(Projects submitting final reports after 1 January 2014 must use this format.)

WEB version

LIFE Project Number

LIFE13 ENV/LV/000839

FINAL Report

Covering the project activities from 01/06/2014 to 31/03/2020

Reporting Date

01/06/2020

LIFE+ PROJECT NAME or Acronym

LIFE EcosystemServices

Project Data

Project location	Latvia
Project start date:	01/06/2014
Project end date:	31/05/2018 **Extension date:** 31/03/2020
Total Project duration (in months)	70 months (including **Extension of** 22 **months**)
Total budget	€ 753,290
Total eligible budget	€ 753,290
EU contribution:	€ 376,641
(%) of total costs	50
(%) of eligible costs	50

Beneficiary Data

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Project Website	https://ekosistemas.daba.gov.lv

1. List of contents

List of key-words and abbreviations:

EC – European Commission
EU – European Union
CP – Life Common Provisions 2013
IncR – Inception Report
MidR – Mid – term report
PrR2017 – Progress report 2017
PrR2018 – Progress report 2018
NCA – Nature Conservation Agency
SM – The associated beneficiary Saulkrasti Municipality
BC – The associated beneficiary NGO “Baltic Coasts”
ALEPF - Administration of Latvian Environmental Protection fund
MEPRD - The Ministry of Environmental Protection and Regional Development
PMT – Project Management Team
SG – Steering Group
WG – Working group
PIA - Pilot Implementation Area
PIMG - Project Impact Monitoring Guidelines

2. Executive Summary (maximum 5 pages)

Project objectives

The main objective of the LIFE EcosystemServices project was to promote application of ecosystems and their services assessment in spatial and nature conservation planning in Latvia. Elaboration of the methodologies, ecosystem services assessments and elaboration of the recommendations as well as work with planning documents update and various communication activities were in core of LIFE EcosystemServices project objectives:

1) To adopt the international practices and experiences in valuation of ecosystems and their services for the situation and condition of Latvia by creating a clearly comprehensive assessment system;
2) To perform the pilot implementation of the developed assessment system in two Pilot Implementation Areas (PIA);
3) To update nature conservation planning documents and municipal level planning document relates with PIAs and based on the results of the new methodological approach for valuation of the ecosystems and their services developed within the project;
4) To elaborate Recommendations for application of the new methodological approach into municipal decision making and spatial planning processes;
5) To promote the new methodological approach for the economic evaluation of the ecosystems and their services via information and communication activities focused on the long term benefits of the economically, environmentally and socially responsible decision making and lifestyle.

The key deliverables and outputs

Within the framework of the project, we had to achieve the following outputs and quantifiable achievements that would highlight the previously mentioned objectives:

1) Assessment of condition and mapping of ecosystems and assessment of ecosystem services in two coastal pilot implementation areas in Latvia – Saulkrasti and Jaunķemeri according to elaborated methodology;
2) Economic valuation of ecosystem services of the PIAs according to elaborated methodology;
3) Elaboration of Ecosystem Services Economic Valuation Model and assessment of changes in the value of ecosystem services by modelling three development scenarios for PIAs;
4) Results of ecosystem services assessment were used for update of planning documents related to LIFE EcosystemServices project areas:
   - Recommendations for Saulkrasti municipality Development Programme 2014 – 2020 elaborated and the document updated;
   - Recommendations for elaboration of Nature Management Plans elaborated and Nature Management Plan for Natura 2000 site - Nature Park "Piera" updated.
5) Creation of Nature Design Park "White Dune – Saulkrasti" in Saulkrasti PIA as the most sustainable development scenario;
6) Elaboration of the Recommendations and creation of the Toolkit http://riks.ekosistemas.daba.gov.lv for application of ecosystem services approach in spatial planning processes in Latvia;
7) Various printed (leaflets, brochures, publications, roll-ups etc.), electronical (e-newsletters, publications, environmental educational), audio – visual (short

documentaries, presentations) materials elaborated and distributed and more than 40 events organised to promote ecosystem services importance in sustainable development and society well-being;

8) Website of the project created and served as a permanent source of information on project's activities and outputs.

Final report includes Technical and Financial part. Technical part has the following chapters – Executive Summary, Introduction, Administrative part, Technical part (Action descriptions and results, Evaluation, Analysis of long-term benefits, Dissemination issues), Comments on financial report, Administrative Annexes, Technical Annexes, Final table of indicators, Dissemination Annexes, Financial report and annexes.

In the Introduction chapter the background of the project is presented. In the Administrative chapter project management system is described and evaluated. In the Technical part, project activities are described task by task and information about dissemination issues are presented. Finally, evaluation of the project is presented, planned actions compared with results, long-term benefits and. Next follows comments on financial issues. List of technical and administrative as well as financial Annexes is provided at the end of the report.

Comments on the financial report

Despite the prolongation of the project, overall implementation of the project had been kept in the frame of planned budget. All costs for the project period from 01/06/2014 to 31/03/2020 reached 99% of planned budget. Comments on costs incurred for each costs category are provided and particularly unforeseen costs are explained in the financial section of this report. The Project costs incurred for each costs-category do not exceed the limits set in the Article 15.2 of the Common Provision - 10% and 30 000 euro. The table presenting an allocation of the costs incurred per action is included and major discrepancies between planned and costs incurred per action presented.

3. Introduction (1 page)

The approach of assessment of ecosystems and their services has been incorporated into various EU and EC planning documents. Furthermore, the Biodiversity Strategy 2011 – 2020 determines that Member States have to implement identification, mapping and assessment of ecosystems and their services (the Action 5 "Improve knowledge of ecosystems and their services in the EU"). In Latvia such practice has not yet been introduced, although in other countries the application of economic monetary assessment of ecosystems and their services is widely common, and the decision making process based on the evaluation results is performed on municipal, as well as national level. This results in lack of comprehensive and sustainable management strategies and evaluation approaches (ecosystem approach), particularly for areas with increased anthropogenic load as it is in coastal areas. Regarding spatial planning tendencies at the municipal level, these coastal natural territories often do forfeit as opposed to the commercial and business considerations. In order to explain the importance of the natural capital to the spatial planners and planning specialists, decision makers, entrepreneurs and general public, it is essential to assess ecosystem services, especially in the monetary values that would allow the comparison of the natural values against the socio-economic needs. Ecosystem services approach is an instrument for sustainable development implementation in practice.

The selected Project Implementation Areas (PIA)Saulkrasti and Ķemeri, for the implementation of the project activities are important for the region from the point of view of biodiversity as being rich in natural values of national and EU importance, as well as are essential from socio-economic aspects having cultural, recreational and aesthetic value. These territories have suffered from the growing tendency of the inhabitants to choose the coastal area for their permanent or seasonal residency and subsequent degradation of the natural capital and scenery.

In general, three chief environmental problems are highlighted, which will be tackled within the Project:

- Increasing threat to the environment and provided ecosystem services;
- Non-sustainable and inefficient management and use of natural resources;
- Low level of information of the decision makers, local inhabitants and other stakeholder's about the value of ecosystems and ecosystem services.

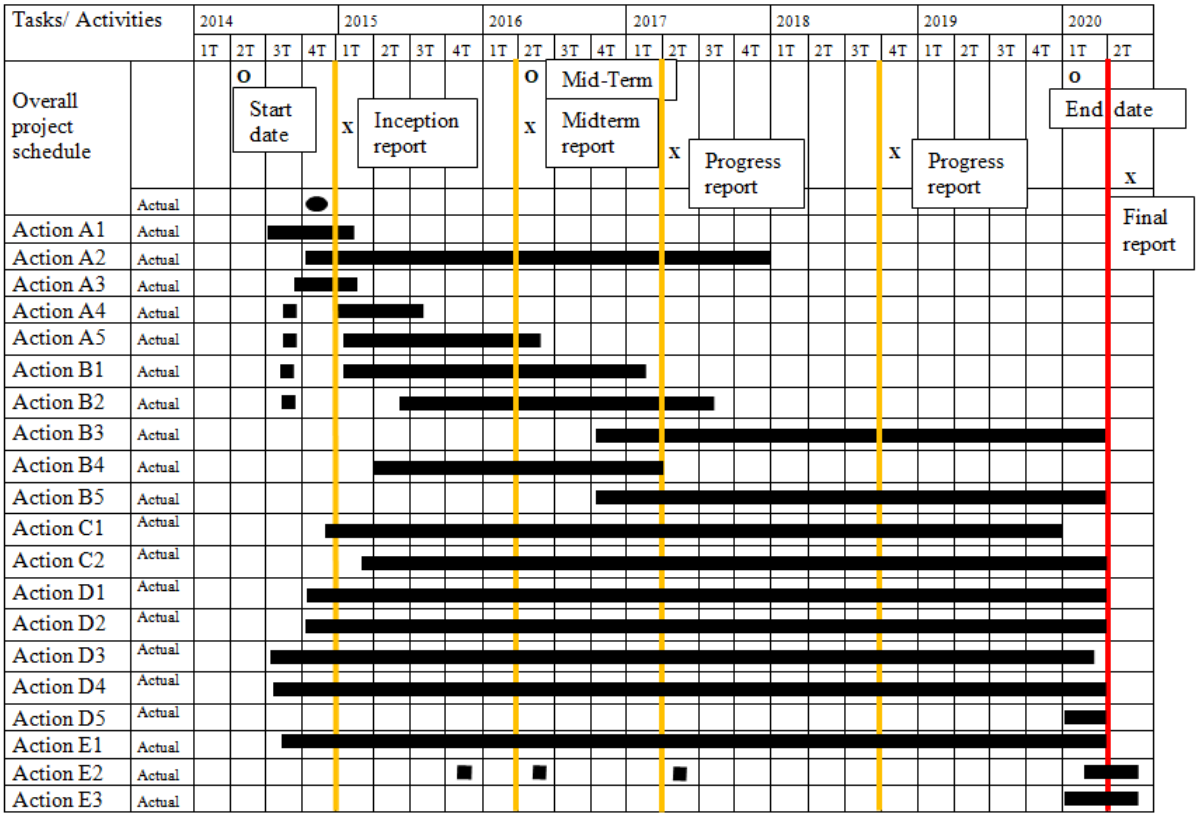
One of the priorities of the National Development Plan 2020 foresees a sustainable management of nature and cultural capital, respectively, maintaining the natural capital as a basis for sustainable economic growth, promoting sustainable ways of its use, and reducing the risks for the environmental quality caused by natural and anthropogenic factors. In order to reach these goals in Latvia it is provided to carry out the assessment of the natural capital till 2030 (provided in the section "Sustainable use of the natural values and services"). The LIFE EcosystemServices project would be a first step towards reaching these strategic objectives. The project introduces an innovative approach in Latvia context to the conservation of nature values, through balancing those values with social and economic considerations. The project provides knowledge on the use of environmental economic indicators (ecosystem services assessment indicators) that was used for assessment of selecting development scenarios and updating relevant planning documents.

4. Administrative part (maximum 3 pages)

4.1 Description of the management system

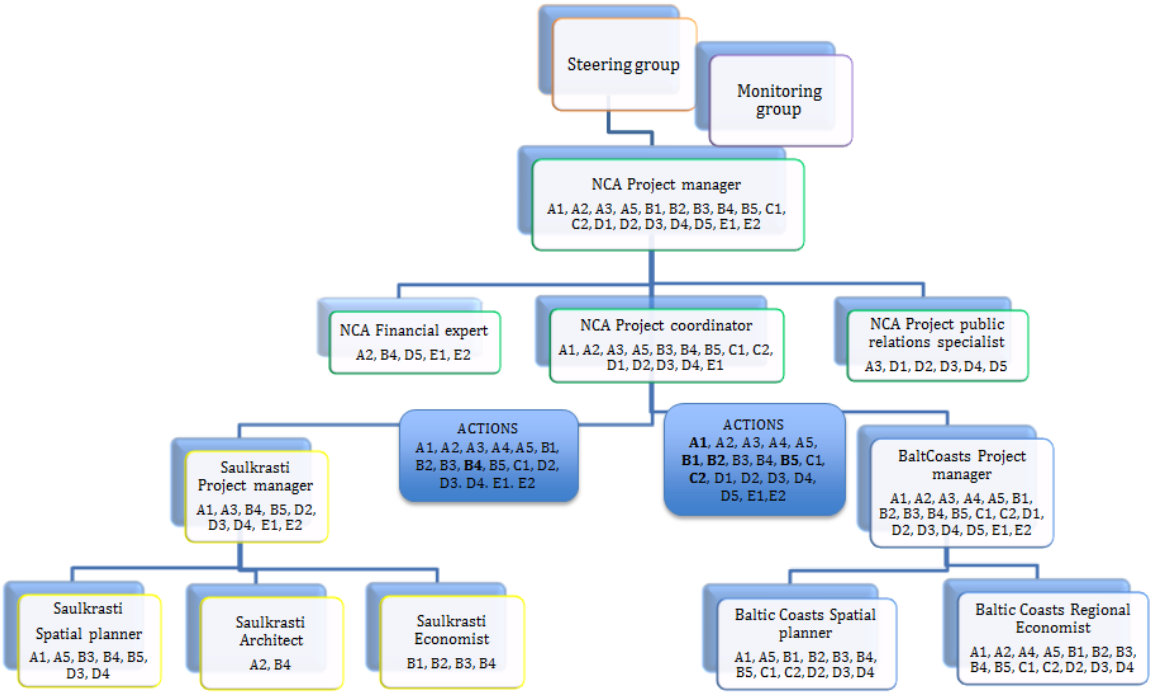
The LIFE EcosystemServices project is coordinated by NCA. The project has set up a clear management structure enabling implementation and monitoring of project on every-day basis and tackling potential challenges and problems in an efficient manner. The Project Management Team (PMT) is established, its role includes day-to-day operational management activities and administrative responsibilities. The Working Group (WG) is composed of the members of the project staff, but in order to ensure multi-disciplinary and interdisciplinary approach by implementing of project actions the WG could be enlarged by inviting experts and stakeholders if necessary. The project work plan is the main document for day-to-day work planning and monitoring of ongoing actions. According to the partnership agreements, associated beneficiaries submit financial and activity reports regularly (each quarter within period until 30/03/2018 and each six months within period from 01/04/2018 until end of the project), as well as take part in the partner meetings. Day-to-day work among and within NCA, BC and SM is ensured through regular meetings of PMT and WG and indirect communication (via Skype, Google calendar, e-mails, phone calls) of involved employees.

Project implementation phases and activities per phase are shown below:



The Steering group (SG) was established by NCA in December 2014. The task of the SG is to carry out a qualitative monitoring, to give high level advice on implementation of activities and ensure political support. The SG consists of representatives from the Ministry of Environmental Protection and Regional Development, the Administration of Latvian Environmental Protection Fund, Saulkrasti Municipality, NGO "Baltic Environmental Forum" and Nature Conservation Agency. In total 6 SG meetings was held.
Action E1 deliverables *Minutes of Steering group meetings* are attached in the Annexes of this report in form of electronic copies (Annex_E1–1).

The project management structure – organigram of the project team and project management structure is included below:



Duties of the Coordinating Beneficiary staff

NCA had established the project team by contracting Project Manager, Project Coordinator, Project Public Relationship Specialist and Project Financial Expert.

The overall work organisation of the project was managed by the project manager of the NCA. All project team of NCA supported and consulted project team of associated beneficiaries and coordinated work within PMT and WG as well as participated in the outputs of the project elaboration.

Project Manager was responsible for overall coordination and leadership of the project, supervising implementation of the project activities and work of PMT, reporting, elaboration of agreements and contracts, planning the financial budget together with the Financial Expert and participation in each of the project activities by preparing and reviewing reports and giving input to other deliverable and dissemination products of the project.

Project Financial Expert was in charge for accountancy documentation of the coordinating beneficiary, keeping the accounts and records of the project, control of accounts, planning of budget, preparing and controlling of financial reports, audit coordination and regular communication/consultation/support to associated beneficiaries.
Project Coordinator was responsible for the coordination of the project activities between partners of the project, project content coordination, preparation and coordination of the elaboration of respective deliverables, coordination of the work of external specialists as well as is involved in the organisation of project events and seminars and networking. During the Project Manager absence periods was responsible for the project management as well.
The public relationship specialist ensured planning, implementation and monitoring of the communication activities of the project - elaboration of communication strategy, communication with the media, social networks, development of the project website, production of printed materials, information dissemination to the media, key stakeholders and target groups, organisation of project events and seminars, and networking. Since 01/01/2018 duties of the public relationship specialist mainly was realised by Project Manager and Project Coordinator. During project final phase (for period from 19/11/2019 to 14/02/2020) NCA permanent staff employee was contracted on public relationship specialist position within the project to support with final events organisation and materials elaboration.

Only changes in Grant Agreement were made to prolong project duration from 48 months to 70 months (Amendment No1 to Grant Agreement for Project LIFE13ENV/LV/000839 was signed on 10/01/2018).

Partnership agreements were submitted to the Commission with Inception report. The additional agreements to the Partnership agreements with associated beneficiaries were submitted to the Commission with Midterm Report, Progress Report 2017 and Progress Report 2018.

4.2 Evaluation of the management system

The project management system was working in accordance to the plans. The overall project management process has been successful. The same applies to the cooperation among the partners - there were no deviations from the arrangements contained in the partnership agreements. Significant project staff rotation of associated beneficiaries caused inconvenience in the implementation on the project (BC changes Project Manager four times but SM changes Project Manager seven times). As well as prolongation of the project impacts staff capacity of the associated beneficiaries (during the prolongation period the project staff was contracted for other projects). Therefore involvement of Coordinating beneficiary (NCA) project staff for final completion of the project outputs and deliverables was essential. In the final stage of the project implementation mainly the work was ensured by NCA Project Manager and Project Coordinator.

Role of the Project steering group has been advisory, but still very useful. PMT has maintained good communication with the Commission and Monitoring team - communication was efficient and supportive with clear feedback within each meeting.

5. Technical part (maximum 50 pages)

5.1. Technical progress, per task

Action A1.Self-assessment, stakeholder mapping and development of work plan

Foreseen start date:	3rd quarter of 2014	Actual start date:	3rd quarter of 2014
Foreseen end date:	4th quarter of 2014	Actual end date:	1st quarter of 2015

Action results were reported within Midterm Report (MidR). Responsible beneficiary was BC.
Within Action A1 Self-assessment and stakeholder's analysis has been done and results summarised in the Report on self – assessment and stakeholder's analysis. As well as work plan of the project have been draw up.
Main outcomes and conclusions of the action:

1. Self-assessment
The main task of self-assessment was to evaluate the existing situation, desired achievements and to select the measures against identified criteria. A self - assessment questionnaire was developed to get more information about the organizations who are involved in LIFE Ecosystem Services as a project partners. The aim of the self - assessment was to explore the represented organizations, their activities, areas of interest, as well as commitment to the environment, economically and socially crucial issues. An analysis of the organization's effectiveness and benefits assessment was made and it was concluded that all organizations involved in the project make a positive contribution in all areas which were included in the survey – economic development, ecology and environmental protection, socio-cultural development, construction development. Comparing the organization who work in the project efficiency and contribution to the areas mentioned in the questionnaires, as well as the ability to affect those areas, it was concluded that there is a statistically significant difference in the three issues of assessment - organisational efficiency and contribution to the ecology or the environment; organization effectiveness and contribution to the construction and development and the organization's ability to influence the construction and its development.

2. Stakeholder analysis
Initial stakeholder identification and listing of relevant groups, organizations and people as well as analysis and prioritizing stakeholders has been performed. This analysis determines the involvement priorities of the identified groups, based on their needs, interests and influence level. The key characteristics were defined that help to understand the relationship between different stakeholders, to assess the interest and the capacity of different stakeholders to participate in the project. Stakeholder analysis and mapping is an important part to develop stakeholder involvement strategy, which is included in the project communication strategy (Action A3). Actual information on stakeholders has been updated through the whole project period in according to performed activities.

3. Preparation of work plan
The work plan for the successive project implementation was developed as a detailed framework for further reference to it in order to compare the progress against the defined specific indicators and outputs. Work plan was updated each year and was the main document for day-to-day work planning and monitoring of ongoing actions.

Action A2.Elaboration of procurement specifications and implementation of procurement procedures for external services

Foreseen start date:	3rd quarter of 2014	Actual start date:	4th quarter of 2014
Foreseen end date:	2nd quarter of 2015	Actual end date:	4th quarter of 2017*

*the revised timetable was accepted by the EC letter of 24/02/2015 Ref. Ares(2015)785695

Action A3. Elaboration of communication strategy

Foreseen start date:	3rd quarter of 2014	Actual start date:	3rd quarter of 2014
Foreseen end date:	4th quarter of 2014	Actual end date:	1st quarter of 2015

Action results were reported within MidR. Responsible beneficiary was NCA.

Communication strategy describes the main project communication goals and activities. It also gives brief information about project main communication tools, channels and nature education methods for achieving project goals. Description and analyse of Project target audiences and stakeholder's involvement tools are given. Main communication channels and communication activities plan and schedule are described. All project publicity tasks have been accurately listed and all key indicators have been set out in quantifiable terms which gain a clear insight into the Communication strategy and dissemination actions success. Achieved results against targets defined in the Communication strategy are analysed in the section 5.2. of this report.
Elaborated communication strategy was presented to the project SG during the first steering group meeting in February 2015.
Action results are available on the project website - https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/projekta_materiali/komunikacijas_strategija11/.
https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/project_materials/communication_strategy1/

Elaborated Action A3 deliverable - *Project Communication Strategy* has been submitted with Midterm report and is attached to this report in form of electronic copy (Annex_A3-1).

Action A4. Elaboration of project impact monitoring guidelines

Foreseen start date:	3rd quarter of 2014	Actual start date:	3rd quarter of 2014
Foreseen end date:	4th quarter of 2014	Actual end date:	3rd quarter of 2015*

*the changes in the timetable have been clarified within IncR and MidR; these changes did not affect overall implementation of the project and related actions (Action C1, Action C2).

Action results were reported within MidR. Responsible beneficiary was NCA.

Project Impact Monitoring Guidelines (PIMG) included the Project implementation progress monitoring and monitoring of the impact of the project actions (a basis for organisation and implementation of Actions C1 and C2). The Project implementation progress monitoring was carried out in accordance to the Project work plan, the expected deliverables and progress

indicators of achievement for the Project Actions in order to evaluate both quantitative and qualitative indicators of the implemented tasks. Monitoring of the impact of the Project actions includes monitoring of the impact to the quality of ecosystems of pilot implementation areas and monitoring of socio-economic impact of the Project. The guidelines assign place of performance, the people in charge of implementation for each monitoring step, enumerates indicators and the expected monitoring results as well as identifies the main risks and contains a detailed time plan. Monitoring activities within Action C1 and Action C2 were carried out in accordance with these guidelines.

Action results are available on the project website -
https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/projekta_materiali/ietekmes_monitoringa_vadlinijas111/
https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/project_materials/impact_monitoring_guidelines1/

Elaborated Action A4 deliverable - *Project impact monitoring guidelines* has been submitted with Midterm report and is attached to this report in form of electronic copy (Annex_A4-1).

Action A5. Mapping of ecosystems and their services

Foreseen start date:	1st quarter of 2015	Actual start date:	3rd quarter of 2014
Foreseen end date:	4th quarter of 2015	Actual end date:	2nd quarter of 2016*

*the changes in the timetable have been clarified within IncR and MidR; these changes did not affect overall implementation of the project and related action (Action B1).

Action results were reported within MidR and PrR2017. Responsible beneficiary was NCA.

Implementation of the action can be divided in two main tasks – as a first was identification and assessment of ecosystems of pilot implementation areas (PIAs) but second was relates with identification and assessment of ecosystem services and development of the action deliverables – maps and matrixes.

1. Ecosystems identification and quality assessment
Identification and evaluation of quality of ecosystems was done in vegetation season of 2015 in both PIAs and a certified habitats and species expert has been outsourced.

Within the task location of the ecosystems (beach, dunes, forests, rivers, urban and infrastructure areas) has been identified. As well as subsystems (EU importance habitat types, different quality habitats, different ages forests, areas which do not qualified as EU importance habitats – low quality grasslands, different types of built-up areas etc.) has been identified. In total 14 subsystems have been defined for Saulkrasti PIA and 10 subsystems for Jaunkemeri PIA. These subsystems were used in further ecosystem services assessment and valuation within Action A5 and Action B1 and were defined as *geospatial units for ecosystem services assessment*. The boreal forest ecosystems are prevailing in the pilot areas, followed by dunes. It was concluded that 58% of Saulkrasti PIA and 82% of Jaunkemeri PIA is covered by EU importance habitats (left area: built-up and sandy beach areas).
Taking into account that both PIAs are mainly covered by EU importance habitats the more appropriate methodology for all terrestrial ecosystems – subsystems quality assessment was the *Methodology of species and habitats mapping, assessment and monitoring in Latvia*. The

methodology requires identify, map and describe in details each habitat by filling habitats valuation questionnaire which include such biodiversity descriptors as assessment of presence of typical species composition and rare and protected species, persistence of natural structural elements, assessment of processes, pressures, impacts observed. The methodology is published and available at home page of NCA (http://www.daba.gov.lv/public/lat/dati1/vides_monitoringa_programma/#inventmetodika). All these above mentioned factors assessed finally have to be summarised in the quality assessment. For terrestrial habitats four quality classes are defined – poor, moderate, good and high. In both PIAs good quality forests dominate. Dunes are most threatened in both pilot areas. River ecosystems identified in Saulkrasti PIA have been assessed according to the Water Framework Directive that requires assess the river water quality according to five quality classes. The river Peterupe was assessed in good quality (class 4), while the river Incupe has been assessed as poor (class 2).

Results of the task:

- Identified and mapped ecosystems and subsystems in both pilot areas (data were integrated into NCA managed Natural data management system "OZOLS");
- Detailed description and quality assessment of terrestrial and river ecosystems in level of habitats carried out (expert assessment reports with included habitats valuation questionnaires for each PIA);

2. Ecosystem services (ES) identification and assessment

Implementation of the task was organised within WG (partners BC and SM got involved) working closely with an external service provider.

WG work was organised by experts' meetings and through everyday communication and exchange of data and information among selves after PIA's visits and gaining new information that could be significant for evaluation and/or identification of ecosystem services.

Results and key conclusions of the task:

- The methodology for identification, mapping and assessment of ecosystem services (ES) developed; The methodology allows to carry out ES assessment based on the expert judgment approach in combination with experts collected information and data and enhanced the ES assessment based on the developed indicators & indexes. This step wise process was possible due to the selected ES mapping and assessment method – multi-layer matrix or "spreadsheet table". It allows to incorporate extra data and to increase the level of detail and accuracy of the assessment.
- Identification and assessment of the ecosystem services of the PIAs using biophysical data and expert judgement in accordance with elaborated methodology; The ES mapping and assessment in Jaunkemeri and Saulkrasti pilot areas resulted in selected and assessed 23 ES classes based on the Common International Classification of Ecosystem Services (CICES). The indicator based approach was used to describe the current status as well as to present changes in ES.
- Completed data sheets and matrixes of multi-layered ES assessment and mapping of the ecosystem services per each identified ecosystem service in the pilot implementation areas per each *geospatial units for ecosystem services assessment* in accordance with elaborated methodology;
- Aggregated assessment and mapping of ecosystem services for the PIAs; Based on the aggregated assessment calculations, the forest ecosystems were assessed as most valuable.

- Generation of the development scenarios of the PIAs and assessment their impact on current status of ES (include elaboration and using of of causal-effect relationships model). The results indicate that positive impact is expected for the cultural ecosystem services whereas non-essential changes in several regulating and provisioning ecosystem services could be detected. Nevertheless, the majority of the identified and assessed ES values did not show a change. Therefore selected development scenarios (Nature Design Park establishment in Saulkrasti PIA and Resort Park area development in Jaunkemeri PIA) could be assessed as sustainable in context of ES.

Action results are available on the project website - http://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/ekosistemu_pakalpojumu_kartesana/; http://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/ecosystem_services_mapping/

Final versions of all elaborated materials within Action A5 (including deliverables – Multi-layer maps and multi-level ecosystem services assessment matrixes for both PIA) have been submitted with Progress Report 2017 and is attached to this report in form of electronic copy (Annex_A5-1).

Results used within the project

Task 1 *Ecosystems identification and quality assessment* results also were used for Action B4 implementation (expert assessment report for Saulkrasti PIA used for permission procedure before Nature Design Park construction works start) and Action C1 implementation (used as baseline data on ecosystem quality before implementing of the project activities).

Task 2 *Ecosystem services identification and assessment* results incorporated in economic valuation of ecosystem services (Action B1, B2) and used within the Project impact assessment as baseline data (Action C1). As well as results (methodology, data sheets, matrixes) are incorporated in the Toolkit http://riks.ekosistemas.daba.gov.lv/rekomendacija/intigresana/ (Action B5) and used for elaboration of recommendations for Saulkrasti municipality development and development planning and elaboration of recommendations for ecosystem services approach incorporation in Nature Management Plans of Specially Protected Nature Territories (Action B3).

Results used outside the project

Created and applied methodology on ecosystem services identification, assessment and mapping within the project is recognised as appropriate and was applied in other Latvian projects worked on ecosystem services assessment (LIFE Restore, LIFE14 CCM/LV/001103 within Nature Conservation (Management) Plan elaboration for Laugas mire and Latvian State Forest Research Institute Silava and JSC “Latvian State Forests” collaboration project “The impact of forest management on forest and related ecosystem services” focused on detailed ecosystem services assessment in different managed forests).

Summary of changes:

- The titles of the deliverables was slightly modified: a matrix for multi-layered ecosystem services assessment for the PIA in Saulkrasti (according to B.Burkhard) and in Jaunķemeri, respectively. The changes were clarified in PrR2017 and was accepted by EC letter of 02/08/2017 Ref. Ares(2017)3869344.

Action B1. Economic valuation of ecosystems and their services for Pilot Implementation Areas

Foreseen start date:	1st quarter of 2015	Actual start date:	3rd quarter of 2014
Foreseen end date:	4th quarter of 2016	Actual end date:	1st quarter of 2017

Action final results were reported within PrR2017. Responsible beneficiary was BC.

Implementation of the action was started with preparatory works:

- a survey about the latest methodological approaches and scientific publications related to the field of economic evaluation of the ecosystem services (ES) and elaboration of data bases for further economic valuation of ES;
- meetings with local and foreign experts, and scientific personnel;
- elaboration of research methodology appropriate for project objectives;

On August 2016 sociological survey in both PIAs was carried out in order to obtain the primary data for further ES economic valuation.

In the result of the action implementation economic valuation of ES for PIAs has been carried out. Results and key conclusions:

- various methods for the assessment of each ecosystem and ecosystems services were applied to test the possibilities of using different methods and to identify their opportunities and disadvantages; Finally it was concluded to use three (3) most appropriate methods of economic evaluation of ES in context of the project: the Direct Market Pricing method, Travel Cost method and Benefit Transfer method; Obtained values standardisation, adjustment and converting to Latvian conditions were performed to determine total economic value of ecosystems and their services of the PIAs per each ecosystem service provided by the each *geospatial units for ecosystem services assessment*;
- sociological survey in both PIAs performed to obtain primary date used for application of Travel Cost method and determine of the economic impact area for ES; 6 ecosystem services (5 cultural and 1 provisioning) have been assessed in sociological survey; the results showed that total estimated monetary value of cultural ES by using primary data in Saulkrasti PIA (42 071 EUR/ha/year) is 10 times higher than the total estimated monetary value of ES in Jaunķemeri PIA (4 611 EUR/ha/year). Jaunķemeri PIA can be considered as a destination favoured by tourists, because most of the visitors of the area are residing elsewhere, therefore ES in Jaunķemeri PIA are used by population of other, not even nearby areas. In contrast, in Saulkrasti PIA local residents for the most part are the ones that use the locally provided ES. The only ES that reportedly has more users from outside Saulkrasti PIA rather than among the Saulkrasti local population is a cultural service – *Educational activities through ecosystems*.
- comparison of the economic valuation results depends on using of secondary (TEEB database, market price data) or primary data (social survey data) has been carried out and showed significant difference in cultural ecosystem services valuation;
- the action deliverable - Report for the current situation representation for the ecosystems and ecosystem services "*Economic Valuation of Ecosystems and their Services for Pilot Implementation Areas*" has been prepared. The deliverable consists

of main document *"Economic Valuation of Ecosystems and their Services for Pilot Implementation Areas*" includes information about ES economic valuation principles, methods that have been used, steps that have been made to carry out valuation process, etc. and associated five sections where all valuation, analysis and social surveys data are included. The economic valuation of ES for Saulkrasti and Jaunķemeri PIA broken down by provisioning, regulating and cultural services (EUR/ha/year). Total economic (monetary) value for Saulkrasti PIA is 25 040 (EUR/ha/year) but for Jaunķemeri PIA 32 197 (EUR/ha/year); the most significant differences between the both PIA are related with regulating services, for which the resulting economic values are higher for Jaunķemeri PIA - 24 232 (EUR/ha/year) while for Saulkrasti PIA value of regulating services is 17 558 (EUR/ha/year).

Action results are available on the project website - https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/ekonomiska_novertesana/; https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/economic_valuation/

Elaborated Action B1 deliverable - *Report for the current situation representation for the ecosystems and ecosystem services* "*Economic Valuation of Ecosystems and their Services for Pilot Implementation Areas*" has been submitted with Progress Report 2017 and is attached to this report in form of electronic copy (Annex_B1-1).

Results used within the project

The results of Action B1 have been used in Action B2 where the potential development scenarios of both pilot areas are modeled and impact on economic value assessed (modelled scenarios are based on methods elaborated and data obtained in Action B1; calculated values were included in *Ecosystem Services Economic Valuation Model* – the main tool for ecosystem services economic valuation within the project).
As well as results of the Action B1 are incorporated in the Toolkit http://riks.ekosistemas.daba.gov.lv/rekomendacija/intigresana/ (Action B5).

Obtained results, knowledge and experience were presented in scientific paper "Ecosystems Services Economic Valuation Model: Case Study in Latvia" that has been published in Proceedings of the 22nd EBES conference, May 24th -26th, 2017, Volume 3, Rome, Italy.

Action B2. Elaboration and economic evaluation of the development scenarios for Pilot Implementation Areas

Foreseen start date:	3rd quarter of 2016	Actual start date:	3rd quarter of 2014*
Foreseen end date:	2nd quarter of 2017	Actual end date:	4th quarter of 2018

*revised timetable was clarified within IncR and accepted by the EC letter of 24/02/2015 Ref. Ares(2015)785695.

Action final results were reported within PrR2018. Responsible beneficiary was BC.

Action B1 and Action B2 were very closely related – modelled scenarios were based on methods elaborated and data obtained in Action B1. Work on action implementation was organized in close cooperation with external assistance provider.

According to the project proposal several objectives - tasks have been defined to achieve the aim of Action B2:

1. *To assess the future economic value for the selected territories, thus creating a distinctive prospective vision on the further development and changes in spatial planning.*

Based on the biophysical (Action A5) and economic evaluation of ecosystem services (Action B1), an assessment of the development scenarios of pilot areas has been carried out. Based on the ecosystem services approach three development scenarios for each pilot area has been modelled:

- Scenario No1 – "null" scenario – leaving territory as they are, no actions taken;
- Scenario No2 – nearest future development scenarios, planned development (by developing Nature Design Park in Saulkrasti PIA and resort area in Jaunķemeri PIA);
- Scenario No3 - "uncontrolled" pilot area development, not taking into account the natural capital and environmental values (with urban development that foresees forests area decreasing and building area increasing in both PIAs).

Modelled scenarios allowed evaluate not only the optimal development of the territory, but also allowed verify the *Ecosystem Services Economic Valuation Model*, developed within the project. Each developed scenario has been analysed based on three planning dimensions – social, economic, and nature and analysed in relation with the objectives of the municipality development plan. Developed and analysed scenarios for pilot areas show advantages and risks of the territory that may occur. Finally, for both pilot areas it was concluded that most sustainable is development scenario No2. The most undesirable scenario is the scenario No3, which envisages the increasing the building area by approx. 50%. This scenario would have a negative impact on all ecosystem service groups. The value of total ecosystem services is drastically reduced. The aim of this scenario was to clear present significant changes in value of ecosystem services if only economic interests will prevail over social and environmental. Regulation services were highly valued in all scenarios in both PIA and they are mostly provided by forests. From the point of view of the monetary value of the ecosystem services, this ecosystem is considered to be the most valuable and any action aimed to improve and protect their ecological situation has to be as priority.

2. *To determine the coefficient for the return of investments in the particular territories in order to provide a basis for the justification for or against the investments.*

The aim of assessment of the ecosystem services economic returns was to determine the economic return of capital investment in environmental protection and to select the most effective scenarios for the use of ecosystem services.

The assessment of the ecosystem services economic returns carried out in the project had two tasks: (1) to develop and approbate methodology for a specific geospatial unit, which would help to assess the effectiveness of investments in improving ecosystem services from the point of view of society; (2) to demonstrate the choice of the most effective scenario from an economic perspective.

Based on an assessment of the ecosystem services economic returns for the Saulkrasti pilot area, an algorithm and methodology has been developed that can be applied to any type of area with available reliable and usable data about the area's **capital investments** and **maintenance** costs, as well as the **economic values of the ecosystem services** of the specific territory.

An assessment of the ecosystem services economic returns was carried out to the Saulkrasti area in order to test the methodology and to determine the economic return of environmental

investment, protection and to select the most effective scenarios for the use of ecosystem services.
The Jaunķemeri pilot area is a relatively small part of the territory of Jūrmala municipality and to use all capital investment and maintenance costs made by the municipality, applying them to the pilot area would be methodologically incorrect and would reflect biased results. Therefore, an assessment of the ecosystem services economic returns was carried, and methodology approbation was performed only for the area for which the trustable and available data could be provided.
An assessment of the ecosystem services economic returns for the Saulkrasti pilot area fully confirms the sustainability and efficiency of the second scenario (establishing a Nature Design Park) not only from the point of view of ecosystem services, but also from the cost-benefit perspective.
In the case of Jaunķemeri pilot area, it would be biased to provide this type of economic argumentation, as the exact necessary capital investment and maintain costs to ensure second scenario (intention to establish Ķemeri resort park) are not known.

3. *To introduce new methodological approach for the planning and management of the territories and included ecosystems which would be based in the socio-economic aspects and their potential development.*

Each pilot area development scenario has been analysed based on ecosystem assessment carried out within the project. Developed scenario has been analysed based on three planning dimensions – social, economic and nature and analysed in relation with the objectives of the municipality development plan.
To devolve adapted ecosystem approach within Action B2 ES economic valuation has been developed to calculate monetary value of each ES - *Ecosystem Services Economic Valuation Model* (hereinafter - Model) has been developed. Developed Model allows to calculating values of ecosystem services and at the same time generates mutual comparison between scenarios. Scenario creation within developed Model is based on two options: (1) user can enter new economic value of ES or (2) user can generate hypothetical scenario, by changing geospatial units. The Model is based on secondary data and was updated one time during project implementation period.

The action results were summarised in the Action B2 deliverable - *Report on the elaboration and economic evaluation of the development scenarios for Pilot Implementation Areas* which has been submitted with Progress Report 2018 and is attached to this report in form of electronic copy (Annex_B2-1).

Action results are available on the project website -
https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/scenariju_ekonomiska_novertesana/;
https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/economic_evaluation_of_the_development_scenarios/

Results used within the project
The results of Action B2 are incorporated into the recommendations for update of Spatial Development Plan (Programme) for Saulkrasti Municipality and into recommendations for Nature Management (Conservation) Plans elaboration (Action B3) where optimal development scenario is presented and justified.
As well as results of the Action B2 (*Ecosystem Services Economic Valuation Model*) are incorporated in the Toolkit http://riks.ekosistemas.daba.gov.lv/rekomendacija/intigresana/ (Action B5).

Summary of changes:

- The Action was started earlier than expected – simultaneously with related Action B1 and has been fully completed by November 2018 with final completion of the related deliverable - "*Report on the elaboration and economic evaluation of the development scenarios for Pilot Implementation Areas"*; original deadline for this deliverable was 01/06/2017. The reason for deliverable completion delay was clarified within PrR2018 and was related with necessity to improve significant the action deliverable draft version.
  This delay caused few milestones completions deadlines changes in the related Action B3 but do not affect success of overall implementation of the project.

Action B3. Incorporation of the results of the evaluation of scenarios in the municipal Spatial Development plans/Nature conservation plans

Foreseen start date:	3rd quarter of 2017	Actual start date:	4th quarter of 2016
Foreseen end date:	1st quarter of 2018	Actual end date:	1st quarter of 2020

Action final results are reported within this report. Responsible beneficiary was NCA.

Implementation of the action is divided in several tasks:

1. *To introduce the changes into the Spatial Development Plan for Saulkrasti Municipality.*
   - According to Saulkrasti municipality council decision (taken on 26/04/2017) work on planning document "*Saulkrastu novada attīstības programma 2014. – 2020. gadam*" (hereinafter – planning document) update has been started on April 2017;
   - The task completion management/monitoring group has been established (include project staff of SM and representatives of Saulkrasti municipality council) and 3 meetings have been organised;
   - Work in thematic groups and meetings with stakeholders (8 meetings have taken place) have been carried out during Augusts - December 2017. Outcomes of thematic groups meetings has been summarised and taking into account during update of planning document (review of thematic groups meeting was submitted with PrR2018);
   - During 2018 update of overall characteristic data of Saulkrasti municipality and outcomes of the thematic groups were incorporated in the planning document;
   - By March 2019 "*Recommendations for Saulkrasti municipality development and development planning*" was elaborated based on outcomes of Actions A5 and Action B1 and B2 (Action B3 milestone "*Recommendations elaborated basing on assessments of the developed scenarios*"). Recommendations include introduction with ecosystem services approach and its place and benefits in municipal planning processes, overview and conclusions of the Project results, elaborated development priorities and solutions in context of ecosystem services, general and specific recommendations for development programme update.
     Elaborated recommendations are attached to this report in form of electronic copy (Annex_B3-1) and is available on the project website – https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/rekomendacijas/saulkrastu_novada_attistibas_programmai/; https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/recommendations/recommendations_for_saulkrasti_municipality/

- By August 2019 update of "*Saulkrastu novada attīstības programma 2014. – 2020. gadam*" was completed and public hearing procedure was organised during September 2019;
- Updated "*Saulkrastu novada attīstības programma 2014. – 2020. gadam*" was adopted by Saulkrasti municipality council decision taken on 27/11/2019 after receiving of approvals from competent/ supervisory authorities (Riga Planning Region, MEPRD). The decision is attached to this report in form of electronic copy (Annex_B3-2) and its include the point secured that the project outcomes and recommendations should be integrated into the planning document for the next planning period 2021 – 2027 as well as it was requested in EC letter Ref. Ares(2018)3430573 - 28/06/2018 (Technical issues, point 1);

By the incorporation of the recommendations the planning document have been updated significant – updated overall characteristic data of Saulkrasti municipality and context of ecosystem services is added; synchronization with regional level and national planning documents and its targets (sustainable development targets as well); defined using of ecosystem services approach in other municipal level planning documents and updated strategic part of development programme by incorporation of ecosystem services assessment results in development priorities of the municipality; development programme section "*Actions and investments plan*" updated by including stakeholders and thematic groups meetings outcomes and the project results on ecosystem services assessment and conclusions defined in the recommendations (for example, actions are included to support entrepreneurship specialisation by developing local "green entrepreneurship" formation; using of developed Nature Design Park as specialized place for environmental education in local and regional level; using of the technical solutions developed within the project for visitor's flow regulation in other parts of Saulkrasti municipality). All these improvements lead to sustainable use of natural capital of the Saulkrasti.
Updated "*Saulkrastu novada attīstības programma 2014. – 2020. gadam*" is available on Saulkrasti municipality website - https://saulkrasti.lv/attistiba/novada-planosana/attistibas-programma/. Information on it is available on the project website.

2. *To introduce the changes into the NCP of Nature Park "Piejūra".*
   - Nature Conservation (Management) Plan (NCP) of Nature Park "Piejūra" (2020 – 2031) elaborated within cooperation with relevant NCA project (NCP of Nature Park "Piejūra" elaboration was carried out within Project LIFE CoHaBit, LIFE15 NAT/LV/000900 "*Coastal Habitat Conservation in Nature Park "Piejura*"" where NCA is associated beneficiary and responsible for NCP elaboration). In the result of procurement procedure implementation contract with association "Latvian Fund for Nature" (LFN) had been signed on 09/05/2018; NCA project staff was involved in completion of this task in close cooperation with LFN experts.
   - For more accurate elaboration of the Action B3 recommendations (Action B3 milestone "*Recommendations elaborated basing on assessments of the developed scenarios*"), additional the assessment implemented in the PIA's, detailed ecosystem services identification and assessment in Nature Park "Piejūra" within Saulkrasti Municipality was completed (ecosystem services assessment and economic valuation by using methodology elaborated within Action A5 and Actions B1). The task was done by NCA project staff in cooperation with LFN experts responsible for NCP elaboration and results were included in the recommendations. Completion of this additional assessment ensure that created and applied methodology on ES

identification, biophysical assessment and economic valuation within the project PIAs (Actions A5, B1) can be applied for similar coastal areas in Latvia.

- By March 2019 "*Recommendations for ecosystem services approach incorporation in Nature Management Plans of Specially Protected Nature Territories"* (hereinafter – NCP recommendations) was elaborated mainly based on outcomes of Actions A5, Action B2. The Recommendations includes introduction with ecosystem services approach and its place and benefits in nature management planning processes, overview and conclusions of the Project results, elaborated priorities and solutions of the coastal areas in context of ecosystem services, recommendations for the development of Nature Management Plans, where the current and future provision of ecosystems and their services is taken into account to set conservation objectives and planning measures.
  Elaborated NCP recommendations are attached to this report in form of electronic copy (Annex_B3-3) and is available on the project website – https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/rekomendacijas/dabas_aizsardzibas_planiem1/; https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/recommendations/recommendations_for_nature_management_plans/

In the result of NCP recommendations incorporation special chapter with associated annexes "*Ecosystem services and their assessment in Nature Park*" were included in NCP of Nature Park "Piejūra" - consequently representing results and conclusions of the project. The ecosystem services assessment results carried out within the project were applied for all Nature Park "Piejūra" area with similar ecosystems structure as in the areas assessed in the project. Beside the special chapter inclusion, according to the NCP recommendations ecosystem services approach were applied in such sections of the NCP as description of socio-economic value of Nature Park, definition of NCP targets, justifying of management actions, assessment of impact of the development plans of the municipalities and justifying of protection regime.

- According to schedule of signed contract NCP of Nature Park "Piejūra" was elaborated by 02/01/2020 and submitted to NCA for final revision and acceptance; on February 2020 the revision was completed and NCP had been sent to MEPRD to start approving procedure;
- On 21/04/2020 the elaborated NCP of Nature Park "Piejūra" (2020 – 2031) was adopted by Minister of MEPRD. The respective order No 1-2/66 is attached to this report in form of electronic copy (Annex_B3-4).
- Updated plan is available on NCA website https://www.daba.gov.lv/public/lat/iadt/dabas_parki/piejura/. Information on it is available on the project website.

3. *To introduce the changes into the Nature Conservation Plan (NCP) of Ķemeri National Park.*

- NCP of Ķemeri National Park elaboration is planned within EU Cohesion Fund project "*Improvement of conditions for better conservation of biodiversity and protection of ecosystems in Latvia*" in the framework of EU structural funds Operational programme "Growth and Employment" for Years 2014-2020 where the only beneficiary is NCA.
- NCP recommendations was elaborated by March 2019 as it was mentioned in previous point (Annex_B3-3). Requirement for incorporation of the NCP recommendations is included in technical specification of NCP of Ķemeri National Park elaboration procurement documentation.

- By the end of the project (31/03/2020) elaboration of the NCP of Ķemeri National Park is not completed. The delay reasons (unsuccessful procurement procedures) were reported within previous reports and was the reason for prolongation of the project (Amendment No1, 10/01/2018). Completion of the milestone "Updated Nature Conservation Plan for Ķemeri National Park according to Project recommendations" and milestone "Approved updated Nature Conservation Plan for Ķemeri National Park" are included in After-LIFE plan (see Annex_E3-1).
- On 20/03/2020 the new procurement procedure (DAP 2020/6-AK) was announced and resulted with two submitted bids – a company SIA "Enviroprojekts" and association "Latvian Fund for Nature". Both bids were recognised as correct. Electronic copy of the report on procurement results of NCP elaboration for Ķemeri National Park is attached to this report as Annex_B3-5.

Requirement for the project recommendations incorporation in NCP is included in the contract (Technical specification, point No 5.10). Electronic project of the contract is attached to this report as Annex_B3-6 and secure completion of the task by 2023.

4. *To elaborate a project for the changes in the Regulation of the Cabinet of Ministers for the submission to the Ministry of Environmental Protection and Regional Development.*
   - Work on the changes implementation in the Regulations of the Cabinet of Ministers No 686 (09.10.2007) "Regulations on content and drafting of nature protection plans for especially protected nature territories" (hereinafter – regulations) has been carried in close cooperation with responsible institution (MEPRD) and NCA associated departments.
   - Few drafts versions of regulations have been prepared by MEPRD and NCA proposal for ES assessment applying in NCP elaboration is included (new requirement for assessment of ES as a part of basic information of specially protected area's nature values and updated requirement for nature value maps, namely, nature values maps include maps of ES provided by area as well).
   - Several drafts versions of regulations have been reviewed and commented and official opinions of NCA has been prepared and sent to MEPRD. Approval procedure of regulations was started – draft of regulations announced on Meetings of the State Secretaries (29/11/2018) and after that was reviewed several times. Actual draft of regulations is dated by 19/06/2019 and points No14.3.6 and No14.9.7 of the regulations correspond to requirement on ES assessment applying in NCP elaboration. Draft of regulation dated by 19/06/2019 is attached to this report (Annex_B3-7). During the revision phase proposed changes regarding the ecosystem services approach incorporation were accepted but responsible ministry (MEPRD) still works on final version of the regulations elaboration (relates with elaboration of overall systemic changes in nature management planning and supervising). Further cooperation with MEPRD for adoption of the regulations is included in After-LIFE plan as well as promotion of use of elaborated NCP recommendations as support tool for implementation of these new requirements are planned (see Annex_E3-1). These planned activities are secured by fact that NCA is main responsible authority in Latvia for NCP elaboration and supervise.

Summary of problems and changes:

- Timetable of the action was revised within Amendment No1, signed on 10/01/2018 - 4th quarter of 2016 – 1st quarter of 2020.
- Completion of the tasks "*To introduce the changes into the NCP of Nature Park "Piejūra"* and "*To introduce the changes into the Nature Conservation Plan (NCP) of*

Ķemeri National Park" were depend on implementation of other projects and were out of the LIFE EcosystemServices project impact. Finally it resulted in prolongation of the project and full completion of the task "*To introduce the changes into the Nature Conservation Plan (NCP) of Ķemeri National Park"* will be implemented in After-LIFE period.

- SM staff capacity problems within the project prolongation period lead to delay in completion of Action B3 Task "*To introduce the changes into the Spatial Development Plan for Saulkrasti Municipality*" (revised deadline in Amendment No1 for approved updated Spatial Development Plan for Saulkrasti Municipality was 30/07/2018 but with PrR2018 deadline was postponed to 30/07/2019; the task was completed by November 2019). More intensive involvement of other beneficiaries (mainly NCA) for task completion was necessary. This delay did not affect overall implementation of Action B3 and the project.
- Update of the NCP of Nature Park "Piejūra" was completed 2 months later than planned (revised deadline in Amendment No1 was 01/11/2019; actual completion was 02/01/2020) and approval procedure took longer than expected (actual adoption date was 21/04/2020). Approval procedure of the NCP is out of the project impact and fully depends on MEPRD.

Action B4. Risk prevention for preservation of the conservation status and values of the ecosystems

Foreseen start date:	1st quarter of 2015	Actual start date:	2nd quarter of 2015
Foreseen end date:	1st quarter of 2017	Actual end date:	1st quarter of 2017

Action final results were reported within PrR2017. Responsible beneficiary was SM.

During the initial stage of implementation of Action B4 the project WG has been established and detailed study of PIA Saulkrasti where done by SM Spatial Planning Specialist and Architect. Students from Riga Technical University, Latvia University of Agriculture and the Art Academy of Latvia where involved in PIA Saulkrasti study work and to work out on ideas for the Nature Design Park as well (one of educational events within Action D3). Students work has been supervised by Project staff and several meetings where organized and ideas presented on January 2016.

Two related documents were elaborated and submitted with Progress Report 2017 and is attached to this report in form of electronic copies (Annex_B4-1):

- conceptual framework for Saulkrasti PIA architecturally-spatial development in context of anthropogenic load and its impact on the urban and natural landscape;
- Action B4 deliverable *Concept for the Prototype – Nature Design Park* with included detail design of Prototype – Nature Design Park (hereinafter – Conception).

According to elaborated conception and detail design establishment of the Nature Design Park were completed by September 2016 and opening event was organised (29/09/2016, Action D3).
Creation of the Park in the territory of Saulkrasti municipality landmark White Dune was one of the development scenarios for Saulkrasti PIA. Assessment of the scenario (Action B2) showed that Nature Design Park as the development direction is sustainable development scenario – value of the cultural ecosystem services would increase and there would be no decrease in other groups of ecosystem services. Nature Design Park consists of educational, innovative (in context of Latvia and materials used for sculptural objects), sustainable and multi-functional environmental design objects, information boards, signs and other elements to regulate the flow of visitors and to educate on nature value.






Action results are available on the project website - https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/vides_dizaina_objekti_saulkrastos1/; https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/nature_design_objects/

In the section *5.4. Analysis of long-term benefits* subsection *5.Innovation and demonstration value* of this report innovation and demonstration value as well as interactivity aspects of the created Nature Design Park are discussed (as it was requested in EC letter Ref. Ares(2017)3869344 - 02/08/2017; *Technical issues, Action B4, Point No5*).

Impact and functionality assessment of the created Nature Design Park were carried out in monitoring actions (Action C1, C2). For results of the monitoring see description of Action C1 and Action C2. Maintenance of the established Nature Design Park will be ensured by SM and is included in After-LIFE plan (see Annex_E3-1).

Actions taken to support/improve functionality of the Nature Design Park after its opening are described below. The success of implemented support actions were accurately monitored (as it was requested in EC letter Ref. Ares(2017)3869344 - 02/08/2017; *Technical issues, Action B4, Point No8)*:

- demonstration site "*Dunes formation promotion*" establishment in Saulkrasti PIA near White Dune - formation of fences and complementary dune plants *Leymus arenarius* planting with aim to reduce negative anthropogenic impact on erosion of coastal dunes in White Dune area. The action has been realized in 2017 during Action D3 event - 3rd common work event; implementation of this management activity on shifting dunes restoration was successful and reducing the risk of anthropogenic impact on coastal stability was observed (full evaluation report is included in 2nd Report on the monitoring of the impacts of the Project actions, see Annex_C1-1);

- on 2019 educational material elaborated for especially environmental education visits to Nature Design Park (Action D2) and available on the project website https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/vides_izglitibas_materiali/; 2854 downloads of the material registered;
- on November 2019 educational event (within Action D3 implementation) for natural sciences and informal education teachers has been organized to educate on ecosystem services topic use in educational activities, to inform about available materials on ecosystem services and to educate on use of educational materials elaborated for especially environmental education visits to Nature Design Park; reached audience of this event is about 115 (15 participants and 100 downloads of the materials of the event registered);
- on November 2019 supplementary elements – QR codes were placed near each design object for improvement of educational functionality of the Nature Design Park. Costs for this improvement were covered from SM budget category "Overheads". QR codes are linked with the project website subsection "*Nature design objects/ Scheme*" where description of each element is provided. After the QR codes were placed amount of visitors of respectively website subsection during time period from 11/2019 to 02/2020 increased – 764 registered views and it is 73% of all views of this subsection;

Beside Nature Design Park establishment:

- conceptual framework for Saulkrasti PIA development, design/technical solutions were used in elaboration of recommendations for Saulkrasti Municipality development and development planning and update of Spatial Development Plan (Programme) for Saulkrasti Municipality (Action B3, task 1);
- overall concept of Nature Design Park is defined as one of the Saulkrasti PIA development scenario and its impact on ES supply and economic value was assessed within Action A5 and Action B2 and concluded as the most sustainable development scenario. Therefore establishment of the Nature Design Park play a crucial role in the demonstration activities of the project.

Complementary actions outside LIFE:

- investments in Saulkrasti PIA are continued within Interreg Estonia - Latvia project "*Hiking Route Along the Baltic Sea Coastline in Latvia - Estonia"* (2017 – 2020) - Nature Design Park is integrated in hiking route as one of the tourist's attractions in Saulkrasti municipality therefore promotes the Park popularity;
- Establishment of Nature Design Park as additional attraction for visitors of Saulkrasti and gained data on visitor's amount in Saulkrasti PIA promoted public infrastructure establishment (new public toilets) and new entrepreneur activities (new café opened) in Saulkrasti PIA near Nature Design Park. Visitor's data were used in related projects proposals for their importance justifications.

Summary of changes:

- According to elaborated Conception on Nature Design Park correction of the name of Nature Design Park from "*Scarecrow*" as it is in project proposal to "*White Dune – Saulkrasti*" has been done. These changes has been clarified and reported with PrR2017 and arguments on these changes were based on negative connotations and creates an association that people are frightening both birds and animals and therefore it was recognized as inappropriate for to the place and purpose of Nature Design Park.

Action B5. Development of strategic recommendations for Latvia

Foreseen start date:	1st quarter of 2017	Actual start date:	4th quarter of 2016
Foreseen end date:	2nd quarter of 2018	Actual end date:	1st quarter of 2020

Action final results are reported within this report. Responsible beneficiary was BC.

Implementation of the action can be divided in two main tasks – as a first was elaboration of the Recommendations but second was relates with elaboration of the Toolkit where recommendations are integrated.

1. Elaboration of the Recommendations

The Action B5 Deliverable – "*Recommendations for the municipal decision makers and spatial planners*" have been prepared by November 2019 and hard copies of the Recommendations have been produced by December 2019 (300 copies).

The recommendations was elaborated based on the practical and theoretical experience gained from the LIFE EcosystemServices project in close cooperation with Latvian practitioners - spatial planners and representatives of Ministry of Environmental Protection and Regional Development (MEPRD) and Ministry of Agriculture. The Recommendations promote the use of the new methodological approach in Latvia, as well as to facilitate integration of this approach into spatial planning. The developed Recommendations explain and raise the level of public awareness not only about ecosystem services but also the use of the approach in sustainable planning and modelling of spatial development scenarios. The Recommendations explain the historical development and classification of ecosystems and their services approach, describe the experience of other countries, and provide various tools for evaluating ecosystem services. The Recommendations are designed to integrate the ecosystem services approach into decision-making at different planning levels – national, regional and local.

Elaborated Recommendations consist of three parts:
- Explanation of concept of ecosystem services and its approach, which provides a theoretical overview of historical development, terminology and classification;
- Applying an ecosystem services approach into spatial planning, describing the steps that have to be implemented. Within the LIFE EcosystemServices project, we have worked out an eight step conceptual framework for integration of ecosystem services approach into planning processes. These steps cover full planning cycle. Within the framework of the Recommendations, the activities of the project are explained according to the elaborated conceptual framework, thus explaining the activities to be done by using the project example;

- Description of ecosystem services modelling tools developed within the project. Functionality and their use in spatial planning are explained.

  Within the project three different ecosystem services assessment tools have been developed. The developed models allow to draw conclusions about provided ecosystem services that will be affected by planned development of territory. The developed models operate based on two types of functionality principles: (1) to plan the development of the territory - by changing the areas of geospatial units or land cover; or (2) to plan the development of the territory - by changing the types of territory management.

  1) *Territory Planning and Modelling Module* – shows predictable changes in the value of ecosystem services by changing the areal proportions of different types of land use/ ecosystems in the territory The scale of relative values from 0 to 5 has been used in this module to assess quality (supply) of ecosystem services. This kind of scale has been used also in the biophysical assessment of the ecosystem services. Module is Excel based. The user enters the initial values of spatial areas and in the next step according to the planned changes enters the changed data. The model offers a diagram that allows comparing the changes in both ecosystem services groups and individual indicators.
  2) *Management Strategy Module* **–** shows predictable changes in the supply and quality of the ecosystem services depending on the chosen type of the territory management. The model explains the impact of different types of management on the range and quality of ecosystem services provided. Within the module 7 different ecosystems are includes, offering 2-4 different management scenarios for each ecosystem (nature protection, intensive land management/use, sustainable land management).
  3) *Ecosystem Services Economic Valuation Model* – developed within the Action B2 to calculate the monetary values of ecosystem services (EUR/ha/year) and to compare the development scenarios of territories in expressed values. Territory development scenario can be made either by changing the area of territory, or by changing quality of ecosystem services that could be achieved by changing the types of land management.

In the Recommendations development process draft versions of the Recommendations was presented and discussed during the project events (Action D3). Key institutions were involved and an expert group was created where representatives of institutions involved in spatial planning (stakeholders of the project) were included – representatives of spatial planning company "METRUM", University of Latvia, Riga Planning Region Spatial Planning department, Ministry of Agriculture Rural development department and Ministry of Environmental Protection and Regional Development Nature protection department and Spatial planning department. Three expert group meetings were held (24/11/2016; 02/03/2017; 17/01/2019) and draft versions of the Recommendations were presented and discussed during these meetings and via e-mails. Information on these meetings is available on the project website:
https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/rekomendacijas/teritoriju_attistibas_planosanai/;
https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/recommendations/recommendations_for_spatial_planning/.

Finally the Recommendations is available as printed brochure and available on the project website (see above mentioned links) in two versions – PDF version of printed brochure and an electronical extended version of the Recommendations. At the moment 195 downloads registered from the project website. The Recommendations hard copies was distributed during

the project events (Conference and 5 events for spatial planners) and sent to National Library of Latvia (hard copy ISBN 978-9934-8905-0-5; PDF version ISBN 978-9934-8905-1-2) for inclusion of the publication in the national catalogues and databases to ensure wide distribution possibilities. As well as Recommendations have been distributed via USB data carriers (included in the deliverable of Action D2 "*Digital package with Project results*") during the project final stage events (*Conference* and 5 events in category "*Public information and education events in municipalities and meetings with NGOs*") attended by 209 participants. Dissemination of the Recommendations will be continued in After-LIFE period (see Afte-LIFE Communication plan - Annex_E3-1).

The elaborated Recommendations - Action B5 deliverable *Recommendations for the municipal decision makers and spatial planners*) are attached to this report (PDF version of printed brochure Annex_B5-1; an electronical extended version of the Recommendations Annex_B5-2).
For completion of the task significant involvement of the NCA was necessary – the Recommendations printed brochure was prepared and costs relates with printing was covered by NCA.

2. Elaboration of the web-based interactive Toolkit

Based on elaborated Recommendations the Toolkit elaboration was completed by March 2020 in cooperation with external service provider for Toolkit software creation

The external service provider was responsible for elaboration of the Toolkit software, functionality and instructive trailer of the Toolkit (completed by January 2020); but NCA and BC project staff prepared all information and NCA ensured upload of the information in the Toolkit (completed by March 2020).

Toolkit has its own domain and is created as subdomain of the project website. Address of the Tookit is http://riks.ekosistemas.daba.gov.lv/. Toolkit section is included in the project website (https://ekosistemas.daba.gov.lv/public/lat/rikkopa/; https://ekosistemas.daba.gov.lv/public/eng/toolkit/) and NCA main website (https://www.daba.gov.lv/public/) provides access in the Toolkit as well. At the moment 559 hits of the Toolkit website is registered from which 429 is unique hits.

The Toolkit provides opportunity of implementing ecosystem services approach in practice – assess the supply, potential and monetary value of ecosystem services, as well as value changes in case of different development scenarios.

Toolkit consists from three main pages:

- On the first page instructive video trailer (tutorial) of the Toolkit (Annex_D2-16), review of theory on ecosystem services topic and review of examples and practices are available;
- Section Recommendations (http://riks.ekosistemas.daba.gov.lv/rekomendacija/) includes description of preparatory steps have to be done before ecosystem services approach implementation in planning processes. As well as description of planning levels (national, regional, local) role and priority actions for ecosystem services approach implementation is includes.

- The core of the Toolkit is Implementation section (http://riks.ekosistemas.daba.gov.lv/rekomendacija/intigresana/). Within the LIFE EcosystemServices project, we have worked out an eight step conceptual framework for integration of ecosystem services approach into planning processes: (1) Assessment of ecosystems (*mapping of ecosystems and assessment of ecosystem condition*); (2) Assessment of ecosystem services (*assessment and mapping of ecosystem services*); (3) Economic valuation of the ecosystem services (*benefits of ecosystem services, determination of monetary, non-monetary value and trade-offs*); (4) Assessment of existing management and alternatives; (5) Involvement of stakeholders; (6) Support mechanisms; (7) Decision-making (support mechanisms, aggregating and integrating of information); (8) Implementation and monitoring (implementation of the concrete land use and management solutions; assessment of implementation). Implementation of the ecosystem services approach into planning by following these steps is main principle of Toolkit. All these steps are related with LIFE EcosystemServices project experience and there are available all elaborated ecosystem services assessment tools, indicators, methodologies and other materials elaborated within the project.

The main target users of the Toolkit are spatial planning specialists and Toolkit is in Latvian language. On the project website English version additional video presentation in English about the Toolkit is available (see Annex_D2-16).

During February – March 2020 five educational events (attended by 80 participants) have been organised to introduce and train how to use developed recommendations and the Toolkit (see description of Action D3 events in category "*Public information and education events in municipalities and meetings with NGOs*"). Promotion activities for Toolkit use will be continued in After-LIFE period (see Afte-LIFE Communication plan - Annex_E3-1).

For completion of the task significant involvement of the NCA was necessary – procurement procedures were organised, work with external service provider was ensured and the external assistance costs were covered by NCA.

Summary of changes:

- The action completion took more time than expected and deviations from PrR2018 reported timetable was occurred – final version of the Recommendations was elaborated by November 2019 (planned by 31/05/2019); the Action deliverable *"Recommendations for the municipal decision makers and spatial planners"* hard copies was produced by December 2019 (planned by 31/07/2019); completed integration of the Recommendations in the web-based Toolkit was finished by March 2020 (planned by 31/07/2019).
  These changes caused by responsible beneficiary (BC) limited capacity (staff and budget) and necessity to intensify NCA staff involvement and necessity to use NCA budget for production of the deliverable and Toolkit. As well as procurement procedure for Toolkit elaborations had been organised twice – first time procurement was announced on 02/10/2019 but concluded without result, second time procurement was announced on 29/10/2019 and was resulted with signed contract.
  However these changes do not affect overall implementation of the project because these were final activities of the project. Only slight delay for related action D2 deliverable *Visual presentation – instructive trailer for the Toolkit* was occurred. In spite of this, there were time for successfully dissemination of the produced deliverable and all planned educational activities for municipal decision makers and

spatial planers to train on Toolkit use have been organised as planned. As well as, promotional activities of the Toolkit will be continued in After-LIFE period.

Action C1. Monitoring of the impact of the project activities

Foreseen start date:	2nd quarter of 2014	Actual start date:	4th quarter of 2014
Foreseen end date:	end of the project (2nd quarter of 2018)	Actual end date:	4th quarter of 2019*

*original timetable of the Action C1 was changed due the delay in the project actual start and extension of the project (Amendment No1 to Grant Agreement for Project LIFE13ENV/LV/000839, signed on 10/01/2018).

Action final results are reported within this report. Responsible beneficiary was NCA.

Monitoring of the impact of the project activities on ecosystems quality/functions was organised according to elaborated Project Impact Monitoring Guidelines (Action A4). The aim of the Monitoring of the impact of the project activities on ecosystems quality/functions is to identify and evaluate changes in ecosystems quality and functions related with ecosystems services (provisioning, maintenance and regulating, cultural) supply caused by project direct and indirect activities.

Different monitoring methods were used – visual observation and photo fixation, field research of habitats and coastal processes, as well as instrumental visitor's flow measurements (3 visitor flow sensors – digital pedestrian counters were purchased by the end of 2015 and located in Saulkrasti PIA in spring of 2016 to monitor visitor's flow). Elaborated methodology and few indicators of ecosystem and their services mapping and biophysical assessment (Action A5) were used for monitoring purposes as well.

The impact of the project activities mainly relates to Saulkrasti PIA where Nature Design Park "Baltā kāpa – Saulkrasti" has been established at the end of August 2016 (Action B4) and two common work events (Action D3) have been organised.

Changes in ecosystems cultural functions were evaluate within monitoring types:

- Anthropogenic impact assessment during installation of Nature Design Park in Saulkrasti PIA;
- Monitoring of Nature Design Park functional and visual quality in Saulkrasti PIA;
- Visitor's flow monitoring during the Project lifetime in Saulkrasti PIA.

Changes in ecosystems provisioning and maintenance functions were evaluate within monitoring type:

- Habitats quality assessment in Saulkrasti PIA and Jaunķemeri PIA.

Changes in ecosystems regulating functions were evaluate within monitoring types:

- Efficiency of management activities in shifting dunes along the shoreline in Saulkrasti PIA;
- Monitoring of the coastal processes (erosion and accumulation) in Saulkrasti PIA.

During the project implementation two reports (deliverables of the Action C1) were prepared:

- *1st Report on the monitoring of the impacts of the Project actions* have been submitted with Progress Report 2017 and is attached to this report in form of electronic copy (Annex_C1-1);
- *2nd Report on the monitoring of the impacts of the Project actions* is attached to this report in form of electronic copy (Annex_C1-2).

Action results are available on the project website - https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/projekta_materiali/projekta_ietekme_uz_ekosistemu_kvalitati/; https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/project_materials/impact_of_the_project_on_ecosystem_quality/.

2nd Report on the monitoring of the impacts of the Project actions includes final assessment of the project activities. There is included brief methodology, description of situation and conclusion of each monitoring type are given in the monitoring report.

Main conclusions of the monitoring:

- Overall results of the project are reached regarding ecosystems quality/ functionality and promotion of ecosystem services supply – cultural services (environmental education and recreation) value is increased and ecosystem services maintenance services (habitats quality) is maintained; during the project implementation period quality improvement of some habitats was observed (shifting dunes 2110, wooden dunes 2180);
- There is no observed negative impact of the project actions implementation on coastal ecosystems targeted by the project;
- Establishment process of the Nature Design Park was careful and negative impact on ecosystems functionality has not been observed;
- In the Nature Design Park "Baltā kāpa – Saulkrasti" area changes in visitor's flow/ visitor's habit have been observed – unwanted tracks and use of unwanted tracks reduced (positive synergy of the project actions and Saulkrasti municipality established visitor's infrastructure outside the project). These changes lead to positive impact on ecosystem productivity and maintenance ecosystem services;
- Efficiency of management activities in shifting dunes along the shoreline in Saulkrasti PIA in 2015 to reduce anthropogenic impact on dunes erosion was temporal and non-persistent against specific Latvia weather conditions. But management activities on shifting dunes restoration to reduce anthropogenic impact on dunes erosion in 2017 were successful and positive impact on ecosystems regulating services was observed. This activity was one of actions taken to support/improve functionality of the Nature Design Park mentioned in Action B4 description - establishment of demonstration site "*Dunes formation promotion*" in Saulkrasti PIA near White Dune where formation of fences and complementary dune plants *Leymus arenarius* planting with aim to reduce negative anthropogenic impact on erosion of coastal dunes in White Dune area and to reach expected results of the project relates with diminishing of the erosion of the coastal dunes in Saulkrasti PIA.
- Results on actions taken to reduce anthropogenic impact on dunes erosion mentioned above have been accurately monitored during all project implementation time. Within coastal processes (erosion and accumulation) evaluation in Saulkrasti PIA (for this specific valuation an expert Janis Lapinskis have been contracted) regarding these activities it was concluded:

 Northern part of the Primary Dune Restoration Experiment Area, September 2019.	*Data from cross-section levelling, as well as analysis of photographic evidence, show that during the reference period since autumn 2017, sand accumulation in the primary dune belt and in the upper part of the beach has been faster than in all adjacent areas. Particularly active aeolian accumulation occurred in the immediate vicinity of the fence installed in spring 2017, as well as at the sea side of the fence area. In the experimental field where the plants (Leymus arenarius) were planted, they are now well-rounded and healthy.*
Regarding the success of the experiment, it can be concluded that, very good results have been achieved during the three summer seasons. The accumulation of wind-driven sand within the pilot area is significantly higher than that previously characteristic of the site (long-term observation average amount is 2 - 3m^3/m). Approximately 10m^3/m of sand has been accumulated in the primary dune belt and in the beach. The measures implemented are "self-sufficient" and will remain functional for several years even if the fences are not restored / rebuilt (accumulation of the sand will continue). The additional amount of sand is retained in the experiment area (100-150m3). Overall, assessing progress of the measures already implemented and their expected duration, it can be argued, that the project's objective of reducing the risk of anthropogenic impact on coastal stability by 5 to 8% has already been significantly exceeded.	

- Project activities leaded to positive changes on ecosystems cultural services supply in Saulkrasti PIA where establishment of the Nature Design Park "Baltā kāpa – Saulkrasti" to enhance the appeal of the site to the tourists and visitors and to offer qualitative environmental educational possibilities. The most visited is White Dune area and after the Nature Design Park "Baltā kāpa – Saulkrasti" establishment increase of amount of visitors were observed.

Action C2. Monitoring of the socio-economic impact of the project activities

Foreseen start date:	3rd quarter of 2016	Actual start date:	4th quarter of 2014
Foreseen end date:	end of the project (2nd quarter of 2018)	Actual end date:	end of the project 1st quarter of 2020

Action final results are reported within this report. Responsible beneficiary was BC.

The socio-economic impact assessment of the Project activities has been carried out in accordance with the developed Project Impact Monitoring Guidelines (Action A4) and it assesses the progress of the implementation of the specific project activities and their impact in achieving the overall objectives of the project. The socio-economic impact assessment has

been carried out twice during the project implementation - in the middle of the project (at 2016) and after the implementation of all planned activities (at the end of the project).

During the project implementation two reports (deliverables of the Action C2) were prepared:

- *1st Report on socio-economic impact monitoring* have been submitted with Progress Report 2017 and is attached to this report in form of electronic copy (Annex_C2-1);
- *2nd Report on socio-economic impact monitoring* is attached to this report in form of electronic copy (Annex_C2-2).

Action results are available on the project website - https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/projekta_materiali/projekta_socialekonomiska_ietekme/; https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/project_materials/the_socio_economic_impact_of_the_project_activities/.

2nd Report on socio-economic impact monitoring includes final assessment of the project activities. The main findings of the monitoring:

- Socio-economic profile of the Saulkrasti Municipality is similar to the average national situation, with a few exceptions: contrary to national situation, the population of Saulkrasti Municipality overall project period has increased. However, it is important to highlight that the situation in Saulkrasti Municipality is not unique, as the population in all Pieriga region increased. It has been identified that in Saulkrasti Municipality is low attendance of foreign tourists. During the monitoring period the average percentage of foreign tourists in Latvia was 68%, while in Saulkrasti Municipality only 13% (1st monitoring report data) and 23% at the final monitoring period. After 2015, all indicators that have been included in the assessment of tourism sector increased both in Latvia as well as in Saulkrasti Municipality.
- The final evaluation concludes that the Saulkrasti Entrepreneurs' Association has been active in Saulkrasti since 2017, which is considered a successful example of the initiative of entrepreneurs to create active and successful new cooperation between all involved parties for the development of business environment competitiveness and faster and attractive growth of the region in the context of modern economy. One of the socio-economic added value of the project is the strengthening of green entrepreneurship implemented through *Action and Investment Plan* of the *Spatial Development Plan for Saulkrasti Municipality*, indirectly supporting the development of socially responsible entrepreneurship within the concept of green economy. At the same time, the elements of the Nature Design Park created within the project are being used in business - using them as a kind of Saulkrasti symbolism;
- The quantity of the visitors and its changes in Saulkrasti PIA – it has been identified that considerable part of the visitors of the pilot area are in warm summer months and the number of visitors significantly increased at the weekends. Hypothetically it is assumed that the attendance of the pilot area is closely related with the weather;
- Nature Design Park popularity monitoring – that factors as ergonomic, safety and accessibility of the nature design objects were gain high values in the assessment. Function of environmental education as well was assessed over medium values. Within the media monitoring it has been concluded that the society has been sufficiently informed about created Nature Design Park. Installed QR codes (linked with description of the objects in the project website subsection *Nature design objects/ Scheme*) improved the educational function of the Nature Design Park.
- The creation of the Nature Design Park works as a "magnetic object" that entrepreneurs can use as a recognizable and identifiable symbol. The creation of such

a new "magnetic object" can be seen as an initiative for developing tourism business. By establishing the Nature Design Park, the municipality has emphasized the need to continue to improve and develop the territory;

- Participation of project representatives in conferences and events in Latvia and abroad has provided significant support for popularization of the research activities and results of the project in the international scientific community, facilitated involvement of target groups and networking;
- Based on the effective implementation of the project communication strategy, increase of awareness and understanding can be seen in both of the need and meaning of the use of ecosystem services assessment as well as the use of the ecosystem services approach in target audience's professional activities in the coming years.
- Jaunķemeri PIA was chosen in the project due to its natural environment. However, as there are no economic activities in this area (except for one sanatorium) and no registered population, it was difficult to analyse Jaunķemeri PIA from a socio-economic point of view. However, analyzing the regional economic indicators, it has been concluded that situation is similar for Jūrmala (where Jaunķemeri PIA is located) and Saulkrasti municipalities (where Saulkrasti PIA is located).
- Analysing the changes of the regional economy indicators, by using the categories of ecosystem services values, it can be concluded that the economic value of most services have increased, and the largest increase of monetary value has been identified in category of regulation and maintenance services.

Summary of changes:

- Original timetable of the Action C2 was changed – action was started earlier and completed by the end of the project with final completion of the deliverable "*2nd Report on socio-economic impact monitoring*" (according to Amendment No1 signed on 10/01/2018 completion of the final monitoring report was planned by 01/12/2019; however actual completion date of the deliverable "*2nd Report on socio-economic impact monitoring*" is 30/03/2020). These changes relates with necessity to include in the report evaluation results of the project organised events (analyse of completed questionnaires collected from the participants) as it was foreseen in the Project Impact Monitoring Guidelines (Action A4). All planned events were completed by 11/03/2020. However these changes in the action timetable do not affect overall implementation of the project because this was the final activity of the project.

Action E2. Audit

Foreseen start date:	2nd quarter of 2018	Actual start date:	4thquarter of 2015*
Foreseen end date:	after the end of the project	Actual end date:	after the end of the project (2nd quarter of 2020)*

*original timetable of the Action E2 was changed – action was started earlier and end of the action was postponed due the prolongation of the project (in accordance with Amendment No1 to Grant Agreement for Project LIFE13ENV/LV/000839, signed on 10/01/2018).

Action final results are reported within this report. Responsible beneficiary was NCA.

Public procurement procedure was held on August/September 2015 to nominate independent organization, who will verify statement of expenditure and income at the end of the Project.

It was decided by PMT to divide the verification of statement of expenditures and income in several parts to identify problems as early as possible.

The first part of audit was done in Mid-term of the project implementation and covered time period 01/06/2014 – 31/03/2017. Second part of audit covered project activities from 01/04/2017 till 31/03/2020 and includes whole project evaluation as well. Final audit was done after the end of the project on May 2020.

According to the Audit Report of LIFE EcosystemServices project it is concluded that Financial report of the project *gives a true and fair view of the expenses, income and investments incurred/made by Nature Coservation Agency, Saulkrasti Municipality and NGO Baltic Coasts in connection with the abovementioned project within the time limit laid down by the Commission and in accordance with the LIFE+ Programme Common Provisions, the national legislation and accounting rules.*

Action E2 deliverable - *Audit Report* is attached to this report in form of electronic copy as Annex_6.4.

Action E3. After-Life Communication Plan

Foreseen start date:	2nd quarter of 2018	Actual start date:	1st quarter of 2020*
Foreseen end date:	2nd quarter of 2018	Actual end date:	end of the project*

* according to Amendment No1 to Grant Agreement for Project LIFE13ENV/LV/000839, signed on 10/01/2018.

Action final results are reported within this report. Responsible beneficiary was NCA. BC and SM were participated.

The Action E3 deliverable - *After-LIFE Communication Plan* was elaborated by the PMT as a separate chapter of the Final report of the project. Plan provides a list not only communication but as well as monitoring and results maintenance activities that will take place on the project sites/ will be organized by beneficiaries of the project after the project. It provides information how NCA will supervise and ensure the maintenance of project results and what is the expected budget for maintaining the project results and other important information.

After-LIFE Communication Plan is presented both in Latvian and in English languages and is available in electronic format on the project website subsection *About project/ Activities*, and is attached to this report as Annex_E3-1. In the Annex_E3-2 copy of confirmation letter of associated beneficiary SM is attached where chairman of Saulkrasti Municipality confirms to ensure maintenance of the project results located in the Saulkrasti pilot area in accordance with elaborated *After-LIFE Communication Plan*.

5.2 Dissemination actions

5.2.1 Objectives

The overall Project dissemination actions objectives and related tasks have been set out by Project Communication strategy elaboration at the beginning of the Project (Action A3). Improving the knowledge base on ecosystem services and their values in Latvia and promote the integration of knowledge in planning and decision making for sustainable ecosystem management was the main objective of all dissemination activities within Project.

Many dissemination actions have been included in the Project proposal to reach that objective and all of them are implemented. Besides the obligatory actions like website, printed materials, seminars etc. project team worked with the nature education and social networks activities (promoting the project and ecosystem services concept on Facebook and Twitter and organising the nature education events and elaborated different kind of materials) in order to introduce public with the ecosystem services concept, inform and educate them.

All project publicity tasks have been accurately listed and all main indicators had been set out in quantifiable terms which gain a clear insight into the Communication strategy and dissemination actions success to target audiences from the beginning of the project till the end. All numbers are reflected into tables which clearly show the progress.

5.2.2 Dissemination: overview per activity

Action D1. Project website

Foreseen start date:	2nd quarter of 2014	Actual start date:	4th quarter of 2014*
Foreseen end date:	end of the project (2nd quarter of 2018)	Actual end date:	end of the project 1st quarter of 2020**

* the revised timetable was accepted by the EC letter of 24/02/2015 Ref. Ares(2015)785695.
** according to Amendment No1 to Grant Agreement for Project LIFE13ENV/LV/000839, signed on 10/01/2018.

Action final results are reported within this report. Responsible beneficiary was NCA.

At the beginning of the project general information was published on the official website of NCA (http://www.daba.gov.lv/public/lat/projekti/life_nature1/ekosistemu_pakalpojumi/ in Latvian and http://www.daba.gov.lv/public/eng/projects/life_ecosystem_services/ in English).

Registration of the project website - **domain http://ekosistemas.daba.gov.lv** and its designing and programming was completed by February 2015.

Project website is the main communication tool within the project and contains all outputs of the project. Two versions of the website are maintained - on Latvian language and on English

language. LIFE logo is located in the right side banner and is permanent for all website sections.
The Table No1 shows the progress of website hits and relation to the progress indicators defined in the project proposal. Also the print screen from Google Analytics is added in Annex_D1-1. The success of project website promotion activities can be shown by the number of website hits at the end of the project (66 270 hits), which six times exceeds the indicator number (10 000 hits). Also the unique website hits (48 514 hits) exceed the indicator number (3000 hits) and is impressively high. The same is about average website hits per month (1069 hits). These numbers show that ecosystem services theme and the project are well promoted among project target audiences and information, materials available on the website is useful for the project target audience and others interested in ecosystem services.

Table No1

D1 - Website			
	Hits	**Unique hits**	**Average hits per month**
Indicator number in project proposal	**10 000**	**3000**	**150**
Number on Midterm (31/03/2016)	15 860	12 427	1132
Number on PrR2017 (31/03/2017)	35 008	24 271	1296
Number on PrR2018 (30/09/2018)	48 208	34 368	1071
Number on End of the project (31/03/2020)	**66 270**	**48 514**	**1069***

Note: Data extracted from Google Analytics; * calculated for 62 months period (01/02/2015 – 31/03/2020).

Since the beginning of project when Twitter account https://twitter.com/ekosistemaslv and Facebook account https://www.facebook.com/ekosistemas was created and updates have been carried out regularly. Progress of reached auditory is very high – total Twitter reached auditory on 31/03/2020 is 193 964 and Facebook reached auditory 100 021 respectively. For more detailed evaluation of the progress of social networks see Table No2.

Table No2

Social interactions progress indicators	**Twitter followers**	**Twitter reached audience**	**Twitter interactions (retweets, likes etc.)**	**Facebook followers**	**Facebook reached audience**	**Facebook engagement (comments, likes etc.)**
Number on Midterm (31/03/2016)	163	28 599	254	185	30 734	2110
Number on PrR2017 (31/03/2017)	231	79 666	602	273	56 365	5684
Number on PrR2018 (30/09/2018)	265	171 174	927	353	79 039	8 700
Number on End of the project (31/03/2020)	**285**	**193 964**	**1 185**	**407**	**100 021**	**12 378**

Note: Data extracted from Twitter analytical tool – https://analytics.twitter.com and Facebook page administrator site section “Publishing tools”.

Action D2. Public information and education materials

Foreseen start date:	4th quarter of 2014	Actual start date:	4th quarter of 2014
Foreseen end date:	end of the project (2nd quarter of 2018)	Actual end date:	1st quarter of 2020

Results were reported with MidR, PrR2017 and PrR2018. Action final results are reported within this report. Responsible beneficiary was NCA. Other beneficiaries were involved.

Different kind of information and education materials were produced, published and distributed. The project website section *Deliverables and Publications* subsections *Informative materials* and *Publication* contains all outputs and deliverables of the Action D2 https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/informativie_materiali1/; https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/informative_materials/; https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/publikacijas/; https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/publications/.
Results per each material type are given below:

1. Short documentaries

In total 3 short documentaries were produced during the project implementation period from 2015 to 2018 in cooperation with external service provider.

Responsible beneficiary for these results were NCA.
All versions of produced documentaries have been submitted with MidR (1st short documentary "*Ecosystem services*"), PrR2017 (2nd short documentary "*Ecosystem services evaluation*") and PrR2018 (3rd short documentary "*Ecosystem services assessment – a tool for spatial planning*"). One MP4 file from each short documentary (version with English subtitles) is attached to this report (Annex_D2-1, Annex_D2-2, Annex_D2-3). In all documentaries LIFE logo and clear reference on LIFE programme is included.
All short documentaries total reached audience on 31/03/2020 is 154 916. For more detailed evaluation of the progress of short documentaries reached audience see Table No3 (Youtube channel), Table No4 (TV broadcasts and other demonstrations, distribution activities). Documentaries distribution activities will be continued in After-LIFE period as well.

Table No3

1st, 2nd and 3rd short documentary	**1st short documentary Latvian version in YouTube**	**1st short documentary English version in YouTube**	**2nd short documentary Latvian version in YouTube**	**2nd short documentary English version in YouTube**	**3rd short documentary Latvian version in YouTube**	**3rd short documentary English version in YouTube**	**Summary**
Links	https://www.youtube.com/watch?v=16xqHIiLpus	https://www.youtube.com/watch?v=RNiWe7j-c3Y	https://www.youtube.com/watch?v=7dyW1Jr-rZE&feature=youtu.be	https://www.youtube.com/watch?v=cLbO236dw_Q&t=1s	https://www.youtube.com/watch?v=hVCPInAOBMM	https://www.youtube.com/watch?v=lbNQkM0UJDg	
Number of audience on 31/03/2020	**2834**	**1048**	**1141**	**379**	**253**	**201**	**5 856**

Table No4

1st short documentary presentation at the project events, other attended events, TV broadcasts, other	**Evidence/comments**	**Auditory**	**Number of audience on 31/03/2020**
Broadcast in TV Limbaži channel	E-mail correspondence with the Head of TV Limbaži Mr. Juris Bebrišs	Limbaži district households	2 000
Broadcast in TV Kurzeme channel on 01/04/2016	E-mail correspondence with the board member of TV Kurzeme Mr.Andris Rozītis and TV Kurzeme TV homepage programme data.	Kurzeme region households	12 000
Demonstration at the project 3rd seminar on 05/04/2016	Seminar agenda and participants list data	Seminar participants	50
Demonstration at the Ķemeri National Park Travel Day on 07/05/2016	Ķemeri NP Travel Day report and visitor list data	Travel day visitors	21
Demonstration in Conference **"***Helping nature to help us" in Antwerp, Belgium* **on 20/09/2016**	Official conference site www.esconference2016.eu data	Conference participants	600
International festival of films and video programmes AGROFILM 2017	http://www.agrofilm.sk/index.php/en/agrofilm-database-since-2011	Festival participants	350
Demonstration in educational event "Ecosystem services and their evaluation – Latvia`s experience" for Latgale region territorial planners, Rēzekne on 23/02/2018	News https://ekosistemas.daba.gov.lv/public/eng/news1/2099/	Event participants	30
Broadcast in TV Kurzeme channel on 25/07/2018 two times	Media monitoring system *www.station.lv* data	Kurzeme region households	30 190
Broadcast in TV Kurzeme channel on 27/07/2018 two times	Media monitoring system *www.station.lv* data	Kurzeme region households	30 190
Demonstration in Baltic LIFE projects networking meeting in Klaipeda, Lithuania on 20/09/2018	*Data of CAP LIFE LAT* (LIFE14CAP/LV/000002) *project*	Event participants	32
Broadcast in TV Kurzeme channel on 28/09/2018 two times	Media monitoring system *www.station.lv* data	Kurzeme region households	30 190
Demonstration in Introductory Forum of Green Economy Fairs "GreenExpo Riga 2018" on 21/11/2018	Official forum site data www.bt1.lv/greenexporiga/	Event participants	751
Demonstration in the project event "6th seminar *Use of ecosystem services approch in decision making process*" on 26/04/2019	Demonstration during breaks, participants list data	Event participants	45
Broadcast in TV Kurzeme channel on 03/05/2019 two times	Media monitoring system *www.station.lv* data	Kurzeme region households	35 820
Demonstration in the international event "Annual conference EUROPARC 2019" on 27/09/2019	Official conference site data https://www.europarc.org/europarc-conference/previous-conferences/europarc-conference-2019/	Conference participants	370
Demonstration in the project event "Project Conference *Value of Nature – practises and experiences in use of ecosystem services assessment*" on 15/01/2020	Demonstration during all time of the event at the lobby of the venue (open access for everyone), participants list data	Event participants	129 (+ unknown number of lobby visitors)
Demonstration in NCA Nature education centres (01/04/2017 – 31/03/2020)	Nature education centres statistic data on visitors and participants of educational activities	Events participants	2023
Summary for 1st short documentary	-	-	**144 791**

2nd short documentary presentation at the project events, other attended events, other sources			
Demonstration in Conference **"***Helping nature to help us" in Antwerp, Belgium* **on 20/09/2016**	Official conference site www.esconference2016.eu data	Conference participants	600
Demonstration at the project 4th seminar on 07/12/2016	Seminar agenda and participants list data	Seminar participants	49
International festival of films and video programmes AGROFILM 2017	http://www.agrofilm.sk/index.php/en/agrofilm-database-since-2011	Festival participants	350
Demonstration in educational event "Ecosystem services and their evaluation – Latvia`s experience" for Latgale region territorial planners, Rēzekne on 23/02/2018	News https://ekosistemas.daba.gov.lv/public/eng/news1/2099/	Event participants	30
Demonstration in Baltic LIFE projects networking meeting in Klaipeda, Lithuania on 20/09/2018	*Data of CAP LIFE LAT* (LIFE14CAP/LV/000002) *project*	Event participants	32
Demonstration in Introductory Forum of Green Economy Fairs "GreenExpo Riga 2018" on 21/11/2018	Official forum site data www.bt1.lv/greenexporiga/	Event participants	751
Demonstration in the project event "6th seminar *Use of ecosystem services approch in decision making process*" on 26/04/2019	Demonstration during breaks, participants list data	Event participants	45
Demonstration in the international event "Annual conference EUROPARC 2019" on 27/09/2019	Official conference site data https://www.europarc.org/europarc-conference/previous-conferences/europarc-conference-2019/	Conference participants	370
Demonstration in the project event "Project Conference *Value of Nature – practises and experiences in use of ecosystem services assessment*" on 15/01/2020	Demonstration during all time of the event at the lobby of the venue (open access for everyone), participants list data	Event participants	129 (+ unknown number of lobby visitors)
Demonstration in NCA Nature education centres (01/04/2017 – 31/03/2020)	Nature education centres statistic data on visitors and participants of educational activities	Events participants	486
Summary for 2nd short documentary	-	-	**2 842**
3rd short documentary presentation at the project events, other attended events, other sources			
Demonstration in Baltic LIFE projects networking meeting in Klaipeda, Lithuania on 20/09/2018	*Data of CAP LIFE LAT* (LIFE14CAP/LV/000002) *project*	Event participants	32
Demonstration in Introductory Forum of Green Economy Fairs "GreenExpo Riga 2018" on 21/11/2018	Official forum site data www.bt1.lv/greenexporiga/	Event participants	751
Demonstration in the project event "6th seminar *Use of ecosystem services approch in decision making process*" on 26/04/2019	Demonstration during breaks, participants list data	Event participants	45
Demonstration in the international event "Annual conference EUROPARC 2019" on 27/09/2019	Official conference site data https://www.europarc.org/europarc-conference/previous-conferences/europarc-conference-2019/	Conference participants	370
Demonstration in the project event	Demonstration during all time of the	Event	129 (+

"Project Conference *Value of Nature – practises and experiences in use of ecosystem services assessment*" on 15/01/2020	event at the lobby of the venue (open access for everyone), participants list data	participants	unknown number of lobby visitors)
Demonstration in NCA Nature education centres (01/04/2017 – 31/03/2020)	Nature education centres statistic data on visitors and participants of educational activities	Events participants	100
Summary for 3rd short documentary	-	-	**1 427**
TOTAL for all documentaries			**149 060**

2. Project brochures

In total 2 brochures were produced and during the project implementation period from 2015 to 2016 in cooperation with external service providers for brochures design, layouts, printing and delivery.

Responsible beneficiary for these results were NCA.

The brochures were submitted with MidR (the project brochure/leaflet ***"Ecosystem services evaluation"*** both Latvian and English version; informative brochure on the economic assessment of ecosystems and their services *"**Ecosystem services approach for sustainable management"*** in Latvian language) and is attached to this report in form of electronic copies (Annex_D2-4, Annex_D2-5, Annex_D2-6). In both brochures LIFE logo and clear reference on LIFE programme is included.
The brochures were distributed during the project events, attended networking events, included in other action D2 material – deliverable "*Digital package with Project results*" and distributed. As well as the brochures are available for NCA visitors and available on the project website for download. In total 2859 brochure's hard copies have been distributed to target audience. Distribution of the brochures via website (amount of downloads) is successful as well (see table No5). Distribution of the brochure *"Ecosystem services approach for sustainable management"* hard copies will be continued in After-LIFE period as well and will stay available on the project website.

Table No5

Project brochures	**Brochure/leaflet *"Ecosystem services evaluation"***		**Brochure *"Ecosystem services approach for sustainable management"***	**Summary**
	Latvian version	**English version**	**Latvian version**	**Total**
Indicator number in project proposal	900	100	2 000*	3 000
Distribution target in project proposal (% of produced materials)	75	75	75	75
Distribution number on 31/03/2020	**873**	**92**	**1 894**	**2 859**
Total distribution % on 31/03/2020	**97**	**92**	**95**	**95**
Downloads on 31/03/2020	**1 116**	**799**	**1 231**	**3 146**
TOTAL reached audience				**6 005**

Note: Downloads Data extracted from website administrator section.
* the number of printed copies were specified to 2000 copies; the corrections were accepted by the EC letter of 24/02/2015 Ref. Ares(2015)785695.

3. E-newsletters

In total 8 e-newsletters were produced and distributed during the project implementation period from 2015 to 2018 in cooperation with external service providers for e-newsletters design and layouts.

The e-newsletters have been submitted with MidR (1st, 2nd, 3rd e-newsletter), PrR2017 (4th, 5th e-newsletter) and PrR2018 (6th, 7th and 8th e-newsletter). In all e-newsletters LIFE logo and clear reference on LIFE programme is included.
E-newsletters have been published on the project website and distributed among target audience via e-mails, social media accounts and will be available during all After-LIFE period. In total e-newsletters downloads reached 8674 times on 31/03/2020. For more detailed evaluation of the progress of e-newsletters downloads see Table No6.

Table No6

E-newsletters downloads									
	1st	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	**Total**
Indicator number in project proposal	200	200	200	200	200	200	200	200	1600
% of indicator number	100	100	100	100	100	100	100	100	100
Total downloads on 31/03/2020	1706	1523	1479	1061	1292	561	880	172	**8674**
% of indicator number **on 31/03/2020**	853	761	739	530	646	280	440	86	**542**

Note: Data extracted from website administrator section

4. Articles, scientific publication, press releases/ public information

There were three types of articles produced by the project - articles about the project topics (8 articles), articles about good practice examples (4 articles) and scientific/ technical publications (4 publications). All articles and publications are available on the project website section *Deliverables and Publications* subsection *Publications*
https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/publikacijas/;
https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/publications/.
All produced articles were published in regional or national media to reach the most possible audience. All scientific publications published in internationally reviewed scientific source. Reference on the Project/ LIFE programme was included. List of all articles and scientific publications see in Table No7.

Table No7

No	**Article**	**Result reported and article submitted**
Articles about the project topics (responsible beneficiary NCA)		
1	National newspaper "*Latvijas Avīze*" on 27/03/2015; article about ecosystem services theme and the project activities. Media covers target audience around all Latvia.	MidR
2	Regional newspaper *"Saulkrastu Domes ziņas"* on 14/07/2015; article about ecosystem services topic. Media covers Saulkrasti PIA target audience.	MidR
3	Regional newspaper *"Zemgales Ziņas"* on 01/04/2016; article about ecosystem services as a new approach for Latvia has been made in cooperation with the journalist of this media. Media covers target audience around Jaunkemeri PIA.	MidR

4	National magazine "*Vides Vēstis*" No4 (161) 2016; article about ecosystem services assessment and mapping in coastal area (http://www.videsvestis.lv/wp-content/uploads/2016/11/VV_2016_161.pdf). Magazine's target audience is environmental professionals of Latvia.	PrR2017
5	Regional newspaper *"Rīgas Apriņķa Avīze"* on 04/10/2016; article about Nature Design Park in Saulkrasti. Media covers Saulkrasti PIA and surrounded municipalities target audience.	PrR2017
6	National newspaper *"Diena"* on 11/10/2016; article about Nature Design Park in Saulkrasti as a good and sustainable environmental solution (http://monitorings.leta.lv/item/P591F2F89-BB74-4FD1-837F-2C4F3353D5AE/). Media covers target audience around all Latvia.	PrR2017
7	Regional newspaper "*Saulkrastu Domes ziņas*" on 13/06/2017; article about *EU GREEN WEEK* 2017 event – 3rd common work event in Saulkrasti PIA where foredune strengthening activities have been organised and knowledge about *"green*" coastal regeneration solutions have been shared (https://saulkrasti.lv/wp-content/uploads/2017/06/SDZ_junijs_2017_makets.pdf). Media covers Saulkrasti PIA target audience.	PrR2018
8	National magazine "*Latvijas Architektūra*" No. 132 (4/17), September of 2017; article about established Nature Design Park in Saulkrasti as a good and sustainable environmental solution. Magazine's target audience is designers, architects and planning specialists of Latvia.	PrR2018
Articles about good practice examples (responsible beneficiary NCA)		
1	Regional newspaper "*Saulkrastu Domes ziņas*" on February 2020; article – interview with Saulkrasti municipality chairman Normunds Līcis about the project travelling prize and sustainable development of Saulkrasti (https://saulkrasti.lv/wp-content/uploads/2020/02/Saulkrastu-Zinas-februaris.pdf). Media covers Saulkrasti PIA target audience.	This report (Annex_D2-7)
2	Regional newspaper "*Neatkarīgās Tukuma Ziņas*" on 18/02/2020; article – interview with Riga Planning Region spatial planning specialists about sustainable development strategy in Riga Planning Region (https://station.lv/#30770931). Media covers Jaunķemeri PIA and surrounded municipalities target audience.	This report (Annex_D2-8)
3	National media "Latvijas Avīze" portal LA.lv on 29/02/2020; article about different "green tools" available for general public and planning specialists (https://www.la.lv/gudrie-paligi-labakai-dzivei-zalie-riki). Media covers target audience around all Latvia.	This report (Annex_D2-9)
4	National media "Diena" on 25/03/2020 (internet verion) and 27/03/2020 (printed magazine version); article – interview with green entrepreneur Māra Lieplapa about green entrepreneurship practice example and ecosystem services sustainable use (https://www.diena.lv/raksts/dzivesstils/cits/zalais-bizness-tejas-kruze-14238348; https://station.lv/#31338175). Media covers target audience around all Latvia.	This report (Annex_D2-10, Annex_D2-11)
Scientific/ technical publications (responsible beneficiary BC)		
1	Publication: Konstantinova E., Brunina L., Persevica A., Honavko I. ***Assessment of ecosystems and ecosystem services for sustainable land use management in Latvia.*** Proceedings of the 16th International Scientific Conference Engineering for Rural Development, May 24th-26th, 2017, Jelgava, Latvia, ISSN 1691-5976. (http://www.tf.llu.lv/conference/). The proceedings are an internationally	PrR2017

	reviewed scientific source.	
2	Publication: Arhipova I., Konstantinova E., Belmane N., Kristaps G. ***Ecosystems Services Economic Valuation Model: Case Study in Latvia.*** (https://www.ebesweb.org/Conferences/22nd-EBES-Conference-Rome.aspx). The proceedings are an internationally reviewed scientific source.	PrR2017
3	Publication: Konstantinova E., Brunina L., Persevica A., Zivitere M. ***Assessment of ecosystems and ecosystem services for sustainable land use management.*** Proceedings of the International Scientific Conference 'Society. Integration. Education.' Volume IV, Rēzekne, May 26th-27th, 2017. 257-269, Latvia, Thomson Reuters Web of Science ISSN 1691-5887. http://conferences.ru.lv/index.php/SIE/SIE2017. The proceedings of conference are an internationally reviewed scientific source.	PrR2017
4	Publication: Konstantinova E., Brunina L., Persevica A. ***Necessity of mapping and assessment of ecosystems and their services in planning and decision making process.*** International scientific conference 'Society. Integration. Education.' May 27th - 28th, 2016, Proceedings, Latvia, Volume IV, Rēzekne, 2016. Thomson Reuters Web of Science ISSN 1691-5887. The proceedings of conference are an internationally reviewed scientific source.	MidR

Total articles views in project website reached 7954 on 31/03/2020. Reached audience by media where articles have been published is very high. Therefore strategy to published articles not only on project website but in media has exonerated. For more detailed evaluation of the progress of articles views see Table No8.

Table No8

Articles/ scientific publications views and media audience									
Articles about the project topics									**Total**
No of article according to list in table No7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Indicator number in project proposal (views)	200	200	200	200	200	200	-	-	**1 200**
Total views on 31/03/2020	853	1 619	956	2 197	756	592	131*	217	**7 321**
Media where article published audience**	25 000	3 500	no data	no data	no data	42 100	3 500	3 100	**77 200**
TOTAL reached audience	25 853	5 119	956	2 197	756	42 692	3 631	3 317	**84 521**
Articles about good practice examples									
No of article according to list in table No7	**1**	**2**	**3**	**4**					
Indicator number in project proposal (views)	200	200	200	200					**800**
Total views on 31/03/2020	57	73	70	74					**274**
Media where article published audience**	3 700	15 600	71 132	63 007					**153 439**
TOTAL reached audience	3 757	15 673	71 202	63 081					**153 713**
Scientific/technical publications									
No of article according to list in table No7	**1**	**2**	**3**	**4**					
Indicator number in project proposal (views)	200	200	200	200					**800**
Total views on 31/03/2020***	73	157	80	49					**359**

Note: Views data extracted from the project website via Google Analytics

*Not all views calculated in project website for this article due technical problems

** Media monitoring system *www.station.lv* data and media data about editions of newspaper/magazine/media concerned

*** Only statistical data from researchgate.com is available and counted. Scientific publications are published with links to original source of the publication on the project website and therefore data of views from the project website are not possible to retrieve.

During the project implementation period wide range of press releases/ public information were prepared to inform the project target audience and general public about the project results, events, information related with the project's PIAs. This information was published and is available on the project website main section *Start*/*News* https://ekosistemas.daba.gov.lv/public/lat/; https://ekosistemas.daba.gov.lv/public/eng/. Total views number on 31/03/2020 reached 7336 views in project website (in details see Table No9).

Table No9

Press releases/ public information views (responsible beneficiary NCA)		
	Press releases/ public information	**Total views**
Indicator number in project proposal	16	3200
Total views on 31/03/2020	**105**	**7 336**

Note: Data extracted from Google Analytics

5. Information boards

In each pilot implementation area an information board have been installed. Information on the boards is available on both Latvian and English and LIFE logo and clear reference on LIFE programme is included. Maintenance of the boards during After-LIFE period will be in the responsibility of NCA (Jaunķemeri PIA) and SM (Saulkrasti PIA).

- In Jaunķemeri PIA the board *ECOSYSTEM SERVICES IN JAUNĶEMERI* informs about the diversity of ecosystem services in Jaunķemeri and the activities of the LIFE ecosystem services project in Jaunķemeri PIA. The board is situated on main pedestrians trail from parking place to sea coast. Information board is included in educational activities of Nature Education Centre "Ķemeri" (milestone during educational excursions in Jaunķemeri PIA). The information board were elaborated in cooperation with external services provider for designing, manufacturing and installation of the board.

  Responsible beneficiary was NCA. Visualisation materials about this information board were submitted with PrR2018.
- In Saulkrasti PIA the board *ECOSYSTEM SERVICES – BASIS FOR SAULKRASTI DEVELOPMENT* informs about types of ecosystem services in general and along the coast of Saulkrasti, schematically shows the thematic and functional development of the Saulkrasti coastline from Inčupe to Pēterupe and provides a timeline overview of the project activities in the pilot area Saulkrasti. The board is situated in strategic place - on main pedestrians trail from parking place to sea coast in area of Nature Design Park and is part of established Park. The information board were elaborated in cooperation with external services provider for designing, manufacturing and installation of the board.

  Responsible beneficiary was SM. Layout of this information board is attached to this report (Annex_D2-12).

In the project website section *Deliverables and Publications* subsections *Informative materials* layouts of the information boards is available for view and download https://ekosistemas.daba.gov.lv/public/lat/rezultati_un_publikacijas1/informativie_materiali1/; https://ekosistemas.daba.gov.lv/public/eng/deliverables_and_publications1/informative_materials/. Total views number on 31/03/2020 reached 672 views.

6. Give-aways and data carriers (USB) for project results

In total 4 types of give-aways (1 000 pencils, 500 reflectors, 1 000 stickers and 570 USB data carriers) were produced by 30/09/2016 and distributed during the project events and networking activities. USB is used for project results (Action D2 deliverable "*Digital package with Project results*") distribution as well. Materials were produced in cooperation with external service provider.

Reference to LIFE logo/ programme and the project was included on these materials. Responsible beneficiary for these materials were NCA. Results were reported and one piece from each kind of all give-aways and data carrier (USB) were submitted with PrR2017.

USB with project results (Action D2 deliverable "*Digital package with Project results*") were distributed during the project events and networking activities participated in. USB contains main results of the project available on time of events and suitable for this kind of distribution. Content of the USB were adjust to target audience of the events. Example of completed USB distributed during the project Conference on 15/01/2020 is attached to this report in form of separate electronic folder (see content of the deliverable in Annex_D2-13).

Almost all produced materials have been distributed by the end of the project.

7. "Travelling prize" for the municipalities and poster about good examples

Dissemination materials – "Travelling prize" for the municipalities and poster about good practice examples were related with the project event – Conference organisation (Action D3) and were prepared by the date of the Conference (15/01/2020) in cooperation with external service provider for conference organisation. Responsible beneficiary for these materials were NCA.

- The poster – Rollup stand *NATURE GIVES* contains information on successful examples of practical use of ecosystem services in different kind of entrepreneurship activities in Latvia. The poster was presented in the project Conference and other events (5 events) organised during the final stage of the project implementation. LIFE logo and clear reference on LIFE programme is included. PDF version of the layout of the poster – Rollup stand is attached to this report (Annex_D2-14) and is available on the project website. Poster will be used during After-LIFE activities (events).
- "Travelling prize" for the municipalities *ECOSYSTEM SERVICES* is sculptural object made from two kinds of materials – natural material (wood) and artificial material (epoxide resin) therefore symbolised natural and human made convergence in the same whole. In the epoxide resin part elements of the coastal ecosystems (plants, mosses, lichen, sands, shells, pine-cones) are incorporated and symbolise an idea of ecosystem services. The prize is accompanied with diploma. LIFE logo and clear reference on LIFE programme is included. Saulkrasti municipality was the first one to receive the prize. The prize was officially awarded during the project Conference "Value of Nature – practises and experiences in use of ecosystem services assessment" for initiatives implemented in Saulkrasti region – integration of ecosystem services

approach in development planning processes and creation of the Nature Design Park "White Dune - Saulkrasti". Regulation of further traveling of the prize was elaborated and is attached to this report in form of electronic copy (Annex_D2-15). Regulation includes visualization of the prize as well. Further awarding of the prize will be one of the After-LIFE activities.

8. Visual presentation – instructive trailer for the Toolkit

Instructive trailer for the Toolkit was elaborated during the final stage of the Toolkit elaboration and main information uploading in the Toolkit (January 2020) in cooperation with external service provider for Toolkit software and functionality elaboration (see Action B5 description). Trailer is animated video tutorial provides overview of Toolkit and its functionality. Subtitles and voice track are included. Trailer is integrated in the main page of the Toolkit and is attached to this report as separate MP4 file (Annex_D2-16). LIFE logo and clear reference on LIFE programme is included. Trailer is uploaded in YouTube channel (129 views by 31/03/2020) and available on the project website. Within planned After-LIFE promotional activities of the Toolkit at the same time *Visual presentation – instructive trailer for the Toolkit* will be promoted.

9. Environmental education materials

During the project implementation necessity to elaborate environmental education materials was identified for use during informative and educational activities organised by the project and support established Nature Design Park in Saulkrasti PIA educational functionality. Three main materials were elaborated:

- Methodological material - description of environmental education activities/ workshop /event in Nature Design Park "White Dune – Saulkrasti";
- Game "Ecosystem Services Approach";
- Poster "Tree of Ecosystem Services".

Elaborated materials are published and available on the project website Latvian version on section *Deliverables and Publications* subsection *Environmental Education Materials* (2845 downloads of the materials registered), and used outside the project as well, for example on daily work of Nature Education Centres of Latvia. PDF versions of the materials are attached to this report (Annex_D2-17).

Summary of changes:

- Original timetable of the action was changed (according to Amendment No1 to Grant Agreement for Project LIFE13ENV/LV/000839, signed on 10/01/2018) and it was planned to complete all materials by the end of 2019 according to actual timetable reported with PrR2018. Slight deviations in completion time of final materials relates with the project Conference event (No 7 *"Travelling prize" for the municipalities and poster about good examples*) and elaboration of the Toolkit (No 8 *Visual presentation – instructive trailer for the Toolkit*) were occurred. As well as articles about good practice examples have been published in 1st quarter of 2020 and depended on media where articles was published possibilities.
  However these changes did not affect success of the dissemination actions or overall implementation of the project and audience of the project were reached well.

Action D3. Public information and education events

Foreseen start date:	1st quarter of 2015	Actual start date:	3rd quarter of 2014
Foreseen end date:	end of the project (2nd quarter of 2018)	Actual end date:	1st quarter of 2020*

*according to Amendment No1 to Grant Agreement for Project LIFE13ENV/LV/000839, signed on 10/01/2018.

Results were reported with MidR, PrR2017 and PrR2018. Action final results are reported within this report. Responsible beneficiary was NCA. Other beneficiaries were involved.

Different kinds of information and education events have been organised within the project. All events were very well attended and reached target audience exceed expected results. The project website section *Events* contains all outputs of the Action D3 https://ekosistemas.daba.gov.lv/public/lat/pasakumi11/; https://ekosistemas.daba.gov.lv/public/eng/events11/.
Description of the events is linked with Photo gallery and News section of the project website. All presented materials are uploaded on the project website and available for view and download. In all organised events the project identity with reference to LIFE programme were used (roll-up banner, LIFE flag and presentation's templates with LIFE logo etc. depends on event character).

Summarised results per each event category are given below:

1. Seminars

No	Seminar	Date and venue	Link to materials	Link to photo gallery	Results reported
1	1st seminar "*The role of ecosystem services evaluation in sustainable spatial management*"	26/02/2015 Ķemeri, Meža māja	Agenda and Presentations (in Latvian language)	Photo gallery	MidR
2	2nd seminar "*Ecosystem services: meaning and evaluation*"	25/08/2015 Saulkrasti, House of Culture *"Zvejniekciems"*	Agenda and Presentations (in Latvian language)	Photo gallery	MidR
3	3rd seminar "*Ecosystem services evaluation: methodology and practice*"	05/04/2016 Riga, Ministry of Environmental Protection and Regional Development of the Republic of Latvia	Agenda and Presentations (in Latvian language)	Photo gallery	PrR2017
4	4th seminar "*Ecosystem services evaluation - new approach in spatial planning*"	07/12/2016 Riga, European Union house, Aspazijas bulvāris 28	Agenda and Presentations (in Latvian language)	Photo gallery	PrR2017
5	5th seminar and discussion forum "*Cooperation and experience exchange about ecosystem services evaluation in Latvia*"	27/10/2017 Riga, European Union house, Aspazijas bulvāris 28	Agenda and Presentations (in Latvian language)	Photo gallery	PrR2018

6	6th seminar and discussion forum "*Use of ecosystem services approach in decision making process*"	26/04/2019 Riga, the Academic Centre of the University of Latvia, The House of Nature	Agenda and Presentations (in Latvian language)	Photo gallery	This report (Annex_ D3-1)

Overall statistical data about all *Seminars* are given in Table No10.

Table No10

	Participants of the seminars						**Total number of participants**	**Number of completed questionnaires**
	1st	2nd	3rd	4th	5th	6th		
	26/02 /2015	28/05 /2015	05/04 /2016	07/12 /2016	27/10 /2017	26/04 /2019		
Indicator number in project proposal	25	25	25	25	25	25	150	113
Number on 31/03/2020	**30**	**50**	**50**	**49**	**44**	**45**	**268**	**184**

2. Common work events

No	**Common work event**	**Date**	**Link to information**	**Link to photo gallery**	**Results reported**
1	Common work event in Saulkrasti pilot area	25/04/2015	Press release 06.05.2015.	Photo gallery	MidR
2	Common work event in Jaunķemeri pilot area	23/04/2016	Press release 25.04.2016.	Photo gallery	PrR2017
3	3rd Common work event in Saulkrasti pilot area	30/05/2017	Press release 30.05.2017.	Photo gallery	PrR2018
4	4th Common work event in Jaunķemeri pilot area	02/05/2018	Press release 03.05.2018.	Photo gallery	PrR2018

Overall statistical data about all *Common work events* are given in Table No11.

Table No11

	Participants of common work events				**Total number of participants**	**Number of completed questionnaires**
	1st	2nd	3rd	4th		
	25/04/ 2015	23/04/ 2016	30/05/ 2017	02/05/ 2018		
Indicator number in project proposal	30	30	30	30	120	90
Number on 31/03/2020	**86**	**36**	**32**	**46**	**200**	**72**

3. Opening event of Nature Design Park

On 29/09/2016 the opening event of Nature Design Park in Saulkrasti pilot area took place. Event was widely attended – in total 86 participants were registered (indicator number in project proposal is 50). Results were reported within PrR2017 and information about the event is available HERE.

4. Educational events for students of universities and local schools

No	Event	Date and place	Link to information/ materials	Link to photo gallery	Results reported
1	Riga Technical university, Latvia University of Agriculture and Art Academy of Latvia students involvement in Saulkrasti pilot area nature design objects conception creation	From 19/09/2015 till 15/01/2016, Riga	Press release 21.01.2016.	Photo gallery	MidR
2	Saulkrasti high school pupil involvement in local research about Saulkrasti inhabitants environmental awareness	April - June 2016, Saulkrasti	Press release 17.08.2016.	Photo gallery	PrR2017
3	Day of practice in Saulkrasti pilot area for University of Latvia Geography and Earth Sciences faculty Master programme students	13/06/2016 Saulkrasti	Press release 17.08.2016.	Photo gallery	PrR2017
4	Participation in Latvia University of Agriculture and Helsinki University organized course cycle "*An Introduction to Ecosystem Service Theory and Practices*"	03/11/2016 Jelgava, Latvia University of Agriculture	Presentations (ZIP file 11,1 MB in English language) Press release 10.11.2016.	Photo gallery	PrR2017
5	Educational event in Saulkrasti pilot area for University of Latvia Geography and Earth Sciences faculty Master programme students	12/06/2017 Saulkrasti	Press release 21.06.2017.	Photo gallery	PrR2018
6	Educational event in Saulkrasti pilot area for natural sciences and informal education teachers	26/11/2019 Saulkrasti	Agenda and Presentations (in Latvian language)	Photo gallery	This report (Annex_D3-2)

Overall statistical data about all *Educational events for students of universities and local schools* are given in Table No12.

Table No12

Participants of educational events for students of universities and local schools							**Total number of participants**
	1st	2nd	3rd	4th	5th	6th	
	19/09/2015 - 15/01/2016	April - June 2016	13/06/2016	03/11/2016	12/06/2017	26/11/2019	
Indicator number in project proposal	25	25	25	25	25	25	150
Number on 31/03/2020	**136**	**29**	**28**	**15**	**27**	**15**	**250**

5. Public information and education events in municipalities and meetings with NGOs

No	Event	Date and place	Link to information/ materials	Link to photo gallery	Results reported
1	Meeting with Saulkrasti entrepreneurship organisation about the project activities in Saulkrasti municipality and further cooperation.	28/10/2016 Saulkrasti	Information	Photo gallery	PrR2017
2	Event "*Ecosystem services and their evaluation - experience of Latvia*" for representatives of Latgale region municipalities - territorial development planners.	23/02/2018 Rēzekne	Agenda and Presentations (in Latvian language) Information	Photo gallery	PrR2018
3	Participation in the meeting of Saulkrasti Entrepreneurs' Association with a presentation "*Revitalization of Green Entrepreneurship in Saulkrasti Municipality, update of Saulkrasti Municipality Development Programme*".	15/03/2019 Saulkrasti	Presentation (in Latvian language) Information		This report (Annex_ D3-3)
4	Participation in Development Planning Consultative Working Group of Riga Planning Region with presentation about project Recommendations and introduction with Nature Design Park.	05/04/2019 Saulkrasti	Agenda and Presentation (in Latvian language) Information	Photo gallery	This report (Annex_ D3-4)
5	Participation in Kurzeme Planning Region seminar – meeting and discussions with spatial planning specialists about the project Recommendations.	15/05/2019 Vārve	Agenda and Presentation (in Latvian language) Information (page 6)	Photo gallery	This report (Annex_ D3-4)
6	Educational event "*Ecosystem services, their assessment and use of assessment in planning*" for planners and decision makers and discussions about project results and elaborated Toolkit.	06/02/2020 Rīga	Agenda and Presentations (in Latvian language)	Photo gallery	This report (Annex_ D3-5)
7	Educational event "*Elaboration of Nature Management Plans – practical use of ecosystem services approach in planning of protected territories, species and habitats management*" for Nature Management Plans elaborators – representatives of companies, NGOs, other organisations; the project results, elaborated tools use in nature management planning.	11/02/2020 Sigulda	Agenda and Presentations (in Latvian language)	Photo gallery	This report (Annex_ D3-5)
8	Educational event "*Ecosystem services, their assessment and use of assessment in planning*" for planners and decision makers; introduction with the project results, elaborated recommendations and Toolkit;	26/02/2020 Salaspils	Agenda and Presentations (in Latvian language)	Photo gallery	This report (Annex_ D3-5)

	practical work with Toolkit.				
9	Educational event "*Ecosystem services, their assessment and use of assessment in planning*" for planners and decision makers; practical work with Toolkit and the project results.	04/03/2020 Amata district	Agenda and Presentations (in Latvian language)	Photo gallery	This report (Annex_ D3-5)
10	Educational event "*Ecosystem services, their assessment and use of assessment in planning*" for planners and decision makers; practical work with Toolkit and the project results.	11/03/2020 Engure district	Agenda and Presentations (in Latvian language)	Photo gallery	This report (Annex_ D3-5)

Overall statistical data about all *Public information and education events in municipalities and meetings with NGOs* are given in Table No13.

Table No13

Participants of events for municipalities and NGOs											
	1st 28/10/ 2016	2nd 23/02/ 2018	3rd 15/03/ 2019	4th 05/04/ 2019	5th 15/05/ 2019	6th 06/02/ 2020	7th 11/02/ 2020	8th 26/02/ 2020	9th 04/03/ 2020	10th 11/03/ 2020	**Total**
Indicator number in project proposal	10	10	10	10	10	10	10	10	10	10	100
Number on 31/03/2020	28	20	30	19	30	16	19	19	14	12	207

6. External events

No	**Event**	**Date and place**	**Link to information/ materials**	**Link to photo gallery**	**Results reported**
1	Presentation in University of Latvia 74th scientific conference session "*Spatial planning and development*" about nature design objects in Saulkrasti	05/02/2016 Riga, University of Latvia	Presentation (in Latvian language) Press release	Photo gallery	MidR
2	Participation in Rēzekne Academy of Technologies international scientific conference "*Society, integration, education - SIE2016"*	27-28/05/2016 Rēzekne, Academy of Technologies	Presentation (in Latvian language) Press release	Photo gallery	PrR2017
3	Presentation and poster in University of Latvia 75th scientific conference session *"Spatial planning and development"* about nature design objects in Saulkrasti and ecosystem services mapping	02-03/02/2017 Riga, University of Latvia	Presentation (in Latvian language) Poster (in Latvian language) Press release	Photo gallery	PrR2017
4	Participation in University of Latvia 77th scientific conference session "*Spatial planning and development*"	31/01/2019 Riga, University of Latvia	Presentation (in Latvian language)	Photo gallery	This report (Annex_ D3-6)

Overall statistical data about all *External events* are given in Table No14.

Table No14

	Participants of external events				Total number of participants
	1st 05/02/ 2016	2nd 27-28/05/ 2016	3rd 03-02/02/ 2017	4th 31/01/ 2019	
Indicator number in project proposal	25	25	25	25	100
Number on 31/03/2020	**63**	**40**	**200**	**51**	**354**

7. Project Conference

On January 15, 2020, the Project Conference "*Value of Nature - practices and experiences in the use of ecosystem services assessment*" was held at the House of Nature of the University of Latvia Academic Centre, attended by 129 registered participants (indicator number in project proposal is 70). Additional 298 views on YouTube channel registered. Presentations were focussed on Baltic – Nordic experience and experts from Finland, Estonia, Lithuania and Latvia participated with presentations. Additional poster session has been organised.
The overall message of the conference was The Value of Nature and use of ecosystem services assessment as the way of measuring and presenting it. Main topics of the conference were:

- perspectives of applying ecosystem services approach in Latvia, experience of Latvia;
- practices and experiences in development of ecosystem services assessment on national scale – Finland, Lithuania and Estonia cases;
- economic value of Nature and use of it in planning and business activities;
- recommendations and practices in use of ecosystem services assessment in planning processes;
- awarding of Travelling prize "Ecosystem Services".

	Link to information/ materials	Link to photo gallery	Results reported
	AGENDA PRESENTATIONS AND VIDEO POSTER SESSION INFORMATION	PHOTO GALLERY	This report (Annex_D3-7)

8. Additional educational events

It was agreed with the EC 23/07/2015 letter Ref. Ares(2015)3095132 that project representatives will participate in 3-4 additional events every year (period from 2015 to 2018) in order to reach local inhabitants and inform them about ecosystem services theme in non-formal and attractive way – through the nature education activities. All activities within this event category were completed by 2018 and final results were reported with PrR2018.

In total 470 participants were involved in project environmental educational activities during 11 events. Information about all events has been published in project website (https://ekosistemas.daba.gov.lv/public/lat/pasakumi11/vides_izglitibas_pasakumi/) including photo galleries. Overall statistical data about all additional educational events are given in Table No15.

Table No15

Participants of educational events in pilot areas					
	Ķemeri NP Travel Day (3 events)	Saulkrasti town festival (2 events)	Ķemeri festival (3 events)	Other events (3 events)	**Total**
Number on 31/03/2020	103	75	96	196	**470**

It was ensured that organisation and participation in these additional educational events did not affect the original budget of action D3 and did not caused substantial budget changes as it was requested within EC 23/07/2015 letter Ref. Ares(2015)3095132 - *Technical issues, Action D3. Public information and education events*.

Action D4. Experience exchange and networking

Foreseen start date:	2nd quarter of 2014	Actual start date:	3rd quarter of 2014
Foreseen end date:	end of the project (2nd quarter of 2018)	Actual end date:	end of the project (1st quarter of 2020)*

*according to Amendment No1 to Grant Agreement for Project LIFE13ENV/LV/000839, signed on 10/01/2018.

Results were reported with MidR, PrR2017 and PrR2018. Action final results are reported within this report. Responsible beneficiary was NCA. Other beneficiaries were involved.

Different kinds of experience exchange and networking activities have been organised within the project – cooperation with other projects (LIFE projects and other programmes), organisations and individuals, participating in national and international level events – conferences, forums, discussions etc. relates with ecosystem services topic. According to the project proposal two experience exchange visits to EU countries were planned. During the project implementation additional events abroad were attended and results of the project presented.
The project website section *Events* subsection *Other events* contains information on main important attended events/ experience exchange visits https://ekosistemas.daba.gov.lv/public/lat/pasakumi11/citi_pasakumi/; https://ekosistemas.daba.gov.lv/public/eng/events11/other_events/.

Summarised overview about main important activities within action D4 is given below. Activities are divided in two sections - international experience exchange and national level activities.

1. International experience exchange

No	Event/ activity/ visit; date and place	Objective/ main topic/ materials presented/ information	Beneficiary participated	Reported
1.	European Conference on Ecological Restoration; 03 – 06/08/ 2014, Oulu, Finland	Participation in "9th European Conference on Ecological Restoration". Participation with a poster presentation, discussion on ecosystem services assessment methodologies; launching of the project.	BC	MidR

2.	**1st experience exchange visit to EU country**; 10 – 11/03/ 2015, Kiel and Berlin, Germany	Visit to Dr. habil. Benjamin Burkhard in order to discuss the planned methodological framework for assessment of coastal ecosystem services within the Project; Visit to EUROPARC Deutschland Dr. Katja Arzt in order to discuss methods for reaching public awareness and understanding of such a complex topic as ecosystem services. Information about the visit.	NCA, BC, SM	MidR
3.	International seminar; 22 – 25/03/2015, Kiel, Germany	Participation in international seminar "Coastal Ecosystem Services at the Land-Sea Interface" organised by the *Institute for Natural Resource Conservation.* Networking and meetings with experts, discussion on ecosystem services assessment methodologies; launching of the project.	BC	MidR
4.	Baltic Sea Forum; 25 – 27/03/ 2015, Tallinn, Estonia	Participation in Baltic Sea Forum "Water protection in municipalities – it costs money, because it saves money". Networking with the organisations of Baltic Sea Region, meeting with experts.	BC	MidR
5.1.	**2nd experience exchange visit to EU country – first part**; 29/06/2015 – 04/07/2015, Leeds, UK	Visit to Leeds University organised 11th international conference *"European Society for Ecological Economics 2015: transformations"* where meetings with experts in environmental economics were organised. Information about the visit.	BC	MidR
5.2.	**2nd experience exchange visit to EU country – second part**; 19-23/09/2016, Antwerp, Belgium	Participating in The European Ecosystem Services 2016 conference – presentation in LIFE programme session and two presentations in poster session; informative materials of the project were distributed. Information about the visit.	NCA, SM	PrR2017
6.	LIFE Platform meeting; 10-12/05/2017, Tallinn, Estonia	"LIFE Platform meeting on Ecosystem Services COSTING THE EARTH?" organised by EC. Participation with project materials, presentation of project results and experience in poster session and oral presentation within working group "Valuing Ecosystem Services". Information about the event.	NCA	PrR2018
7.	Baltic LIFE projects networking events; 28-29/09/2017, Parnu, Estonia; 07/11/2019, Sigulda, Latvia	"Baltic networking meeting 2017" and "Baltic networking meeting 2019" organised by CAP LIFE LAT project (LIFE14 CAP/LV/000002). Participation with project materials and presentation of project results and experience. Information about the events.	NCA	PrR2018; This report
8.	LIFE VIVA GRASS international seminar 16-18/05/2018, Sigulda, Latvia	International seminar "Integrating ecosystem service concept into spatial planning - for sustainable land-use in grasslands and beyond" organised by LIFE VIVA GRASS project (LIFE13 ENV/LT/000189). Participation with an oral presentation about the project recommendations for nature management planning. Information about the event.	NCA	PrR2018

9.	LIFE REstore International Conference 13/06/2019, Riga, Latvia	LIFE REstore project (LIFE14 CCM/LV/001103) scientific conference. Participation in poster session with two posters, presentations included in Book of Abstracts. Information about the event.	NCA, BC	This report (Annex_ D4-1)
10.	EUROPARC federation Conference 2019 26-27/09/2019, Jurmala, Saulkrasti, Latvia	Annual EUROPARC federation Conference 2019. Field trip to project pilot area - Nature Design Park in Saulkrasti, participation in Marketplace with project materials, poster presentations. Information about the event.	NCA	This report (Annex_ D4-1)
11.	Best practice example; Activity will continue in After-LIFE period	Cooperation with INTERREG project "PROmoting the Governance of Regional Ecosystem ServiceS" (PROGRESS). LIFE EcosystemServices project is chosen as best practice example from Latvia. The title of the practice is "*LIFE EcosystemServices: Ecosystem Services Assessment Methodology"*. More information about the project here.	NCA, BC	This report

2. Experience exchange and networking on national level

No	**Event/ activity/ visit; date and place**	**Objective/ main topic/ materials presented/ information**	**Beneficiary participated**	**Reported**
1.	Organisation of national level ecosystem services experience exchange platform - discussion forum *"Cooperation and experience exchange about ecosystem services evaluation in Latvia".*	To initiate discussion and regular experience exchange within specialists of Latvia about ES evaluation methodology application in Latvia and share knowledge about ES evaluation in different areas of Latvia.		
1.1.	1st discussion forum event; 17/01/2017, Riga	Presentations were given informative materials of the project were distributed. Information about the event.	NCA, BC, SM	PrR2017
1.2.	2nd discussion forum event; 27/10/2017, Riga	Presentations were given informative materials of the project were distributed. Information about the event.	NCA, BC	PrR2018
1.3.	3rd discussion forum event; 26/04/2019, Riga	Presentations were given informative materials of the project were distributed. Information about the event.	NCA, BC	This report (Annex_ D3-1)
2.	Networking with identified nature projects, organisations and experts in Latvia.	To maintain established contacts and share experience of the project, distribute materials of the project, promote and discuss results of the project.		
2.1.	National importance publicity	Cooperation with University of Latvia - the project experience on ecosystem services mapping in national importance monograph "LATVIJA. Zeme, daba, tauta, valsts" (LATVIA. Land, Nature, People, Country) published.	NCA	PrR2018

2.2.		Environmental initiative “100 works for Latvia”. Nature Design Park popularisation on national level http://www.100darbilatvijai.lv/pieteiktie-darbi/	NCA	PrR2017
2.3.		Media – Latvijas Radio1 broadcast “Zināmais nezināmajā” Participation in the radio broadcast 27/09/2016 about the project.	NCA	PrR2017
2.4.	LIFE projects meetings/ seminars: 23/08/2017, Riga; 31/08/2018, Kemeri; 29/08/2019, Saulkrasti	Meetings with LIFE projects in Latvia representatives organised by CAP LIFE LAT project (LIFE14 CAP/LV/000002). Participation with project materials and presentation of project results. Information about the events.	NCA, BC	PrR2018; This report (Annex_ D4-1)
	24/05/2018, Salaspils	Seminar on ecosystem services assessment/ monitoring for LIFE projects organised by CAP LIFE LAT project (LIFE14 CAP/LV/000002). Participation with project materials and presentations of project experience and elaborated methodologies. Information about the event.	NCA, BC	PrR2018
2.5.	Experience exchange with Planning Regions of Latvia; 12/04/2017, Tukums, Milzkalne	Participation with presentation in Riga planning region consultative meeting, discussions with planning specialists. Information about the event.	NCA, SM	PrR2018
2.6.	Participation in conferences : 27-28/04/2017, Jurmala, Saulkrasti	Participation in Baltic Sea coast tourism conference - activities in Saulkrasti PIA was presented and excursion to Nature Design Park in Saulkrasti PIA was organised.	NCA, SM	PrR2018
	20/10/2017, Jaunkemeri	Participation in Ķemeri National Park 20 years anniversary conference with posters presentations about ecosystem services mapping and valuation results.	NCA, BC	PrR2018
	14/05/2019, Riga	Scientific Conference “Maritime and coastal planning – from planning to results” organised by INTERREG project COAST4US. Participation with presentation.	NCA, BC	This report (Annex_ D4-1)
2.7.	Participation in seminars, other events: 10/04/2018, Riga	Regional event "Marine and Coastal Resources for Growth in Latvia" organised by INTERREG project R031 “Baltic Blue Growth” and R005 “Smart Blue Regions”. Participation with presentation and on panel discussion.	NCA	PrR2018
	21/11/2018, Riga	Introductory Forum of Green Economy Fairs “GreenExpo Riga 2018”. Participation with project dissemination materials. Information about the event.	NCA	This report

Networking with identified nature projects, organisations and experts in Latvia were maintained all implementation period of the project. Members of project staff have participated in different external events/seminars/workshops/meetings (table above) and individual expert meetings were the project topic was discussed, information materials of the project were distributed and our experience was presented. The main established or maintained cooperation/networking and identified networking member's role in the project action implementation is shown in the table in Annex_D4-2.

Summary of changes:

- Only 2 experience exchange visits abroad were envisaged in the project proposal. During the project implementation several non – envisaged in the project proposal experience exchange activities – participation in international events abroad occurred. During initial stage of the project implementation associated beneficiary BC participated in 3 non - envisaged international events abroad (03 – 06/08/ 2014, Oulu, Finland; 22 – 25/03/2015, Kiel, Germany; 25 – 27/03/ 2015, Tallinn, Estonia) but after Mid-Term period NCA participated in 2 non - envisaged international events abroad (10-12/05/2017, Tallinn, Estonia; 28-29/09/2017, Parnu, Estonia).
  Costs of these travels don't exceed planned Travel and subsistence costs of the project and per action D4.

Action D5. Layman's Report

Foreseen start date:	1st quarter of 2018	Actual start date:	1st quarter of 2020*
Foreseen end date:	end of the project (2nd quarter of 2018)	Actual end date:	end of the project (1st quarter of 2020)*

*according to Amendment No1 to Grant Agreement for Project LIFE13ENV/LV/000839, signed on 10/01/2018.

Responsible beneficiary was NCA. Layman's Report was prepared by NCA.

The Layman's Report was elaborated by the end of the project and is available as printed brochure (number of copies were specified and 200 copies produced)

and as electronical version published on the project website section *Deliverables and Publications* subsection *Informative materials*: https://ekosistemas.daba.gov.lv/public/download.php?id=228

The Layman's Report was elaborated both Latvian and English and includes demonstration of main results and benefits of the project. LIFE logo and clear reference on LIFE programme is included. The Layman's Report is attached to this report (electronical PDF version of Layman's Report, Annex_D5-1, Annex_D5-2). Distribution of the Layman's Report was started in March 2020 and will continue in After-LIFE period. For this moment 116 downloads of the Latvian version of the Layman's Report and 108 downloads of the English version of the Layman's Report have been registered.

Summary of changes:

Results of project dissemination actions are summarized in Table 5.2.-1.

Table 5.2.-1.
The main results of project dissemination actions

Project action	**Results**	**Beneficiary responsible for implementation**
D1. Project website	Project website is the main communication tool within the project and contains all outputs of the project. Two versions of the website are maintained - on Latvian language and on English language. The project website promotion activities were very successful and target indicators numbers of hits exceeded many times and achieved 66 270 hits where 48 514 hits was unique website hits. Social media reached auditory is 193 964 on Twitter and 100 021 on Facebook.	NCA
D2. Public information and education materials	• 3 short documentaries with total audience reached number 154 916: - 1st "*Ecosystem services*" - 2nd "*Ecosystem services evaluation*" - 3rd "*Ecosystem services assessment – a tool for spatial planning*"; • 2 project brochures with total audience reached number 6 005: - project brochure/leaflet *"Ecosystem services evaluation"* (LV, ENG); - informative brochure *"Ecosystem services approach for sustainable management"* (LV); • 8 e-newsletters with total audience reached number 8674; • 8 articles about the project topics, 4 articles about good practice examples and 4 scientific/ technical publications with total audience reached number 238 593; • 105 press releases/ public information with total audience reached number 7336; • 2 information boards (672 registered views on 31/03/2020) : - In Jaunķemeri PIA the board *ECOSYSTEM SERVICES IN JAUNĶEMERI*; - In Saulkrasti PIA the board *ECOSYSTEM SERVICES – BASIS FOR SAULKRASTI DEVELOPMENT*; • 4 types of give-aways (1 000 pencils, 500 reflectors, 1 000 stickers	NCA

	and 570 USB data carriers for the project results; • 1 good practice example poster – Rollup stand *NATURE GIVES*; • 1 "Travelling prize" for the municipalities *ECOSYSTEM SERVICES*; • 1 Visual presentation – instructive trailer for the Toolkit (MP4 video tutorial, YouTube reached audience number 148, Toolkit where trailer is incorporated hits is 559 where 429 was unique hits); • environmental education materials with 2854 registered downloads: - Methodological material - description of environmental education activities/ workshop /event in Nature Design Park "White Dune – Saulkrasti"; - Game "Ecosystem Services Approach"; - Poster "Tree of Ecosystem Services".	
D3. Public information and education events	In total 43 information and education events have been implemented attended by total 1752 participants: • 6 seminars attended by 184 participants; • 4 common works events attended by 72 participants; • an opening event of Nature Design Park in Saulkrasti PIA attended by 86 participants; • 6 educational events for students of universities and local schools attended by 250 participants; • 10 public information and education events in municipalities and meetings with NGOs attended by 207 participants; • 4 external events attended by 354 participants; • the Project Conference "*Value of Nature - practices and experiences in the use of ecosystem services assessment*" attended by 129 registered participants; 298 views of video records on YouTube channel; • 11 additional environmental educational events attended by 470 participants.	NCA
D4. Experience exchange and networking	• International experience exchange ensured: - 2 planned experience exchange visits to EU country; - in total 9 other international events attended and project experience/ results presented; - the project experience is chosen as Latvian good practice example by international INTERREG project "PROmoting the Governance of Regional Ecosystem ServiceS" (PROGRESS); • National experience exchange ensured and network of organisations/ experts interested in ecosystem services topic established: - in total 3 discussion forum events have been organised; - national importance publicity ensured by project experience presentation on national level activities; - participation in different kind of events – meetings, conferences, seminars etc. with the project results; in total 10 main important events attended; - established and maintained cooperation/networking with 5 research and educational institutions, 13 projects (6 LIFE projects), 7 state organisations and 7 NGOs.	NCA
D5. Layman's Report	The Layman's Report was elaborated both Latvian and English and includes demonstration of main results and benefits of the project. 200 hard copies have been produced and distribution ongoing; 224 downloads from the project website are registered at the moment.	NCA

The overall dissemination work in the project was very successful as there were clear, established information channels which were used to disseminate informative materials produced within the project and organize the events and cooperation/ networking activities. Reached audience of the project is very high. The project and LIFE identity were presented in all relevant media – TV, radio stations, national, regional and local newspapers, internet and social media. The permanent information boards were set on the project sites that have high recreational use that will help to spread the information about ecosystem services value and importance in these sites for many years to come.

Summary of stakeholder involvement in project events on 31/03/2020 shows that all target audience of the project has been widely involved in project activities. Events of the project were targeted to Latvia stakeholders from local inhabitants to different type of organisations. Wide range of international organisations and their representatives were reached within action D4 *Experience exchange and networking* implementations (see description of action D4). Detailed data about reached stakeholders during the project organised events are given in the table below.

Stakeholder involvement in all project events (only action D3 activities)								
Stakeholders defined according to the project proposal	International/EC organizations	Representatives of coastal business organizations	Coastal inhabitants	Non-governmental organizations	Representatives of coastal municipalities	Public bodies	Research and educational organizations	Students and tourists
Indicator number in project proposal	5	50	150	15	32	15	15	150
Number on 31/03/2020	**4**	**66**	**220**	**32**	**123**	**15**	**38**	**271**

List of deliverables of the dissemination actions and the Report with which these deliverables were/ is submitted to EC, are summarized in Table 5.2.-2.

Table 5.2.-2.
Deliverables of the dissemination actions

Name of the Deliverable	**Number of the associated action**	**Attached in which report**
1st short documentary	D2	Midterm report, Annex_D2-1
Project brochure	D2	Midterm report, Annex_D2-2, Annex_D2-3
Informative brochure on the economic assessment of ecosystems and their services	D2	Midterm report, Annex_D2-4
2nd short documentary	D2	Progress Report 2017, Annex_D2-1
3rd short documentary	D2	Progress Report 2018, Annex_D2-1
Layman's report	D5	Final Report, Annex_D5-1, Annex_D5-2
Visual presentation – instructive trailer for the Toolkit	D2	Final Report, Annex_D2-16
Digital package with Project results	D2	Final Report, Annex_D2-13

5.3 Evaluation of Project Implementation

Based on the project experience discussions on necessity of ecosystem services assessment for planning of management in protected territories of Latvia was initiated - proposal for update of regulations on elaboration of nature management plans was prepared (includes ecosystem services assessment as one of the obligatory requirements) and submitted in Ministry of Environmental Protection and Regional Development (MEPRD). The methodology and approach applied within the project was developed according to the best EU practice, basing on the researches and experience of the acknowledged institutions and adapted for situation and conditions of Latvia and can be used not only for coastal areas where PIAs of the project located. The project elaborates recommendations and various support tools that will help to integrate ecosystem services assessment approach into decision-making and spatial planning processes in Latvia.

An important role in the project was devoted to informing the public and environmental awareness raising activities, in order to explain to the target audiences the importance of ecosystem services assessment and application possibilities to increase the region's overall well-being and reach goals of sustainable development. Not only wide range of informative materials but also project's Demonstration site – Nature Design Park "White Dune – Saulkrasti" can be used for environmental education and awareness raising for years.

Table 5.3-1 compares the results achieved against the objectives.

Table 5.3.-1.
Summary of planned actions and project results achieved

Task	**Foreseen in the revised proposal**	**Achieved**	**Evaluation**
A1.Self-assessment, stakeholder mapping and development of work plan	1) To carry out self-assessment for evaluation of the existing situation as a basis for the further actions; 2) To perform stakeholder mapping for the further development of a stakeholder engagement strategy; 3) To establish the framework for the implementation of the Project Actions.	1) Self-assessment of organisations involved in the project implementation carried out; 2) Stakeholder's of the project identified and engagement strategy included in communication strategy; 3) Work plan of the project elaborated and updated.	Objectives were met. Results have been immediately visible by prepared documentation and results inclusion/use in the related actions (especially A3, D3, E1). Within self-assessment it was concluded that all organizations involved in the project make a positive contribution in all areas which were included in the survey – economic development, ecology and environmental protection, socio-cultural development, construction development. Stakeholder's involvement results in the project activities to confirm effectiveness of engagement strategy as part of communication strategy of the project. Elaborated work plan was the main tool for effective management of the project.

A2.Elaboration of procurement specifications and implementation of procurement procedures for external services	To prepare technical specifications and carry out procurement procedures.	Technical specifications and procurement documentation elaborated and procurement procedures implemented for action A5, B1, B2, B4, B5, D1, D2, D3, D5, E1, E2 implementation.	Objectives were met. Results have been immediately visible by prepared documentation and signed contracts with external service providers. All implemented procurement procedures resulted with signed contracts and have been organised in time to ensure actions implementation as planned. According to procurement procedures legislation more procedures had been implemented as described in the project proposal.
A3. Elaboration of communication strategy	To improve the knowledge base on ecosystem services and their values in Latvia, and stimulate the integration of this knowledge in planning and decision making for sustainable ecosystem management.	1) Communication strategy and detailed plan of all communication activities elaborated; 2) Communication tools, channels and methods defined; 3) Project target audience defined and stakeholder's involvement tools described; 4) List of target indicators defined and monitored.	Objectives were met. Results have been immediately visible by elaborated strategy and good results of the communication actions. It was planned to involve all main groups of stakeholder's as wide as possible via materials dissemination and organising of the events, as well as via establishing personal contacts and networking. It was decided to communicate in social media as well. Elaborated website can be assessed as main information source for Latvian speaking specialists interested in ecosystem services topic. All elaborated materials were available soon after their elaboration. Ecosystem services assessment results, elaborated recommendations were discussed within groups of stakeholder's. All these activities leaded to understating of ecosystem services topic and high interest of target audience in the activities of the project. Monitoring of the communication - survey results of events participants show that knowledge about ecosystem services and advantages of their assessment use increased. By the end of the project increased the number of audience planned to use ecosystem services approach in their professional work.

A4. Elaboration of project impact monitoring guidelines	1) To develop an analytical framework for monitoring and evaluation of the progress, success and impacts of the Project; 2) To provide timely identification of possible risks or shortcomings in the Project implementation process.	Project impact monitoring guidelines and detailed plan of the monitoring activities elaborated; place of performance, monitoring methods, indicators and expected results described.	Objectives were met. Results have been immediately visible by elaborated guidelines and implemented monitoring actions – C1, C2. Elaborated monitoring guidelines ensured unified framework for actions impact assessment. Planned monitoring activities covered all possible impact of the project and provided possibility of timely identification of possible risks.
A5. Mapping of ecosystems and their services	1) To obtain accurate information for the description of the Pilot Implementation Areas and their ecosystems; 2) To prioritise the ecosystems and their services and identification of key problem issues, particularly in relation to synergies and trade-offs between ecosystem services, between ecosystem services and other ecosystem functions, and between ecosystem services and land/marine uses; 3) To develop maps which can be used as a communication tool to initiate discussions with stakeholders; 4) To develop illustrative scenario to show that multiple pressures and impacts may affect a particular biodiversity descriptor (considering from quantitative and qualitative aspects).	1) Methodology of ecosystems and their services assessment and mapping elaborated; 2) Assessment of ecosystems and their services provided by the PIAs completed; 3) Assessment results summarized in multi-level matrixes and maps; 4) Assessment of planning scenarios impact on ecosystems and their services provides by the PIAs completed; 5) Relationship model elaborated and used for planning scenarios assessment; 6) Unified report summarised all results of the action has been elaborated.	Objectives were met. Results have been immediately visible by elaborated ecosystem services assessment and mapping methodology, performed assessment of ecosystems and their services for current situation and planning scenarios; action results incorporated in related actions - B1, B2, B3, B4, B5, C1. Action results have been successfully communicated in international audience (scientific publications, international events) and to stakeholder's of the project. Other projects implemented in Latvia recognised elaborated assessment and mapping methodology as appropriate for their needs and therefore unified approach within Latvia for ecosystem services assessment established. The action results and elaborated indicators can be replicate and used to other coastal areas. Within the project replication has been carried out to assess ecosystem services for entire territory of Nature Park "Piejura" within Saulkrasti municipality. Elaborated methodology and performed assessment is in accordance with MAES recommendations therefore contribution in ecosystem services assessment on national scale has been given. The action results are the main base for ecosystem services description, economic valuation

			and scenarios assessment where pressures and impacts were taking into account.
B1. Economic valuation of ecosystems and their services for Pilot Implementation Areas	1) To carry out economic valuation for the ecosystem services in order to obtain monetary data for the further assessments; 2) To compare the values of the ecosystem services against the various social factors identified as influenced by or influencing the values of the ecosystem services; 3) To use the obtained data for the assessment of the ecosystem services in order to establish the current value of the identified ecosystem services in the in the Pilot Implementation Areas for further use as a reference point for the assessment of the development scenarios.	1) Methodology of ecosystems and their services economic valuation elaborated; 2) Monetary data on ecosystem services values obtained; 3) Primary data from performed survey obtained; 4) Various methods for the assessment of each ecosystem and ecosystems services were applied; 5) Comparison of secondary and primary data has been carried out; 6) The action deliverable - Report for the current situation representation for the ecosystems and ecosystem services "*Economic Valuation of Ecosystems and their Services for Pilot Implementation Areas*" has been prepared.	Objectives were met. Results have been immediately visible by elaborated ecosystem services economic valuation methodology, performed valuation of ecosystems and their services; action results incorporated in related actions - B2, B3, B4, B5, C2. Action results have been successfully communicated in international audience (scientific publications, international events) and to stakeholder's of the project. Obtained data and valuation results sets out basis for development scenarios assessment. Various methods testing allowed to choose more appropriate methods in context of Latvia. The action deliverable summarised all results of the action B1 and gives information about ecosystem services economic valuation principles, methods that have been used, steps that have been made to carry out valuation process, all valuation, analysis and social surveys data. The action results and can be replicate and used to other coastal areas. Within the project replication has been carried out to value ecosystem services for entire territory of Nature Park "Piejura" within Saulkrasti municipality.
B2. Elaboration and economic evaluation of the development scenarios for Pilot Implementation Areas	1) To assess the future economic value for the selected territories, thus creating a distinctive prospective vision on the further development and changes in spatial planning; 2) To determine the coefficient for the return of investments in the particular territories in order to	1) 3 development scenarios elaborated; 2) *Ecosystem Services Economic Valuation Model* created, verified and economic valuation of the scenarios completed; 3) An assessment of the ecosystem services economic returns carried out; 4) The action deliverable - *Report on the elaboration and economic evaluation of the development scenarios for Pilot Implementation*	Objectives were met. Results have been immediately visible by performed assessment of development scenarios; action results incorporated in related actions - B3, B5. Action results have been successfully communicated in international audience (publications, international events) and to stakeholder's of the project. Development scenarios assessment results analysed and more perspective and environmentally sustainable

	provide a basis for the justification for or against the investments; 3) To introduce new methodological approach for the planning and management of the territories and included ecosystems, which would be based in in the socio-economic aspects and their potential development.	*Areas* has been prepared.	development of PIAs determined and included in the recommendations (Action B3). An assessment of the ecosystem services economic returns confirmed hypothesis of coastal areas high value and used for justification of the recommended development scenario for Saulkrasti PIA. Tools elaborated within the action – methodology, data and *Ecosystem Services Economic Valuation Model* introduce new methodological approach. Achieved results of the action performed the basis for planning perspectives assessment in three planning dimensions – social, economic and nature by assessment of impact on ecosystem services provided by the area.
B3. Incorporation of the results of the evaluation of scenarios in the municipal Spatial Development plans/Nature conservation plans	1) To promote the understanding of the various stakeholder groups on the topics of sustainable planning for the enhancement of common benefits; 2) To provide the framework for improvements for the strategic planning documents (Spatial Development Plans and Nature Conservation Plans); 3) To support an intensive application of the proposed approach in the process of elaboration of the strategic planning documents.	1) Recommendations for Saulkrasti municipality development and development planning was elaborated; 2) Municipal level planning document "*Saulkrastu novada attīstības programma 2014. – 2020. gadam*" was updated according to elaborated recommendations; 3) Recommendations for ecosystem services approach incorporation in Nature Management Plans of Specially Protected Nature Territories was elaborated; 4) Nature Conservation (Management) Plan (NCP) of Nature Park "Piejūra" updated according to elaborated recommendations; 5) Proposal for changes in the Regulations of the Cabinet of Ministers No 686 (09.10.2007) "Regulations on content and drafting of nature protection plans for especially protected nature territories" elaborated.	Objectives were met. Results have been immediately visible by elaborated recommendations and updated planning documents. Implementation of proposed changes in legislation and update of Nature Management (Conservation) Plan for Ķemeri National Park will continue in After-LIFE period. Elaborated recommendations provide the framework for improvements of the planning documents targeted by the project. The recommendations introduce with ecosystem services approach and its place and benefits in nature management planning and development planning processes. Conclusions of the Project results, elaborated priorities and solutions of the coastal areas in context of ecosystem services preserving are presented. Action results have been successfully communicated in international audience and to stakeholder's of the project during the organised and participated events. The planning documents updated

			according to elaborated recommendations have been discussed during public hearing procedures and accepted by different stakeholder's. Proposed changes in legislation have been elaborated in close cooperation with stakeholder's. A project amendment (prolongation of the project) was essential for results achievement related with Nature Management (Conservation) Plans update.
B4. Risk prevention for preservation of the conservation status and values of the ecosystems	1) To prevent the risk of further degradation of the ecosystems and habitats, therefore maintaining and, prospectively, improving the value of the natural capital of the area; 2) To enhance the appeal of the site to the tourists and visitors, therefore maintaining and, prospectively, improving the recreational and aesthetic value of the area; 3) To promote the social awareness of visitors and, particularly, the local residents in order to strengthen the attachment of the inhabitants to the area, therefore maintaining and, prospectively, improving the emotional value of the area.	1) Conceptual framework for Saulkrasti PIA architecturally-spatial development in context of anthropogenic load and its impact on the urban and natural landscape elaborated; 2) The action deliverable *Concept for the Prototype – Nature Design Park* with included detail design of Prototype – Nature Design Park elaborated; 3) The Nature Design Park "White Dune – Saulkrasti" created.	Objectives were met. Results have been immediately visible by established Nature Design Park. Conceptual framework for Saulkrasti PIA development, design/technical solutions were used in elaboration of recommendations for Saulkrasti Municipality development and development planning and update of Spatial Development Plan (Programme) for Saulkrasti Municipality (Action B3); Overall concept of Nature Design Park is defined as one of the Saulkrasti PIA development scenario and its impact on ecosystem services supply and economic value was assessed within Action A5 and Action B2 and concluded as the most sustainable development scenario. Therefore establishment of the Nature Design Park play a crucial role in the demonstration activities of the project. Monitoring results show improvements of the habitat conservation status and diminishing of the erosion of the coast dunes. By the established Nature Design Park physical changes in the Saulkrasti PIA observed – visitors behaviour changes gradually and selected flow management solutions have been excused. The appeal of the site is enhance – new "magnetic" place for Saulkrasti visitors established. Amount of the visitors grows after the park

			opening. Nature Design Park sculptural objects, information stands provide information to promote the awareness of visitors.
B5. Development of strategic recommendations for Latvia	1) To provide demonstration for understanding the necessity of incorporation of these recommendations in the planning documents; 2) To enhance application of the new methodological approach in Latvia; 3) To increase information level, availability of new idea incorporation in strategic documents.	1) The action deliverable – "*Recommendations for the municipal decision makers and spatial planners*" elaborated (available as printed brochure and an electronical extended version on the project website); 2) Web-based interactive Toolkit elaborated (domain http://riks.ekosistemas.daba.gov.lv/)	Objectives were met. Results have been immediately visible by elaborated Recommendations and created Toolkit where all results of ecosystem services assessment and its use (A5, B1, B2, B3, B4) are summarised. Promotion of the Recommendations and Toolkit use will be continued in After-LIFE period. The Recommendations promote the use of the new methodological approach in Latvia, as well as to facilitate integration of this approach into spatial planning. The developed Recommendations explain and raise the level of public awareness not only about ecosystem services but also the use of the approach in sustainable planning and modelling of spatial development scenarios. Structure of the Recommendations supports application of the ecosystem services approach - the Recommendations explain the historical development and classification of ecosystems and their services approach, describe the experience of other countries, and provide various tools for evaluating ecosystem services. The Recommendations are designed to integrate the ecosystem services approach into decision-making at different planning levels – national, regional and local The Toolkit provides opportunity of implementing ecosystem services approach in practice – assess the supply, potential and monetary value of ecosystem services, as well as value changes in case of different development scenarios. Recommendations and Toolkit

			have been presented during the events and discussed in meetings with stakeholder's and assessed as supporting tool for planning purposes.
C1. Monitoring of the impact of the project activities	1) To monitor the impacts of the Project Actions for assessment of the success of the Project implementation; 2) To evaluate the identified impacts of the Project Actions in order to determine how the implementation of the Actions have contributed to the Project objectives; 3) To provide timely identification of the risks related to separate Actions or Project in general.	The monitoring activities implemented and 2 monitoring reports elaborated to assess the project impact on ecosystems quality of project's PIAs.	Objectives were met. Results have been immediately visible – monitoring implemented and reports elaborated. Monitoring performed in way to identify the project impact on ecosystems and their services targeted by the project. There were no identified risks in methods implemented by the projects. Impact on provisioning, regulation and cultural services has been assessed. Results of the monitoring show that expected monitoring results are achieved – improvements of the habitat conservation status observed and erosion of the coastal dunes diminishing. Value of cultural ecosystem services increased.
C2. Monitoring of the socio-economic impact of the project activities	1) To monitor the socio-economic impacts of the Project Actions for assessment of the success of the Project implementation; 2) To evaluate the identified socio-economic impacts of the Project Actions in order to determine how the implementation of the Actions have contributed to the Project objectives.	The monitoring activities implemented and 2 monitoring reports elaborated to assess the project socio-economic impact.	Objectives were met. Results have been immediately visible – monitoring implemented and reports elaborated. Monitoring performed in way to identify the project socio-economic impact in accordance with the developed Project Socio-Economic Assessment Plan. Mainly the Project actions are related with Saulkrasti PIA and therefore changes in socio-economic profile of Saulkrasti were monitored. Established Nature Design Park impacts tourism and environmental education possibilities by increasing its value, as well as promote the municipality investments in infrastructure of area. Implementation of green entrepreneurship activities proposed by the project and included in Saulkrasti Development Programme will increase environmentally responsible entrepreneurship – results will be visible in After-LIFE period. Monitoring of functionality of established

			Nature Design Park (NDP) allowed to makes improvements in NDP functionality during the project implementation.
D1. Project website	To develop and to manage a website.	The project website - **domain** **http://ekosistemas.daba.gov.lv** developed and maintained and regularly updated. Website is available on Latvian language and on English language.	Objective was met. Results have been immediately visible. Project website is the main communication tool and contains all outputs of the project. The project website promotion activities were very successful and target indicators numbers of hits exceeded many times.
D2. Public information and education materials	1) To Communicate the information regarding the Project topics, process and results to the identified stakeholders and general public; 2) To raise the public awareness regarding the benefits of economic ecosystem valuation for the society; 3) To promote the involvement of the identified stakeholders and general public in the Project activities.	Wide range of information have been elaborated and communicate: • 3 short documentaries; • 2 project brochures; • 8 e-newsletters; • 8 articles about the project topics; • 4 articles about good practice examples; • 4 scientific/ technical publications; • 105 press releases/ public information; • 2 information boards; • 4 types of give-aways; • 1 good practice example poster – Rollup stand; • 1 "Travelling prize" for the municipalities; • 1 Visual presentation – instructive trailer for the Toolkit; • 3 types of environmental education materials.	Objectives were met. Results have been immediately visible. Elaborated materials are suitable as for general public as well for specialists and experts in ecosystem services and planning topics – stakeholders of the project. Materials elaborated followed implementation phases of the project and explained/ showed results and findings of the project. Audience reached via elaborated information and education materials is very high and exceed 420 000. Elaborated materials ensured high recognisability of the project and promote stakeholders involvement, especially participation in the project organised events and by reflections/ discussions on the project outcomes – ecosystem services assessment results and its use for sustainable planning.
D3. Public information and education events	1) To organise events for communicating the information regarding the Project topics, process and results to the identified stakeholders and general public; 2) To organise events for raising the public awareness regarding the benefits of economic ecosystem	Different types of the events have been organised to reach general public and specialists: • 6 seminars; • 4 common works events; • an opening event of Nature Design Park; • 6 educational events for students of universities and local schools; • 10 public information and education events in municipalities and meetings with NGOs;	Objectives were met. Results have been immediately visible. Diverse types of the events allowed to reach identified stakeholders during the events (see table above "Stakeholder involvement in all project events"). In total 43 information and education events have been implemented attended by total 1752 participants. During the events topical results and findings of the project were communicate start from better understanding of ecosystem services topic as well explained

	valuation for the society; 3) To organise events for promotion the involvement of the identified stakeholders and general public in the Project activities.	• 4 external events; • the Project Conference; • 11 environmental educational events.	objectives, importance of ecosystem services assessment and discussed methodological approaches of the assessment. Analyses of the completed questionnaires shows that the topics presented during the project events provided information relevant to the project target audience's expectations. Based on the effective implementation of the project communication strategy, increase of awareness and understanding can be seen in both of the need and meaning of the use of ecosystem services assessment as well as the use of the ecosystem services approach in target audience's professional activities in the coming years.
D4. Experience exchange and networking	1) To facilitate the exchange of experiences on the good practices through a structured process of consultation and interaction; 2) To develop a set of good practices as well as the experiences gained from their practical implementation in order to incorporate and adopt them for the situation of Latvia.	1) International experience exchange ensured by experience exchange visits and attendance of international events in neighbouring countries and in Latvia. 2) Contacts with relevant specialists established; national experience exchange ensured and network of organisations/ experts interested in ecosystem services topic established. 3) Established and maintained cooperation/networking with 5 research and educational institutions, 13 projects (6 LIFE projects), 7 state organisations and 7 NGOs. 4) Three main types of activities have been implemented (1) organising of discussion forum events; (2) ensuring of national importance publicity; (3) participation in different kind of events – meetings, conferences, seminars.	Objectives were met. Results have been immediately visible. Participation of project representatives in conferences and events in Latvia and abroad has provided significant support for popularization of the research activities and results of the project in the international scientific community, facilitated involvement of target groups and networking. Implemented activities allowed to assess methodological approaches implemented by the project, to discuss approaches and results with internationally recognisable experts. All activities lead to well established information exchange platform which will be maintained in After-LIFE period as well.

D5. Layman's Report	To produce informative material about Project activities and results.	The Layman's Report was elaborated both Latvian and English and includes demonstration of main results and benefits of the project.	Objective was met. Results have been immediately visible. 200 hard copies produced and more than 200 downloads registered.
E1. Project management	To perform Project management and monitoring to achieve the aims set in the Project.	The project management implemented. Overall administration of the project ensured by the Coordinating beneficiary; deliverables and outputs of the project prepared in high quality; publicity of the project and LIFE ensured; stakeholder's involvement in the activities of the project implemented.	Objective was met. Results have been immediately visible – the project is implemented and results achieved.
E2. Audit	To verify statement of expenditures of the Project.	The audit ensured and Audit report prepared.	Objective was met. Results have been immediately visible. Financial Report of the Project gives a true and fair view of the expenses; income and investments incurred /made by NCA and associated partners – BC, SM - are in accordance with LIFE+ Common Provisions and national legislation and accounting rules.
E3. After-Life Communication Plan	To elaborate After-LIFE Communication Plan.	After-LIFE Communication Plan elaborated both Latvian and English and describe communication, maintenance and monitoring activities to ensure the sustainability of the project achievements.	Objective was met. Results have been immediately visible regarding elaboration of the Plan. Few activities already implemented (international communication) or ongoing (maintenance of website, Nature Design Park, monitoring, consultations). Mainly the activities will be ensured by Coordinating beneficiary, therefore secure implementation as planned.

5.4 Analysis of long-term benefits

1. Environmental benefits

Direct / quantitative environmental benefits

Direct environmental benefits are related with improvements of the habitat quality observed for shifting dunes 2110 and wooden dunes 2180 and erosion of the coastal dunes diminishing in Saulkrasti pilot area. In the area of Nature Design Park (established in 2016) the changes in visitor's behaviour were observed and its cause positive impact on wooden dunes 2180 quality and will serve positive impact in coming years.

Management activities on shifting dunes restoration to reduce anthropogenic impact on dunes erosion in 2017 by formation of fences and complementary dune plants *Leymus arenarius* planting were assesses as very successful and positive impact on primary dunes quality and ecosystems regulating services – erosion control was observed. The accumulation of wind-driven sand within the pilot area is significantly higher than that previously characteristic of the site and measures implemented will remain functional for several years (accumulation of the sand will continue) and additional amount of sand is retained in the managed area (100-150m3). The measures implemented preserve an area and erosion is stopped.

Relevance for environmentally significant issues or policy areas

Achieved results of the project lead to implementation of EU Biodiversity Strategy 2020 target No2, Action No5 calls for all Member States to map and assess the state of ecosystems and their services - ***Action 5: Improve knowledge of ecosystems and their services in the EU*** "*Member States, with the assistance of the Commission, will map and assess the state of ecosystems and their services in their national territory by 2014, assess the economic value of such services, and promote the integration of these values into accounting and reporting systems at EU and national level by 2020*".

Clear methodological base is elaborated and tools for practical ecosystem services assessment and mapping available.

Understanding of nature benefits for people contributes to next level of EU biodiversity policy - EU Biodiversity Strategy 2030 where all planned actions are aimed to put Europe's biodiversity on a path to recovery by 2030 with benefits for people, the climate and the planet. The coastline targeted by the project is one of the most sensitive ecosystems, exposed to dynamic interaction of marine and coastal processes, climate change and multiple pressures from human activities. The increase of coastal tourism and recreational activities and related 'grey' infrastructure, expansion of built-up areas cause growing pressure on coastal ecosystem, diminishing its resilience, increasing fragmentation of habitats, loss of biodiversity and ecosystem services. Information on ecosystem services value plays a crucial role as supporting tool in decision – making processes on ecosystems restoration which is the one of the key actions within EU Biodiversity Strategy 2030.

On national level implementation of the EU policy regarding the nature value assessment is set out in the National Development Plan 2020 (adopted by Saeima of the Republic of Latvia, 2012 and it is an 7-years action plan to achieve the goals of Latvian Sustainable Development Strategy 2030). One of the priorities of National Development Plan 2020 foresees a sustainable management of nature and cultural capital, respectively, maintaining the natural capital as a basis for sustainable economic growth, promoting sustainable ways of its use, and reducing the risks for the environmental quality caused by natural and anthropogenic factors. In Latvia in order to reach these goals it is provided to carry out the assessment of the natural

capital till 2030 (provided in the section "Sustainable use of the natural values and services"). Achieved results of the project lead to reach this strategic objective.
The priority on nature capital sustainable development and use is still topical in new action plan - National Development Plan of Latvia for 2027. Objective of one of the priority direction "*Nature and environment*" is to preserve nature biodiversity and to ensure low carbon and climate-resilient development which improves the environment and ensures sustainable use of natural resources.

2. Long-term benefits and sustainability

Long-term / qualitative environmental benefits
Established Nature Design Park is a long-term investment in Saulkrasti municipality to enhance the appeal of the site to the tourists and in the same time to protect vulnerable coastal ecosystems from further degradation risk caused by unmanaged anthropogenic load.

According to Coastal processes (erosion and accumulation) evaluation results in Saulkrasti pilot area it can be concluded that implemented dunes restoration measures - demonstration site "*Dunes formation promotion*" establishment in Saulkrasti PIA near White Dune (formation of fences and complementary dune plants *Leymus arenarius* planting) was successful and reducing the risk of anthropogenic impact on coastal stability (ecosystem services regulation functions are improved). The measures implemented are "self-sufficient" and will remain functional for several years even if the fences are not rebuilt.

According to elaborated recommendations updated Nature Conservation (Management) Plan (NCP) of Nature Park "Piejūra" will be in force up to 2031. Conservation and management objectives of Nature Park "Piejūra" were determined by using of ecosystem services approach as well. Ecosystem services approach using allows clearer determine long-term objective of the protected areas management activities to conserve or reach favourable conservation status. Maintaining ecosystem services ensure that all management activities are in balance within nature conservation, recreational, tourism and regional development interests and favourable conservation status of habitats and species is maintained via maintaining of value of ecosystem services.

Long-term economic and social benefits
Established Nature Design Park is a long-term investment in Saulkrasti municipality to enhance the appeal of the site to the tourists. As well as focused place for environmental education activities is established. Increase of the visitors to Nature Design Park affect positively tourism sector of the municipality and specialisation in environmental education is promoted.

Established Nature Design Park cause development of complementary actions outside LIFE in Saulkrasti pilot area:

- investments in Saulkrasti PIA are continued within Interreg Estonia - Latvia project "*Hiking Route Along the Baltic Sea Coastline in Latvia - Estonia"* (2017 – 2020) - Nature Design Park is integrated in new infrastructure of hiking route as one of the tourist's attractions in Saulkrasti municipality;
- Establishment of Nature Design Park as additional attraction for visitors of Saulkrasti promoted public infrastructure establishment (new public toilets) and new entrepreneur activities (new café opened) in Saulkrasti PIA near Nature Design Park.

Regarding the demonstration character as well as the dissemination potential of the results, it has to be pointed out that economic assessment of the ecosystems can be used as an approach in order to explain to the wider public that sustainable management of the ecosystems does not certainly cause only expenses to the economic sectors and society, but also provide certain long-term benefits, for instance, impacts on human health and welfare, benefits from environmental aesthetics (visual characterization of a certain environment, etc.) benefits from diminishing of the negative impacts to the "material" environment (by improving the air quality, reducing the impact from storms on the buildings, roads and other infrastructure), ecological benefits.

According to elaborated recommendations updated municipal level planning document "*Saulkrastu novada attīstības programma 2014. – 2020. gadam*" will be in force at least 2022 or until new planning document will be adopted. It is secured that that the project outcomes and recommendations should be integrated into the planning document for the next planning period 2021 – 2027 as well. Development programme section "*Actions and investments plan*" updated by including stakeholders meetings outcomes and the project results on ecosystem services assessment and conclusions defined in the recommendations targeted to sustainable development of the municipality (for example, actions are included to support entrepreneurship specialisation by developing local "green entrepreneurship" formation; using of developed Nature Design Park as specialized place for environmental education in local and regional level; using of the technical solutions developed within the project for visitor's flow regulation in other parts of Saulkrasti municipality). All these improvements lead to sustainable use of natural capital of the Saulkrasti and finally will cause positive effect on well-being of Saulkrasti society.

Continuation of the project actions by the beneficiary or by other stakeholders.
For the continuation of the project activities and ensure the sustainability of the project achievements, the After-Life Communication plan have been elaborated. The aim of activities included in After-LIFE Communication plan is promote incorporation of ecosystem services approach into nature management planning and development planning by using of methodological materials, Recommendations and Toolkit elaborated within the LIFE EcosystemServices project. Wide range of informative and educational materials can be used in environmental education activities to educate on nature value importance in society well-being. Project website is the main communication tool within the project and contains all outputs of the project available for download. Maintenance of established network of organisations and specialists worked on ecosystem services approach is important tool for successful implementation of ecosystem services approach into daily planning processes in Latvia.

3. Replicability, demonstration, transferability, cooperation.

The developed methodology of ecosystem services approach use for planning is a durable model for assessing coastal areas from biophysical and economic perspectives in Latvia. Based on the developed biophysical and economic assessments of pilot implementation areas it can be stated that this ecosystem services approach is adjustable to other coastal regions of Latvia and regions around the Baltic Sea, and it has a potential to be transferred to other regions of Europe.

Created and applied methodology on ecosystem services identification, assessment and mapping within the project (action A5) already is recognised as appropriate and is applied in other Latvian projects worked on ecosystem services assessment (LIFE Restore, LIFE14

CCM/LV/001103, Latvian State Forest Research Institute Silava and JSC "Latvian State Forests" collaboration project "The impact of forest management on forest and related ecosystem services".

The project provides methodology and tools for evaluating ecosystem services in coastal areas, especially provides a potential to conduct monetary measurements of ecosystem services. In total 22 ecosystem services assessment indicators were elaborated and can be adopted/ use for ecosystem services assessment in other regions.

The Project final recommendations integrated into web-based interactive Toolkit could be used in all coastal municipalities of Latvia to support the elaboration and benefits/ losses analyses within planning documentation elaboration.

Elaboration of the new regulations of the Cabinet of Ministers for Nature Conservation Plans of especially protected nature territories is ongoing in Latvia (main responsible institution is MEPRD) and staff of NCA (project staff and associated departments) is involved. Proposal for landscape ecological planning (ecosystems) approach inclusion in nature conservation and planning legislation was carried out and it will cause as systemic changes in Latvia regards to all Nature Conservation Plans of especially protected nature territories which will be elaborated after adoption of the new regulations:

- new requirement for assessment of ecosystem services as a part of basic information of specially protected area's nature values is foreseen;
- updated requirement for nature value maps, namely, it is foreseen that nature values maps will include maps of ecosystem services provided by area as well.

Therefore the basis for results of the project replication and transfer to all protected areas of Latvia has been ensured. During the project implementation replication has been carried out to assess, map and value ecosystem services for entire territory of Nature Park "Piejura" within Saulkrasti municipality – the area outside the project pilot implementation area.

Environmental awareness creation activities, such as the development of Nature Design Park and designed educational and visual materials can also serve as an inspiration for the improvement of environmental awareness for enhancing ecosystem services in other regions.

Established and maintained cooperation network with other relevant projects and individual experts and organizations to serve promotion of application of ecosystem services approach in planning processes in Latvia on national and regional level. Established information exchange platform will be maintained in After-LIFE period as well.

Cooperation with INTERREG project "PROmoting the Governance of Regional Ecosystem ServiceS" (PROGRESS) were enabled to include the LIFE EcosystemServices project practice in the good practices database of INTERREG (the title of the practice is "*LIFE EcosystemServices: Ecosystem Services Assessment Methodology"*, planned to be published in next few months). Therefore potential for more replications and transferability is promoted.

4. Best Practice lessons

As the project is targeted to support spatial development in Latvia the methodology for mapping and assessment of ecosystem services (action A5) based on the bio-physical assessment method which is relevant for enhancing land-use policy have been chosen (an approach of the assessing ecosystem services according to the widely applied B.Burkhard method - so called *spreadsheet method*). Applied methodology is in accordance with MAES

(Mapping and Assessment of Ecosystems and their Services - an analytical framework for ecosystem assessments under Action 5 of the EU Biodiversity Strategy to 2020) recommendations. Applied methodology is clear for other ecosystem services assessment specialists, follows nowadays approach on ecosystem services identification/assessment/mapping and promote replicability and transferability of the methodological approach elaborated within the project

5. Innovation and demonstration value

The overall result of the project - developed Ecosystem Services Assessment Methodology appropriate for Latvia context - creates an innovative approach within the territorial planning processes in coastal areas of Latvia, thus finding a balance between environmental protection, biodiversity conservation, social and economic aspects. It is an innovative methodology for Latvian coastal municipalities which helps to make environmentally friendly and financially beneficial decisions related to the use of resources and ecosystem planning. This methodology is developed in accordance with the best EU practice in evaluation and mapping of ecosystem services. Concept and methodology of the project is developed in an integrated holistic way, which provides better decision making opportunities for coastal municipalities and advance spatial planning processes in Latvian coastal areas. Therefore, results of the project are linked to a potential long-term advancement of ecosystem service management in all 3 management levels – national, regional, local.

The innovativeness of the overall concept of the Nature Design Park "White Dune - Saulkrasti". Established Nature Design Park is innovative development solution and has a demonstration value in context of Latvia and in its functional sense - by changing the behavior, perceptions and attitude of the visitors towards the nature of the Saulkrasti pilot area and its ecosystem services. The Nature Design Park is designed to educate visitors about nature and its ecosystem services on the one hand, and on the other hand to show and guide visitors in a non-aggressive way to the need for positive behavior in nature and a careful attitude towards it. In the context of socio-economic monitoring, it is concluded that visitors positively evaluate the objects created and read very well the information provided by the objects, thus we can conclude that the objects fulfill their purpose functions. At the same time, the design park is designed to organize the flow of visitors to minimize the anthropogenic load.
Interactivity of the overall concept of the Nature Design Park "White Dune". The interactivity of the Nature Design Park (NDP) is rooted in the opportunity for the visitors to "try" and/or "experience" each of the objects.
All environmental objects in the Nature Design Park are visitor friendly - inviting visitors to sit next to them on a bench or take photos with them. QR codes are located next to each design object to gain information on the object idea and visit the project website. Interactivity of the information boards located in the Nature Design Park are ensured by (1) inclusion of QR codes linked with the Project website and information on Nature Design Park, information boards is possible to download; (2) all information boards consist qualitative illustrations, pictograms, design elements which show main message of the board and educate on ecosystem services topic.

6. Long term indicators of the project success

Long term indicators to be used in future assessment of the project success are close relates with results achieved during the project implementation period and actions planned within the After-LIFE Communication plan:

- At least one Nature Management Plan for Natura 2000 site elaborated in accordance with the project recommendations;
- There are at least one regional level and at least one municipal level planning document elaborated where ecosystem services approach is used and/or referred on finding/ outcomes of the project;
- A number of persons consulted, educated concerning the ecosystem services assessment implementation;
- At least 7 events organised/participate to inform on ecosystem services assessment and applicability of the results and achieved results of the project and its use;
- At least 4 environmental education events organised on topic of coastal ecosystem services;
- A number of persons trained on elaborated Toolkit use;
- A number of persons continue to use informative materials of the project available on the project website.

6. Comments on the financial report

Not Available for the WEB version

7. Annexes

Remark: All annexes are submitted only electronically according to EC request for submission of reports within *Measures relating to the COVID-19 pandemic* for Project administration LIFE + (2007-2013) published on the EC website https://ec.europa.eu/easme/en/section/life/project-administration-life-2007-2013.

7.1 Administrative annexes

Partnership agreements were submitted to the Commission previously.
A list of previously submitted documents:

Document	**Submitted with which report**
Partnership agreement between Nature Conservation Agency and association Baltic Coasts *(No 1.17.16.2/2/2014-P, signed on 18/12/2014).*	Inception report Annex_7.1.1.
Partnership agreement between Nature Conservation Agency and Saulkrasti Municipality *(No 1.17.16.2/3/2014-P, signed on 18/12/2014).*	Inception report Annex_7.1.2.
The additional agreements to the Partnership agreement with associated beneficiary BC (signed on 28/01/2015 and 29/06/2015).	Mid-Term report Annex_E1-3
The additional agreements to the Partnership agreement with associated beneficiary SM (signed on 29/06/2015 and 23/02/2016).	Mid-Term report Annex_E1-4
The additional agreement to the Partnership agreement with associated beneficiary BC (signed on 09/09/2016).	Progress Report 2017 Annex_E1–2
The additional agreements to the Partnership agreement with associated beneficiary SM (signed on 09/09/2016).	Progress Report 2017 Annex_E1–3
The additional agreement to the Partnership agreement with associated beneficiary SM (signed on 26/01/2018)	Progress Report 2018 Annex_E1–2
The additional agreements to the Partnership agreement with associated beneficiary BC (signed on 01/02/2018)	Progress Report 2018 Annex_E1–3

7.2 Technical annexes

Annex No	**Description**
Annex_E1	Responses on issues listed in Annexes of EC letters - Ref. Ares(2015)785695 - 24/02/2015; Ref. Ares(2015)3095132 - 23/07/2015; ENV-D-4 SW/SEB Ares(2016) 4926574 - 02/09/2016; Ref. Ares(2017)3869344 - 02/08/2017; Ref. Ares(2018)3430573 - 28/06/2018; Ref. Ares(2019) 406424 - 24/01/2019
Annex_E1–1	Minutes of Steering group meetings (LV) and summary of minutes (ENG)
Annex_A3-1	Project Communication Strategy (LV) and summary of strategy (ENG)
Annex_A4-1	Project impact monitoring guidelines (LV) and summary of guidelines (ENG)
Annex_A5-1	Final Report of ecosystem services identification and assessment (LV) which includes all deliverables of the action and Summary of the Final Report (LV, ENG)

Annex_B1-1	Report for the current situation representation for the ecosystems and ecosystem services "*Economic Valuation of Ecosystems and their Services for Pilot Implementation Areas*" (LV, ENG) and associated five sections (LV) where all valuation, analysis and social surveys data are included.
Annex_B2-1	Report on the elaboration and economic evaluation of the development scenarios for Pilot Implementation Areas (LV with included summary in ENG) and associated annexes - *Ecosystem Services Economic Valuation Model* for Saulkrasti PIA and Jaunkemeri PIA (LV; *.xlsx format)
Annex_B3-1	*Recommendations for Saulkrasti municipality development and development planning* (LV) with associated annexes (LV)
Annex_B3-2	Copy of Decision Saulkrasti Municipality Council on adoption of updated Saulkrasti Municipality planning document "*Saulkrastu novada attīstības programma 2014. – 2020. gadam*" (LV; taken on 27/11/2019)
Annex_B3-3	*Recommendations for ecosystem services approach incorporation in Nature Management Plans of Specially Protected Nature Territories* (LV) with associated annexes (LV)
Annex_B3-4	Copy of Minister of MEPRD order No 1-2/66 on adoption of Nature Conservation Plan for Nature Park "Piejūra" 2020 – 2031 (LV; taken on 21/04/2020)
Annex_B3-5	Copy of report on procurement results of Nature Conservation Plan elaboration for Ķemeri National Park; procedure ID DAP 2020/6-AK (LV; taken on 02/06/2020)
Annex_B3-6	Project of the contract on Nature Conservation Plan elaboration for Ķemeri National Park (LV)
Annex_B3-7	Draft of "*Regulations on content and drafting of nature protection plans for especially protected nature territories*" (LV; dated on 19/06/2019)
Annex_B4-1	Conceptual framework for Saulkrasti PIA (LV) and conception of Nature Design Park (LV); Summary (ENG)
Annex_B5-1	*Recommendations for the municipal decision makers and spatial planners* (PDF version of printed brochure; LV)
Annex_B5-2	*Recommendations for the municipal decision makers and spatial planners* (extended e-version; LV with included summary in ENG)
Annex_C1-1	*1st Report on the monitoring of the impacts of the Project actions* (LV with included summary in ENG) with associated annexes
Annex_C1-2	*2nd Report on the monitoring of the impacts of the Project actions* (LV with included summary in ENG) with associated annexes
Annex_C2-1	*1st Report on socio-economic impact monitoring* (LV with included summary in ENG) with associated annexes
Annex_C2-2	*2nd Report on socio-economic impact monitoring* (LV with included summary in ENG) with associated annexes
Annex_D1-1	Google Analytics data about home page total hits and unique hits
Annex_D4-2	Review of the main established or maintained cooperation/networking during the project implementation period 2014 – 2020 (ENG)

7.3 Dissemination annexes

7.3.1 Layman's report

Annex No	Description
Annex_D5-1	The Layman's Report (PDF version of printed brochure; LV)
Annex_D5-2	The Layman's Report (PDF version of printed brochure; ENG)

7.3.2 After-LIFE Communication plan

Annex No	Description
Annex_E3-1	After-LIFE Communication Plan (LV/ENG)
Annex_E3-2	Copy of confirmation letter of Saulkrasti Municipality (ENG)

7.3.3 Other dissemination annexes

Annex No	Description
Annex_D2-1	1st short documentary "*Ecosystem services*" (version with English subtitles; MP4 file format)
Annex_D2-2	2nd short documentary "*Ecosystem services evaluation*" (version with English subtitles; MP4 file format)
Annex_D2-3	3rd short documentary "*Ecosystem services assessment – a tool for spatial planning*" (version with English subtitles; MP4 file format)
Annex_D2-4	The project brochure/leaflet "*Ecosystem services evaluation*" (PDF version; LV)
Annex_D2-5	The project brochure/leaflet "*Ecosystem services evaluation*" (PDF version; ENG)
Annex_D2-6	Informative brochure on the economic assessment of ecosystems and their services "*Ecosystem services approach for sustainable management*" (PDF version; LV)
Annex_D2-7	Article – interview in newspaper "*Saulkrastu Domes ziņas*" on February 2020 (PDF version of newspaper, see page 4; LV)
Annex_D2-8	Article – interview in newspaper "*Neatkarīgās Tukuma Ziņas*" on 18/02/2020 (PDF version of press catting, page 12 – 13; LV)
Annex_D2-9	"Green tools" article in media - portal "Latvijas Avīze" LA.lv on 29/02/2020 (PDF version of the article, LV)
Annex_D2-10	Article – interview with green entrepreneur in media "Diena" on 25/03/2020 (PDF of internet version of the article; LV)
Annex_D2-11	Article – interview with green entrepreneur in media "Diena" on 27/03/2020 (PDF of printed magazine version of the article, page 7; LV)
Annex_D2-12	Layout of the information board "ECOSYSTEM SERVICES – BASIS FOR SAULKRASTI DEVELOPMENT" situated in Saulkrasti PIA (PDF version, LV/ENG)
Annex_D2-13	Example of completed USB - *Digital package with Project results* distributed during the project Conference on 15/01/2020 (separate electronic folder with materials)
Annex_D2-14	Layout of the poster – Rollup stand "NATURE GIVES" (PDF version, LV)
Annex_D2-15	Regulations of "Travelling prize" which includes visualization of the prize

	(PDF version, LV)
Annex_D2-16	Instructive trailer for the Toolkit (MP4 file, LV) and additional video presentation about the Toolkit in ENG
Annex_D2-17	Environmental Education Materials (PDF versions, LV)
Annex_D3-1	Materials of 6th seminar and discussion forum "*Use of ecosystem services approach in decision making process*" on 26/04/2019 (Agenda, presentations in PDF format, LV)
Annex_D3-2	Materials of educational event in Saulkrasti pilot area for natural sciences and informal education teachers on 26/11/2019 (Agenda, presentations in PDF format, LV)
Annex_D3-3	A presentation "*Revitalization of Green Entrepreneurship in Saulkrasti Municipality, update of Saulkrasti Municipality Development Programme*", presented on 15/03/2019 (presentation in PDF format, LV)
Annex_D3-4	Materials of meeting with Development Planning Consultative Working Group of Riga Planning Region on 05/04/2019 and Kurzeme Planning Region seminar on 15/05/2019 (Agendas, presentation in PDF format, LV)
Annex_D3-5	Materials of educational events on 06/02/2020, 11/02/2020, 26/02/2020, 04/03/2020, 11/03/2020 for planners and Nature Management Plans elaborators (Agendas, presentations in PDF format, LV)
Annex_D3-6	A presentation from participation in University of Latvia 77th scientific conference session "*Spatial planning and development*" on 31/01/2019 (presentation in PDF format, LV)
Annex_D3-7	Materials of the Project Conference "*Value of Nature - practices and experiences in the use of ecosystem services assessment*" (Agenda LV/ENG; presentations LV/ENG, posters LV/ENG; PDF/JPG format; folder of photos)
Annex_D4-1	Materials of networking activities – presentations, posters, book of abstracts, flayer (PDF format, ENG/LV)

7.4 Final table of indicators

Annex No	**Description**
Annex_7.4	Final outcome indicators' table (.*xls format, ENG)

8. Financial report and annexes

Not Available for the WEB version