REPORT

ON IMPLEMENTATION OF THE PROJECT

DEMONSTRATION OF CLIMATE CHANGE MITIGATION MEASURES IN NUTRIENTS RICH DRAINED ORGANIC SOILS IN BALTIC STATES AND FINLAND

WORK PACKAGE

MONITORING AND MEASURING THE LIFE KEY PERFORMANCE INDICATORS (D.3)

ACTIONS

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"LIFE OrgBalt compiled the first regional Baltic/ Finnish GHG emission factors for managed nutrient-rich organic soils (current and former peatlands), which have been made available for the customary scientific review and further verification for national GHG inventories in the hemiboreal region in Finland and the Baltic countries. While the project analysed selected CCM measures for drained organic soils in agriculture and forestry and developed spatial models and tools, it also identified remaining knowledge gaps. To bridge the remaining limitations and fill the gaps, it is essential to continue GHG measurements and model development, as well to broaden and complete the scope of the evaluated CCM measures in the after-LIFE-project period, notably by including rewetting and restoration of peatlands that are currently considered to be among the most recommended CCM measures on drained peatlands in the EU. In addition, the developed Simulation and PPC models still include limited macroeconomic considerations and lack assessment of all environmental impacts. For all these reasons, these models should be used carefully in CCM strategy development for identification of gaps in climate neutrality transition policy and funding frameworks and need further optimization for broader applicability as decision-making tools."

SUMMARY

Yearly reports on LIFE key performance indicators are part of the Project monitoring process, which is generally aimed at enhancing the successful implementation of the Project by preventive minimization of potential implementation risks. The main aim of measuring and monitoring the LIFE key performance indicators is to analyze the Project progress towards initially set indicators and targets.

Monitoring and measuring of the Project LIFE key performance indicators (KPI) is done in accordance with the methodology described in deliverable A.1.1 "Project work plan including monitoring guidelines". Monitoring guidelines include a description of the monitoring methods, indicators, and criteria. KPIs are set based on the indicators that are defined in the Project proposal, and they are broadly divided into indicators that are directly related to greenhouse gas (GHG) emissions reduction, sustainable land management and economic improvements, there is also a set of indicators related to communication and dissemination activities. A separate set of indicators is set for the Project lifetime and the end of the Project and separate for three years after the Project has ended. Indicators characterizing climate performance (GHG emissions reduction) and sustainable land use (agriculture and forestry) and economic performance and replication stay the same for both periods, but indicators characterizing communication, dissemination and awareness raising are narrowed down in the post-project implementation period.

Reports on KPI progress monitoring are prepared once per year starting from the first year of the Project implementation. The first report, D3/1, "Report on progress regarding LIFE key performance indicators," was developed by 31/08/2020, accumulating data from the Project period from 01/08/2019 - 31/07/2020. The second report, D3/2, was prepared by 31/08/2021 to summarize the monitoring data for the period 01/08/2019 – 31/08/2021. The third report, D3/3, summarised cumulative figures of KPI monitoring by 31/08/2022. This document is the fourth and final KPI progress report that informs of cumulative figures of KPI monitoring starting from the first year of the Project implementation (01/08/2019) by 31/08/2024.

ABBREVIATIONS

KPI – key project indicators

CCM – climate change mitigation

CH_4 – methane

CO_2 – carbon dioxide

GHG – greenhouse gas

CAP - Common Agriculture Policy

LBTU – Latvia University of Life Sciences and Technologies

LSFRI Silava – Latvian State Forest Research Institute "Silava"

FRS - agency "Forest research station"

N_2O – nitrous oxide

FTE - Full Time Equivalent

SG – Steering Group

GWP- Global warming potential

TABLE OF CONTENTS

Figures

Tables

1. INDICATORS RELATED TO THE ENVIRONMENTAL AND CLIMATE PERFORMANCE

Indicators related to the reduction of GHG emissions are set to be achieved at the end of the Project and within the 3 years after the Project end. Both sets of indicators and their characteristics is given in Table 1.

Table 1: LIFE key performance environmental and climate indicators to be achieved by the end and within the 3 years after the Project

Objective	Indicators	Measurement unit	Estimated impact (absolute values)	Estimated impact (in %)	Brief explanation of assumptions used for the calculation
			At the end of the Project		
Improved environmental and climate performance (including resilience to climate change)	Reduction of GHG emissions	CO_2 (carbon dioxide)	338 t CO_2/year	40% change	Default emission factors for nutrients-rich organic soils in cool temperate moist climate zone provided in the IPCC 2014 Wetlands supplement are used for calculation of impact of the implemented measures in case of land use changes. Literature reviews are used to estimate impact of wood ash application, changes in crop rotation and replacement of clear-felling with selective felling in spruce stands and gap-felling in pine stands. Following to approach applied in IPCC 2006 guidelines tier 1 methods no transitional period is applied. Growth curves of trees on drained or wet organic soils are considered in calculation of contribution of the living biomass o CO2 removals. However, the most of reduction of CO2 emissions is reached by reduction of CO2 emissions from soil. Role of living and dead biomass will increase in 20-40 years after afforestation. Estimated impact is calculated as difference between projected and current emissions.

		CH$_4$ (methane)	35 tons CO2 eq. / year	85 % change	Several measures are associated with rewetting or temporal increase of groundwater level; therefore, methane emissions will increase after implementation of the measures. The default emission factors for nutrients-rich organic soils in cool temperate moist climate zone provided in the IPCC 2014 Wetlands supplement are used for calculation of impact of the implemented measures in case of land use changes. Literature review was used in calculation of impact of variation of groundwater level. No transition period is applied according to tier 1 methods of IPCC 2006 guidelines. Estimated impact is calculated as difference between projected and current emissions.
		N$_2$O (nitrous oxide)	47 tons CO2 eq. / year	33 % change	Default emission factors for nutrients-rich organic soils in cool temperate moist climate zone provided in the IPCC 2014 Wetlands supplement are used for calculation of impact of the implemented measures in case of land use changes. Literature reviews are used to estimate impact of introduction of legumes into a rotation cycle. No transition period is applied according to tier 1 methods of IPCC 2006 guidelines. Reduction of N2O emissions mostly relates to measures associated to land us changes and rewetting. Estimated impact is calculated as difference between projected and current emissions.
Three years after the Project					
Improved environmental and climate performance (including	Reduction of GHG emissions	CO2 (carbon dioxide)	1041 tons CO2 in 3 years period	40 % change	Further reduction of GHG emissions due to implementation of the proposed measures in research forests and farmlands managed by the project partners. According to tier 1 method proposed in IPCC 2006 guidelines no transition period is applied to the GHG emission factors, therefore the projected impact in 3 years after

resilience to climate change)					implementation of the project is equal to the impact directly after implementation of the project. Only emission reduction in demo sites is considered in calculation, respectively, further implementation of the measures within the scope of the Rural development plan will increase climate change mitigation effect.
	CH4 (methane)	105 tons CO2 eq. in 3 years period	85 % change		Further reduction of GHG emissions due to implementation of the proposed measures in research forests and farmlands managed by the project partners. No transition period is applied to the GHG emission factors, therefore the projected impact in 3 years after implementation of the project is equal to the impact directly after implementation of the project. Explanation of the assumptions is provided earlier.
	N2O (nitrous oxide)	141 tons CO2 eq. in 3 years period	33 % change		Further reduction of GHG emissions due to implementation of the proposed measures in research forests and farmlands managed by the project partners. No transition period is applied to the GHG emission factors, therefore the projected impact in 3 years after implementation of the project is equal to the impact directly after implementation of the project. Explanation of assumptions is provided earlier. Explanation of the assumptions is provided earlier.

1.1 Reduction of greenhouse gas emissions (Carbon dioxide (CO_2))

CO_2 emissions reduction indicator value is calculated based on literature studies about CCM implementation effects and IPCC guidelines. IPCC 2014 Wetland Supplement default EFs are used for land use change measures and literature reviews for wood ash application, crop rotation impact and replacement of clear felling with selective felling. Estimated impact is calculated as difference between projected and current emissions. Reduction amount is calculated as reduction of t CO_2/year from demonstration sites in Latvia – in the period by Project end, and as reduction of t CO_2 from territories where CCM measures will be implemented 3 years beyond the project end. Reduction is planned after full establishment of demonstration territories, no reduction during the period when demonstration sites are under establishment.

Data gathering during and after Project run:

1) information about areas where CCM are implemented provided by the Project partners.
2) calculation of emission reduction – done by Project experts based on methodology described in deliverable A 1/1 "Project work plan including monitoring guidelines" – GHG flux monitoring, and deliverables under D1 - "Monitoring of the implementation of project activities".

According to GHG emission reduction calculation at the Project end the CO_2 mitigation target was not reached because of significantly smaller difference in CO_2 emissions from soil between the scenarios, resulting in consequently smaller mitigation effects of the measures, if conservative approach, ignoring potential positive long-term effect, is applied in calculation. There is also a shortage of knowledge about carbon input into the soil with plant residues in recently afforested areas; therefore, a conservative approach, considering a low input rate, resulted in limited mitigation effect a few years after the afforestation or management changes.

1.2 Reduction of greenhouse gas emissions (Methane (CH_4))

CH_4 emissions reduction indicator value is calculated based on literature studies about CCM implementation effects and IPCC guidelines, literature review was used in calculation of impact of variation of groundwater level. Several measures are associated with rewetting or temporal increase of groundwater level; therefore, methane emissions will increase after implementation of the particular measures. IPCC 2014 Wetland Supplement default EFs are used for land use change measures and literature reviews for impact of variation of groundwater level. Global warming potential (GWP) in accordance with IPCC`s 4th Assessment Report (CH4 -25). Estimated impact is calculated as difference between projected and current emissions. Reduction amount is calculated as reduction of t CO_2 eq./year from demonstration sites in Latvia – in the period by Project end, and as reduction of t CO_2 eq. from territories where CCM measures will be implemented 3 years beyond the project end. Reduction is planned after full establishment of demonstration territories, no reduction during the period when demonstration sites are under establishment.

Data gathering during and after Project run:

1) information about areas where CCM are implemented provided by the Project partners.
2) calculation of emission reduction – done by Project experts based on methodology described in deliverable A 1/1 "Project work plan including monitoring guidelines" – GHG flux monitoring, and deliverables under D1 - "Monitoring of the implementation of project activities".

According to GHG emission reduction calculation at the Project end the reached CH_4 emission reduction was smaller than expected by the end of the Project because the effect of measures contributing to CH_4 reduction

was partly compensated by an increase in CH_4 emissions.

1.3 Reduction of greenhouse gas emissions (Other GHG (nitrous oxide N₂O))

N_2O emissions reduction indicator value is calculated based on literature studies about CCM implementation effects and IPCC guidelines. IPCC 2014 Wetland Supplement default EFs are used for land use change measures and literature reviews calculation of impact of the implemented measures in case of land use changes. Reduction of N2O emissions mostly relates to measures associated to land us changes and rewetting. GWP in accordance with IPCC`s 4th Assessment Report (N2O - 298). Estimated impact is calculated as difference between projected and current emissions. Reduction amount is calculated as reduction of t CO_2 eq./year from demonstration sites in Latvia – in the period by Project end, and as reduction of t CO_2 eq. from territories where CCM measures will be implemented 3 years beyond the project end.   Reduction is planned after full establishment of demonstration territories, no reduction during the period when demonstration sites are under establishment.

Data gathering during and after Project run:

1) information about areas where CCM are implemented provided by the Project partners.
2) calculation of emission reduction – done by Project experts based on methodology described in deliverable A 1/1 "Project work plan including monitoring guidelines" – GHG flux monitoring, and deliverables under D1 - "Monitoring of the implementation of project activities".

According to GHG emission reduction calculation at the Project end the N_2O emission reduction target was not reached because the project results demonstrated significantly smaller N_2O emissions in the reference scenarios; therefore, the mitigation effect was smaller than expected. Only the sowing of legumes instead of continuous rotation of cereals reduced N_2O emissions in the agriculture sector (according to GHG inventory reporting categories).

2. INDICATORS RELATED TO SUSTAINABLE LAND USE IN AGRICULTURE AND FORESTRY

Indicators related to sustainable land use are set to be achieved at the end of the Project and within the 3 years after the Project end. Both sets of indicators and their characteristics is given in Table 2.

Table 2: LIFE key performance sustainable land use indicators to be achieved by the end and within the 3 years after the Project

Objective	Indicators	Measurement unit	Estimated impact (absolute values)	Estimated impact (in %)	Brief explanation of assumptions used for the calculation
At the end of the Project					
Sustainable land use, agriculture and forestry	Forestry	Reforested areas; increase in area under sustainable forest management	28 ha	100 % change	According to the work plan 10 ha will be afforested during project implementation in Latvia and other climate change mitigation targeted measures will be implemented in 18 ha of forest lands. Estimated impact is calculated as difference between proposed area of demo sites and area of demo sites established within the scope of the project.
	Agriculture	Areas of agricultural land under sustainable management	17 ha	100 % change	Climate change mitigation targeted measures will be implemented in 17 ha of cropland and grassland. Management of these areas according to recommendations elaborated by the project will be continued as a part of program of maintenance of long-term research plots by Latvian University of Life Science and Technologies and agency "Forest research station". Estimated impact is calculated as difference between proposed area of demo sites and area of demo sites established within the scope of the project.
Three years after the Project					

Sustainable land use, agriculture and forestry	Forestry	Reforested areas; increase in area under sustainable forest management	84 ha	304% change	20 more hectares will be afforested after project implementation in Latvia by Joint stock company "Latvia state forests" and other climate change mitigation targeted measures will be implemented in 32 ha of state forest lands. Estimated impact is calculated as difference between proposed area of demo sites and area of demo sites established within the scope of the project.
	Agriculture	Areas of agricultural land under sustainable management	17 ha	100 % change	Climate change mitigation targeted measures will be implemented in 17 ha of cropland and grassland. Management of these areas according to recommendations elaborated by the project will be continued as a part of program of maintenance of long-term research plots by Latvian University of Life Science and Technologies and agency "Forest research station". Estimated impact is calculated as difference between proposed area of demo sites and area of demo sites established within the scope of the project.

2.1. Forestry

Estimations about increase in area under sustainable forest management within the Project is based on the area of demonstration sites to be established in Latvia. In demo territories innovative climate change mitigation measures are implemented in nutrient rich forest land area. Planned forest area under demonstration sites in Latvia is 28 ha. Around 10 ha of 28 ha are to be afforested under CCM (climate change mitigation) measures that include land use change from agriculture land to forest land. The rest of 18 ha are areas where other than afforestation CCM measures will be implemented – e.g. continuous forest coverage, wood ash application, specific planting methods and species for nutrient rich organic soils - thus ensuring sustainable land use practice. Reach of after the Project end indicator will be evaluated by the amount of established demo site areas.

In 3 year period after Project implementation Project results dissemination will ensure replication of the sustainable forest land management practices in nutrient rich organic soils and another at least 20 ha of agriculture land on nutrient rich organic soils are supposed to be afforested (most likely but not only by Joint stock company "Latvia state forests") and other CCM mitigation practices are projected to be implemented in 36 ha of state forest land on nutrient rich organic soil. Information will be gathered also from partner countries as Project replication and results dissemination activities will impact also land management there.

Data gathering:

1) information exchange based on regular collaboration practices established among LSFRI "Silava" and Joint stock company "Latvia`s State Forests".
2) tentatively - information from Rural Support Service of Latvia about nutrient rich organic soils afforested with CAP (Common Agriculture Policy) support. Information exchange with Rural Support Service is already organized on yearly basis.
3) during and after Project run – information provided by the Project partners, information from policy documents (e.g. National Energy and Climate Plans (NECP)) implementation monitoring.

Since all the demonstration sites in Latvia are established in accordance with planned, the sustainable land use/forestry indicator in absolute values by the end of the Project – 28 ha - is reached. Information systems of the Rural Support Service of Latvia in 2024 can not provide data specifically about nutrient-rich organic soils afforested with CAP support. If such data becomes available, it will be used to update the after-Project run indicator. After Project run indicator achievement can be impacted by what measures are planned for their implementation in policy documents, e.g. in NECP. However, as of August 2024, there is still limited information available about the updated NECP of the EU Member States. For example, Latvia`s updated NECP for 2026-2030 includes measures that echo measures demonstrated by LIFE OrgBalt - soil enrichment/fertilization in nutrition poor organic soil forests using wood ash, the restoration of wetland forest habitats in organic soils on agricultural lands (tree paludiculture), afforestation of drained organic soils where rewetting is not possible. The achievement of the after-Project run indicators will be assessed by considering the success of the implementation of the related policy documents.

2.2. Agriculture

Indicator for sustainable land use in agriculture is set based on demonstration territories area where CCM measures in agriculture land on nutrient rich organic soil will be implemented in Latvia. The total

area for this indicator is 17 ha and it stays the same for "by the end of the Project" period and for the period "3 years after the Project end". However, CINEA, after the project visit letter of 12.05.2023, raised Issue 15, which strongly encourages LIFE OrgBalt to be more ambitious and set higher values for sustainable agricultural land use indicators three years after the end of the project. Following the aforementioned encouragement, the Project will aim to double the sustainable agriculture land use indicator value by 2027 to 34 ha.

Both - cropland and grassland area are considered and these areas are under management of Latvian University of Life Science and Technologies (LBTU) and agency "Forest research station" (FRS)". Continuation of sustainable practices after Project end in these territories is ensured by the fact that sites are part of program of maintenance of research plots in case of both institutions. Information about 3 years period after Project end will be gathered also from partner countries as Project replication and results dissemination activities will impact also land management there.

Data gathering:

1) LSFRI "Silava" is collaborating with and exchanging information on regular basis with both institutions – LBTU and FRS. LBTU is one of LIFE OrgBalt project partners.
2) during and after Project run – information provided by the Project partners, information from policy documents (e.g. National Energy and Climate Plans (NECP)) implementation monitoring.

All the demonstration sites in Latvia are established in accordance with planned thus the sustainable land use/agriculture indicator in absolute values by the end of the Project – 17 ha - is reached. As well as forestry, the achievement of agriculture indicators is also related to policy document implementation, especially NECPs. In the case of Latvia, NECP for the period 2026 - 2030 includes measures that are related to the ones demonstrated by LIFE OrgBalt and can be implemented on nutrient-rich organic soil used in agriculture – e.g. hedgerows, agroforestry systems – that would support replication of the sustainable agriculture land management including "3 years after the Project end" indicator achievement.

3. INDICATORS RELATED TO ECONOMIC PERFORMANCE AND REPLICATION

Indicators related to economic performance and replication are set to be achieved at the end of the Project and within the 3 years after the Project end. Both sets of indicators and their characteristics is given in Table 3.

Table 3: LIFE key performance economic and replication indicators to be achieved by the end and within the 3 years after the Project

Objective	Indicators	Measurement unit	Estimated impact (absolute values)	Estimated impact (in %)	Brief explanation of assumptions used for the calculation
At the end of the Project					
Economic Performance, Market Uptake, Replication	Employment	Jobs created	FTE 7	3 % change	Calculations are based on internal estimations of the Partner organizations and assumptions that the sustainable approaches in land management will be integrated more
	Replication / Transfer	No of organizations	15	100 % change	Organizations/ institutions to be involved in the further implementation of the Project results - the Partner organizations and in addition 2 from each participating country
Three years after the Project					
Economic Performance, Market Uptake, Replication	Employment	Jobs created	FTE 15	3 % change	Calculations are based on internal estimations of the Partner organizations and assumptions that the sustainable approaches in land management will be integrated more
	Replication / Transfer	No of organizations	30	200 % change	Organizations/ institutions to be involved in the further implementation of the Project results. State governmental

					organizations (ministries and agencies), universities and research institutions, non-governmental organizations involved in climate change reduction and adaptation (6 organizations in each of 5 partner countries). Organizations will use the measurements developed within project and replicate the scenarios tested.

3.1 Employment

Employment indicator "Jobs created" is based on assumption about number of fully employed persons thought a year during the Project run time and in 3 years period after the Project end. FTE (Full Time Equivalent) is a unit to measure the number of fully employed persons throughout a year in a way that makes employments comparable even though some work less and others work more hours over that period.

For calculation of FTE 8 hours per day are considered as equivalent to one full working day, and 220 full working days per year as equivalent to one annual FTE worked by an employee. Project numbers are calculated in the Project scope – for Finland, Latvia, Lithuania, Estonia and Germany together and based on assumption that fully employed percentage of persons in Project will stay stable during the Project run, involved persons will continue working with Project themes related topics in their institutions also after project end and in period of 3 years after Project additional persons will be hired to work full time in partners institutions on sustainable land use approaches in nutrient rich organic soil management in agriculture and forestry. FTE values to monitor the indicator are calculated as fully employed persons during the one year of the project run.

Data gathering:

During and after Project run – information provided by the Project partners.

The estimated impact in absolute values (FTE) at the end of the Project for the whole project consortium is 11.5 which exceeds the minimum required value – FTE 7.

3.2 Replication and transfer

Replication and transfer indicator is based on the number of organizations that will be involved in implementation of the Project results in practice. In general, all partner organizations are considered and in addition 2 organizations to be involved from each partner country. Institutions to be involved include governmental institutions (e.g. ministries, agencies, state services and centers), research organizations (e.g. universities and research institutes) and non-governmental organizations. At the Project end 15 organizations should be involved, but in the period 3 years after Project end – 30 organizations form all 5 Project partner countries (6 organizations per country).

During project run Project Steering Group (SG) is established and meeting on regular basis – twice per year. SG members are time by time encouraged to comment and consult Project results preparation process also in between SG meetings thus ensuring that organizations are involved in Project results preparation process during the project run and thus will be actively involved also in practical implementation. For period 3 years after project end intensive Project results dissemination and replication activities will ensure the fulfillment of the indicator target.

Data gathering:

During and after Project run – information provided by the Project partners.

In 2024, at the project end, LIFE OrgBalt SG consists of members form 16 institutions (ministries, agencies, state services, research institutions), together with partner organizations (8) total number organizations involved is 24. Additionally number of non-governmental organizations (agriculture and forestry NGOs) from all partner countries took part in National and Training seminars thus also being involved in replication and transfer of the project results.

4. INDICATORS RELATED TO COMMUNICATION, DISSEMINATION AND AWARENESS RISING

Indicators related to communication, dissemination and awareness rising are set to be achieved at the end of the Project and within the 3 years after the Project end. Communication, dissemination and awareness rising indicators will be monitored in accordance with the Project` internal Communication guidelines.

Both sets of indicators and their characteristics is given in Table 1.

Table 4: LIFE key performance communication, dissemination and awareness rising indicators to be achieved by the end and within the 3 years after the Project

Objective	Indicators	Measurement unit	Estimated impact (absolute values)	Estimated impact (in %)	Brief explanation of assumptions used for the calculation
At the end of the Project					
Communication, dissemination, awareness rising	Awareness raising	Number of entities/individuals reached/ made aware	500	5 % change	This number is based on estimated reach of individuals via social media accounts, taking into consideration previous experience with communication feedback within similar projects.
	Website	total website hits	10,000	n/a	
	Behavioral change	Number of entities/individuals changing behavior	300	5 % change	
	Reach, print media, no of copies	no. of individuals	2,000.00		
	Reach,e-update, no of downloads	no. of individuals	2,500.00		
	Reach, film,	no. of individuals	10,000.00		

	broadcasts				
	Reach, manual, no of copies	no. of individuals	2,000.00		
	Conference	no. of individuals	150.00		
	Twitter followers	no. of individuals	200.00		
	Facebook followers	no. of individuals	200.00		
Three years after the Project					
Communication, dissemination, awareness rising	Awareness raising	Number of entities/individuals reached/ made aware	2,000	7 % change	This number is based on estimated reach of individuals via social media accounts, taking into consideration previous experience with communication feedback within similar projects.
	Website	total website hits	40,000	n/a	
	Behavioral change	Number of entities/individuals changing behaviour	1500	7 % change	

4.1 Awareness raising

Awareness rising indicator is set based on the target to be achieved as number of individuals reached. Indicator value is monitored by collecting participants lists and other information certifying awareness rising, including e-mails sent to interested stakeholders. By 22/08/2024 more than 1312 e-mails were sent (and received) to interested stakeholders (e-mails sent directly to stakeholders in process of dissemination of the published 8 newsletters). Altogether 524 persons participated in the National and training workshops on climate change mitigation measures for nutrient rich organic soils in each partner country (Finland 78 participants, Germany 75 participants, Lithuania 100 participants, Estonia 77 participants, Latvia 194 participants).

On 19/05/2022 the Opening event of the demonstration sites of climate change mitigation measures with the visit to demonstration of controlled drainage and conversion of cropland to grassland in Vecauce (Latvia) parish. Total number of participants was 32 persons. In addition, by 22/08/2024 the project partners in different combinations participated in different levels networking and awareness raising events where they shared the information about the Project and its activities. The total number of participants in described

events was 1501 persons.

Altogether by 22/08/2024 the value of the awareness rising indicator of individuals, which includes number of participants in LIFE OrgBalt project's events, external networking events and e-mails sent to stakeholder's, reached 3965 persons, that exceeds the planned value of the indicator in Project proposal.

4.2 Website (www.orgbalt.eu)

Indicator for website activity monitoring is set as total website hits. Activity is monitored by using Google Analytics and website analytic parameters. There are discrepancies between indicator values in the application (total website hits) and KPI web tool (unique visits). Parameter `unique visits` is more precise measure in assessment of website performance. In the application the term `hits` has been wrongly used and should be replaced with the parameter `pageviews`. Pageviews are expected to meet the value included in the application under the wrong terminology `hits`, i.e. 10.000 during Project run. Indicator is to be used and achieved for both periods – by the Project end and 3 years after Project end.

Data gathering: an indicator is monitored by using website analytic parameters.

In period of 01/08/2022 – 14/08/2024 the website had 3628 sessions or unique visits, and in total 16080 page views. Project website performance's cumulative statistics since the beginning of the project (01/08/2019 – 14/08/2024): 10031 individual visitors or users and 41098 pageviews that exceeds the planned value of the indicator in Project proposal.

In following figures Project main website www.orgbalt.eu traffic statistics is displayed, website visitors by country and most visited sections are shown.

Figure 1. LIFE OrgBalt website traffic cumulative statistics (source Google Analytics, 01/08/2019-31/08/2022)
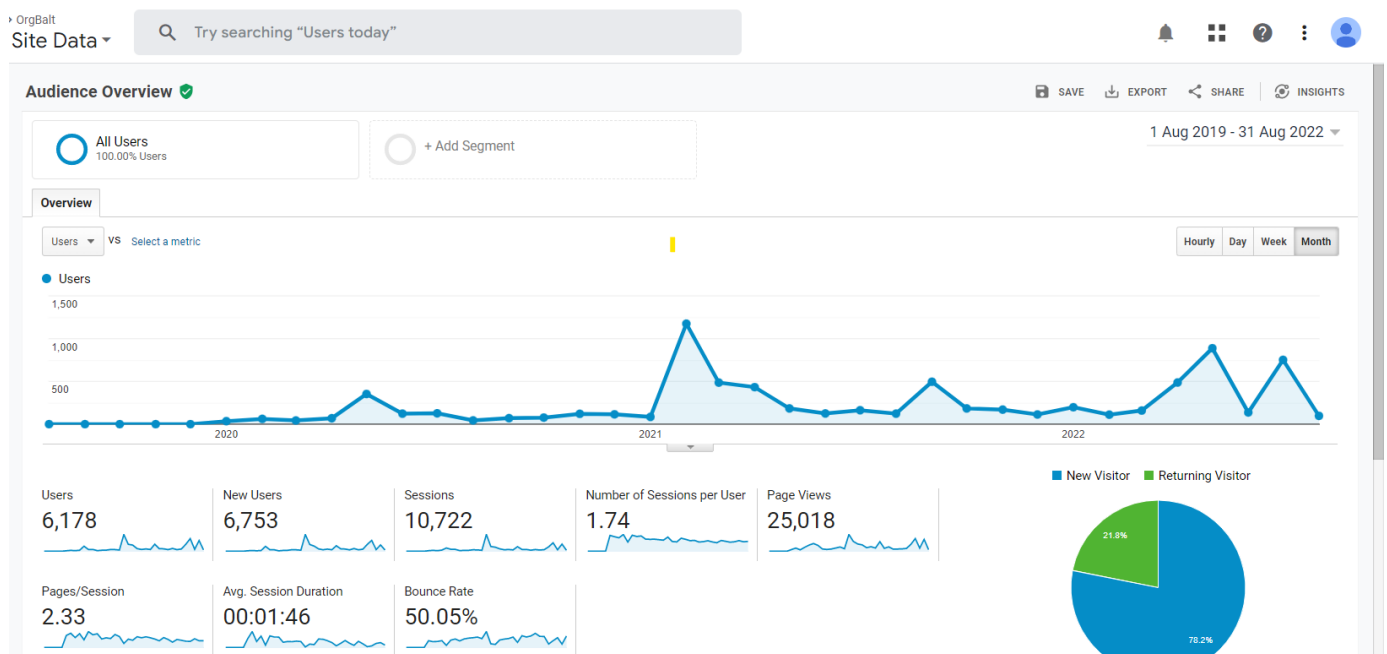
Figure 2. LIFE OrgBalt website traffic cumulative statistics (source Google Analytics, 01/09/2022-31/08/2023)
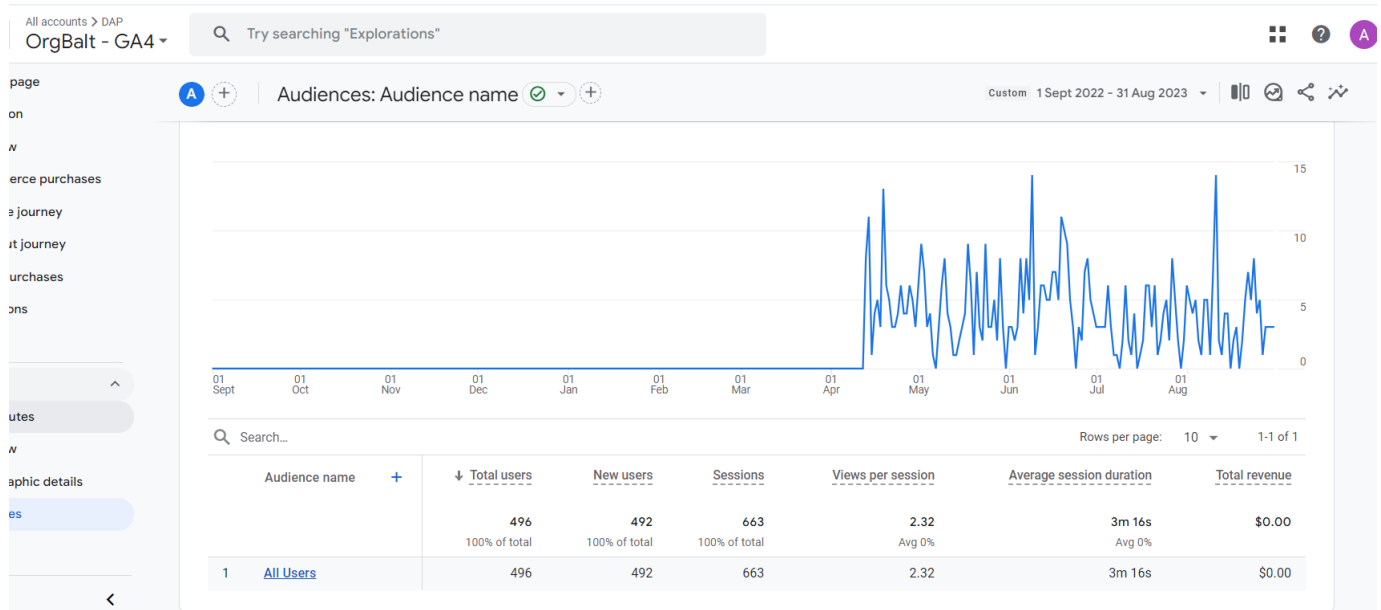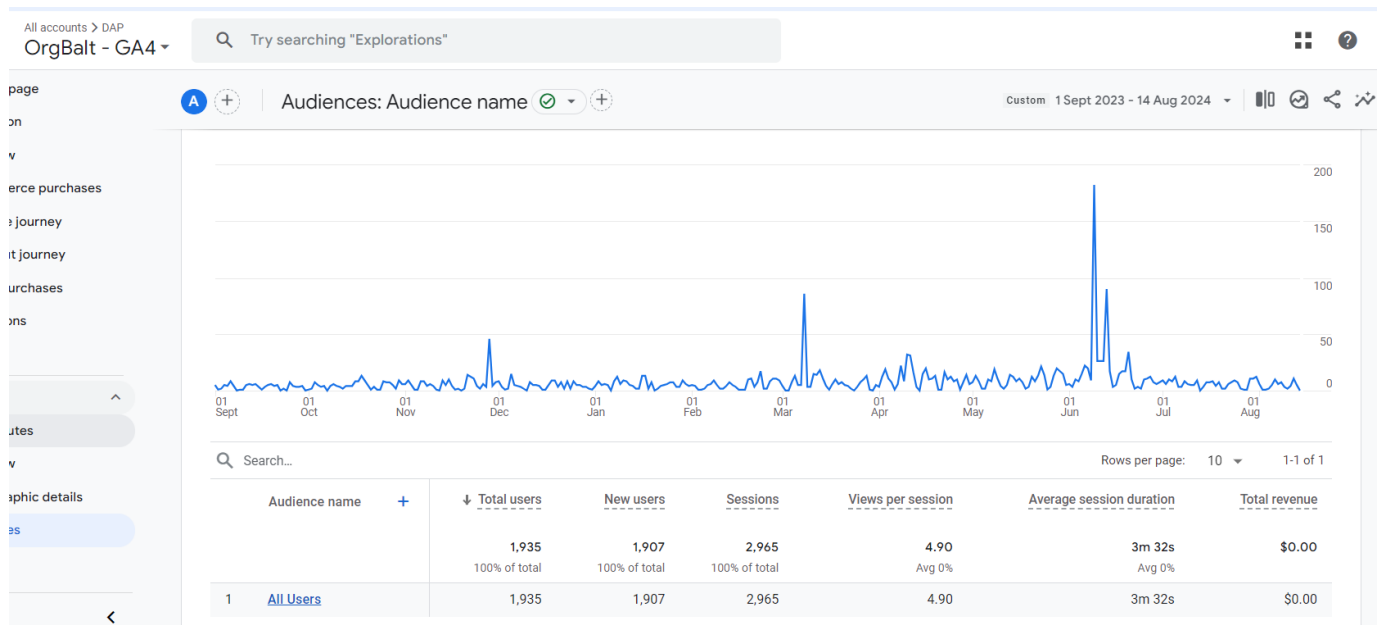

Figure 3. LIFE OrgBalt website traffic cumulative statistics (source Google Analytics, 31/08/2023-14/08/2024)

Analyzing which countries most of LIFE OrgBalt's website visitors come from it is clear that from the start of the project until 14/08/2024, the site is most visited from Latvia, followed by United States, Ireland, Finland and Estonia.

Figure 4. Website visitors by country – TOP 10 (source Google Analytics, 01/08/2019-31/08/2022)

Country		Users	% Users
1.	Latvia	1,215	19.52%
2.	United States	778	12.50%
3.	Ireland	566	9.10%
4.	China	374	6.01%
5.	Germany	183	2.94%
6.	India	172	2.76%
7.	Japan	115	1.85%
8.	Lithuania	112	1.80%
9.	Finland	111	1.78%
10.	Brazil	106	1.70%

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Figure 5. Website visitors by country – TOP 10 (source Google Analytics, 01/09/2022-31/08/2023)

All accounts > DAP
OrgBalt - GA4

Q Try searching "Explorations"

Demographic details: Country   Custom 1 Sept 2022 - 31 Aug 2023

	Country	↓ Users	New users	Engaged sessions	Engagement rate	Engaged sessions per user	Average engagement time	Event count All events	Key events All events
		495 100% of total	492 100% of total	341 100% of total	51.43% Avg 0%	0.69 Avg 0%	49s Avg 0%	3,792 100% of total	0.00
1	Latvia	284	284	250	62.81%	0.88	1m 07s	2,559	0.00
2	Finland	40	40	11	25%	0.28	12s	184	0.00
3	United States	33	32	1	2.78%	0.03	0s	108	0.00
4	Ireland	24	24	1	4.17%	0.04	0s	73	0.00
5	Netherlands	22	22	14	51.85%	0.64	25s	130	0.00
6	Estonia	19	19	18	58.06%	0.95	1m 20s	211	0.00
7	Austria	11	11	4	36.36%	0.36	3s	39	0.00
8	France	11	11	1	9.09%	0.09	1m 13s	44	0.00
9	Germany	10	9	10	55.56%	1.00	1m 14s	99	0.00
10	Lithuania	10	10	9	45%	0.90	36s	88	0.00

Figure 6. Website visitors by country – TOP 10 (source Google Analytics, 31/08/2023-14/08/2024)
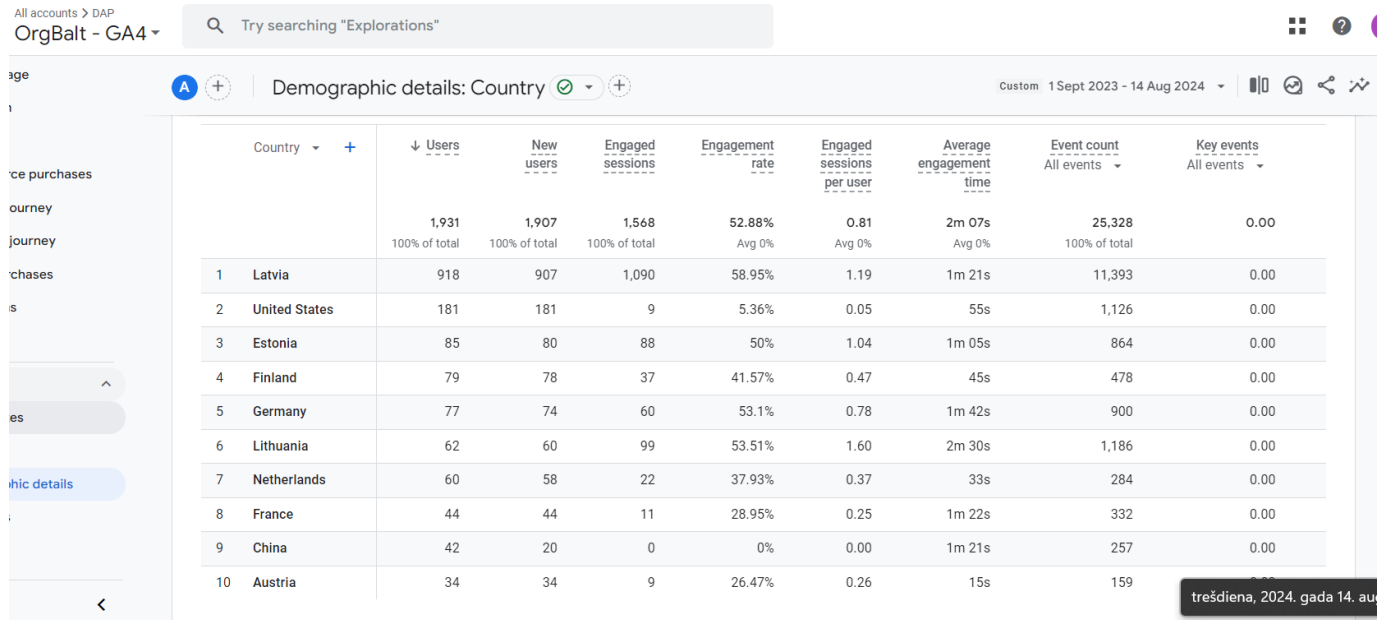
Analyzing the most visited sections of LIFE OrgBalt website one can see that the most visited page is the landing page or start page in English, followed by News section, section Activities and results in English, section Presentations, Description and Publications in Latvian, Than follows articles published Presentations section in English. Statistics in Figure 7:

Figure 7. Most visited sections of LIFE OrgBalt website – TOP 10 – cumulative statistics (source Google Analytics, 01/08/2019-31/08/2022)

Page Title	Page Views	% Page Views
1. (not set)	8,865	35.43%
2. OrgBalt – LIFE project	4,229	16.90%
3. News – OrgBalt	1,395	5.58%
4. ACTIVITIES AND RESULTS – OrgBalt	903	3.61%
5. Presentations – OrgBalt	485	1.94%
6. DESCRIPTION – OrgBalt	439	1.75%
7. PUBLIKĀCIJAS – OrgBalt	423	1.69%
8. Gruntsūdens dziļuma kartes Baltijas valstīm: organisko augšņu un mitrāju izplatības modelēšana – OrgBalt	419	1.67%
9. ARTICLES – OrgBalt	346	1.38%
10. AKTIVITĀTES UN REZULTĀTI – OrgBalt	298	1.19%

view full report

4.3   Behavioral change

Behavioral change indicator is to be measured by number of individuals or entities changing behavior. Indicator will be monitored and reported by data gathering about CCM implication practices – cases. Indicator can be measured only at the end phase of the Project when Project results are ready and at least partly disseminated.

Data gathering:

1) CAP payment agencies data – information from partner countries.
2) Information form NGOs – farmers` and foresters' organizations.

In 2024, specifically organic soil-related data about existing or changed land management practices are unavailable from CAP payment agencies or NGOs without carrying out a separate data mining research project (there is a general lack of land use management data at the detail aggregation (soil type) level). Thus, the behavioural changes indicator at the end of the project is measured based on the number of individuals who participated in the national and training workshops on climate change mitigation measures for nutrient-rich organic soils in each partner country, which is 524 persons altogether. Assuming that half of the trained individuals could have been reached by new information that impacts their behaviour, e.g. they use models provided by LIFE OrgBalt to start examining (what was not done by them before) organic soil land use change possibilities, the assumption is made that behavioural change indicator at the end of the project is 262 which is slightly below the set target value. For 3 years after the Project end period, the statistics about individuals' interest in both models' use will be analysed and reported.

4.4   Reach, print media, no of copies

Indicator – print media is to be measured by number of printed materials distributed to the Project` stakeholders` audience. Data gathering – information on printed and distributed materials. The first printed material, the leaflet, has been printed in all project languages altogether in 1500 printed copies. Digital version available in OrgBalt webpage. Due to the COVID-19 created obstacles all project events were held digitally, and the distribution rate of paper leaflets is growing, in total 136 pieces distributed (that is 6,8 % of total planned 2000 no of individuals planned project proposal). The leaflet was developed by BC in cooperation with WG Communication.

Altogether 700 printed copies of layman's report have been developed, 200 copies in English, and 500 copies in project partners languages (100 copies per each respectively).

Additionally, the booklet has been printed in 1200 copies in English and digital copies in project partner's languages have been developed and published. Both the booklet and layman's report have been distributed at project's events, such as the final conference and in-person national and training workshops.

4.5   Reach, e-update, no of downloads

Communication indicator – number of downloads is planned to be monitored by numbers obtained according to the Google Analytic statistics and website statistics, e-update – by distribution of newsletters, popular and technical articles, policy briefs, press releases and leaflets.

By 22/08/2024 altogether 26 articles, 8 newsletters, 4 press releases and a leaflet in all 6 Project languages is published in Projects main webpage www.orgbalt.eu.

By 14/08/2024 8 newsletters are published in Projects main webpage www.orgbalt.eu and in

addition to the publishing all newsletters are sent to stakeholders and interested parties through e-mail. Newsletters have been sent to 1312 e-mail addresses.

The number of page views of published popular articles, technical articles, articles for general public, press release and leaflets on the Projects main webpage www.orgbalt.eu is 4388 pageviews (from the beginning of the project – 14/08/2024).

The value of the indicator – the number of digital reaches of published popular articles, technical articles, articles for general public, press release and leaflets on the Projects main webpage is 6457 downloads (01/08/2021 – 14/08/2024) and 9685 downloads from the beginning of the Project by 14/08/2024, that exceeds the planned value of the indicator in Project proposal.

Altogether the reach, evaluated by the number of downloads of articles and newsletters from the website, e-updates from the newsletters sent out from the start of the Project by 14/08/2024 is over 15385 (including pageviews) or 10997 (excluding pageviews), which exceeds the planned value of the indicator in Project proposal.

4.6   Reach, film, broadcasts

Film/broadcasts indicator is measured by number of individuals reached. Indicator value is monitored by gathering number of views of the video on websites and social media channels - digital channels. By 22/08/2024 4 short documentaries are published on LIFE OrgBalt youtube channel and website, each in Project 6 language versions with subtitles. The total number of views of the 1st short documentary in digital channels is 353 views, number of views of 2nd short documentary in the digital channels is 215 views and the number of 3rd short documentary in the digital channels is 216. The documentaries on the project's website have also been viewed 51 times. Altogether number of views of the documentaries and video materials in digital channels reached is 835 views.

In addition two other video materials have been developed within the project: 1) short video about installation of the Project notice boards at the project demonstration sites (44 views in digital channels) and 2) short retrospective video about the Opening event of the demonstration sites of climate change mitigation measures with the visit to demonstration of controlled drainage and conversion of cropland to grassland in Vecauce (Latvia) parish on 19/05/2022 (13 views in digital channels).

In addition to digital channels documentaries and video materials has been demonstrated in several Project events and events project partners participated with the project dissemination activities – 3 events with total participant number of 61 persons as well as on the first day of the project's final conference with 77 participants.

The popular national TV broadcast "Environmental facts" ("Vides fakti") produced and published in 11/06/2022 broadcast a story about the Project and the documentary and demonstrated partly 2nd documentary (source: https://ltv.lsm.lv/lv/raksts/11.06.2022-vides-fakti.id264066). The audience of each series of the broadcast is 50000 people.

Altogether by 22/08/2024 project videos, outside the ''Environmental facts'' (''Vides fakti'') broadcast have been viewed 976 times (that is 9.76 % of total planned number 10000 views of short documentary in Project proposal). Including the ''Environmental facts'' broadcast on 11/06/2022, the reach of the film is over 50'000 people which exceeds the the planned value of the indicator in Project proposal.

4.7 Reach, manual, no of copies

Communication indicator – number of manual copies distributed will be monitored by collecting information on distributed copies by all partners. Manual (training workshop materials – manual of the Project` tools under C4/C5 activities) will serve as dissemination material in the framework of training courses to be organized towards the end of the project to inform each country's stakeholders about the project results as well as by disseminating PPC model tool. Manual materials will be distributed in all Project` countries and distribution information will be then collected from Project` partners to report this indicator. The training workshops under activities C4 and C5 are planned to organize more towards project ending, planned to start in 2023 (due to the postponement of elaboration of C4 and C5 deliverables).

During the in-person workshops, altogether over 137 copies of printed training materials have been distributed. As the rest of the training owrkshops took place online, 387 digital copies of training materials were distributed to the rest of the participants. Furthermore, the digital copies of the materials have been published on the www.orgbalt.eu website.

4.8   Conference

Communication, dissemination and awareness rising indicator – *conference* is to be measured by using attendance register. Indicator is set for the period- at the end of the Project and target achievement will be monitored after final Project conference at the end of the Project.

The conference, that spanned 2 days, was held in-person in Riga, Latvia with the option for attendees to participate through the online streaming on project's website and social media. 77 participants joined the first day of the conference in-person, and 116 joined on-line. On the second day of the conference, 39 participants joined the project's demonstration site visits. Altogether, the conference gathered 232 participants, which exceeds the planned value of the indicator in Project proposal.

4.9   Twitter and Facebook followers

Communication, dissemination and awareness rising indicators – social media followers (Twitter and Facebook) are to be measured by using accounts` information. Indicators are to be measured during the project run – by the end of the Project. We are including in the calculations accounts of those who have published the information related to the project, including Partners accounts.

The total number of followers of all Projects partners accounts and LIFE OrgBalt official account on Twitter followers and Facebook platforms by 22.08.2024 is 124777 followers (83804 followers on Facebook platform and 40973 followers on Twitter platform). The total number of Facebook followers on LIFE OrgBalt and the Latvian partners (Silava, Ministry of Agriculture of Latvia, Association Baltic Coasts, LBTU) facebook accounts is 17531 and twitter accounts is 7970. All of the numbers exceed the number of followers planned in Project proposal).

Figure 7. LIFE OrgBalt account on Facebook: https://www.facebook.com/orgbalt

Figure 8. LIFE OrgBalt account on Twitter: https://twitter.com/orgbalt

5. SUMMARY OF INDICATORS` MONITORING

Indicators` monitoring summary shows current progress and monitored values in due time. Table is to be complimented in 3 years period after Project end. Values "n/a" mean not applicable at the particular time, values "-" is placeholder for indicator value at the particular time period.

Indicator	Estimated impact in absolute values, end of the Project	Estimated impact in absolute values, 3 years after the end of Project	Target achievement 2020	Target achievement 2021	Target achievement 2022	Target achievement 2024	Target achievement 2025	Target achievement 2026	Target achievement 2027
Carbon dioxide CO_2	338 t CO2 eq. /yr	1041 t CO2 eq. /yr	n/a	n/a	n/a	203	-	-	-
Methane CH_4	35 t CO2 eq. /yr	105 t CO2 eq. /yr	n/a	n/a	n/a	21	-	-	-
Nitrous oxide N_2O	47 t CO2 eq. /yr	141 t CO2 eq. /yr	n/a	n/a	n/a	28	-	-	-
Sustainable land use, forestry	28 ha	84 ha	n/a	28	**28**	28	-	-	-
Sustainable land use, agriculture	17 ha	17 (34) ha	n/a	17	**17**	17	-	-	-
Employment, jobs created	FTE 7	FTE 15	9.9	9.9	**9.9**	11.5	-	-	-
Replication/ transfer	15 organizations	30 organizations	18	20	**20**	24	-	-	-
Awareness raising	500 Number of entities/individuals reached/ made aware	2000 Number of entities/individuals reached/ made aware	200	Cumulative 648	**Cumulative 2140**	**Cumulative 3965**	-	-	-
Website	Total website hits 10 000	Total website hits 40 000	4674	Cumulative 24990	**Cumulative 25018**	**Cumulative 41098**	-	-	-
Behavioural change	300 no of individuals/entities	1500 no of individuals/entities	n/a	n/a	n/a	262	-	-	-
Reach, print media, no of	2 000 no. of individuals	n/a	n/a	Cumulative 77	**Cumulative 136**	**Cumulative**	n/a	n/a	n/a

copies						**3400**			
Reach, e-update, no of downloads	2 500 no. of individuals	n/a	710	Cumulative 2060	**Cumulative 3228**	**Cumulative 15385**	n/a	n/a	n/a
Reach, film, broadcasts	10 000 no. of individuals	n/a	n/a	Cumulative 185	**Cumulative 554**	**Cumulative 976**	n/a	n/a	n/a
Reach, manual, no of copies	2 000 no. of individuals	n/a	n/a	n/a	n/a	**>534**	n/a	n/a	n/a
Conference	150 no of individuals	n/a	n/a	n/a	n/a	**232**	n/a	n/a	n/a
Twitter followers	200 no. of individuals	n/a	10	Cumulative 3331	**Cumulative 4698**	**Cumulative 40973**	n/a	n/a	n/a
Facebook followers	200 no. of individuals	n/a	63	Cumulative 5358	**Cumulative 7024**	**Cumulative 83804**	n/a	n/a	n/a