LIFE IP NL-NASCCELERATE

A selection of the Full Proposal

Version 16 May 2022

This document is a selection of the LIFE-IP NASCCELERATE proposal submitted to and approved by the European Commission in 2021 for subsidy from the European LIFE Integrated Projects (LIFE-IP) program. The publishable parts of the Full Proposal have been included in this document, the financial-administrative parts have been excluded.

Contents

PROJECT

Project title (*max. 120 characters*):

Nether**l**ands **N**ational **A**daptation **S**trategy on **C**limate **C**hang**e**, to **L**ocal N**e**twor**k**s **A**ccelerating Clima**te** Resilience (NL-NASCCELERATE)

Project acronym (*max. 25 characters*): Project acronym (max. 25 characters): LIFE-IP NL-NASCCELERATE

The project will be implemented in the following Country(s) and/or Administrative region(s):

The Netherlands, all regions

Expected start date: 29-03-2021 Expected end date: 31-12-2027

The project will implement the following action plan/strategy/roadmap (*full copy is to be provided if modified since Concept Note submission*):

Nationale klimaatadaptatiestrategie 2016 (NAS). Please refer to https://klimaatadaptatienederland.nl/en/policy-programmes/nas/ for the English translation of the NAS. The strategy is not modified since Concept Note submission.

BENEFICIARIES

Name of the **coordinating** beneficiary (1): Ministerie van Infrastructuur en Waterstaat (Ministry of Infrastructure and Water Management), MinI&W

Name of the associated beneficiary (2): Ministerie van Landbouw, Natuur en Voedselveiligheid (Ministry of Agriculture, Nature and Food Quality), MinLNV

Name of the associated beneficiary (3): Ministerie van Volksgezondheid, Welzijn en Sport (Ministry of Health, Welfare and Sport), MinVWS

Name of the associated beneficiary (4): Rijkswaterstaat, RWS

Name of the associated beneficiary (5): Koninklijk Nederlands Meteorologisch Instituut (The Royal Netherlands Meteorological Institute), KNMI

Name of the associated beneficiary (6): Provincie Noord-Brabant (Province of Noord-Brabant), NB

Name of the associated beneficiary (7): Provincie Utrecht (Province of Utrecht), UT

Name of the associated beneficiary (8): Waterschap Aa en Maas (Regional water authority Aa en Maas), WAM

Name of the associated beneficiary (9): Hoogheemraadschap van Rijnland (Rijnland District Water Control Board), HHR

Name of the associated beneficiary (10): Hoogheemraadschap de Stichtse Rijnlanden (Water Board Hoogheemraadschap De Stichtse Rijnlanden), HDSR

Name of the associated beneficiary (11): Waterschap Vallei en Veluwe (Water authority Vallei en Veluwe), WVV

Name of the associated beneficiary (12): Stichting Waternet (Water company Amsterdam), Waternet

Name of the associated beneficiary (13): Gemeente Apeldoorn (Municipality of Apeldoorn), Apeldoorn

Name of the associated beneficiary (14): Gemeente Arnhem (Municipality of Arnhem), Arnhem

Name of the associated beneficiary (15): Gemeente Dordrecht (Municipality of Dordrecht), Dordrecht

Name of the associated beneficiary (16): Gemeente Gouda (Municipality of Gouda), Gouda

Name of the associated beneficiary (17): Gemeente Groningen (Municipality of Groningen), Groningen

Name of the associated beneficiary (18): Gemeente Rotterdam (Municipality of Rotterdam), Rotterdam

Name of the associated beneficiary (19): Gemeente Súdwest-Fryslân (Municipality of Sudwest-Fryslan), SW-Fryslân

Name of the associated beneficiary (20): Gemeente Zwolle (Municipality of Zwolle), Zwolle

Name of the associated beneficiary (21): Veiligheids- en Gezondheidsregio Gelderland Midden (Safety and Health Region Gelderland Midden), VGGM

Name of the associated beneficiary (22): Land- en Tuinbouw Organisatie Noord(The Netherlands Agricultural and Horticultural Association), LTO

PROJECT BUDGET AND REQUESTED EC FUNDING

Total integrated project budget:	16.927.870 €
Total LIFE eligible project budget:	16.927.870 €
EC LIFE financial contribution requested:	9.500.000 € (= 56,12 % of total eligible budget)

SUMMARY DESCRIPTION OF THE PROJECT

1. Overall context/background/geographical scope

1.1 IP itself:

Environmental/climate issues

The Netherlands have a gross annual domestic product of about € 800 billion which is largely produced in the western, lowest part of the country. Nearly 60% of the country's area is susceptible to large scale coastal and river flooding. About 26% is below present mean sea level, making flood risk management and adaptation to sea level rise essential for its existence. Moreover, this metropolitan country with 17.4 million inhabitants concentrated on an area of 41,545 km2 (including water surface, the land surface being 33,481 km2) has the second highest number of people per km2 in Europe and expects an increase in urbanisation. With limited space for green and blue solutions in urban areas, it is a challenge for Dutch cities to stay liveable, green and healthy and to prevent flooding and land subsidence. Moreover, the Netherlands is after the USA the world's largest exporter of agri- and horticulture related products. Impacts of climate change are expected to be significant on production rates and consequently on the economy. Six urgent climate effects which call for immediate action have been identified in the National climate Adaptation Strategy 2016 (NAS) (NAS reference: p. 21-22):

1. Greater heat stress leading to increased morbidity, hospital admissions and mortality, as well as reduced productivity.
2. More frequent failure of critical infrastructure: energy, telecommunications, IT and transport infrastructures.
3. More frequent crop failures or other problems in the agricultural sector, such as decreased yields or damage to production resources due to extreme weather conditions such as drought and heavy rainfall.
4. Shifting climate zones whereby some flora and fauna species will be unable to migrate or adapt, due in part to the lack of an internationally coordinated spatial policy.
5. Greater health burden and loss of productivity due to possible increase in infectious diseases or allergic (respiratory) conditions such as hay fever.
6. Cumulative effects whereby a systems failure in one sector or at one location triggers further problems elsewhere.

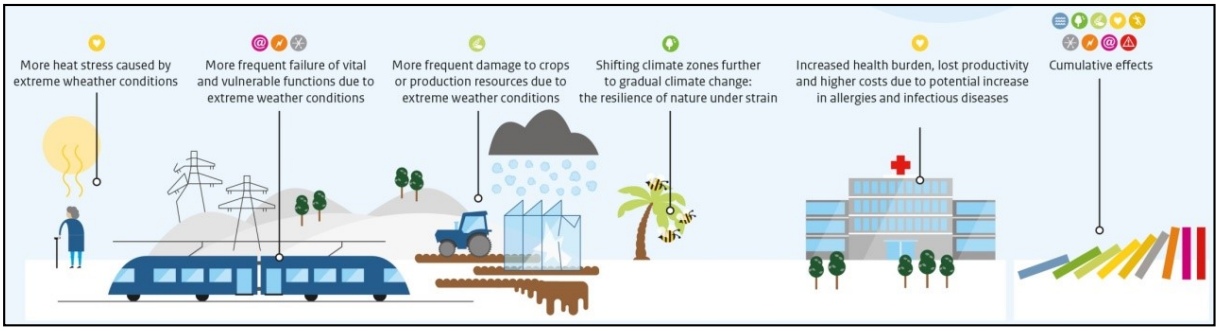


Figure B1.1.: Six climate effects in the Netherlands which call for immediate action

These negative effects of climate change must be minimized or at least made manageable. Making the Netherlands climate resilient is a joint undertaking and every member of Dutch society is called upon to co-create, invest and act on this (NAS reference: p. 41). By collectively embarking on climate change adaptation, we are simultaneously enhancing safety, creating attractive environments for the public as well as businesses and developing a nature-inclusive society. The NAS has set out a roadmap and is calling on every citizen to adapt and innovate (NAS reference: p. 31, first sentence).

Through the NAS (NAS reference: page 31), the government will initiate specific projects and programmes in order to:

1. Increase awareness of the necessity of climate adaptation.
2. Encourage the implementation of climate adaptation measures.
3. Develop and utilise the knowledge base.
4. Address urgent climate risks.
5. Embed climate adaptation within policy and legislation.
6. Monitor the progress and effectiveness of the adaptation strategy.

The NAS introduces various new initiatives and aims at accelerating the progress of ongoing initiatives (NAS reference: p. 31-39). It builds upon a decade of climate adaptation policy and, in combination with the Delta Programme, sets out the Netherlands' response to climate change. An important component of the strategy is the desire to unite all parties in pursuing common objectives.

The NAS answered the European Commission's request for member states to produce a climate adaptation strategy no later than 2017. This IP helps to accelerate the implementation of the NAS 2016 as well as develop knowledge that will be used for the nationwide monitoring of both measures and

outcomes. This monitoring will be used (amongst other aims) for an update of the NAS by (no later than) 2027. Furthermore the approach of this IP also aligns with the EU Adaptation Strategy adopted 24 February 2021. This IP contributes to a systemic approach as well as faster implementation.

Barriers that hinder the implementation of the NAS
The LIFE IP project intends to accelerate the execution of the NAS 2016. Major barriers to implementation exist at governmental, strategic and operational levels. Climate adaptation is coordinated by the Ministry of Infrastructure and Water Management (hereafter: MinI&W). Horizontal and vertical coordination is already in place, but still relatively weak and needs to be strengthened. Monitoring and evaluation of adaptation efforts and their outcomes are not well developed and implemented. Moreover, there are no standardized and generally applicable procedures or guidelines available to assess the potential impact of climate change on major projects or programmes, and facilitate the choice of alternative options, e.g. green infrastructure.

At the same time, many governmental organisations report persisting capacity gaps of government staff and insufficient institutional capacities, including gaps related to inter-agency and cross-sectoral coordination. Furthermore, organisations report capacity needs related to mainstreaming climate considerations into their policy, planning and budgeting. There is a need to build the capacities of national, regional and local governments and communities on climate change adaptation. Besides the absence of an adequate monitoring and evaluation system and guidelines, gaps also exist at the operational level. As distilled from a workshop with over 80 stakeholders in preparation of the first Concept Note (June 7, 2018), the major barriers for implementation of climate adaptation measures on an operational level are:
1. Knowledge and expertise on the effects of climate change and the effects and effectivity of climate adaptation measures are not sufficiently available, understandable, accessible and/or up-to-date for regional and local actors (NAS reference: p. 34, par. 4.3).
2. A large difference in sense of urgency and awareness exists between sectors, regions, government levels, and public and private actors (NAS reference: p. 31 par. 4.1). For example, climate adaptation has already become operational in the sector 'water management', but awareness is just arising in other sectors.
3. The governance of climate adaptation is highly sectoral at all levels, both within and between public and private bodies, thus hampering an integral approach between sectors and in conjunction with other challenges (NAS reference: p. 38, par. 4.5).
4. Climate adaptation may involve high public and private investment costs and lacks financing models, especially when adaptation measures are not included in recurring projects (NAS reference: p. 40, last par.).

MinI&W wants to stimulate and accelerate the application of climate adaptation measures by the stakeholders (provinces, water authorities, municipalities, industries, the public etc.). With the LIFE subsidy, the ministry will design and apply a monitoring and evaluation framework and coordinate best practices and disseminate the knowledge (among others via a website, training and guidelines). This will facilitate capacity building at the coordinating authority (MinI&W) and the other beneficiaries to catalyse a process towards the full implementation of the NAS and the implementation of adaptation measures.

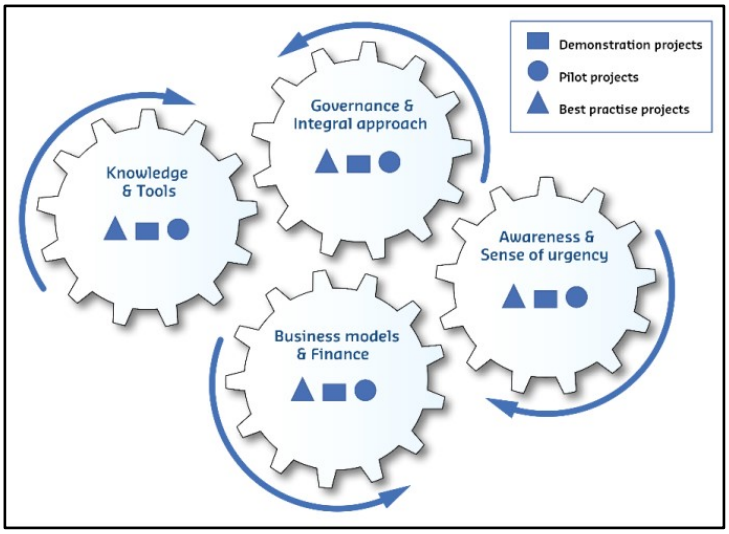
LIFE-IP definition
To remove the barriers to implementing the NAS, MinI&W is applying for a subsidy from the European LIFE programme. The title of the project is: Netherlands National Adaptation Strategy on Climate Change to Local Networks Accelerating Climate Resilience (NL-NASCCELERATE). This proposal falls under the IP definition, because:
- This project aims to fully implement the NAS by removing the gaps as defined in the adaptation preparedness scoreboard (country fiche of the Netherlands): a) the number of guidelines is limited; b) the NAS implementation is not monitored; c) the regional-, sub-national or local actions are not monitored and the results of the monitoring are not disseminated; d) a regular (periodic) review of the NAS is not planned (a full update however is intended no later than 2027); e) climate risks/vulnerability assessments do not take transboundary risks into account, when relevant; f) funding is not available to increase climate resilience in vulnerable sectors and for cross-cutting adaptation action; g) key land use, spatial planning, urban planning and coastal spatial planning policies do not take into account the impacts of climate change; h) adaptation is not (completely) mainstreamed in insurance or alternative policy instruments, where relevant, to provide incentives for investments in risk prevention.

1.2 Complementary actions:
The actual full implementation of the NAS will happen through complementary actions financed outside of NL-NASCCELERATE, using other available funding. The complementary actions will consider the broad implementation of the NAS in all sectors and all Dutch regions, thus enhancing the acceleration of implementation of the NAS and the execution of the climate adaptation measures. The major funding source for the implementation of the NAS is The Dutch Climate Change Adaptation Administrative Agreement (In Dutch: Bestuursakkoord Klimaatadaptatie, 2018).

This agreement between the national government, the Association of Netherlands Municipalities (VNG), the Union of Water Authorities (UvW) and the Interprovincial Consultation (IPO) concerns the financing of implementation projects on climate change adaptation from 2021 onwards. With this agreement, it was reaffirmed that municipalities, water authorities and provinces will have mapped the challenges and necessary measures nationwide, through stress tests, risk dialogues and implementation agendas by the end of 2020. Currently, most municipalities, water authorities and provinces have selected effective measures to realise a climate-proof and water resilient Netherlands and have prepared implementation agendas and pilot implementation projects. Multiple national and regional funds have been generated from this agreement (see 2.2).
In addition, the Ministry and the umbrella organisations of provinces, municipalities and water authorities have lobbied the European Union to include climate adaptation in the new European Operational Programs. This also applies to the use of ERDF in the Netherlands. In accordance with the conditions from the EU, different EU programmes are implemented in the Netherlands based on a National Strategic plan. These strategic plans are designed based on ex ante evaluations or a Smart Specialization Strategy. The Dutch National Strategic Plan underlines which objectives are primarily important to the Netherlands, which objectives will be achieved and how EU funds will be used to achieve them. Important EU goals are to contribute to mitigating and adapting to climate change, the transition to sustainable energy, and to reduce CO_2 emissions. The Netherlands is developing The National Strategic plan to implement the EAFRD programme. This plan aims at supporting farmers and others to realise measures in the rural environment to combat soil subsidence, improve water quality, soil quality and biodiversity, and to stimulate nature-inclusive agriculture.
Numerous strategies under the European Green Deal Action Plan are directly or indirectly related to climate change adaptation, e.g. the biodiversity strategy, farm to fork strategy, and specifically the new EU strategy on Adaptation to Climate Change, Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change (COM(2021) 82 final), https://ec.europa.eu/clima/sites/clima/files/adaptation/what/docs/eu_strategy_2021.pdf. As compared to the previous one, this new strategy is more action oriented, to implement climate change adaptation measures smarter, more systemic and faster. It aims to expand on the platform Climate-ADAPT for knowledge exchange. A systemic approach requires coordinated policies at all levels and for all sectors and groups in society. This strategy explicitly discusses the role of the local government in view of the importance of adaptation measures at that level. The Urban Agenda will play a greater role. In its strategy, the Commission also specifically refers to the essence of the availability of sufficient fresh water. These elements can all be recognised in and are strongly supported by this LIFE-IP. In addition, also the Horizon Mission on 'Adaptation to Climate Change' is relevant, since it focuses on solutions and preparedness for the impact of climate change to protect lives and assets, including behavioural changes and social aspects, which help lead to a societal transformation. The actions of this LIFE-IP will contribute to this mission, and the mission itself will provide valuable results to be used in this LIFE-IP.
In the recent years, many have experienced how difficult it is to implement strategies effectively. With this LIFE-IP we aim at contributing to the implementation of the climate adaptation strategy through knowledge sharing and capacity building. Additionally this LIFE-IP aligns with the new EU Adaptation Strategy, adopted February 2021.

2. Project objectives:
2.1 IP itself:
NL-NASCCELERATE itself will consist of demonstrations, pilots, best practices, evaluations and incentives for replication, which will accelerate the implementation of the NAS. As stated above, barriers to implementing the NAS were uncovered at governmental, strategic and operational levels. Solutions to these barriers can be clustered into four interconnected objectives for NLNASCCELERATE:
1. **Knowledge & Tools**: To develop accessible, understandable and up-to-date knowledge products and tools made available through an easily accessible knowledge infrastructure aimed at sectors and actors that are responsible for climate adaptation policy, management and implementation of measures.
2. **Awareness & Sense of urgency**: To increase political and governmental awareness and sense of urgency on the need for climate change adaptation, e.g. by assisting local and regional decisionmakers in strategy, dialogues, agenda-setting, implementation and co-creation.

3. **Governance & Integral approach**: To enhance an integral approach towards climate change adaptation policy and develop governance approaches to support this, to enable multi-actor engagement in decision making on e.g. nature based solutions as well as health issues.



4. **Finance & Business models**: To develop new finance and business models for climate change adaptation measures within and across sectors and disciplines, e.g. by developing finance structures and business models that incorporate the multiple costs and benefits of climate adaptation measures to all stakeholders involved. This will enable the development of joint business cases, aiming at leveraging both public and private funding sources. These first four objectives on an operational level are interconnected like cogs that drive an engine as shown in figure B2.1.

Figure B2.1.: Interconnected objectives of NL-NASCCELERATE

Besides these four operational objectives NL-NASCCELERATE has the following objectives:
5. **Monitoring & evaluation system**: To develop a monitoring & evaluation system. Monitoring and evaluation of climate adaptation policy encompasses processes, tools and techniques that systematically and periodically measure and analyse the processes, outcomes and impacts of adaptation activities to achieve the intended objectives. As the negative impact of climate change intensifies and as investments in adaptation action increase, it is crucial that rigorous systems are put in place for measuring the impacts of climate change measures and investments over time. Doing so will strengthen the effectiveness of investments.
6. **Dissemination of knowledge and replication of project results**. Lessons learned from this IP will actively be disseminated to other actors and stakeholders in the Netherlands and the EU. Furthermore a select number of projects/best practives are to be replicated both in the Netherlands and in a targeted other EU member state / region.
7. **Capacity building**: Increasing the deployment of staff and improving the quality of the staff through training, workshops and setting up knowledge networks that are also used for the dissemination of knowledge. The quality of the staff will improve by making knowledge available through guidelines and toolboxes. One example of capacity building can be found within the Delta Programme Spatial Adaptation, which contributes to curriculum development together with the universities of applied sciences.

2.2 Complementary actions:
With the concrete implementation actions of this LIFE IP proposal, best practices will be generated, and the lessons learned will be disseminated, stimulating the implementation of the NAS. The implementation of the NAS is furthermore is supported by complementary actions to this LIFE IP. The complementary actions have the following objectives:
• To realise full implementation of the NAS
• To replicate successes of LIFE-IP
• To inform other interested actors on results of LIFE-IP
• To accelerate implementation: smarter, more systemic and faster

The LIFE IP and the complementary actions together will have the following objectives:
1. Increase awareness of the necessity of climate adaptation.
2. increase the implementation of climate adaptation measures.
3. Develop and utilise the knowledge base.
4. Address urgent climate risks.
5. Embed climate adaptation within policy and legislation
6. Monitor the progress and effectiveness of the adaptation strategy.

The objectives of the complementary actions are described below.

National funding
The Dutch Climate Change Adaptation Agreement (Bestuursakkoord Klimaatadaptatie) came into force in November 2018. Agreements have been made on the financing of implementation projects on climate change adaptation from 1 January 2021 and onwards. This Agreement also reaffirms that municipalities, water authorities and provinces have mapped the tasks and necessary measures, through stress tests, risk dialogues and implementation agendas. The implementation agenda's sum up to a nationwide approach. Through this process, municipalities, water authorities and provinces choose effective measures to implement their tasks, so that they can realise a climate-proof and water resilient

infrastructure. To achieve the objectives of the Bestuursakkoord, MinI&W will implement the following fund.

- In 2021, MinI&W has allocated 200 million € from the **National Delta Fund** in a call for proposals that will 1) accelerate implementation of climate change adaptation measures, 2) will amplify already planned spatial measures with adaptation measures, or 3) will start new adaptation measures: the so-called subsidy on implementation of climate change adaptation. To be eligible for funding, all measures need to be based on the stress tests and risk dialogues and need to be included in the implementation programmes of the governments involved and be executed before the end of 2027. This will significantly accelerate and intensify the implementation of climate adaptation measures by local and regional authorities.
- The **National Strategic Plan (NSP)**, coordinated by MinLNV, is the Dutch interpretation of the new European Common Agricultural Policy. The NSP is drawn up by the national government, provinces and water boards. The aim of NSP is to guide the transition in agriculture and to ensure that the sector becomes future proof (where climate change is a major challenge). Green-blue targets are given more priority in the CAP National Strategic Plan. Climate adaptation is part of this. The National Strategic Plan is still under development. The concept will be set up by the Netherlands in 2021. Implementation will take place from 2023 to 2027. The NSP will play an important part and will address an important sector in implementing the NAS.

Regional funding
Regional authorities have agreed to develop regional implementation programmes, including budget. The province of Noord-Brabant and the province of Utrecht, LIFE-IP associated beneficiaries, are involved in two regional implementation programmes. These programmes are valuable and important complementary actions to this LIFE IP in implementing the NAS.

- The **Climate Adaptation Implementation Programme Zuid-Nederland** is a cooperation between the governments of the South of the Netherlands, business communities, knowledge institutions and civil society organizations to work towards a climate-resistant and water resilient South of the Netherlands. The program aims to be in alignment with the implementation of the Water Framework Directive and other spatial tasks. Explicit attention is put on connecting blue and green space. This programme builds upon the Delta Fund.
- The **Climate Adaptation Programme of the Province of Utrecht** is implemented with a budget of € 4 million for the period 2021-2023. The province of Utrecht is aiming for a full climate resilient design of the province by 2050. The programme aims at making climate adaptation a guiding part of all provincial policy and implementation instruments by, amongst others, promoting awareness and stimulating behavioral change, putting climate adaptation into practice by supporting concrete physical measures, pilots, best practices and innovations and strengthening the cycle of knowledge and monitoring in the field of climate impacts and climate adaptation measures.

European funding
The partners in this LIFE IP have also applied for subsidies from other EU funds for complementary projects in the context of climate adaptation.

- **Interreg North Sea Region:** The overall objective of **C5a** (Cluster for Cloud to Coast Climate Change Adaptation) is to enable efficient and effective adaptation to the physical, economic and social impact of future flooding, taking climate change into account. This directly addresses urgent climate risks for the Netherlands, develops the knowledge base and increases the implementation of climate adaptation measures, which are among the main objectives of the NAS.
- **Interreg 2 Seas:** The overall objective of **Co-Adapt** is to develop, test and roll-out approaches to co-creation of nature-based solutions to improve the adaptive capacity of the 2Seas region to water-related effects of climate change. The project will develop more open and transparent governance for adaptive water management by embedding co-creation in policy frameworks, especially spatial and water management strategies - leading to greater awareness and stakeholder-led action to improve climate resilience.
- **Horizon 2020**: The overall objective of **SHELTER** is to protect cultural heritage from the effects of climate change by developing a knowledge framework that will bring together the scientific community and heritage managers with the objective of increasing resilience, reducing vulnerability and promoting better and safer reconstruction in historic areas. Protecting cultural heritage is part of the NAS strategy. Lessons learned and best practices can be exchanged with other partnering municipalities within the IP NAS as a significant number of municipalities in the Netherlands are confronted with climate change effects on historic areas. The project therefore provides the NAS with concrete and deep understanding of the effects of climate change on historic areas and useful methodologies, tools and strategies to enhance resilience and secure sustainable reconstruction.
- **Urban Innovative Actions:** The objective of **Resilio** is to build smart blue green roofs in Amsterdam. After the proven success of individual blue green roofs across Amsterdam, RESILIO will build a smart grid of roofs enabling real time data exchange for dynamic water levels. Thus, an entirely new scale and type of adaptive urban water management will be created for the first time in Europe and across the world.

This directly implements climate adaptation measures, develops the knowledge base and addresses urgent climate risks, all being objectives of the NAS.

3. Actions and means involved:
3.1 IP itself:
Besides the coordinating and administrative activities, the following main actions will be developed:
1. Development of accessible knowledge products and tools (objective 1, NAS reference p. 34, par. 4.3)
A shared, cross-sectoral knowledge implementation strategy will be developed, to further improve the existing integral and cross-sectoral knowledge platform. This platform will be integrated in the national climate adaptation portal www.klimaatadaptatienederland.nl and will be positioned close to the national climate impact atlas www.klimaateffectatlas.nl. The aim is offering usable and comprehensible products and tools; as a lot of knowledge and tools are already available. Besides written text, products will include, for instance, infographics, animation movies, serious gaming, or (GIS)tools facilitating actors in the implementation process of the NAS. The following beneficiaries will execute this action: MinI&W, RWS, KNMI and VGGM.

2. Increase of awareness and sense of urgency for climate change adaptation (objective 2, NAS reference p.35, par. 4.4)
Increasing the sense of urgency and subsequently the ownership by all relevant sectors and actors is an essential step towards further implementation of the NAS. This action aims to demonstrate various approaches in which governmental organisations are challenged to prioritize climate change adaptation and to broaden this to policy fields other than water and sanitation. In this action, we will develop regional and local adaptation strategies, i.e. translating the NAS to the local and regional level, in which the advisory role of Municipal Public Health Services (GGDs) towards municipalities and other local organisations will be strengthened regarding climate change and public health. Actions will also aim at encouraging stakeholders to get involved in co-creation towards climate resilience. Within this action, regional and local adaptation strategies will be developed, available for all relevant stakeholders. The following beneficiaries will execute this action: HDSR, Waternet, Arnhem, Groningen and Rotterdam.

3. Enhancement of an integral approach and development of corresponding governance frameworks (objective 3, NAS reference p. 38 par. 4.5)
In this action we aim at stimulating the further expansion of cross-sectoral and multidisciplinary local and regional networks, in an inter-organisational as well as intra-organisational manner, while implementing concrete climate adaptation actions. Special attention is given to incorporating and securing climate change adaptation principles in the spatial and social domain. Within this action, national and regional adaptation strategies will be developed, available for all relevant stakeholders. The following beneficiaries will execute this action: NB, HHR, WAM, WVV, Apeldoorn, Dordrecht, Gouda Zwolle, Utrecht.

4. Develop new business and financing models (objective 4, NAS reference p. 40, last par.)
This action aims at developing novel approaches towards network financing. The action focusses on new business models for the agricultural and nature conservation sector that will relate agriculture to nature, biodiversity, landscape and tourism. It will integrate local solutions in regional judicial, governmental and financial frameworks. Also, urban examples will be explored. New financing opportunities are to be found for climate adaptation measures. The following beneficiaries will execute this action: MinLNV, SW-Fryslân, LTO. Financial engineering and business models (although not the main aim) are also are part of some of the other beneficiaries (Apeldoorn and Dordrecht).

5. National monitoring system (NAS reference: p. 39, par. 4.6)
A system will be developed to monitor the progress of climate change adaptation in the Netherlands. Actions will include the development of indicators, measuring methods, baseline assessment, evaluation and feedback procedures and reporting formats. This will result in a monitoring plan, in which the monitoring activities, responsible organisations and schedules are described. Monitoring will include both qualitative (e.g. narratives) and quantitative (data) elements. MinI&W will execute this action in cooperation with MinLNV and MinVWS.

6. Impact monitoring and evaluation (NAS reference: p. 39, par. 4.6)
NL-NASCCELERATE actions aim at improving knowledge transfer and awareness building, strengthening an integral approach and developing finance and business models to support this. We also aim at increased capacity building and replication of results. Therefore, in addition to progress, a procedure to monitor and evaluate impacts of the NL-NASCCELERATE actions both during and after its implementation will be developed based on key project level indicators (KPI). Monitoring results will be evaluated on a regular basis. Lessons learned will be extracted and made available for communication and dissemination. This may consist of strategies for knowledge implementation, climate change adaptation agenda setting, governance approaches, developing multi-purpose delivery mechanisms between climate change policy and other local societal challenges, network development, financing and business models. MinI&W will execute this action in cooperation with MinLNV and MinVWS.

7. Replication strategy

MinI&W will develop a replication strategy to identify new opportunities for complementary actions and the mobilisation of them, and to coordinate cooperation and exchange between NL-NASCCELERATE and the complementary actions. This will strengthen transfer of knowledge and expertise, within the Netherlands as well as to other Member States, thus contributing to replication. This replication strategy will include an evaluation strategy, a capacity building strategy and a legacy strategy. MinI&W will execute this action.

3.2 Complementary actions:

The complementary actions to this LIFE IP involve the following actions and means:

- National Delta Fund: Regarding the subsidy on implementation, municipalities, water authorities and provinces can apply for a contribution (max 33%) from this fund for climate adaptation measures. Measures must contribute to reducing the vulnerability of areas to flooding, drought and/or the consequences of flooding.

- National Strategic Plan: Through the NSP, The Netherlands will finance those objectives described by the CAP that are determined to be of primary importance to the Netherlands. This prioritization is made by the national government, together with the provinces and with input from water boards and stakeholders such as those from the agricultural sector and nature and environmental organizations.

- Within the Climate Adaptation Implementation Programme Zuid-Nederland, a joint investment effort will be made by the relevant governments, businesses and organizations in the South of the Netherlands, in order to implement measures regarding water management and climate adaptation, based on an integral and comprehensive strategy and implementation plans set up by the regional actors.

- Within the Climate Adaptation Programme of the Province of Utrecht, each year, in consultation with the parties involved, an overview of the intended products and results on climate adaptation is published. Depending on the policy area, activities to be invested in can vary from raising awareness to pilots and implementation of projects.

- The Interreg Vb project 'Cluster for Cloud to Coast Climate Change adaptation' (C5a) will deliver a 'Cloud-to-Coast' (C2C) approach, integrating four constituent systems (catchment, coasts, cities, infrastructure networks) and enabling the development of multifunctional and adaptable solutions that deliver more sustainable, integrated and multifunctional solutions across the region. RWS and other Dutch partners are involved. The subsidy is 0.9 million euros. The solutions will be disseminated by the NAS and contribute to the objective of the NAS of developing the knowledge base.

- The project Co-Adapt will develop a more open and transparent governance for adaptive water management by embedding co-creation in policy frameworks, especially spatial and water management strategies - leading to greater awareness and stakeholder-led action to improve climate resilience. The province of Noord-Brabant is one of the partners. The project receives 4.4 million euros. With the NAS, the government invites local and provincial authorities, private sector companies, water authorities and societal organisations to contribute. The best practices executed in de Co-Adapt project will help to realise co-creation by the NAS.

- SHELTER develops a knowledge framework that will bring together the scientific community and heritage managers with the objective of increasing resilience, reducing vulnerability and promoting better and safer reconstruction in historic areas. All the developments of the project will be validated in 5 open-labs/pilots in which the developed knowledge framework builds upon existing practices in the participating municipalities and will facilitate the design and implementation of measures to support the flood risk management. The maximum grant amount is 6 million euros. The city of Dordrecht participates as a pilot within the SHELTER project. The lessons learned will contribute to a successful implementation of the NAS.

- After the proven success of individual blue green roofs across Amsterdam, the project RESILIO will build a smart grid of roofs enabling real time data exchange for dynamic water levels. The ERDF grant amount is 4,8 million euros. Stichting Waternet is involved in the project. The lessons learned will be added to the knowledge base of the NAS and MinI&W will disseminate the knowledge.

4. Expected results (main outputs and achievements, qualitative and quantitative):

4.1 Linked to Actions of LIFE IP (short and long term):

Results

See Appendix 3 Form B1 - Part 4 for an indication of the results foreseen at the end of the first implementation phase (envisaged for the end of 2023)

The project will result in a comprehensive integrated approach to implementing climate adaptation measures in the Netherlands, including innovative governance approaches. As a result climate change adaptation measures in all sectors will be implemented more effectively, efficiently and with a shorter

lead time as the identified barriers will have largely been removed. Approaches will be successfully demonstrated and tested in approx. 20 demonstration projects. Specifically, this means that:
- The sense of urgency to act on climate change adaptation will have been sufficiently increased in all relevant sectors, regions and (governmental) tiers. Awareness, increased sense of urgency and ownership towards climate change adaptation will be quantified by monitoring the number of climate change adaptation publications, both at partner organisations, in NAS sectors and nationwide by a focused internet search. By the end of this IP professional actors working on the NAS sectors are aware of climate risks.
- Capacity building among all relevant stakeholders will have been realised, this includes all 350 Dutch municipalities, all provinces (12), all water authorities (21) and related national ministries (infrastructure and water management environment, agriculture and nature, health, spatial planning, etc.). This may be quantified by monitoring the number of permanent public sector staff working on climate change adaptation. By the end of this IP knowledge about climate resilience is organised in way it is easily accesible to professionals, politicians and citizens and is used for decision-making purposes. Reaching out to 582000 citizens and governors of 139 local authorities.
- More financial means, new financial constructions and new business models regarding investments in climate adaptation measures will have been developed and successfully demonstrated in several pilot projects. By the end of this IP decision making will take in to account social costs and benefits regarding climate risks.
- Effective actions will have reduced the effects of climate change and improved governance and network cooperation by stakeholders. By the end of this IP these actions are embedded in sectoral policies.
- A broader implementation of climate adaptation measures through complementary actions will have been accomplished. The number of complementary actions will be monitored. As a result, the four major barriers will have largely disappeared, thus successfully enabling an accelerated implementation of the NAS. By the end of this IP, all NAS sectors have an action plan
- A monitoring system will be in place that enables a clear overview of the progress of the adaptation policy, and its implementation and effectiveness across policy themes. By the end of this IP an elaborate monitoring system is in place that enables actors to assess output, outcome and impact of measures.
- Together with interested other member states a replication project and a region in which to replicate will be selected.

4.2 Linked to complementary actions (short and long term):
-The National Delta Fund will result in an acceleration and intensification of the implementation of climate adaptation measures by local and regional authorities.
-The NSP aims at guiding the transition in agriculture and to ensure that the sector becomes future-proof.
-The Climate Adaptation Implementation Programme Zuid-Nederland aims for all parties in the region to act in a 'climate-proof and water-resilient manner' so that the southern Netherlands will be climate resistant and water resilient in 2050.
-The Climate Adaptation Programme of the Province of Utrecht aims for a fully climate proof design of the province by 2050.
-Co-Adapt will: 1. directly decrease risk of flood & drought to 30,000 ha, leading to €5.4M of savings from reduced damages, and €5.8M of savings compared to using traditional hard engineering. 2. provide 12,370 properties with enhanced flood protection. 3. involve 3000 stakeholders in co-creation leading to changed public attitudes to water & climate risks, 80% of participants feeling involved. 4. Co-Adapt approach used by 50 organisations.
-C5a: 7 case studies, 2 sessions with EU DGs and a high-level policy learning group will be organised.
-SHELTER will deliver, through its 5 pilots/open labs, concrete tools and understandings of the effects of climate change hazards on cultural heritage.
-Resilio: Four pilot locations with social housing complexes will become smart neighbourhood networks and act as functional rainwater buffers covering 10.000m2. This will increase Amsterdam's rainwater resilience, by adding 5600m3 of water managed over a year without any damage. Empowering 1500 residents of all socioeconomic levels to engage through bottom-up and co-creation approach will advance resilient climate strategies and governance.

5. Expected contribution of the project to the implementation of the target plan/strategy
5.1 LIFE IP:
As there are many unknowns about climate change, such as the pace and magnitude of effects, it is not possible to plan everything in advance. It is a question of 'learning by doing' and this concept underpins the NAS (NAS reference: p. 40, 2nd par.). The role of MinI&W is coordinator (NAS reference: p. 40, 3rd par). With the NAS, the government invites local and provincial authorities, private sector companies, water authorities and societal organisations to contribute. The NAS has set out the roadmap. The government will initiate specific projects and programmes in order to increase awareness of the necessity of climate adaptation and encourages the implementation of climate adaptation. This approach also aligns well with the new EU Adaptation Strategy (adopted 24 February 2021) of a faster adaption and a systemic approach. Concretely, this IP contributes to faster implementation of measures, the accessibility of knowledge and tools (including further development of tools that support decision-making about concrete measures). Furthermmore, this IP contributes to a more systemic approach though addressing urgent

climate risks, embedding climate adaptation within policy and legislation and through monitoring the progress and effectiveness of the adaptation strategy.

With NL-NASCELLERATE, concrete implementation actions on Knowledge & Tools, Awareness & Sense of urgency, Governance & Integral approach and Business models & Finance will significantly accelerate the implementation of the NAS leading to a climate proof Netherlands in 2050. Furthermore this IP will contribute to improving the monitoring of climate change adaptation in the whole of the Netherlands and through the monitoring data will also contribute to an update of the NAS by 2027. For a visualization of the expected contribution of the LIFE IP actions and complementary actions to the implementation of the target plan/strategy (NAS), see Appendix 4:Form B1 part 5.

5.2 Complementary actions:

Where LIFE IP is mainly focussing on capacity building, complementary actions play an important part in bringing the strategy on climate adaptation towards concrete implementation and product development. Furthermore, for a successful implementation of the NAS, it is vital to incorporate international knowledge and best practices and to disseminate project results of the LIFE IP on an international scale. International projects also provide in sight into how capacity building is approached in other Member States and how Member States could best work together and learn from each other on climate adaptation themes. This international aspect is covered by the EU funded complementary actions.

In conclusion, the complementary actions all contribute to the knowledge base, will create increased awareness and sense of urgency, will develop innovative governance arrangements and apply an integrated approach, and will contribute to financing models. Therefore, complementary to the LIFE-IP, these projects will generate solutions to the barriers that hinder the implementation of the NAS, thus directly contributing to the implementation of the NAS.

***6.* Main stakeholders involved in the project:**

As we aim to organise NL-NASCELLERATE as a living lab, multi-level co-creation with all relevant stakeholders is a key prerequisite for success. Their involvement is necessary to move the acceleration process forward.

The main stakeholder groups involved in NL-NASCCELERATE are:

- National governmental bodies. Current NAS governance structures will be used to explore possible involvement of additional ministries in case of a positive evaluation of this proposal.
- Provinces. They have a role in the coordination and implementation of climate adaptation measures on a regional scale and translation of national policy to the regional and local level. Provinces are also responsible for the implementation of agriculture and nature conservation policy.
- Municipalities. They are responsible for local spatial planning and thus for implementing local climate change adaptation measures and activities.
- Water boards. They are legally responsible for water management and water quality at the regional level.
- Municipal Public Health Services and safety regions. Health services are legally responsible for public health at the regional level and advising municipalities, for instance on environmental health, infectious diseases and climate & health. Safety regions are legally responsible for regional safety, e.g. during crises. The health services and safety regions operate in close connection.
- Business and trade organisations, e.g., in the fields of agriculture, assurances, consultancy, housing associations, construction developers, architects, horticulture. In the NAS these types of organisations are expected to contribute their fair share towards the goal of a climate proof Netherlands in 2050.
- NGOs. These groups, whether they focus on nature conservation, neighbourhood development or health issues, are potential partners in awareness building on climate change adaptation and can serve as communication pathways to reaching a wider audience.
- Knowledge institutes. These are vital in generating and disseminating knowledge of climate change and related processes, and knowledge of effects of action and inaction.
- Citizens and civil society organisations. Climate change adaptation also relates to privately owned land by citizens (on average 60% in cities), for instance greening private gardens and rooftops to increase water and heat resilience. So, citizens are stakeholders with an opportunity to act and implement measures.

7. Long term sustainability (including capacity building)

Integration of NL-NASCCELERATE achievements in the Dutch climate change adaptation policy arena ensures sustainability of the project's results beyond the lifespan of the project. NL-NASCCELERATE will also significantly increase the capacity on climate change adaptation in partner organisations. During the project this is ensured through the LIFE-IP funding requirements regarding additional and permanent staff. After NL-NASCCELERATE, increased awareness and sense of urgency as objectives of LIFE-IP are prerequisites for continuation of efforts towards reaching a climate proof Netherlands in 2050, including maintenance and further expansion of capacity. NL-NASCCELERATE also aims to develop innovative financing mechanisms and business models, which will offer concrete perspectives for action to stakeholders, giving them easily accessible modes of actions that are applicable, realistic and have been proven to be effective. This will form the legacy of NL-NASCCELERATE.

Several actions will be continued after NL-NASCCELERATE. National, regional and local governments and other stakeholders will feel empowered by NL-NASCCELERATE and will continue to act in accordance with their role and responsibility. National government is committed to improve the monitoring of its own measures and measures executed by provinces, water boards and municipalities. The monitoring data will be used to update the NAS (at the latest by 2027). Of course concrete implementation actions will remain relevant to further strengthen climate resilience in the Netherlands. The evidence base for the structural approach towards climate adaptation measures that will be developed in NL-NASCCELERATE and will be used in the nationwide monitoring. This will stimulate future actions. Increased awareness, business models, knowledge and tools and novel governance concepts towards an integral approach will create an inviting environment for all stakeholders to initiate new demonstration projects, pilots and to apply best practices in a wider context. Furthermore, the ministries will continue to monitor the progress of the NAS and will stimulate and facilitate decentralised governments to act towards Netherlands climate proof in 2050. Finally, successes obtained by the active coordination with other related national, EU and international projects will pave the way for a continued exchange between related projects, actions and activities after NL-NASCELLERATE.

8. a) Is your project significantly climate related? **Yes** ☐ **No** ☐

b) Is your project significantly biodiversity-related? **Yes** ■ **No** ☐

If you consider your project to be significantly climate or biodiversity-related (you marked 'yes'), please explain why:

Actions of this LIFE-IP concern initiatives and measures that can contribute to the objectives of the EU Biodiversity Strategy to 2020, as well as the new EU Biodiversity Strategy for 2030. This includes establishing protected areas, restoring degraded ecosystems, bringing nature back to agricultural land, greening urban areas, and enabling transformative change with innovative governance arrangements. Urban and rural climate adaptation measures of the LIFE-IP actions will apply ecosystem and nature based solutions as a spatial design principle, i.e. Waternet (including the city of Amsterdam), Apeldoorn, Arnhem, Dordrecht, Groningen, SW Fryslan, Zwolle. This will positively contribute to biodiversity by creating new habitats and/or biodiversity stepping stones.

The concrete implementation action of RWS, aims towards ecosystem restoration in wet delta nature. This action will develop a Natura 2000 climate adaptive stress test, with which a climate adaptive management plan can be made. Measures to be implemented take place in all Dutch major waters.

The Ministry of Agriculture, Nature and Food quality drafts a climate adaptation action programme for nature, to stimulate nationwide the development of a regional approach towards climate resilient ecosystems in the Netherlands, and restoration of biodiversity.

GENERAL DESCRIPTION OF THE AREA(s) TARGETED BY THE PROJECT

Name(s)/Definition of the project area(s):
Concrete implementation actions on Knowledge and Tools (C1-actions) are being executed and implemented nationwide in the Netherlands.

Concrete implementation actions on Awareness & Sense of urgency (C2-actions) are being executed and implemented in the following, spread over the country:
- Municipality of Arnhem, in the east of the Netherlands near the German border
- Municipality of Apeldoorn, a medium sized city in the centre-east of the Netherlands close to De Hoge Veluwe National Parc
- Municipality of Groningen, in the north of the Netherlands
- Municipality of Amsterdam, largest city in the Netherlands
- Municipality of Rotterdam, the second largest city in the Netherlands
- Municipalities in the region of Southwest Utrecht: Bunnik, De Bilt, Houten, IJsselstein, Lopik, Montfoort, Nieuwegein, Oudewater, Stichtse Vecht, city of Utrecht, Utrechtse Heuvelrug, Wijk bij Duurstede, Woerden, Zeist

Concrete implementation actions on Governance & integral approach (C3-actions) are being executed and implemented in the following areas, spread over the country:
- Municipality of Gouda, in the west of the Netherlands
- The region north-east Brabant in the province of Noord-Brabant
- Municipality of Dordrecht, a municipality close to the city of Rotterdam, a flood prone area downstream in the Dutch delta
- in the centre of the Netherlands, country, in the municipalities Arnhem, Barneveld, Doesburg, Duiven, Ede, Lingewaard, Nijkerk, Overbetuwe, Renkum, Rheden, Rhenen, Rozendaal, Rijnwaarden, Scherpenzeel, Wageningen, Westervoort and Zevenaar
- The IJssel-Vecht delta, a broader area surrpunding the city of Zwolle in the Province of Overijssel where the rivers IJssel, the Vecht and smaller watercourses flow
- The municipalities of Amersfoort, Baarn, Barneveld, Ede, Eemnes, Leusden, Nijkerk, Renkum, Renswoude, Rhenen, Scherpenzeel, Soest, Veenendaal, Wageningen and Woudenberg
- The area of the province of Utrecht

Concrete implementation actions on Business models & Finances (C4-actions) are being executed and implemented nationwide in the rural areas of the Netherlands.
Specific project areas of the C4-actions are:
- South west Friesland, agricultural land as well as the built environment
- Areas of peat meadow lands scattered over the west and north part of the Netherlands

Comments:
The concrete implementation actions are spread over the whole country on different types of water and soil (eco)systems, to effectuate the most complete knowledge and stakeholder involvement. Concrete implementation actions are also spread over rural and urban areas in diverse sectors like water management, nature-based solutions in urban and rural areas, circular agriculture and health, to gain the broadest stakeholder involvement. This implies a variety of challenges to these different regions: droughts, flooding, heat stress.
Climate change affects the whole territory of the Netherlands. Despite the relatively small territory, there are regional differences, e.g. the coastal clay and peat zone in the west and the north and the sandy soils in the south and the eastern part of the Netherlands. As such, regional climate adaptation strategies have to be tailored to the specific geological, governmental and social context. The NAS covers the whole territory of the Netherlands. That is why the actions in the project also are distributed over the whole country. Overall, the LIFE IP targets are all relevant Dutch climate change adaptation issues with the actions that are defined.

MAPS OF THE GENERAL LOCATION OF THE PROJECT AREAS

Please indicate the scale of the maps

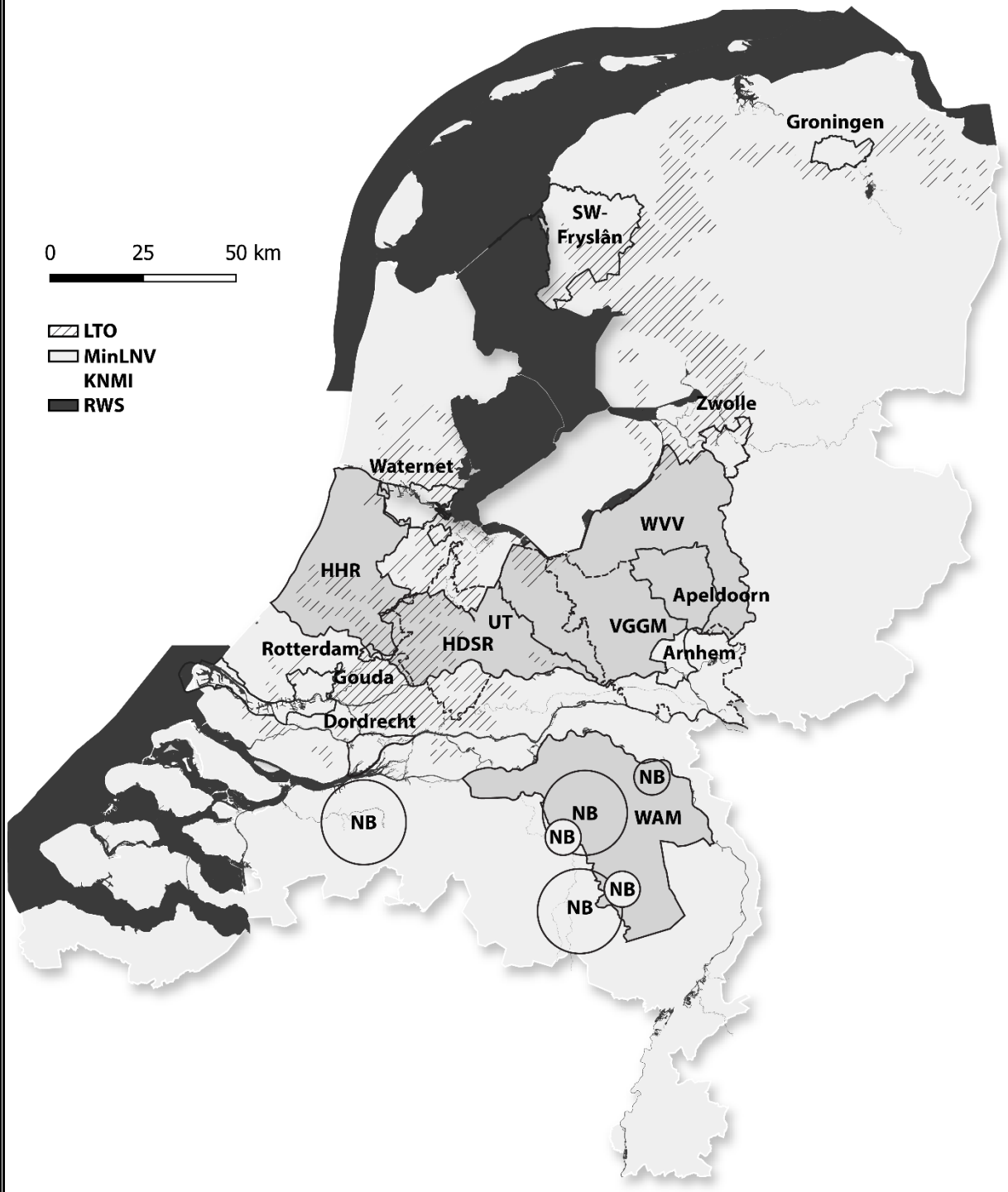
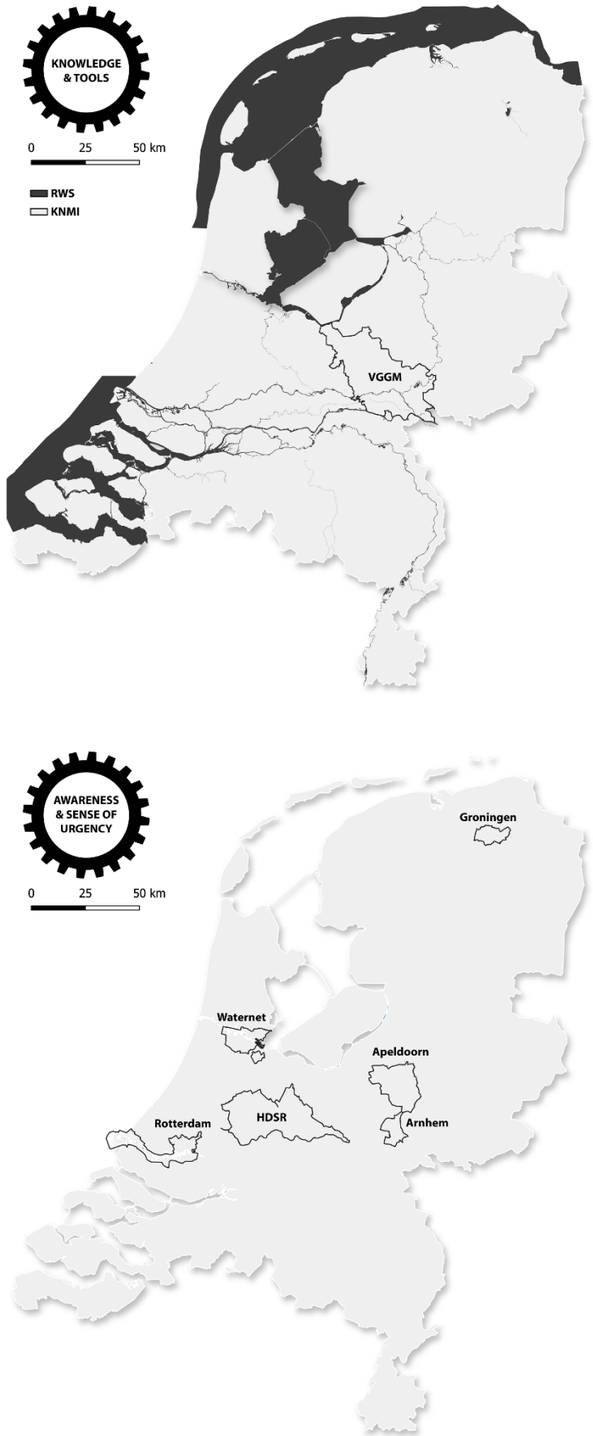
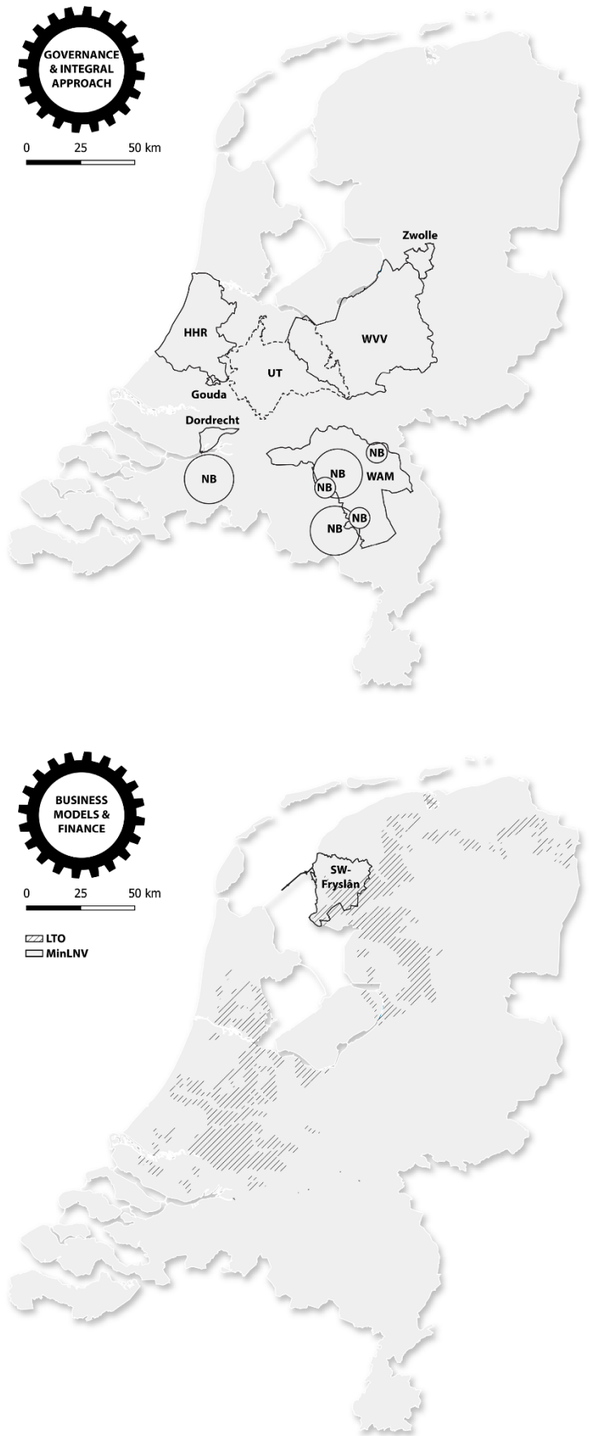


FIGURE B2b.1: GENERAL OVERVIEW OF CONCRETE IMPLEMENTATION ACTION AREAS C1-C4 IN THE REGION, see next page on A3 format


KNOWLEDGE & TOOLS
0 25 50 km
RWS
KNMI
VGGM


GOVERNANCE & INTEGRAL APPROACH
0 25 50 km
Zwolle
HHR
WVV
UT
Gouda
Dordrecht
NB
NB
NB
WAM
NB
NB
NB

AWARENESS & SENSE OF URGENCY
0 25 50 km
Groningen
Waternet
Apeldoorn
HDSR
Rotterdam
Arnhem

BUSINESS MODELS & FINANCE
0 25 50 km
LTO
MinLNV
SW-Fryslân

DESCRIPTION OF THE STRATEGY TO IMPLEMENT THE OVERALL PLAN

1. Short term (at least first 2.5 years):

In the first phase of the project, on the short term, preparatory actions will be executed and working groups and local implementation teams will be setup. Concrete actions will be initiated, demonstrations will be put into practice and tested, best practices will commence and novel approaches will be piloted. Communication in this phase will focus on the aims and implementation strategy of the project.

To draft this proposal, potential project participants from governments and other actors were invited to identify the major gaps that hinder the implementation of the NAS and to propose actions to solve these barriers. The proposals received aiming at solving these barriers were evaluated against the LIFE-IP criteria and successful proposals were invited to join the consortium. As a result, the project partnership consists of a mix of primarily governmental organisations enriched with the National Agricultural and Horticultural Organisation of the Netherlands. They participate in this LIFE-IP with solution oriented local, regional and national implementation actions. Concrete implementation actions are well distributed over the whole territory of the Netherlands, in urban as well as rural areas. The main Dutch climate change adaptation issues are addressed: water management, nature based solutions, circular agriculture and health. This generates also a broad spectrum of stakeholders involved and encompasses a variation of challenges to these different regions: droughts, flooding, and heat stress.
All actions are designed in such a way that they will also generate longer term effects (see next paragraph). Being front-runners, and because the actions were proposed by the partners themselves, they have the capacity to execute their actions or will organise the capacity needed. This bottom-up process resulted in a firm project partnership in which partners can meet and engage with peers with a similar action-oriented attitude, to be mutually encouraged in an upwards learning curve.

1.2 How actions solve the gaps as identified

Concrete implementation actions

Concrete implementation actions are grouped under the four operational interconnected objectives for NL-NASCCELERATE:
1. Knowledge & Tools: Multiple actions are oriented towards the development of accessible, understandable and up-to-date knowledge products and tools, made available through an easily accessible knowledge infrastructure aimed at sectors and actors that are responsible for climate adaptation policy, management and implementation of measures.
2. Awareness & Sense of urgency: Another group of actions focusses on increasing public, political and governmental awareness and sense of urgency on the need for climate change adaptation, e.g. by implementation of actions that aim at developing joint strategies, dialogues, agenda-setting, implementation and co-creation.
3. Governance & Integral approach: A third group of actions focuses on implementation of an integral approach towards climate change adaptation policy. In addition, governance approaches to support this will be developed and tested. This will enable multi-actor engagement in decision making on e.g. nature based solutions as well as health issues.
4. Finance & Business models: The last group of actions aims at implementing finance and business models for climate change adaptation measures within and across sectors and disciplines. An example is the development and testing of finance structures and business models that incorporate the multiple costs and benefits of climate adaptation measures by all stakeholders involved. This will enable the development of joint business cases, aiming at leveraging both public and private funding sources.
The current capacity of beneficiaries regarding all these objectives is still quite limited, since climate change adaptation is a novel policy area. The most experience and capacity is present on water related issues. Other climate adaptation aspects, such as health impacts of heat waves and the potential contribution of nature-based solutions to reduce health impacts, are still very poorly represented.

The actual full implementation of the NAS will happen through implementing complementary actions financed outside of NL-NASCCELERATE, using other available funding. An active coordination mechanism will facilitate and encourage the development of complementary actions in the course of the LIFE-IP lifetime and beyond, as part of the replication strategy that will be developed.

Complementary actions

The eight complementary funds and actions presented in B1, par 3.2. have been selected based on their expected contribution to the full implementation of the NAS and the actual mobilisation of the associated funds towards implementation of concrete measures. The LIFE-IP and complementary actions will contribute to solving the barriers by developing solutions that will:
1. increase the availability and accessibility of knowledge products and tools,

2. provide assistance and guidance for local and regional decision makers in their strategy, dialogues, agenda-setting, implementation and co-creation of climate adaptation measures,
3. enhance an integral approach towards climate change adaptation policy and providing governance approaches that support this, and
4. provide successful examples of new finance and business models towards implementation of climate adaptation measures that will enable the development of joint business cases aiming at leveraging both public and private funding sources.

Monitoring and evaluation

An important element of this LIFE IP is the monitoring of the project and evaluating the impact that it will have towards both the acceleration of the implementation of the NAS as well as reducing/removing identified barriers to this process. These actions aim at internal learning from the LIFE-IP actions. The monitoring and evaluation of the project impact is aligned along the four interconnected objectives identified for NL-NASCCELERATE, using the structure of the C-actions.

Dissemination, replication and capacity building

The focus of the communication and dissemination actions of this LIFE-IP is on collaborative, i.e. external learning. These actions will broaden the learning process by connecting it to network partners and audiences beyond this LIFE IP project. It aims to share, grow and create new knowledge together, creating multiple outcomes towards full implementation of the NAS in 2050.
Capacity building in the public sector is an important element in the NAS. For provincial and municipal authorities, climate adaptation is a relatively new area of attention. Major barriers are a lack of existing institutional, technical and practical background and the capacity necessary for a successful implementation of the NAS. It is important that all public sector authorities develop the necessary knowledge and resources, a cooperative attitude and skills towards approaching climate change adaptation in an integrated manner, and to create an inviting governance structure that is inclusive to all stakeholders. These are all relatively new elements in the current Dutch policy practice. Capacity building is necessary to achieve the goals of the NAS. The objectives of capacity building are shown in figure B2c.1.

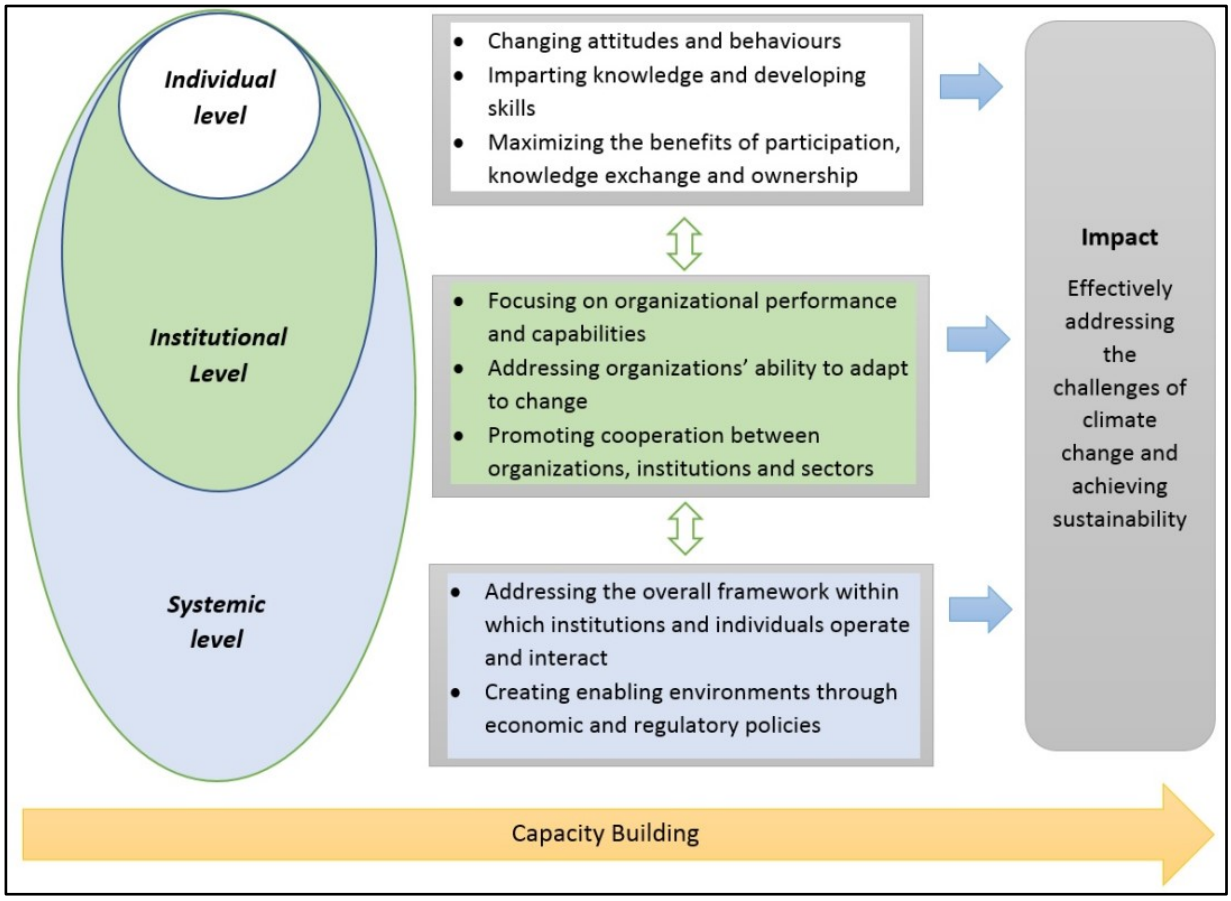


Figure B2c.1.: Capacity building in NL-NASCCELERATE

Theory of Change

In figure B2c.2 a so-called 'Theory of Change (ToC)' for the project is shown to visualize the relation between the LIFE-IP actions and how progress will develop to expected project outcomes and impact in a learning loop. (An A3 version of figure B2c.2 is found in appendix 1). With this ToC the long-term goals that the project aims to achieve (outcomes and impact) will provide perspective to any future

adjustments to the individual actions that will improve the effectiveness of the LIFE-IP, based on an internal learning process. The monitoring and evaluation results will serve as input for efforts to improve the project (in case it becomes clear that the required outcomes and impacts will not be met). On this topic we can distinguish three types of learning that help structure this approach: Single, Double and Triple Loop learning.
Single Loop Learning is focused on the question: are we doing things right? For example, using data which does not fit with the input for an activity might lead to an outcome that is not useful. This can be corrected by using the right data. However, the situation also might be that the data is correct, but that the outcome is not. If this is the case, we reach the level of Double Loop Learning: this is about the question: are we doing the right things? Here we start looking at the activity itself and how it can be improved to assure a better fitting outcome. Finally, there is also the possibility that both the activity and the outcome are correct, but the outcome itself is not considered appropriate for the (long-term) objective. In that case, we need to go one level higher again and start Triple Loop Learning: how do we decide what is right? In this stage, not the activity itself, but the reason why we are doing the activity itself is put to discussion. These three levels together will form 'feedback mechanisms' that allow the project to adjust itself to unforeseen events and to react to potential new developments. To this end, indicators or signposts/narratives will need to be used that signal whether an activity has the desired outcome, as well as whether the outcome is still fitting for the planned impact of the project.

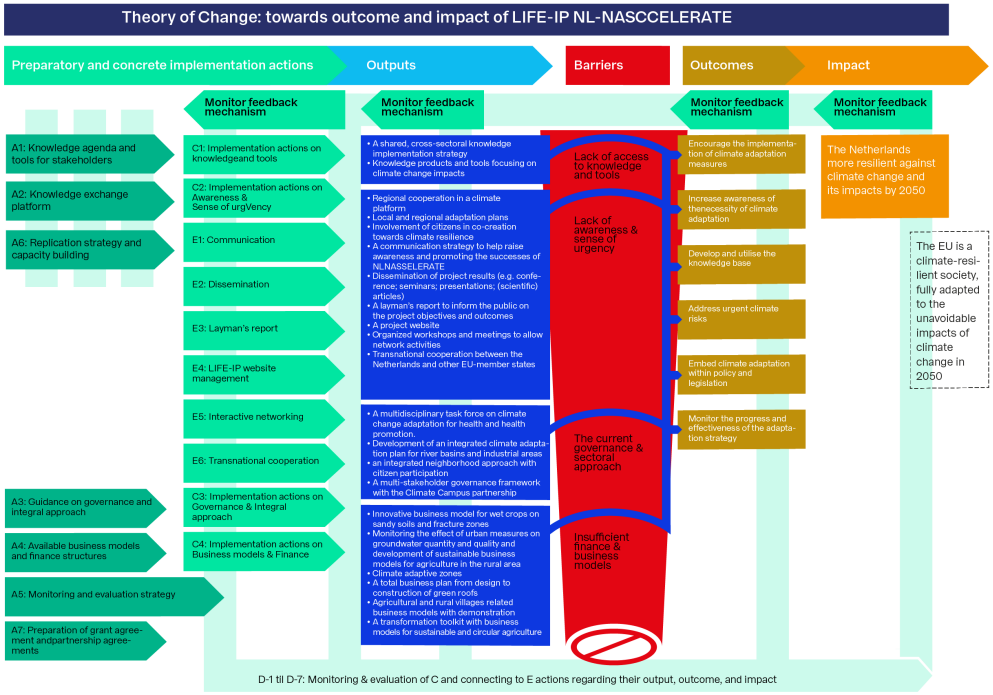


Figure B2c.2: Theory of change: towards outcome&impact of LIFE-IP NAS (see appendix 1, larger version)

2. Long term (beyond 2.5 years):
In the follow up phases of the LIFE-IP, on the long term, focus will develop from initial implementation and monitoring of concrete actions, to active communication about, and dissemination and demonstration of the outputs of NASCCELERATE. Replication will be prominently addressed, mobilising new complementary funds and further maximizing of the impact of the LIFE-IP towards full implementation of the NAS.
The overall transition that is needed to successfully achieve a more climate resilient Netherlands is a challenge that will require time. The long-term philosophy of the NAS is that this approach of learning by doing and participation of stakeholders from the beginning, will create an approach for decision-making at all levels that accounts for climate change adaptation in all relevant policies and the implementation of climate adaptation measures.

EU ADDED VALUE OF THE PROJECT AND ITS ACTIONS

Extent and quality of the contribution to the objectives of LIFE

EU strategy on adaptation to climate change

At the end of February 2021, the EC approved a new EU strategy for adaptation to climate change, that replaces the strategy of 2013. New elements of the 2021 strategy are, amongst others, a systemic approach, the ambition the accelerate implementation of measures and the sense of urgency to help countries outside the EU (for instance island states). The Dutch National Climate Adaptation Strategy 2016 (NAS) "Adapting with Ambition", sets out a general policy for tackling the effects of climate change and was aligned with the 2013 strategy. The NAS 2016 is the second NAS, the first one dates from 2007. The NAS 2016 aims at broad climate adaptation, and describes six climate impacts which are considered the most urgent to address in the Netherlands, next to water management which is covered in the Delta Programme. Partly in light of the new EU strategy on adaptation, NAS 2016 will be evaluated in 2021.

Contribution LIFE IP Proposal to the objectives of the NAS

The LIFE IP proposal aims to accelerate the implementation of the NAS 2016 and for relevant topics also aims to be aligned with the 2021 EU adaptation strategy. The LIFE IP proposal aims at full implementation of the NAS.

Contribution LIFE IP proposal to the EU LIFE programme

The current EU LIFE programme has four objectives:

1. To contribute to the shift towards a resource-efficient, low carbon and climate-resilient economy, to the protection and improvement of the quality of the environment and to halting and reversing biodiversity loss, including the support of the Natura 2000 network and tackling the degradation of ecosystems.

⇒ This LIFE IP proposal aims towards the full implementation of the NAS by removing the gaps of too little knowledge, incomplete sets of guidelines and the absence of a monitoring system. With the acceleration of the implementation of the NAS, climate adaptation measures will be faster implemented by the different stakeholders. In this proposal best practices and pilots will be implemented. The lessons learned will be disseminated. This will generate a flywheel effect. Success stories, guidelines and knowledge will move stakeholders to invest in climate adaptation policies and the actual implementation of climate adaptation measures to become a climate-resilient economy.

2. To improve the development, implementation and enforcement of Union environmental and climate policy and legislation, and to act as a catalyst for, and promote, the integration and mainstreaming of environmental and climate objectives into other Union policies and public and private sector practice, including by increasing the public and private sector's capacity.

⇒ This LIFE IP proposal implements the EU Adaptation Strategy of 2013 and aims at aligning with the new EU Adaptation Strategy of 2021. Four of the eight municipalities involved as associated beneficiaries in this LIFE-IP are signatories of the Covenant of Mayors for Climate and Energy: Apeldoorn, Arnhem, Groningen, and Rotterdam. LIFE-IP partner RWS signed up as covenant coordinator. This LIFE IP subsidy ensures capacity building at the beneficiaries. Because of the extra financial resources, more personnel can be assigned to climate adaptation policy. Climate change adaptation and energy transition involve adjustments of urban and rural areas that can be combined for optimal achievement of both transitions.

3. Support better environmental and climate governance at all levels, including better involvement of civil society, NGOs and local actors.

⇒ A number of projects are being piloted in this LIFE IP proposal to learn how the various stakeholders can be involved and how multi-actor engagement in decision making can be achieved. MinI&W organises a national climate summit every year. Different government levels, civil society organisations and the private sector visit this summit. National climate adaptation dialogues are an important element of the NAS. Such platforms have already started on health and heat stress, nature, insurance, built environment, and agriculture. Participants in the climate adaptation dialogues are banks, consultancy firms, organisations in the field of eco-labelling, ministries, provinces, water authorities, municipalities, state forest management, national parks, museums, the Netherlands Agriculture and Horticulture Organization (LTO).

4. Support the implementation of the 7th environmental action plan. The 7th environmental action plan identifies three key objectives:

a) To protect, conserve and enhance the Union's natural capital.

⇒ As described above national climate adaptation dialogues are an important element of the NAS. On 1 December 2019 the workgroup Nature published a report about the climate adaptation dialogues Nature. In this report the exercises, administrative dilemmas and elements for an action program are described. Climate change puts further pressure on ecosystems. The realisation of the objectives of Natura 2000 and the Birds and Habitats Directives through climate change becomes increasingly difficult. Additional measures are therefore needed. Nature can become more climate resilient by further strengthening the current nature.
b) To turn the Union into a resource-efficient, green, and competitive low-carbon economy.
⇒ In this LIFE IP proposal will be related to the energy transition and the transition to circular economy. The pilot of the Rijnland District Water Control Board promotes tackling soil subsidence in peat meadow areas with climate adaptation measures. This approach is impossible without the help of the dairy sector. In this pilot, circular agriculture is promoted at the same time.
c) To safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing.
⇒ The European Green Deal aims to improve the well-being of people. The goal is climate neutrality by 2050. The NAS contributes to a climate-proof Netherlands by launching new initiatives and accelerating and broadening existing ones by aiming at cross-overs between sectors and programmes. The NAS encourages Dutch governments, companies, knowledge and research institutions, civil society organisations and citizens to cope with the consequences of climate change and to combine measures with others issues such as sustainable energy and CO2 reduction. An important component of the strategy is connecting all parties and promoting a joint approach.

Extent and quality of the mobilisation of other funds
Coordination mechanism with other relevant funding mechanisms
This project includes strategic actions to catalyse a process and mobilise complementary commitments and funding that will lead, in due time, to the full implementation of the strategy , see actions E2, E3 and E4. The knowledge developed in this LIFE-IP will be disseminated and will lead to new complementary actions. MinI&W will coordinate the mobilisation of Union, national or private funding sources for these complementary actions.

Other EU funds mobilised and link with IP
The partners in this project have also applied for subsidies from other EU funds for complementary projects in the context of climate change. As a result, there is experience in applying for other European funds and they have a European network. For projects under the European Territorial Cooperation Programs, cross-border and territorial cooperation is required. The funds of Interreg 2 Seas, Interreg North Sea Region, Urban Innovative Actions and Horizon 2020 already have been mobilised for complementary actions.
The partners of this LIFE proposal are involved in the preparation of the new programs for the next European programming period. They lobby that funding resources will also become available for projects in the context of climate adaptation. They have quick access to the right people through ongoing subsidy projects for these programs, and as a result they will have quicker access to the funding resources of the new programming period.

Quality of multi-purpose mechanism, synergies and integration
In the NAS it is stated on page 31 that it is important to formulate the climate adaptation task more broadly. The consequences for nature, health and food, spatial design, cultural heritage, housing and urban transformation, for example, also require attention. Many potential crossovers were identified during the preparation of the NAS. These crossovers are also discussed in the adaptation dialogues.
Various concrete implementation actions have other benefits in addition to the climate adaptation benefit. Such as preserving cultural heritage and improving nature and strengthening the business climate. One of the concrete implementation actions is a project RWS. The aim of the project is to develop a Natura 2000 climate adaptive stress test, with which a climate adaptive management plan can be made. The concrete implementation action of NB concerns the development and realisation of an integral adaptation plan for three catchment areas of brooks and three business parks, as precursors for the rest of the region. The brook valleys and business parks form the first elements of a 'nested' approach to the adaptation tasks, in which measures at different scales reinforce each other.

Replicability and transferability
Replication strategy
MinI&W will develop a replication strategy to identify new opportunities for complementary actions and mobilise them, and to coordinate cooperation and exchange between NL-NASCCELERATE and the complementary actions. This will strengthen transfer of knowledge and expertise, within the Netherlands as well as to other Member States, thus contributing to replication. This replication strategy will include an evaluation, a capacity building and actions to keep the legacy available for interested stakeholders.
Networking
Networking is essential for a successful replication strategy. Action E.5 promotes replications and transfer of the demonstrated approaches in an (inter)national setting. By disseminating results through networking

activities, other European countries that run into the same governance related problems can benefit from the Dutch LIFE IP results and lessons learned.

Transnational, green procurement, uptake of research results:

Green public procurement

The Dutch government, together with regional and local authorities, wants to stimulate the market for sustainable products. Sustainable public procurement means focussing on the environmental and social impact of procurement as well as the price of the products, services or works in question. The Dutch government has developed criteria and practical instruments to implement Sustainable Procurement within the organisation. The website https://www.pianoo.nl/en/sustainable-public-procurement/spp-procurement-process provides support.

Furthermore, each beneficiary uses its own, internal rules regarding green procurement application. For instance, on a national level the ministries use sustainability criteria which encompass environmental and social aspects (e.g Manifest Maatschappelijk Verantwoord Inkopen, specific sectoral guidelines on sustainable procurement). In case additional criteria or ideas may be necessary, the EC Green Procurement Toolkit will be consulted as well. At the moment the LIFE IP Proposal starts MinI&W will organise a start meeting with the other beneficiaries. At this meeting the beneficiaries will be instructed on green public procurement.

Ecolabel

Under the EU Procurement Directives (2004/18/EC and Directive 2004/17/EC) ecolabels may be used in public procurement – both as a source for environmental criteria for specifications or the award phase, and as a form of verification. Procurers are not allowed to demand that a product carries an ecolabel; you may only indicate that the criteria underpinning a certain ecolabel are met, and that it may be used as one form of proof of compliance. At the start will be informed about the use of ecolabels and the use of ecolabels in green public procurement.

Uptake of results of EU Research and Innovation Programmes

Relevant projects funded under H2020 are HERA, Clarity 2020, RESCCUE, CLIMATE-FIT CITY, COACCH, MARCO-H2020 and BRIGAID. During the IP project, an inventory of existing research results and ongoing activities and a knowledge agenda will be developed (action A1). Over the project lifetime, the knowledge agenda will be updated as well. Recent research results will be taken into account whilst drafting and updating the knowledge agenda. Uptake of research will be promoted by developing a knowledge database with reference to the relevant research outcomes, that can be accessed by current and future stakeholders to be implemented by them. Furthermore, we will connect to the H2020 Climate-ADAPT initiative.

Transnational cooperation

The Netherlands is part of two macro-regional approaches, in which climate adaptation inter alia is addressed: the Benelux and the Wadden Sea Trilateral Cooperation to increase the climate resilience of the Wadden Sea.

Regarding cross-border nature issues, The Netherlands is involved in five Interreg projects with a focus on nature-based adaptation.

For the large rivers (Rhine, Meuse, Ems and Scheldt), international committees have existed for several decades.

In addition to networking, action E5 will deepen / strengthen the transfer of experiences, results and knowledge through transnational peer learning workshops. These peer learning – or capacity building workshops will be conducted with a narrow, focused group of organisations, selected from the European networks and projects.

BEST PRACTICE / INNOVATION / DEMONSTRATION CHARACTER OF THE PROJECT

The project has a multi-quality character, as the project covers best practices, demonstration activities and innovative actions. The type of character depends on the type of action. Within each category, one concrete example is illustrated.

Best practice:

- Guidance documents elaborated in the framework of action and management plans will summarize state-of-the art and cost effective practices towards climate change adaptation. This sharing of best practices will contribute to the dissemination and transferability of the IP results.
- The involvement of local partners in the implementation of management plans will ensure that the local socio-economic and cultural context is taken into account.
- In preparatory actions, existing best practises for combining climate change adaptation and other functions will be assessed and incorporated in the integrated governance approach.
- In the concrete actions, a set of best practises will be developed, to identify and match the correct stakeholders at a location in order to accelerate the implementation of climate adaptation measures in combination with other economic functions.
- Development of new tools (Concrete implementation actions (C). For example: The web based tooling developed by KNMI in order to improve accessibility to climate data at the local level.

Demonstration:

- Apply an integrated governance approach (Concrete implementation actions)
- Implementation of climate change adaptation measures (Concrete implementation actions). *For example:* The Municipality of Dordrecht will work on area development of the city centre creating 40% more green area.
- Set up of structured fora and processes for the consultation and involvement of stakeholders and other actors in preparation and implementation of climate change adaptation action programmes (preparation actions (A), Concrete implementation actions (C) and Monitoring (D)
- Methodology and results of assessment of impact on climate change adaptation and impact on socio- economic activities by existing measures and legal framework for climate change adaptation
- (communication and dissemination actions (E)

Pilot (innovation):

- Development of a governance assessment model and an integrated governance approach (Preparation actions (A).
- Involvement and empowerment of local stakeholders entrusted with implementation of climate adaptation implementation plans and measures (Concrete implementation actions (C).
- Development of approaches for creating awareness and business models for climate adaptation (C). For example: LTO will develop adaptive business models for agricultural entrepreneurs.
- Development of an agenda for necessary tools and guidance (Preparation actions: A1).

STAKEHOLDERS INVOLVED IN THE PROJECT

As we aim to organise NL-NASCELLERATE as a living lab, multi-level co-creation with all relevant stakeholders is a key prerequisite for success. Their involvement is necessary to move the acceleration process forward.

The following main stakeholder categories have been identified. In the main stakeholder groups, one or more organisations participate in the project as beneficiary and operate as representative of the stakeholder group in the project. In this way, dissemination of the project results as well as capacity building within the stakeholder groups is stimulated. The project activities each stakeholder group is involved in, is explained in detail in Chapter C.
In B5, the focus is to present a list of the categories of stakeholders including an explanation on the platforms/networks enabling the exchange of knowledge between the project beneficiaries and the stakeholders. The main stakeholder groups involved in NL-NASCCELERATE are:

A) National governmental bodies
In this IP, three national government organisations (and in addition two executive governmental organisations) participate as beneficiaries. They represent the main sectors where climate adaptation measures need to be implemented: water management, infrastructure, agriculture, nature and health. Current NAS governance structures will be used to explore possible involvement of additional ministries in case of a positive evaluation of this proposal. This will broaden implementation of the NAS into other sectors, i.e. spatial planning, housing, social affairs, economics, climate mitigation, etc. We expect these additional ministries to consider climate change adaptation as an issue in their policy, and to design effective measures within the sectors they represent. The LIFE-IP will considerably contribute to capacity building within these organisations.
Multiple opportunities exist to make sure that experience and knowledge is exchanged between national governmental bodies. For example, MinlenW ensures good coordination between the NAS and other programs, including the Deltaprogramme (included as complementary action in this IP). The progress of the implementation of the NAS is coordinated in a manager consultation in which different ministries participate. This consultation takes place at least three times a year and is chaired by MinlenW. As a stakeholder group, national governments have a steering, stimulating role in the implementation of the NAS.
B) Provinces
Provinces have a role in the coordination and implementation of climate adaptation measures on a regional scale and translation of national policy to the regional and local level. Provinces are also responsible for the implementation of agriculture and nature conservation policy. The provinces are organised in the Association of Provinces of The Netherlands (Interprovinciaal Overleg; IPO), representing the provinces at national and European policy level. IPO organises platforms for innovation and knowledge exchange. These platforms enable provinces involved as associated beneficiaries in the project to exchange best practices and innovations in provincial policy, thus enhancing capacity building on climate change adaptation in the other provinces of the Netherlands. As a stakeholder group, provinces can steer climate adaptation policies on a regional level, providing the project with efficient access to the relevant regional actors and regional experience.

C) Municipalities
Municipalities are responsible for local spatial planning and thus for implementing local climate change adaptation measures and activities. The municipalities participating as associated beneficiaries in the project have multiple platforms in which they exchange knowledge and experience with municipalities outside the IP. For example, the 'Vereniging van Nederlandse Gemeenten' (VNG) is a membership association that represents the municipalities at political level in The Hague and Brussels, and provides services and support to its members. Some of the municipalities participating in this IP are also member of the KANS network (climate change adaptation Dutch cities). Through the KANS network a specific target group of municipalities (midsized cities) can be reached. This contributes to capacity building on climate change adaptation measures and policy in multiple municipalities not directly involved in this LIFE-IP.
Municipalities put climate adaptation policies in practice, therefore adding important value to the IP, as experience at the local level is vital to achieving effective implementation of the NAS.
D) Regional water authorities/water boards

Water boards are legally responsible for water management and water quality at the regional level.. At national level, the 'Unie van Waterschappen' (Dutch Water Authorities) acts as a service provider for the water boards and as their official representative at national policy level. This platform will be used by the regional water authorities that are partners in this LIFE-IP to share their experience and lessons learned with the other water authorities, thus contributing to capacity building in other regional water authorities.

Just like municipalities, water authorities form an essential stakeholder group because they implement policies on a local level. Water authorities have a unique expertise regarding water safety, water quality and water quantity, which is important to the project.

E) Municipal Public Health Services and safety regions

Municipal Public Health Services (GGDs) are legally responsible for public health at the regional level and advising municipalities, for instance on environmental health, infectious diseases and climate & health. In this IP, VGGM acts as a representative of the GGDs. All health services are connected within GGD GHOR, the umbrella organization for the 25 Municipal Health Services and Regional Medical Assistance Organizations (GHOR), working on strengthening public health and safety in the Netherlands. The organisation is also the connecting link with knowledge institutes, ministries and other important partners.

Safety Regions are legally responsible for regional safety, e.g., during crises. The Safety Regions consist of a cooperation in which various authorities and services work together to carry out tasks on disaster and crisis management, medical assistance, public order and safety. woFor example, in the regional network on climate adaptation Netwerk Water & Klimaat, the safety region of Utrecht works closely together with Provinces, municipalities and water boards (thi.e associated beneficiaries in this IP), enabling the exchange of knowledge and capacity building. But also do municipal public health services and safety regions operate in close collaboration.

F) Business and trade organisations

e.g., in the fields of agriculture, assurances, consultancy, housing associations, construction developers, architects, horticulture. In the NAS these types of organisations are expected to contribute their fair share towards the goal of a climate proof Netherlands in 2050. In this LIFE-IP, the agricultural and horticultural organisation (LTO) is involved, representing farmers in the Netherlands. The associated beneficiaries will involve many of these business and trade related stakeholders in their concrete implementation actions. By their involvement in local and regional projects, these parties can be inspired and motivated and this could lead to the mobilisation of more private initiatives and private funding to further encourage demonstrations, pilots and best practices for implementing the NAS.

G) NGOs

This stakeholder group, whether they focus on nature conservation, neighbourhood development or health issues, are valuable partners in awareness building on climate change adaptation and can serve as communication pathways to reaching a wider audience. Although they are not funding partners in this IP, they are regarded as an important stakeholder group in the project's communication and dissemination strategy. It is important that NGO's are reached by project's communication, providing them with knowledge and tools to stimulate the capacity building of NGO's and to support the raising of awareness on climate adaptation.

H) Knowledge institutes

Knowledge institutes are vital in generating and disseminating knowledge of climate change and related processes, and knowledge of effects of action and inaction. In this IP, knowledge institutes were involved in the drafting of the proposal and will remain closely involved in the project implementation, making sure that knowledge from scientific and research institutes is integrated during the project implementation and knowledge gained by the project can be exchanged with knowledge institutes. The main Dutch knowledge institutes are involved in the implementation of the NAS, outside this LIFE-IP.

I) Citizens and civil society organisations

Climate change adaptation also relates to privately owned land by citizens (on average 60% in cities), for instance greening private gardens and rooftops to increase water and heat resilience. So, citizens are stakeholders with an opportunity to act and implement measures. They are invited in many of the concrete implementation actions to participate in the development of local and regional actions that implement measures for climate change adaptation.

CONTINUATION / VALORISATION AND LONG TERM SUSTAINABILITY AFTER THE END OF THE PROJECT

How will you ensure the long term implementation of the plan and beyond?

The IP has been developed and will be executed by beneficiaries in charge of climate change adaptation implementation, supported by relevant local, regional and national stakeholders. Project activities are defined by these beneficiaries themselves with a high level of ownership and based on experience. Key is that an integrated governance approach will be developed as part of the LIFE IP. This governance approach will be embedded in procedures and programmes, to be structurally applied in further development and implementation of climate change adaptation measures to ensure that conflicting interests do not hamper achieving its results.

Additionally, the developed knowledge and tools, increased awareness and sense of urgency, and demonstrations of business models and financing of climate change adaptation actions, will further stimulate the long term implementation of the NAS. Intermediate results of the LIFE IP will be used as input to develop NAS executive programmes (every 2 years) as well as in the preparation of the NAS revision foreseen for 2027. The project is linked to the Delta Programme that will continue at least until 2050 (as defined by Dutch law). Experiences, guidelines and best practise examples will be shared with other stakeholders and existing networks will be strengthened or newly developed. Capacity building will be made a part of the dissemination strategy in order to guarantee maximal impact of the project after its end.

The IP will catalyse a process towards full implementation of the NAS. Climate change adaptation will be integrated in the daily work of the authorities responsible for the further implementation of the NAS programme on the long term. Capacity will be built within these organisations that will further contribute to increased actions towards achieving the goals of the NAS.

Capacity will also be increased beyond the beneficiaries, through the future complementary actions. This expected increase in capacity at authorities as well as other stakeholders will enable the development of short-, medium and long-term strategies for climate change adaptation at all levels.

Which actions will have to be carried out or continued after the end of the project?

- Continuing the raising of the urgency of climate adaptation strategies and integration of climate adaptation strategies into the work plans of the relevant authorities, which includes cooperation with actors and stakeholders.
- Maintain and strengthen networks and collaborations.
- Exchange of information, best practices, guidelines through national and international platforms.
- Continued cooperation with stakeholders through capacity building, exchange of information and experiences, financial and technical support.
- Mobilisation of resources from own budget allocations towards implementation of NAS.
- Continued search for complementary funding from national, regional and EU financing programmes, supported by other private or public funds.
- Furthermore, active implementation of climate adaptation measures to strengthen actual climate resilience.

How will this be achieved? What resources will be necessary to carry out these actions and how will those capacities be ensured?

The approach of the NAS and this LIFE-IP towards joint action of all organisations involved in a common approach towards climate change adaptation, coordinated by MinI&W. Governance assessment models, the integrated governance approach and tools developed within the project will be made publicly available. Partners will continue to co-operate with each other and other stakeholders and also contribute to active dissemination of results and to full implementation of the NAS. Necessary resources will primarily consist of staff and budget for investments within all organisations involved in achieving the goals of the NAS. These capacities will be ensured by the approach of this IP. This will result in a continued joint investment in policy, research and the practical measures needed to prepare the Netherlands to counter the negative effects of climate change.

Will the staff recruited/trained during the project continue to work on the implementation of the plan?

At this stage it is not possible to give guarantees that staff recruited or trained during the project will continue to work on the further implementation of the plan. However, beneficiaries intend that permanent and/or additionally recruited staff trained during the IP will continue working on climate change adaptation. Even if staff move to other organisations, it is a reasonable assumption that they will stay in the same field of work, as climate change adaptation will become an even more important issue for the upcoming years, and they have increased their skills. In this way, further dissemination of the NAS as further developed within LIFE IP is even strengthened.

How, where and by whom will the equipment acquired be used after the end of the project? (if relevant)

All the equipment will remain at the offices of the beneficiary which acquired it and will be put to further use in future climate adaptation programmes.

To what extent will the results and lessons of the project be actively disseminated after the end of the project to those persons and/or organisations that could best make use of them (please identify these persons/organisations)?

Project coordinator MinI&W will actively continue with disseminating the outcomes of the NAS and the Delta Programme. Beneficiaries intend to maximize active dissemination to relevant stakeholders, as active uptake of the results and catalysing new developments is ultimately the objective of the LIFE IP. In that regard, beneficiaries will:

- Identify stakeholder groups that should remain involved / need to be informed (and why).
- Use the communication means developed such as websites, newsletters and social media on every event related to climate change adaptation – internally within all relevant administrations and organisations involved and externally within all stakeholder groups.
- Maintain and strengthen existing networks and where needed start new networks.
- Ensure communication by all beneficiaries through their own communication platforms and means.
- Take the opportunity of relevant EU meetings for communication about the project.
- Continuation of contribution to relevant platforms such as H2020 climate adapt.
- Communicate through the websites of each of the beneficiaries and through the IP Website that will be kept active for as long as the NAS is implemented and relevant updates on implementation of the NAS are foreseen.
- Make sure that stakeholder groups continue to implement measures as site managers and at the same time ensure further dissemination of lessons learned and knowledge acquired during the project.
- Make references and links in related brochures on climate change adaptation in each of the regions and brochures of the beneficiaries and related stakeholders involved.

DETAILS OF PROPOSED ACTIONS

A. Preparatory actions (elaboration of management/action plans, obtaining licences and permits, trainings, etc.)

ACTION A.1: Agenda for necessary tools and guidance for stakeholders

Beneficiary responsible for implementation
MinI&W in collaboration with MinVWS

Description (what, how, where, when)
NAS reference: NAS2016, paragraph 4.3, page 34

What
This action will develop an agenda that identifies the needs of stakeholders regarding practical knowledge (tools, measures, methods and guidance) to realise climate change resilience. Existing knowledge about climate change adaption is already broad and includes fundamental and applied research outcomes as well as numerous implementation tools, concepts, methods and techniques, i.e. the climate effect atlas. Also, some best practices are available and recorded in success stories. However, stakeholders still experience large gaps in available knowledge, tools and guidance.

In this action, we will make an inventory of the knowledge needs of stakeholders in climate change adaptation. This action prepares primarily for actions D1 on monitoring and evaluation of Knowledge & Tools, and E1 and E3 on communication and dissemination of LIFE-IP results, tailored to the specific stakeholder needs and will create an impulse towards replication beyond the partners that participate in this LIFE IP. For knowledge needs that cannot be met with existing knowledge this action prepares also for the update of the NAS2016 which is planned in 2022. With this update, the development of new knowledge can be initiated. The agenda that results from this preparatory action will also be used in action E to initiate new joint knowledge development initiatives financed from other sources than LIFE IP.

How
The knowledge agenda will result from a joint process organised by the knowledge team in which all beneficiaries will be invited to participate. Several steps will lead to the realization of the knowledge agenda are as follows. First an overview will be given of existing knowledge needs, existing knowledge and knowledge gaps. This overview will be made per stakeholder group and will be based on current knowledge agendas such as European (e.g. H2020, LIFE, Interreg, JPI), and national ones (among others the Delta programme, the Delta Programme Spatial Adaptation and the National Science Agenda (NWA) coordinated by the Netherlands Organisation for Scientific Research (NWO) and the Knowledge agenda on Climate change and Health (ZonMw, a public fund for health research in the Netherlands)). In addition, regional knowledge agendas and similar initiatives will be used as well. This inventory forms the pre-baseline on knowledge needs. Second, in stakeholder workshops, stakeholders will reflect on and further enrich the results of this inventory to further substantiate the knowledge agenda. This requires a thorough stakeholder analysis and balanced selection of methodologies in the design of the workshop. The workshop programme needs to be developed towards achieving the main goals. Additionally, the workshops need practical organisation: mailing list, location rental, invitations, registration of participants, catering, facilitation. This action will conclude with evaluation, analysis and structuring of the input of the stakeholders and reporting towards a knowledge agenda that will form the baseline on knowledge needs for this LIFE-IP. This action will be supported by external specialists.

Where
The workshop will be organised at a central location in the Netherlands or will be held online in case of COVID-19 restrictions. The action itself will be documented on the internet using the LIFE-IP website through Action E4.

When
This action will run in 2022.

Reasons why this action is necessary
This action forms a necessary preparation for action D1 on the monitoring and evaluation of the concrete implementation actions on Knowledge & Tools of C1. Action A1 will develop the baseline that will inform action D1 on the stakeholder needs regarding Knowledge & Tools. This will provide the context for evaluating the C1 actions. It will also provide information to be used in D1 monitoring and evaluation to be able to monitor progress. Finally, it will be used to develop and execute facilitation mechanisms towards replication and the creation of new complementary actions in action E3 on dissemination.

Constraints and assumptions:

Constraints
- Owners of knowledge, information and data may not want to share them because they expect negative repercussions or have private interests (intellectual property rights ownership). This can be counteracted by keeping the discussions and information exchange at a general level.
- Stakeholders may not respond to the invitation to the workshop. From previous experiences we expect enough responses.

Assumption
- It is assumed that we will reach an adequate representation of stakeholders in the workshop. This will lead to a knowledge agenda that will reflect stakeholder needs.

Expected results (quantitative information when possible)
- The result will be the agenda: a stakeholder driven inventory of stakeholder needs that will guide the further development of knowledge products and tools in this LIFE-IP and beyond.

Deliverables
31/12/2022 Knowledge agenda

Milestones
31/10/2022 Stakeholder workshops executed

Action A.2: Development of a LIFE IP NL-NASCCELERATE exchange platform

Beneficiary responsible for implementation:

MinI&W

Description (what, how, where and when)
NAS reference: NAS2016, paragraph 4.2a, page 31

What
Since its release in 2014, commissioned by MinI&W, the Knowledge Portal for Spatial Adaptation (https://klimaatadaptatienederland.nl/en/) has evolved to become the central web platform for climate adaptation in the Netherlands, supporting regional and local adaptation efforts. With tools, a library, practical examples, an overview of policy and programmes and latest news, the national platform attracts more than 500 unique visitors per day. The NAS programme also resides within the national platform. The LIFE IP NL-NASCCELERATE exchange platform will be integrated into the existing national platform. The goal is to generate a coordinated website infrastructure on climate change adaptation implementation, from the Dutch local to the national scale. Also dedicated information in English will be made available, aimed at further upscaling, replication and capacity building outside the Netherlands. The knowledge portal will present local scale examples of good climate adaptation practices and will give guidance on how to implement these practices elsewhere.

How
It is necessary to connect the LIFE-IP actions to the national knowledge exchange platform and related infrastructure (e.g. social media) on climate change adaptation of which NAS is part. Integration of the LIFE-IP NL-NASCCELERATE platform into the national platform goes beyond devoting a dedicated webpage or section. Also, smart links will be established, to enhance the desired cross-fertilisation and capacity building with the wider climate change adaptation community. A first list of requirements for the exchange platform will be set-up by MinI&W. A short online inventory (survey) among the partners will enrich the list of requirements to include their needs. The list of requirements forms the basis for one or two meetings with the existing team working on the NAS platform as part of the national knowledge platform (external party) and the LIFE-IP Coordination Team. In these meetings the teams will discuss what options are available on the existing platform to present information (webpages, forum, maps, etc.) and how to make the LIFE IP NL-NASCCELERATE exchange platform nationally available and known. The available options will be considered by the LIFE-IP Coordination Team and a decision will be made on what options will be put into action. MinI&W will then provide the input that is necessary for the external party to create the web-infrastructure for the exchange platform. Two intermediate meetings will make sure implementation is done accordingly.

Where
The platform will be an online platform accessible through a website on the internet, and fully integrated into the existing national platform, of which NAS is also part (https://klimaatadaptatienederland.nl/en/). The action will prepare for Action E4 LIFE-IP website management. Meetings will be held in a central location in the Netherlands.

When
The website infrastructure of the LIFE-IP NL-NASCCELERATE exchange platform will be set up in 2022. A first ‘landing page’ will be established in the first months of the project, together with social media exposure through the national channels.

Reasons why this action is necessary
The facilitation of a successful replication towards other stakeholders in the Netherlands and in the EU requires a central knowledge exchange platform. This action contributes to structuring and centralizing project results that will be primarily communicated and disseminated though multiple local and regional websites. It will a central entry to find climate change adaptation information that serves their local issues. The platform will serve as a reference in Action C2 on awareness & sense of urgency. It will also contribute to Action D2, as a platform to communicate and disseminate on the results of monitoring and evaluation of the concrete implementation actions. This action further attributes to Actions E1, E2, E4, E5, F2 and F3.

Constraints and assumptions:
Constraints
Creating and promoting one central entry for information on climate change adaptation initiatives and projects, knowledge and tools, experiences and best practices, requires that users will find it and use it. It is therefore necessary to promote the existence of this platform. Additionally, the platform should present up-to-date information and the right links and contacts to exchange knowledge. Because the platform will be added to already existing website infrastructure, it is not expected that setting up the website will be a major constraint.

Assumptions
We assume that aligning the LIFE-IP website to the existing NAS website is the best solution towards successful communication and dissemination. The Dutch national platform on climate adaptation was ranked among the best in an international workshop on climate adaptation platforms in Dublin in October 2019.

Expected results (quantitative information when possible)
Integrated online knowledge exchange platform as part of NAS website.

Deliverables:
- 01/04/2022 A first landing page to introduce LIFE-IP NL-NASCCELERATE as part of the existing Knowledge Portal for Spatial Adaptation
- 31/12/2022 A mature website infrastructure for LIFE-IP NL-NASCCELERATE integrated in the existing Knowledge Portal for Spatial Adaptation

Milestones:
- 31/3/2022 Assignment to external party to design the web infrastructure, integrated in the existing Knowledge Portal for Spatial Adaptation.

ACTION A.3: Guidance on governance and integral approach: success stories and good examples towards climate change adaptation policy

Beneficiary responsible for implementation
MinI&W in collaboration with MinLNV, MinVWS, NB and UT

Description (what, how, where and when)
NAS reference: NAS2016, chapter 5, page 39

What
Networks have been widely recognized by both scholars and practitioners as an important form of multi-level governance. The advantages of network coordination across both public and private sectors are considerable, including enhanced learning, more efficient use of resources, increased capacity building to plan for and address complex problems, greater competitiveness, and better services. Success stories of well-functioning network approaches also serve as best practices that can be disseminated through this IP.

Although the effects of climate change have cross-sectoral impacts, climate adaptation policy is generally not integrated or cross-sectoral. Therefore, it is essential for regional and local governments to use an integral approach and mobilize different sectors to participate in risk and impact dialogues, but also to stimulate interaction, co-creation and new initiatives. Networks of relevant actors may strengthen a joint feeling of urgency and therefore work on capacity building but will also strengthen the joint ambition to find solutions that are broadly supported by all stakeholders involved.

Expertise on governance and integral approach is already available within partners of this LIFE-IP. This action will deliver an inventory of success stories and examples of innovative approaches to decision making in a context of integrated approach towards climate change adaptation. This inventory will be used as a source of inspiration in the Actions C3 and E3.

How

The MinI&W and MinVWS will develop the guidance on governance and integral approach together with MinLNV and NB and UT.

An online survey for distribution on a national scale will be developed. This survey will make an inventory of available experiences with governance and integral approach. Questions in this survey will focus on retrieving success stories and good examples of climate change adaptation approaches that aimed at integral decision-making including capacity building. The survey will be spread amongst local authorities (municipalities), provinces, water authorities and other associated partners. Distribution of the survey will take place through existing contacts of partners and newsletters (like the NAS newsletter). More in-depth questions will be asked to the NASCCELERATE partners. This will be combined with existing partner meetings within the project.

Lessons for an integral approach to climate change adaptation can be learned from already established networks. Partners of the LIFE-IP NASCCELERATE project that are already linked to networks will be specifically asked for their experience with working with an integral approach. Two examples of established networks included in the project are:

1. KANS Network (Municipalities Breda, Apeldoorn, Arnhem, Dordrecht, Groningen): KANS network is an informal network of around 15 medium sized cities (between 100,000 and 350,000 inhabitants), that work together in the field of climate change adaptation.
2. Stichting Climate Campus (Municipality Zwolle): Climate Campus is a regional knowledge and innovation hub of over 40 public and private organisations, that aims at implementing their regional adaptation strategy in local projects.

The results from the survey and in-depth questions will result in a guidance document on governance and integral approach.

The guidance document will build on earlier knowledge and experience and application of governance assessment. It will pay attention to five dimensions (levels and scales; actors and networks; goals and problem perceptions; strategies and instruments; and responsibilities and resources) and four criteria (extent, coherence, flexibility, intensity) of governance. Based on these dimensions and criteria, evaluative questions will be drafted. This will lead to (preliminary) answers on the following main governance questions:

- How do you create new opportunities for effective implementation through establishing connectivity between the different sectors?
- What does this require from the governance of climate change adaptation, for both national, regional and local scale and public and private partners? For example, what are the possible consequences for policy development at the national level?

Where

The survey will be held nationwide, and in-depth questions will be asked during project meetings, centrally in The Hague or Utrecht.

When

The guidance document as a result of the survey and in-depth questions on governance and integral approach will be set up in 2022. Action C3 will serve as a direct testcase for the document during the following years, and it will be further used in actions E1 and E3.

Reasons why this action is necessary
Increasing complexity, dynamics and fragmentation is a trend for society as a whole. Complexity and fragmentation in climate adaptation governance can be seen in for instance the diversity of related yet sectoral tasks; a multitude of involved actors, frames and discourses; fragmented responsibilities; changing role definitions and assignments; and dispersed knowledge and knowledge owners. It is impossible to carry out a project that sets out to address the barriers of NAS implementation without assessing the governance conditions that contribute to these barriers.

Knowing what causes the fragmentation and what can be done to overcome these factors with examples of good integral approaches is of vital importance in being able to successfully execute this LIFE-IP project. This action will prepare C3-actions to apply state-of-the-art methodologies to overcome the barriers the NAS addresses.

Constraints and assumptions
Constraints
Integral approach is a complex approach where many interests play a role and all organisations involved want to have a say. A guidance document might presume to be the solution to these issues, but partners might still want to follow their own methods and paths. It is key that all partners experience ownership of this guidance document. We aim to achieve this by involving the partners in the survey and the in-depth interviews.

Assumptions
A lot of knowledge and experience about barriers exists, yet often remains tacit and implicit. It is assumed that using surveys and in-depth questions to experienced partners will tap into this tacit knowledge and experience. Previous experience demonstrated that through asking the right questions a lot of information can be uncovered and can help organisations to become aware of their position and the effects of their actions. Furthermore, we assume that all stakeholders involved, on a national and local level, will actively take part in the assessments and are open to their recommendations.

Expected results (quantitative information when possible)
- One guidance document on successful acceleration and upscaling of local climate adaptation initiatives.

Deliverables
31/12/2022 Guidance document on governance and integral approach: success stories and good examples towards climate change adaptation policy

Milestones
01/06/2022 Start of online survey on governance and integral approach
01/10/2022 In-depth questions on governance and integral approach completed

ACTION A.4: Available business models and finance structures towards joint funding of concrete climate adaptation measures

Beneficiary responsible for implementation
MinI&W in collaboration with MinLNV

Description (what, how, where and when)
NAS reference: NAS2016, chapter 5, page 39

What
To be able to address a long-term challenge such as climate change across sectors, adequate ways of financing climate adaptation measures or strategies are essential. Given all the other major challenges ahead (among others energy transition, circular economy, ageing population) that also compete for financing, it is important to find solutions and new business models that maximize synergies between sectors. Network financing of nature-based solutions may connect the socio-economic system (including health, infrastructure, etc.) to the ecological system. Approaches in rural as well as urban areas will be explored. Action A4 will produce an inventory on what types of business models and financial structures and incentives towards (joint) funding of concrete climate adaptation measures are available. Next to more complex financing structures (network financing), also basic cost estimates for easy-to-implement measures by citizens will contribute towards local action.

How
Expertise from external parties will be used to create a state-of-the-art inventory on available business models and innovative financing structures. This will prepare the C3-actions. It will also contribute towards replication. An assignment will be prepared containing a description of work and planning of actions, i.e. a kick-off meeting, an interim report and joint analysis, delivery of the final report. Following the public procurement regulations, a party will be selected to execute this task. The results will be presented in a report on the state-of-the-art knowledge on available business models and finance structures and incentives towards (joint) funding of concrete climate adaptation measures.

Where
Meetings will take place centrally in The Hague or Utrecht.

When
The work for Action A4 will be done in 2022.

Reasons why this action is necessary
Financing climate change adaptation measures (from large scale spatial interventions down to measures at residents' homes) is often problematic and the development of collaborative financing schemes and capacity building about financing options is necessary to achieve the targets of the NAS. This action will serve as input to C4-Actions.

Constraints and assumptions
Constraints
Business models and financial structures known to work for other societal issues may be less promising for climate change adaptation. This action will provide an analysis of previous experiences on what may work and possible adjustments to increase their effectiveness.
Assumptions
The assumption is that the business models and financial structures created will make climate change adaptation measures financially more attractive and create added value to allow acceleration of the NAS.

Expected results (quantitative information when possible)
- One Report on the state-of-the-art knowledge on available business models and finance structures towards funding of concrete climate adaptation measures.

Deliverables
31/12/2022 Report on innovative business models for and financing of climate change adaptation measures

ACTION A.5: Monitoring and evaluation strategy: a methodology to evaluate the contribution of demonstrations, pilots and best practices towards implementation of the NAS

Beneficiary responsible for implementation
MinI&W in collaboration with MinLNV, MinVWS, NB and UT

Description (what, how, where and when)
NAS reference: NAS2016, chapter 4, paragraph 4.6, page 38

What
In order to understand the contribution of LIFE-IP NL-NASCCELERATE to its goal of accelerating the NAS, a monitoring and evaluation strategy will be set-up. All C-Actions will be monitored in Actions D1-D4. Next to this, the monitoring and evaluation of the overall impact of LIPE-IP actions on the NAS implementation will be done in D5. The socio-economic impact will be monitored in D6 and Action D7 will monitor the ecosystem function restoration.

How
The first step in monitoring is setting up a baseline. The baseline serves as the starting point and from there on the progress and results can be effectively monitored and evaluated. A monitoring strategy also requires a set of indicators. MinI&W will work together with MinLNV, MinVWS, NB and UT to form a working group that sets up the building blocks of the monitoring strategy: indicators, measurement methods, baseline, evaluation and feedback procedures, and reporting formats. This action will seek cooperation with existing monitoring initiatives of the NAS, to avoid overlap and to guarantee added value. The monitoring strategy will develop as the result of discussion meetings between the beneficiaries involved in the working group. External assistance will assist in structuring these discussions and summarizing the results towards the final strategy. An assignment will be prepared containing a description of work and planning of actions. Following the public procurement regulations, a party will be selected to execute this task. The strategy will describe the elements and steps towards an effective monitoring and evaluation. This will provide guidance to the D-actions: a strategy towards monitoring and evaluation of the contribution of demonstrations, pilots and best practices towards implementation of the NAS.

Where
The monitoring strategy will be drafted and further improved centrally in The Hague or Utrecht.

When
The monitoring plan will be drafted, improved, finalized and approved in 2022.

Reasons why this action is necessary:
The monitoring and evaluation strategy will give the necessary input and guidance for the D-actions. The monitoring strategy will allow the central, provincial and local authorities and other stakeholders to share results and learn from each other in a structured process, which will contribute to capacity building and replication.

Constraints and assumptions

Constraints
- The abundance of existing monitoring approaches and initiatives is a challenge, since overview and connectivity currently lacks. The monitoring strategy aims to respond to this constraint.
- Effectiveness of adaptation efforts is multifaceted, often lacking measurable indicators and entailing long-term horizons. This is also a constraint that the strategy aims to address.

Assumptions
It is assumed that despite the constraints and difficulties foreseen, this action will result in an effective monitoring strategy.

Expected results (quantitative information when possible)
- A monitoring and evaluation strategy.

Deliverables
31/12/2022 Monitoring and evaluation strategy

Milestones
30/09/2022 First draft of monitoring strategy delivered to working group, to be adjusted when needed, for approval by the working group

ACTION A.6: Replication strategy and capacity building: methods, strategies and incentives within and outside this LIFE-IP

Beneficiary responsible for implementation:
MinI&W in collaboration with MinLNV and MinVWS

Description (what, how, where and when):
NAS reference: NAS2016, chapter 5, page 40

What
The replication strategy focusses on the transfer of the most successful projects and insights gained in the LIFE-IP actions, resulting in complementary actions similar to those financed by the LIFE IP, implemented in other parts of the country or in other Member States, or different actions that complement the actions financed by the LIFE IP in the same geographical area. The replication strategy will include an active coordination mechanism with complementary actions across Member States, and an evaluation strategy, a capacity building strategy and a legacy strategy.

How
The development of a replication strategy will be coordinated by MinI&W, MinLNV and MinVWS. This will be done in dialogue meetings with all project partners. An external party will assist in organising the dialogue meetings and structuring the discussions towards the approval of the replication strategy. An assignment will be prepared containing a description of work and planning of actions. Following the public procurement regulations, a party will be selected to execute this task. This Action A6 prepares for Action E2 on dissemination.

Where
The replication strategy will be drafted and improved centrally in The Hague or Utrecht.

When
The replication strategy will be developed in 2022.

Reasons why this action is necessary
LIFE-IP NL-NASCCELERATE aims to accelerate the implementation of the NAS by implementing actions that pave the way for replication and transfer towards complementary actions. A replication strategy will contribute to the wider application of the most successful measures of the LIFE IP. It will facilitate authorities to start implementing their climate change adaptation plans. It also allows them to see results and have a real-life example to work with.

Constraints and assumptions:
No major obstacle is foreseen for this action.

Expected results (quantitative information when possible)
- Replication strategy document, including an evaluation strategy, a capacity building strategy and a legacy strategy.

Deliverables

31/12/2022 Report on the replication strategy and capacity building: methods, strategies and incentives within and outside this LIFE-IP.

ACTION A.7: Preparation of partnership agreements

Beneficiary responsible for implementation
MinI&W

Description (what, how, where and when)

What
After successful evaluation of this LIFE-IP and the granting of the LIFE-contribution, in addition to the grant agreement, partnerships agreements between MinI&W and the associated beneficiaries needs to be prepared. These agreements will describe what is agreed with respect to i.e. reporting (frequency, format) and payment details. It will also include the agreements on mutual obligations and roles, confidentiality, data management, ownership of results and agreement on how to settle disputes (conflicts management).

How
Partnership agreements will be drafted for all associated beneficiaries. This will be done in close dialogue with all associated beneficiaries. These draft agreements will be assessed by legal and financial aspects of MinI&W, before signing. MinI&W will be assisted by an external expert in this process of drafting the agreements and dialogue towards mutual agreement on terms and conditions.

Where
the partnership agreements will be drafted in The Hague.

When
The partnership agreements will be prepared after a positive response to our proposal. These agreements will be signed before the end of 2021.

Reasons why this action is necessary:
The partnership agreements are necessary to agree on the administrative and financial

relation between the coordinating beneficiary MinI&W and the associated beneficiaries. This action is a necessary preparatory action for all other preparatory actions, the concrete implementation actions, the monitoring actions, the public awareness and dissemination actions and the project management actions.

Constraints and assumptions
Constraints
Public beneficiaries may experience a change in the political preferences of their organisation between the moment of submission of the proposal and the notification on its evaluation. This may influence their willingness to participate. There are currently no signs indicating that this is to be expected.

Assumptions
It is assumed that our proposal will be evaluated successfully with minor alterations necessary. Also, it is assumed that the development of the grant agreement and partnership agreements will be finalized before the end of the year 2021.

Expected results (quantitative information when possible):
- 22 Signed partnership agreements

Deliverables:
31/12/2021 Partnerships agreements

C. Concrete implementation actions

Overview of the concrete implementation actions

C.1	**Concrete implementation actions on Knowledge & Tools**
C.1.1	Provisioning of local information to stakeholders on the current and future climate scenarios from the national meteorological database
C.1.2	Development of a climate scan, a climate adaptation compass and an action table towards ecosystem restoration in wet delta nature
C.1.3	Integration of health aspects in climate change adaptation measures: Identification of preventive measures related to heat stress and infectious diseases
C.2	**Concrete implementation actions on Awareness & Sense of urgency**
C.2.1	Arnhem more climate proof: stimulating an attractive climate adaptive city
C.2.2	City Parc Apeldoorn: improving the living environment and resilience to climate change
C.2.3	Neighbourhood climate monitor for Groningen: a campaign to increase awareness and willingness to cooperate towards local joint action on climate adaptation measures
C.2.4	Rotterdam heat plan: development and implementation of a heat stress safety framework based on a neighbourhood demonstration project
C.2.5	Amsterdam Rainproof: promote community engagement to combat future flooding, droughts and heat stress
C.2.6	Strengthening commitment to climate change adaptation through Network Water & Climate
C.3	**Concrete implementation actions on Governance & Integral approach**
C.3.1	Integral approach towards addressing soil subsidence in historic cities
C.3.1a	Multi-stakeholder approach towards solutions for soil subsidence in Gouda
C.3.1b	Supporting the multi-stakeholder approach with local data on soil subsidence
C.3.2	Integrated and multi-purpose climate adaptation action for river basins in the province of Noord-Brabant
C.3.2a	Development and realisation of an integrated and multi-purpose climate adaptation plan for river basins in the province of Noord-Brabant
C.3.2b	Providing support to municipalities in translating of visions for the future into new spatial policies
C.3.3	Integrated multi-actor approach: climate proof spatial development Spuiboulevard, municipality of Dordrecht
C.3.4	Development of a multi-stakeholder governance framework with the partnership Climate Campus to accelerate innovations and implementation of climate change adaptation
C.3.5	Regional cooperation in a local climate platform: capacity building at municipalities and awareness raising of citizens and companies to accelerate implementation of climate robust spatial planning
C.3.6	Acceleration of the approach to reduce heat stress in the province of Utrecht by integration of themes from the Utrecht Provincial Environmental Policy
C.4	**Concrete implementation actions on Business models & Finance**
C.4.1	Agricultural and rural business models with demonstration sites in the south west of Friesland
C.4.2	Development of a transformation toolkit with business models for sustainable and circular agriculture in peat meadow lands
C.4.3	Three step model approach towards an action programme for climate adaptation in agriculture and nature.

ACTION C.1: Concrete implementation actions on Knowledge & Tools

Beneficiary responsible for implementation:
MinI&W coordinates action C1. See table for all partners involved.

Action	Beneficiaries	Where	Target group
C.1	MinI&W		
C.1.1	KNMI	The Netherlands, whole country	Citizens/professional users
C.1.2	RWS	All national (major) rivers and lakes	Public authorities and nature and agricultural organisations
C.1.3.	VGGM	Municipalities of Arnhem, Barneveld, Doesburg, Duiven, Ede, Lingewaard, Nijkerk, Overbetuwe, Renkum, Rheden, Rozendaal, Rijnwaarden, Scherpenzeel, Wageningen, Westervoort and Zevenaar.	Professionals of the public authorities and citizens of the municipalities

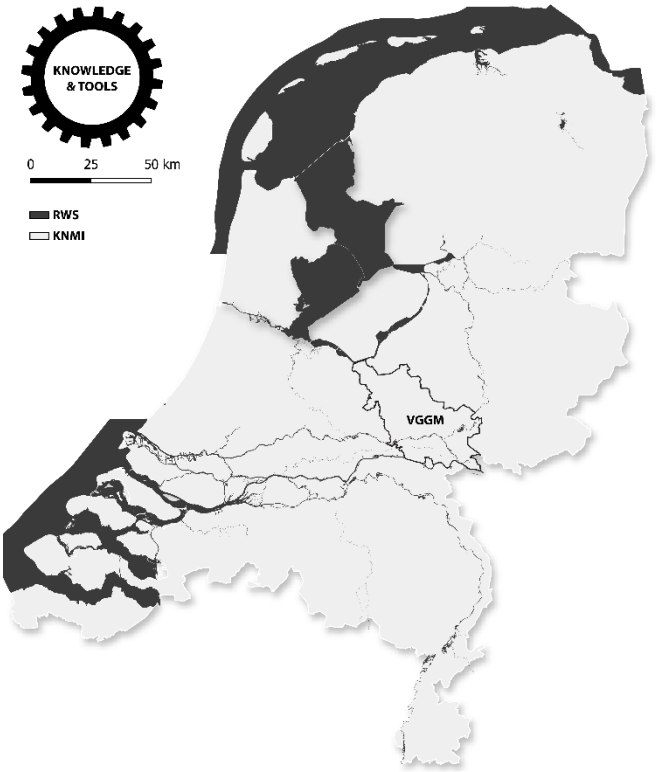
Description (what, how, where)
(objective 1, NAS reference p.34 par. 4.3)

What
Action C1 will improve the accessibility of existing knowledge and tools, and will develop new knowledge and tools, to fill existing knowledge gaps. Action C1 includes three sub-actions.

1. Providing stakeholders with local information on the current climate and future scenarios from the national meteorological database (sub-action C1.1)
2. Development of a climate scan, climate adaptation compass, and an action table towards ecosystem restoration in wet delta nature areas (sub-action C1.2)
3. Guidelines on integration of health aspects in climate change adaptation measures (sub-action C1.3)

For each of the sub-actions, activities, expected results, deliverables, milestones and cost estimates are described. The results will feed into action D1 (Monitoring and evaluation), where progress on the action level will be monitored and evaluated and – if deemed necessary – results will be generalised for direct use for other stakeholders as well. All results will be made available for all stakeholders, within and outside the LIFE-IP, using E6 (knowledge platform). Results on knowledge and tools will be communicated, disseminated and replicated through actions E1 and E3.

How
Both a demand driven and a supply driven approach will be applied to address this barrier. In the *demand driven* approach the needs of the target groups will inform knowledge providers what is needed to make existing knowledge and tools better available. The *supply driven approach* focuses on current gaps in the availability of knowledge and tools regarding effective and efficient measures for climate change adaptation, for which new tools and knowledge products will be developed.



This action and its sub-actions will take place in De Bilt where the national meteorological institute is based, in all Dutch major waters, including the Wadden Sea, the IJsselmeer region, delta waters, and the catchment areas of Rhine, Waal and Meuse in the central part of the Netherlands, and by region VGGM for all health community services of the Netherlands.

Expected results

Action C1 will result in readily available and tested knowledge products and tools. The expected results are summarized below, and more detail is provided in the description of the sub-actions:

- Availability of local information on the current climate and future in the Netherlands.
- A climate scan, a climate adaptation compass, and an action table towards ecosystem restoration in wet delta nature areas.
- Guidelines on integration of health aspects in climate change adaptation measures

SUB-ACTION C.1.1: Provisioning of local information to stakeholders on the current and future climate scenarios from the national meteorological database

Beneficiary responsible for implementation:
KNMI

Description (what, how, where and when)
What
The objective of this sub-action is to improve the accessibility and availability of local data on climate information to different stakeholders (municipalities, waterboards, provinces etc). Climate change is by many perceived as a global phenomenon. However, by translating climate data to local information, (a) more awareness and (b) data-informed climate adaptation policies and interventions will be facilitated. Over the past years KNMI has experienced an increase in requests from different stakeholders for more local climate data (extreme weather events, outlook, current climate etc). Although this information is available, the accessibility, availability and translation of this data remains challenging as currently information is scattered over different sources (e.g. www.klimaatatlas.nl and www.klimaatscenarios). Also, the number of requests to KNMI from decentralized actors to support the translating of the data to presentable information for a wider audience has increased in the last years. This calls upon more efficient and effective tooling.

To address the dispersed information availability and for the KNMI to be able to serve a broader audience, a new website is in the making bringing together climate information from the past and future on one web location (climate dashboard). Under this broader initiative, this LIFE-IP sub-action will focus on the development of specific products addressing the need for local presentable climate data by developing:

A. A web tooling functioning as an add-in to the climate dashboard. The web tooling will be an interactive clickable geographic map providing local climate data (current and future scenarios 2050, 2085). Allowing people to easily retrieve data by location on all the climate variables as presented in the KNMI'14 climate scenarios, the Climate Impact Atlas and beyond. Through this web tooling KNMI will be able to extend the information availability to more locations (in comparison to the climate impact atlas). Further, available information will be enriched by data on year-to-year variation and probability of extremes.
B. An interactive template will be developed, allowing users (municipalities, waterboards and provinces) to upload their local data in a presentable manner. Usage of the template will be stimulated by workshops and guidelines.

How
A considerable part of the required data for the web tool described above is already available. They were generated for the update of the climate Impact Atlas a few years ago. The development of the tool will focus on three aspects:

1. Generation of the missing data (for the climate scenarios and time horizons not used in the Climate Impact Atlas) and combining them with the existing data sets.
2. Technical: how to connect the available data to the website in such a way that only the information for the desired location is presented (similar pilot tools have been developed at KNMI, but it has to be checked how these have to be modified to be used here).
3. What is the best way to present the information to promote optimal use and interpretation on the website: per climate variable and time horizon, or all climate variables together, how to present probabilities, is guidance needed? etc. The website will be developed in such a way that information for the KNMI'23 climate scenarios (that will become available in 2023) can also be added relatively easily and fast, making this local information available much faster than with the KNMI'14 climate scenarios. Some resources will be needed to update the webtool with this information, but the methods were developed in the first cycle of the project.

Where
The webtool will be developed at KNMI in De Bilt and will be made accessible to all professionals in the Netherlands.

When
Start: July 2021
End: December 2025

Reasons why this action is necessary
KNMI is a valuable partner in this consortium as it provides the project with the central, scientifical data on climate information. In order to understand how to best counter climate change and to come up with the most effective climate adaptation measures, this information and expertise is key. furthermore, to provide this data in a presentable way to a wider audience will lead to a broader understanding of the dynamics of climate and how to implement climate adaptation measures.

Constraints and assumptions
- Interdependency of the web tooling with the Climate dashboard/viewer. Web tooling will be an add-in to the overall climate dashboard. Delays in the development of the climate dashboard, will influence the development and launch of the web tooling developed under this sub-action
- Collection of the existing data sets will reveal datasets of interest for all the climate variables of KNMI'14 scenarios available creating a limitation in data. Focus therefore should be on generating full sets for the KNMI'23 climate scenarios.
- It is assumed that with the publication of the KNMI climate scenarios the Climate Impact Atlas will be updated (2023-2024) and consequently that the information that is currently available for the KNMI'14 – will also be generated for the KNMI'23 scenarios

Expected Results
- 1 adaptable interactive template on climate change which can be customized with local - climate information
- 1 web tooling live and running
- User guidelines published
- 32 municipalities have made use of the tooling

Deliverables

First phase
31/12/2023 Interactive template about climate change where local information on climate can be included ready

Following phases
31/3/2024 Webtool where local information (climatological averages and indices for the reference period and for the future, and information about interannual variability) can be obtained, including guidelines on usage of interactive template and web tooling

Milestones
First phase
31/03/2022: Inventory data sets completed
31/12/2023: Interactive Template available

Following phases
31/03/2024: Webtool launched, start work-
shops for stakeholders

SUB-ACTION C.1.2: Development of a climate scan, a climate adaptation compass and an action table towards ecosystem restoration in wet delta nature

Beneficiary responsible for implementation:
RWS

Description (what, how, where, when):
What
This sub-action cooperates closely with major national programmes such as the Delta Programme (on protection of the Netherlands against flooding and to secure a sufficient supply of fresh water), implementation of the Water Framework Directive (WFD), the Dutch contribution to Natura2000, the LIFE-IPs Delta nature and Biodiversity4all, and the Large Waters Programme that aims at improving the ecological water quality of large water bodies. The action will map the expected effects of climate change on the target range and ecological functioning of large bodies of water by:

1. Apply the PAGW Climate Scan (which is already available in a 1.0 version but needs to be filled in more quantitatively), to identify the effects of climate change. PAGW stands for Programmatische Aanpak Grote Wateren (Programmatic Approach to Large Waters).
2. Development of a Climate Adaptation Compass, to identify the intended effects of proposed measures within PAGW, WFD, Delta Programme and other measures
3. Development of an Action Table 2050

The tools to be developed in this sub-action serve as building blocks for an adaptive approach to map the uncertain effects of climate change on the functioning of the ecosystems of large waters.

These tools will serve as building blocks for an adaptive approach that identifies the uncertain effects of climate change on the functioning of the ecosystems of large waters. The effects of climate change (Scan) and the intended effects of proposed measures (Compass) will be mapped per measure. These tools will be used in regional development processes to assess what measures will contribute to ecosystem restoration, considering the relevant ecosystem services. This is a supply driven approach in which the application of the Climate Scan and the Climate Compass is intended to result in necessary actions and activities that are expressed in an Action Table.

How
The Climate Scan is carried out in collaboration with various knowledge institutes. The development of the Climate Compass will tie in with existing work on ecological resilience with Wageningen University and Research, and other organisations and programmes working on the effects of climate change within NKWK (National Knowledge and Innovation Programme Climate and Water), LNV's Climate Adaptation Nature Action Programme (see action C.4.3) and, for example, the Advisory Committee on Drought (Beleidstafel Droogte). The regional development processes are part of the regular work methodology of RWS in the major waters and the implementation of the national multi-year programme on Infrastructure, Spatial Planning and Transport. Stakeholder participation and discussions with policy makers are regular components of these processes, as well as of the development of management plans for the WFD and N2000.

The tools developed will be made available in the national climate adaptation portal www.klimaatadaptatienederland.nl (Action E6).

Where
The area processes and the measures to be implemented take place in all Dutch major waters, including the Wadden Sea, the IJsselmeer region, delta waters, and the catchment area of the rivers Rhine, Waal and Meuse in the central provinces of the Netherlands. Tools like the scan, the compass, and the action table will be developed for individual areas.

When
This action will run from mid-2021 until the end of 2027.

The WFD and N2000 implementation programmes are continuous activities with a six-year cycle, during which plans, and measures are continuously updated. The PAGW programme aims at the implementation of 33 measures in 3 tranches in the period 2022 - 2050.

Reasons why this action is necessary
This subaction provides the LIFE IP with access to valuable expertise on ecosystems of large waters and effects on climate change on these ecosystems, as Rijkswaterstaat is the organisation responsible for the monitoring of large waters. The actions will provide the IP with a map and actions to address the effects of climate change on the functioning of the large waters, which will be very useful for other (regional) actors and will strongly contribute to climate resiliency of the Netherlands.

Constraints and assumptions
Cooperation with the other knowledge institutions is an important condition for the success of the sub- action. It is assumed that this condition will be met, based on the previous decades of successful cooperation.

Expected Results

- Climate scans for various water systems conducted
- Climate adaptation compasses for various water systems developed
- Area specific action tables developed
- 450,000 ha improved water quality
- 125,000 areas processed toward improved conservation status
- 50 authorities and institutions will be involved and made aware
- 20 NGOs/organisations changed behaviour

Deliverables
First phase
30/06/2023 Climate scans for various water systems (1 report)
31/12/2023 Report on effectiveness of measures and actions

Following phases
31/12/2024 Climate adaptation compasses for various water systems (1 report)
30/06/2026 Action table to enable climate adaptation and ecological resilience of large bodies of water in the Netherlands (area-specific table and report).

Milestones
First phase
31/12/2021: Final work plan delivered
30/06/2023: Community of Practice established

Following phases
30/06/2026: Action table finalized

SUB-ACTION C.1.3: Integration of health aspects in climate change adaptation measures: Identification of preventive measures related to heat stress and infectious diseases

Beneficiary responsible for implementation:
VGGM

Description (what, how, where, when)
What
Climate change has consequences for human health, both direct (higher vulnerability to heat stress) as indirect (vector transmitted diseases; allergies; increased exposure to UV-related disorders).
Measures are required to counteract the health effects of climate change. But with this, awareness is required on the health effects triggered by climate change adaptation measures for example more greenery can cause more ticks and increase in allergens.
This sub-action will develop and provide guidelines for municipal health services on how to advise and support municipalities in efficient and effective integration of health aspects in climate adaptation policy. Specifically, this specific action builds upon the urgency to protect the health of the population aiming to improve climate adaptation by:

1. Development of guidelines to promote health preventive measures in climate change adaptation policy.
2. Raising awareness and sense of urgency on the need for an integral approach (at decentral level) in development and execution of climate adaptation policy.

How
The sub-action contains several activities categorised below.
Firstly, activities will focus on inventory analysis and research.

- Inventory of current activities, initiatives and policy documents in place at municipal health services in cooperation with municipalities (in the LIFE-IP consortium and beyond)
- Identification and mapping of potential specific departments (both within municipalities and municipal health services) required to play a role in promoting health in climate change adaptation
- Conducting an analysis on what impeding and successful factors are in the current activities taking place.

Secondly, based on the outcomes of the inventory and analysis conducted, guidelines will be developed providing recommendations to municipal health services on process design and content. This includes how to best advise municipalities and other actors, at what stage in the process, types of information, advice on the identification of disciplines and departments required to be involved, thus promoting the multidisciplinary integral approach. The action will be piloted in three regions in the Netherlands (two urban and one rural area). The guidelines will be adjusted based on lessons learned during the pilot. Thereafter the guidelines will be applied to other regions and evaluated. Exchange of experiences and identifying best practices and the guidelines will be adapted accordingly. Eventually, the guidelines will be extrapolated nation-wide to all 25 public health services, 12 provinces, and 25 security regions in the Netherlands.

The guidelines developed will be integrated in the national climate adaptation portal www.ruimtelijkeadaptatie.nl (Action E6).

Where
Retrieving best practices will be executed nationwide, through the 25 GGDs.
The pilots will take place in several different GGD regions.
The national rollout and communication, dissemination and replication are on a national scale.

When
Start: 1 June 2021
End: 31 December 2027

Reasons why this action is necessary
This subaction is necessary as the awareness on health effects caused by climate change needs attention; the role health plays in climate adaptation policy and implementation on municipal level is often insufficiently addressed. The adoption of measures to counteract the health effects of climate

change require a multidisciplinary approach by decentralized actors. An integral approach at municipal level enhances the interconnectedness of different domains in which climate adaptation is not seen as only a physical/spatial subject. Community Health Services (GGDs) can play a more significant role in supporting and assisting municipalities on how to accomplish this and in giving advice on specific health preventive measures to be taken.

Constraints and assumptions

Assumptions

- Multiple stakeholders from GGDs and municipalities are willing to actively participate in the inventory and pilot phase. Already several GGDs have indicated their willingness to actively participate during this phase.
- Current nationwide GGD structures allow for roll out and take up.

Constraints

- Potential absence of acknowledgement of active ownership at decentralised stakeholder level.
- The existing silos of working within disciplines/sectors within departments at municipal level hampers a true integral approach to climate change adaptation. This action aims to overcome this constraint.

Expected Results

By 2023, first draft guidelines developed and piloted
By 2026, final guidelines available
By 2027, 20 Municipal Health Services will be involved and made aware

Deliverables

First phase
01/06/2022 Inventory of current activities, lessons learned and best practices stakeholders
01/06/2023 Guidelines draft 1

Following phases
31/12/2025 Guidelines draft 2
01/06/2026 Final Guidelines
31/12/2026 Materials (infographics / leaflets) for communication and dissemination

Milestones

ACTION C.2: Concrete implementation actions on Awareness & Sense of urgency

Beneficiary responsible for implementation:
Apeldoorn coordinates action C2. See table for all partners involved.

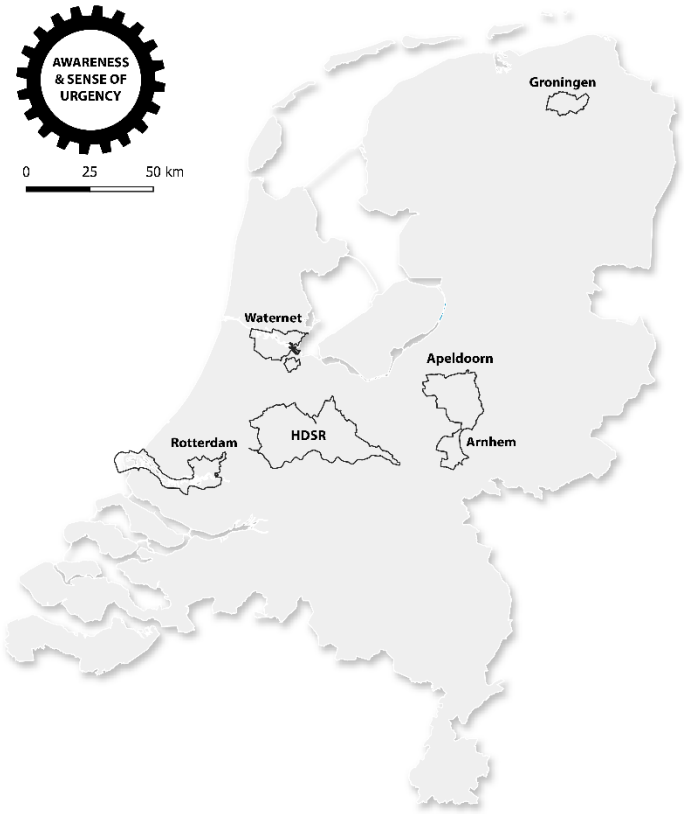
Action	Beneficiaries	Where	Target group
C.2	Apeldoorn		
C.2.1	Arnhem	Municipality Arnhem	Citizens of the municipality
C.2.2.	Apeldoorn	Municipality of Apeldoorn	Entrepreneurs, inhabitants, professionals.
C.2.3	Groningen	Municipality Groningen	Citizens of the municipality
C.2.4	Rotterdam	Municipality Rotterdam	Professionals of the public authorities and citizens of the municipality
C.2.5	Waternet	Municipality of Amsterdam	Entrepreneurs, inhabitants, professionals.
C.2.6	HDSR	Region Utrecht South West	Professionals of the public authorities and citizens of the municipalities

Description (what, how, where):
What
This action implements concrete actions on awareness and sense of urgency.
It is apparent that, although awareness on climate extremes is growing, climate change remains a global phenomenon for many. Knowledge on the impact of climate change on the local living environment still lacks amongst different actors in society – causing a low sense of urgency to act. Action C.2 addresses this barrier, by **making the global phenomenon of climate change location specific**. By targeting different societal groups this action provides them a joint perspective on relevant, realistic and achievable actions. Citizens are actively engaged in data collection, analysis and the design process of measures, providing them in insights climate change effects on their own neighbourhood. Cooperation and joint action of the local government with residents and local entrepreneurs is promoted, to increase their willingness to act and invest in climate adaptation measures. These sub-actions will increase awareness locally and will contribute to the development of successful methods for awareness raising, to be applied in other regions in similar situations, using complementary funding.
Other sub-actions address the large difference in sense of urgency that exists between sectors, regions, government levels, and public and private actors (NAS reference: p. 31 par. 4.1). These sub- actions **demonstrate, pilot and provide best practices on what is necessary to trigger collective action**. Green climate zones will be implemented in the inner city of a moderate sized municipality.
Local heat plans will be piloted in Rotterdam to manage health risks at the neighbourhood level. In addition, local measures will be demonstrated to adapt to local flooding, drought, heat and soil subsidence.
Results of action C.2 will feed into action D2 to monitor and evaluate the applicability of the approaches applied in the sub-actions to be replicated in other locations and areas as well. Lessons learned in D2 will be used in E1 and E2 for communication and dissemination, to replicate successes to other regions.
The results will be shared in the knowledge platform (action E.6).

How
This action consists of two complementary tranches. On the one hand, the concrete implementation actions aim at raising awareness by organising dialogue, local meetings, courses and master classes, visits and information exchange with citizens and businesses. This will motivate local actors to act themselves and invest in local climate adaptation measures, in cooperation with the local authorities. On the other hand, a raised awareness and increased sense of urgency does not automatically lead to action by actors. So, in addition, implementation of concrete local measures is piloted to stimulate

concrete action by stakeholders. By implementing attractive, affordable and effective measures tailored to stakeholders' needs, good examples will be set that can easily be replicated.
For each of the sub-actions activities, specific results. Deliverables, milestones and cost estimates are described.

Where



Action C.2 is implemented in different municipalities, cities, and neighbourhoods across the Netherlands. Specifically, sub-actions will take place in Amsterdam (the work area of Waternet), Apeldoorn, Arnhem, Groningen and Rotterdam and in the region Utrecht Southwest, the working area of the network Water and Climate.

Expected results

- A fact-based participative (virtual) design to realize green-water spaces in central city areas
Climate adaptive zones in the city centre of Apeldoorn
-A participation plan is developed
- 16,000 inhabitants of Apeldoorn have increased awareness on climate adaptation
- 2,000 inhabitants will be more resistant to heat stress
-40 ha surface has improved resilience to heat stress

SUB-ACTION C.2.1: Arnhem more climate proof: stimulating an attractive climate adaptive city

Beneficiary responsible for implementation:
Arnhem

Description (what, how, where, when):
What
The objective of this sub-action is to make the residents, organisations (housing corporations, healthcare, real estate developers, e.g.) of Arnhem aware of climate change and the adaptation measures they themselves can take to make the city and their own living environment more climate-proof by greening the city. Focus areas have been identified where several climate themes converge.

The sub-action will apply a three-track approach:
1. Strengthening the support of the local platform Arnhem Klimaatbestendig. This platform stimulates and facilitates activities to become more aware of climate change, like a 'climate carrousel', 'consultation of your garden', and assistance with garden design.
2. Implementation of three projects:
    1. Cool Streets in the inner city of Arnhem. Develop green spaces in the streets of the city. At the end of the project the ambition will be a green inner city.
    2. Develop a green façade in front of elderly and nursing homes.
    3. Replace a sports facility and develop a climate-adaptive 'pocket parc' of 3,000 square meters. This pocket parc will provide greenery and a shaded place to sit outdoors in a highly urbanised area. At the same time, it will be designed to serve as a temporary store facility for excess water during heavy rainfall. This will increase local resilience to weather extremes.
3. Monitoring these initiatives by citizen sciences principles.

How
The independent platform Arnhem Klimaatbestendig is a local platform which aims to make residents, businesses and institutions aware of their own role in making Arnhem (more) climate-proof and thus encourages them to take climate-adaptive measures themselves. Experiences over the past five years indicate that there are still obstacles that hinder the implementation of privately funded measures. The platform has proved to be a constant factor in informing, stimulating and activating citizens of Arnhem, and has close ties with all levels in the city, as well as regional and national contacts. This helps to reach specific target groups. The aim is to actively focus on:

- housing corporations (many properties in lower SES (Social Economic Status) neighbourhoods) and landlords/estate owners,
- care and nursing institutions,
- businesses, industrial estates, office parks,
- developers/brokers,
- gardeners and landscape designers.

For the above-mentioned target groups specific activities will be developed:
- Set up of a training course for employees and board members of housing corporations. Climate adaptive measures is often endorsed at management or policy level but is still an unknown topic among those implementing it and is not a priority. More priority is given to social or health issues. The aim of this action is to increase awareness of this target group and highlight existing opportunities to make their assets more climate-proof.
- Provisioning of accompanying supporting information (brochures and flyers) on specific questions these organisations have, with the intent to use this information as input for their internal policy trajectories and decision making on implementation of climate adaptive measures.
- Organizing design sessions for residents of new-build homes, aimed at creating green gardens, in collaboration with gardeners, garden and landscape designers and developers / brokers.
    - For companies a brochure will be developed in which the intangible and direct and indirect financial benefits of adaptive measures are highlighted.

- Organising and facilitating district-oriented climate cafes, possibly combined with energy cafes (these have been organised at city level for several years).

Monitoring by citizens. During the project lifetime cycle, local result monitoring will be done by citizens. These citizen science approach will provide valuable information about the activities done and lessons learned from these interventions to replicate them in other parts of the city and in other areas.

Communication and dissemination of results and lessons learned will be in accordance with Action E1 and E3.

Where
City of Arnhem

When
Start: December 2021
End: December 2026

Reasons why this action is necessary
The subaction stimulates climate adaptation measures on a local level, resulting in the raising of awareness, new ideas and inpiration on concrete measures that all parties in a municipality can learn from and contribute to. Regional cooperation amongst municipalities is an effective manner to increase capacity. To discern the success factors to build capacity at this level, this IP included a variety of municipalities, enabling the partners to learn from the different cases.

Constraints and assumptions
- The most important risk is the loss of the Arnhem Klimaatbestendig platform. Because the platform is an independent bottom up initiative and not a government agency, it is possible that at some point resources (i.e. volunteers) will no longer be present. It is assumed that is not very likely to happen, as climate change will remain a relevant topic in Arnhem for many years to come.
- A second risk is the loss of motivated and active residents who want to become a booster. Without them, the principle of "residents help each other" will disappear.
- A third risk is that partners and participants may drop out because incidental or structural costs may be too high. At that moment, alternatives will be sought.
- The costs of track 2 may become too high, so that the specific project must be abandoned. A sober execution may give the intended technical effect but will lack the communicative effect. In that case, another project will be sought. This means that more time may be needed than is now included in the planning. The margin at the end of the sub-action provides flexibility to accommodate this.

Expected Results
- Inhabitants of Arnhem have increased climate adaption awareness feeling the urgency to act.
- It is expected that 4,800 inhabitants have improved resilience to flooding,
- It is expected that 4,800 inhabitants improved resilience to heat stress
- 40,700 ha surface has become resilient to flooding
- The website Arnhem Klimaatbestendig received 25,000 new visitors a year
- 20 new behavioural change initiatives per year
- 407 ha surface has improved resilience to heat stress

Deliverables
First phase:
31/12/2023 interactive report with costs/benefits per climate action and positive change of behaviour and design of façade with sedum; green lanes in city and pocket parc

Following phases
31/12/2024 interactive annual report with costs/benefits per climate action and positive change of behaviour.

Milestones
First phase:
31/12/2022 Overview on how behaviour of inhabitants can be changed to become more climate adaptive set up.
31/12/2023 local monitoring tool for citizen science set up
31/12/2024 local monitoring tool by citizen science ready
31/12/2026 Façade with sedum; green lanes in city and pocket parc realised

SUB-ACTION C.2.2: City Parc Apeldoorn: improving the living environment and resilience to climate change

Beneficiary responsible for implementation:
Apeldoorn

Description (what, how, where, when)
What
The board of the Municipality of Apeldoorn (MoA) has the ambition to transform the inner city - currently mainly a concrete area - to a green and blue area. This to a) create better quality of living environment and b) counteract climate effects such as heat waves. The latter is expected to become more frequent due to climate change leading to discomfort (heat stress) for the residents. The inner city, a highly urbanised area, is expected to face higher temperatures than the rural surroundings (urban heat islands).

Well planned and designed green infrastructure, including water and soil, can contribute to climate change adaptation and at the same time promote and support healthy urban living. To accomplish this the MoA adopted a vison on the inner city in December 2020. The inner city must be transformed to a water rich area with attractive green spaces where people can stay and have fun, while the summers become warmer (towards extremely hot). However, effective application requires design principles that address the direct relationship between green infrastructure and impacts of climate change (flood risks, flood, heat, water supply and drought), but also the quality of the ecosystem (water, soil and air quality) and its relationship with health (increased mortality and morbidity by unhealthy air and heat stress). To realise MoA's ambitions, awareness on the above causalities with different stakeholders is needed to be able to enhance collective action. Monitoring by citizens themselves seems a functional instrument with multiple effects: active participation of citizens to increase awareness and bringing different local stakeholders together on a local platform to enhance collective local action.

Within the spatial development vision of the municipality of Apeldoorn several options are presented to transform the inner city (currently paved and concrete area) to a park like environment inclusive of look & feel. These options are:

- Construction of parks inclusive of natural aspects (eg. trees), park aspects (eg. fields of green), and garden aspects (e.g. flowerbeds) Green corridors connecting the inner city with the natural green surroundings
- Elevating underground water streams, construction of new water streams and pounds
- Green facades & roofs

How
In the past, policy was developed in accordance with trends and external development. Nowadays the MoA develops policy according to fact checking. Under the principle numbers tell the tale, MoA will start placing sensors in the inner city. Together with citizens (science) the municipality will increase the awareness of climate change together with these early adopters' citizens. What do we see? What happens when you choose for one strategy or another? And other related questions.

These sensors will measure air pollution (NO_x, CO_2, etc.), temperature, water flooding. Next to these sensors, inhabitants will be asked to count species (like birds) who are residing in the city. Based on these outcomes (pollution, heat, water-flooding, species) a design will made together with the citizens, entrepreneurs, professionals by using a design thinking methodology, resulting into a widely supported climate adaptive design plan.

The future design of the spatial development of the inner city will be created through a participatory process in which the options mentioned above and consequences (for example transforming a street into green zones requires a change of behavior when it comes to mobility) will be discussed. Further green facades and roofs requires buy in from property owners etc) Through the participatory process ownership will be created and supported solutions designed.

Complementary funds will be allocated to realize the solutions designed. These funds are part of the larger implementation program to realize Apeldoorn its ambition to transform the inner city of Apeldoorn and implement climate adaptive measures. To realize this ambition EUR 11,000,000 has been earmarked and allocated to several locations within the inner-city. It is expected that for the new budget period (MPB 22) the current allocation of funds will be topped to facilitate initiatives in more areas of the inner city.

This subaction builds upon several lessons learned from previous projects. One of which was that the implementation of climate adaptive measures requires a “new way of” designing and a properly guided and designed participation process. This to create ownership and buy in with different stakeholders. By embedding the project within the department it is ensured that this project builds on the experiences of previous projects (such as the “klimaatstraat”).

Communication and dissemination of results and lessons learned will find place in accordance with Action E.

Where
Climate adaptive zones will be created in the inner city of Apeldoorn. Exact locations will be determined as part of the sub-action.

When
The green climate zones will be realised in the period between 2022 and 2027.

Reasons why this action is necessary
This subactions provides valuable experience from a local context on how to make a city climate resilient. In the LIFE IP, the different experiences and lessons learned that the partnering municpalities gain, are exchanged amongst the other partners providing a more complete picture on effective measures for climate adaptation.

Constraints and assumptions:
In the coming years, the new Dutch Environment and Planning Act will shift the current multiple zoning plans towards one Environmental Plan for the whole municipal territory. This may lead to new boundary conditions under this new law.

Expected Results:
A fact-based participative (virtual) design to realize green-water spaces in central city areas
Climate adaptive zones in the city centre of Apeldoorn
A participation plan is developed
16,000 inhabitants of Apeldoorn have increased awareness on climate adaptation
2,000 inhabitants will be more resistant to heat stress
40 ha surface has improved resilience to heat stress

Deliverables
First phase
31/01/2023 Analyse report with heat zones, water flooding zones, pollution, etc.

Following phases
31/12/2025 virtual design of climate zones in the inner city.
31/12/2026: A fact based participative (virtual) design to realise green-water spaces in the inner city of a mid-sized city in Europe
31/12/2027: Participation plan

Milestones
First phase
31/12/2023 Integrated Design process ready

Following phases
31/12/2024 Local monitoring tool available
31/12/2025 Integrated programme started
31/12/2026 Climate adaptive zones in the inner city of Apeldoorn realised

SUB-ACTION C.2.3: Neighbourhood climate monitor for Groningen: a campaign to increase awareness and willingness to cooperate towards local joint action on climate adaptation measures

Beneficiary responsible for implementation:
Groningen

Description (What, how, where, when):
What and how
This action concerns the development and implementation of a neighbourhood-oriented local monitoring with associated participation instruments and campaign. This will contribute to greater awareness and willingness to act on the part of residents/entrepreneurs and promote cooperation between the local government and residents/individual entrepreneurs. This will be elaborated within the following activities:

1. Development of a neighbourhood monitor on climate change
   First, we start to identify the right indicators on the effects of climate changes on a neighbourhood level. Then we will be analysing the 'Stress test' results and transformation to understandable information with a low threshold. There will also be kept an additional analysis on climate change information to produce the right form of information needed. When finished these (3) steps, we will:
   - Developing a scoring method to identify the resilience of the neighbourhood and develop a data warehouse system.
   - Reporting the results on indicators, the right information with a low threshold, neighbourhood resilience and Datawarehouse system (report).
2. Development of a digital locally focused platform to share the results of step 1.
   Development of a website and launch of this site in the neighbourhood. The website will be an interactive platform where inhabitants can and will find inspiration and lessons learned of climate adaptation and mitigation activities.
3. Development a participation strategy
   During phase 1 and 2a, a participation strategy will be developed that will distinguish different target groups. This strategy will also include the development of nudging instruments towards positive reinforcement and indirect suggestions as ways to influence the behaviour and decision making of groups or individuals. Before doing so, an inventory of different resident groups will be done categorisation purposes, i.e. 'early adopters', 'easy followers', etc. The Belbin team roles will guide this categorisation. For each cohort distinguished, tailored participative measures and instruments that can be used to engage these stakeholder groups (online/offline) will be developed. All results will be reported and through continuous learning loops successes will be included in the process for optimisation. At the end, the local monitoring instrument will be incorporated, and the website upgraded.
4. Setting up a test group with inhabitants and local entrepreneurs
   During this sub-action, we will set up a test group, based on the cohorts identified under activity 3. This test group of inhabitants and entrepreneurs will meet regularly, and different approaches will be used during these meeting sessions, to evaluate workability and level of comprehensibility of (digital) information.
5. Survey on behavioural change in relation to awareness, willingness to act and actions taken (by inhabitants / local entrepreneurs). A test group will be set up. A questionnaire will be developed, and surveys will be conducted. A tool how to analyse the results and a template how to report the results will be developed.
6. Implementation of a public campaign
   A public campaign will be developed. The activities in step 4 and 5 will be combined with different campaign activities. These are:
   - Organizing a campaign kick-off
   - Neighbourhood meetings
   - Offline and online (social) media campaign
   - Developing information materials (like handouts, banners).

Communication and dissemination of results and lessons learned etc. will take place in accordance with Action E.

Where
The activities will take place in the municipality Groningen.

When
Start sub-action: 2021. End of sub-action: 2026.

Reasons why this action is necessary
This subactions provides an important background on the effects of climate change on the nieghbourhood-level and develops tools in order to monitor this. this information is key in making relevant actors aware of the effects and to inspire actors to contribute to climate adaptation. In the LIFE IP, the different experiences and lessons learned that the partnering municipalities gain by their activities within the local contexts, are exchanged amongst project partners.

*Constraints and assumption*s
In the end the willingness of the individual inhabitant or local entrepreneur to participate and contribute (invest in terms of human and financial resources) is an important key factor in the success of this sub-action. The result is dependent on the degree of people involvement.

Expected Results
- In 2023: all neighbourhoods and countryside villages have their own local monitor, which is easy to comprehend and gives information about the effects of climate change and options on how to act.
- From 2023 onwards, awareness and willingness to act will have increased by inhabitants and entrepreneurs. Recently held survey shows that currently only 33% think they have a responsibility to act (awareness).
- Starting from 2023 onwards, we see an increase of inhabitants acting. As a municipality we subsidise the greening of roofs and support local initiatives on greening of streets and façade greening in the public space.
- By 2027: 46,644 inhabitants have been made aware on climate adaptation measures
- 32,600 inhabitants have changed behaviour
- 800 initiatives a year, e.g. application for participation projects on green streets, façade garden and other green measures on street level.
- 250 applications for funding received a year

Deliverables
First phase
31/03/2022 a neighbourhood monitor plan, a participation strategy and behavioural influencing instruments

Following phases
31/12/2025 Report on survey results on behavioural change in relation to awareness, willingness to act and actions taken (by inhabitants / local entrepreneurs)

Milestones
First phase
31/03/2022 a local platform to communicate with the inhabitants functional
30/06/2022 test group selected
31/03/2023 public campaign ready

SUB-ACTION C.2.4: Rotterdam heat plan: development and implementation of a heat stress safety framework based on a neighbourhood demonstration project

Beneficiary responsible for implementation:
Rotterdam

Description
What
With climate change, extreme heat events are on the rise. More areas will likely be affected by extreme heat more often, more severely, and for longer periods of time. Direct consequences of climate change for human health in the Netherlands are a higher vulnerability to heat stress in case of extremely hot summers and the probability of large numbers of casualties. The National Heat Plan developed by the National Institute for Public Health and Environment (RIVM) aims at timely alerting institutions, care providers and volunteers for periods of sustained heat, so that they can take measures to provide good care and manage health risks. For areas such as the municipality of Rotterdam, because of its urban land use and ongoing densification, discomfort (heat stress) is becoming a more urgent issue for a growing number of inhabitants. This calls upon a translation of the national heat plan to the local context ensuring contextualised actions and an approach on neighbourhood level and thus stimulating awareness and sense of urgency.

The objective of this action is to develop and apply a heat plan for Rotterdam, for different neighbourhoods. The development and roll out of this plan will be done by the public health section of the municipality of Rotterdam with as main aim preventing adverse health effects from heat.

The sub-action focuses on triggering perspective of action on neighbourhood level to the different stakeholders involved.

How
The action will build upon the National Heat Plan and a Guide Local Heat Plan developed in 2019 focusing on the health care sector. The municipality of Rotterdam has started a multi-year climate adaptation strategy "Rotterdam Weather-wise" programme on climate adaptation (2019-2026). This subaction will be part of this programme. The action will be tested, evaluated and expanded in a one-year cycle. In the first phase (2021-24) the action aims at the functioning of and cooperation between public health, local health care and informal care in periods of severe heat. In the second phase (2025-27) the plan can address and integrate issues like events, green infrastructure, and include pilots, including preventive heat measures, in order to reduce negative health effects. Preventive heat measures will be for example: 'Shadow cloths', maps of cool places of the neighbourhoods, setting up new cool places and cool walking routes and working on green innovations. (Elements of) the Rotterdam local heatwave plan will be discussed with and disseminated to other cities, regions and health authorities.

The first phase is characterised by demonstrating the process of translating the National Heat Plan to the local and operational level. The sub-action increases the effectiveness of the national heat plan and stimulates awareness and sense of urgency. Phase 1 consists of number of activities. Categorised below:

Inventory & Analysis
- Local analysis (heat stress, vulnerability, living comfort, outdoor space, facilities, cool places)
- Building up a local network with care providers and neighbourhood organizations. Several meetings will be organized.

Connect, collaborate and interlink
- Building up a local network with important stakeholders such as care providers and neighbourhood organisations and housing associations to stimulate awareness, create support base and commitment. Several meetings will be organized
- Connecting with themes specific to the city of Rotterdam (e.g., Rotterdam Weather-wise programme, Approach to Loneliness).

Development & Implementation of heat Plan
- Drawing up, implementing, and adjusting the heat plan (year-cycle process), including local monitoring and assurance.
- Development and deployment of local communication tools (e.g., local public campaign, webpage on www.Rotterdam.nl).

- Dissemination to other districts and municipalities (e.g., VNG day, national heat congress, events within the province of Zuid-Holland

The financial means supporting the implementation of the heat plan will come for example from the municipal subsidy fund WeatherWise/Weerwoord. With this fund, pilots and initiatives from stakeholders related to implementation of climate adaptation measures in the city can be cofinanced. Also, Rotterdam takes the lead in preparing a proposal for Erasmus+ fund for European cooperation in empowering professional and informal elderly care in case of heatwaves. Furthermore, the Province of Zuid-Holland supports the exchange of knowledge and implementation of pilots regarding heat measures.

Lessons learned from past experiences will be relevant for this subaction. Rotterdam is involved in several Dutch scientific research committees (such as ZonMW and NWO) addressing the connection between science and practice. Also, Rotterdam was involved in the setting up of the Handreiking Lokaal Hitteplan (2019), instructing municipalities/safety regions/public health services on how to set up a local heat plan.

Communication, dissemination and replication of results and lessons learned will take place through the E-action of this LIFE-IP.

Where
Rotterdam, in neighbourhoods and at city/organisation level

When
Start: July 2021
End: December 2027

Reasons why this action is necessary
Extreme heat is an urgent issues for municipalities. This subaction develops a concrete action plan to manage effects on heath of extreme heat. Health is an important aspect to take into account in this LIFE IP. By this subaction, the relevant actors will be made aware of the growing concern of the effects on health of climate change. In the LIFE IP, the different experiences and lessons learned that the partnering municipalities gain by their activities within the local contexts, are exchanged amongst project partners.

Constraints and assumptions
Assumptions
- Normalization of the public health and health care sector in due time (currently under pressure due to COVID-19)
- The creation of a local heat stress plan will lead to added value in the execution of the "Rotterdam Weather-wise" programme on climate adaptation; one will have more eye for the health risks and benefits of the population.

Constraints
- A change in the broad political commitment to Rotterdam Weather-wise, of which the Rotterdam heatwave plan is part of. Or a shift in the priority-setting of Weather-wise. The Weather-wise programme lasts eight years though. Mitigation measures are taken by agreements made forehand on budget reservation for realisation of this sub-action.
- Absence of heat waves in the sub-action period. This will be overcome by setting up a heat exercise with the parties involved to test the procedures
- Another constraint could be a change in the National Heat Wave Agenda, that has adopted the intention of a local heatwave plan. This is against all odds as the consequences of severe heat are becoming clearer, as well as the concept, necessity and support for local heat plans.

Expected results
- Preventing, reducing, and addressing heat-related health and well-being problems, morbidity and mortality.
- Promoting self-reliance and co-reliance through local heat plans.
- Phase 2: continuation, monitoring, and expanding preventive heat measures.
- By 2027 20 regional authorities/ municipalities have been involved

Deliverables
First phase
31/12/2023 Concept heat plan

Following phases
31/12/2026 Final heat plan for all neighbourhoods

Milestones
First phase
31/12/2023 Analysis of prioritized neighbourhoods of the city of Rotterdam

Following phases
31/12/2025 Local analyses per neighbourhood (city wide)
31/12/2026 Results of pilots with physical (climate adaptive) measurements
31/12/2027 Presentation knowledge dissemination

SUB-ACTION C.2.5: Amsterdam Rainproof: promote community engagement to combat future flooding, droughts and heat stress

Beneficiary responsible for implementation:
Waternet

Description (What, how, where, when):
What
Amsterdam Rainproof is a local network platform approach, initiated in 2014, to prepare and help the city of Amsterdam handle the increasingly frequent downpours by better use of free rainwater (currently flowing directly into the drains) to minimize the damage of extreme rainstorms.

Rainproof is doing so by connecting and involving all stakeholders such as water authority, municipality, businesses, property owners, residents, consultants, research and education institutes. With the motto 'Every drop counts', Rainproof creates more awareness and stimulates the sense of urgency by underlining the co-ownership of the problem as the solutions.

Currently, Rainproof's activities are focusing on community engagement and mainstreaming rainproof/green infrastructure measures in all public and private initiatives (streets, parks, gardens, roofs). Through a multi stakeholder approach involving both public and private stakeholders. After 6+ years Rainproof is recognised by the local government (Municipality of Amsterdam and Waternet) as a valuable and significant player in making Amsterdam rainproof.

It is time to broaden the scope of work of Rainproof to drought, heat and flooding. With the opportunity to also align with initiatives in energy transition. This requires a focus on creating a sense of urgency on all levels, helping prioritization in policy and actions.

This sub-action focuses on broadening, deepening and strengthening the existing Rainproof network platform approach to increase awareness and physical impact in the city of Amsterdam on the themes Heat, Drought, and Flooding. This is accomplished through:
1. expanding the network bringing in new parties covering the full scope of climate adaptation
2. focusing on intensifying the facilitation and activation of residents and companies by newly trained rainproof coaches who will facilitate stakeholders to become active in implementing adaptation transition measures.

How
The actual physical implementation of climate adaption measures is an already ongoing process in Amsterdam, especially for the rainproof measures. Standards have been included in municipality's policy. All projects in the public space have to meet these standards and the rainproof measures are budgeted in these projects, provided for by the municipality's multi-annual budget. It is the ambition of the municipality, supported by this LIFE IP, to extend its policy and financial support towards implementation of themes that become increasingly urgent issues for the city, such as resilience to drought and heat stress. Implementation of rainproof measures is therefore a process that has already started, will continue during and proceed after the LIFE-IP NASCCELERATE. This sub-action is going to assist, broaden and speed up the implementation of climate adaptation measures in the city.

This sub-action contains the following activities:
1. Improvement of online Rainproof Platform: The online Rainproof Platform will be improved by including new information, knowledge, examples of best practices and stories on the new themes heat and drought. A toolbox will be realized with information on measures to be taken. Further the theme Flooding (and accompanied risks) will be updated and further deepened.
2. Expansion of network: A new community manager will be recruited, tasked to further build and expand the current network, focusing on bringing in partners on the new themes. From experience over the last few years we have learned that community management really makes a difference in getting citizens, professionals, companies and organizations aware, involved and active. But this is an intensive effort. So increasing the community management capacity will help increase our outreach and involvement.
3. Facilitation and Activation: Facilitation and activation of residents and companies is of essence to create awareness and the sense of urgency. Rainproof/adaptation coaches will be trained to take up the task to facilitate and activate. From past experiences we have learned that a lot of people do understand the vital importance to act and also want to act. However, they lack the knowledge on actions they can do themselves. A lot of local gardeners and contractors also lack this kind of knowledge. Educated and trained Rainproof Coaches can fill this gap and thus increase implementation on private plots. The coaches can also help citizens to apply for the available municipal subsidies (like green roofs / green facades).

4. Update current local knowledge tools: Include the theme drought and heat, prototype to 3 types of Rainproof solution maps covering the inner city, new developments and the 19th/20th century urbanised ring of Amsterdam. These maps are currently focused on measures reducing pluvial flooding.
5. Local monitoring: Set up and roll out of an online monitoring system for rainproof adaptation measures in the public domain. This will be expanded to include rainproof/climate adaptation measures in the private domain.
6. Local communication and dissemination: The digital Rainproof platform, framework and an extension part of the content (infographics etc) will be freely available for all parties. The training programme Rainproof / adaptation coaches available and accessible to ensure uptake and replication. Co-organize and participate in meetings with NAS consortium partners for sharing the knowledge and experience developed. Communication and dissemination of results and lessons learned etc. will take place in accordance with Action E.

Where
Municipality of Amsterdam

When
Start: June 2021
End: December 2023

Reasons why this action is necessary
Drought, heat and flooding are urgent issues for municipalities. Rainproof connects the relevant actors in countering these negative effects of climate change. In the LIFE IP, the different experiences and lessons learned that the partners gain are exchanged amongst project partners.

Constraints and assumptions

Constraints
Lack of knowledge of the impact of heat stress measures, impact of stand-alone drought measures and the dependency on measures taken or not taken by others in the surrounding. Availability of coaches

Assumptions
An existing rainproof network is in place.

Expected Results:
1 Coaching manual for training has been developed
A prototype climate adaptation solution maps have been developed
The toolbox has been expanded with knowledge products
12,000 inhabitants improved resilient to flooding and heat stress
120 companies reached and made aware on climate change adaptation
70,000 people using the website a year
2,000 inhabitants changed behaviour towards climate change

Deliverables
First phase
31/12/2021Training manual Coaches
31/12/2022 Description of added toolbox measures, list of involved stakeholders in network, prototype of Climate adaptation solution maps
31/12/2023 Local monitoring tool

Milestones
First phase
31/12/2022Expanded Toolbox and local monitoring system online
31/12/2023 Team Rainproof / adaptation coaches active and prototyping 3 climate adaptation maps

SUB-ACTION C.2.6: Strengthening commitment to climate change adaptation through Network Water & Climate

Beneficiary responsible for implementation:
HDSR

Description (what, how, where, when):
What
The influence of climate change can no longer be ignored as it is becoming increasingly noticeable in Utrecht region. There are tasks ahead requiring to be addressed:

- Local flooding is increasing as peak showers occur more often. Causing more and more damage, inconvenience and endangers the safety of people (and the functioning of security services).
- We are increasingly faced with long periods of drought. The availability of sufficient fresh water is therefore more often under pressure. This is problematic for, for example, agriculture, drinking water supplies, flood defences, foundations and public and private landscaping.
- In urban areas, the temperature rises on hot days, with consequences for e.g. vulnerable people, infrastructure, green areas and bathing water locations (blue-green algae).
- In peat meadow areas soil subsidence and associated flooding is occurring, causing safety issues, foundation and subsidence problems.

Due to the increase in inhabitants, the physical space in the Utrecht region is under pressure. This calls upon an integrated approach, linking climate adaptation measures to energy transition, to the transition to a circular economy, to strengthening biodiversity, to the transition to sustainable agriculture, as digitalization and transformation of healthcare.

To do so, authorities in Utrecht Southwest have joined forces in the Network Water & Climate. As per January 2020 cooperation in Network Water & Climate on a climate-proof and water resilient Utrecht Southwest region has been realized through a cooperation agreement. However, climate adaptation is not solely solved by governments. Commitment of companies, inhabitants and societal organizations is necessary for the region to become climate-proof and water-resilient.

However, an increase of awareness is still needed. There is little familiarity with each other interests and tasks and different specialists speak different languages. More effort is required, and the current 17 partners of the Network Water & Climate cannot achieve this alone.

How
By using a participation and communication strategy and by entering collaboration with stakeholders in demonstration projects, the province of Utrecht wants to increase stakeholder awareness and their willingness to act (Action C2 barrier 1). Further developing and utilizing knowledge the demonstration projects generate experiences and knowledge that we utilize and share within and outside the network (Action C1) with parties dealing with similar tasks in similar areas. This will be achieved by implementing the following activities:

1. Identification of demonstration projects. Demonstration projects will be identified based on the 4 landscapes present in the region; peat meadow, areas characterised by the influence of rivers, urbanised areas and areas with considerable height differences, resulting into demonstration projects which are representative for the region.
2. Stakeholder selection. Per demonstration project, stakeholders will be selected based on a stakeholder analysis. After which in-depth dialogues will be organised focusing on interests and mutual gains. Resulting into a clear overview of relevant involved stakeholders.
3. Risk dialogues. In consultation with the different stakeholders, the problems will be identified leading to a project definition for every demonstration project.
4. Development project plans. A project leader will be hired to organise the projects and develop a breakdown of activities and planning.
5. Development of a participatory design approach for inhabitants. Based on the level of involvement, per demonstration project a communication and participation strategy in consultation with residents will be drafted which will target the residents of the area.

6. Implementation of the demonstration projects. Project implementation will be characterised by a triple loop learning, which stimulates adaptive working.
7. Evaluation of demonstration projects will provide best practices which focusing on the effectivity of the executed measures.
8. Communication and dissemination will be amongst the four landscape types (Region Utrecht Southwest) and the broader Utrecht region. Moreover, external communication and dissemination will be according action E in this proposal.

The demonstration projects mentioned above each have their own planning. The first projects will start in 2021 and the last ones will be completed in 2027. The associated costs of the physical implementation of these demonstration projects will be provided for by the network partner(s) responsible for making their territory and assets climate-proof and water-resistant. In most cases, this will be a municipality, in some cases together with the water board or the province. Private parties, with whom the demonstration projects are collaborating, are also encouraged to make their own (financial) contribution to the projects.
The partners in the Water & Climate network have made reservations for these co-financing funds in their multi-year budget estimates. The additional costs for intensive cooperation with residents, businesses and other stakeholders, the communication about it and the dissemination of knowledge and experience gained within and outside the network will be financed by the network with a subsidy from this LIFE IP.
In the demonstration projects, knowledge and experiences from previous projects are applied. For example, since 2019, the region has been working on five pilot projects on climate-proof neighbourhoods with a contribution from the Delta Programme for Spatial Adaptation (DPRA). These projects will be carried out in five different neighbourhood types in five municipalities in the region of the Water & Climate network. Within the project, Utrecht University has drawn up a guide for implementing climate adaptation: "Lessons from the climate-proof residential areas project in the Utrecht region".

Where
The Utrecht Southwest region located in the centre of the Netherlands. In this region 4 different landscapes can be distinguished. The region has highly urbanized areas (Utrecht, Nieuwegein), peat meadow areas (Woerden, Stichtse Vecht, Montfoort, Lopik, IJsselstein and Oudewater), areas characterized by the influence of main rivers (Wijk bij Duurstede, Houten, Stichtse Vecht, Bunnik, Zeist) and the Utrechtse Heuvelrug with considerable height differences (De Bilt, Zeist, Utrechtse Heuvelrug).

When
This sub-action will run from the start of the LIFE-IP project until the end of 2027.

Reasons why this action is necessary
Regional cooperation amongst municipalities is an effective manner to increase capacity. To discern the success factors to build capacity at this level, this IP included two regions of cooperating municipalities (C2.6 and C3.5). This enables us to learn from both cases.

Expected Results
- 4 demonstration projects have been executed
- an increased awareness and sense of urgency with stakeholders in the network to take climate adaptation measures
- demonstration projects have been evaluated and recommendations provided on integral cooperation with stakeholders resulting in effective measures
- 20 ha improved resilience to flooding
- 600 inhabitants involved and made ware
- 26 NGOs/organizations involved and made aware
- 20 companies have been made aware and are involved
- 20 ha surface improved resilience to heat stress

Deliverables
First phase
31/12/2022 stakeholder analysis
30/06/2023 report risk dialogues

Following phases
31/12/2027 evaluation report

Milestones
First phase
30/09/2023 participatory design approach residents developed
31/12/2023 project proposals developed

Following phases:
31/12/2026 demonstration projects implemented

ACTION C.3: Concrete implementation actions on Governance & Integral approach

Beneficiary responsible for implementation:
Municipality of Gouda coordinates this action. See table for other partners involved.

ACTION	Beneficiaries	Where	Target group governance approach
C.3	Gouda		
C.3.1a	Gouda	City centre of Gouda	Public authorities, SME's, inhabitants, property owners, real estate development agencies
C.3.1b	HHR	City centre of Gouda	Public authorities, SME's, inhabitants, property owners, real estate development agencies
C.3.2a	NB	The province of Noord-Brabant	Public authorities, nature and agricultural organisations, SME's
C.3.2b	WAM	The province of Noord-Brabant	Public authorities, nature and agricultural organisations, SME's
C.3.3	Dordrecht	The city of Dordrecht	Citizens of the neighbourhood and the rest of the municipality
C.3.4.	Zwolle	The region surrounding the city of Zwolle	Citizens of the municipality
C.3.5.	WVV	The work area of the water authority, including the municipalities of Amersfoort, Baarn, Barneveld, Ede, Eemnes, Leusden, Nijkerk, Renkum, Renswoude, Rhenen, Scherpenzeel, Soest, Veenendaal, Wageningen and Woudenberg.	Professionals of the public authorities
C.3.6.	UT	The province of Utrecht	Public authorities, SME's, inhabitants, property owners, real estate development agencies

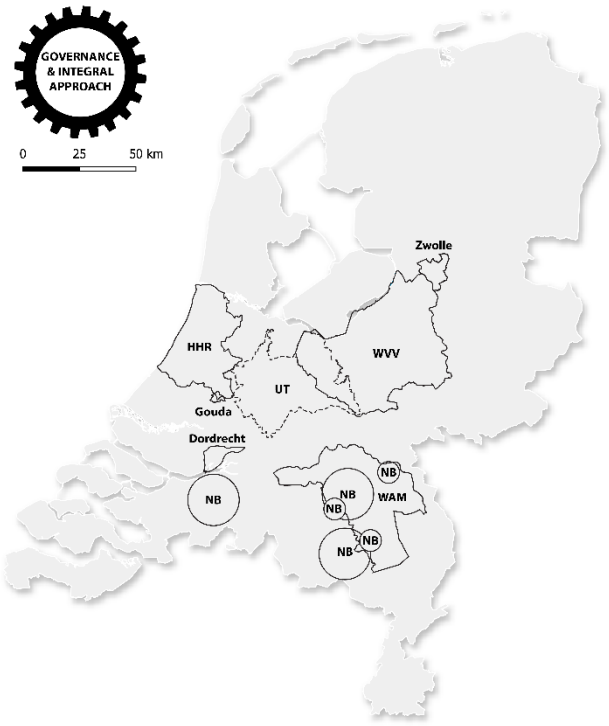
Description (what, how, where)
What and how
In this action, cross-sectoral and multidisciplinary local and regional networks, both inter- and intra-organisational, are further expanded. These networks are part of specific governance approaches that actors use to implement concrete actions in an integrated way. The objective of the action is to intensify and broaden the networks of different stakeholders in order to create a cross sectoral, integral approach on climate adaptation. The sub-actions provide the overall C.3 action with valuable pieces of experience and expertise that is necessary to develop cross-sectoral and multidisciplinary networks. The integral approaches in the sub-actions are developed against the background of important issues that are regarded as urgent for the following years to come. These issues are amongst the priority issues to address when it comes to climate adaptation because of the significant effect of climate change in these fields.

Specifically, the sub-actions address the soil subsidence in (historic) cities, a problem that many cities in the western and northern part of the Netherlands are confronted with. Also, the topics of drought and flooding is addressed in sub-actions focussing on the different geomorphological characteristics

of the Eastern and Southern part of the Netherlands in comparison to the lower lying Western and Northern parts. When brooks run from smaller hills, this creates challenges regarding water retention and the actions therefore focus on river basins of brooks. Sub-actions furthermore address participative spatial planning policy in city development and multi-stakeholder governance frameworks at a regional level. The latter concerns The Dutch Delta consisting of 45 working regions in which municipalities work together and exchange knowledge about climate effects and solutions with water boards and with provinces. To encounter challenges concerning cross-sectoral problem solving, the sub-actions aim to develop and implement multi-stakeholder governance frameworks.

Equal to the previous C-actions, the approach behind C.3 is to implement sub-actions that complement each other when it comes to combining the developed approaches in order to create a more integral approach as well as when it comes to thematic linkages. Some sub-actions consist of two actions, that complement each other more specifically. For each of the sub-actions activities, specific results and deliverables and cost estimates are indicated.

Where



This action will take place in the municipalities of Dordrecht, Gouda, and Zwolle, in the provinces of Noord-Brabant and Utrecht, and in the area of the water authorities Aa en Maas (WAM), Rijnland (HRR) and Vallei en Veluwe (WVV).

The planning of the activities is presented at the level of sub-actions below.

Reasons why this action is necessary:
Climate change adaptation is relevant in many sectors, however in current practice collaborative action across sectors is largely absent. Actors experience too little ownership, responsibilities are unclear, laws and rules are not always consistent, and processes are fragmented. As climate adaptation will become increasingly important in the years ahead, the need for a more integral approach will increase as cross-sectoral optimised solutions often are more (cost)effective. Over the period to 2020, the relevant departments will join the societal partners in examining the requirement in more detail. The degree to which the challenges described in the NAS have been addressed will of course form part of their deliberations.

In projects with a particularly long lifetime, such as most infrastructural projects, it is important to incorporate climate adaptation measures from the outset. It could be decades before a replacement or major overhaul allows the opportunity to change anything. That's why these sub-actions were selected based on the criteria to create the most diverse range of stakeholders in different domains, and in different regions of the Netherlands, together with multilevel public and private organisations (provincial, regional and local). In this way we can experience how a good governance and integral approach works for most climate challenges the Netherlands will face in future.

Therefore, a more integrated approach is needed. Climate change urges to look for partnerships and measures that are beneficial to all parties simultaneously and that are beneficial across sectors. Connecting climate change to sustainable development goals and instruments might evoke opportunities for better integration. Biggest challenge however is making people (professionals) with different backgrounds and agendas work together. The incentive might be a more effective and efficient spending of public money through integrated planning and implementation.

Expected results

Action C3 will result in local experiences with governance and integral approaches. The expected results are summarized below, and more detail is provided in the sub-actions:

- A multidisciplinary regional task force on climate change adaptation, with proven value to implement climate change measures and prevent negative health effects.
- An integrated climate adaptation plan with concrete measures, like Province of Noord-Brabant and Utrecht will do on provincial scale and the waterboards Vallei & Veluwe will do in their region.
- Integrated redevelopment of Nieuw Krispijn (Dordrecht), making the neighbourhood climate proof.
- An innovative cooperation model will be developed, tested and put into practice, and various innovative projects have been started / carried out.

SUB-ACTION C.3.1: Integral approach towards addressing soil subsidence in historic cities

Beneficiaries responsible for implementation

- Gouda (C.3.1a)
- HRR (C.3.1b)

Description (What, how, where, when)
What
The city of Gouda experiences soil subsidence by 2 to 5 mm annually. This creates local height differences, because buildings founded on steel follow this descend, while buildings on wooden or concrete pile foundations do not. Implementation of climate adaptive measures to address soil subsidence is difficult as a) most of the land and buildings are privately owned and b) many buildings are historic monuments. Only an integrated plan, bringing together different actors involved, can effectively address the soil subsidence issue in Gouda. That is why the Rijnland Waterboard and the municipality of Gouda have jointly drawn up the "Framework Plan for Land Subsidence Inner City" (KBB). In doing so, they often ventured into unknown territory: a great deal of knowledge still had to be collected and developed, on technical aspects as well as regarding governance and financial models. Rijnland District Water Control Board has brought together different stakeholders and experts in soil subsidence of the Netherlands in the Coalitie Stevige Stad (Coalition Solid City). The aim of the coalition is to develop and share information that helps to understand the current situation and informs solutions. This information will be made accessible to all stakeholders and actively disseminated Several studies will be carried out.
This sub-action first and foremost addresses the third barrier mentioned in the NAS: The governance of climate adaptation is highly sectoral at all levels, both within and between public and private bodies, thus hampering an integral approach between sectors and in conjunction with other challenges (NAS reference: p. 38, par. 4.5).
An integral approach is key in working towards successful solutions to address soils subsiding. This sub-action aims through working in coalition with different stakeholders, to contribute to knowledge generation on addressing the problem of land subsidence by taking a multi stakeholder approach. Further, it contributes to knowledge transfer realised through the national knowledge centre increasing the sense of urgency on the need to actively address soil subsidence.

How
The work is divided into six activities. Activities 1, 2, 3 and 5 are the responsibility of Gouda. In addition, HRR is responsible for activities 4 and 6.

C.3.1a: Multi-stakeholder approach towards solutions for soil subsidence in Gouda
Gouda is responsible for the following activities.

1. Conducting the programme management of the Solid Cities Coalition. *Solid City on Soft Soil* -From 2014 to 2020, the Gouda Coalition Stevige Stad (consisting of, among others, the Municipality of Gouda, the Rijnland water board, the Slappe Bodem Platform, TU-Delft, Rijkswaterstaat, Deltares and the knowledge centre Approach to Foundation Issues) focused on the development of an approach to address the nuisance caused by subsidence in the Historic Centre of Gouda. The success of the approach in Gouda is now a reason to expand scope. The Solid City Coalition in Gouda has transformed itself into a Solid Cities Coalition that focusing on strengthening complex and innovative projects in the field of urban subsidence in the Netherlands. The Coalition Solid City is coordinated by Gouda. In order to maintain the coalition and to steer the projects and research, a project leader will be appointed. A project team shall be set up to carry out the activities and to meet the subsidy obligations.
2. Setting up a counter for property owners. Property owners can inquire about issues related to foundation repair, insulation, adapting their own sewage systems, cultural-historical questions, and energy transition. They can get professional advice., as part of the National Soil Subsidence Knowledge Centre.
3. Investigate the nature, extent and effects of current and future height differences. In order to arrive at an approach to combat damage and inconvenience caused by increasing height differences, it is first necessary to gain better insight into the extent to which these problems are (or will be) occurring. Obtaining a better picture of the nature and scope of the problems will enable the development of concrete solutions. Personnel such as surveyors, GIS specialists, and managers will be deployed to conduct this investigation. This vill also entail monitoring of foundations by

means of sensors. This helps to predict how long it will take before a foundation will require maintenance.
5. Knowledge transfer through the National Soil Subsidence Knowledge Centre, by developing an exhibition that stresses the urgency to act on soil subsidence, an innovation centre where professionals can meet end interact, and an online information centre for residents of Gouda.

C.3.1b: Supporting the multi-stakeholder approach with local data on soil subsidence
HRR is responsible for the following activities:

4. Design, testing and implementation of an integrated local monitoring plan with focus on:
    - Subsidence: the consequences of the lowering of the water level for the speed of subsidence.
    - Construction: including differential settlement of buildings without deep pile foundations and the consequences of level reduction for wooden pile foundations.
    - Under (and above) ground infrastructure: including settlement in the sewerage systems.
    - Groundwater: including groundwater levels (these are already permanently measured).
    - Water system: including water levels, water quality and the operation of the sewage system.
    - Reduction of flooding: the idea is to approach a group of residents who keep track of their experiences and set up an easily accessible reporting system.
6. Project management for the cooperation between Gouda and HRR and the obligations of LIFE-IP. A project team is set up to carry out the activities and to meet the obligations such as keeping administration and drawing up progress reports and a final report and attending meetings.

In order to realize the ambitions, a subsidy has been applied for monitoring the level drop. No subsidy has been requested for the level reduction itself. The costs of the construction of two water level separations and 2 pumping stations are financed by the Rijnland Water Board. The preparation credit of € 600,000 was established in May 2019. The costs of the implementation of 1.5 million euros are included in the budget of the water board. For the Region Deal (a collaboration between central government and the region to strengthen the strength of the region), a subsidy has been requested for external hiring for the implementation of parts of the monitoring by means of sensors. The subsidy is provided by the Province of Zuid-Holland and the municipality of Gouda will receive a total of 646,500 euros for the development of a Toolbox Action Perspective on Soil Subsidence Historic Cities and the planning of the knowledge and experience centre.
With the Toolbox, the knowledge gained in Gouda is made accessible to other organisations that are also involved in subsidence. Concrete tools are being developed for 6 themes: Rights and obligations, Costs and Benefits, Approach and Dialogue, Research and Modelling, Property and Sewerage, Subsidence and Heritage. Dissemination of the results of the activities financed with LIFE grant is done through the Toolbox. Gouda and Rijnland are partners of various bodies such as the Slack Soil Platform and the National Soil Subsidence Knowledge Programme. These forums are used to gain knowledge for the projects of Gouda and Rijnland. The municipality of Gouda has also submitted a subsidy application for the Region Deal for the realisation of the Soil subsidence knowledge and experience centre. The costs amount to 925,000 euros.

Communication and dissemination of results and lessons learned will take place through the E-action of this LIFE-IP.

Where
The city centre of Gouda

When
Start 1/7/2021
End 31/12/2027

Reasons why this action is necessary
Soil subsidence and related problems of flooding are climate risks addressed by the NAS.
Furthermore decreasing soil subsidence can also contribute to reduce CO2 emissions. This subaction leads to an approach that can be used by other cities in and outside the Netherlands confronted with problems of soil subsidence.

Constraints and assumptions

A precondition for the implementation of activities 2 to 4 is that the Inner-City Subsidence Framework Plan is implemented, as adopted in the autumn of 2020. The careful involvement of stakeholders from the city centre is also a precondition. Many different stakeholders are involved in the issue of tackling climate change in a historic city in combination with land subsidence. Involving these stakeholders requires extra attention and is a precondition for carrying out the studies and for arriving at a joint approach to soil subsidence. Since the joint project Stevige Stad has been around for some time, a communication plan has already been drawn up and residents' evenings and kitchen table discussions have already taken place. The overall project management of the LIFE-IP project and existing organizations such as the Slappe Bodem Platform and the National Soil Subsidence Knowledge Centre are gladly used to disseminate the knowledge and experience and the results of the example project. Finally, the precondition for the implementation of activity 5 is that the National Soil Subsidence Knowledge Centre is established. This will be decided in the course of 2021.

Expected Results

Gouda - C.3.1a:

- the national knowledge centre is set up and staffed.
- Coalition Solid Cities is set up and in progress.
- Set up knowledge desk
- 8,120 inhabitants have improved resilience to flooding
- 150 ha have improved resilience to flooding
- 8,120 inhabitants have increased awareness on climate change

HHR - C.3.1b:

- Monitoring framework set up and running

Deliverables

First phase

30/06/2023 Position paper for setting up a Coalition Solid Cities and report on impacts of height differences and on the pilot on predicting foundation maintenance related to increase in height differences.

31/12/2023 Report on design and execution of the integrated local monitoring plan.

Milestones

First phase

31/12/2021 Establish project manager and communication advisor Coalition Solid City

SUB-ACTION C.3.2: Integrated and multi-purpose climate adaptation action for river basins in the province of Noord-Brabant

Beneficiary responsible for implementation:

- NB (C.3.2a)
- WAM (C.3.2b)

Description (What, how, where, when)
What
Increasing frequency prevailing weather extremes - too wet, too dry, too hot has a major effect on the brook landscapes in in the province Brabant. From flooding to water shortage – directly impacting agriculture, nature conservation, landscape design etc. It affects governments, entrepreneurs and citizens.

To address this, this sub-action is divided into two tranches:

a) The province of Noord-Brabant (NB) focuses on the development and realisation of an integral and multi-purpose adaptation plan for three catchment areas of brooks as precursors for the rest of the region. The main aim is to strengthen or restore the soil-water-natural system in the brook valleys, as this system is the carrier of climate-robust nature, economy, and living environment. Specific the focus will be to retain the water in the landscape and brook valleys to ensure that we can regulate the water level. The regulation of water level gives us the opportunity to steer the water flooding or dry seasons.
b) Water board Aa en Maas (WAM) works on restoring the natural water system in wider catchment area of Brabant. The emphasis is on restoring and strengthening a robust soil-water system. In this way, the effects of climate change can be absorbed – resulting in a diminished risk of flooding after heavy precipitation and provides for a water buffer in periods of drought in order to achieve this in practice, it is necessary that the waterboard Aa en Maas works closely with other governments and the owners/users of the targeted land. This sub-action focuses on cooperation with municipalities.

How
C.3.2a: Development and realisation of an integrated and multi-purpose climate adaptation plan for river basins in the province of Noord-Brabant
Beneficiary responsible for implementation: NB
Area-based Climate Adaptation aims to reach these goals by:

- We set up a cooperation plan 'how can we work together in a co-creation session' and 'what will be the comprehensive vision for the brook valleys'.
- Develop a toolbox with adaptions instruments
- Adaptation and execution plan. Which adaptation plan is useful in which brook valley and which lessons can we learn?
- Execute the plans. Can we have a flooding and dry season plan for all stakeholders (agriculture, inhabitants, nature conservation organisations, water board, etc.)
- Monitoring: set up a local monitoring and evaluation plan together with the LIFE-IP board.
- Replication. How will we replicate the lessons learned in the first 4 brook valleys?

When
The joint adaptation plan will be developed from 2021-2022. In the period 2023-2027 implementation will take place.

Where
Figure C.3.2.1.

This subaction takes place in the province of Noord Brabant. The activities will be implemented in the region Northeast Brabant, see map below .

Reasons why this action is necessary

Catchment areas of brooks are usually heavily modified for the purpose of agriculture. These past modifications have led to an increased vulnerability to the climate risks of both droughts as well as flooding. These climate risks are addressed by the NAS and by NB to be reduced. This action leads to an approach that can be replicated at similar situations.

Expected Results at the end of the sub-action

- 1 climate adaptation plan with concrete measures
- 1 set of guidelines for the climate adaptation of specific areas, including a summary of learning experiences and other products that might be transferable to different areas/regions
- 1 plan for the monitoring, progress, and implementation of the project (document)
- 15,000 ha climate-resilient catchment area of brooks
- 10,000 ha surface improved resilience to flooding
- The provincial climate adaptation toolbox (https://www.klimaatadaptatiebrabant.nl/) will be elaborated on the subject of area-based climate adaptation, including guidelines for climate adaptation.
-

Constraints and assumptions

- There is a risk that in one of the areas there is insufficient support for making specific adaptation measures. In this case, the sub-action must move to another brook valley or business park.

Deliverables

First phase

31/12/2022 Climate adaptation plan with concrete measures, set of guidelines for the climate adaptation of specific areas, including a summary of learning experiences and other products that might be transferable to different areas/regions, plan for local monitoring, progress, and implementation of the sub-action (document)

Following phases

31/12/2027 15,000 ha climate-robust brook valley

Milestones

First phase

30/03/2022 Cooperation/co-creation plans per site drawn up

30/09/2022 toolbox of knowledge and (financial) instruments ready

C.3.2b: Providing municipalities support in the translation of visions for the future into new spatial policies.

Beneficiary responsible for implementation: WAM

Description (what, how, where, when):

What and how

The aim of WAM is to provide support to municipalities on translating future visions into spatial policies. The support will be provided through the organisation of design workshops and targeted actions. Between 2021 to 2023, the waterboard will work with clusters of municipalities to translate visions into Environmental Policy (plan, vision, regulation) through design workshops. This involves matching different opportunities with planning and then translating this to implementation. Examples of potential linked opportunities; Climate-proof building, nature development (e.g. points), recreation, drought and flooding, climate resilience, implementation of energy transition initiatives and sustainable agriculture. After adopting this policy, the different actors will work together to achieve the objectives. This is done by:

- Translating targets into an augmented reality tool that we will use in the sessions with the municipalities.
- Workshops with municipalities (3 sub-catchment areas, 2 sessions per area)
- Implementation plan at level (NO Brabant) to connect and (partly) achieve the objectives from the different environmental visions.
- Implementation of demonstration projects.
- Results of this sub-action will be shared with the other partners in NO Brabant as part of the joint climate adaptation programme. In addition, we share the results with the other Brabant water boards and LIFE-IP Partners.

The size of the area that can profit from implementing the nature based solutions could be up to 100 Ha (hectare). Goal is to implement several small solutions to make a large area more climate adaptive.
Types of solutions:

• The stream can be designed more naturally by, for example, changing the flow with wood in the stream, which creates more space for ecology, among other things. This is done in addition to other measures. Wetting a stream valley to prevent desiccation in higher-lying sandy soils has negative consequences for the companies in the stream valley because the stream valley becomes too wet for current agricultural practices and companies therefore have to be bought out or want to receive compensation or have to be relocated. Preferably, instead of moving the problem to another area, for example, you find a way to show farmers the need for change so that they continue to farm in the stream valley but with crops that can withstand wetter conditions. Natural landscapes and streams can better cope with climate change.

• In addition, ditches can potentially be filled in, or deepened/temporarily dammed to retain water. But that also has consequences for the agricultural uses for farmers/owners in the area. It still needs to be investigated how adapted business operations can be stimulated, creating space for a robust natural water system.

When

Start: July 2021
End: December 2027

Where

The activities take place in the Northeast Brabant region. This is where Aa en Maas actively cooperates with regional partners in the field of climate adaptation

Reason why this action is necessary

Spatial policies of municipalities are an essential part of the approach to make catchment areas of brooks climate resilient. Tooling of knowledge of the catchment area's to be used during the vision- making phase will improve the capacity of municipalities towards climate resilient spatial policies.

Constraints and assumptions

- The implementation of the sub-action depends heavily on the efforts of the municipalities (both in capacities and in administrative support)
- A potential constrain could be that there is no capacity at municipality level to participate in this initiative. The mitigation measure taken is to draw up administrative agreements with the respective municipalities
- Another potential constrain is that there are no plots available for the demonstration projects. By activities focused on increasing the support base, this will be mitigated. Additionally, own plots of land can be used first.

Expected results

- Augmented reality tool developed
- implementation plan developed
- 16 regional and local authorities made aware by the 2027
- 5 regional and local authorities changed behaviour by 2027

Deliverables
First Phase
31/3/2022 augmented reality tool
31/12/2023 Implementation plan

Milestones
First phase
31/12/2023 Workshops with municipalities held

Milestones
Following phases

SUB-ACTION C.3.3: Integrated multi-actor approach: climate proof spatial development Spuiboulevard, municipality of Dordrecht

Beneficiary responsible for implementation
Dordrecht

Description (What, how, where, when):
What
Municipality Dordrecht has a strong ambition for climate-proof policy design and implementation. Within the overall municipality-wide strategy, there is a concrete vision for the inner-city area "Spuiboulevard". With the relocation of the current city office, the social services building and the redevelopment of the Crowpoint office complex on the Spuiboulevard (Nos. 300, 298 and 314-274 respectively), a large inner- city location has become available for real estate development.

Currently, this area is characterized by relatively little useful (public) green. The ambition is to transform this area into an attractive, high-quality residential area, by actively investing in public space. In the current situation, the public and private spaces are almost completely petrified. To increase the green spaces (40% of surface) a high-quality living environment is created for daily users and counteracting climate change effects such as heat stress. Further, measures require to be taken to improve localized water retainment to address current flooding in the area and adjacent areas due to heavy rainfall. This requires an integrated multi-actor approach, bringing together different disciplines to realize redevelopment of the area in accordance with the expressed climate proof ambitions.

The objective of this sub-action is drawing up a policy rule for a green- blue living environment (area Spuiboulevard) ensuring the climate proof ambitions are met and an integral multidisciplinary approach by the stakeholders involved is promoted. The policy rule will include performance piloting and an assessment framework for new construction and redevelopment. The policy rule will be tested during the redevelopment of the Spuiboulevard. Based on the lessons learned from this pilot, a city-wide policy rule is developed promoting multidisciplinary integrated approaches in incorporating climate adaptation measures in policy. Best practices and lessons learned will be disseminated within the consortium and beyond.

This sub-action addresses the third barrier mentioned in the NAS: The governance of climate adaptation is highly sectoral at all levels, both within and between public and private bodies, thus hampering an integral approach between sectors and in conjunction with other challenges (NAS reference: p. 38, par. 4.5).

This sub-action specifically addresses Governance & Integral approach focusing on implementation of an integral approach towards climate change adaptation policy by:
1. Developing a pilot and an integral assessment framework
2. Based on lessons learned, development of a city-wide integral assessment framework
3. Dissemination of lessons learned and best practices for uptake and replication beyond municipal boundaries

How
The following activities will be executed:
- *Development of an integral assessment framework and zoning plan:* Translation of the ambition for the spatial development of the Spuiboulevard into an integrated assessment framework and new zoning plan. Where an integrated approach is realized between real estate development and greening of the environment.
- *Demolition & preparatory construction work:* In this activity the buildings in the area will be demolished and current infrastructure will be removed (pavements) and replaced (cables, pipes). Further, activities will be implemented to remediate the soil.
- *Spatial planning and implementation:* The public area will be laid out preparing the area for housing. Part of this is the realisation of green including infiltration means, drains and storage boxes.
- *Local monitoring & evaluation;* Active monitoring of the effects of greening on the urban climate and evaluate the planning process.

An extensive part of the sub-actions communication and dissemination of results and lessons learned will find place through the E-action of this LIFE-IP.

Where
Municipality of Dordrecht, In an area adjacent to the Spuiboulevard in Dordrecht.

When
Start: July 2021 - End: December 2027

Reasons why this action is necessary
Redeveloping sites in inner cities are important opportunities to create climate resilient buildings and neighbourhoods. However standards how to create these buildings and neighbourhoods are not yet available nor reinforced by government. The framework developed by this subaction contributes to the creation of new standards of climate resilient redevelopment.

Constraints and assumptions
Assumptions
- Stakeholders are willing to look beyond their own tasks to the bigger picture to ensure effective integral approach and realisation of the climate proof ambitions of this sub-action.

Constraints
- The zoning plan must be adapted in order to be able to build the houses.
- Sub-action depends on the realisation of the new city hall. Development of the new city hall must be finalized before demolition can start.

Expected Results
- Inner city transformed, and public area realized (3,357 m2 green squares and 1,800 m2 water storage)
- 600 inhabitants have improved resistance to flooding
- 100 ha improved resilience to flooding
- 500 inhabitants improved resilience to heat stress

Deliverables
First Phase
31/12/2022 Integral assessment framework and policy rule

Following phases
31/03/2027 Monitoring and evaluation report focusing on local lessons learned and recommendations

Milestones

Following phases
31/03/2025 Area construction ready
30/06/2027 Fit for residing, including green spaces.

SUB-ACTION C.3.4: Development of a multi-stakeholder governance framework with the partnership Climate Campus to accelerate innovations and implementation of climate change adaptation

Beneficiary responsible for implementation:
Zwolle

Description (What, how, where, when):
What and how
As the founding father of Climate Campus, the municipality of Zwolle, an innovative network partnership was recently established to make the IJssel-Vecht delta climate proof. Approximately 40 partners are involved in this initiative, including local and regional authorities, educational and research institutions, entrepreneurs and social initiatives. by matching interests and money into business cases to generate new knowledge and to create work. The Climate Campus network aims to be a breeding ground for new knowledge, projects, products, services, and talent in the field of water and climate to accelerate climate resilience. Although several activities have taken place already, the diverse partners expressed their need to further improve cooperation. For example, it is challenging to stimulate SMEs and project developers to build and develop climate proof long-term initiatives, as short-term business opportunities prevail.

This sub-action has the objective to develop, test, and put into practice an innovative cooperation model that further improves the campus capacity to implement and innovate with the aim to accelerate climate adaptation in the IJssel-Vecht delta. This pilot for innovative cooperation on climate adaptation will result in lessons learned and enables an evaluation that can serve as advice for follow-up and/or implementation of similar cooperation models elsewhere.

The existing team will be extended with a facilitator who will stimulate cooperation. The team will further develop the cooperation model. The model will be tested in practice by implementing the following activities:

1. Overall management of this sub-action
2. Networking – community building. Strengthening the network and cooperation (themed network meetings, collecting examples, lessons learned and solutions). Objective is to encourage exchange between all partners to increase the collaboration with each other.
3. Develop practices. Delta practices will be piloted and developed from three mutually reinforcing perspectives. Every perspective will set up practices according to the Plan-Do-Check-Act approach based on strategic adaptation plans. These practices have the following principles:
   i. Climate resilient Delta: The set-up of a collaborated climate adaptive plan, which can be rolled-out in neighbourhoods, streets, etc. Develop a game (as a follow-up of the existing game Garden Battle) to become the greenest and climate adaptive neighbourhood. Undertake practical action in 20 neighbourhoods / streets in cooperation with residents.
   ii. Economic powerful Delta: develop new products and services in climate resilience gardens for example 'how to make a resilient garden' ; curriculum for students; primary schools – what is the impact of climate change in your neighbourhood; Set up a show case of a climate garden where people can see what these garden scan look like. The size of the climate resilient garden is estimated at 500 – 5.000 m2.
   iii. Confident Delta: to increase the 'sense of place' and responsibility of inhabitants, a mobile climate escape room will be established. In addition, a Delta excursion will be developed for inhabitants, and an interactive tool that allows residents to see in detail what happens if their area is flooded. In addition, an art & culture exchange programme will be initiated, to make art part of the transition towards climate change adaptation. Inhabitants will be encouraged to use art to identify climate change issues in their own living environment, i.e. by using 'street art'.
4. To strength and encourage inhabitants to change their behaviour, festivals will be organised, excursions, visits, InterVision sessions, etc. These experiences will lead to a Public Relations Plan that will enlarge the sense of urgency in climate change.
5. Governance model and capacity building on climate adaptation. The practises within the different Deltas will give information on the quality of the collaboration on multiple scales between government, knowledge institutes, schools, inhabitants, entrepreneurs, etc. (Digital) platforms will encourage this exchange and will be part of the sense of urgency.
6. Communication and dissemination. This will be according to action E in this proposal. This sub-action will develop a local action plan, execute this plan and organise a nationwide network day.

Where
Region Zwolle: in the delta area of the river IJssel and Vecht.

When
These above-mentioned activities cover the period 2021-2024. Activities will be continued beyond this period; however, financing has not yet been allocated to accommodate this.

Reasons why this action is necessary
Development of climate resilient solutions can boost innovations by larger companies, SMEs, and knowledge institutes and can be an economic factor for regions. The governance approach developed in this subaction can serve as a best practice for other regions.

Constraints and assumptions
The assumption is that network partners will remain connected to Climate Campus and take their role. Partners will remain connected if there is enough added value. In the coming years, it may be necessary to adjust the cooperation model (gradually applying lessons learned) to keep the network partners on board.

Expected Results
- Towards the end of the project, an innovative cooperation model has been tested and put into practice.
- An advisory report for further adjustments and implementation (elsewhere) is available.
- In the process, various parties / people are made aware of their role in climate adaptation.
- Various innovative projects have been started / carried out.
- Best practices have been unlocked and disseminated
- Young talent (both schoolchildren and students) have become acquainted with the issue and the field of work.
- Cooperation in the region / network has been strengthened.
- A joint knowledge agenda has been drawn up.
- 112,800 inhabitants made aware
- 56,400 inhabitants per year have changed behaviour

Deliverables
First phase
30/10/2023 Delta plans of Climate, Economical and autonomic. These plans contain concrete implementation measures and other relevant information to encourage climate adaption in the Delta of the future
31/12/2023 14 practices with show cases and reports (communication) will be given and a governance model

Milestones
First phase
31/12/2023 Communication and dissemination plan.

SUB-ACTION C.3.5: Regional cooperation in a local climate platform: capacity building at municipalities and awareness raising of citizens and companies to accelerate implementation of climate robust spatial planning

Beneficiary responsible for implementation:
WVV

Description (What, how, where, when):
What
The aim of this sub-action is to further develop regional cooperation between municipalities, provinces and water boards within the Vallei-Veluwe region and expand this partnership.
Since 2017, Platform Water Vallei and Eem, North and East Veluwe are working together as a network organisation to ensure uniformity and to stimulate exchange of knowledge and data on climate change and climate adaptation measures. Through this coalition the agreements made in the Delta Programme Spatial Adaptation can be implemented against a lower cost.
Climate adaptation is a joint effort. Therefore, the objective of this sub-action is to intensify and broaden the network by inviting stakeholders to join. By engaging governments, health organisations, housing cooperatives, construction companies, landscape managers, cooperation and implementation of climate adaptation in regional policy can be realised. By doing so, initiation and implementation of measures in different NAS domains is realised. Concretely the mutual benefit is:

1. Extending the network with more stakeholders creates opportunities to tackle climate adaptation challenges jointly, collaboration can be more easily established in a growing and broadening network where people and parties already know each other.
2. (coalitions of) Individual parties can work together for specific assignments.
3. Exchange of experiences is stimulated and creates possibilities for cooperation and promotes synergy on knowledge development, communication with residents and implementation of measures.

This sub-action is a best practice of governance and integral approaches for climate change adaptation. It consists of regional cooperation between various types of organisations where institutional borders are considered to be irrelevant and solutions towards climate resilience are the primary focus.

How
The above will be achieved by:

- Shaping and staffing the Regional Core Team on Climate Adaptation, which initiates, stimulates, informs, facilitates and coordinates cooperation within the Vallei-Veluwe region, in order to harness the strength of cooperation in the region
- Implementing the key elements of regional cooperation as laid down in the Regional Adaptation Plan: Comfortable living, enjoyable recreation, vital functions, natural system. These priorities are put into practice in an implementation programme of 14 projects.
- Stimulating, facilitating and connecting a network of different actors to address, develop and update a regional climate impact atlas and set up a helpdesk to support the use of these maps from this regional atlas with a GIS helpdesk. In addition, an opportunities map will be developed for disconnecting rainwater discharge from the sewer system. This will allow direct infiltration of rainwater into the soil to prevent drought.
- Various actions aiming at strengthening cooperation with strategic regional partners will be developed, in alignment with E1, E2 and E3:
    - Adjustment of the existing website, linking it to the national platform www.klimaatadaptatienederland.nl, addition of new regionally relevant data and information relevant to climate adaptation action
    - Development and execution of a joint activity with Vitens (the regional drinking water company) to inform citizens and companies on drought issues
    - Set up of networking meetings for politicians, managers and civil servants within the region on climate change adaptation
    - Develop tailor made courses in the fields of water and sewerage with connection to land-use planning, urban development, urban green management, biodiversity, health and prevention, energy transition and the circular economy. These courses can also be used in other regions (relevant for E3 on dissemination and replication).

Where
The activities will take place in the municipalities of Amersfoort, Baarn, Barneveld, Ede, Eemnes, Leusden, Nijkerk, Renkum, Renswoude, Rhenen, Scherpenzeel, Soest, Veenendaal, Wageningen and Woudenberg.

When
Start: 01/10/2021
End: 31/12/2023

Reasons why this action is necessary
Regional cooperation amongst municipalities is an effective manner to increase capacity. To discern the success factors to build capacity at this level, this IP included two regions of cooperating municipalities (C2.6 and C3.5). This enables us to learn from both cases.

Constraints and assumptions
- Support from the participating authorities. This innovative approach to collaboration, across institutional boundaries, requires a solution-oriented approach. This implies acting as one entity for the public, and a process of convergence of the identities and responsibilities of the individual organizations.
- Frontrunners: Active participation of organisations in this process, with eagerness to learn and commitment to co-creation and sharing experiences
- Regional ambassadors: administrative and official figureheads who actively promote this innovative cooperation.

Expected Results:
- Structurally embedded network 'Climate-resilient region' that covers all domains of the NAS - 14 projects implemented
- 80 organizations reached and made aware
- 5,000 people visiting the website a year

Deliverables:
Phase 1:
31/12/2021 Updated climate impact atlas
31/12/2023 Updated map on decoupling opportunities and toolbox communication

Milestones:
Phase 1:
31/12/2021 Core team in place
31/12/2022 14 Projects carried out, help desk been set up
31/12/2023 Local monitoring system implemented, 5 tailor-made courses held

SUB-ACTION C.3.6: Acceleration of the approach to reduce heat stress in the province of Utrecht by integration in themes from the Utrecht Provincial Environmental Policy

Beneficiary responsible for implementation:
UT

Description (What, how, where, when):
What
The aim of this sub-action is to accelerate the approach to reduce heat stress in the province of Utrecht, with the ambition to become the First cool European Region. Acceleration of the approach towards reduction of heat stress is subject anchoring and accelerating the comprehensive Climate Adaptation programme of the Province of Utrecht.
Embedding heat stress in provincial policy is key to increase climate resistance throughout the province. It is particularly important, as the province holds a central position between national government and local authorities. The province is involved in the design of the rural areas as in policy on spatial planning and real estate development. The barriers and bottlenecks they encounter, and learnings derived from that, will accelerate the implementation of climate adaptation measures both on national as on local level.
This objective of this sub-action i.e. broad integration and anchoring in Environmental policy and thus acceleration of implementation, requires integration in four of the seven themes of the Utrecht Provincial Environmental Policy. This will broaden and strengthen the availability of capacity and resources (staff, budget) for implementation of climate change adaptation measures. In addition to policy monitoring, knowledge will be generated, and lessons learned retrieved. Results will feed into D3, as well as D1, and to E1 and E3.

How
Acceleration is achieved by adjustments in policy and agreements with executing parties active on urbanisation, real estate development, climate adapative constructions (green roofs) and construction of green-blue schools.

The province of Utrecht will support, strengthen and propagate the process of anchoring and accelerating the implementation of adaptation measures through an intensive and innovative policy monitoring trajectory. Focus will not only be on the degree of anchoring, but also on its translation towards implementation, including the number of hectares of areas with a climate adaptive spatial design, and the effects on environmental quality (co-benefits) are monitored (multi-purpose delivery).

Within the overarching goal, three sub-activities have been identified

1) Strengthening the anchoring and integration of climate adaptation in the relevant provincial policy fields through concrete goals and concrete results. This will be accomplished by demonstration projects and pilots showcasing the approach. Three tranches are identified:
    a. Green-blue schoolyards. The green-blue schoolyards programme is structured in phases: phase 1 (until June 2021) – exploration and preparation; mapping, planning of costs, execution of three pilots. Phase 2 (July 2021-2023) – implementation; roll-out of the selected options and upscaling to other secondary schools and /or sports grounds and accommodations.
    b. Green roofs. This activity has four pillars: 1. setting up a Sustainable Roofs service point (both for individuals and companies), 2. lobbying regional authorities and developers on the basis of the 'Manifesto Multifunctional Roofs' drawn up by the Nature and Environment Federation Utrecht – together with market parties, 3. driving icon projects, and 4. setting up a regional Fund multifunctional roofs. This is supported by a publicity campaign.
    c. Development of ten local heat or heat policy plans
2) Developing an innovative policy monitoring system on the anchoring of climate adaptation in the provincial spatial development policy, on the progress of implementation and effect. This will be done is close alignment with D.3.

3) A strategic publicity plan will be developed and executed that will focus on propagating the approach towards reduction of heat stress as developed in this sub-action using media, meetings and dedicated seminars. This plan will include publicity in the Netherlands, using the Association of Dutch Provinces (IPO), and in Europe in cooperation with the European Committee of the Regions, the Covenant of Mayors for Climate and Energy, and during the biannual meetings of the European Climate Change Adaptation Conference (ECCA).
This activity will take place in accordance with Action E.1, E.3 and E.4 of this LIFE-IP.

Financial support towards implementation of the projects and pilots will, amongst others, come from a subsidy scheme that will enter into force from October 2021 for implementation of activities aimed at promoting climate-proof, green and healthy cities and villages. This fund is a cooperation between three provincial programmes. The scheme enables initiatives in different phases (from research and planning to implementation) and at different scales. The total budget available is €1,780,000, of which €1,265,000 will come from the Climate Adaptation Programme of the province (complementary action). The subsidy scheme encourages the submission of projects for green schoolyards and green roofs. Support in drawing up local heat plans is also possible. This also applies to projects aimed at creating cool spots in the public space or projects aimed at making buildings more climate-proof. Both municipalities and other stakeholders, such as schools or groups of citizens, can submit projects. Through intensive cooperation with external partners, such as nature and environmental organisations (IVN and NMU) and the municipal health services, the Province will encourage parties to take concrete action and submit projects.
The experiences of other provinces and individual municipalities in developing a local heat plan will be used to raise awareness and serve as good examples, as well as the guide for the development of local heat that was drawn up earlier is used and actively promoted in the Province of Utrecht.

Where
Province of Utrecht

When
Start: 01/04/2021
End: 31/12/2025

Reasons why this action is necessary
Heat stress and health issues related to heat are a relatively new topic fo the Netherlands.
Furthermore heat and health are cross-cutting themes that also involve spatial planning, public health, safety and health at work and many more issues. Hence embedding this climate risk in the different policies in a coherent way is a very complicated task. This subaction maps this tasks for other actors an can act as a demonstration project.

Expected Results
By 2027:
- 10 green-blue schoolyards
- Triple the number of green roofs compared to the baseline measurement (first intermediate result) - 10 local (municipal level) heat policy plans established
- 3 pilot projects in municipalities apply design guidelines for heat-resistant cities
- Monitoring approach developed and implemented.
- 390,000 inhabitants of the province of Utrecht have been reached and made aware
- 26 municipalities have been made aware
- 17,500 inhabitants improved resilience to heat stress (approx. 9,000 through green roofs and 8,500 through schoolyards)

Deliverables
Phase 1:
31/12/2021 Agreements with partners
31/09/2023 10 municipal heat plans delivered

Milestones
Phase 1:
31/12/2021 Explorations conducted on heat stress, multifunctional roofs and green-blue schoolyards, implementation 1st tranche of projects
31/03/2023 implementation 2nd tranche of projects (schoolyards, multifunctional roofs)

Phase 2:
31/12/2024 Policy monitoring system ready and working, and anchoring and integration of heat stress in environmental policy completed

ACTION C.4: Concrete implementation actions on Business models & Finance

Beneficiary responsible for implementation:
MinLNV coordinates this action. See table for other partners involved.

Action	Beneficiaries	Where	Target group
C.4	MinLNV		
C.4.1	SW-Fryslan	Municipality in the South West of the province Friesland	Farmers, entrepreneurs and citizens of the municipality
C.4.2	LTO	The Natura 2000 areas (meadow lands) in the Netherlands	Farmers
C.4.3	MinLNV	Nation-wide in the Netherlands	Local and regional authorities on agriculture and nature policy

Description (What, how, where, when):

What

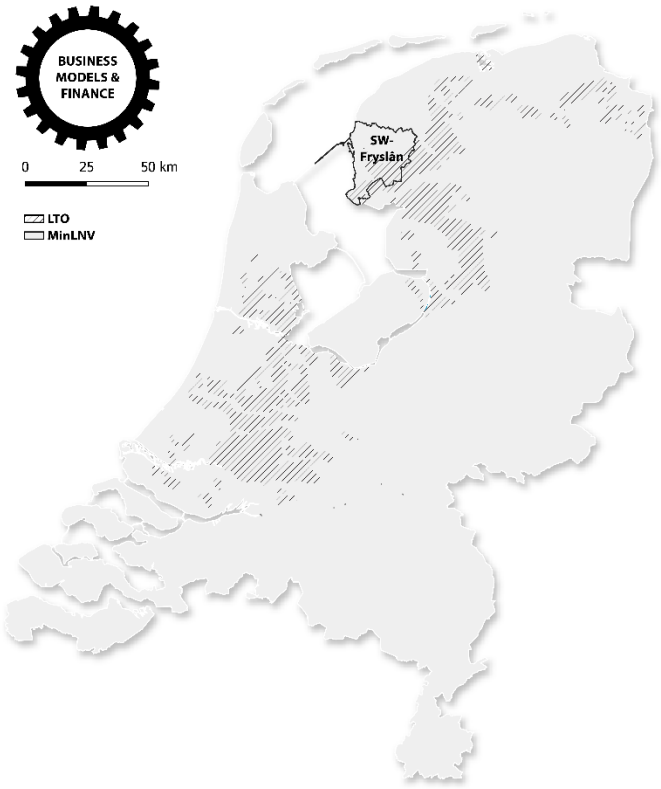
This action aims at developing novel approaches towards network financing, social business models and public-private combinations and integrated cost/benefit analyses. In this action our focus is to develop an integral financial analysis and business model. Public organisations in general have organised their tasks sectoral, while integral financial management is needed. Within the current societal challenges of the energy transition, circular economy and climate change adaptation, single issue financial management is not well applicable anymore. therefore, a series of new business models will be developed. Agricultural activities will be positioned in a combined approach with other themes such as nature and biodiversity, water (quality and quantity), landscape development and tourism. By combining different financial resources, e.g. assigned to health, sport, business development, biodiversity, and climate change adaptation, new financing opportunities for ecosystem- based climate change adaptation measures will be developed and tested.

How

Within this action, national and regional climate adaptation strategies will be developed, available for all relevant stakeholders. Action C4 has been divided into three sub-actions. In each of the sub-actions activities, specific results, deliverables and cost estimates have been indicated.

1. Agricultural and rural villages related business models with demonstration sites in the south west of the province of Friesland with transfer of know-how to other rural areas of the Netherlands.
2. Development of a transformation toolkit with business models for sustainable and circular agriculture in peat meadow lands.
3. Development of an integrated approach of nature and agriculture, led by the Ministry of Agriculture, Nature and Food Quality.

Where



With action C4, multiple innovative business and finance models will be piloted and demonstrated, to generate the success factors for different situations. These business models will provide evidence that climate adaptation can be implemented in an economic viable way. Evaluation of these models in D4 will enable selection of success factors and further improvement of guidance on integrated business model development towards concrete implementation of climate change adaptation measures in other regions. The demonstrations and pilots will reveal the ratio behind these models and how they can be institutionalised and transferred to other sectors. We selected one concrete area in the South-West of the province of Friesland (municipality of Súd-West Fryslân), where actors are already well prepared to implement business and finance models. The other areas of this sub-action are part of the selection the national farmer's organisation LTO will make in the peat meadow area of the Netherlands where six integrated finance models will be developed and demonstrated.

Reasons why this action is necessary:
At the regional and local level, multiple challenges – in several sectors – often ask for simultaneous action. It is worthwhile examining whether solutions can be developed that address multiple issues, so called 'crossovers'. One example is the inclusion of more open water and greenery in the urban design. This reduces the risk of flooding during heavy rainfall, acts as a climate buffer and improves the quality of the human environment. It is important to adopt an active approach to the crossovers which will help to solve multiple problems.
Climate adaptation entails expense. Adapting to climate change requires of everyone to make investment decisions. Putting off those decisions, or making the wrong choices, is likely to become much more expensive in the longer term. Also, there will be direct and future returns on investment, in financial terms but also in terms of a more attractive and healthier living environment.
By showcasing the benefits of integral business models, implementation of the NAS will be accelerated.

Expected results (quantitative information when possible):
Action C4 will result in local experiences with business models and financing structures of climate adaptation projects. The expected results are summarized below, and more detail is provided in the sub-actions:

- An earnings model for the agricultural sector based on the monitoring data and a market analysis.
- Measurements are made on difference locations to obtain information on the effect of urban measures on groundwater (expected to subside by a maximum of 25 cm) and learn lessons.
- 6 pilot areas, which will provide input for the development of new business models for sustainable and circular agriculture in peat meadow lands.
- 4 pilot areas in rural villages that will focus on business models for energy transition, water management and sustainable agriculture on clay/peat soils.

SUB-ACTION C.4.1: Agricultural and rural business models with demonstration sites in the south west of Friesland

Beneficiary responsible for implementation:
SW-Fryslan

Description (what, how, where, when):
What
The municipality of Southwest Friesland (SW-Fryslan) aims to demonstrate an economically smart and ecologically sound climate adaptive agricultural sector and rural communities by realizing the following objectives:

- Establish business models linked to climate adaptation of agriculture and rural economy focusing on local energy production, water management and nature inclusive agriculture within the region of south west Friesland.
- Develop integral and community driven approach to governance of climate adaptation with demonstration sites with a physical and organizational structure for co-creation, disseminating knowledge and know-how.
- Develop and demonstrate rainproof measures for villages and commercial build environment adapting to climate change with focus on green solutions.

How
This sub-action will focus on stimulating the development of agricultural and rural business models and promoting effective governance approaches to initiate adaptation momentum that will sustain itself after the finalisation of the LIFE-IP. The sub-action will start with setting up an organizational structure and supervising team that will kick-off to the climate adaptation objectives within SW-Fryslan with analysing the baseline, relevance, bottlenecks and requirements of the three objectives mentioned above. It will deliver a roadmap and a vision toward climate change adaptation of the region. The roadmap will follow a structured ABCD (Awareness and visioning, Baseline mapping, Creative solutions, and Decide on priorities) approach (https://naturalstep.ca/abcd). Focus will be put on enabling local communities to co-create solutions fitting in with the objectives and facilitating communities to implement and pilot those solutions in four demonstration sites (1 ha per demonstration site). The work implemented on the demo sites must lead to climate adaptation business models for various combinations of objectives within the scope of SW-Fryslân and its local village communities. The 300ha of land represent the (potential) local area that can directly learn and profit from the lessons learned during the demonstrations. The project aims to have implemented (as much as possible) solutions in this area of 300ha by project end.
Based on the roadmap, the supervising team will initiate a cycle of evaluations of success of solutions and demonstrations, and move toward the next iteration, with improved effectivity, with revisiting the objectives, adhering to the vision, while updating the roadmap. This cycle will be repeated yearly during this sub-action. SW-Fryslan is already implementing climate adaptation programmes on water management, sustainable nature inclusive agriculture and local energy production together with local village communities. These programmes will be a steppingstone for NASCCELERATE to increase the speed of adaptation and scale of impact.
SW-Fryslan will promote the involvement of educational institutes (academic, applied research, and vocational) in order to achieve an involvement of students, lecturers, teachers, and professionals to maximize the impact of the sub-action's results in education and society.

Where
The sub-action will be in the north of the Netherlands, in the province of Friesland, along the border of the IJsselmeer. It is a national landscape famous for its lakes, nature, historic villages and towns. Its organisational headquarters will be in the city of Sneek. The municipality of Southwest Friesland consists of 84 rural villages, 6 small cities and is in terms of surface area the largest municipality in the Netherlands. The municipality is profiling itself as frontrunner in climate change adaptation in low- lying rural areas with high agricultural productivity, high nature values and intensive tourism.

When
This sub-action will commence in Q3 of 2021 and will continue until Q4 of 2027.

Reasons why this action is necessary
The SW of Fryslan can serve as a demonstration region for economically smart and ecologically sound climate adaptive agricultural sector and rural communities. The combination of soil subsidence and agriculture in this region calls for a specific approach that can be replicated in other rural regions confronted with subsidence of peat soils.

Constraints and assumptions

Constraints

- Difficulty to develop business models with favourable cost/benefit ratio compared to status quo as the status quo changes continuously in a way that make the business models less favourable.
- Stakeholders, although already in the network of SW-Fryslan are not agile enough to provide adequate support to new business models.
- Change processes and adaptation by larger groups may take longer than the scope of NL-NASCCELERATE.
- The support for climate adaptation will decrease over time.

Assumptions

- After local elections, the priority for supporting the process and multiplying and replicating the outcomes remains high and that the network will stay involved.

Expected results

- 2 business models (aimed at the mutual reinforcement of the relationship between climate adaptation and the agricultural and rural economy.
- 4 demonstration sites with a physical and organizational structure for disseminating knowledge and know-how that demonstrate climate adaptation business models for various combinations of objectives within the scope of SW-Fryslân and its village communities.
- Production of online and real-life adaptation information that offers access to status of experiments, knowledge and know-how of involved experts for all inhabitants of the municipality and of the Netherlands.
- Guidance on the implementation of effective community involvement has been developed
- Awareness of climate adaptation business models among many different target groups, including farmers, entrepreneurs, and students. By 2026:
- 5,000 inhabitants have become more resilient to flooding
- 8,000 inhabitants involved and made aware on climate change
- 25 regional and local authorities involved and have been made aware
- 3,500 people changed behaviour
- 25 regional and local authorities have changed behaviour
- 50 farmers have changed behaviour
- 300 ha improved resilience to flooding
- 300 ha agriculture land under sustainable management

Deliverables:

First phase

31/12/2021: Roadmap that contains an approach on how to implement climate adaptive business models.

31/06/2022: Inception report on identification, characterization, and expected outputs for 4 demonstration sites (living labs) with 5 workshops per demonstration site and business models and local publicity plan, including website with factsheets, newsletter for farmers, brochures, flyers, publications, white papers

31/12/2023: First evaluation report of the road map, co-creation on business models and green solutions

Following phases

31/12/2025: progress report of the road map, co-creation on business models and green solutions

31/12/2027: final report of the road map, co-creation on business models and green solutions

Milestones

Following phases

31/06/2027 International Symposium on demonstrating climate adaption business models in rural areas

SUB-ACTION C.4.2: Development of a transformation toolkit with business models for sustainable and circular agriculture in peat meadow lands

Beneficiary responsible for implementation:
LTO (The Netherlands Agricultural and Horticultural Association)

Description (what, how, where, when):
What and how
Within the framework of this LIFE-IP, LTO focusses on the climate challenge for agriculture in the peat meadow polder area in the Netherlands, comprising almost 10% of Dutch land area. In these areas, the soil is subsiding as a result of the mineralization of peat (oxidation of organic matter). Dairy farms in these areas need bearing capacity for machinery and grass needs drained soil, which requires a relatively low groundwater level (at least -50 cm). This 50 cm of soil above groundwater called the drainage zone. It is precisely in this zone that mineralization takes place and the soil subsides further.

Soil subsidence in peat meadow lands gives rise to a cumulative effect as the soil subsidence gives rise to a further lowering of the groundwater level, causing additional soil subsidence, et cetera. This soil subsidence creates a challenging problem. The Netherlands Environmental Assessment Agency (PBL) has calculated that soil subsidence in peat meadow lands will cause more than €40 billion damage to buildings and wet and dry infrastructure by 2050. Safety against flooding also decreases as the difference between basin level and polder reduces the stability of the peat dikes that protect the polder.

Soil subsidence requires local measures, that will directly affect the existing agricultural function. Three strategies have been developed:

1. For areas with thin peat layers, it may be an option to accept that the peat will ultimately oxidise completely and disappear.
2. For agricultural areas with perspective and a sufficient layer of peat, technical and economic transitions (such as 'submerged drainage') may be implemented.
3. For areas with a thick layer of peat and little agricultural perspective in the mid to long term, an approach based on function change or adaptation – a transformative approach – might be taken. This can be done, either by designating the area with a completely different function or by adopting an alternative business model (for example, more in-house protein production).

The choice between these strategies is not only based on soil structure and economic perspective but requires an integral consideration by governments and the sector to prepare for the long-term future. In addition, the location is decisive. Particularly in the immediate vicinity of towns/villages prone to subsidence, a change of function may be necessary to counteract this subsidence. This will have consequences for the current functions of such areas (for example a shift from agricultural production functions to nature-inclusive agriculture or to nature and landscape functions). Conversely, it can be concluded that, given the three strategies, agriculture is the main actor in absorbing these climate effects. The Delta Plan for Agricultural Water Management (Delta plan Agrarisch Waterbeheer, DAW) programme facilitates farmers in taking up this new role.

In this sub-action, LTO wants to further develop strategies 2 and 3, and the combination of both, in dialogue with farmers. This will be done in six areas, each with distinctive characteristics and scattered across the peat meadow lands of the Netherlands. LTO is opting for a sustainable change in an area where function change or adaptation goes hand in hand with a significant reduction in water drainage. This requires a customized, integrated, regional approach in which landowners, in cooperation with the government (municipalities), look for a new sustainable future for 'their' peat meadow lands.

Based on the dialogue with the farmers in the area, new business models will be developed, applicable to the entire area, including all its functions. Elements in such a business model can be equalisation between the municipality and the farmers, or between water boards and farmers, as farmers are able to reduce the maintenance costs for these authorities. Also, financial compensation for capturing CO_2 can be considered. A cooperative approach, common in the agricultural sector, offers opportunities and innovations for the development of synergy mechanisms.

In this sub-action, three steps are distinguished. In step 1, a system is developed that leads to the choice of 6 peat meadows where a transformative or combined approach seems promising and insight is given into the conditions under which this can be done. We will cooperate with relevant partners in LIFE-IP who have peat meadow areas, i.e. Zwolle, Gouda, HRR, WVV, SW-Fryslan. Step 1 further comprises the following steps:

- Step 1.1: Data study.
    - Relevant data that characterise peat meadow areas will be extracted from multiple public sources and integrated in a data viewer, using the concept of joint fact finding (JFF). This includes data on the agricultural situation, soil structure, property rights, demographics, etc. Available data sources are available at the Dutch water boards, the Land Registry office, the Netherlands Enterprise Agency (RVO), provinces, and Statistics Netherlands (CBS). JFF contributes significantly to support for transitions and transformations. The Land Registry office will map the current soil subsidence and will make future projections. Their analysis is the starting point for step 1.2.
- Step 1.2: Selection of promising areas. The choice of the most promising areas is made in an advisory meeting with the authorities and social parties involved (see below) based on the data and effectiveness.

Step 2 entails exploratory dialogues, and comprises the following steps:

- Step 2.1: Approaching the residents in these areas to ultimately select 5 pilot areas.
    - Through discussions with owners, users, and municipal/regional authorities, the aim is to arrive at an appropriate, integrated approach for the transformation needed in these areas, as the climate and energy transitions are inevitable. While farmers have a positive attitude towards contributing to the climate targets, in practice, their primary driver is about creating a sustainable (economic) future as a farmer. The results of these dialogues will be laid down in an agreement towards implementation. These will be tied to programmes that have already started. In the 'Green Heart', a relatively thinly populated rural area that is surrounded by the major Dutch cities of Rotterdam, The Hague, Amsterdam and Utrecht, the inter-administrative programme 'Towards the Sustainable Use of Soft Soil in the Dutch-Utrecht Peat Meadows' is relevant, as well as the regional deal 'Groene Hart and Laag Holland' in the North Holland Soil Subsidence programme. In the IJssel Delta (Zwolle/Kampen), the Climate Campus is promising. In Friesland cooperation will be sought with LIFE-IP partner SW-Fryslan, and the two regional deals 'NoordOost Friesland' and 'Nature inclusive Agriculture'.
- Step 2.2: Study/inventory of conceivable business cases through dialogues with farmers in the selected areas.
- Step 2.3: Evaluation, publication.
- The approach and results will be described and disseminated.

Where

LTO will focus at first on all peat meadow lands in the Netherlands, which extend in general terms from the South-West to the North-West of the country. The desk study carried out by, among others, LTO and the Land Registry office (step 1) as well as the exploratory dialogues with stakeholders (step 2) will result in a shortlist of areas suitable for dialogue with farmers and other users in our search for realistic and feasible business cases for each area. Therefore, at this stage, an exact geographical interpretation of the shortlisted areas is not yet possible.

When

This sub-action will start as soon as this LIFE-IP proposal has been approved. The start of the dialogues in the selected areas is planned for 2022. The duration of the dialogue will take a maximum of one year. Depending on the investment possibilities, a next step will be entered immediately after this LIFE-IP to implement the business plan.

Reasons why this action is necessary

In addition to action C4.1. specific focus on the business models of farmers is necessary as sustainble land-use and management induces higher costs and lower yields for farmers. The new business models developed in this subaction can serve as a demonstration project to be used to adjust agricultural policies.

Constraints and assumptions
The ambition is to select about 6 peat meadow lands the first year the sub-action starts. This implies the cooperation of 6 networks around these areas and close involvement of farmers. LTO has a huge network in the Netherlands, regional and local, and therefore there is confidence that this will be achieved.

Expected Results

- A data study that will offer insights into the agricultural situation, soil structure, properties, demographics, etc. of the peat meadows, that can be used to select the most promising pilot areas, as well as for other (future) purposes.
- Selection of 6 pilot areas, which will provide input for the development of new, sustainable business models.
- Awareness of climate adaptation as a potentially economically profitable development.
- A proven method supported by a viewer to assess peat meadows for sustainable redevelopment.
- By 2027, 4,000 ha of agricultural land under sustainable management (5% of total)
- By 2027, 100 farmers directly involved in the sub-action and reached

Deliverables:

First phase
31/06/2022, Report of selection of 6 research areas

Following phases
31/12/2024, Business case and description to make the agriculture in meadow peat areas stronger and to transform the agriculture (in meadow peat areas)
31/12/2025 Advice process approach Meadow peas (process description for a resilience agriculture in the meadow peas (and replication opportunities across Europe/International)

Milestones:

First phase
31/03/2022 GIS viewer map
31/12/2022 Final shortlist (selection) of peat meadow lands
avaliable
31/12/2023 Viewer available online

SUB-ACTION C.4.3: Three step model approach towards an action programme for climate adaptation in agriculture and nature.

Beneficiary responsible for implementation:
MinLNV

Description (what, how, where, when):
What and how
Within the framework of this LIFE-IP, the Ministry of Agriculture, Nature and Food Quality (MinLNV) will focus on the climate challenge for agriculture and nature in the Netherlands. In the last 10 years an increasing number of farmers reported problems with extreme rainfall as well as droughts resulting amongst others in reduced crop yields. These extreme weather occurrences will become a frequent phenomenon, 'a new normal'. The effects have major consequences for agriculture and nature, such as crop and ecosystem damage. The impact of climate change, and the direct effects will differ per region. This partly due to differences in the soil and water systems in place.

This calls upon a regional approach to climate change adaptation for rural areas (agriculture and nature). MinLNV will develop a climate adaptation action programme for nature and will update the climate adaptation agriculture action programme. This is conducted in close cooperation with stakeholders such as provinces, water boards, municipalities and agricultural and site management organisations. The action programmes are defined at the national level and have a regional approach, thus linking national and regional challenges. The action programmes are area-oriented and have specific action lines and pillars for adapting agriculture and nature, with the soil and water system characteristics as a common denominator.
The main goals of this sub-action are:
- Prepare the agriculture sector to become aware of climate change in 2030
- Prepare the nature organisations to become resilient and to adapt to climate change in 2030
- Prepare both groups to collaborate, based on the joint awareness that adaptation to climate change is necessary in the long run.

This sub-action follows three steps:

1. Organise regional meetings to understand what is happening in the different regions. Work together with stakeholders as LTO to have a local partner in this transition.
2. Prepare and sign public-private agreements within agriculture and nature, together with the financial sector, to set up innovative business models towards climate resilience for the next decades.
3. Set up a dynamic knowledge agenda in agriculture and nature. This agenda contains the next aspects:
    - Set up practices and implement pilots to innovate in both sectors to increase resilience in the coming years: How to deal with hot summer seasons in agriculture, spatial planning in the perspective of increased flooding risks, or how can nature and agriculture learn and work together in rural areas.
    - Participant in research and development projects
    - Set up an annually updated knowledge agenda based on practices and lesson learned.

MinLNV wants to contribute to increasing awareness of the main goals of the national adaptation strategy in agriculture and nature policy and practice. Therefore, we want to increase the exchange of knowledge with private and public partners. This allows for anticipation in our approaches towards climate resilience.

Where
Nationwide in the Netherlands

When
This sub-action will start as soon as this LIFE-IP proposal has been approved with our regional meetings at the second half 2021. During the years 2022-2023 public private collaboration sessions will be set-up, action agenda will be developed and a framework for agreements is prepared. At the end of 2023 a first version of the dynamic knowledge agenda will be ready.

Reasons why this action is necessary
The sectoral policies for agriculture and nature conservation are already addressing climate risks, however at a modest level. Improving the national policies will stimulate provinces to adjust their agricultural and nature conservations policies and implementation plans as well.

Constraints and assumptions
The National Area Vision was a main risk, however, as this has been adopted by the end 2020, no major constraints of assumptions are expected.

Expected Results
- Regional approach of climate change in rural areas
- Financial plan of Public private approach in agriculture and nature
- Dynamic knowledge agenda climate adaptation in agriculture and nature.
- By 2027, 10% of all agricultural entities have been reached and made aware (5,500)

Deliverables:

Phase 1:
31/12/2023 Regional approach to climate change adaptation in rural areas, financial plan for the public-private partnership approach in agriculture and nature and dynamic knowledge agenda climate adaptation in agriculture and nature.

Milestones:

D. Monitoring of the impact of the project actions

Introduction to the D-activities

The monitoring of the project impact is aligned along the four interconnected objectives identified for this LIFE-IP, using the same approach as the structure of the C-actions. The structure and approach of the actions D1 to D4 are similar to each other. This is the most effective way to make sure all D1 to D4 actions together can contribute their results to action D5, while all tasks are executed parallel to each other. Moreover, in this way D1 to D4 can efficiently contribute to the dissemination action E2.

Furthermore, as shown in the 'Theory of Change (ToC)' as displayed in form 2Bc/appendix 1, the monitoring and evaluation results are allowed to serve as input for adjustments to the project in case that expected outcomes and impacts will not be met.

ACTION D.1: Monitoring and evaluation of Knowledge & Tools: integration of the lessons learned and dissemination actions

Beneficiary responsible for implementation
MinI&W, in cooperation with MinVWS, RWS, VGGM, KNMI

Description (what, how, where and when)
What
The main overarching indicator themes to monitor and evaluate the impact of C1 sub-activities contributing to the objective Knowledge & Tools will be:

- What are still existing knowledge/information gaps that act as a barrier for climate resilience efforts?
- For which climate impacts - as part of the NAS conceptual diagrams - have knowledge and tools been developed (partly) through this LIFE-IP project?
- Have the above mentioned knowledge and tools been used in the decision-making process of involved stakeholders, and considered to be useful in regard to the information presented, information aim, and used visualisations?
- What are the effects of above mentioned knowledge and tools in terms of contributing towards capacity building and their replication potential in other projects?

In action A5, these indicator themes will be further operationalised. Additionally, over the course of the LIFE-IP project, action D1 will further build on the infrastructure for monitoring of main indicators and baseline setup as developed in action A5:

1. Action D1 will start with detailing, extending and confirming the above mentioned main overarching indicators and baseline monitoring from action A5 that monitor the development of knowledge and tools specified in action C1 and its associated sub-actions. This will be done with the actively participating partners in action C1. The LIFE Key Project Level Indicators will be used as a reference point. A protocol will be setup to actively monitor action C1 in order to gain the necessary data to feed these indicators.
2. As a next step the baseline of existing knowledge and tools will be established by actively involving the partners in action C1. An effort will be made to extract relevant information from partners active in other C-actions in case they also contribute to the objective Knowledge & Tools as a co-benefit.
3. Subsequently the progress of development will be monitored and evaluated – from the single, double and triple loop learning perspectives as described in form B2c of this proposal with respect to achieving the formulated project objectives in a biyearly frequency.
4. Information on impact and progress towards the objectives will be brought together by the coordinator of action D1 and shared with action D5 with the aim to produce a periodical national evaluation report on the overall impact the project delivers towards accelerating climate adaptation.

How

The first phase will focus on detailing the main overarching indicators and the baseline for monitoring. The co-beneficiaries will report the monitoring results for their own C1 sub-actions and will be reported on by MinI&W in an evaluation of this data. During the subsequent phase the second reporting and evaluation period will take place and in the third phase the monitoring of dissemination actions will be evaluated in a final report. In more detail these phases consist of the following steps:

1. The operationalization of the previously mentioned main overarching indicator themes and the approach for baseline monitoring will be realized by organizing two working group sessions with relevant stakeholders. This will result in a list of more detailed main indicators/narrative and a main indicator table for describing the developing status (the baseline) of the knowledge base and existing tools in the Netherlands and abroad.
2. Each partner of this action will subsequently produce an overview of baseline and main indicators for the sub-action at hand. This will result in a document describing the baseline and a spreadsheet with quantitative and qualitative main indicators per sub-action. Data collected through these sub-actions will be fed into the operationalized main overarching indicator themes to provide a clear overview of the status of C1 and its attempts to reduce/remove knowledge barriers. Data collection methods may include work group meetings, interviews with key stakeholders, focus groups and surveys. This wide methodological variety is due to the nature of the data being both quantitative and qualitative, necessitating a mixed-methods approach.
3. The main indicator table will contain a tab per sub-action and will be updated biyearly, starting in year 2 of the project. This table will also serve as input for an online report on the present status of Knowledge & Tools in the C-actions containing: a description of an improved baseline, monitoring strategy and methods used; synthesis of the monitoring actions; validation of the results through interviews and focus groups; intermediate adjustment and adaptive measures throughout the course of the project; reflection on the findings, particularly regarding project highlights and issues that have been solved; dissemination action programme with results and recommendations for future update of the NAS.
4. In year 2 and year 4, the partners will report to the coordinator of action D1 on their progress of reaching the projected impact of their sub-action. Results and progress towards the impact objectives are discussed in a working group meeting and evaluation is executed for each sub-action. The first meeting will focus on mutual learning and the second meeting in year 4 on dissemination actions. The evaluation will be validated by stakeholders and focus groups and supported with additional interviews with key persons. These reports will also serve as input for the online report mentioned above at point 3.
5. In year 5 and year 6 dissemination actions will be monitored by the coordinator of action D1. This will be done by for example tracking downloads, views and references to produced dissemination material (reports, articles, etc.), the number of attendees of conferences, seminars, oral presentations etc. and their organisations. This provides an indication of the spread of knowledge due to this LIFE-IP with Dutch/European organisation working on climate change adaptation.
6. In 2023, 2025 and 2026 the coordinator of action D1 will, if required, propose adjustments in the implementation of action C1 to maximize impact in the remaining period. These adjustments will follow the proposed learning-loop approach and will be based on the potential shortcomings shown by monitoring efforts done for C1 and sub-actions.
7. The coordinator of this action will compile the information in year 2, year 4 and year 5 and year 6 for transfer of results to action D5 (see also point 4).

Where

The coordination of this monitoring action will take place in The Hague. The monitoring of the C1 (sub)actions will take place in several specific areas in the Netherlands (see the map in Form B2b and action C1 for more detailed information).

When

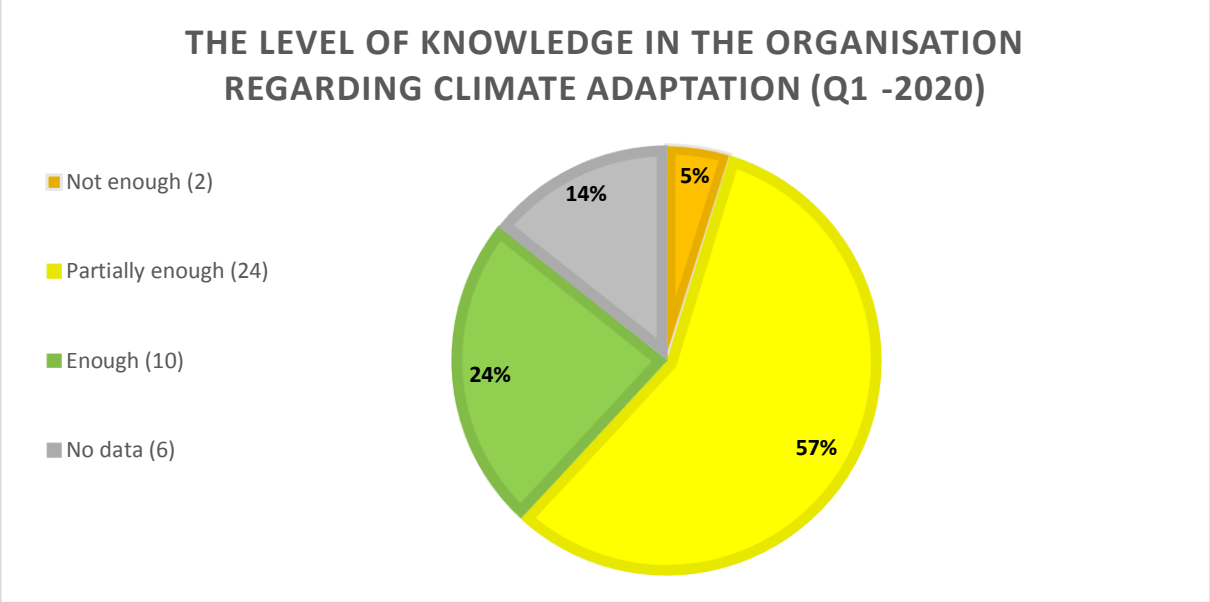
The monitoring and evaluation will take place over the course of the entire project.

Reasons why this action is necessary

Regularly reporting and follow-up on the impact of the project actions ensures, learning and insights in effectiveness and efficiency and is a prerequisite for a successful learning & replication strategy.

Creating enough impact on each objective is crucial to the effective implementation of the whole IP. Learning from the execution of the C-actions will serve the reinforcement of each objective and therefore accelerate the implementation of the NAS.

These monitoring efforts will be compared to a baseline monitoring done end 2019 / beginning 2020 done for part of the 10 identified sectors in the NAS. This monitor was executed via a survey sent to 42 work regions in the Netherlands. These work regions are collaborations between municipalities, and often regional governmental stakeholders such as the province(s) and water board(s). This broader approach towards climate change adaptation is also fitting due to the often transboundary character of climate impacts and measures taken. The same is also true for the data shown in the figures in actions D2 till 4. In regard to action C1 and its aims, the figure underneath shows that at the time of measuring, the majority of the work regions reported that the level of knowledge in the work region organisations is not or only partially enough for, for example making well-informed decisions.



As such, action D1 aims to provide answers to questions like: What will be the progress of climate adaptation knowledge in the Netherlands and do the available tools meet the requirements of stakeholders?; or how do the objectives interfere with each other in practice? Monitoring the C-actions also enables intermediate adjustment and adaptive measures along the lines of the single, double & triple loop learning as described earlier throughout the implementation process of the IP. Above all, this action provides valuable insights on the important aim of this project: do the actions of action D1 help to accelerate the overall implementation of the NAS?

Constraints and assumptions

- The scope of the projects under action C1 and the contributing partners will reach public organisations, businesses, citizens, and experts. It covers some large cities and large rural areas. It will develop products on the most urgent climate adaptation challenges (water management, biodiversity, agriculture, health).
- It is assumed that the political and governance support for the projects that contribute to this LIFE-IP will remain stable. This is linked to the adoption and execution of the NAS.
- Regarding the development of new knowledge and tools, due to the diverse stakeholder groups (public organisations, businesses, citizens and experts) it can be assumed that the information needs of these groups will diverge. This will be addressed during the (partial) development of new knowledge and tools in the project regarding the information presented, the visualizations used, the aim of the tool, etc.
- After 2024 the amount and quality of dissemination actions to further develop knowledge and tools will depend on the outcome of the C actions and cannot be identified yet. Time and budget

will limit the implementation of these dissemination actions, all possible efforts will be made to mobilize other funds in the final phase.

Expected results

- 1 online report on the present status of Knowledge & Tools in the C actions.
- 1 list of detailed indicators and the progress made during project execution, including evaluation & learning, available online.
- 1 dissemination action program NL-NASCCELERATE (in cooperation with action E2).
- 1 compilation of the status and progress illustrated with examples and project highlights for sharing with the (inter)national community.

Deliverables

First phase
31/12/2023: First report on monitoring strategy and evaluation of C1, with a detailed baseline and main indicators and the first monitoring and evaluation of all partners involved.

Following phases
31/12/2025: Second monitoring report and evaluation including a dissemination action programme together with E2.
31/12/2027: Monitoring and evaluation report on last phase dissemination actions.

31/12/2027: Final report “Monitoring and Evaluation D1 Knowledge and Tools” on the overall contribution of action C1 to the implementation of the NAS.

Milestones:
First phase
31/12/2022: Detailed baseline and final main indicator table and monitoring plan for C1 completed and shared with partners

ACTION D.2: Monitoring and evaluation of Awareness & Sense of urgency: integration of the lessons learned and dissemination actions

Beneficiary responsible for implementation
MinI&W, in cooperation with MinVWS HDSR, Waternet, Apeldoorn, Arnhem, Groningen, Rotterdam.

Description (what, how, where and when)

What
The main overarching indicator themes to monitor impact, evaluate and learn from the C2 sub-activities contributing to the objective Awareness & Sense of urgency will be:

- What is the level of sense of urgency and awareness within different sectors, regions, and governmental, public and private actors – related to the known climate risks and impacts for these groups?
- For which of the sectors – as part of the NAS conceptual diagrams – have responsibilities been attributed to and acknowledged by actual parties with reference to NAS and this LIFE-IP project?
- How have the C2 sub-activities contributed towards raising awareness and a sense of urgency for each of the groups focused upon in each specific sub-activity, and if so, how has this development been?
- What are the effects of sub-activities of C2 in terms of capacity building and replication potential?

In action A5, these indicator themes will be further operationalized. Additionally, over the course of the LIFE-IP project, action D will further build on the infrastructure for monitoring of main indicators and baseline setup as developed in action A5:

1. Action D2 will start with detailing, extending and confirming the above-mentioned main overarching indicators and baseline monitoring from action A5 that monitor the development of Awareness & Sense of urgency specified in action C2 and its associated sub-actions. This will be done with actively participating partners in action C2. The *LIFE Key Project Level Indicators will be used as a reference point. A protocol will be setup to actively monitor action C2 in order to gather the necessary data to feed these indicators.
2. As a next step the baseline of the Awareness & Sense of urgency among stakeholders will be established by actively involving the partners in action C2. An effort will be made to extract relevant information from partners active in other C-actions in case they also contribute to the objective Awareness & Sense of urgency as a co-benefit.
3. Subsequently the progress of development will be monitored and evaluated with respect to achieving the formulated project objective in a biyearly frequency. If the progress is deemed insufficient for either the C activity itself, or one of the sub-activities, these will be further investigated based on the earlier mentioned ‘learning loops’ in form 2Bc in order to adjust the objective and associated activities, expected output, outcomes and impacts.
4. Information on impact and progress towards the objective will be brought together by the coordinator of action D2 and will be transferred to action D5 with the aim to produce a periodical national evaluation report on the overall impact the project delivers towards accelerating climate adaptation.

How
The first phase will focus on detailing the main overarching indicators and the baseline for monitoring. The co-beneficiaries will report the monitoring results for their own C2 sub-actions and will be reported on by MinI&W in an evaluation of this data. During the subsequent phase the second reporting and evaluation period will take place and in the third phase the monitoring of dissemination actions will be evaluated in a final report. In more detail these phases consist of the following steps:

1. The operationalization of the previously mentioned main overarching indicator themes and the approach for baseline monitoring will be realized by organizing two working group sessions with relevant stakeholders. This will result in a list of more detailed main indicators/narrative and a main indicator table for describing the development in awareness & the sense of urgency amongst governmental, public and private actors within different sectors and regions.
2. Each partner of this action will subsequently produce an overview of the main indicators for the sub-action at hand. This will result in a document describing the baseline and a spreadsheet with

quantitative and qualitative main indicators per sub-action. Data collected through these sub-actions will be fed into the operationalized main overarching indicator themes to provide a clear overview of the status of C2 and its attempts to reduce/remove the barrier related to the sense of urgency and awareness. Data collection methods may include for example citizen science approaches, interviews with key stakeholders, focus groups and surveys. This wide methodological variety is due to the nature of the data being both quantitative and qualitative, necessitating a mixed-methods approach.

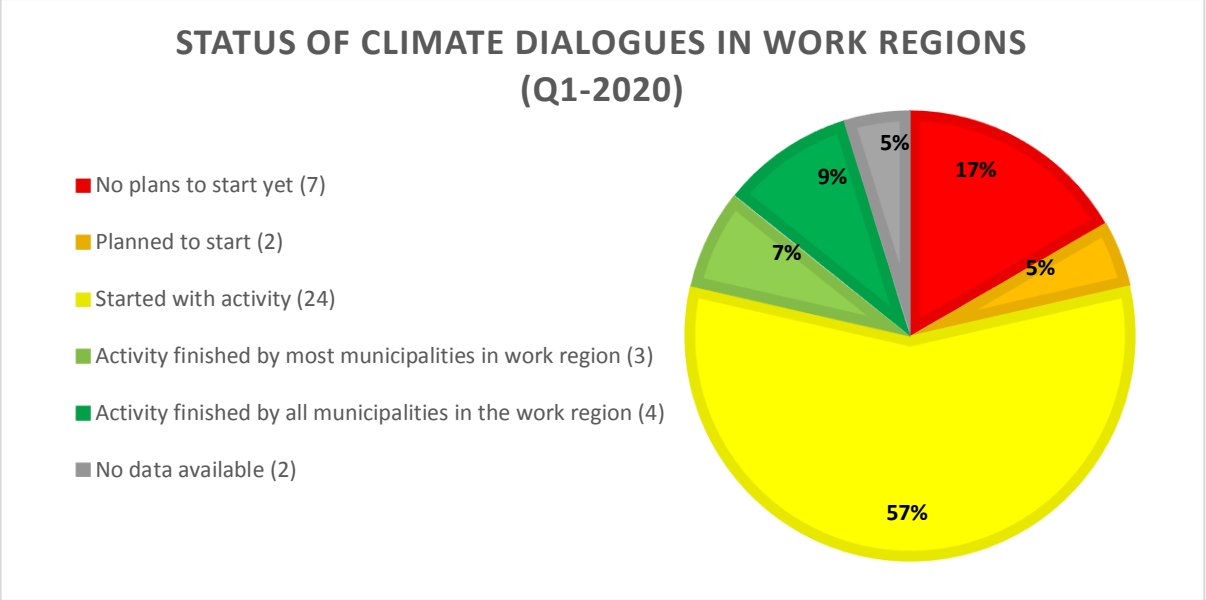
3. The main indicator table will contain a tab per sub-action and will be updated biyearly, starting in year 2 of the project. This table will also serve as input for an online report on the present status of Awareness & Urgency in the C-actions containing: a description of an improved baseline, monitoring strategy and methods used; synthesis of the monitoring actions; validation of the results through interviews and focus groups; intermediate adjustment and adaptive measures throughout the course of the project; reflection on the findings, particularly regarding project highlights and issues that have been solved; dissemination action programme with results and recommendations for future update of the NAS.
4. In year 2 and year 4 of this LIFE-IP, the partners will report to the coordinator of action D2 on their progress of reaching the projected impact of their sub-action. Results and progress towards the impact objectives are discussed in a working group meeting and evaluation is executed for each sub-action. The first meeting will focus on mutual learning and the second meeting in year 4 on dissemination actions. The evaluation will be validated by stakeholders and focus groups and supported with additional interviews with key persons. These reports will also serve as input for the online report mentioned above at point 3.
5. In year 5 and year 6 dissemination actions will be monitored by the coordinator of action D2. This will be done by for example tracking downloads, views and references to produced dissemination material (reports, articles, etc.), the number of attendees of conferences, seminars, oral presentations etc. and the organisations that these attendees originate from. This provides an indication of the spread of knowledge by this LIFE-IP among Dutch and European organisations working on climate change adaptation.
6. In year 2, 4 and 5 the coordinator of action D2 will, if required, propose adjustments in the implementation of action C2 to maximize impact in the remaining period. These adjustments will follow the proposed learning-loop approach and will be based on the potential shortcomings shown by the monitoring done for C2 and its sub-actions.
7. The coordinator of this action will compile the information in year 2, year 4 and year 5 and year 6 for transfer of results to action D5 (see also point 4).

Where
The coordination of this monitoring action will take place in The Hague and Apeldoorn. The monitoring of the C2 (sub)actions will take place in several specific areas in the Netherlands (see the map in Form B2b and action C2 for more detailed information).

When
The monitoring and evaluation will take place over the course of the entire project.

Reasons why this action is necessary
Regularly reporting and follow-up on the impact of the project actions ensures, learning and insights in effectiveness and efficiency and is a prerequisite for a successful learning & replication strategy. Creating enough impact on each objective is crucial to the effective implementation of the whole IP. Learning from the execution of the C-actions will serve the reinforcement of each objective and therefore accelerate the implementation of the NAS.

Similarly, as was the case with action D1 baseline monitoring data is used here as well, as shown in the following figure. It shows that around the time of measuring the Dutch work regions are preparing climate dialogues with regional and local stakeholders and developing an adaptation strategy (either on municipal or (work) region level).



This action therefore aims to provide answer to questions like: What is the status of Awareness & Sense of urgency of stakeholders involved in the C-actions?; or how do the objectives interfere with each other in practice? Monitoring the C-actions also enables intermediate adjustment and adaptive measures along the lines of the single, double & triple loop learning as described in the introduction throughout the implementation process of the IP. Above all, this action provides valuable insights on important aim of this project: does action D2 accelerate the overall implementation of the NAS?

Constraints and assumptions:

- The NL-NASCCELERATE project does not include all experts related to climate change adaptation in the Netherlands or abroad. However, the scope of the projects under action C2 and the contributing partners will reach a large group of public organisations, businesses, citizens and experts. It covers some large cities and large rural areas. It will develop products on the most urgent climate adaptations challenges (water management, biodiversity, agriculture, health and land subsidence safety of citizens).
- It is assumed that present analysis of most urgent climate adaptation topics remains in line with NL-NASCCELERATE. It is assumed that the political and governance support for the projects that contribute to NL-NASCCELERATE will remain stable. This is linked to the adoption and execution of the NAS.

Expected results (quantitative information when possible)

1 online report on the present status of Awareness & Sense of urgency in the C actions.
1 list of detailed indicators and the progress made during project execution, including evaluation & learning, available online.
Together with E2: 1 dissemination action program NL-NASCCELERATE.
1 compilation of the status and progress illustrated with examples and project highlights for sharing with the (inter)national community.

Deliverables

First phase
31/12/2023: First report on monitoring strategy and evaluation of C2, with a detailed baseline and KPIs and the first monitoring and evaluation of all partners involved.

Following phases
31/12/2025: Second monitoring report and evaluation including a dissemination action programme together with E2.
31/12/2027: Monitoring and evaluation report on last phase dissemination actions.
31/12/2027: Final report “Monitoring and Evaluation D2 Awareness & Sense of urgency” on the overall contribution of action C2 to the implementation of the NAS.

Milestones:

First phase
31/12/2022: Detailed baseline and final main indicator table and monitoring plan for C2 completed and shared with partners

ACTION D.3 Monitoring and evaluation of Governance & Integral approach: integration of the lessons learned and dissemination actions

Beneficiary responsible for implementation
MinI&W, in cooperation with MinVWS, NB, UT, WAM, WVV, Dordrecht, Zwolle, Gouda and HRR.

Description (what, how, where and when)
What
The main overarching indicator themes to monitor and evaluate the impact of C3 sub-activities contributing to the objective Governance & Integral will be:

- How well is climate change adaptation as a theme integrated within policies and actions done within different sectors, regions, and by governmental, public and private actors?
- Which of the climate impacts - as part of the NAS conceptual diagrams - have been connected in policy and/or practice with the aim of enhancing a more integral approach and with reference to NAS and this LIFE-IP project?
- How have the C3 sub-activities contributed towards improving the integration of climate change adaptation within policies and actions carried out by each of the groups focused upon in each specific sub-activity, and if so, how has this development been?
- What are the effects of the sub-activities of C3 in terms of capacity building and replication potential?

In action A5, these indicator themes will be further operationalized. Additionally, over the course of the LIFE-IP project, action D3 will further build on the infrastructure for monitoring of main indicators and baseline setup as developed in action A5:

1. Action D3 will start with detailing, extending and confirming the above-mentioned main overarching indicators and baseline monitoring from action A5 required that monitor the development of Governance & Integral approach specified in action C3 and its associated sub-actions. This will be done with the actively participating partners in action C3. The LIFE Key Project Level Indicators will be used as a reference point. A protocol will be setup to actively monitor action C3 in order to gather the necessary data to feed these indicators.
2. As a next step the baseline of the Governance & Integral approach of stakeholders will be established by actively involving the partners in action C3. An effort will be made to extract relevant information from partners active in other C-actions in case they also contribute to the objective Governance & Integral approach as a co-benefit.
3. Subsequently the progress of development will be monitored and evaluated with respect to achieving the formulated project objective in a biyearly frequency. If the progress is deemed insufficient for either the C activity itself, or one of the sub-activities, these will be further investigated based on the earlier mentioned ‘learning loops’ in form 2Bc in order to adjust the objective and associated activities, expected output, outcomes and impacts.
4. Information on impact and progress towards the objectives will be brought together by the coordinator of action D3 and shared with action D5 with the aim to produce a periodical national evaluation report on the overall impact the project delivers towards accelerating climate adaptation.

How
The first phase will focus on detailing the main overarching indicators and the baseline for monitoring. The co-beneficiaries will report the monitoring results for their own C3 sub-actions and will be reported on by MinI&W in an evaluation of this data. During the subsequent phase the second reporting and evaluation period will take place and in the third phase the monitoring of dissemination actions will be evaluated in a final report. In more detail these phases consist of the following steps:

1. The operationalization of the previously mentioned main overarching indicator themes and the approach for baseline monitoring will be realized by organizing two working group sessions with relevant stakeholders. This will result in a list of more detailed main indicators/narrative and a main indicator table for describing the developing status (the baseline) of the knowledge base and existing tools in the Netherlands and abroad.
2. Each partner of this action will subsequently produce an overview of baseline and main indicators for the sub-action at hand. This will result in a document describing the baseline and a

spreadsheet with quantitative and qualitative main indicators per sub-action. Data collected through these sub-actions will be fed into the operationalized main overarching indicator themes to provide a clear overview of the status of C3 and its attempts to reduce/remove the barriers regarding governance & integral approaches. Data collection methods may include work group meetings, interviews with key stakeholders, focus groups and surveys. This wide variety is due to the nature of the data being both quantitative and qualitative, necessitating a potential mixed-methods approach.

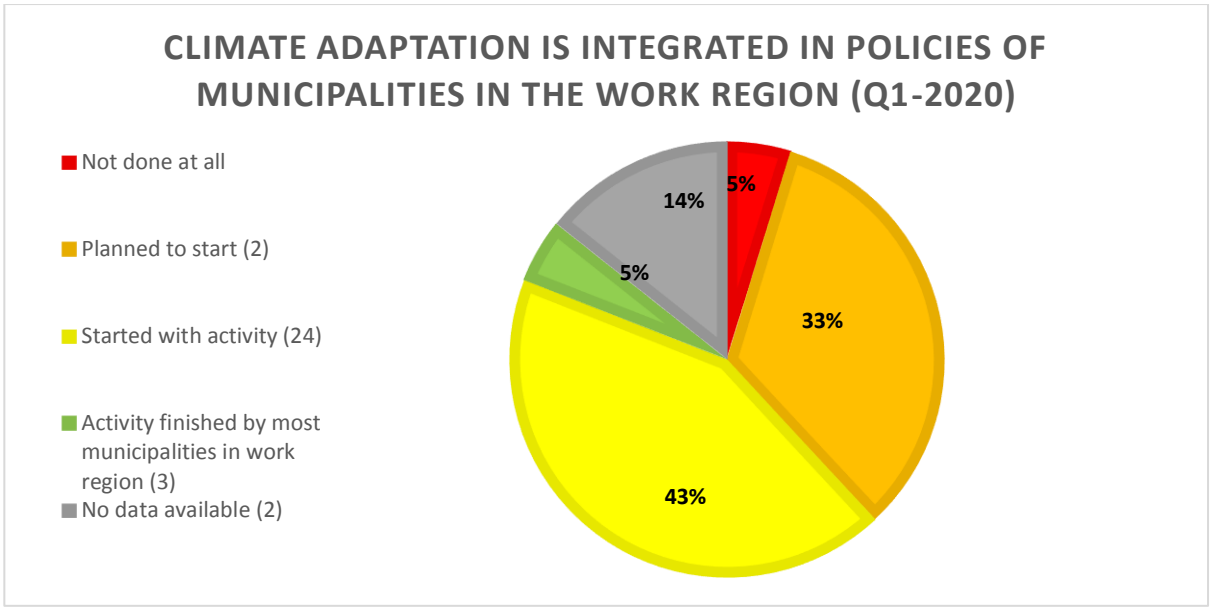
3. The main indicator table will contain a tab per sub-action and will be updated biyearly, starting in year 2 (2023) of the project. This table will also serve as input for an online report on the present status of Governance & Integral approach in the C-actions containing: a description of an improved baseline, monitoring strategy and methods used; synthesis of the monitoring actions; validation of the results through interviews and focus groups; intermediate adjustment and adaptive measures throughout the course of the project; reflection on the findings, particularly regarding project highlights and issues that have been solved; dissemination action programme with results and recommendations for future update of the NAS.
4. In year 2 and year 4, the partners will report to the coordinator of action D3 on their progress of reaching the projected impact of their sub-action. Results and progress towards the impact objectives are discussed in a working group meeting and evaluation is executed for each sub action. The first meeting will focus on mutual learning and the second meeting in year 4 on dissemination actions. The evaluation will be validated by stakeholders and focus groups and supported with additional interviews with key persons. These reports will also serve as input for the online report mentioned above at point 3.
5. In year 5 and year 6 dissemination actions will be monitored by the coordinator of action D3. This will be done by for example tracking downloads, views and references to produced dissemination material (reports, articles, etc.), the number of attendees of conferences, seminars, oral presentations etc. and the organisations that these attendees originate from. This provides an indication of the spread of knowledge by this LIFE-IP with Dutch/European organisations working on climate change adaptation.
6. In year 2, 4 and 5 the coordinator of action D3 will, if required, propose adjustments in the implementation of action C3 to maximize impact in the remaining period. These adjustments will follow the proposed learning-loop approach and will be based on the potential shortcomings shown by the monitoring done for C3 and its sub-actions.
7. The coordinator of this action will compile the information in year 2, year 4 and year 5 and year 6 for transfer of results to action D5 (see also point 4).

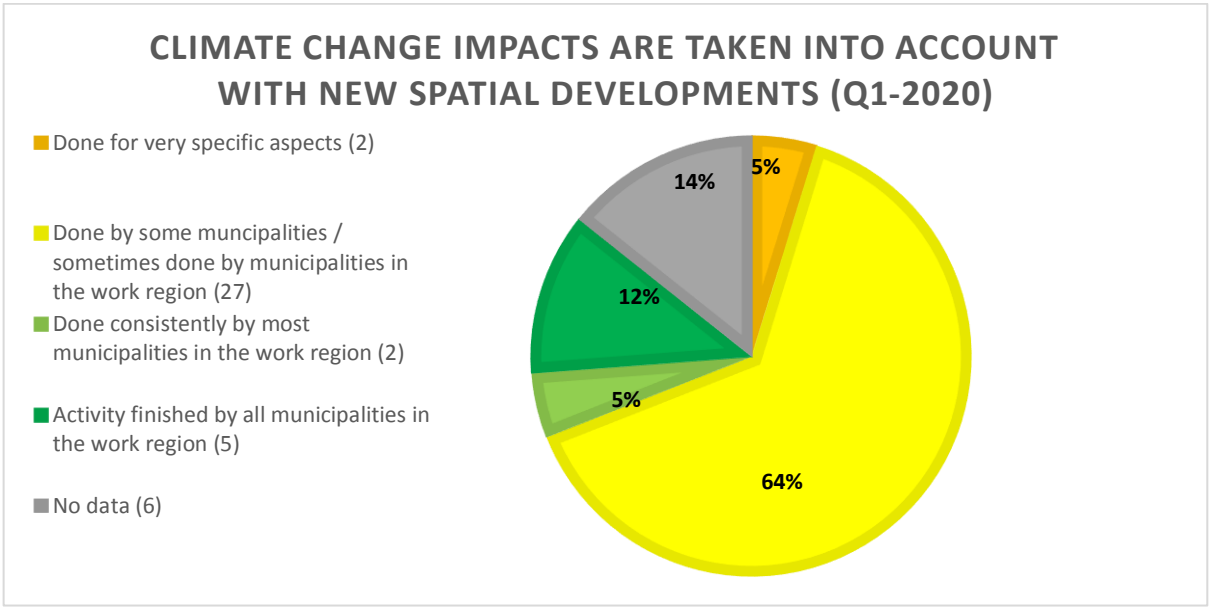
Where
The coordination of this monitoring action will take place in The Hague and Utrecht. The monitoring of the C3 (sub)actions will take place in several specific areas in the Netherlands (see the map in Form B2b and action C3 for more detailed information).

When
The monitoring and evaluation will take place of the course of the entire project.

Reasons why this action is necessary
Regularly reporting and follow-up on the impact of the project actions ensures effectiveness and efficiency and is a prerequisite for a successful replication strategy. Creating enough impact on each objective is crucial to the effective implementation of the whole IP. An excellent execution of the C-actions will serve the reinforcement of each objective and therefore accelerate the implementation of the NAS.

Similarly, as in previous explained D actions baseline monitoring data is used here as well, as shown in the following figures. These show that around the time of measuring most Dutch work regions have not or not well integrated climate adaptation within their policies nor are climate change impacts taken well or at all into account during the development of new spatial developments.





This action therefore aims to provide answer to questions like: What will be an efficient and effective governance framework for climate adaptation in the Netherlands, in the different regions with different climate challenges, and how can we stimulate an integral approach? Monitoring the C-actions enables intermediate adjustment and adaptive measures throughout the implementation process of the IP. Above all, this action provides 'the proof of the pudding': does action D3 help to accelerate the implementation of the NAS?

Constraints and assumptions:

- The NL-NASCCELERATE project does not include all experts and governance related to climate change adaptation in the Netherlands or abroad. However, the scope of the projects under action C3 and the contributing partners will reach a large group of public organisations, businesses, citizens and experts. It covers some large cities and large rural areas. It will develop products on the most urgent climate adaptations challenges (water management, biodiversity, agriculture, health and land subsidence safety of citizens).
- It is assumed that present analysis of most urgent climate adaptation topics remains in line with NL-NASCCELERATE. It is assumed that the political and governance support for the projects that contribute to NL-NASCCELERATE will remain stable. This is linked to the adoption and execution of the NAS.

Expected results (quantitative information when possible)

1 online report on the present status of Governance & Integral approach in the C actions
1 list of detailed indicators and the progress made during project execution, including evaluation & learning, available online.
Together with E2: 1 dissemination action program NL-NASCCELERATE.
1 compilation of the status and progress illustrated with examples and project highlights for sharing with the (inter)national community.

Deliverables

First phase
31/12/2023: First report on monitoring strategy and evaluation of C3, with a detailed baseline and KPIs and the first monitoring and evaluation of all partners involved.
31/12/2025: Second monitoring report and evaluation including a dissemination action programme.

Following phases
31/12/2027: Monitoring and evaluation report on last phase dissemination actions.
31/12/2027: Final report “Monitoring and Evaluation D3 Governance & Integral approach” on the overall contribution of action C3 to the implementation of the NAS.

Milestones:

First phase
31/12/2022: Detailed baseline and final KPI table and monitoring plan for C3 completed and shared with partners.

ACTION D.4 Monitoring and evaluation of Business models & Finance: integration of the lessons learned and dissemination actions

Beneficiary responsible for implementation:
MinI&W, in cooperation with MinVWS, MinLNV, SW- Fryslân and LTO

Description (what, how, where and when)
What
The main overarching indicators themes to monitor and evaluate the impact of C4 sub-activities contributing to the objective Business models & Finance will be:

1. How do the business models function, what are financial aspects relevant to implementation of climate change adaptation within different sectors, regions, and supervised by governmental, public and private actors?
2. Which of the climate impacts - as part of the NAS conceptual diagrams - have been connected in policy and/or practice with the aim of enhancing a more integral approach and with reference to NAS and this LIFE-IP project?
3. How have the C4 sub-activities contributed towards improving the business models & financial aspects carried out by each of the groups focused upon in each specific sub-activity, and if so, how has this development been?
4. What are the effects of the sub-activities of C4 in terms of capacity building and replication potential?

In action A5, these indicator themes will be further operationalized. Additionally, over the course of the LIFE-IP project, action D4 will further build on the infrastructure for monitoring of main indicators and baseline setup as developed in action A5:

1. Action D4 will start with detailing, extending and confirming the above mentioned main overarching indicators and baseline monitoring from action A5 required that monitor the development of business models & finances, specified in action C4 and its associated sub-actions. This will be done with the partners active in action C4. The LIFE Key Project Level Indicators will be used as a reference point. A protocol will be setup to actively monitor action C4 in order to gather the necessary data to feed these indicators.
2. As a next step the baseline of the business models & finances approach of stakeholders will be established by actively involving the partners in action C4. Effort will be made to extract relevant information from partners active in other C-actions in case they also contribute to objective Business models & Finance as a co-benefit.
3. Subsequently the progress of development will be monitored and evaluated with respect to achieving the formulated project objective in a biyearly frequency. If the progress is deemed insufficient for either the C activity itself, or one of the sub-activities, these will be further investigated based on the earlier mentioned ‘learning loops’ in form 2Bc in order to adjust the objective and associated activities, expected output, outcomes and impacts.
4. Information on impact and progress towards the objective will be collated by the coordinator and will be transferred to action D5 with the aim to produce a periodical national evaluation report on the impact the project delivers towards accelerating climate adaptation.

How

The first phase will focus on detailing the main overarching indicators and the baseline for monitoring. The co-beneficiaries will report the monitoring results for their own C4 sub-actions and will be reported on by MinI&W in an evaluation of this data. During the subsequent phase the second reporting and evaluation period will take place and in the third phase the monitoring of dissemination actions will be evaluated in a final report. In more detail these phases consist of the following steps:

1. The operationalization of the previously mentioned main overarching indicator themes and the approach for baseline monitoring will be realized by organizing two working group sessions with relevant stakeholders. This will result in a list of more detailed main indicators/narrative and a main indicator table for describing the developing status (the baseline) of the knowledge base and existing tools in the Netherlands and abroad.
2. Each partner of this action will subsequently produce an overview of baseline and main indicators for the sub-action at hand. This will result in a document describing the baseline and a spreadsheet with quantitative and qualitative main indicators per sub-action. Data collected through these sub-actions will be fed into the operationalized main overarching indicator themes to provide a clear overview of the status of C4 and its attempts to reduce/remove the barriers regarding business models and finances. Data collection methods may include work group meetings, interviews with key stakeholders, focus groups and surveys. This wide variety is due to the nature of the data being both quantitative and qualitative, necessitating a potential mixed-methods approach.
3. In year 2 and year 4, the partners will report to the coordinator of action D4 on their progress of reaching the projected impact of their sub-action. Results and progress towards the impact objectives are discussed in a working group meeting and evaluation is executed for each sub-action. The first meeting will focus on mutual learning and the second meeting in year 4 on dissemination actions. The evaluation will be validated by stakeholders and focus groups and supported with additional interviews with key persons. These reports will also serve as input for the online report mentioned above at point 3.
4. In year 5 and year 6 dissemination actions will be monitored by the coordinator of action D4. This will be done by for example tracking downloads, views and references to produced dissemination material (reports, articles, etc.), the number of attendees of conferences, seminars, oral presentations etc. and their organisations. This provides an indication of the spread of knowledge originating from this LIFE-IP with Dutch and European organisations working on climate change adaptation.
5. In year 2, 4 and 5 the coordinator of action D4 will, if required, propose adjustments in the implementation of action C4 to maximize impact in the remaining period. These adjustments will follow the proposed learning-loop approach and will be based on the potential shortcomings shown by monitoring efforts done for C4 and sub actions.
6. The coordinator of this action will compile the information in year 2, year 4 and year 5 and year 6 for transfer of results to action D5 (see also point 4).

Where

The coordination of this monitoring action will take place in The Hague and Apeldoorn. The monitoring of the C4 (sub)actions will take place in several specific areas in the Netherlands (see the map in Form B2b and action C4 for more detailed information)

When

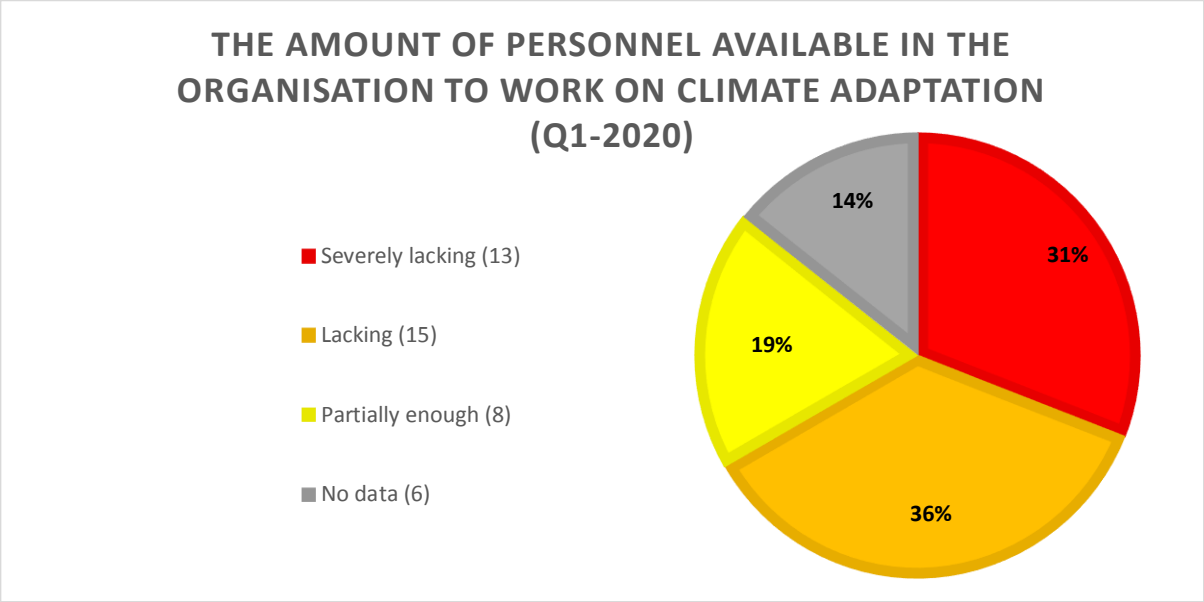
The monitoring and evaluation will take place over the course of the entire project.

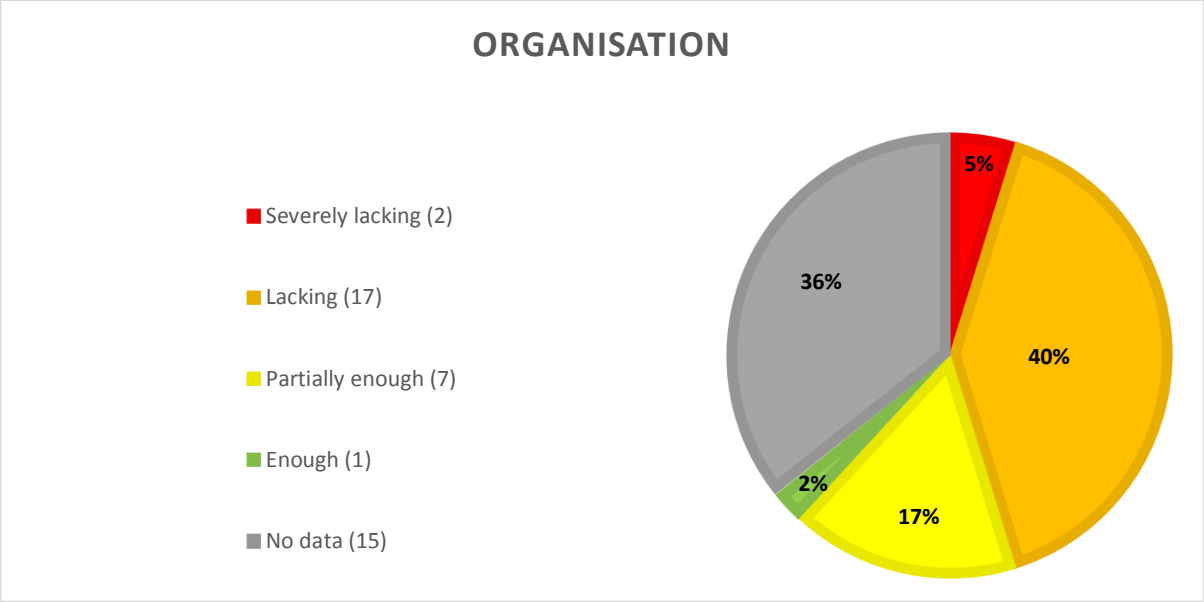
Reasons why this action is necessary

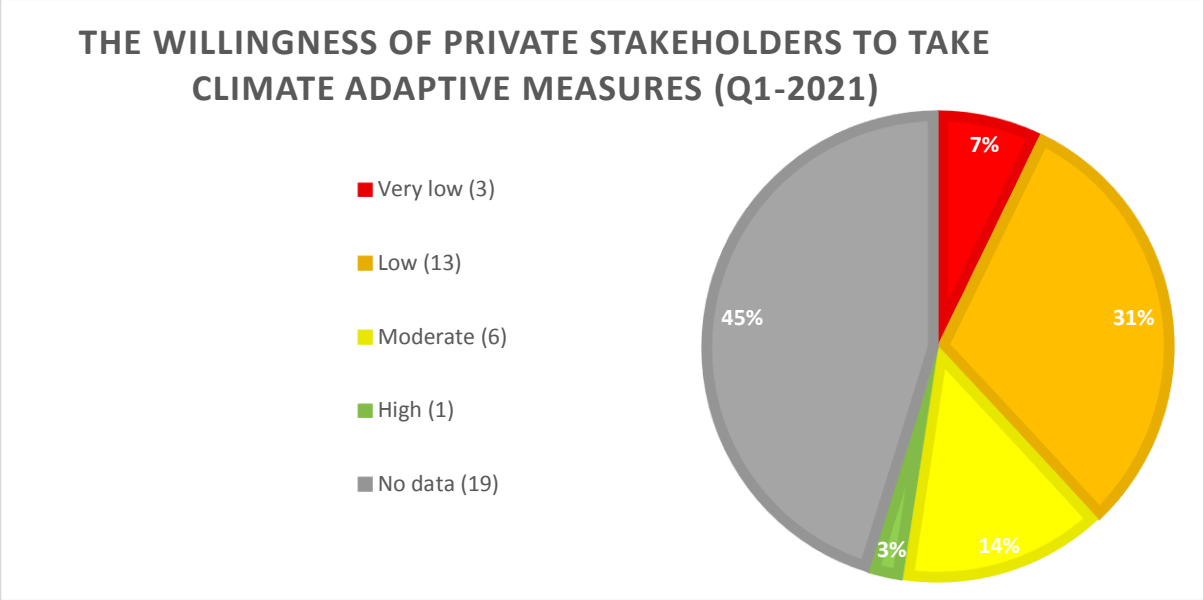
Regularly reporting and follow-up on the impact of the project actions ensures effectiveness and efficiency and is a prerequisite for a successful replication strategy. Creating enough impact on each objective is crucial to the effective implementation of the whole IP. An excellent execution of the C-actions will serve the reinforcement of each objective and therefore accelerate the implementation of the NAS.

Similarly, as in previous explained D actions baseline monitoring data is used here as well, as shown in the following figures. These figures show that for most working regions governmental organisations

report that the amount of personnel and finances and that only a part states that this amount is (partially) enough.







This action therefore aims to provide answer to questions like: Will there be realistic Business models for climate adaptation measures in the Netherlands, in the different regions with different climate challenges, and how can we stimulate innovative finances? Monitoring the C-actions also enables intermediate adjustment and adaptive measures throughout the implementation process of the IP. Above all, this action provides 'the proof of the pudding': does action D4 help to accelerate the implementation of the NAS?

Constraints and assumptions

- The NL-NASCCELERATE project does not include all experts and economists related to climate change adaptation in the Netherlands or abroad. However, the scope of the projects under action C4 and the contributing partners will reach a large group of public organisations, businesses, citizens and experts. It covers some large cities and large rural areas. It will develop products on the most urgent climate adaptations challenges (water management, biodiversity, agriculture, health and land subsidence safety of citizens).
- It is assumed that present analysis of most urgent climate adaptation topics remains in line with NL-NASCCELERATE. It is assumed that the political and governance support for the projects that contribute to NL-NASCCELERATE will remain stable. This is linked to the adoption and execution of the NAS.

Expected results

1 online report on the present status of Business models & Finance in the C actions.
1 list of detailed indicators and the progress made during project execution, including evaluation & learning, available online.
Together with E2: 1 dissemination action program NL-NASCCELERATE.
1 compilation of the status and progress illustrated with examples and project highlights for sharing with the (inter)national community.

Deliverables:

First phase
31/12/2023: First report on monitoring strategy and evaluation of C4, with a more detailed baseline and KPIs and the first monitoring and evaluation of all partners involved.

Following phases
31/12/2025: Second monitoring report and evaluation including a dissemination action programme.
31/12/2027: Monitoring and evaluation report on last phase dissemination actions.
31/12/2027: Final report "Monitoring and Evaluation D4 Business models & Finance" on the overall contribution of action C4 to the implementation of the NAS.

Milestones:

First phase
31/12/2022: Detailed baseline and final KPI table and monitoring plan for C4 completed and shared with partners

ACTION D5 Monitoring and evaluation of the overall impact of LIFE-IP actions on NAS implementation

Beneficiary responsible for implementation
MinI&W in collaboration with all co-beneficiaries

Description (what, how, where, when)
What
Several actions (C1, C2, C3 and C4) target objectives to enhance the implementation of NAS. It is key to monitor and evaluate the overall impact of these actions on the implementation of NAS at the national scale as an ongoing effort, in addition to the monitoring and evaluation of the individual concrete implementation actions and sub-actions, which is done in Actions D1, D2, D3 and D4. This action will build on - and complement - the online survey focusing on success stories, good examples and lessons learned as developed in Action A3 and the monitoring system as developed in Action A5. The monitoring and evaluation of the overall impact of the LIFE-IP actions will be aimed at pinpointing the measurable increase in the rate of the implementation of the NAS. These connections between the different project activities is also shown in the ToC figure in the introduction of this section.

How
The coordinator of this action will create a working group from monitoring experts involved in actions D1-D4, and strategically positioned other experts representing national knowledge institutes, such as the PBL Netherlands Environmental Assessment Agency. This monitoring working group will carry responsibility for:

- developing a monitoring protocol with the inclusion of a set of monitoring indicators and sources of verification within the first year of the IP.
- compilation of information to enter data in the KPI database.

The monitoring working group will supervise and carry out the execution of the work, in collaboration with all partners. One of the main tasks is to collect, process and synthesize all relevant information from the LIFE-IP actions, complementary actions and other relevant initiatives for the overall monitoring and evaluation along the lines and logic of the four interrelated IP objectives, for which a working plan will be drafted at the start of the project. As mentioned in actions D1-4, this effort is done by letting the coordinators of each of these actions gather, compile and send this information to action D5. Additionally, evaluation of the impact will also include a long-term perspective: 3 years beyond the lifetime of the IP (2030). Position papers and factsheets will be published regularly, as part of the communication strategy, but also as an investment in the long-term knowledge and capacity building infrastructure, building up a solid portfolio underlying the long-term monitoring and evaluation ambitions of the NAS.

The baseline situation will be established and documented at the start of the project, in conjunction with the development of the monitoring and evaluation strategy (action A5). A network monitoring system will be developed aimed at keeping track of the actors involved in all the actions and meetings/occasions related to this project and the analysis thereof in order to underpin the sustaining of the ambitions in terms of outreach and capacity building.

For action D5, we will use the data collected through actions D1-4 to answer the following question: What is the level of implementation of the NAS? Answering this question will be based on the connection between the monitoring system as developed in action A5 and the online survey focusing on success stories, good examples and lessons learned as developed in A3.

Where
This action will take place at a national scale in The Hague.

When
This action will take place throughout the lifespan of this IP. Dedicated capacity to this action will secure continuity and connectivity, also in between the planned events and deliverables, in terms progress with regard to content, networking, capacity building, and programmatic opportunities that may occur during this timeframe.

Reasons why this action is necessary
Regularly reporting and follow-up on the overall impact of the project ensures effectiveness and efficiency and is a prerequisite for a successful replication strategy. Moreover, it enables intermediate adjustment and adaptive measures throughout the implementation process of the NAS. Above all, this action provides 'the proof of the pudding': do the actions of the LIFE-IP project help to enhance the implementation of the NAS? The necessity of this action is underpinned by 'monitoring the progress and effectiveness of the adaptation strategy' being one of the six prioritized actions by the NAS (NAS2016, par 4.6) and the 'no'-scores in Step E ('Monitoring and evaluation of adaptation activities') of the most recent Country fiche of the Netherlands as part of Adaptation preparedness scoreboard of the European Commission (https://ec.europa.eu/clima/sites/clima/files/adaptation/what/docs/country_fiche_nl_en.pdf).

Monitoring and evaluation of the NAS has been under preparation, but also due to COVID-19, implementation has not yet been feasible. However, this provides a solid base to elaborate and work from in this LIFE-IP project. For example, the following reports have been delivered in the past years: The PBL 2016 report Keeping track of adaptation in the Dutch Delta (http://www.pbl.nl/sites/default/files/cms/publicaties/pbl-2016-keeping-track-of-adaptation-in-thedutch-delta-2557.pdf), and the Plan van aanpak Monitoring NAS ('Plan of action for Monitoring NAS') as delivered in 2017 by the NAS programme team. Putting into practice a monitoring and evaluation is acknowledged in these reports to be one of the biggest challenges of the NAS. As such, either an update of the current NAS or a next edition should report on the progress of the implementation and the monitoring efforts and results thereof. Action D5 pushes this ambition towards concrete implementation, starting with this LIFE-IP.
The monitoring activities of D5 will be aligned with those at the national level coordinated by MinI&W and PBL Netherlands Environmental Assessment Agency. The LIFE-IP project will deliver valuable insights in the actual implementation of climate adaptation measures to the national monitoring and evaluation efforts aimed at keeping track of the progress with regard to the climate adaptation ambitions.

Constraints and assumptions
Constraints
- The possibility of exogenous factors being at stake should be given explicit attention when attributing effects to concrete actions. NAS for instance, acknowledges the importance of other societal transitions - such as on energy and that of the built environment - that adaptation should mainstream with. These transitions may also have an accelerating effect on the implementation of adaptation strategies. This of course will be welcomed, but for monitoring and evaluation purposes, these causal relationships must be dissected. This is intrinsic to monitoring and evaluation efforts, but worth paying explicit attention to along the way.
- For the Dutch situation specifically it has to be taken into account that the national Delta programme is a cornerstone of the climate adaptation policy, knowledge base and practice, with its own monitoring and evaluation procedures, with a strong focus on the water domain and the built environment. NAS completes the climate adaption spectrum by taking into account all other societal domains, in close collaboration with the Delta programme, but for monitoring and evaluation purposes specific attention should be paid to aligning the ongoing efforts of the Delta programme with the to be developed procedures as part of this LIFE-IP.
- NAS takes into account the entire societal scope of the climate adaptation challenge, hence seeks collaboration with the various ministries, that each have their own monitoring, reporting and evaluation procedures and not always entailing climate adaptation yet. Developing monitoring and evaluation procedures in that inter-ministerial context provides additional challenges. This LIFE-IP action will therefore be regularly be put on the agenda in the existing and productive collaborative structures around NAS.

Assumptions:
We assume – and strive for – the added value at an integrative level. This issue will therefore be explicitly addressed throughout the course of this project: this is also related to the single, double and triple loop learning as introduced in the start of this monitoring section.

Expected results

- Identification of the overall contribution of this LIFE-IP project to the implementation of the NAS in terms of the measurable increase in the rate of implementation of the NAS and capacity building.
- Integration of monitoring methods used and KPI database into the existing knowledge infrastructure, specifically the knowledge platform.
- Positive ('yes') scores in Step E ('Monitoring and evaluation of adaptation activities') of the Country fiche of the Netherlands as part of Adaptation preparedness scoreboard of the EC.
- Direct input for the next (i.e. third) or updated NAS and NAS working plans.
- Abstract submission for international conference such as the bi-annual ECCA conference, reporting of (intermediate) findings and lessons learnt.
- An integrated monitoring and evaluation report on the overall impact of LIFE-IP actions on the implementation of NAS, the effects on capacity building, progress on complementary actions, multi-purpose delivery and relevance to the KPI database with LIFE-IP results.

Deliverables

First phase

31/12/2022: General strategy for monitoring and evaluation of the overall impact of the LIFE-IP actions on NAS implementation, and working plan for collecting, processing and synthesizing all relevant information from the LIFE-IP actions and other relevant initiatives along the lines and logic of the four interrelated work packages.

01/05/2023: First version of a monitoring protocol with the inclusion of a set of monitoring indicators and sources of verification and a baseline study establishing and documenting points of reference.

Following phases

01/10/2027: Integrated Monitoring and Evaluation report on the overall contribution of this LIFE-IP project to the implementation of the NAS.

Milestones:

First phase

01/03/2022: Designation of coordinator of this LIFE IP action and first meeting of the 'NAS monitoring core team', webpage and working space at the national climate adaptation platform.

ACTION D6: Socio-economic impact monitoring and KPIs

Beneficiary responsible for implementation
MinI&W in collaboration with all other partners

Description (what, how, where and when)
What
The monitoring of the socio-economic impact of the project actions on local population and economy will be linked to a specific area where activities from actions C1-C4 are focused on. In action D6 the impact on local economy and population in those areas will be assessed. Socio-economic impact focuses on the longer-term consequences of this IP. Next to this, action D6 will also provide input data to the LIFE Key Project Level Indicators database. An initial and final report "Monitoring and Evaluation D6 monitoring of the socio-economic impact" will be delivered in 2023 and 2027 respectively.

How
During the application phase main indicator themes have been selected by the partners from the LIFE Key Project Level Indicators and expected impact values have been filled out (2027 situation and 2030). Using this table as a starting point and in close collaboration with the project team of each C sub-action, this selection of indicators will be detailed – and perhaps some additional indicators will be added during the first phase of the project. At the same time possible indicators that are aimed at socio economic impact will also be identified. Examples are: *social*; such as the number and % of persons involved, awareness of the project, *economic*; the number of businesses involved in projects, value of initiatives initiated through the projects, number of jobs created in relation to the project. The baseline for the socio-economic indicators will be established per area and will focus on the different societal sectors distinguished by the NAS (as far as they are found within the sub-activities). Ultimately, the evaluation of socio-economic impacts could lead to policy recommendations. This will be part of the final report on action D6. The data will be collected using relevant databases such as: statistics Netherlands (CBS), the statistics of the municipalities (https://www.waarstaatjegemeente.nl/) and other regional authorities. Furthermore, other data gathering methods will be used to tailor the collected data such as – in cooperation with action A3 – online surveys, interviews and focus groups, in close cooperation with the partners of this IP.

Where
These indicators will be monitored at the project sites and the reports will be drafted centrally in The Hague or Utrecht and coordinated by MinI&W. The monitoring sessions are to be conducted at the specific project locations.

When
Per action, the activities are clustered in stages. In collaboration with the project team, in the first stage the main indicators theme's will be detailed, and the monitoring strategy will be detailed and agreed upon (2022). In the second stage, the first datasets will be collected, and the initial report will be drafted (2023). In the last year of the project (2027) final data on impact will be collected and reported. MinI&W will continue to monitor these impacts – within the context of this IP until 2030 - and will then enter the data in the LIFE KPI database. After 2030 the monitoring will most likely continue as part of the NAS monitoring programme.

Reasons why this action is necessary
Monitoring the socio-economic impact of the project is relevant for accountability and transparency, as well as being useful to implement economically effective and socially relevant projects. This type of monitoring during the project enables project teams to effectively steer and amend the outputs of their project if necessary in order to gain the most out of these projects.

Constraints and Assumptions

- An important challenge is that, because of the many sub-actions included in actions C1-C4, collecting data in a timely and balanced fashion is a challenge. A clear list of persons responsible for data collection will be identified for each C-sub-action and a protocol will be agreed upon, on the collection, registration and sharing of the data. Additionally, timing the data collection moments for D6 together with efforts done for D1-4 may also help to streamline these efforts for D6.
- The assumption is that data collection is possible in each C-sub-action and that the same set of indicators and an identical protocol is applicable.

Expected Results

- Shared socio-economic impact indicators. At least 5 will be shared by all C-sub-actions. Practical monitoring protocol and planning of monitoring moments.
- Input of relevant KPI data in the LIFE KPI database.
- Depending on the monitoring moments, intermediate reports per C-sub-action. These will be collected and summarized and form an initial socio-economic impact report.
- A final socio-economic impact report.

Deliverables

First phase
30/06/2022: Detailed definition of main indicator themes,
monitoring protocol and planning.
31/12/2023: Initial socio-economic impact report.

Following phases
31/12/2027: Final socio-economic impact report.

Milestones

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ACTION D.7: Monitoring and evaluation of IP's impact on ecosystem functions

Beneficiary responsible for implementation
MinI&W in cooperation with MinVWS and MinLNV

Description (what, how, where and when)
What
The monitoring and evaluation of the IP's impact on ecosystem functions, as achieved by the C-actions, is the main goal of action D7. Ecosystem functions are embedded in many urban and rural sub-actions. In action D7 each sub-action in C1 to C4 will be evaluated on the relevance for its impact

on ecosystem functions. This will deliver data to the LIFE KPI database. An initial (2023) and final report (2027) "Monitoring and Evaluation D7 restoration of ecosystem functions" will be delivered.

How
In collaboration with the project team of each C-sub-action, a selection of indicators will be detailed and agreed upon during the first phase of the project to address the impact of the IP on ecosystem functions for the different areas of the C-actions. Possible indicators may be: ecosystem functions influenced, area of ecosystems that are influenced, relation with key species habitats that are influenced, relation with climate related parameters that are influenced, relation with ecosystem services delivered. Baseline (if relevant) will be established per area. Ultimately, the evaluation of the impact on ecosystem functions by this IP could lead to policy recommendations. This will be part of the final report on action D7. The data will be collected using relevant databases such as: statistics Netherlands (CBS), statistics gather for EU reporting and data collected by knowledge institutes. Furthermore, other data gathering methods will be used to tailor the collected data may include – in cooperation with action A3 – online surveys, interviews and focus groups, in close cooperation with the partners of this IP.

Where
These indicators will be monitored at the project sites and the reports will be drafted centrally in The Hague or Utrecht, under the lead of MinI&W. The monitoring sessions are conducted at the specific project locations.

When
Per action, the activities are clustered in stages. In collaboration with the project team, in the first stage the ecosystem functions KPI's will be detailed and the monitoring strategy will be detailed and agreed upon (2022). In the second stage, the first datasets will be collected, and the initial report will be drafted (2023). In the last year of the project final data on impact will be collected and reported (2027). MinI&W will continue to monitor these ecosystem function impacts – within the context of this IP until 2030 – and will then enter the data in the LIFE KPI database. After 2030 the monitoring will most likely continue as part of the NAS monitoring programme.

Reasons why this action is necessary:
Monitoring the ecosystem function impact of the project, is relevant for finding a way forward towards effective restoration efforts. Doing this type of monitoring during the project, enables project teams to effectively steer and amend the outputs of their project if necessary

Constraints and Assumptions
An important challenge is that, because of the many sub-actions included in actions C1-C4, collecting data in a timely and balanced fashion is a challenge. A clear list of persons responsible for data collection will be identified for each sub-action and a protocol will be agreed upon, on the collection, registration and sharing of the data.

The assumption is that data collection is possible in each sub-action and that the same set of indicators and an identical data collecting, and registration protocol is applicable.

Expected Results (quantitative information when possible)
- Shared impact indicators, useful as KPIs. At least 5 that are shared for all sub projects, Practical monitoring protocol and planning of monitoring moments.
- Depending on the monitoring moments, intermediate reports per project. These will be collected and summarized and form an initial impact report.
- A final impact report.

Deliverables
First phase
30/06/2022 Detailed definition of ecosystem functions restoration KPIs, monitoring protocol and planning.
31/12/2023 Initial Ecosystem functions restoration impact report.

Following phases
31/12/2027 Final Ecosystem function restoration report.

Milestones
-

ACTION E.1: Communication and raising awareness of the impact and benefits of NL-NASCCELERATE

Beneficiary responsible for implementation
MinI&W in collaboration with all LIFE-IP co-beneficiaries

Description (what, how, where and when)
What
Action E.1 aims specifically at reaching out to society, assists in public awareness and shows the impact of the project. It is about communicating and promoting the results and benefits to society, resulting from this project. Public communication and engagement predominantly take place at the regional and local level. This is acknowledged by the fact that much of the communication and awareness raising (e.g. social media campaigns) in this LIFE IP takes place through the C actions, particularly action C2 'Awareness & senses of urgency'. It is also acknowledged that professionals are a key intermediary target group in reaching out to the public. This includes stakeholders operating at a national level, like banks and insurance companies, who can play a particularly important role in public communication and engagement. Through this intermediary / secondary target group (i.e. the professionals) this LIFE IP can reach millions of citizens. The professionals are connected with LIFE IP through networks of active stakeholders (both public and private) and the NAS-sectors in general. This networking will be facilitated by action E.2.

During the first six months, a comprehensive LIFE IP communication strategy will be developed, aimed at communication with the beneficiaries, networks of active stakeholders and the NAS-sectors in general. The communication strategy will consider the primary LIFE IP beneficiaries, secondary stakeholders (partners in NAS) and tertiary stakeholders (e.g. citizens, businesses and NGOs / social organisations). The communication strategy will be detailed in a communication plan for each LIFE IP project phase. Developing the plan for the first phase starts with additional in-depth identification of stakeholders, as needed to identify their interests, and subsequently design a tailor-made communication plan for specific stakeholder groups.

During the development of the communication plan for the first phase, communication will already start, using the already existing NAS communication channels, to kick-off the LIFE IP project. The communication will be facilitated by action A2 'Climate change adaptation exchange platform' and by local and regional communication platforms of partners (C actions). For each subsequent phase, the communication plan will be updated and, when necessary, the strategy will be adjusted to new developments in time. This will make use of outputs from action C2 'Awareness & senses of urgency' and the lesson learned in Action D.2 'Monitoring and evaluation of Awareness & Sense of urgency'.

How
Our approach is based on reaching citizens through professionals. The general public is an important target group for many professionals. We will support professionals in various organisations, both public and private, and bring them into contact with each other in order to accelerate their own public communication and engagement. This action will also have a positive effect on motivating citizens, businesses and social organisations / NGOs to take climate adaptation actions themselves. An example of this is placing rain barrels and replacing pavement with green.

Based on the proposed approach, a communication strategy and plan for the first phase of this LIFE IP will be developed. The communication strategy elaborates on actions, resources and planning related to the relevant activities in the project. It comprises major communication products (e.g. a newsletter, website and social media accounts), specified target groups and accurate timing of communication. It will be aligned with the NAS communication strategy and connected to existing digital platforms, such as www.klimaatadaptatienederland.nl. Furthermore, relevant (annual) network days and conferences will be identified as effective communication opportunities. This will result in effective and cost-efficient communication activities, that will be described in the communication plan.

The 'Climate change adaptation exchange platform' (see action A.2) will be utilized as a base for communications and sharing project developments, status and outcomes. The platform will be used as a portal to allow stakeholders and the general public to interact with the project. Given that communication amongst stakeholders of the NAS is a priority of this LIFE IP project, an additional approach will be used:

1. Existing portals of stakeholders (including LIFE IP partners) will be identified and approached to

help communicate the LIFE IP project using their communication infrastructure. The platform will provide links to these existing portals. This will include but will not be limited to the knowledge platform www.klimaatadaptatienederland.nl, and local and regional communication platforms of partners.

2. New and existing stakeholder groups on a variety of organisation levels are brought together in the 'Climate change adaptation exchange platform' (action A.2). A (more static) version of this platform already exists as a means to communicate with stakeholders about climate change adaptation. Stakeholders will be invited to engage with other stakeholders within the platform and activities will be organised (workshops, meetings, dialogue tables, knowledge exchange).
3. Knowledge stewardship will be provided for local and regional communication platforms. The knowledge steward will built and facilitate a Community of Practice (CoP), in which professionals learn from each other by exchanging knowledge and experiences about setting up and maintaining local and regional platforms. The CoP will connect platforms in LIFE IP (such as Amsterdam rainproof, Arnhem Climate-proof and Climate Campus) with similar platforms elsewhere in the Netherlands. Important elements of this approach are to create mutual awareness and understanding on objectives of each initiative, aiming at finding synergies and learning from previous experiences.

Besides the stakeholder communication platforms, the partners will use the following methods, tools and activities to communicate about the project:

- Notification panels: Each co-beneficiary will erect a notification board in demonstration areas at an easily accessible location, to provide information on LIFE IP project activities in the area. The LIFE and the NAS logo will be displayed on these notice boards to indicate LIFE IPs contribution to the activities.
- Public events: In order to reach a wide audience and to reach multiple generations, partners will contribute to public events such as e.g. climate festivals. At public events, different partners will inform the public about the impact of climate change adaptation, the NAS and LIFE IP.
- Opening event: The partners will organise an opening event to initiate the LIFE project, as part of the regular annual NAS conference. The event will be accessible to stakeholders, target audiences and any other interested parties. In order to make a wider audience familiar with the project, partners will present their activities, explain their methods and the aims of the projects.
- Open days: The associated beneficiaries will organise open days at selected project sites for the general public interested climate change adaptation.
- Leaflets and Brochures: To support the open days, leaflets and/or brochures will be produced, explaining the demonstration project and the LIFE IP contribution to the general public, professionals and policy makers. To reduce waste of paper, we will explore to use of digital information sharing through QR code scanning or an app for mobile devices. Digital copies will also be made available on the project website for interested parties.
- Website presentations: All partners will publish the actual developments and results of the project on their own website, alongside presentations on www.klimaatadaptatienederland.nl. This website is already being used by the NAS and is the overall Dutch digital platform regarding climate change adaptation, see action A2. This national website is the preferred communication channel to prevent fragmentation of information and to facilitate unambiguous communication concerning climate change adaptation. Citizens who want to inform themselves also have full access to www.klimaatadaptatienederland.nl. Since climate change adaptation affects a wide range of people, the content of the website will be designed to be understandable for a wide audience.
- Press releases: Partners will release relevant information to press agencies. Additionally, information will be shared with websites that publish on the topic of climate change adaptation and NAS sectors.
- Social media: Partners will use existing and when applicable new social media accounts to promote the project activities and to create awareness about climate change adaptation, for example using LinkedIn, Twitter, Instagram and Facebook to keep interested parties informed about project progress. These social media accounts will be linked to the website, for easy access. A social media campaign (Ads) is used to increase the reach in society.
- YouTube tutorials: Short videos explaining what is happening at the sites and in several projects will be recorded by the partners, aiming primarily at the youth and young adults. By using images, infographics and storytelling, it is expected that awareness of climate change adaptation will increase and effective examples what can be done to adapt to climate change are shared. These videos will be posted on YouTube, www.klimaatadaptatienederland.nl and at the website and social media channels of the partners. These tutorials will also be used in presentations and during conferences. An effort will be made to involve 'influencers' with large

groups of followers to increase the communication impact to younger generations.
- Instruments for communication, participation and influencing citizen behaviour: A participation strategy and behavioural influencing instruments will be developed. The participation strategy will be connected to the broader governance strategy of action A1. It will identify those communicative instruments that can be used to get people more involved, effective participative measures and opportunities with other communication actions taking place in neighbourhoods (for example within the energy transition) and incorporation of the above in the monitor. It will also include a campaign as communicative action.

The LIPE-IP PMT as described in action F1 is responsible for the overall management of the communication strategy and plan. In the communication plan, a lead beneficiary for each communication activity will be appointed. In this phase the opening event will be planned. During the course of the project, communication (strategy, plan, response) will be evaluated and new developments which may deliver new communication opportunities will be identified. This may lead to revisions to the communication strategy and an update of the communication plan. The use of the LIFE and NAS logo will be described in the communication strategy and plan. The beneficiaries will use these logos on all official LIFE IP documents, presentations, websites and social media accounts to specify the LIFE contribution to the project activities. A strong visual design connecting and unifying the communication activities will be developed.

Where
As a result of the corona pandemic, stakeholders find each other much faster online and people from peripheral regions in particular can save a lot of travel time. This also applies to exchanges with other EU Member States. Communication will mainly take place digitally, at numerous events and channels, and physically at the demonstration sites and by using brochures and leaflets. All LIFE IP partners will be involved in communication of results at multiple communication channels.

When
Communication is relevant throughout the entire project period, starting with creating awareness and slowly moving towards communicating LIFE IP results and successes, illustrating impacts and benefits of this LIFE IP project. Also during the After Life period, communication remains relevant to emphasize and highlight relevance of the LIFE IP results for future climate change adaptation initiatives and projects.

Reasons why this action is necessary
Communication is essential to maximize the impact of this LIFE IP project as citizens and society as a whole are major stakeholders. Communication aims at connecting the LIFE IP actions to a larger network, so that numerous organizations can promote and integrate LIFE IP results—thus creating support and active involvement of citizens. This will requires strategic and targeted measures for communicating about the project and its results to a multitude of network partners and audiences (including the press), when possible engaging in a two-way exchange. It also includes network partners in other EU Member States. Reaching out to network partners will assist in the successful implementation of dissemination and replication.

Constraints and assumptions
- Proven local and national channels and means will be applied and connected with LIFE IP activity, following the variety in focus of the project activities. This requires a tailor made approach and a diversity of methods applied.
- Communication and dissemination of project results to various target groups requires skilled expertise. Although partners have their own communication and dissemination specialists, former LIFE and LIFE IP projects have shown to benefit from specific skilled expertise on communication and dissemination. As communication and dissemination are key objectives of the LIFE IP programme, external support will be obtained when deemed necessary. This support will be additional to partners' own communication and dissemination capacities. Partners will embed the project's visual design in their own communication as much as feasible.
- In all publications, the LIFE IP logo will be used. In publications by third parties, they will also include the LIFE IP logo by presenting the information including this logo. Yet, the third party, in that case, will have the final say in the way the information will be presented.

Expected results:
- Ongoing activities on LIFE IP stakeholder platform (and accompanying platforms). Targeted audience: over 1.000 professionals connected to reach over a million citizens.
- CoP – stakeholder platforms: At least 10 CoP events, in which professionals exchange knowledge and experiences about setting up and maintaining local and regional platforms (approximately 40

persons involved).
- A minimum of 15 notification panels placed. Targeted audience: local community (over 10.000 persons informed).
- Contribution of LIFE IP partners to at least 15 public events. Targeted audience: local community (over 50.000 persons informed).
- 1 General opening event. Targeted audience: stakeholders, target audiences and any other interested parties (approximately 250 persons informed).
- At least 2 open days for the general public per selected project site. Targeted audience: general public (10 open days, approximately 100 persons informed per open day).
- At least 1 leaflet or brochure for each demonstration project will be produced, approx. 20 issues. Targeted audience: general public, professionals and policy makers (approximately 20.000 persons informed).
- Over 100 website presentations on project content. Targeted audience: professionals (including the press), policy makers and the general public interested in climate change adaptation and NAS sectors (an average of 300 website visits/month).
- A minimum of 20 press releases. Targeted audience: professionals/policy makers and the general public (over 100.000 persons informed).
- Ongoing exchange at social media and newsletter channels through LIFE IP as well as connected channels. 4 social media accounts established. Target audiences: the general public and network relations. By using different types of social media, a wide audience will be reached (over 100.000 persons informed).
- A minimum of 4 tutorials on YouTube. Targeted audience: professionals, policy makers and the general public interested in climate change adaptation and NAS sectors (over 4.000 persons informed).
- Instruments for citizen participation. Targeted audience: professionals (approximately 100 persons informed).

Deliverables
Phase 1
30/06/2022 LIFE IP Communication plan
01/07/2022 Opening event combined with regular annual NAS event
31/12/2022 Digital brochures and leaflets
31/12/2023 4 videos/YouTube tutorials and instruments for participation

Milestones:
Phase 1
01/04/2022 Knowledge steward local platforms appointed
01/07/2022 LIFE IP social media accounts established and online

Following phases
01/01/2026 Notification panels placed
31/12/2027 Website presentations on project content published, CoP (stakeholder platforms) events organised, contributions to public events held, 10 open days organized, press releases published

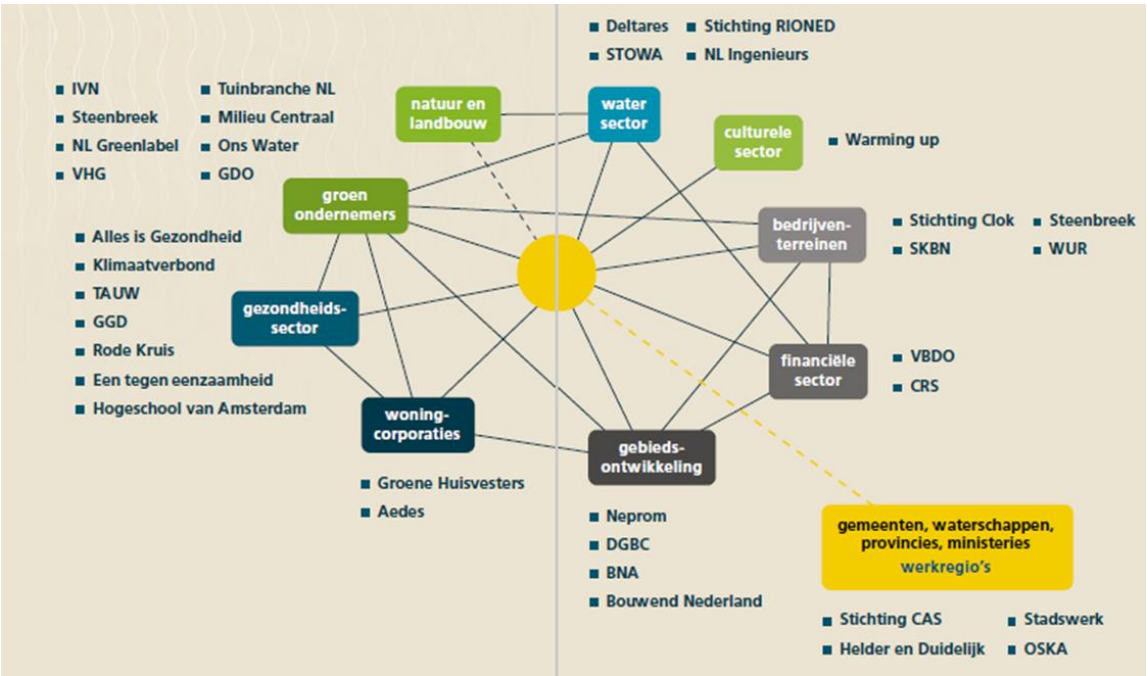
ACTION E.2: Networking and engagement of stakeholders

Beneficiary responsible for implementation:
MinI&W in collaboration with all LIFE-IP co-beneficiaries

Description (what, how, where and when)
What
Networking activities will be deployed on three levels:

1. Within the LIFE IP consortium:
   Within the LIFE IP consortium (beneficiaries, stakeholders from the NAS sectors): As part of the C-actions and E-action dissemination, associated beneficiaries will organise meetings and workshops with known and newly interested stakeholders, which will provide ample opportunity to enforce networks and transfer of the project outcomes and results, and to identify new possibilities for stakeholder collaboration on climate change adaptation in the NAS sectors that can create co-benefits for nature, climate change adaptation and economic functioning. The website will have an internal domain that will be actively used as the heart of the project in which information exchange will actively take place.

2. Connecting LIFE IP on a national level:
   The knowledge and experience of projects within LIFE IP, of which the dissemination takes place as described at E3, will be connected with networks on a national level. A network organisation will form the core of the network on the national level (see Figure) and works on its growth, involvement and activities. A network organisation is already operational since 2018. The network organisation, together with all LIFE IP beneficiaries, will map out the network connections that can contribute to the dissemination and replication of the obtained results and experiences of the LIFE IP projects. In this approach, networking is not a mere exchange of experiences, but above all a strategic activity to establish and nurture long-term, mutually beneficial relationships with other networks of active stakeholders. Key networks of target audiences have already shared their interest in possible project results, as substantiated with multiple letters of support (attached to this proposal in appendix 2). An example of a target audience's network is the Association of Netherlands Municipalities, which represents all 352 Dutch municipalities.



3. Connecting LIFE IP on an international level:
   Networking activities with other LIFE IP Climate change adaptation projects and other interested European projects will be organised in order to share experiences, results and knowledge in order to promote climate change adaptation at a European level. As becomes clear in A7, the beneficiaries already have a strong presence in other European projects which they can use for networking activities for this LIFE-IP. Moreover, four of the eight municipalities involved as

beneficiaries in this LIFE-IP are signatories of the Covenant of Mayors for Climate and Energy: Apeldoorn, Arnhem, Groningen and Rotterdam.
LIFE-IP partner RWS signed up as Covenant coordinator. The beneficiaries will use their existing national, EU and international platforms and networks to select events (like ECCA, the biannual European Climate Change Adaptation Conference) at which data and results of the project can be presented and discussed. By doing so, many expert groups and other interested parties in the field of climate change adaptation can be reached at once. In addition, an inventory of interesting LIFE networking opportunities will be made using the LIFE project database. Project coordinators will be contacted and invited to share experiences, knowledge and results. Several of the stakeholders and target audience's networks have already shared their interest in possible project results, as substantiated with multiple letters of support (attached to this proposal in appendix 2).

How
Project partners will invest capacity in networking, using networking moments as created by themselves as well as others, to maximize efficiency and cost-effectiveness of these networking activities. A working group will be established that is responsible for active networking across the three levels (in the *What* section). This working group closely liaises with the network organisation that forms the core of the national network (see Figure above). They encourage LIFE IP partners to scale up their initiatives in network meetings with stakeholders who can contribute to reaching large groups of professionals, citizens, entrepreneurs and NGOs. For example, VNO-NCW (largest employers' organization in the Netherlands that represents the interests of companies) can contribute to scaling up an integrated approach for green-blue industrial areas.

Partners will be asked to report annually about their networking activities. These reports will be summarized and shared in the partnership. The networking is supported and boosted by means of community management (refer to action E3) and the accompanying digital channels on social media, such as a LinkedIn page or group or WhatsApp groups.

Project partners will organise a governance conference which will also be used to facilitate (inter)national networking (see also action E3). If possible, additional international networking will be done in parallel with international meetings within existing international networks in order to minimize costs and assure a large international audience.

The applicants will also use the power of social media such as Twitter, LinkedIn, YouTube and/or Facebook for networking (which facilitated by action E1). By doing so, an extended network can be established and kept up-to-date on project progress, project events and project outcomes. They will also use the LIFE-community website whenever relevant.

Where
Networking will be done at all scales, from the local to the international scale.

When
Networking will be done throughout the life time of the LIFE IP project.

Reasons why this action is necessary
Networking is aimed at establishing and nurturing long-term, mutually beneficial relationships with other networks of active stakeholders. These relationships are required to scale up examples of success, adjust (inter)national policy, feed new research questions and other interventions that contribute to the broadening and acceleration of climate adaptation. As such, networking is essential for a successful dissemination and replication strategy, as well as bottom-up influencing of national governance.

Constraints and assumptions
The LIFE IP consortium will contact other organizations for networking purposes but will depend on their willingness to respond and participate. In view of this constraint, we have collected multiple letters of support by key networks of target audiences.

Expected results
- 1 Overview (map) of the network connections that can contribute to the collaborative learning, dissemination and replication. Target audience: LIFE IP beneficiaries (over 100 persons informed);
- Contacts established with identified relevant European projects, collaborations and other networks (over 15 contacts established);

- Annual networking overview reports (1 per year). Target audience: LIFE IP beneficiaries (over 100 persons informed);
- Attendance of 20 (inter)national networking platform meetings. Target audience: network relations (over 200 persons connected).
- Network on social media established. Target audience: network relations (over 10.000 persons connected).

Deliverables
First phase
31/04/2023 Overview of networking activities in 2022
Following phases
31/04/2024 Overview of networking activities in 2023
31/04/2025 Overview of networking activities in 2024
31/04/2026 Overview of networking activities in 2025
31/04/2027 Overview of networking activities in 2026

Milestones
First phase
01/06/2022 Network connections mapped out

Following phases
01/01/2024 Contacts established with EU projects, collaborations and other networks, network on social media established

ACTION E.3: Dissemination, collaborative learning and replication in the Netherlands

Beneficiary responsible for implementation
MinI&W in collaboration with all LIFE-IP co-beneficiaries

Description (what, how, where and when)
What
In this action, we explicitly distinguish dissemination from replication. These two activities will be closely connected and carefully aligned if efficient and effective. Dissemination aims at making project results and lessons learned available for use, thus maximising the impact of the LIFE IP project. Replication goes beyond the transfer of results and lessons, and focuses on the utilisation of results in other geographical areas (e.g. municipalities) than those covered by this LIFE IP project.

The core of LIFE IP dissemination and collaborative (or: external) learning consists of structurally connecting all LIFE IP results with professionals and their organizations in the rest of the Netherlands. The basis for this dissemination strategy is the network approach as described under action E2 "Networking and engagement of stakeholders". The three ministries involved, in particular MinI&W, are responsible for the network approach through which the dissemination and collaborative learning takes place. Through the national Delta Program, all municipalities, provinces and water boards are connected through their umbrella organizations (VNG, IPO and UVW). This structure is an important basis for the dissemination to the regional and local governments. Next to that, the network organization *for* and *by* professionals will be deployed for the dissemination to all NAS sectors, in particular the (semi)private sectors. By sharing practical knowledge and experiences, professionals will benefit from each other and arrive faster at better solutions. This is because they don't have to reinvent the wheel everywhere.

The replication aims to ensure the use of project results by a narrow, focused group of professionals and their organisations. These organisations will be selected from the networks of target audiences that are part of our dissemination and collaborative learning. Most replication activities will take place in the follow up phases of the project (beyond 2.5 years), when individual project results have been bundled into integrated results or lessons learned for each LIFE IP objective / cogwheel. The replication activities, such as peer learning meetings and coaching, will be adjusted to the needs of each target group.

Action E.3 will be supported and prepared by action A.6 ‘Replication strategy and capacity building’. Based on this strategy, a detailed dissemination and replication plan will be drafted in the first phase of the project. This plan will point out specific activities, means and planning. Networking (action E2) is essential for a successful delivery of these activities. During the course of the project the dissemination and replication activities will be evaluated and may lead to adaptation of the strategy and plan.

Action E.3 will make use of outputs from actions D1 till D4. The focus of action E.3 is on collaborative (or: external) learning, whereas the D action are about internal learning. This E action will broaden the learning process (in D) by connecting it to network partners and audiences (beyond this LIFE IP project). In doing so, it aims to share, grow and create new knowledge together.

How
The network organisation consists of a team of community managers who all know one or more specific sectors (and relevant networks) in the Netherlands very well. Community managers will be deployed with a focus on the authorities and with a focus on the various private sectors.

- Community management – authorities:
  These community managers are mainly concerned with municipalities; the most executive and directing authorities. Getting municipalities involved in climate adaptation and the exchange and linking of knowledge and experience has special attention in this LIFE IP. Via the network KANS *for* and *by* municipalities, we make an extra effort in LIFE IP to engage municipalities. This network consists of 20 (medium) large cities (including 5 LIFE IP partners) that work together in the field of climate adaptation. Network KANS is characterised by its practical and concrete nature, focused on tangible results.

- Community management – private sectors:
  These community managers drive climate adaptation within specific NAS sectors. In addition, they stimulate cooperation, exchange of knowledge and experience between the sectors and between

the authorities and the sectors themselves.

Within the LIFE IP, the community managers have the following roles:

- Helpdesk: They provide an immediate answer or forward the question to an expert.
- Sparring partner: They explore questions by partners or stakeholders in a personal conversation. They offer tools such as: examples, contacts, information sources and strategic tips.
- Stage for up-scaling: They support the up-scaling / dissemination of successful initiatives or ideas. They offer professionals a stage and put an initiative or idea in the spotlight and ensure national or regional attention. Other examples in which they make knowledge and experiences available to a large group are webinars and mini documentaries.
- Connector for replication: They bring parties together within a region or around a specific issue in an active working form that supports replication, such as a workshop or a master class.
- Identifying and advocating trends: They identify trends / barriers from practice and bring them to the attention of national policymakers and knowledge institutions.

The four objectives (or cogwheels) of NL-NASCCELERATE have been translated into the following questions that will guide the dissemination, collaborative learning and replication.

1. Knowledge & Tools:
    - Which tools (both existing and new) can be used for which purpose, in which context and in which phase of the process?

2. Awareness & Sense of urgency:
    - How do you communicate about climate change as a local problem? Which actor can most effectively communicate about which problem / effect?
    - Which triggers lead to individual or (more importantly) collective action at the local level?

3. Governance & Integral approach:
    - What are the enabling and prohibiting factors for taking an integrated approach? This concerns (among other) organisational structure, culture, collaboration, competences and leadership.
    - What does this imply for (the adjustment of) the governance of climate adaptation? This concerns (among other) financing, regulation and standardisation.

4. Finance & Business models:
    - How can the level playing field in the NAS sectors (in particular: agriculture and construction) be adjusted in order to build an incentive for climate adaptation into business cases?

Drafting the dissemination and replication plan will start with the further identification and specification of target groups. This will point out the best ways to reach specific target groups and estimate the effectiveness of dissemination and replication activities. The dissemination plan will pay specific attention to a number of activities that will include the development or organisation of:

- Governance conference: At the beginning of the third LIFE IP phase, a conference will be organised with a focus on creating added value by combining the different NAS sectors while utilizing an integrated governance approach, using results of action A3. The conference will be used to present and discuss the results of the LIFE IP integrated approach towards NAS implementation with a broad group of stakeholders and to present the potential for mutual and added benefits for nature, economy, health and safety (multipurpose delivery).
- Seminars/Webinars, Oral presentations, Lectures and Workshops: Proposals for seminars, webinars, lectures and workshops for professionals and policy makers will be submitted to (inter)national conferences and meetings. Progress and results of the demonstration projects will be presented. Discussion with stakeholders will be encouraged on lessons learned, also aiming at exchange of suggestions for future improvements. Seminars/webinars, oral presentations, lectures and workshops will include a reference to the contribution of the LIFE IP programme.
- Publishing of articles: Focussing on professionals in the field of climate change adaptation and relevant NAS sectors, articles with a reference to the contribution of the LIFE IP programme will be drafted and submitted for publication in international and national media outlets. These media are addressed to and read by professionals working in the field as well as policy makers and the general public. This will promote quick and widespread dissemination of the results. Published articles will also be shared on the website www.klimaatadaptatienederland.nl, and on other

websites related to climate change adaptation.
- Training courses for specific NAS sectors: with a learning environment for climate adaptation, specialist training courses will be offered for professionals on a needs-oriented and flexible base. For example, on how they can best organise citizen participation.
- Peer learning meetings: Peer learning meetings will be organized for specific target groups to exchange knowledge and experience, including flexible and needs-oriented intervision sessions for beneficiaries. The community managers of the network organisation will initiate or facilitate these peer learning meetings. The focus of these meetings will initially be on dissemination and collaborative learning in the NAS sectors, but the emphasis will shift in the follow-up phases toward replication of the project results by a narrow, focused group (with selected professionals and organisations).
- Visitors programmes: The project partners will organise visitor programmes for interested stakeholders, such as governmental officers, researchers and consultants. During phase 2, interested parties (including interested parties from the European Union) may visit the demonstration sites. They can have a look at the implemented measures and the integrated governance approach in action.

Where
Dissemination activities take place throughout the Netherlands and are aimed at connecting peers in specific sectors and organizations within regions or nationally. This is done physically, during peer learning meetings or site visits, and online, such as webinars and meetings via Teams or Zoom.

When
The network organization is already operational. In the first 6 months we will further develop the dissemination and replication of LIFE IP and link the activities to the network organisation and possibly other network organizations. After each phase, we will evaluate the dissemination and replication activities and adapt / improve the strategy and plan.

The governance conference will be organised at the start of the third phase of the project, in 2025.

Reasons why this action is necessary
Dissemination will lead to continued stakeholder awareness and ownership, thereby stimulating the uptake of climate change adaptation in policy and practice during the LIFE IP project and beyond. In addition, dissemination of project results is essential for a successful replication. We will promote the replication of the demonstrated approaches and measures for climate change adaption in the NAS sectors.

Constraints and assumptions
Constraints
Dissemination asks for thorough analysis of project results, selection, generalized description and disclosure of the key exploitable project results by appropriate means, in order to make results available for use by others. It requires effective monitoring (Action D1) and relies on the governance strategy (Action A1), including a valid governance assessment tool.

Relevant conferences, symposia and network meetings will be attended, both national and international. Exact locations and destinations are yet unknown. When possible, partners will stay within the EU, but there is budget for transatlantic conference visits in order to present results to the largest audiences in the field of climate change adaptation. When results justify a conference contribution, partners will opt for a presentation.

Assumptions
All information necessary to draw up the dissemination and replication plan and strategy will be available. Dissemination and replication of project results to various target groups requires skilled expertise. Although partners have their own specialists, former LIFE and LIFE IP projects have shown to benefit from specific skilled expertise. As dissemination and replication are key objectives of the LIFE IP programme, external support will be obtained when deemed necessary. This support will be additional to partners' existing dissemination capacities.

Expected results
- 1 governance conference, resulting in improved commitment towards climate change adaptation policies. Targeted audience: professionals from all NAS sectors, policy makers (approximately 250 persons engaged).
- Seminars/webinars, Oral presentations, Lectures and Workshops. Goal: contribution to at least 10 climate change adaptation conferences/lectures. Targeted audience: professionals and policy

makers (at least 1.000 persons informed).

- At least 20 peer learning meetings (including meetings of network KANS) in which the project leaders of LIFE IP share their knowledge and experiences. Targeted audience: professionals from all NAS sectors, policy makers (approximately 200 persons engaged).
- A minimum of 4 training courses (incl. coaching) for specific NAS sectors. Targeted audience: professionals from all NAS sectors, policy makers (approximately 200 persons engaged).
- At least 24 published articles. Targeted audience: professionals and policy makers (over 10.000 persons informed).
- Visitors programmes: 60 local site visits by interested parties. Targeted audience: 5 persons/visit, total of 300 professionals and policy makers

Deliverables

First phase:
30/06/2022 LIFE IP dissemination and replication plan

Following phases
30/11/2025 Governance conference, including media coverage
31/12/2025 Updated dissemination and replication strategy based on evaluation.

Milestones

Following phases
31/12/2027 Contributions to conferences/lectures held, peer learning meetings, training courses and site visits organised, articles published

ACTION E.4: Transnational collaboration, learning and replication in Europe

Beneficiary responsible for implementation
MinI&W in collaboration with all LIFE-IP co-beneficiaries

Description (what, how, where and when)
What
This action promotes the transfer and replications of the demonstrated approaches in an (inter)national setting, so that other European countries that run into the same governance related problems can benefit from the Dutch LIFE IP results and lessons learned. Transnational collaboration and networking with European subsidy projects (see action E.2) are key mechanisms for a successful learning transfer and replication.

The Netherlands is part of two macro-regional approaches, in which climate adaptation inter alia is addressed: the Benelux and the Wadden Sea Trilateral Cooperation. The Benelux countries (Belgium, The Netherlands and Luxembourg) have cooperated on climate change issues since 2014. In the context of the Trilateral Wadden Sea cooperation, Denmark, Germany and The Netherlands cooperate to protect the Wadden Sea as an ecological unity. A Task Group on Climate drafted a trilateral strategy on increasing the climate resilience of the Wadden Sea. Regarding cross-border nature issues, the Netherlands is involved in five Interreg subsidy projects with a focus on nature-based adaptation. These transnational committees and subsidy projects will be used to disseminate the results of the LIFE IP project transnationally.

This action is prepared by action A.6 'Replication strategy and capacity building' and facilitated by action E.2 'Networking and engagement of stakeholders'. In the context of action E.2, networking activities with other LIFE IP Climate change adaptation projects and other interested European projects will be organised in order to share experiences, results and knowledge. In addition to the networking, action E.5 will deepen / strengthen the transfer of experiences, results and knowledge through peer learning workshops. These peer learning (or: capacity building) workshops will be conducted with a narrow, focused group of organisations, selected from the European networks project and subsidy projects.

The peer learning and replication activities will take place in the follow up phases of the project (beyond 2.5 years), when individual project results have been bundled into integrated results or lessons learned for each LIFE IP objective / cogwheel. The peer learning and replication activities will be adjusted to the needs of each target group.

How
Transnational collaboration will use already existing relationships and structures of cooperation between the Netherlands and other Member States. It will make efficient use of resources since most travel and subsistence costs are already covered in the context of the collaboration itself. In this LIFE-IP an additional travel budget have been made available for the C action coordinators to participate in three European meetings each. This will allow for separate initiatives to explore new and promising transnational cooperation opportunities on the issue of climate change adaptation. The transnational collaboration will primarily require staff time, for travel and also to get acquainted with the results of this LIFE-IP that will be generated over its lifetime.

In addition, immediately after the European meetings, a report will be drafted on the results achieved with respect to the investment in transnational collaboration, to report on the results achieved. At the end of each IP phase, these reports will be critically analysed, lessons learned will be collected as well as suggestions for possible adjustments in the approach in the next project phase. Also translation costs are accounted for, to be able to communicate effectively in the European arena on the Dutch concrete implementation actions and their results.

With the aim of replication, this action will facilitate peer-to-peer learning with a narrow, focused group of organisations. We will set up a tailored programme of peer learning workshops (and other activities like coaching) in the follow-up phases of this LIFE IP, based on the needs of the targeted / selected organisations. This programme to support replication will be executed in a peer-to-peer format to accelerate the sharing of knowledge and experiences. In the workshops, the approaches being demonstrated in this LIFE IP will be evaluated and tested amongst peers. These workshops will facilitate the involved organisations / participants in replicating the demonstrated approaches, for example to improve the (local) processes of governance. We will undertake intermediate monitoring of the programme and capture the learning process outcomes from the peer learning workshops. This will

result in on-going adaptation of the capacity building programme (as needed) and optimised learning.

Where
This action will take place in conjunction with events that are organised outside this IP, on the occasion of meetings of existing collaborations as described above. Separate initiatives can take place throughout the EU.
The learning transfer and replication will take place physically in The Hague, Utrecht or Schiphol Airport, during peer learning workshops, and online, such as meetings via Teams or Zoom.

When
Transnational cooperation will take place during the full IP lifetime, while the peer learning and replication activities take place in the follow up phases of the project (beyond 2.5 years).

Reasons why this action is necessary
Transnational cooperation is an effective element in replication, to identify new opportunities for cooperation with other EU Member States towards new complementary actions. It will strengthen the actual mobilisation of funds, since it will build upon established relations between Member States.

By disseminating results through international networking activities, other European countries that run into the same governance related problems can benefit from the Dutch LIFE IP results and lessons learned. The other way around also holds: Dutch actors will learn from experiences abroad.

Transnational collaboration and dissemination through international networking are key mechanisms for a successful learning transfer and replication.

Constraints and assumptions
The applicants will contact other European projects for networking purposes but will depend on their willingness to respond and participate.

We assume that the issue of climate change adaptation is recognised in many, if not all member states as a main societal challenge for the coming decades, which will create an open mind towards new collaborations on this issue.

Expected results
- Translations of LIFE-IP information, tailored towards the specific event/meeting/conference it is targeting. Targeted audience: professionals and policy makers (at least 5.000 persons informed).
- Participation of the C action coordinators in European-wide meetings, events or other occasions that will allow the exploration of transnational cooperation. Targeted audience: professionals and policy makers in Europe (at least 100 persons engaged).
- After every project phase a report will describe the achievements resulting from these efforts, including recommendations to improve the approach towards transnational cooperation in the next phase. After the last phase, this report will be integrated in the final report. Targeted audience: LIFE IP beneficiaries (at least 50 persons informed).
- A tailored programme of at least 12 peer learning workshops (or other activities like coaching). Targeted audience: a narrow, focused group of organisations that are committed toward replication of the LIFE IP results and lessons (at least 30 experts engaged).

Deliverables

First phase
31/12/2022 Report on achievements on transnational cooperation of phase 1

Following phase
31/12/2024 Report on achievements on transnational cooperation of phase 2

Milestones
First phase
31/12/2022 First translations for transnational cooperation available

Following phase
31/12/2027 Transnational peer learning meetings organised

ACTION E.5: Appealing and comprehensible Layman's report to inform the general public

Beneficiary responsible for implementation:
MinI&W

Description (what, how, where and when)
What
An accessible layman's report will be prepared as a non-technical summary report to inform the general public on the project objectives and outcomes. Focus will be given to the innovative and demonstrative character of the project for the implementation of the NAS strategy and the contribution of complementary projects and actions. This layman's report will be published in English and Dutch.

How
The layman's report will be included in the LIFE IP communication plan (action E1) and will be drafted by MinI&W and will include the LIFE logo. The report will be appealing as a professional designer and a communication officer will take care of the layout and supporting pictures. The report will be printed for hand to hand communication and dissemination purposes and a digital version of the report will be available on the LIFE IP website for easy downloading purposes for any other interested parties. The report will be 5 to 10 pages and available in the languages English and Dutch.

Where
The report will be drafted centrally in The Hague or Utrecht.

When
The report will be compiled after the project has been evaluated and final conclusions and recommendations have been drawn up.

Reasons why this action is necessary
A layman's report is an important part of the communication and dissemination strategy, to inform the general public about the results of this LIFE IP. It is a short and appealing report, easy to read and therefore comprehendible for many stakeholders in and outside the Netherlands. By reading this report, stakeholders are inspired to replicate best practices in their own capacity. Thereby, this report will also contribute to the dissemination and replication actions E3 and E4.

Constraints and assumptions
- The report will be published on the NL-NASCCELERATE exchange platform. This website should be promoted well during the project, to reach a diverse group of stakeholders
- In addition the partners of this LIFE IP will be asked to distribute the online layman's report in their own networks to reach the most widest range of stakeholders.
- We will preferably distribute the online version of the layman's report. In addition hardcopies of the layman's report will be distributed throughout the developed network of NL-NASCCELERATE, but prints will be minimised for sustainability reasons.

Expected results:

An appealing layman's report, both online and in hardcopy, which has been distributed in the LIFE IP NL- NASCCELERATE network and will be warmly received and understood by the target audience. Targeted audience: general public (including the press), professionals and policy makers (approximately 20.000 persons informed).

Deliverables:

31/12/2027 Layman's report online and hardcopy

Milestones:
-

ACTION E.6: LIFE-IP website management

Beneficiary responsible for implementation
MinI&W

Description (what, how, where and when)
What
The portal www.klimaatadaptatienederland.nl will be used as the main portal to promote and share the progress and results of the LIFE IP project (see action A2).The LIFE IP logo and contribution will be clearly visible. This 'Spatial Adaptation Knowledge Portal' is the pre-eminent platform for climate change adaptation in the Netherlands. The portal provides a central information database for governments, private parties, and NGOs to achieve climate-proof and water resilient planning in the Netherlands and exists almost 10 years with currently approximately 600 visitors per day. It helps to get started on spatial adaptation. This portal will be used as a tool to communicate about the LIFE IP project and to disseminate information to stakeholders and target audiences though the public domain of this portal. The internal domain of the portal, only accessible with a login name and password, will be used by the beneficiaries and actively involved stakeholders to share information, results and experiences, for project management purposes (notices, calendars, schedules) and to make templates, tools, protocols and standards available that can be used in demonstration projects and pilots.

How
The portal https://klimaatadaptatienederland.nl is managed and maintained under the authority of MinI&W. MinI&W will be responsible for the design of the LIFE IP pages on this portal. Hosting will be provided by an external party. The portal will be the interactive heart of the project. It will prominently feature the LIFE IP and NAS logo and clearly provide information on the objectives, actions, progress and results of the project and will incorporate a regularly updated blog that will detail project progress and activities from a local point of view. The website will also promote the other social media accounts related to the project by providing quick links (for example to the Twitter accounts).The portal will link to the websites of all co-beneficiaries.

Co-beneficiary websites will all feature a summary of the LIFE IP project, including the LIFE IP and NAS logo with a link to the main portal. In addition, co-beneficiaries can provide a local insight on the project through their own websites, detailing the progress and results of their specific implementation actions (see all C actions).

The targeted audience are stakeholders involved in the concrete implementation actions, and other stakeholders, professionals, policy makers and general public interested in urban climate change adaptation. The envisaged use is an average of 300 website visits per month, based on the current experience and statistical information. We will use Goodle AdWords for increasing the reach, in addition to the organic findability of the website.

Where
The LIFE-IP website will be managed online as part of the website www.klimaatadaptatienederland.nl.

When
The LIFE IP pages on the portal will be online as soon as the portal is created (during the first year, action A2) and will be managed during the full lifetime of the project, including sharing all results of the IP actions.

Reasons why this action is necessary
A designated website is essential for communication and dissemination purposes and therefore for the replicability and transferability of the project approach and results.

Constraints and assumptions
The website management of www.klimaatadaptatienederland.nl is already organized and this action is developed in cooperation with the current web manager. We therefore do not see any constraints or assumptions.

Expected results
pA designated LIFE IP website within the existing portal www.klimaatadaptatienederland.nl, with project specific content.

Deliverables:
First phase
31/12/2023 LIFE-IP specific content, as generated in project phase 1, added to the LIFE IP website as part of www.klimaatadaptatienederland.nl.

Following phases
31/12/2025 LIFE-IP specific content, as generated in project phase 2, added to the LIFE IP website as part of www.klimaatadaptatienederland.nl.
31/12/2027 LIFE-IP specific content, as generated in project phase 3, added to the LIFE IP website as part of www.klimaatadaptatienederland.nl.

Milestones:

-

LIFE Integrated Projects 2019 - C1e

F. Project Management and monitoring of project progress

ACTION F.1: Overall coordination, project organisation and management structure

Beneficiary responsible for implementation
MinI&W in collaboration with MinVWS, MinLNV, Apeldoorn and Gouda.

Description (what, how, where and when)
What
The purpose of project management is to ensure the successful coordination and management of the different project activities. Within the proposed project, project management will comprise of the technical, administrative and financial management of the project including management of information exchange amongst the beneficiaries and decision-making.

- Technical Management: Monitoring of action status measured against deliverable and milestone planning. Work plan follow-up, identification and troubleshooting of technical and organisational problems. Annual review preparation and work plan update. Control of deliverable timelines, quality and consistency with respect to technical and contractual aspects. Preparation of detailed work plan for each LIFE-IP phase.
- Administrative Management: Preparation, collection and maintenance of contractual documents (consortium agreement, EC contract, etc.). Organisation of reporting activities, completion of indicator tables and distribution and archiving of reports (both internal and external reporting).
- Financial Management: Set-up and maintenance of financial records. Coordination and control of cost claims and audit certificates submitted by all project partners. Follow-up of DG Environment payments. Distribution of partner shares and monitoring of payments. Justification of payments. Financial controlling. Preparation of detailed work plan for each LIFE-IP phase.
- Management of Decisions, Communication & Information Exchange: Organisation and follow-up of periodic project meetings to assess progress review. Organisation and follow-up of relevant trainings, workshops, and networking activities. Decision making. Risk review. Identification/avoidance/resolution of conflicts.

How
The beneficiaries are project-oriented organisations and have extensive experience in project management, including other EU funded projects.
MinI&W will organise full time project management in cooperation with MinVWS. This reflects the wish of both MinI&W and Min VWS to strengthen the integration of health-related topics into climate change adaptation policy, and vice versa, at all spatial scales. A senior project manager at the coordinating beneficiary will function as overall project director. This director shares, as primus inter pares, the coordination tasks with a senior project manager of MinVWS, who will be the deputy director. For support on administrative and financial LIFE IP issues the director will be supported internally by specialized staff. This staff has ample experience with the administrative and financial accounting of EU co-financed projects. All associated beneficiaries will also appoint a project manager within their own organisation to organise the day by day activities. They will be supported by the administrative staff of their organisations. Furthermore, all staff members (specialists, administrative staff, communication officers, etc.) will be responsible for their own share of the work and the project managers will guide them and supervise the overall progress of the project.

Decisions about the project execution are during the Annual Consortium Meeting (ACM) chaired by the project director. All beneficiaries will appoint a senior project manager to become a member of the ACM, as the ACM will decide upon important issues concerning project execution. Because of the large number of beneficiaries represented in the SC, the SC will appoint a Project Management Team (PMT) from its members. The director, deputy director and the beneficiaries responsible for the coordination of A, C1, C2, C3, C4, D and E actions will be member of the PMT. The PMT ensures that project management is organised at a more operational level than the ACM. The project management primarily aims the level of the four ‘cogs’ in connection to monitoring, learning and dissemination. The ACM will decide on what type of decisions will be delegated to the PMT. Decision

making in the ACM and PMT will be based on consensus, in line with the Dutch administrative tradition called poldering. Consensus based decision making is about a respectful dialogue between equals, aiming for 'win-win' solutions that are acceptable to all. Broad approval of a decision will increase the dedication and commitment to it. It also prevents partners from trying to get their way at a later stage, causing delays or other negative consequences for project execution. Escalation forms part of consensus decision making. When beneficiaries in the ACM cannot come to a decision, the issue can be brought to a higher level in the administrative hierarchy, using existing administrative bodies related to e.g. the NAS, or, when they do not exist, in an ad hoc consultation between representatives, to find a solution there. With a SC and a PMT the project is managed on a regular basis and in conjunction with the real needs of the beneficiaries on one side and the overall project goals at the other. LIFE-IP activities are coordinated on an action level, by a working group that will be installed for each action.

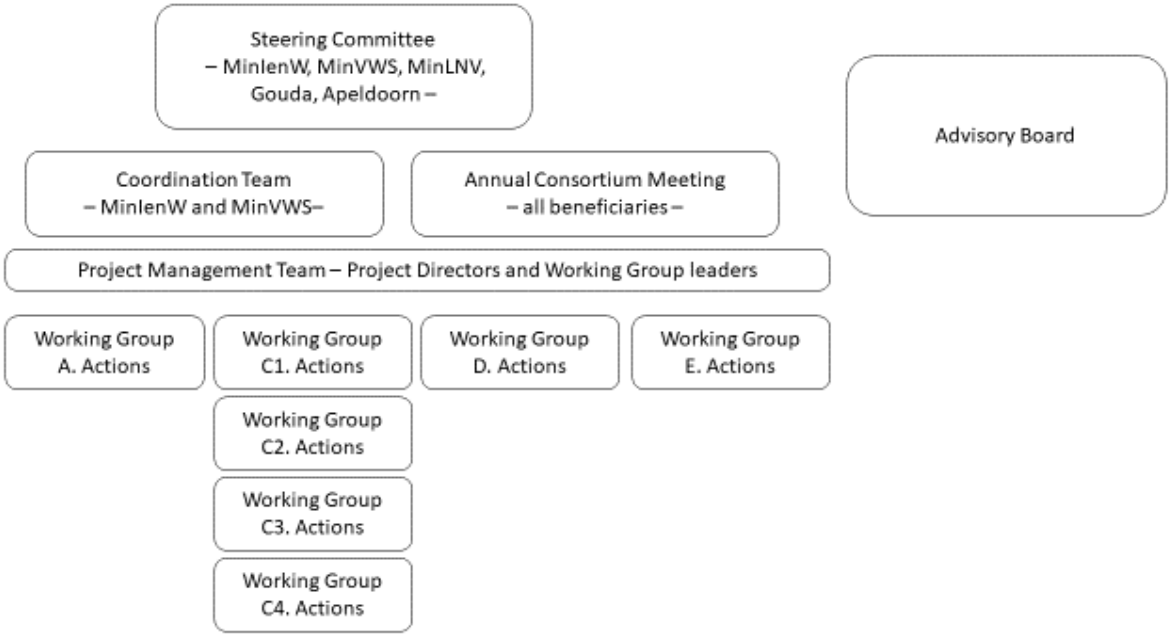


Figure F1.1: Project Management Scheme

Steering Committee

Members of the Steering Committee (SC) are line Directors of the organisations responsible for the working groups of A, C, D and E actions. These are the MinI&W, MinVWS, MinLNV, Gouda and Apeldoorn. In addition, the Project Director and Deputy Project Director are part of the SC. The role of the SC is the approval of progress reports and management plans. Supervise the overall technical and financial progress of the project. Also, the SC is serving escalating mechanism towards beneficiaries when conflicts arise. The SC meets once a year and can meet ad hoc if needed.

Annual Consortium Meeting

All beneficiaries meet at the level of senior project managers once a year to discuss the project progress, results and lessons learned at the overall level of the project. At this meeting the bi-annual progress report as prepared by the Project Management Team will be discussed. In direct connection to this annual meeting we also organise an annual working conference to address cross-over themes between the sub-actions of the consortium members.

Advisory Board

An advisory board (AB) will be established that will advise the director and the SC. It is a consultative body of European experts and professionals on climate change adaptation policy, practice and implementation. The role of the AB is to provide - upon request by the director and/or SC - independent analysis and reflection of, and advise on specific project issues, related to progress and results. These advises will contribute to maximizing the impact of the IP and its replication potential,

both nationally and EU-wide. Leading Dutch and European experts and professionals will be invited to participate in the AB soon after the grant agreement is signed, in early 2022. They will be selected from beneficiaries of other LIFE-IPs on climate change adaptation, and other climate change adaptation projects and initiatives in Europe. They may have a background in policy, practice, science and technology. Consultation of the AB by the director and/or SC can be organised as dedicated meetings or by using email, or virtual conference software, depending on the issues at stake. Preference will be given to online meetings and back-to-back meetings at organised events by others, to reduce travel expenses and the accompanying climate footprint. A budget is foreseen to cover travel and subsistence costs of the members of the AB when invited to meet or attend IP events.

Project Director and Deputy Project Director

MinI&W will appoint a project coordinator who will act as project director and will:

- Be the contact point for the EU
- Be responsible for completing the project within constraints concerning quality, time and costs as overall project manager and coordinator;
- Be responsible for the fulfilment of the obligations of the LIFE contract including reporting to the EU;
- Install and organise meetings and agenda of the Steering Committee and Coordination Team;
- Form a project team for project coordination and nominate the team members;
- Prepare for and meet with the LIFE IP monitor;
- Prepare an operational project planning, set up a project administration and assign tasks and budgets;
- Be responsible for the active management of networking activities and promotion of the LIFE IP project. This includes active knowledge exchange and dissemination efforts via social networks and media.

MinVWS will appoint a project coordinator who will act as deputy director. They will share the responsibilities associated with the leadership of this LIFE-IP project, and will divide the tasks of the director between them. They will meet regularly to align all activities, at least weekly and meet with the PMT monthly. The Project Director and Deputy are supported by financial and administrative staff, together they form the coordination team.

Project Management Team (PMT)

MinI&W, VWS and the working group leaders of the A, C, D and E. actions form the PMT of the project together with the administrative and financial support staff of the Project Director. The PMT is accountable to the project beneficiaries for managing the LIFE IP project. During the ACM the PMT will elaborate on project management, finance and project progress. The appointed members of the PMT will have extensive project management experience and will organise support necessary for an efficient and effective execution of their tasks. They meet regularly to align all activities and manage the project using the information and data as collected in the project actions, including the KPIs, milestones and deliverables. The progress of actions will be controlled from all relevant perspectives, such as capacity building and replication, multi-purpose delivery, monitoring also including impact monitoring and evaluation, financial coherence, administration and time management. A detailed management plan will be developed every two years towards effective quality control of the project, including a contingency plan. The PMT is also responsible for drafting progress reports.

Working Groups

At the action level, working groups will be installed, consisting of representatives of the beneficiaries involved in the action. One beneficiary will take up the role of Working Group Leader and is responsible to coordinate the execution of the LIFE-IP action. The working groups report to the Project Director and the SC. Working groups are responsible to deliver detailed input to the management plan drafted by the PMT. This includes a detailed planning for the next phase as well as information needed to update the indicator tables/ KPI's.

Project organisation

Min I&W will organise the IP project as a separate project within the organisation. All beneficiaries will internally organise their activities and set up a project administration for their own activities. Each

partner will pay its own invoices, keep records of their part of the project and have its own part audited. The coordinating beneficiary will draft the Interim and Final reports (technical and financial, including a detailed management plan for the next phase of the IP), including partner's contributions and will pay LIFE-IP contributions to the partners (Top-down payment). Each partner will appoint a project manager who will act as the central contact point for all day-to-day issues and as such is in charge of all day-to-day activities within his/her organisation. In this way, the project will get the necessary attention on a regular basis in conjunction with its real need. Each partner will internally appoint teams of experts who will carry out the respective pilots, demonstrations and best practices, building towards increased capacity on climate change adaptation. Depending on its character, different experts may join these teams. These specialists (e.g. project engineer, administrative staff member, communication worker) will to a high extent be responsible for their own share of work. This project organisation is depicted in Figure F1.2.

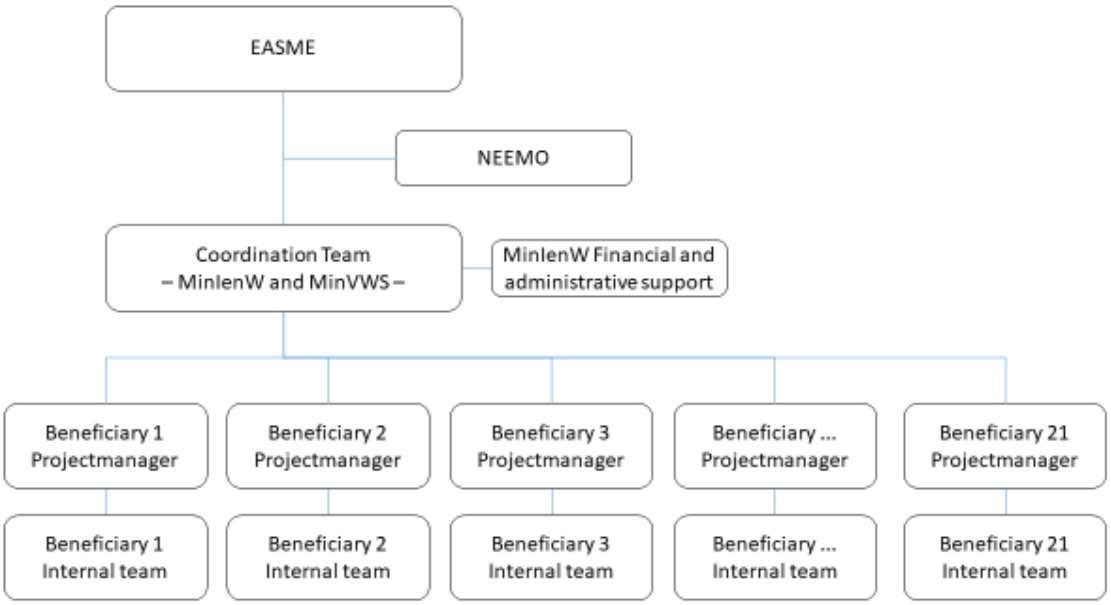


Figure F1.2.: LIFE-IP project organisation

Where
Project management will be done at The Hague. SG, PMT, Coordination Team and ACM meetings will be organised at a central location. Online meetings and video conferencing will be stimulated as much as possible, to reduce travel time and related carbon emissions.

When
Project management will start after the official start date of the project and will last until the end of the project.

Reasons why this action is necessary
Good project management in all its facets is essential in order to fulfil all requirements set by the EU, and to guarantee replicability and transferability.

Constraints and assumptions
Constraints
This LIFE-IP is a complex project with many partners. Good project management will have to be supported by all parties involved.

Assumptions

Public staff at I&W will be specifically seconded to the project. Full time project coordination jointly provided by MinI&W in cooperation with MinVWS will allow for sufficient control and timely reporting on progress and financials. The budget for project management costs covers the implementation of a LIFE proof administrative structure. Experience with former and on-going LIFE and other EU projects has shown that reporting within the EU LIFE framework requests specialized knowledge. This specialised knowledge is available within MinI&W.

Expected results

- Sound project management;
- Project execution according to the description in the proposal;
- The finished project will comply with the technical specifications set out in this document;
- The LIFE-IP project will be finished by the end of 2027.

Deliverables:

First phase

01/04/2022 Management Plan phase 1, including a planning and risk register

Following phases

01/02/2024 Management Plan phase 2, including a planning and risk register
01/02/2026 Management Plan phase 3, including a planning and risk register

Milestones:

First phase

15/12/2021 Personnel of the Project Management Team is appointed
18/01/2022 Kick off meeting planned
01/02/2022 Steering Committee and Coordination Team are established

ACTION F.2: Monitoring progress of the project actions and reporting to the EU

Beneficiary responsible for implementation:
MinI&W in collaboration with all other beneficiaries

Description (what, how, where and when)
What
Monitoring of and reporting on project progress will be an integral part of project management.

How
Monitoring
Monitoring of the project consists of measuring, documenting and controlling the effectiveness of the project actions compared to the existing situation. Objectives and expected results will be integrated in the overall project management activities and tools. The breakdown of the project in clearly specified actions related to deliverables and milestones makes monitoring a transparent and traceable activity. The defined actions, deliverables and milestones will serve as the so-called "monitoring indicators" whose progress can be measured against the management plan. Monitoring within this project will comprise both internal and external reporting as well as project meetings. Each of these activities comprises "monitoring indicators" and "sources of verification". Reports and meeting minutes will form the required "monitoring protocols".

Monitoring and evaluation provide also the necessary information for regular joint monitoring missions together with the EU LIFE team (and their external advisors). Terms of Reference for these monitoring missions will be developed and agreed upon with the LIFE team. These reviews will mainly focus on a) assessing project progress; and b) providing guidance to all concerned parties on project implementation (especially regarding administrative provisions). The requirements for, and terms of reference of, external evaluations would be determined principally by the LIFE programme.

Monitoring and measuring impact KPIs
In addition, the compulsory pre-identified KPI indicators will be overall monitored by the PMT with input from the working groups as described in the D actions. The measurements and monitoring updates will be translated into final report. See the D actions for more details about monitoring.

Risk management
Each associated beneficiary has the responsibility to report immediately to the coordinating beneficiary if any risk situations emerge that may conflict with the project's objectives or the successful completion of the actions. As such, critical issues will become apparent very quickly in the context of the day-today communication between the partners. Risk situations that may emerge include changes in scheduling of deliverables and/or allocated funding, the withdrawal of a beneficiary, changes in availability of experts or project managers, and failure to obtain relevant authorization or approval. Possible solutions will be found through discussion and analysis of alternatives amongst all partners concerned. The project director will chair the discussions and schedule the steps towards finding a solution.

Reporting to the EU
While it is the partners project managers' task to control project progress within their own organisation, it is the coordinator's responsibility to monitor and control overall project progress by contacting the individual project managers' regularly to check the progress made at each beneficiary. The coordinating beneficiary will set up an administrative and financial support team. This team will provide detailed guidance to beneficiaries on reporting formats, frequency, and required details. The team will collect all the information of the partners, monitor progress and integrate this information into periodic financial reports. The partners are required to (1) monitor the status of all work and financials of their respective activities and (2) to inform the coordinator regularly on the status quo of the activities carried out at their organisation. In the case of critical deviations from the work plan, the European Commission will be informed and consulted by the coordinating beneficiary.

Reporting to the EU will take place on a regular basis, as described by LIFE-IP. Set up of LIFE reporting is supported by internal specialised staff. Reports will be fully endorsed and signed off by the beneficiaries. Reporting will include two Interim Reports, including intermediate results for the 2nd and 3rd stage of the project, and a Final report. The Final LIFE report will include the Layman's report and the final Financial Statement. Updated indicator tables will be included in the Interim Reports and the Final LIFE-IP Report.

Audit

An audit report, Certificate on Financial Statement, will be provided by the concerned beneficiaries if required by the Grant Agreement. Audits are outsourced to independent audit services. All audits will verify national legislation and accounting rules as well as the conditions set in the Grant Agreement.

Where

Monitoring will be done for all actions at the locations involved in this LIFE-IP. Integral reporting will be done by the coordinating beneficiary, based on the information provided by the associated beneficiaries.

When

Monitoring progress of the project actions will start after the official start date of the project and will last until the end of the project.

Reasons why this action is necessary

Monitoring of project progress is mandatory and required in order to report progress to the EU LIFE unit.

Constraints and assumptions

The applicants do not see any constraints concerning the monitoring and reporting of project progress. It is assumed that all obligations can be met.

Expected results

- 2 interim reports and 1 Final report. The Final report and the request for 'payment of the balance' will be submitted within 90 days following the end of the project period;
- Monitoring visits of EU teams.

Deliverables:

First phase

01/02/2022 Guidance on financial reporting available for associated beneficiaries

Following phases

31/03/2024 Interim Report 1, consisting of a Technical and Financial progress report Phase 1
31/03/2026 Interim Report 2, consisting of a Technical and Financial progress report Phase 2

Milestones:

-

ACTION F.3: After-LIFE plan

Beneficiary responsible for implementation:
MinI&W

Description (what, how, where and when)
The After-Life Plan will be developed to ensure the sustainability of the actions carried out within the IP. It will be developed during the last year of the IP and presented as a separated annex of the final report. The After-LIFE Plan will describe the actions to be undertaken by the beneficiaries in active collaboration with the stakeholders involved in the IP. The After-LIFE plan will focus on the actions developed during the IP: working towards a widely accepted long term vision and ambition for NAS implementation, continuation of capacity building and of communication, dissemination of tools and documents, updating the website, improving and developing monitoring tools, create synergy between different sectors dealing with climate change/adaptation and economic functions, stimulate new stakeholder collaborations that will work towards NAS implementation, etc.

Reasons why this action is necessary
During the IP the focus lies on de development of plans, tools and instruments for implementation and for follow-up of the NAS towards the achievement of its objectives. It is obviously necessary to pursuit transferability of the different lessons learnt during the IP. Given the fact that the concrete actions will not be carried out for all aspects of the NAS, it is therefore necessary to continue after the LIFE project to ensure the achievement of climate resilient Netherlands.

Constraints and assumptions
No relevant constraints and assumptions are identified.

Expected results (quantitative information when possible)
1 After-LIFE plan

Deliverables:
Following phases

31/12/2027	After-LIFE plan

Milestones:
-

DELIVERABLES, MILESTONES AND REPORTING SCHEDULE

MAIN DELIVERABLE PRODUCTS OF THE PROJECT

Name of the Deliverable	Code of the associated action	Deadline
Knowledge agenda	A.1.	31/12/2022
A first landing page to introduce LIFE-IP NL-NASCCELERATE as part of the existing Knowledge Portal for Spatial Adaptation	A.2.	01/04/2022
A mature website infrastructure for LIFE-IP NL-NASCCELERATE integrated in the existing Knowledge Portal for Spatial Adaptation	A.2.	31/12/2022
Guidance document on governance and integral approach: success stories and good examples towards climate change adaptation policy	A.3.	31/12/2022
Report on innovative business models for and financing of climate change adaptation measures	A.4.	31/12/2022
Monitoring and evaluation strategy	A.5.	31/12/2022
Report on the replication strategy and capacity building: methods, strategies and incentives within and outside this LIFE-IP.	A.6.	31/12/2022
Partnerships agreements	A.7	31/12/2021
Interactive template about climate change where local information on climate can be included ready	C.1.1.	31/12/2023
-Webtool where local information (climatological averages and indices for the reference period and for the future, and information about interannual variability) can be obtained including guidelines on usage of interactive template and web tooling	C.1.1.	31/3/2024
Climate scans for various water systems (1 report)	C.1.2.	30/06/2023
Report on effectiveness of measures and actions	C.1.2.	31/12/2023
Climate adaptation compasses for various water systems (1 report)	C.1.2.	31/12/2024
An action table to enable the climate adaptation and ecological resilience of large bodies of water in the Netherlands (area-specific table and report).	C.1.2.	30/06/2026
Inventory of current activities, lessons learned and best practices stakeholders	C.1.3.	01/06/2022
Guidelines draft 1	C.1.3.	01/06/2023
Guidelines draft 2	C.1.3.	31/12/2025
Final Guidelines	C.1.3.	01/06/2026
Materials (infographics / leaflets) for communication and dissemination	C.1.3.	31/12/2026
- Interactive report with costs/benefits per climate action and positive change of behaviour, and design of façade with sedum; green lanes in city and pocket parc	C.2.1.	31/12/2023

interactive report with costs/benefits per climate action and positive change of behaviour.	C.2.1.	31/12/2024
Analysis report with heat zones, water flooding zones, pollution, etc.	C.2.2.	31/01/2023
virtual design of climate zones in the inner city.	C.2.2.	31/12/2025
A fact based participative (virtual) design to realise green-water spaces in the inner city of a mid-sized city in Europe	C.2.2.	31/12/2026
Participation plan	C.2.2.	31/12/2027
A neighbourhood monitor plan, a participation strategy and behavioural influencing instruments	C.2.3.	31/03/2022
Report on survey results on behavioural change in relation to awareness, willingness to act and actions taken (by inhabitants / local entrepreneurs)	C.2.3.	31/12/2025
Concept heat plan	C.2.4.	31/12/2023
Final heat plan for all neighbourhoods	C.2.4.	31/12/2026
Training manual Coaches	C.2.5.	31/12/2021
Description of added toolbox measures, List of involved stakeholders in network, Prototype Climate adaptation solution maps	C.2.5.	31/12/2022
Local monitoring tool	C.2.5.	31/12/2023
stakeholder analysis	C.2.6.	31/12/2022
report risk dialogues	C.2.6.	30/06/2023
evaluation report	C.2.6.	31/12/2027
Position paper for setting up a Coalition Solid Cities and report impacts of height differences and the pilot on predicting foundation maintenance related to increase in height differences.	C.3.1.	30/6/2023
Report on design and execution of the integrated local monitoring plan.	C.3.1.	31/12/2023
Climate adaptation plan with concrete measures, set of guidelines for the climate adaptation of specific areas, including a summary of learning experiences and other products that might be transferable to different areas/regions, plan for the monitoring, progress, and implementation of the project (document)	C.3.2a	31/12/2022
15,000 ha climate-robust brook valley	C.3.2a	31/12/2027
augmented reality tool	C.3.2b	31/03/2022
Implementation plan	C.3.2b	31/12/2023
Integral assessment framework and policy rule	C.3.3.	31/12/2022
Monitoring and evaluation report focusing on lessons learned and recommendations	C.3.3.	31/03/2027
Delta plans of Climate, Economical and autonomic are ready. These plans contain handles to encourage climate adaption in the Delta of the future	C.3.4.	30/10/2023
14 practices with show cases and reports (communication) will be given and a governance model	C.3.4.	31/12/2023
Updated climate impact atlas	C.3.5.	31/12/2021
Updated map on decoupling opportunities and toolbox communication	C.3.5.	31/12/2023

Agreements with partners	C.3.6	31/12/2021
10 municipal heat plans delivered	C.3.6	31/9/2023
Roadmap that contains an approach on how to implement climate adaptive business models.	C.4.1.	31/12/2021
Inception report on identification, characterization, and expected outputs for 4 demonstration sites (living labs) with 5 workshops per demonstration site and business models and local publicity plan, including website with factsheets, newsletter for farmers, brochures, flyers, publications, white papers	C.4.1.	31/06/2022
First evaluation report of the road map, co-creation on business models and green solutions	C.4.1.	31/12/2023
progress report of the road map, co-creation on business models and green solutions	C.4.1.	31/12/2025
final report of the road map, co-creation on business models and green solutions	C.4.1.	31/12/2027

Name of the Deliverable	Code of the associated action	Deadline
Report of selection of 6 research areas	C.4.2.	31/06/2022
Business case and description to make the agriculture in meadow peas stronger and to transform the agriculture (in meadow peat areas)	C.4.2.	31/12/2024
Advice process approach Meadow peat areas (process description for a resilience agriculture in the meadow peat areas (and replication opportunities across Europe/International)	C.4.2.	31/12/2025
Regional approach of climate change in rural areas, financial plan of Public private approach in agriculture and nature, and Dynamic knowledge agenda climate adaptation in agriculture and nature	C.4.3.	31/12/2023
First report on monitoring strategy and evaluation of C1, with a detailed baseline and main indicators and the first monitoring and evaluation of all partners involved	D.1	31/12/2023
Second monitoring report and evaluation including a dissemination action programme together with E2	D.1	31/12/2025
Monitoring and evaluation report on last phase dissemination actions.	D.1	31/12/2027
Final report “Monitoring and Evaluation D1 Knowledge and Tools” on the overall contribution of action C1 to the implementation of the NAS	D.1	31/12/2027
First report on monitoring strategy and evaluation of C2, with a detailed baseline and KPIs and the first monitoring and evaluation of all partners involved;	D.2	31/12/2023

Second monitoring report and evaluation including a dissemination action programme together with E2	D.2	31/12/2025
Monitoring and evaluation report on last phase dissemination actions.	D.2	31/12/2027
Final report “Monitoring and Evaluation D2 Awareness & Sense of urgency” on the overall contribution of action C2 to the implementation of the NAS	D.2	31/12/2027
First report on monitoring strategy and evaluation of C3, with a detailed baseline and KPIs and the first monitoring and evaluation of all partners involved;	D.3	31/12/2023
Second monitoring report and evaluation including a dissemination action programme	D.3	31/12/2025
Monitoring and evaluation report on last phase dissemination actions.	D.3	31/12/2027
Final report “Monitoring and Evaluation D3 Governance & Integral approach” on the overall contribution of action C3 to the implementation of the NAS	D.3	31/12/2027
First report on monitoring strategy and evaluation of C4, with a more detailed baseline and KPIs and the first monitoring and evaluation of all partners involved;	D.4	31/12/2023
Second monitoring report and evaluation including a dissemination action programme	D.4	31/12/2025
Monitoring and evaluation report on last phase dissemination actions.	D.4	31/12/2027
Final report “Monitoring and Evaluation D4 Business models & Finance” on the overall contribution of action C4 to the implementation of the NAS	D.4	31/12/2027
General strategy for monitoring and evaluation of the overall impact of the LIFE IP actions on NAS implementation and working plan for collecting, processing and synthesizing all relevant information from the LIFE IP actions and other relevant initiatives along the lines and logic of the four interrelated work packages	D.5	31/12/2022
First version of a monitoring protocol with the inclusion of a set of monitoring indicators and sources of verification and baseline study establishing and documenting points of reference	D.5	01/05/2023

Integrated Monitoring and Evaluation report on the overall contribution of this LIFE-IP project to the implementation of the NAS.	D.5	01/10/2027:
Detailed definition of main indicator themes, and monitoring protocol and planning	D.6	30/06/2022
Initial socio-economic impact report	D.6	31/12/2023
Final socio-economic impact report	D.6	31/12/2027
Detailed definition of ecosystem functions restoration KPIs, and monitoring protocol and planning.	D.7	30/06/2022
Initial Ecosystem functions restoration impact report.	D.7	31/12/2023
Final Ecosystem function restoration report.	D.7	31/12/2027
LIFE IP Communication plan	E.1	30/06/2022
Opening event combined with regular annual NAS event	E.1	01/07/2022
Digital brochures and leaflets	E.1	31/12/2022
4 videos/YouTube tutorials and instruments for participation	E.1	31/12/2023
Overview of networking activities in 2022	E.2	31/04/2023
Overview of networking activities in 2023	E.2	31/04/2024
Overview of networking activities in 2024	E.2	31/04/2025
Overview of networking activities in 2025	E.2	31/04/2026
Overview of networking activities in 2026	E.2	31/04/2027
LIFE IP dissemination and replication plan	E.3	30/06/2022
Governance conference, including media coverage	E.3	30/11/2025
Updated dissemination and replication strategy based on evaluation	E.3.	31/12/2025
Report on achievements on transnational cooperation of phase 1	E.4	31/12/2022
Report on achievements on transnational cooperation of phase 2	E.4	31/12/2024
Layman’s report online and hardcopy	E.5	31/12/2027
LIFE-IP specific content, as generated in project phase 1, added to the LIFE IP website as part of www.klimaatadaptatienederland.nl.	E.6	31/12/2023

LIFE-IP specific content, as generated in project phase 2, added to the LIFE IP website as part of www.klimaatadaptatienederland.nl.	E.6	31/12/2025
LIFE-IP specific content, as generated in project phase 3, added to the LIFE IP website as part of www.klimaatadaptatienederland.nl.	E.6	31/12/2027
Management Plan phase 1, including a planning and risk register	F.1	01/04/2022
Management Plan phase 2, including a planning and risk register	F.1	01/02/2024
Management Plan phase 3, including a planning and risk register	F.1	01/02/2026
Guidance on financial reporting available for associated beneficiaries	F.2	01/02/2022
Interim Report 1, consisting of a Technical and Financial progress report Phase 1	F.2	31/03/2024
Interim Report 2, consisting of a Technical and Financial progress report Phase 2	F.2	31/03/2026
After-LIFE plan	F.3	31/12/2027

MAIN MILESTONES OF THE PROJECT

Name of the Milestone	Code of the associated action	Deadline
Stakeholder workshops executed	A.1.	31/10/2022
Assignment to external party to design the web infrastructure, integrated in the existing Knowledge Portal for Spatial Adaptation.	A.2.	31/3/2022
Start of online survey on governance and integral approach	A.3.	01/06/2022
In-depth questions on governance and integral approach completed	A.3.	01/10/2022
First draft of monitoring strategy delivered to working group, to be adjusted when needed, for approval by the working group	A.5.	30/09/2022
Inventory data sets completed	C.1.1.	31/03/2022
Interactive Template available	C.1.1.	31/12/2023
Webtool launched, start workshops for stakeholders	C.1.1.	31/03/2024
Final work plan delivered	C.1.2.	31/12/2021
Community of Practice established	C.1.2.	30/06/2023
Action table finalized	C.1.2.	30/06/2026
Overview on how behaviour of inhabitants can be changed to become more climate adaptive set up	C.2.1.	31/12/2022
local monitoring tool for citizen science set up	C.2.1.	31/12/2023
local monitoring tool by citizen science ready	C.2.1.	31/12/2024
Façade with sedum; green lanes in city and pocket parc realised	C.2.1.	31/12/2026

Integrated Design process ready	C.2.2.	31/12/2023
Local monitoring tool available	C.2.2.	31/12/2024
Integrated programme started	C.2.2.	31/12/2025
Climate adaptive zones in the inner city of Apeldoorn realised	C.2.2.	31/12/2026
a local platform to communicate with the inhabitants functional	C.2.3.	31/03/2022
test group selected	C.2.3.	30/06/2022
public campaign ready	C.2.3.	31/03/2023
Analysis of prioritized neighbourhoods of the city of Rotterdam	C.2.4.	31/12/2023
Local analyses per neighbourhood (city wide)	C.2.4.	31/12/2025
Results of pilots with physical (climate adaptive) measurements	C.2.4	31/12/2026
Presentation knowledge dissemination	C.2.4.	31/12/2027

Name of the Milestone	Code of the associated action	Deadline
Expanded Toolbox ready and local monitoring system online	C.2.5.	31/12/2022
Team Rainproof / adaptation coaches active and prototyping 3 climate adaptation maps done	C.2.5.	31/12/2023
participatory design approach residents developed	C.2.6.	30/09/2023
project proposals developed	C.2.6.	31/12/2023
demonstration projects implemented	C.2.6.	31/12/2026
Establish project manager and communication advisor Coalition Solid City	C.3.1.	31/12/2021
Cooperation/co-creation plans per site drawn up	C.3.2a.	30/03/2022
toolbox for knowledge and (financial) instruments ready	C.3.2a.	30/09/2022
- Workshops with municipalities held	C.3.2b	31/12/2023
Demonstration projects implemented	C.3.2b	31/12/2027
Area construction ready	C.3.3.	31/03/2025
Area fit for residing, including green spaces	C.3.3.	30/06/2027
Communication and dissemination plan ready	C.3.4.	31/12/2023
Core team in place	C.3.5.	31/12/2021
14 Projects carried out, help desk been set up	C.3.5.	31/12/2022
Local monitoring system implemented, 5 tailor-made courses held	C.3.5.	31/12/2023
Explorations conducted on heat stress, multifunctional roofs and teal schoolyards, and 1st tranche of projects implemented	C.3.6.	31/12/2021
2nd tranche of projects (schoolyards, multifunctional roofs) implemented	C.3.6.	31/03/2023
Policy monitoring system ready and working, and anchoring and integration of heat stress in environmental policy completed	C.3.6.	31/12/2024
International Symposium on demonstrating climate adaption business models in rural areas	C.4.1.	31/06/2027

Name of the Milestone	Code of the associated action	Deadline
GIS viewer map ready	C.4.2.	31/03/2022
Final shortlist (selection) of peat meadow lands available	C.4.2.	31/12/2022
Viewer available online	C.4.2.	31/12/2023
detailed baseline and final main indicator table and monitoring plan for C1 completed and shared with partners;	D.1	31/12/2022
detailed baseline and final KPI table and monitoring plan for C2 completed and shared with partners;	D.2	31/12/2022
detailed baseline and final KPI table and monitoring plan for C3 completed and shared with partners;	D.3	31/12/2022
Detailed baseline and final KPI table and monitoring plan for C4 completed and shared with partners;	D.4	31/12/2022
Coordinator of this LIFE IP action designated, first meeting of the 'NAS monitoring core team' held, webpage and working space at the national climate adaptation platform ready	D.5	01/03/2022
First version of a monitoring protocol with the inclusion of a set of monitoring indicators and sources of verification.	D.5	01/09/2022
Knowledge steward local platforms appointed	E.1	01/04/2022
LIFE IP social media accounts established and online	E.1	01/07/2022
Notification panels placed	E.1	01/01/2026
Website presentations on project content published, CoP (stakeholder platforms) events organised, Contributions to public events held, 10 open days organized, Press releases published	E.1	31/12/2027
Network connections mapped out	E.2	01/06/2022
Contacts established with EU projects, collaborations and other networks, Network on social media established	E.2	01/01/2024
Contributions to conferences/lectures held, Peer learning meetings, training courses and site visits organised, articles published	E.3	31/12/2027
First translations for transnational cooperation available	E.4	31/12/2022
Transnational peer learning meetings organised	E.4	31/12/2027
Personnel of the Project Management Team is appointed	F.1	15/12/2021
Kick off meeting planned	F.1	18/01/2022
Steering Group and Coordination Team are established	F.1	01/02/2022

REPORTS FORESEEN (mid-term & final)

Type of report	Deadline
Amendment request phase 2	30/09/2023
Interim Technical and Financial progress report Phase 1	31/03/2024
Amendment request phase 3	30/09/2025
Interim Technical and Financial progress report Phase 2	31/03/2026
Final report NL-NASCCELERATE	31/03/2028

TIMETABLE

List all actions ordered by number and using their numbers or names. Tick as appropriate.

Action	2021			2022				2023				2024				2025				2026				2027			
Number/name	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**
A. Preparatory actions, elaboration of management plans and/or action plans:																											
A.1: Agenda for nec. tools and guid. for stakeholders				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
A.2: Dev. of a LIFE IP NL-NAS exchange platform	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
A.3: Guid. on gov. and integral approach: success stories and good examples towards clim. change adaptation policy				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
A.4: Avail. bus. models and fin. structures towards jt fund. of con. climate adapt. measures	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
A.5: Mon. and eval. strategy: a meth. to evaluate the contr. of demonstr., pilots and best practices towards implement. of the NAS	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
A.6: Repl. strategy and capacity building: methods, strat. and inc. within and outside this LIFE-IP				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
A.7: Preparation of grant agreement and partnership agreements	■	■	■																								
C. Concrete implementation actions:																											
C.1 Knowledge & Tools																											
C.1.1: Prov. of local info on the current and future clim.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								

scenarios to stakeholders from the nat. met. data base																											
C1.2: Dev. of a climate scan, a climate adapt. compass and an action table towards ecosystem rest. in wet delta nature																											
C.1.3: Integr. of health aspects in climate change adapt. measures: Ident. of prev. measures related to heat stress and infectious diseases																											
C.2 Awareness & Sense of urgency																											
C.2.1. Arnhem more climate proof: increase an attractive climate adaptive city																											
C.2.2: City Parc Apeldoorn: improving the living environment and resilience to climate change																											
C.2.3: Neighb. climate monitor for Gron.: a campaign to incr. awareness and will. to cooperate towards local jt action on clim. ad. measures																											
C.2.4: Rotterdam heat plan: dev. and impl. of a heat stress safety framework based on a neighbourhood demonstration project																											
C.2.5: Amsterdam Rainproof: Promote community engagement to combat future flooding's, droughts and heat stress																											
C.2.6 Strengthening commitment to climate adaptation through Network Water & Climate																											
C.3. Governance & Integral approach																											
C.3.1: Integral approach towards addressing soil subsidence in historic cities																											

C.3.2a: Dev. and realisation of an integr. and multi-purpose clim. ad. plan for river basins in the province of Noord-Brabant																												
C.3.2b: Prov. Mun. support in the translation of visions for the future into new spatial policies..																												
C.3.3: Integrated multi-actor approach: climate proof spatial development Spuiboulevard, municipality of Dordrecht																												
C.3.4: Dev. of a multi-stakeholder gov. framework with the partn. Climate Campus to acc. innovations and impl. of climate change adaptation																												
C3.5: Reg. coop. in a local clim.: cap. Build. at municipalities and awareness raising of citizens to acc. Impl. of climate robust spatial planning																												
C.3.6: Acc. of the approach to reduce heat stress in the province of Utrecht by integr. in themes from the Utrecht Prov. Environmental Policy																												
C.4 Business models & Finance																												
C.4.1: Agr. and rural business models with demonstration sites in the south west of Friesland																												
C.4.2: Dev. of a transf. toolkit with bus. models for sust. and circular agriculture in peat meadow lands																												
C.4.3. Three step model appr. towards an action progr. for climate adaptation in agriculture and nature.																												
D. Monitoring of the impact of the project actions:																												

D.1 Mon. and eval. of Knowledge & Tools: integration of the lessons learned and dissemination actions																												
D.2: Mon. and evaluation of Awareness & Sense of urgency: integration of the lessons learned and dissemination actions																												
D.3 Monitoring and evaluation of Governance & Integral approach: integration of the lessons learned and dissemination actions																												
D.4 Monitoring and evaluation of Business models & Finance: integration of the lessons learned and dissemination actions																												
D.5 Monitoring and evaluation of the overall impact of LIFE-IP actions on NAS implementation																												
D.6: Socio-economic impact monitoring and KPIs																												
E. Public awareness and dissemination of results:																												
E.1 Communication and raising awareness of the impact and benefits of NL-NASCCELERATE																												
E.2: Networking and engagement of stakeholders																												
E.3: Dissemination, collaborative learning and replication in the Netherlands																												
E.4: Transnational collaboration, learning and replication in Europe																												
E.5: Appealing and comprehensible Layman's report to inform the general public																												
E.6: LIFE-IP website management																												

F. Project management and monitoring of project progress:																											
F.1 Overall coordination, project organisation and management structure																											
F.2: Monitoring progress of the project actions and reporting to the EU																											
F.3: After-LIFE plan																											

Executive Agency for Small and Medium Sized Enterprises (EASME)

LIFE Key Project Level Indicators

LIFE Call for Proposals 2020

At the end of the project

Objective	Indicators		Estimated Impact (absolute values)	Estimated Impact (in %)*	Please comment and give brief explainations of assumptions used for the calculation
* Change expected (in %) compared to the initial situation. Please explain reference data used to set the initial situation. This is normally directly linked to the baseline you have developed in the proposal.					
Improved Environmental and Climate Performance (including resilience to climate change)	Reduction of greenhouse gas emissions (GHG)	CO2	tons / year	% change	Not Applicable
		Methane	tons / year	% change	Not Applicable
		Other GHG (please specify)	tons / year	% change	Not Applicable
	Air quality and emissions	Air Pollutants (please specify: NOx, PM, etc)	in ppm	% change	Not Applicable
	Reduction / substitution of dangerous substances	Irritant / Corrosive / Toxic	(gr/kg/tons) / year	% change	Not Applicable
		Mutagenic / Carcinogenic	(gr/kg/tons) / year	% change	Not Applicable
		Persistent / Bioaccumulative	(gr/kg/tons) / year	% change	Not Applicable
	Waste management	Waste Reduction	tons / year	% change	Not Applicable
	Water	Improved resilience to flooding	31.000 inhabitants (improved conditions)	40% change	These are the inhabitants of the project areas of the municipalities where conditions concerning resilience to flooding will improve. These include the project areas of Arnhem, Dordrecht, Gouda, SW-Fryslan and Waternet. With C-actions, these partners will work on the improvement of the project areas concerning flood resilience. The 40% is based on the total inhabitants of the project areas and the delivery of the results of this IP
			11.000 hectares (improved conditions)	10% change	These are the parts of the project areas of the partners mentioned in cell F24 and the rural project area of NB. These are the hectares where conditions concerning flood resilience will improve. The 10% is based on the total hectares of the project areas and the delivery of the results of this IP
		Improved Water Quality	30.000 hectares	5% change	RWS is responsible for the management of over 600.000 hectares of surface water (including parts of the North Sea). By relating insights from climate change and adaptation measures to the objectives of the Water Framework Directive and Marine Strategy Framework Directive, this IP will lead to an increase of the water quality in 5% of the area. This was based on the following: Habitats: for the habitats the baseline and the expected change towards 2030 was established based on a quick scan and expert judgement performed as part of Life IP – Deltanatuur. We used this as a basis for establishing – based on expert judgement- the contribution of this Life-IP to the improvement of habitats. Water quality: to establish the baseline for water quality we used the 2019 monitoring results of the Water Framework Directive and Marine Strategy Framework Directive. Based on expert judgement we established the contribution of this Life-IP to the improvement of water quality.Concerning the underlying calculations, we based the above on the areas that RWS - partner of this IP - is responsible for the management. Monitoring and measurements will be part of the monitoring for WFD and Natura2000 by RWS.
Better use of natural resources	Reduced resource consumption (excluding energy)	Raw materials	tons / year	% change	Not Applicable
	Water	Reduced water consumption	m3 / year	% change	Not Applicable
	Energy	Energy from Renewable Energy Sources	kwh / year	% change	Not Applicable
		Reduced energy consumption	kwh / year	% change	Not Applicable
	Forestry	Reforested areas; increase in area under sustainable forest management	ha	% change	Not Applicable

Sustainable land use, agriculture and forestry	Agriculture	Areas of agricultural land under sustainable management	4000 hectares	5 % change	In total, 165,000 hectares in the Netherlands are sensitive to soil subsidence. For almost half of this area (80,000 hectares), no measures are yet being implemented to manage these soils more sustainably, dealing with soil subsidence. With this IP we aim to achieve that 5% of this remaining area will be under sustainable (subsidence-resilient) land management.
	Soil / Land	Soil Surface improved	ha	% change	Not Applicable
Improved Nature, Species and Biodiversity	Habitats	Areas progressing towards improvement or restoration or in a favourable conservation status	8750 ha	5% change	In total RWS, partner of this IP, is responsible for the management of over 175,000 ha Natura2000 area (24 areas in total) in the Neherlands (marine and fresh water). Every 6 years the conservation state is evaluated and new Natura2000 management plans are made for these 24 areas. By anticipating on new insights on the effect of climate change and applying the results from this IP, an improvement of 5% of the favourable conservation status is foreseen in 2027 and 10% in 2030.
	Wildlife Species	Number of threatened species in improved or secured status	Population (specify unit)	% change	Not Applicable
	Alien Species	Reduction of invasive alien species	Population/ha Population/m3	% change	Not Applicable
Economic Performance, Market Uptake, Replication	Employment	Jobs created	FTE	% change	to be determined under action D.6
	Replication / Transfer	N . of replication / Transfer	100	not applicable	The results from this IP will be relevant for other EU countries (we assume at leas the surrounding/noridic countries: 4 (DK, D, B, LUX) and organisations, but also for - not in this IP involved - regional and local authorities in the Netherlands (approx. 300).
	Market uptake	Expected revenues	Euros	not applicable	Not Applicable
		market size in number of customers	customers	not applicable	Not Applicable
	Reduction of cost per unit or process		in Euros / unit	% change	Not Applicable
	Payback Time	capital invested / net income	in years	not applicable	Not Applicable
Communication, dissemination, awareness rising	Awareness raising	Number of entities/individuals reached/ made aware	588200	10 % change	In this table we summarized different categories of entities/inhabitants. We discern the following categories: inhabitants (582,000), regional and local authorities (139), NGOs (146) and farmers (5700). These numbers originate from the areas of the IP partners MinLNV, UT, RWS, Apeldoorn, Zwolle, Gouda, Groningen, Rotterdam, KNMI, LTO, VGGM, WVV, HDSR, Waternet, SW-Fryslan, WAM.
	Website	Number of website visitors per year (integrating multiple websites)	235000/year	n/a	For this IP, the current NAS website will be updated and the interconnection between existing websites will be improved. Here we present the number of current visits and an expected increase of 30%. This is based on an average growth of 5% per year.
	Behavioural change	Number of entities/individuals changing behaviour	101200	20 % change	In this entry, we've summarized the following categories: inhabitants (94500), regional and local authorities (30), NGGOs (20) and farmers (5700), furthermore also the number of applications for funding + initiatives (1000). These numbers originate from the areas of the partners MinLNV, UT, RWS, Apeldoorn, Zwolle, Gouda, Groningen, Rotterdam, KNMI, LTO, VGGM, WVV, HDSR, Waternet, SW-Fryslan, WAM.
	Heat	improved resilience to heat stress	36800 (improved conditions)	40 change	These are the inhabitants of the project areas of the regional and local authorities where conditions concerning resilience to heatstress will improve. These include the project areas of Apeldoorn, Arnhem, Dordrecht, HDSR, UT and Waternet. Within the C-actions these partners will work on the improvement of the project areas concerning heat stress. The 40% is based on the total inhabitants of the project areas and the delivery of the results of this IP

Other (please specify)			414 hectares (improved conditions)	40% change	These are the hectares of the project areas of the regional and local authorities who's conditions concerning resilience to heatstress will improve. These include the projectareas of Apeldoorn, Arnhem, Dordrecht, HDSR, UT. Within the C-actions these partners will work on the improvement of the project areas concerning heatstress. The 40% is based on the total hectares - were relevant - of the project areas and the delivery of the results of this IP

Executive Agency for Small and Medium Sized Enterprises (EASME)
LIFE Key Project Level Indicators
LIFE Call for Proposals 2020

3 or 5 years after the project

(5 years mandatory for Nature Projects)

Select → **3 years after the project**

3 years after the project

Objective	Indicators		Estimated Impact (absolute values)	Estimated Impact (in %)*	Please comment and give brief explainations of assumptions used for the calculation
* Change expected (in %) compared to the initial situation. Please explain reference data used to set the initial situation. This is normally directly linked to the baseline you have developed in the proposal.					
Improved Environmental and Climate Performance (including resilience to climate change)	Reduction of greenhouse gas emissions (GHG)	CO2	tons / year	% change	Not Applicable
		Methane	tons / year	% change	Not Applicable
		Other GHG (please specify)	tons / year	% change	Not Applicable
	Air quality and emissions	Air Pollutants (please specify: NOx, PM, etc)	in ppm	% change	Not Applicable
	Reduction / substitution of dangerous substances	Irritant / Corrosive / Toxic	(gr/kg/tons) / year	% change	Not Applicable
		Mutagenic / Carcinogenic	(gr/kg/tons) / year	% change	Not Applicable
		Persistent / Bioaccumulative	(gr/kg/tons) / year	% change	Not Applicable
	Waste management	Waste Reduction	tons / year	% change	Not Applicable
	Water	Improved resilience to flooding	92300 (improved conditions)	60% change	These are the inhabitants of the project areas of the municipalities where conditions concerning resilience to flooding will improve. These include the project areas of Arnhem, Dordrecht, Gouda, SW-Frlyslan and Waternet. Within the C-actions these partners will work on the improvement of the project areas concerning flood resilience. The 60% is based on the total inhabitants of the project areas and the delivery of the results of this IP
			25400 hectars (improved conditions)	25% change	These are the parts of the project areas of the partners mentioned in cell F88 and the rural project area of NB. These are the hectares where conditions concerning flood resilience will improve. The is 25% is based on the total hectares of the project areas and the delivery of the results of this IP. To reach this percentage we assume a optimalisation of current land use.
		Improved resilience to droughts	8000 hectars (improved conditions)	10% change	A stated in cell F39 of this KPI table, a total of 165,000 hectares of the Netherlands is sensitive to soil subsidence. This is strongly related to drought. For almost half of this area (80,000 hectares) no measures are implemented to manage soil subsidence sustainably (dealing with subsidence). WIth this IP we aim to make sure that in 2030 10% of this remaining area will be more resilient to droughts.
		Improved Water Quality	60.000 hectares	20% change	RWS is responsible for water management of over 600,000 hectares of surface water area (including parts of the North Sea). Applying insights from climate change and adaptation measures on WFD and MSFD objectives this IP will lead to 20% improved water quality.as measured by the WFD and MSFD objectives. This was based on the following: Habitats: for the habitats the baseline and the expected change towards 2030 was established based on a quick scan and expert judgement performed as part of Life IP – Deltanatuur. We used this as a basis for establishing – based on expert judgement- the contribution of this Life-IP to the improvement of habitats. Water quality: to establish the baseline for water quality we used the 2019 monitoring results of the Water Framework Directive and Marine Strategy Framework Directive. Based on expert judgement we established the contribution of this Life-IP to the improvement of water quality.Concerning the underlying calculations, we based the above on the areas that RWS - partner of this IP - is responsible for the management. Monitoring and measurements will be part of the monitoring for WFD and Natura2000 by RWS.
Better use of natural resources	Reduced resource consumption (excluding energy)	Raw materials	tons / year	% change	Not Applicable
	Water	Reduced water consumption	m3 / year	% change	Not Applicable
		Energy from Renewable Energy Sources	kwh / year	% change	Not Applicable

	Energy	Reduced energy consumption	kwh / year	% change	Not Applicable
Sustainable land use, agriculture and forestry	Forestry	Reforested areas; increase in area under sustainable forest management	ha	% change	Not Applicable
	Agriculture	Areas of agricultural land under sustainable management	8000 ha	10% change	A stated in cell F39 and F90 of this KPI table a total of 165,000 hectares of the Netherlands is sensitive to soil subsidence. For almost half of this area (80,000 hectares) no measures to manage this land in a sustainable way (dealing with subsidence) are being implemented. WIth this IP we aim to make sure that in 2030 10% of this remaining area will be more resilient to droughts.
	Soil / Land	Soil Surface improved	ha	% change	Not Applicable
Improved Nature, Species and Biodiversity	Habitats	Areas progressing towards improvement or restoration or in a favourable conservation status	17500 hectares	10% change	As stated in cell F42, RWS manages over 175,000 ha Natura2000 area (24 areas in total) in the Neherlands (marine and fresh water). Every 6 years the conservation state is evaluated and new Natura2000 management plans are made for these 24 areas. By anticipating on new insights on the effect of climate change and applying the results from this IP an improvement of 5% of the area towards the favourable conservation status is foreseen in 2027 and 10% in 2030
	Wildlife Species	Number of threatened species in improved or secured status	Population (specify unit)	% change	Not Applicable
	Alien Species	Reduction of invasive alien species	Population/ha Population/m3	% change	Not Applicable
Economic Performance, Market Uptake, Replication	Employment	Jobs created	FTE	% change	to be determined under action D.6
	Replication / Transfer	N . of replication / Transfer	130	not applicable	The results from this IP will be relevant for other EU countries. We assume at least the surrounding/nordic countries: 4 (DK, D, B, LUX) and organisations, but also for regional and local authorities in the Netherlands not directly involved in this LIFE-IP (approx. 300). When results are delivered also the replication and transfer will increase, we assume that this will be 30% more after three years as compared to the end of the project (2027). We based this on the assumption that during the course of the Life period (2021-2027) we would establish 100 replications/transfers. As the Life period will end in 2027, we assume that replication/transfer will still continue in a similar pace as the last three years of Life resulting in 130 replications/ transfer
	Market uptake	Expected revenues	Euros	not applicable	Not Applicable
		market size in number of customers	customers	not applicable	Not Applicable
	Reduction of cost per unit or process		in Euros / unit	% change	Not Applicable
	Payback Time	capital invested / net income	in years	not applicable	Not Applicable
Communication, dissemination, awareness rising	Awareness raising	Number of entities/individuals reached/ made aware	1031000	20% change	In this table we summarized different categories of entities/inhabitants. We discern the following categories of entities: inhabitants (1020000), regional and local authorities (234), ngo's (190) and farmers (11600). These numbers originate from these entities/inhabitants in the areas of the partners: MinLNV, UT, RWS, Apeldoorn, Zwolle, Gouda, Groningen, Rotterdam, KNMI, LTO, VGGM, WVV, HDSR, Waternet, SW-Fryslan, WAM
	Website	1 (but connected to various organisastional/project area websites)	297500	Not Applicable	For this IP current NAS website will be updated and the interconnection between other (existing) websites will be improved.
	Behavioural change	Number of entities/individuals changing behaviour	101200	20% change	In this table we have summarized different categories: inhabitants (1,020,000), regional and local authorities (234), NGOs (190) and farmers (11,600). These numbers originate from the areas of the partners MinLNV, UT, RWS, Apeldoorn, Zwolle, Gouda, Groningen, Rotterdam, KNMI, LTO, VGGM, WVV, HDSR, Waternet, SW-Fryslan, WAM.

	Heat	improved resilience to heat stress	48.000 (improved conditions)	50% change	These are the inhabitants of the project areas of the municipalities where conditions concerning resilience to heatstres will improve. These include the project areas of Apeldoorn, Arnhem, Dordrecht, HDSR, UT, Waternet. Within the C-actions these partners will work on the improvement of the project areas concerning heat stress. The 50% is based on the total inhabitants of the project areas and the delivery of the results of this IP.
Other (please specify)			820 hectares (improved conditions)	50% change	These are the hectares of the project areas of the municipalities where conditions concerning resilience to heatstress will improve. These include the project areas of Apeldoorn, Arnhem, Dordrecht, HDSR, UT. Within the C-actions these partners will work on the improvement of the project areas concerning heat stress. The 50% is based on the total hectares of the project areas - were relevant - and the delivery of the results of this IP.

APPENDIX 1 THEORY OF CHANGE

Theory of Change: towards outcome and impact of LIFE-IP NL-NASCCELERATE