	0,869	0,949	0,397	0,230
									1p9_2	0,869	0,948	0,397	0,231
									1p9_3	0,869	0,949	0,397	0,232
									1p9_4	0,869	0,930	0,402	0,225
									1p9_5	0,869	0,929	0,402	0,222
									1p9_6	0,869	0,935	0,402	0,223
									1p9_7	0,869	0,935	0,402	0,223
									1p9_8	0,869	0,946	0,397	0,230
									1p9_9	0,869	0,948	0,398	0,230
									1p9_10	0,869	0,927	0,402	0,224
									1p9_11	0,869	0,924	0,401	0,222
f_{INDRW}	0,923	0,884	0,878	0,894	0,869	0,899	0,869	0,869	1p9_12	0,869	0,944	0,398	0,229
									1p9_13	0,869	0,945	0,397	0,231
									1p9_14	0,869	0,947	0,397	0,231
									1p9_15	0,869	0,947	0,397	0,231
									1p9_16	0,869	0,943	0,398	0,229
									1p9_17	0,869	0,945	0,396	0,231
									1p9	0,244	0,653	0,748	0,814
									1p9_1	0,244	0,651	0,757	0,827
									1p9_2	0,244	0,655	0,753	0,804
									1p9_3	0,244	0,658	0,710	0,789
									1p9_4	0,244	0,565	0,614	0,639
									1p9_5	0,244	0,501	0,589	0,618
									1p9_6	0,244	0,518	0,557	0,544
									1p9_7	0,244	0,510	0,588	0,609
									1p9_8	0,244	0,651	0,737	0,806
									1p9_9	0,244	0,647	0,735	0,807
									1p9_10	0,244	0,546	0,600	0,623
									1p9_11	0,244	0,499	0,581	0,602
f_{PULP}	0,000	0,000	0,000	0,062	0,244	0,314	0,244	0,244	1p9_12	0,244	0,644	0,779	0,850
									1p9_13	0,244	0,655	0,779	0,830
									1p9_14	0,244	0,652	0,779	0,845
									1p9_15	0,244	0,653	0,777	0,837
									1p9_16	0,244	0,640	0,774	0,821
									1p9_17	0,244	0,655	0,778	0,828

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,376	0,481	0,540	0,607
									1p9_1	0,376	0,483	0,555	0,616
									1p9_2	0,376	0,480	0,560	0,619
									1p9_3	0,376	0,479	0,558	0,618
									1p9_4	0,376	0,506	0,572	0,626
									1p9_5	0,376	0,503	0,569	0,622
									1p9_6	0,376	0,505	0,571	0,624
									1p9_7	0,376	0,505	0,571	0,624
									1p9_8	0,376	0,483	0,542	0,606
									1p9_9	0,376	0,485	0,549	0,612
									1p9_10	0,376	0,506	0,572	0,625
									1p9_11	0,376	0,501	0,567	0,620
f_{RecP}	0,743	0,944	0,596	0,439	0,376	0,336	0,343	0,422	1p9_12	0,376	0,484	0,549	0,605
									1p9_13	0,376	0,478	0,550	0,611
									1p9_14	0,376	0,481	0,550	0,605
									1p9_15	0,376	0,481	0,553	0,615
									1p9_16	0,376	0,485	0,553	0,616
									1p9_17	0,376	0,478	0,551	0,611

Table ANX-HU-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Hungary [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-349	-953	-916	-932
									1p9_1	-349	-915	-816	-826
									1p9_2	-349	-1.236	-1.227	-1.362
									1p9_3	-349	-1.183	-1.191	-1.466
									1p9_4	-349	-833	-702	-692
									1p9_5	-349	-839	-732	-714
									1p9_6	-349	-1.135	-1.202	-1.396
									1p9_7	-349	-1.133	-1.235	-1.475
									1p9_8	-349	-817	-843	-872
									1p9_9	-349	-819	-763	-771
									1p9_10	-349	-716	-619	-615
									1p9_11	-349	-737	-648	-623
HWP_{total}	198	128	119	-274	-418	-591	-402	-453	1p9_12	-349	-946	-825	-833
									1p9_13	-349	-934	-842	-847
									1p9_14	-349	-1.227	-1.286	-1.461
									1p9_15	-349	-1.193	-1.344	-1.551
									1p9_16	-349	-813	-733	-745
									1p9_17	-349	-814	-753	-742

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	256	-229	-316	-343
									1p9_1	256	-208	-292	-367
									1p9_2	256	-526	-792	-1.015
									1p9_3	256	-526	-778	-1.101
									1p9_4	256	-204	-250	-297
									1p9_5	256	-204	-254	-333
									1p9_6	256	-501	-727	-980
									1p9_7	256	-504	-780	-1.076
									1p9_8	256	-96	-206	-263
									1p9_9	256	-97	-194	-263
									1p9_10	256	-83	-164	-211
									1p9_11	256	-83	-173	-237
HWP $_{dom}$	470	494	541	95	319	-7	265	245	*1p9_12*	256	-220	-269	-317
									1p9_13	256	-222	-283	-369
									1p9_14	256	-516	-752	-1.009
									1p9_15	256	-528	-830	-1.126
									1p9_16	256	-93	-182	-230
									1p9_17	256	-95	-190	-257
									1p9	-604	-724	-599	-589
									1p9_1	-604	-708	-525	-459
									1p9_2	-604	-709	-435	-348
									1p9_3	-604	-657	-413	-365
									1p9_4	-604	-629	-452	-396
									1p9_5	-604	-635	-477	-381
									1p9_6	-604	-635	-475	-417
									1p9_7	-604	-629	-455	-399
									1p9_8	-604	-721	-637	-610
									1p9_9	-604	-722	-569	-508
									1p9_10	-604	-633	-456	-404
									1p9_11	-604	-654	-475	-387
HWP $_{exp}$	-273	-365	-422	-369	-737	-585	-666	-698	*1p9_12*	-604	-726	-556	-516
									1p9_13	-604	-712	-559	-479
									1p9_14	-604	-711	-534	-452
									1p9_15	-604	-665	-514	-425
									1p9_16	-604	-720	-551	-515
									1p9_17	-604	-719	-563	-485

Table ANX-HU-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Hungary [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-11	-369	-346	-311
									1p9_1	-11	-345	-327	-340
									1p9_2	-11	-680	-903	-1.132
									1p9_3	-11	-679	-890	-1.153
									1p9_4	-11	-357	-305	-319
									1p9_5	-11	-358	-290	-321
									1p9_6	-11	-672	-862	-1.128
									1p9_7	-11	-676	-859	-1.113
									1p9_8	-11	-228	-212	-213
									1p9_9	-11	-228	-211	-216
									1p9_10	-11	-229	-208	-215
									1p9_11	-11	-230	-204	-215
HWP $_{total}$	-171	-169	525	-261	-181	-614	-340	-364	***1p9_12***	-11	-358	-308	-323
									1p9_13	-11	-359	-306	-340
									1p9_14	-11	-673	-869	-1.129
									1p9_15	-11	-680	-880	-1.136
									1p9_16	-11	-226	-208	-214
									1p9_17	-11	-227	-206	-217

Ireland (IE)

Table ANX-IE-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Ireland

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,921	0,884	0,182	0,898
									1p9_1	0,921	0,864	0,182	0,886
									1p9_2	0,921	0,908	0,182	0,907
									1p9_3	0,921	0,889	0,183	0,883
									1p9_4	0,921	0,874	0,148	0,937
									1p9_5	0,921	0,843	0,148	0,937
									1p9_6	0,921	0,876	0,148	0,937
									1p9_7	0,921	0,873	0,148	0,937
									1p9_8	0,921	0,883	0,182	0,893
									1p9_9	0,921	0,860	0,182	0,888
									1p9_10	0,921	0,874	0,148	0,937
									1p9_11	0,921	0,838	0,148	0,937
f_{INDRW}	0,981	0,973	0,947	0,894	0,921	0,914	0,946	0,946	1p9_12	0,921	0,877	0,180	0,892
									1p9_13	0,921	0,860	0,181	0,888
									1p9_14	0,921	0,889	0,180	0,891
									1p9_15	0,921	0,885	0,183	0,884
									1p9_16	0,921	0,876	0,180	0,892
									1p9_17	0,921	0,857	0,181	0,889
									1p9	0,000	0,605	0,843	0,899
									1p9_1	0,000	0,494	0,802	0,855
									1p9_2	0,000	0,665	0,832	0,869
									1p9_3	0,000	0,506	0,790	0,844
									1p9_4	0,000	0,071	0,174	0,200
									1p9_5	0,000	0,000	0,000	0,000
									1p9_6	0,000	0,000	0,000	0,000
									1p9_7	0,000	0,000	0,000	0,000
									1p9_8	0,000	0,576	0,852	0,907
									1p9_9	0,000	0,537	0,821	0,876
									1p9_10	0,000	0,056	0,176	0,179
									1p9_11	0,000	0,000	0,000	0,000
f_{PULP}	0,000	0,000	0,010	0,000	0,000	0,000	0,000	0,000	1p9_12	0,000	0,162	0,585	0,595
									1p9_13	0,000	0,356	0,462	0,503
									1p9_14	0,000	0,306	0,736	0,728
									1p9_15	0,000	0,286	0,384	0,420
									1p9_16	0,000	0,161	0,565	0,576
									1p9_17	0,000	0,420	0,462	0,515

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,000	0,910	0,910	0,960
									1p9_1	0,000	0,911	0,911	0,965
									1p9_2	0,000	0,908	0,908	0,960
									1p9_3	0,000	0,916	0,923	0,967
									1p9_4	0,000	0,738	0,945	0,970
									1p9_5	0,000	0,738	0,945	0,970
									1p9_6	0,000	0,738	0,945	0,970
									1p9_7	0,000	0,738	0,944	0,969
									1p9_8	0,000	0,912	0,912	0,962
									1p9_9	0,000	0,908	0,908	0,964
									1p9_10	0,000	0,738	0,945	0,970
									1p9_11	0,000	0,738	0,945	0,970
f_{RecP}	0,000	0,627	0,000	0,000	0,000	0,000	0,000	0,000	1p9_12	0,000	0,899	0,959	0,975
									1p9_13	0,000	0,907	0,960	0,975
									1p9_14	0,000	0,901	0,959	0,974
									1p9_15	0,000	0,913	0,961	0,975
									1p9_16	0,000	0,899	0,959	0,975
									1p9_17	0,000	0,906	0,960	0,975

Table ANX-IE-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Ireland [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-477	-371	-596	-535
									1p9_1	-477	-409	-476	-463
									1p9_2	-477	-729	-1.057	-1.248
									1p9_3	-477	-682	-1.021	-1.229
									1p9_4	-477	-357	-336	-342
									1p9_5	-477	-355	-282	-322
									1p9_6	-477	-463	-664	-1.010
									1p9_7	-477	-632	-829	-1.103
									1p9_8	-477	-368	-554	-470
									1p9_9	-477	-342	-359	-340
									1p9_10	-477	-332	-285	-280
									1p9_11	-477	-289	-247	-246
HWP_{total}	-839	-864	-517	-469	-556	-532	-572	-559	1p9_12	-477	-390	-345	-375
									1p9_13	-477	-400	-345	-376
									1p9_14	-477	-574	-872	-1.138
									1p9_15	-477	-671	-875	-1.127
									1p9_16	-477	-348	-305	-297
									1p9_17	-477	-337	-270	-271

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0	-108	-288	-370
									1p9_1	0	-163	-314	-403
									1p9_2	0	-443	-900	-1.200
									1p9_3	0	-428	-875	-1.193
									1p9_4	0	-97	-171	-269
									1p9_5	0	-137	-185	-309
									1p9_6	0	-226	-554	-980
									1p9_7	0	-398	-738	-1.094
									1p9_8	0	-77	-171	-229
									1p9_9	0	-74	-165	-227
									1p9_10	0	-58	-123	-186
									1p9_11	0	-48	-111	-173
HWP $_{dom}$	-473	-170	188	136	3	62	10	12	*1p9_12*	0	-111	-186	-290
									1p9_13	0	-162	-233	-350
									1p9_14	0	-312	-739	-1.101
									1p9_15	0	-422	-771	-1.115
									1p9_16	0	-68	-137	-198
									1p9_17	0	-72	-124	-188
									1p9	-477	-263	-308	-165
									1p9_1	-477	-246	-162	-60
									1p9_2	-477	-286	-157	-48
									1p9_3	-477	-254	-146	-36
									1p9_4	-477	-260	-165	-72
									1p9_5	-477	-218	-97	-13
									1p9_6	-477	-237	-110	-31
									1p9_7	-477	-234	-91	-10
									1p9_8	-477	-291	-384	-240
									1p9_9	-477	-268	-194	-114
									1p9_10	-477	-274	-162	-95
									1p9_11	-477	-241	-136	-73
HWP $_{exp}$	-366	-694	-705	-605	-559	-595	-582	-570	*1p9_12*	-477	-279	-159	-85
									1p9_13	-477	-238	-112	-26
									1p9_14	-477	-262	-133	-37
									1p9_15	-477	-249	-104	-12
									1p9_16	-477	-280	-168	-99
									1p9_17	-477	-265	-146	-83

Table ANX-IE-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Ireland [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	342	126	-9	-89
									1p9_1	342	132	-4	-100
									1p9_2	342	-156	-626	-968
									1p9_3	342	-160	-607	-968
									1p9_4	342	127	47	-102
									1p9_5	342	121	27	-106
									1p9_6	342	-157	-582	-942
									1p9_7	342	-160	-580	-969
									1p9_8	342	248	183	128
									1p9_9	342	251	184	138
									1p9_10	342	243	172	117
									1p9_11	342	251	182	134
HWP $_{total}$	-788	-800	429	169	-86	6	-184	-142	***1p9_12***	342	132	40	-99
									1p9_13	342	121	27	-107
									1p9_14	342	-154	-571	-937
									1p9_15	342	-160	-582	-969
									1p9_16	342	249	180	124
									1p9_17	342	251	182	134

Italy (IT)

Table ANX-IT-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Italy

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,629	0,766	0,937	0,469
									1p9_1	0,629	0,751	0,937	0,470
									1p9_2	0,629	0,797	0,937	0,469
									1p9_3	0,629	0,791	0,937	0,470
									1p9_4	0,629	0,642	0,937	0,468
									1p9_5	0,629	0,237	0,937	0,468
									1p9_6	0,629	0,721	0,937	0,468
									1p9_7	0,629	0,639	0,937	0,468
									1p9_8	0,629	0,757	0,937	0,469
									1p9_9	0,629	0,740	0,937	0,470
									1p9_10	0,629	0,584	0,937	0,468
									1p9_11	0,629	0,150	0,937	0,468
f_{INDRW}	0,421	0,475	0,448	0,432	0,629	0,577	0,591	0,611	*1p9_12*	0,629	0,696	0,937	0,468
									1p9_13	0,629	0,673	0,937	0,469
									1p9_14	0,629	0,760	0,937	0,468
									1p9_15	0,629	0,737	0,937	0,469
									1p9_16	0,629	0,650	0,937	0,468
									1p9_17	0,629	0,639	0,937	0,470
									1p9	0,043	0,202	0,328	0,349
									1p9_1	0,043	0,362	0,434	0,461
									1p9_2	0,043	0,185	0,197	0,211
									1p9_3	0,043	0,276	0,298	0,318
									1p9_4	0,043	0,096	0,106	0,115
									1p9_5	0,043	0,050	0,059	0,067
									1p9_6	0,043	0,064	0,072	0,080
									1p9_7	0,043	0,050	0,059	0,066
									1p9_8	0,043	0,236	0,378	0,400
									1p9_9	0,043	0,353	0,454	0,482
									1p9_10	0,043	0,096	0,106	0,115
									1p9_11	0,043	0,085	0,095	0,104
f_{PULP}	0,114	0,113	0,097	0,091	0,043	0,030	0,000	0,000	*1p9_12*	0,043	0,091	0,189	0,204
									1p9_13	0,043	0,216	0,288	0,308
									1p9_14	0,043	0,100	0,118	0,128
									1p9_15	0,043	0,159	0,244	0,262
									1p9_16	0,043	0,089	0,207	0,223
									1p9_17	0,043	0,227	0,302	0,324

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,932	0,959	0,970	0,975
									1p9_1	0,932	0,959	0,970	0,974
									1p9_2	0,932	0,959	0,967	0,972
									1p9_3	0,932	0,959	0,966	0,971
									1p9_4	0,932	0,959	0,969	0,975
									1p9_5	0,932	0,959	0,969	0,975
									1p9_6	0,932	0,958	0,969	0,975
									1p9_7	0,932	0,958	0,969	0,975
									1p9_8	0,932	0,959	0,970	0,975
									1p9_9	0,932	0,959	0,970	0,974
									1p9_10	0,932	0,959	0,969	0,975
									1p9_11	0,932	0,959	0,969	0,975
f_{RecP}	0,867	0,914	0,878	0,934	0,932	0,928	0,930	0,913	*1p9_12*	0,932	0,959	0,968	0,973
									1p9_13	0,932	0,959	0,968	0,973
									1p9_14	0,932	0,959	0,967	0,973
									1p9_15	0,932	0,959	0,968	0,973
									1p9_16	0,932	0,959	0,968	0,973
									1p9_17	0,932	0,959	0,967	0,972

Table ANX-IT-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Italy [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-651	-3.814	-4.048	-4.553
									1p9_1	-651	-3.852	-4.415	-5.061
									1p9_2	-651	-5.238	-5.245	-6.497
									1p9_3	-651	-5.395	-6.120	-7.750
									1p9_4	-651	-2.594	-3.614	-5.254
									1p9_5	-651	42	-3.975	-6.360
									1p9_6	-651	-4.250	-6.327	-8.825
									1p9_7	-651	-3.763	-6.602	-10.376
									1p9_8	-651	-3.134	-3.576	-3.978
									1p9_9	-651	-3.204	-3.918	-4.305
									1p9_10	-651	-1.740	-3.026	-4.303
									1p9_11	-651	741	-3.360	-5.283
HWP_{total}	-2269	-887	319	-54	-244	-1354	-139	486	*1p9_12*	-651	-3.155	-4.473	-5.293
									1p9_13	-651	-3.194	-4.656	-6.226
									1p9_14	-651	-4.785	-6.853	-8.238
									1p9_15	-651	-4.771	-7.257	-9.853
									1p9_16	-651	-2.284	-3.937	-4.539
									1p9_17	-651	-2.417	-3.970	-5.117

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-143	-3.112	-3.580	-4.145
									1p9_1	-143	-3.112	-3.913	-4.634
									1p9_2	-143	-4.502	-4.840	-6.119
									1p9_3	-143	-4.633	-5.667	-7.357
									1p9_4	-143	-2.079	-3.163	-4.748
									1p9_5	-143	50	-3.528	-5.770
									1p9_6	-143	-3.650	-5.842	-8.328
									1p9_7	-143	-3.270	-6.140	-9.834
									1p9_8	-143	-2.432	-3.098	-3.575
									1p9_9	-143	-2.483	-3.404	-3.873
									1p9_10	-143	-1.296	-2.582	-3.803
									1p9_11	-143	644	-2.894	-4.683
HWP $_{dom}$	-1505	-465	524	398	254	-91	289	353	*1p9_12*	-143	-2.578	-3.931	-4.802
									1p9_13	-143	-2.610	-4.139	-5.706
									1p9_14	-143	-4.124	-6.336	-7.783
									1p9_15	-143	-4.123	-6.722	-9.380
									1p9_16	-143	-1.764	-3.382	-4.041
									1p9_17	-143	-1.874	-3.443	-4.596
									1p9	-508	-702	-469	-408
									1p9_1	-508	-740	-502	-426
									1p9_2	-508	-735	-405	-378
									1p9_3	-508	-762	-453	-393
									1p9_4	-508	-515	-451	-506
									1p9_5	-508	-7	-447	-591
									1p9_6	-508	-600	-485	-497
									1p9_7	-508	-492	-462	-542
									1p9_8	-508	-702	-478	-403
									1p9_9	-508	-720	-514	-431
									1p9_10	-508	-443	-444	-500
									1p9_11	-508	96	-466	-600
HWP $_{exp}$	-764	-422	-205	-453	-498	-1262	-428	133	*1p9_12*	-508	-578	-542	-491
									1p9_13	-508	-584	-516	-520
									1p9_14	-508	-661	-518	-455
									1p9_15	-508	-648	-535	-473
									1p9_16	-508	-520	-555	-498
									1p9_17	-508	-543	-527	-521

Table ANX-IT-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Italy [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	2.250	-114	-520	-1.212
									1p9_1	2.250	-36	-575	-1.397
									1p9_2	2.250	-1.705	-3.306	-5.724
									1p9_3	2.250	-1.715	-3.314	-5.795
									1p9_4	2.250	-110	-423	-1.266
									1p9_5	2.250	-33	-559	-1.398
									1p9_6	2.250	-1.622	-3.238	-5.687
									1p9_7	2.250	-1.686	-3.304	-5.775
									1p9_8	2.250	729	256	-192
									1p9_9	2.250	714	259	-201
									1p9_10	2.250	744	312	-204
									1p9_11	2.250	719	290	-225
HWP_{total}	-5775	-3506	-66	1482	3660	1807	-433	1524	1p9_12	2.250	-111	-436	-1.202
									1p9_13	2.250	-139	-541	-1.375
									1p9_14	2.250	-1.695	-3.221	-5.689
									1p9_15	2.250	-1.711	-3.289	-5.772
									1p9_16	2.250	736	308	-217
									1p9_17	2.250	717	291	-225

Lithuania (LT)

Table ANX-LT-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Lithuania

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,909	0,952	0,543	0,262
									1p9_1	0,909	0,942	0,551	0,245
									1p9_2	0,909	0,956	0,549	0,249
									1p9_3	0,909	0,952	0,553	0,242
									1p9_4	0,909	0,942	0,554	0,240
									1p9_5	0,909	0,936	0,557	0,234
									1p9_6	0,909	0,950	0,554	0,240
									1p9_7	0,909	0,948	0,557	0,234
									1p9_8	0,909	0,946	0,546	0,257
									1p9_9	0,909	0,942	0,551	0,245
									1p9_10	0,909	0,941	0,554	0,240
									1p9_11	0,909	0,936	0,557	0,234
f_{INDRW}	0,000	0,995	0,932	0,886	0,909	0,921	0,935	0,917	1p9_12	0,909	0,948	0,533	0,278
									1p9_13	0,909	0,943	0,547	0,254
									1p9_14	0,909	0,954	0,535	0,275
									1p9_15	0,909	0,951	0,555	0,238
									1p9_16	0,909	0,947	0,535	0,275
									1p9_17	0,909	0,943	0,547	0,254
									1p9	0,000	0,208	0,585	0,747
									1p9_1	0,000	0,000	0,485	0,709
									1p9_2	0,000	0,008	0,463	0,675
									1p9_3	0,000	0,000	0,220	0,568
									1p9_4	0,000	0,000	0,000	0,000
									1p9_5	0,000	0,000	0,000	0,000
									1p9_6	0,000	0,000	0,000	0,000
									1p9_7	0,000	0,000	0,000	0,000
									1p9_8	0,000	0,138	0,559	0,737
									1p9_9	0,000	0,000	0,494	0,711
									1p9_10	0,000	0,000	0,000	0,000
									1p9_11	0,000	0,000	0,000	0,000
f_{PULP}	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	1p9_12	0,000	0,380	0,636	0,769
									1p9_13	0,000	0,092	0,545	0,726
									1p9_14	0,000	0,359	0,627	0,641
									1p9_15	0,000	0,000	0,437	0,450
									1p9_16	0,000	0,352	0,627	0,765
									1p9_17	0,000	0,092	0,545	0,721

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,522	0,625	0,665	0,696
									1p9_1	0,522	0,670	0,707	0,735
									1p9_2	0,522	0,660	0,706	0,743
									1p9_3	0,522	0,678	0,747	0,783
									1p9_4	0,522	0,682	0,738	0,789
									1p9_5	0,522	0,696	0,748	0,795
									1p9_6	0,522	0,682	0,736	0,788
									1p9_7	0,522	0,696	0,746	0,793
									1p9_8	0,522	0,640	0,678	0,708
									1p9_9	0,522	0,670	0,704	0,732
									1p9_10	0,522	0,682	0,735	0,786
									1p9_11	0,522	0,696	0,748	0,795
f_{RecP}	0,505	0,508	0,399	0,495	0,522	0,614	0,630	0,612	*1p9_12*	0,522	0,577	0,622	0,657
									1p9_13	0,522	0,648	0,685	0,714
									1p9_14	0,522	0,587	0,630	0,734
									1p9_15	0,522	0,687	0,720	0,787
									1p9_16	0,522	0,587	0,630	0,665
									1p9_17	0,522	0,648	0,685	0,719

Table ANX-LT-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Lithuania [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-421	-1.074	-1.220	-1.221
									1p9_1	-421	-672	-1.057	-1.112
									1p9_2	-421	-1.491	-1.474	-1.723
									1p9_3	-421	-1.286	-1.451	-1.720
									1p9_4	-421	-874	-726	-778
									1p9_5	-421	-642	-594	-646
									1p9_6	-421	-1.355	-1.477	-1.849
									1p9_7	-421	-1.239	-1.303	-1.788
									1p9_8	-421	-878	-1.211	-1.207
									1p9_9	-421	-643	-1.113	-1.141
									1p9_10	-421	-797	-681	-737
									1p9_11	-421	-616	-583	-642
HWP_{total}	-521	-665	-739	-735	-539	-1053	-1280	-981	*1p9_12*	-421	-951	-1.103	-1.110
									1p9_13	-421	-705	-736	-885
									1p9_14	-421	-1.418	-1.527	-1.816
									1p9_15	-421	-1.263	-1.325	-1.726
									1p9_16	-421	-905	-1.017	-1.051
									1p9_17	-421	-646	-688	-852

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-165	-333	-287	-399
									1p9_1	-165	-328	-348	-456
									1p9_2	-165	-571	-658	-1.048
									1p9_3	-165	-558	-662	-1.064
									1p9_4	-165	-349	-286	-360
									1p9_5	-165	-319	-283	-366
									1p9_6	-165	-584	-663	-1.030
									1p9_7	-165	-559	-639	-1.045
									1p9_8	-165	-341	-357	-442
									1p9_9	-165	-326	-367	-447
									1p9_10	-165	-321	-285	-368
									1p9_11	-165	-309	-294	-373
HWP $_{dom}$	-104	-282	-563	-398	-226	-429	-687	-478	*1p9_12*	-165	-348	-303	-385
									1p9_13	-165	-329	-305	-397
									1p9_14	-165	-574	-663	-1.042
									1p9_15	-165	-557	-654	-1.053
									1p9_16	-165	-340	-332	-413
									1p9_17	-165	-327	-326	-409
									1p9	-256	-741	-932	-822
									1p9_1	-256	-343	-709	-656
									1p9_2	-256	-920	-816	-675
									1p9_3	-256	-728	-789	-656
									1p9_4	-256	-526	-440	-418
									1p9_5	-256	-324	-311	-280
									1p9_6	-256	-771	-814	-819
									1p9_7	-256	-680	-664	-743
									1p9_8	-256	-537	-854	-764
									1p9_9	-256	-316	-746	-694
									1p9_10	-256	-476	-396	-368
									1p9_11	-256	-307	-289	-269
HWP $_{exp}$	-417	-383	-175	-337	-313	-624	-593	-503	*1p9_12*	-256	-603	-801	-725
									1p9_13	-256	-376	-431	-487
									1p9_14	-256	-844	-864	-774
									1p9_15	-256	-706	-672	-673
									1p9_16	-256	-565	-685	-638
									1p9_17	-256	-319	-362	-443

Table ANX-LT-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Lithuania [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-1.389	-1.132	-738	-655
									1p9_1	-1.389	-1.137	-739	-662
									1p9_2	-1.389	-1.450	-1.252	-1.472
									1p9_3	-1.389	-1.463	-1.245	-1.484
									1p9_4	-1.389	-1.144	-753	-643
									1p9_5	-1.389	-1.131	-757	-655
									1p9_6	-1.389	-1.450	-1.233	-1.472
									1p9_7	-1.389	-1.468	-1.244	-1.482
									1p9_8	-1.389	-1.146	-797	-675
									1p9_9	-1.389	-1.150	-794	-681
									1p9_10	-1.389	-1.141	-782	-675
									1p9_11	-1.389	-1.152	-782	-677
HWP $_{total}$	-432	-1215	-1134	-1438	-1697	-2276	-2125	-1164	***1p9_12***	-1.389	-1.153	-744	-647
									1p9_13	-1.389	-1.137	-763	-653
									1p9_14	-1.389	-1.449	-1.239	-1.478
									1p9_15	-1.389	-1.463	-1.246	-1.480
									1p9_16	-1.389	-1.145	-783	-675
									1p9_17	-1.389	-1.150	-783	-681

Latvia (LV)

Table ANX-LV-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Latvia

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,852	0,763	0,000	0,566
									1p9_1	0,852	0,782	0,136	0,417
									1p9_2	0,852	0,747	0,000	0,574
									1p9_3	0,852	0,770	0,040	0,509
									1p9_4	0,852	0,774	0,114	0,422
									1p9_5	0,852	0,793	0,109	0,381
									1p9_6	0,852	0,760	0,114	0,422
									1p9_7	0,852	0,778	0,109	0,381
									1p9_8	0,852	0,763	0,001	0,523
									1p9_9	0,852	0,786	0,139	0,411
									1p9_10	0,852	0,774	0,113	0,419
									1p9_11	0,852	0,795	0,109	0,381
f_{INDRW}	0,000	0,995	0,933	0,838	0,852	0,850	0,827	0,902	1p9_12	0,852	0,760	0,000	0,575
									1p9_13	0,852	0,781	0,122	0,443
									1p9_14	0,852	0,747	0,000	0,575
									1p9_15	0,852	0,768	0,000	0,544
									1p9_16	0,852	0,762	0,000	0,574
									1p9_17	0,852	0,785	0,130	0,431
									1p9	0,000	1,000	0,861	0,964
									1p9_1	0,000	1,000	1,000	1,000
									1p9_2	0,000	1,000	1,000	1,000
									1p9_3	0,000	1,000	1,000	1,000
									1p9_4	0,000	1,000	1,000	1,000
									1p9_5	0,000	0,000	1,000	1,000
									1p9_6	0,000	1,000	1,000	1,000
									1p9_7	0,000	0,000	1,000	1,000
									1p9_8	0,000	1,000	0,878	0,983
									1p9_9	0,000	1,000	1,000	1,000
									1p9_10	0,000	1,000	1,000	1,000
									1p9_11	0,000	0,000	1,000	1,000
f_{PULP}	0,000	0,000	0,000	0,000	0,000	0,802	0,000	0,000	1p9_12	0,000	1,000	1,000	1,000
									1p9_13	0,000	1,000	1,000	1,000
									1p9_14	0,000	1,000	1,000	1,000
									1p9_15	0,000	1,000	1,000	1,000
									1p9_16	0,000	1,000	1,000	1,000
									1p9_17	0,000	1,000	1,000	1,000

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,000	0,000	0,000	0,000
									1p9_1	0,000	0,681	0,738	0,752
									1p9_2	0,000	0,000	0,000	0,000
									1p9_3	0,000	0,201	0,658	0,658
									1p9_4	0,000	0,572	0,729	0,797
									1p9_5	0,000	0,547	0,724	0,794
									1p9_6	0,000	0,572	0,729	0,797
									1p9_7	0,000	0,547	0,721	0,793
									1p9_8	0,000	0,007	0,007	0,007
									1p9_9	0,000	0,695	0,701	0,732
									1p9_10	0,000	0,564	0,729	0,795
									1p9_11	0,000	0,547	0,724	0,794
f_{RecP}	0,978	0,683	0,857	0,743	0,000	0,008	0,022	0,369	1p9_12	0,000	0,000	0,000	0,000
									1p9_13	0,000	0,611	0,611	0,611
									1p9_14	0,000	0,000	0,000	0,000
									1p9_15	0,000	0,000	0,000	0,000
									1p9_16	0,000	0,000	0,000	0,000
									1p9_17	0,000	0,648	0,648	0,648

Table ANX-LV-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Latvia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-1.691	-908	-1.536	-1.369
									1p9_1	-1.691	-1.091	-1.517	-1.356
									1p9_2	-1.691	-940	-1.651	-1.514
									1p9_3	-1.691	-1.159	-1.654	-1.493
									1p9_4	-1.691	-835	-690	-637
									1p9_5	-1.691	-946	-768	-700
									1p9_6	-1.691	-865	-727	-681
									1p9_7	-1.691	-988	-819	-756
									1p9_8	-1.691	-942	-1.533	-1.354
									1p9_9	-1.691	-1.048	-1.447	-1.291
									1p9_10	-1.691	-832	-687	-633
									1p9_11	-1.691	-946	-755	-685
HWP_{total}	-2345	-2172	-1769	-1750	-1963	-2361	-1754	-2077	1p9_12	-1.691	-881	-775	-728
									1p9_13	-1.691	-1.083	-908	-839
									1p9_14	-1.691	-965	-924	-877
									1p9_15	-1.691	-1.139	-996	-932
									1p9_16	-1.691	-944	-819	-768
									1p9_17	-1.691	-1.083	-905	-832

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	70	61	27	7
									1p9_1	70	41	26	11
									1p9_2	70	-110	-304	-497
									1p9_3	70	-132	-310	-515
									1p9_4	70	54	46	36
									1p9_5	70	36	29	25
									1p9_6	70	-112	-259	-445
									1p9_7	70	-135	-283	-467
									1p9_8	70	71	0	-4
									1p9_9	70	59	-1	0
									1p9_10	70	68	25	21
									1p9_11	70	57	15	15
HWP $_{dom}$	-388	-769	-460	38	65	-201	175	-407	*1p9_12*	70	61	44	25
									1p9_13	70	41	32	22
									1p9_14	70	-112	-258	-450
									1p9_15	70	-129	-281	-473
									1p9_16	70	70	25	20
									1p9_17	70	59	16	14

									1p9	-1.761	-968	-1.563	-1.376
									1p9_1	-1.761	-1.132	-1.543	-1.367
									1p9_2	-1.761	-830	-1.347	-1.017
									1p9_3	-1.761	-1.027	-1.344	-979
									1p9_4	-1.761	-889	-736	-673
									1p9_5	-1.761	-982	-797	-725
									1p9_6	-1.761	-753	-468	-236
									1p9_7	-1.761	-854	-537	-289
									1p9_8	-1.761	-1.013	-1.534	-1.350
									1p9_9	-1.761	-1.107	-1.446	-1.291
									1p9_10	-1.761	-900	-712	-654
									1p9_11	-1.761	-1.002	-770	-700
HWP $_{exp}$	-1958	-1403	-1309	-1788	-2028	-2160	-1930	-1670	*1p9_12*	-1.761	-942	-819	-753
									1p9_13	-1.761	-1.124	-940	-861
									1p9_14	-1.761	-853	-666	-427
									1p9_15	-1.761	-1.009	-715	-458
									1p9_16	-1.761	-1.014	-844	-789
									1p9_17	-1.761	-1.142	-920	-846

Table ANX-LV-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Latvia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-908	-774	-585	-485
									1p9_1	-908	-787	-581	-490
									1p9_2	-908	-1.026	-1.013	-1.125
									1p9_3	-908	-1.032	-1.007	-1.143
									1p9_4	-908	-776	-578	-477
									1p9_5	-908	-793	-594	-487
									1p9_6	-908	-1.016	-994	-1.120
									1p9_7	-908	-1.032	-1.010	-1.133
									1p9_8	-908	-761	-612	-494
									1p9_9	-908	-761	-611	-499
									1p9_10	-908	-758	-606	-499
									1p9_11	-908	-763	-612	-500
ΔWP_{total}	-647	-1609	-814	-709	-1063	-1687	-590	-704	1p9_12	-908	-775	-582	-482
									1p9_13	-908	-788	-588	-484
									1p9_14	-908	-1.026	-996	-1.119
									1p9_15	-908	-1.031	-1.007	-1.133
									1p9_16	-908	-760	-607	-489
									1p9_17	-908	-761	-608	-498

The Netherlands (NL)

Table ANX-NL-0-A: Domestic feedstock factors for the ForestNavigator scenarios for the Netherlands

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,408	0,710	0,156	0,276
									1p9_1	0,408	0,698	0,157	0,279
									1p9_2	0,408	0,709	0,156	0,276
									1p9_3	0,408	0,707	0,156	0,276
									1p9_4	0,408	0,697	0,157	0,276
									1p9_5	0,408	0,221	0,157	0,276
									1p9_6	0,408	0,692	0,157	0,276
									1p9_7	0,408	0,600	0,157	0,276
									1p9_8	0,408	0,708	0,156	0,276
									1p9_9	0,408	0,698	0,157	0,279
									1p9_10	0,408	0,695	0,157	0,276
									1p9_11	0,408	0,172	0,157	0,276
f_{INDRW}	0,905	0,588	0,603	0,478	0,408	0,445	0,407	0,407	1p9_12	0,408	0,703	0,156	0,276
									1p9_13	0,408	0,686	0,156	0,279
									1p9_14	0,408	0,708	0,156	0,276
									1p9_15	0,408	0,707	0,156	0,276
									1p9_16	0,408	0,699	0,156	0,276
									1p9_17	0,408	0,655	0,157	0,279
									1p9	0,000	0,000	0,000	0,000
									1p9_1	0,000	0,000	0,000	0,000
									1p9_2	0,000	0,000	0,000	0,000
									1p9_3	0,000	0,000	0,000	0,000
									1p9_4	0,000	0,000	0,000	0,000
									1p9_5	0,000	0,000	0,000	0,000
									1p9_6	0,000	0,000	0,000	0,000
									1p9_7	0,000	0,000	0,000	0,000
									1p9_8	0,000	0,000	0,000	0,000
									1p9_9	0,000	0,000	0,000	0,000
									1p9_10	0,000	0,000	0,000	0,000
									1p9_11	0,000	0,000	0,000	0,000
f_{PULP}	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	1p9_12	0,000	0,000	0,000	0,000
									1p9_13	0,000	0,000	0,000	0,000
									1p9_14	0,000	0,000	0,000	0,000
									1p9_15	0,000	0,000	0,000	0,000
									1p9_16	0,000	0,000	0,000	0,000
									1p9_17	0,000	0,000	0,000	0,000

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,135	0,238	0,320	0,379
									1p9_1	0,135	0,241	0,322	0,380
									1p9_2	0,135	0,238	0,317	0,376
									1p9_3	0,135	0,238	0,317	0,379
									1p9_4	0,135	0,241	0,318	0,383
									1p9_5	0,135	0,241	0,318	0,385
									1p9_6	0,135	0,241	0,318	0,383
									1p9_7	0,135	0,241	0,318	0,383
									1p9_8	0,135	0,238	0,312	0,371
									1p9_9	0,135	0,241	0,323	0,380
									1p9_10	0,135	0,241	0,318	0,383
									1p9_11	0,135	0,241	0,318	0,385
f_{RecP}	0,300	0,000	0,000	0,000	0,135	0,255	0,187	0,000	*1p9_12*	0,135	0,238	0,309	0,373
									1p9_13	0,135	0,241	0,310	0,371
									1p9_14	0,135	0,238	0,310	0,371
									1p9_15	0,135	0,238	0,308	0,368
									1p9_16	0,135	0,238	0,309	0,371
									1p9_17	0,135	0,241	0,309	0,370

Table ANX-NL-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for the Netherlands [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	86	-310	-248	-282
									1p9_1	86	-734	-459	-512
									1p9_2	86	-370	-241	-318
									1p9_3	86	-1.098	-823	-889
									1p9_4	86	-333	-302	-351
									1p9_5	86	-199	-1.077	-1.149
									1p9_6	86	-384	-407	-465
									1p9_7	86	-930	-1.711	-1.607
									1p9_8	86	-294	-234	-284
									1p9_9	86	-597	-356	-427
									1p9_10	86	-311	-270	-319
									1p9_11	86	-115	-943	-998
HWP_{total}	186	559	173	147	-181	-436	-143	490	*1p9_12*	86	-306	-262	-358
									1p9_13	86	-722	-955	-737
									1p9_14	86	-373	-399	-424
									1p9_15	86	-1.104	-1.416	-1.202
									1p9_16	86	-258	-218	-322
									1p9_17	86	-559	-809	-608

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	13	-90	-141	-180
									1p9_1	13	-439	-296	-359
									1p9_2	13	-151	-133	-216
									1p9_3	13	-796	-665	-734
									1p9_4	13	-117	-135	-176
									1p9_5	13	-151	-813	-833
									1p9_6	13	-169	-237	-306
									1p9_7	13	-682	-1.464	-1.393
									1p9_8	13	-75	-133	-179
									1p9_9	13	-301	-224	-295
									1p9_10	13	-117	-121	-157
									1p9_11	13	-92	-673	-682
HWP $_{dom}$	117	99	28	21	-20	-109	19	65	*1p9_12*	13	-90	-101	-179
									1p9_13	13	-432	-720	-553
									1p9_14	13	-154	-214	-267
									1p9_15	13	-803	-1.222	-1.040
									1p9_16	13	-74	-82	-162
									1p9_17	13	-286	-560	-430
									1p9	73	-220	-107	-102
									1p9_1	73	-295	-163	-153
									1p9_2	73	-219	-108	-102
									1p9_3	73	-302	-157	-155
									1p9_4	73	-215	-167	-175
									1p9_5	73	-49	-264	-316
									1p9_6	73	-215	-170	-159
									1p9_7	73	-248	-247	-214
									1p9_8	73	-218	-101	-105
									1p9_9	73	-296	-132	-132
									1p9_10	73	-194	-148	-162
									1p9_11	73	-23	-270	-315
HWP $_{exp}$	70	460	145	126	-161	-327	-162	425	*1p9_12*	73	-217	-161	-179
									1p9_13	73	-290	-235	-184
									1p9_14	73	-219	-185	-157
									1p9_15	73	-301	-195	-162
									1p9_16	73	-184	-135	-159
									1p9_17	73	-273	-249	-177

Table ANX-NL-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for the Netherlands [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	195	-38	-184	-47
									1p9_1	195	12	-119	-78
									1p9_2	195	-582	-1.453	-1.741
									1p9_3	195	-517	-1.408	-1.852
									1p9_4	195	70	181	63
									1p9_5	195	155	116	27
									1p9_6	195	-459	-965	-1.410
									1p9_7	195	-524	-989	-1.693
									1p9_8	195	155	53	140
									1p9_9	195	216	103	178
									1p9_10	195	372	323	182
									1p9_11	195	427	371	248
'***WP*** $_{total}$	-229	391	812	1252	465	-411	1183	855	***1p9_12***	195	-44	35	55
									1p9_13	195	6	55	3
									1p9_14	195	-549	-1.015	-1.565
									1p9_15	195	-522	-996	-1.651
									1p9_16	195	193	225	247
									1p9_17	195	213	275	248

Poland (PL)

Table ANX-PL-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Poland

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,914	0,872	0,791	0,521
									1p9_1	0,914	0,882	0,791	0,521
									1p9_2	0,914	0,873	0,791	0,521
									1p9_3	0,914	0,884	0,791	0,520
									1p9_4	0,914	0,882	0,796	0,501
									1p9_5	0,914	0,898	0,796	0,500
									1p9_6	0,914	0,891	0,796	0,502
									1p9_7	0,914	0,912	0,796	0,499
									1p9_8	0,914	0,871	0,791	0,521
									1p9_9	0,914	0,880	0,790	0,523
									1p9_10	0,914	0,872	0,796	0,502
									1p9_11	0,914	0,890	0,796	0,501
f_{INDRW}	1,000	0,980	0,929	0,929	0,914	0,926	0,904	0,949	1p9_12	0,914	0,866	0,791	0,523
									1p9_13	0,914	0,874	0,789	0,526
									1p9_14	0,914	0,867	0,791	0,520
									1p9_15	0,914	0,880	0,790	0,523
									1p9_16	0,914	0,860	0,790	0,523
									1p9_17	0,914	0,872	0,789	0,527
									1p9	0,575	0,733	0,766	0,848
									1p9_1	0,575	0,727	0,770	0,849
									1p9_2	0,575	0,732	0,770	0,849
									1p9_3	0,575	0,725	0,788	0,860
									1p9_4	0,575	0,661	0,707	0,748
									1p9_5	0,575	0,646	0,693	0,737
									1p9_6	0,575	0,661	0,706	0,748
									1p9_7	0,575	0,639	0,682	0,727
									1p9_8	0,575	0,733	0,758	0,839
									1p9_9	0,575	0,734	0,779	0,851
									1p9_10	0,575	0,662	0,709	0,751
									1p9_11	0,575	0,649	0,695	0,740
f_{PULP}	0,783	0,673	0,607	0,491	0,575	0,568	0,544	0,555	1p9_12	0,575	0,736	0,805	0,874
									1p9_13	0,575	0,742	0,810	0,880
									1p9_14	0,575	0,729	0,804	0,872
									1p9_15	0,575	0,734	0,804	0,875
									1p9_16	0,575	0,737	0,806	0,875
									1p9_17	0,575	0,744	0,812	0,882

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,776	0,850	0,886	0,890
									1p9_1	0,776	0,851	0,885	0,890
									1p9_2	0,776	0,851	0,884	0,887
									1p9_3	0,776	0,853	0,886	0,892
									1p9_4	0,776	0,875	0,892	0,898
									1p9_5	0,776	0,876	0,893	0,899
									1p9_6	0,776	0,875	0,892	0,898
									1p9_7	0,776	0,878	0,893	0,899
									1p9_8	0,776	0,850	0,884	0,889
									1p9_9	0,776	0,847	0,881	0,889
									1p9_10	0,776	0,874	0,892	0,898
									1p9_11	0,776	0,875	0,892	0,899
f_{RecP}	0,996	0,991	0,826	0,803	0,776	0,783	0,831	0,853	1p9_12	0,776	0,848	0,881	0,887
									1p9_13	0,776	0,842	0,877	0,881
									1p9_14	0,776	0,853	0,881	0,886
									1p9_15	0,776	0,848	0,880	0,885
									1p9_16	0,776	0,847	0,880	0,886
									1p9_17	0,776	0,841	0,876	0,879

Table ANX-PL-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Poland [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-5.372	-8.523	-6.911	-6.558
									1p9_1	-5.372	-7.548	-6.041	-6.095
									1p9_2	-5.372	-10.140	-8.311	-9.361
									1p9_3	-5.372	-10.026	-8.984	-10.399
									1p9_4	-5.372	-8.483	-6.887	-6.733
									1p9_5	-5.372	-7.900	-6.161	-5.411
									1p9_6	-5.372	-10.522	-9.963	-11.199
									1p9_7	-5.372	-10.511	-10.137	-11.041
									1p9_8	-5.372	-7.571	-6.207	-5.956
									1p9_9	-5.372	-6.436	-5.443	-5.467
									1p9_10	-5.372	-6.884	-6.282	-6.194
									1p9_11	-5.372	-6.520	-5.372	-5.151
HWP_{total}	-4115	-4340	-5491	-6676	-6598	-8166	-5577	-4547	1p9_12	-5.372	-8.329	-7.053	-6.963
									1p9_13	-5.372	-7.644	-6.845	-6.416
									1p9_14	-5.372	-9.957	-9.650	-10.751
									1p9_15	-5.372	-10.039	-9.911	-10.956
									1p9_16	-5.372	-6.812	-6.416	-6.390
									1p9_17	-5.372	-6.309	-6.067	-5.959

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-3.992	-4.956	-4.263	-3.921
									1p9_1	-3.992	-5.326	-4.387	-4.178
									1p9_2	-3.992	-6.640	-6.084	-7.734
									1p9_3	-3.992	-7.148	-7.088	-8.795
									1p9_4	-3.992	-5.140	-4.097	-3.751
									1p9_5	-3.992	-5.650	-4.160	-3.688
									1p9_6	-3.992	-6.897	-7.318	-8.825
									1p9_7	-3.992	-7.534	-7.615	-8.823
									1p9_8	-3.992	-4.175	-3.721	-3.275
									1p9_9	-3.992	-4.443	-3.849	-3.393
									1p9_10	-3.992	-4.151	-3.598	-3.103
									1p9_11	-3.992	-4.572	-3.743	-3.147
HWP $_{dom}$	-2626	-2601	-4500	-5537	-4915	-6131	-4054	-3650	*1p9_12*	-3.992	-5.018	-4.159	-4.062
									1p9_13	-3.992	-5.377	-4.326	-4.145
									1p9_14	-3.992	-6.574	-7.197	-8.901
									1p9_15	-3.992	-7.070	-7.507	-9.025
									1p9_16	-3.992	-4.061	-3.710	-3.384
									1p9_17	-3.992	-4.352	-3.863	-3.476
									1p9	-1.380	-3.568	-2.648	-2.637
									1p9_1	-1.380	-2.222	-1.653	-1.916
									1p9_2	-1.380	-3.500	-2.227	-1.627
									1p9_3	-1.380	-2.878	-1.896	-1.604
									1p9_4	-1.380	-3.343	-2.790	-2.982
									1p9_5	-1.380	-2.249	-2.002	-1.723
									1p9_6	-1.380	-3.626	-2.645	-2.374
									1p9_7	-1.380	-2.977	-2.522	-2.217
									1p9_8	-1.380	-3.396	-2.486	-2.681
									1p9_9	-1.380	-1.993	-1.594	-2.074
									1p9_10	-1.380	-2.733	-2.684	-3.091
									1p9_11	-1.380	-1.948	-1.629	-2.004
HWP $_{exp}$	-1490	-1739	-991	-1139	-1683	-2036	-1523	-897	*1p9_12*	-1.380	-3.310	-2.894	-2.901
									1p9_13	-1.380	-2.267	-2.519	-2.271
									1p9_14	-1.380	-3.383	-2.453	-1.850
									1p9_15	-1.380	-2.969	-2.404	-1.930
									1p9_16	-1.380	-2.751	-2.707	-3.006
									1p9_17	-1.380	-1.957	-2.204	-2.483

Table ANX-PL-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Poland [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-5.496	-6.739	-5.332	-4.346
									1p9_1	-5.496	-6.797	-5.221	-4.488
									1p9_2	-5.496	-8.757	-9.028	-10.077
									1p9_3	-5.496	-8.840	-8.944	-10.044
									1p9_4	-5.496	-6.791	-5.262	-4.354
									1p9_5	-5.496	-6.917	-5.084	-4.286
									1p9_6	-5.496	-8.733	-8.750	-9.770
									1p9_7	-5.496	-8.810	-8.735	-9.775
									1p9_8	-5.496	-5.816	-4.777	-3.581
									1p9_9	-5.496	-5.826	-4.765	-3.605
									1p9_10	-5.496	-5.760	-4.706	-3.501
									1p9_11	-5.496	-5.809	-4.684	-3.514
HWP_{total}	-4264	-5718	-7608	-9192	-9725	-11846	-7842	-5265	1p9_12	-5.496	-6.870	-5.211	-4.514
									1p9_13	-5.496	-6.949	-5.168	-4.480
									1p9_14	-5.496	-8.756	-8.738	-9.881
									1p9_15	-5.496	-8.841	-8.785	-9.899
									1p9_16	-5.496	-5.805	-4.682	-3.591
									1p9_17	-5.496	-5.835	-4.679	-3.588

Portugal (PT)

Table ANX-PT-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Portugal

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,807	0,857	0,973	0,756
									1p9_1	0,807	0,862	0,973	0,756
									1p9_2	0,807	0,862	0,973	0,756
									1p9_3	0,807	0,867	0,973	0,756
									1p9_4	0,807	0,840	0,973	0,748
									1p9_5	0,807	0,840	0,973	0,749
									1p9_6	0,807	0,849	0,973	0,748
									1p9_7	0,807	0,846	0,973	0,750
									1p9_8	0,807	0,856	0,973	0,756
									1p9_9	0,807	0,860	0,973	0,756
									1p9_10	0,807	0,841	0,973	0,748
									1p9_11	0,807	0,840	0,973	0,749
f_{INDRW}	0,930	0,832	0,904	0,839	0,809	0,820	0,793	0,762	1p9_12	0,807	0,853	0,973	0,756
									1p9_13	0,807	0,858	0,973	0,756
									1p9_14	0,807	0,857	0,973	0,756
									1p9_15	0,807	0,861	0,973	0,756
									1p9_16	0,807	0,851	0,973	0,756
									1p9_17	0,807	0,856	0,973	0,756
									1p9	0,902	0,926	0,869	0,895
									1p9_1	0,902	0,926	0,890	0,912
									1p9_2	0,902	0,926	0,921	0,927
									1p9_3	0,902	0,926	0,923	0,938
									1p9_4	0,902	0,913	0,916	0,918
									1p9_5	0,902	0,910	0,912	0,915
									1p9_6	0,902	0,914	0,917	0,922
									1p9_7	0,902	0,908	0,907	0,911
									1p9_8	0,902	0,926	0,873	0,898
									1p9_9	0,902	0,926	0,881	0,905
									1p9_10	0,902	0,914	0,917	0,919
									1p9_11	0,902	0,912	0,915	0,919
f_{PULP}	0,895	0,942	0,967	0,922	0,902	0,909	0,920	0,902	1p9_12	0,902	0,925	0,941	0,952
									1p9_13	0,902	0,926	0,941	0,952
									1p9_14	0,902	0,925	0,941	0,952
									1p9_15	0,902	0,926	0,941	0,952
									1p9_16	0,902	0,925	0,941	0,952
									1p9_17	0,902	0,926	0,941	0,952

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,967	1,000	1,000	1,000
									1p9_1	0,967	1,000	1,000	1,000
									1p9_2	0,967	1,000	1,000	1,000
									1p9_3	0,967	1,000	1,000	1,000
									1p9_4	0,967	1,000	1,000	1,000
									1p9_5	0,967	1,000	1,000	1,000
									1p9_6	0,967	1,000	1,000	1,000
									1p9_7	0,967	1,000	1,000	1,000
									1p9_8	0,967	1,000	1,000	1,000
									1p9_9	0,967	1,000	1,000	1,000
									1p9_10	0,967	1,000	1,000	1,000
									1p9_11	0,967	1,000	1,000	1,000
f_{RecP}	0,846	0,977	0,950	0,940	0,967	0,973	0,971	0,976	1p9_12	0,967	1,000	1,000	1,000
									1p9_13	0,967	1,000	1,000	1,000
									1p9_14	0,967	1,000	1,000	1,000
									1p9_15	0,967	1,000	1,000	1,000
									1p9_16	0,967	1,000	1,000	1,000
									1p9_17	0,967	1,000	1,000	1,000

Table ANX-PT-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Portugal [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	369	-107	-12	-67
									1p9_1	369	-111	-26	-29
									1p9_2	369	-554	-326	-388
									1p9_3	369	-456	-354	-461
									1p9_4	369	55	99	92
									1p9_5	369	35	82	76
									1p9_6	369	-454	-590	-879
									1p9_7	369	-336	-497	-687
									1p9_8	369	6	46	6
									1p9_9	369	-1	34	20
									1p9_10	369	83	122	109
									1p9_11	369	74	108	98
HWP_{total}	-280	-142	326	87	427	136	256	904	1p9_12	369	-93	-22	-52
									1p9_13	369	-151	-59	-81
									1p9_14	369	-474	-607	-782
									1p9_15	369	-415	-571	-781
									1p9_16	369	30	76	29
									1p9_17	369	1	59	21

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	54	-266	-221	-164
									1p9_1	54	-275	-228	-174
									1p9_2	54	-578	-498	-613
									1p9_3	54	-596	-557	-721
									1p9_4	54	-169	-124	-85
									1p9_5	54	-188	-147	-121
									1p9_6	54	-533	-736	-964
									1p9_7	54	-528	-716	-906
									1p9_8	54	-166	-150	-132
									1p9_9	54	-172	-154	-132
									1p9_10	54	-117	-95	-82
									1p9_11	54	-127	-105	-85
HWP $_{dom}$	-525	223	-482	74	-23	146	53	326	*1p9_12*	54	-257	-199	-153
									1p9_13	54	-288	-220	-193
									1p9_14	54	-537	-741	-939
									1p9_15	54	-574	-762	-963
									1p9_16	54	-147	-117	-110
									1p9_17	54	-172	-132	-119
									1p9	315	158	209	97
									1p9_1	315	164	203	145
									1p9_2	315	24	172	225
									1p9_3	315	140	202	260
									1p9_4	315	224	224	178
									1p9_5	315	223	229	197
									1p9_6	315	79	146	85
									1p9_7	315	192	219	219
									1p9_8	315	172	196	138
									1p9_9	315	171	189	152
									1p9_10	315	199	217	192
									1p9_11	315	201	213	183
HWP $_{exp}$	245	-365	808	14	450	-10	203	578	*1p9_12*	315	163	177	101
									1p9_13	315	136	161	112
									1p9_14	315	63	134	157
									1p9_15	315	159	191	182
									1p9_16	315	178	192	139
									1p9_17	315	174	190	141

Table ANX-PT-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Portugal [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-48	-268	-209	-66
									1p9_1	-48	-271	-209	-86
									1p9_2	-48	-622	-848	-1.007
									1p9_3	-48	-634	-853	-1.028
									1p9_4	-48	-260	-167	-58
									1p9_5	-48	-253	-172	-91
									1p9_6	-48	-620	-849	-1.032
									1p9_7	-48	-622	-836	-1.032
									1p9_8	-48	-152	-103	-23
									1p9_9	-48	-153	-103	-25
									1p9_10	-48	-145	-95	-26
									1p9_11	-48	-146	-95	-29
HWP $_{total}$	-1089	-65	-887	-394	-643	-582	-692	-409	***1p9_12***	-48	-264	-185	-65
									1p9_13	-48	-264	-182	-92
									1p9_14	-48	-615	-847	-1.041
									1p9_15	-48	-626	-844	-1.036
									1p9_16	-48	-149	-99	-25
									1p9_17	-48	-152	-98	-26

Romania (RO)

Table ANX-RO-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Romania

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,875	0,922	0,897	0,242
									1p9_1	0,875	0,922	0,897	0,242
									1p9_2	0,875	0,930	0,897	0,241
									1p9_3	0,875	0,928	0,897	0,242
									1p9_4	0,875	0,915	0,898	0,210
									1p9_5	0,875	0,909	0,898	0,210
									1p9_6	0,875	0,919	0,898	0,210
									1p9_7	0,875	0,915	0,898	0,210
									1p9_8	0,875	0,920	0,897	0,242
									1p9_9	0,875	0,920	0,897	0,242
									1p9_10	0,875	0,913	0,898	0,210
									1p9_11	0,875	0,908	0,898	0,210
f_{INDRW}	0,962	0,992	0,948	0,849	0,875	0,839	0,834	0,834	1p9_12	0,875	0,921	0,897	0,231
									1p9_13	0,875	0,921	0,897	0,239
									1p9_14	0,875	0,925	0,897	0,232
									1p9_15	0,875	0,926	0,897	0,241
									1p9_16	0,875	0,919	0,897	0,235
									1p9_17	0,875	0,919	0,896	0,239
									1p9	0,000	0,531	0,713	0,776
									1p9_1	0,000	0,531	0,712	0,774
									1p9_2	0,000	0,530	0,704	0,787
									1p9_3	0,000	0,531	0,710	0,775
									1p9_4	0,000	0,000	0,000	0,000
									1p9_5	0,000	0,000	0,000	0,000
									1p9_6	0,000	0,005	0,026	0,045
									1p9_7	0,000	0,001	0,022	0,041
									1p9_8	0,000	0,531	0,713	0,780
									1p9_9	0,000	0,531	0,713	0,779
									1p9_10	0,000	0,000	0,000	0,000
									1p9_11	0,000	0,000	0,000	0,000
f_{PULP}	0,986	0,912	0,000	0,000	0,000	0,000	0,000	0,000	1p9_12	0,000	0,455	0,677	0,701
									1p9_13	0,000	0,512	0,695	0,730
									1p9_14	0,000	0,459	0,669	0,694
									1p9_15	0,000	0,528	0,705	0,727
									1p9_16	0,000	0,487	0,690	0,714
									1p9_17	0,000	0,511	0,694	0,754

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,883	0,954	1,000	1,000
									1p9_1	0,883	0,954	1,000	1,000
									1p9_2	0,883	0,954	1,000	1,000
									1p9_3	0,883	0,954	1,000	1,000
									1p9_4	0,883	0,957	1,000	1,000
									1p9_5	0,883	0,957	1,000	1,000
									1p9_6	0,883	0,957	1,000	1,000
									1p9_7	0,883	0,957	1,000	1,000
									1p9_8	0,883	0,954	1,000	1,000
									1p9_9	0,883	0,954	1,000	1,000
									1p9_10	0,883	0,957	1,000	1,000
									1p9_11	0,883	0,957	1,000	1,000
f_{RecP}	1,000	0,973	0,983	0,986	0,883	0,894	0,923	0,923	1p9_12	0,883	0,951	1,000	1,000
									1p9_13	0,883	0,952	1,000	1,000
									1p9_14	0,883	0,954	1,000	1,000
									1p9_15	0,883	0,954	1,000	1,000
									1p9_16	0,883	0,953	1,000	1,000
									1p9_17	0,883	0,948	1,000	1,000

Table ANX-RO-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Romania [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-3.447	-3.753	-6.454	-5.740
									1p9_1	-3.447	-3.791	-6.255	-5.543
									1p9_2	-3.447	-4.948	-6.820	-6.609
									1p9_3	-3.447	-4.648	-6.826	-6.503
									1p9_4	-3.447	-3.633	-2.852	-2.702
									1p9_5	-3.447	-3.574	-2.761	-2.340
									1p9_6	-3.447	-4.425	-4.036	-4.198
									1p9_7	-3.447	-4.311	-3.673	-3.838
									1p9_8	-3.447	-3.571	-6.510	-5.801
									1p9_9	-3.447	-3.575	-6.222	-5.516
									1p9_10	-3.447	-3.366	-2.710	-2.512
									1p9_11	-3.447	-3.370	-2.594	-2.190
HWP_{total}	-660	-1892	-3292	-5270	-3966	-3531	-2232	-1742	1p9_12	-3.447	-3.709	-2.984	-2.704
									1p9_13	-3.447	-3.729	-2.958	-2.582
									1p9_14	-3.447	-4.520	-4.623	-4.574
									1p9_15	-3.447	-4.552	-4.172	-4.166
									1p9_16	-3.447	-3.491	-2.806	-2.455
									1p9_17	-3.447	-3.525	-2.791	-2.450

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-1.669	-2.595	-2.395	-2.275
									1p9_1	-1.669	-2.613	-2.387	-2.163
									1p9_2	-1.669	-3.415	-3.739	-4.416
									1p9_3	-1.669	-3.420	-3.736	-4.409
									1p9_4	-1.669	-2.488	-2.102	-1.982
									1p9_5	-1.669	-2.484	-2.077	-1.835
									1p9_6	-1.669	-3.240	-3.410	-4.032
									1p9_7	-1.669	-3.263	-3.347	-3.942
									1p9_8	-1.669	-2.338	-2.170	-1.989
									1p9_9	-1.669	-2.339	-2.149	-1.976
									1p9_10	-1.669	-2.220	-1.918	-1.780
									1p9_11	-1.669	-2.219	-1.854	-1.651
HWP $_{dom}$	942	-73	-450	-2363	-1888	-1466	-910	-662	*1p9_12*	-1.669	-2.580	-2.183	-2.057
									1p9_13	-1.669	-2.589	-2.197	-1.989
									1p9_14	-1.669	-3.369	-3.588	-4.157
									1p9_15	-1.669	-3.384	-3.587	-4.110
									1p9_16	-1.669	-2.305	-1.989	-1.824
									1p9_17	-1.669	-2.322	-1.964	-1.807
									1p9	-1.778	-1.158	-4.059	-3.466
									1p9_1	-1.778	-1.178	-3.868	-3.380
									1p9_2	-1.778	-1.533	-3.082	-2.194
									1p9_3	-1.778	-1.228	-3.090	-2.094
									1p9_4	-1.778	-1.145	-750	-720
									1p9_5	-1.778	-1.090	-683	-505
									1p9_6	-1.778	-1.185	-627	-165
									1p9_7	-1.778	-1.047	-326	104
									1p9_8	-1.778	-1.232	-4.340	-3.812
									1p9_9	-1.778	-1.236	-4.073	-3.540
									1p9_10	-1.778	-1.146	-793	-732
									1p9_11	-1.778	-1.151	-740	-539
HWP $_{exp}$	-1602	-1819	-2841	-2907	-2078	-2064	-1322	-1080	*1p9_12*	-1.778	-1.129	-802	-647
									1p9_13	-1.778	-1.140	-761	-593
									1p9_14	-1.778	-1.150	-1.035	-417
									1p9_15	-1.778	-1.168	-586	-56
									1p9_16	-1.778	-1.186	-817	-632
									1p9_17	-1.778	-1.203	-827	-643

Table ANX-RO-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Romania [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-2.313	-2.898	-2.409	-2.223
									1p9_1	-2.313	-2.911	-2.405	-2.121
									1p9_2	-2.313	-3.758	-3.901	-4.583
									1p9_3	-2.313	-3.778	-3.901	-4.594
									1p9_4	-2.313	-2.857	-2.325	-2.109
									1p9_5	-2.313	-2.893	-2.382	-2.130
									1p9_6	-2.313	-3.659	-3.739	-4.411
									1p9_7	-2.313	-3.743	-3.811	-4.480
									1p9_8	-2.313	-2.602	-2.148	-1.900
									1p9_9	-2.313	-2.602	-2.134	-1.902
									1p9_10	-2.313	-2.566	-2.115	-1.898
									1p9_11	-2.313	-2.585	-2.118	-1.911
HWP_{total}	739	-898	-1101	-3696	-3365	-3050	-2363	-1933	1p9_12	-2.313	-2.887	-2.333	-2.145
									1p9_13	-2.313	-2.892	-2.375	-2.123
									1p9_14	-2.313	-3.727	-3.838	-4.447
									1p9_15	-2.313	-3.734	-3.856	-4.453
									1p9_16	-2.313	-2.578	-2.113	-1.895
									1p9_17	-2.313	-2.590	-2.111	-1.901

Sweden (SE)

Table ANX-SE-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Sweden

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,904	0,939	0,679	0,914
									1p9_1	0,904	0,939	0,679	0,914
									1p9_2	0,904	0,939	0,679	0,914
									1p9_3	0,904	0,941	0,679	0,914
									1p9_4	0,904	0,937	0,679	0,914
									1p9_5	0,904	0,936	0,679	0,914
									1p9_6	0,904	0,938	0,679	0,914
									1p9_7	0,904	0,936	0,679	0,914
									1p9_8	0,904	0,938	0,679	0,914
									1p9_9	0,904	0,938	0,679	0,914
									1p9_10	0,904	0,936	0,679	0,914
									1p9_11	0,904	0,936	0,679	0,914
f_{INDRW}	0,961	0,884	0,912	0,906	0,904	0,917	0,914	0,899	1p9_12	0,904	0,938	0,679	0,914
									1p9_13	0,904	0,938	0,679	0,914
									1p9_14	0,904	0,938	0,679	0,914
									1p9_15	0,904	0,939	0,679	0,914
									1p9_16	0,904	0,938	0,679	0,914
									1p9_17	0,904	0,938	0,679	0,914
									1p9	0,925	0,935	0,930	0,939
									1p9_1	0,925	0,935	0,941	0,948
									1p9_2	0,925	0,935	0,943	0,949
									1p9_3	0,925	0,935	0,943	0,950
									1p9_4	0,925	0,924	0,935	0,940
									1p9_5	0,925	0,923	0,934	0,940
									1p9_6	0,925	0,923	0,934	0,939
									1p9_7	0,925	0,923	0,934	0,941
									1p9_8	0,925	0,935	0,930	0,939
									1p9_9	0,925	0,935	0,940	0,947
									1p9_10	0,925	0,926	0,935	0,941
									1p9_11	0,925	0,923	0,934	0,941
f_{PULP}	0,965	0,948	0,951	0,954	0,925	0,926	0,925	0,934	1p9_12	0,925	0,935	0,943	0,950
									1p9_13	0,925	0,935	0,943	0,950
									1p9_14	0,925	0,935	0,943	0,949
									1p9_15	0,925	0,935	0,943	0,950
									1p9_16	0,925	0,935	0,943	0,950
									1p9_17	0,925	0,935	0,943	0,950

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,652	0,786	0,894	0,980
									1p9_1	0,652	0,786	0,894	0,980
									1p9_2	0,652	0,786	0,894	0,980
									1p9_3	0,652	0,786	0,894	0,980
									1p9_4	0,652	0,786	0,894	0,980
									1p9_5	0,652	0,786	0,894	0,980
									1p9_6	0,652	0,786	0,894	0,980
									1p9_7	0,652	0,786	0,894	0,980
									1p9_8	0,652	0,786	0,894	0,980
									1p9_9	0,652	0,786	0,894	0,980
									1p9_10	0,652	0,786	0,894	0,980
									1p9_11	0,652	0,786	0,894	0,980
f_{RecP}	0,649	0,625	0,573	0,552	0,652	0,649	0,617	0,610	1p9_12	0,652	0,786	0,894	0,980
									1p9_13	0,652	0,785	0,893	0,979
									1p9_14	0,652	0,786	0,894	0,980
									1p9_15	0,652	0,786	0,894	0,980
									1p9_16	0,652	0,786	0,894	0,980
									1p9_17	0,652	0,784	0,892	0,978

Table ANX-SE-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Sweden [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-2.968	-3.506	-3.548	-3.257
									1p9_1	-2.968	-3.506	-3.628	-4.282
									1p9_2	-2.968	-3.993	-5.219	-6.921
									1p9_3	-2.968	-3.960	-4.472	-6.035
									1p9_4	-2.968	-3.360	-2.880	-3.840
									1p9_5	-2.968	-3.690	-3.694	-4.330
									1p9_6	-2.968	-4.398	-5.175	-6.833
									1p9_7	-2.968	-3.980	-4.533	-6.226
									1p9_8	-2.968	-3.274	-3.282	-2.677
									1p9_9	-2.968	-3.260	-3.351	-3.888
									1p9_10	-2.968	-2.552	-1.741	-1.793
									1p9_11	-2.968	-3.248	-3.337	-3.944
HWP_{total}	-2261	-4749	-2343	-2688	-2463	-3097	-2657	-681	1p9_12	-2.968	-3.553	-3.625	-4.180
									1p9_13	-2.968	-3.497	-3.666	-4.303
									1p9_14	-2.968	-4.012	-4.614	-6.537
									1p9_15	-2.968	-3.969	-4.533	-6.122
									1p9_16	-2.968	-3.269	-3.315	-3.467
									1p9_17	-2.968	-3.256	-3.349	-3.909

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	44	-1.531	-2.142	-2.959
									1p9_1	44	-1.543	-2.090	-3.018
									1p9_2	44	-2.880	-4.979	-7.580
									1p9_3	44	-2.918	-4.984	-7.723
									1p9_4	44	-1.679	-2.338	-3.341
									1p9_5	44	-1.660	-2.169	-3.015
									1p9_6	44	-3.019	-5.071	-7.495
									1p9_7	44	-2.913	-4.961	-7.718
									1p9_8	44	-684	-1.016	-1.470
									1p9_9	44	-690	-1.028	-1.510
									1p9_10	44	-695	-1.054	-1.576
									1p9_11	44	-707	-1.017	-1.513
HWP $_{dom}$	-736	-730	-1160	-191	451	-1038	-272	769	*1p9_12*	44	-1.533	-2.112	-2.964
									1p9_13	44	-1.528	-2.139	-3.030
									1p9_14	44	-2.868	-4.876	-7.506
									1p9_15	44	-2.887	-4.958	-7.740
									1p9_16	44	-682	-1.000	-1.547
									1p9_17	44	-674	-1.015	-1.521
									1p9	-3.012	-1.975	-1.406	-298
									1p9_1	-3.012	-1.963	-1.538	-1.264
									1p9_2	-3.012	-1.113	-240	659
									1p9_3	-3.012	-1.042	512	1.688
									1p9_4	-3.012	-1.681	-542	-499
									1p9_5	-3.012	-2.030	-1.526	-1.315
									1p9_6	-3.012	-1.379	-104	662
									1p9_7	-3.012	-1.067	428	1.492
									1p9_8	-3.012	-2.589	-2.266	-1.207
									1p9_9	-3.012	-2.570	-2.323	-2.379
									1p9_10	-3.012	-1.857	-687	-217
									1p9_11	-3.012	-2.541	-2.320	-2.431
HWP $_{exp}$	-1525	-4019	-1183	-2498	-2914	-2059	-2385	-1451	*1p9_12*	-3.012	-2.020	-1.512	-1.216
									1p9_13	-3.012	-1.969	-1.527	-1.273
									1p9_14	-3.012	-1.143	261	969
									1p9_15	-3.012	-1.082	425	1.618
									1p9_16	-3.012	-2.587	-2.315	-1.920
									1p9_17	-3.012	-2.581	-2.333	-2.388

Table ANX-SE-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Sweden [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-619	-1.860	-2.118	-2.623
									1p9_1	-619	-1.868	-2.040	-2.667
									1p9_2	-619	-3.291	-5.002	-7.220
									1p9_3	-619	-3.322	-4.998	-7.358
									1p9_4	-619	-1.815	-2.058	-2.592
									1p9_5	-619	-1.828	-2.092	-2.658
									1p9_6	-619	-3.197	-4.820	-7.053
									1p9_7	-619	-3.285	-4.985	-7.324
									1p9_8	-619	-958	-963	-1.142
									1p9_9	-619	-965	-959	-1.172
									1p9_10	-619	-948	-936	-1.147
									1p9_11	-619	-954	-949	-1.165
HWP_{total}	-2133	-1580	-2109	-617	-149	-1608	-1050	877	1p9_12	-619	-1.844	-2.067	-2.599
									1p9_13	-619	-1.860	-2.095	-2.670
									1p9_14	-619	-3.276	-4.899	-7.129
									1p9_15	-619	-3.302	-4.982	-7.359
									1p9_16	-619	-957	-934	-1.124
									1p9_17	-619	-958	-949	-1.175

Slovenia (SL)

Table ANX-SL-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Slovenia

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,668	0,713	0,474	0,456
									1p9_1	0,668	0,733	0,471	0,460
									1p9_2	0,668	0,772	0,473	0,457
									1p9_3	0,668	0,748	0,472	0,458
									1p9_4	0,668	0,650	0,480	0,445
									1p9_5	0,668	0,573	0,479	0,445
									1p9_6	0,668	0,669	0,480	0,445
									1p9_7	0,668	0,633	0,479	0,445
									1p9_8	0,668	0,702	0,472	0,459
									1p9_9	0,668	0,719	0,472	0,459
									1p9_10	0,668	0,635	0,480	0,445
									1p9_11	0,668	0,556	0,480	0,445
f_{INDRW}	0,000	0,847	0,868	0,836	0,668	0,679	0,742	0,784	1p9_12	0,668	0,678	0,478	0,448
									1p9_13	0,668	0,673	0,472	0,460
									1p9_14	0,668	0,707	0,476	0,451
									1p9_15	0,668	0,708	0,472	0,458
									1p9_16	0,668	0,667	0,477	0,450
									1p9_17	0,668	0,661	0,471	0,461
									1p9	0,212	0,400	0,550	0,607
									1p9_1	0,212	0,427	0,565	0,665
									1p9_2	0,212	0,406	0,575	0,605
									1p9_3	0,212	0,415	0,548	0,668
									1p9_4	0,212	0,301	0,338	0,361
									1p9_5	0,212	0,301	0,345	0,371
									1p9_6	0,212	0,301	0,350	0,374
									1p9_7	0,212	0,301	0,326	0,350
									1p9_8	0,212	0,418	0,571	0,629
									1p9_9	0,212	0,418	0,577	0,669
									1p9_10	0,212	0,301	0,340	0,365
									1p9_11	0,212	0,301	0,333	0,357
f_{PULP}	0,417	0,374	0,169	0,264	0,212	0,250	0,224	0,132	1p9_12	0,212	0,337	0,479	0,509
									1p9_13	0,212	0,424	0,550	0,661
									1p9_14	0,212	0,364	0,484	0,518
									1p9_15	0,212	0,417	0,536	0,653
									1p9_16	0,212	0,353	0,505	0,530
									1p9_17	0,212	0,432	0,560	0,650

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,428	0,658	0,733	0,811
									1p9_1	0,428	0,644	0,742	0,801
									1p9_2	0,428	0,656	0,737	0,803
									1p9_3	0,428	0,651	0,750	0,800
									1p9_4	0,428	0,688	0,765	0,815
									1p9_5	0,428	0,685	0,764	0,816
									1p9_6	0,428	0,687	0,765	0,814
									1p9_7	0,428	0,685	0,764	0,814
									1p9_8	0,428	0,649	0,714	0,803
									1p9_9	0,428	0,649	0,735	0,799
									1p9_10	0,428	0,688	0,764	0,814
									1p9_11	0,428	0,687	0,764	0,815
f_{RecP}	0,173	0,240	0,193	0,141	0,428	0,212	0,000	0,000	1p9_12	0,428	0,680	0,776	0,826
									1p9_13	0,428	0,647	0,751	0,805
									1p9_14	0,428	0,671	0,773	0,824
									1p9_15	0,428	0,651	0,757	0,809
									1p9_16	0,428	0,675	0,768	0,821
									1p9_17	0,428	0,643	0,746	0,810

Table ANX-SL-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Slovenia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-77	-267	-646	-695
									1p9_1	-77	-295	-555	-606
									1p9_2	-77	-539	-756	-957
									1p9_3	-77	-460	-873	-1.053
									1p9_4	-77	-183	-187	-281
									1p9_5	-77	-103	-4	51
									1p9_6	-77	-293	-361	-503
									1p9_7	-77	-290	-346	-386
									1p9_8	-77	-203	-519	-599
									1p9_9	-77	-229	-529	-586
									1p9_10	-77	-138	-152	-240
									1p9_11	-77	-53	31	66
HWP_{total}	-28	-171	-120	-81	-53	-40	-141	-92	1p9_12	-77	-218	-323	-367
									1p9_13	-77	-220	-337	-413
									1p9_14	-77	-352	-562	-730
									1p9_15	-77	-391	-687	-867
									1p9_16	-77	-163	-281	-323
									1p9_17	-77	-157	-257	-336

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	163	-18	-115	-206
									1p9_1	163	-23	-100	-205
									1p9_2	163	-128	-350	-587
									1p9_3	163	-167	-385	-624
									1p9_4	163	5	-49	-127
									1p9_5	163	17	0	-20
									1p9_6	163	-87	-218	-368
									1p9_7	163	-111	-251	-351
									1p9_8	163	31	-34	-147
									1p9_9	163	28	-34	-143
									1p9_10	163	37	-10	-83
									1p9_11	163	55	37	5
HWP $_{dom}$	-6	17	214	250	191	147	93	138	*1p9_12*	163	-7	-81	-166
									1p9_13	163	-10	-82	-183
									1p9_14	163	-112	-281	-497
									1p9_15	163	-145	-388	-617
									1p9_16	163	36	-37	-108
									1p9_17	163	38	-30	-115
									1p9	-240	-249	-531	-489
									1p9_1	-240	-272	-455	-401
									1p9_2	-240	-411	-406	-370
									1p9_3	-240	-293	-488	-429
									1p9_4	-240	-187	-138	-154
									1p9_5	-240	-120	-4	71
									1p9_6	-240	-206	-143	-135
									1p9_7	-240	-179	-95	-35
									1p9_8	-240	-234	-485	-452
									1p9_9	-240	-257	-495	-443
									1p9_10	-240	-175	-142	-157
									1p9_11	-240	-108	-6	61
HWP $_{exp}$	-22	-187	-334	-332	-244	-187	-234	-230	*1p9_12*	-240	-211	-241	-201
									1p9_13	-240	-210	-255	-230
									1p9_14	-240	-241	-281	-233
									1p9_15	-240	-245	-299	-250
									1p9_16	-240	-199	-244	-215
									1p9_17	-240	-195	-227	-221

Table ANX-SL-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Slovenia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-282	-328	-300	-314
									1p9_1	-282	-328	-281	-315
									1p9_2	-282	-499	-630	-789
									1p9_3	-282	-506	-623	-810
									1p9_4	-282	-306	-267	-288
									1p9_5	-282	-321	-283	-312
									1p9_6	-282	-490	-606	-775
									1p9_7	-282	-502	-632	-809
									1p9_8	-282	-262	-209	-244
									1p9_9	-282	-262	-208	-245
									1p9_10	-282	-256	-204	-237
									1p9_11	-282	-259	-209	-244
HWP $_{total}$	-183	-511	-304	-393	-508	-236	-201	-58	***1p9_12***	-282	-317	-282	-307
									1p9_13	-282	-330	-281	-314
									1p9_14	-282	-495	-619	-786
									1p9_15	-282	-510	-626	-813
									1p9_16	-282	-259	-228	-238
									1p9_17	-282	-263	-226	-240

Slovakia (SK)

Table ANX-SK-0-A: Domestic feedstock factors for the ForestNavigator scenarios for Slovakia

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,710	0,811	0,000	0,821
									1p9_1	0,710	0,814	0,000	0,824
									1p9_2	0,710	0,816	0,016	0,818
									1p9_3	0,710	0,824	0,000	0,825
									1p9_4	0,710	0,753	0,066	0,802
									1p9_5	0,710	0,754	0,063	0,803
									1p9_6	0,710	0,759	0,068	0,802
									1p9_7	0,710	0,771	0,066	0,802
									1p9_8	0,710	0,808	0,002	0,821
									1p9_9	0,710	0,811	0,000	0,823
									1p9_10	0,710	0,752	0,066	0,802
									1p9_11	0,710	0,750	0,065	0,802
f_{INDRW}	0,000	0,979	0,920	0,923	0,710	0,687	0,643	0,793	1p9_12	0,710	0,793	0,027	0,816
									1p9_13	0,710	0,805	0,010	0,819
									1p9_14	0,710	0,805	0,035	0,814
									1p9_15	0,710	0,812	0,000	0,821
									1p9_16	0,710	0,785	0,028	0,816
									1p9_17	0,710	0,804	0,014	0,819
									1p9	0,698	0,832	0,907	0,958
									1p9_1	0,698	0,835	0,908	0,958
									1p9_2	0,698	0,830	0,905	0,957
									1p9_3	0,698	0,836	0,908	0,958
									1p9_4	0,698	0,802	0,880	0,944
									1p9_5	0,698	0,802	0,880	0,944
									1p9_6	0,698	0,802	0,880	0,944
									1p9_7	0,698	0,802	0,880	0,944
									1p9_8	0,698	0,832	0,907	0,958
									1p9_9	0,698	0,834	0,907	0,958
									1p9_10	0,698	0,802	0,880	0,944
									1p9_11	0,698	0,802	0,880	0,944
f_{PULP}	0,875	0,840	0,705	0,729	0,698	0,766	0,752	0,755	1p9_12	0,698	0,827	0,902	0,955
									1p9_13	0,698	0,830	0,904	0,956
									1p9_14	0,698	0,825	0,901	0,953
									1p9_15	0,698	0,832	0,905	0,956
									1p9_16	0,698	0,826	0,903	0,955
									1p9_17	0,698	0,829	0,904	0,955

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	0,000	0,000	0,119	0,218
									1p9_1	0,000	0,000	0,046	0,152
									1p9_2	0,000	0,080	0,192	0,283
									1p9_3	0,000	0,000	0,018	0,127
									1p9_4	0,000	0,328	0,569	0,655
									1p9_5	0,000	0,317	0,563	0,658
									1p9_6	0,000	0,338	0,573	0,656
									1p9_7	0,000	0,331	0,569	0,655
									1p9_8	0,000	0,008	0,129	0,227
									1p9_9	0,000	0,000	0,083	0,185
									1p9_10	0,000	0,328	0,569	0,655
									1p9_11	0,000	0,327	0,567	0,660
f_{RecP}	0,428	0,725	0,734	0,257	0,000	0,000	0,000	0,044	1p9_12	0,000	0,135	0,241	0,326
									1p9_13	0,000	0,049	0,166	0,259
									1p9_14	0,000	0,175	0,276	0,414
									1p9_15	0,000	0,000	0,123	0,221
									1p9_16	0,000	0,141	0,247	0,331
									1p9_17	0,000	0,069	0,183	0,296

Table ANX-SK-0-B: CO_2 emissions and removals associated with the HWP pool following the production approach for the ForestNavigator scenarios for Slovakia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-233	-968	-1.547	-1.204
									1p9_1	-233	-978	-1.559	-1.381
									1p9_2	-233	-1.295	-1.841	-1.689
									1p9_3	-233	-1.196	-1.860	-1.803
									1p9_4	-233	-464	-368	-367
									1p9_5	-233	-573	-462	-464
									1p9_6	-233	-611	-594	-918
									1p9_7	-233	-920	-814	-920
									1p9_8	-233	-873	-1.513	-1.206
									1p9_9	-233	-897	-1.522	-1.343
									1p9_10	-233	-404	-344	-346
									1p9_11	-233	-474	-387	-397
HWP_{total}	-835	-2020	-1343	-903	-167	-322	-104	-222	1p9_12	-233	-815	-803	-734
									1p9_13	-233	-926	-836	-760
									1p9_14	-233	-1.179	-1.509	-1.483
									1p9_15	-233	-1.173	-1.221	-1.235
									1p9_16	-233	-640	-701	-640
									1p9_17	-233	-850	-774	-704

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	34	-313	-374	-313
									1p9_1	34	-320	-365	-316
									1p9_2	34	-492	-669	-763
									1p9_3	34	-505	-667	-788
									1p9_4	34	-224	-205	-183
									1p9_5	34	-232	-213	-198
									1p9_6	34	-382	-479	-632
									1p9_7	34	-415	-511	-639
									1p9_8	34	-230	-306	-295
									1p9_9	34	-234	-299	-296
									1p9_10	34	-144	-144	-169
									1p9_11	34	-147	-145	-179
HWP $_{dom}$	-359	-1329	-1116	-386	58	263	239	173	*1p9_12*	34	-295	-282	-248
									1p9_13	34	-314	-280	-246
									1p9_14	34	-475	-609	-718
									1p9_15	34	-492	-606	-724
									1p9_16	34	-194	-209	-218
									1p9_17	34	-225	-207	-220
									1p9	-266	-656	-1.172	-891
									1p9_1	-266	-658	-1.193	-1.065
									1p9_2	-266	-803	-1.172	-926
									1p9_3	-266	-691	-1.193	-1.015
									1p9_4	-266	-240	-163	-184
									1p9_5	-266	-341	-249	-265
									1p9_6	-266	-229	-115	-286
									1p9_7	-266	-505	-303	-281
									1p9_8	-266	-644	-1.206	-910
									1p9_9	-266	-663	-1.223	-1.047
									1p9_10	-266	-259	-200	-176
									1p9_11	-266	-327	-242	-218
HWP $_{exp}$	-476	-691	-228	-517	-226	-584	-342	-394	*1p9_12*	-266	-520	-521	-485
									1p9_13	-266	-612	-556	-514
									1p9_14	-266	-705	-901	-765
									1p9_15	-266	-680	-615	-511
									1p9_16	-266	-446	-492	-422
									1p9_17	-266	-625	-566	-484

Table ANX-SK-0-C: CO_2 emissions and removals associated with the HWP pool following the stock-change approach for the ForestNavigator scenarios for Slovakia [in kt CO_2]

	2000	2005	2010	2015	2020	2021	2022	2023	Scenario	Ø 24-29	Ø 30-39	Ø 40-49	2050
									1p9	-660	-747	-568	-418
									1p9_1	-660	-750	-567	-421
									1p9_2	-660	-960	-936	-963
									1p9_3	-660	-960	-933	-983
									1p9_4	-660	-743	-556	-408
									1p9_5	-660	-752	-558	-415
									1p9_6	-660	-942	-905	-942
									1p9_7	-660	-946	-911	-951
									1p9_8	-660	-649	-484	-394
									1p9_9	-660	-649	-483	-396
									1p9_10	-660	-640	-474	-392
									1p9_11	-660	-646	-474	-398
HWP $_{total}$	-799	-1605	-1877	-1082	-810	-440	-555	-63	***1p9_12***	-660	-755	-560	-421
									1p9_13	-660	-756	-559	-421
									1p9_14	-660	-950	-920	-957
									1p9_15	-660	-960	-919	-967
									1p9_16	-660	-645	-477	-391
									1p9_17	-660	-648	-476	-398