Proposal template Part B: technical description

ADAPTNET

NETWORKING FOR ADAPTATION: BROKERS, BRIDGES, AND BARRIERS ACROSS MULTIPLE LEVELS OF CLIMATE GOVERNANCE

#@APP-FORM-HERIAIA@#

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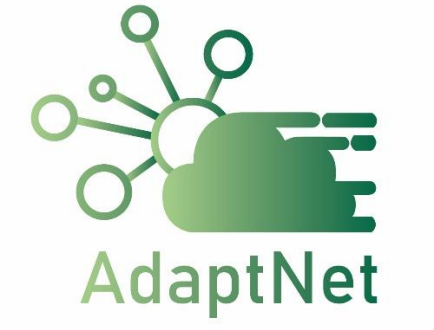

1. Excellence #@REL-EVA-RE@#

1.1 Objectives and ambition #@PRJ-OBJ-PO@#

1.1.1. Synopisis

Land in the Global South is claimed for many purposes, including adaptation, mitigation, biodiversity, energy and development, to respond to local adaptation needs but also to climate and development ambitions and strategies in other regions. **Sub-Saharan Africa** (SSA) stands out as a region that contributes the least to global warming, yet is the most vulnerable to its consequences and faces enormous challenges to implement outcome-effective, cost-efficient and equitable adaptation pathways due to political, financial and institutional constraints at global and national levels. SSA's **adaptation strategies** predominantly rely on the **land, water, and energy** sectors, while a majority of the population relies on rain-fed agriculture for their livelihoods. This activity is primarily carried out through small-scale subsistence farming, which is susceptible to various stress factors, including those caused by climate change (Connolly-Boutin and Smit 2016). Changes in land use resulting from adaptation efforts, such as afforestation, cropping pattern shifts, or infrastructure development, can substantially affect the availability of water or energy supplies and vice versa. Moreover, adaptation processes entail critical **cross-sectoral** and **transboundary interdependencies**. The key importance of cross-sectoral and transboundary interdependencies was recognized by the recent IPCC report: "Without cross-sectoral, transboundary and long-term planning, adaptation and mitigation response options in one sector can become response risks, exacerbating impacts in other sectors and causing maladaptation (very high confidence)." (IPCC 2022, p. 1289). It is thus imperative to account for these interconnections when formulating and executing effective, efficient and just adaptation strategies in the region.

1.1.2. Objectives

The **overall objective of AdaptNet** is to **unlock adaptation pathways leading effectively and efficiently towards desirable – and just – futures**. We will reveal and address the essential challenges, requirements, and gaps associated with adaptation and adaptation information, particularly the transnational and multi-level structural barriers rooted in the political economy of inequality fueling maladaptation. AdaptNet will generate novel insights, information, and tools for co-creating locally-appropriate, climate-resilient development pathways that not only result in positive adaptation outcomes but also align with other policy objectives, such as promoting biodiversity conservation, increasing sustainable agricultural productivity, and reducing inequalities. To accomplish this goal, AdaptNet relies on an iterative and participatory process involving close collaboration and co-learning among various actors across different levels of governance. Moreover, climate information and precision of predictions are increasing rapidly, yet, data and information is politics, too, and the extent to which they prioritize and serve local adaptation needs then is a global political question.

Thus, AdaptNet goes beyond assessing the validity or urgency of the key adaptation needs, vulnerabilities and strategies, and instead aims to unpack how specific adaptation needs come about (**political economy** drivers), what resources exploitation and resource exchanges exacerbate such a need (**economic flows**), who articulates what responses and strategies should be considered (**discursive flows**), and who decides which responses and strategies are adopted (**policy networks**). AdaptNet argues that understanding the 'how', 'what' and 'who', will enable better informed decision-making that considers alternative pathways to adaptive futures, and can inform the co-production of climate resilient development pathways that give voice to those often marginalised when policies are designed and decisions are made over adaptation for 'whom'.

The **specific objectives** aim at identifying possible just adaptation pathways on the one hand, while enabling those at local and national levels in SSA to scale up project results and realise such pathways. AdaptNet contends that the interdependencies of (mal)adaptation processes across different sectors and regions are shaped by material (economic flows), ideational (discursive flows), and institutional (policy networks) forms of power, which perpetuate inequalities and hinder effective adaptation efforts. To disentangle and examine the prevailing patterns of transnational economic flows, dominant discourses, and power imbalances in policy networks, AdaptNet pursues several specific objectives (SO).

SO1: Unpacking cross-sectoral and transboundary interdependencies affecting (mal)adaptation processes

AdaptNet investigates interdependencies among land use, water, and energy sectors. Land provides not only natural resources, but also vital ecosystem services, including water supplies, food and biomass production, and carbon sequestration. Thus, decisions and actions in one sector likely generate spill-overs to other sectors (Meyfroidt et al.

2020). Adaptation processes are also crucially shaped by crucial transboundary or transregional interdependencies. The transregional dimension captures relationships where a region benefits from the use of natural resources and environmental degradation in other, often remote, regions. The latter regions then suffer negative impacts of this interdependency, including severe limitations in their adaptive capacity as shown by a well-documented case of biofuels use contributing to decarbonization in the EU at the expense of the Global South (Kumeh and Ramcilovic-Suominen 2023). Hence, the demand for land driven by multiple sectors and/or regions may result in trade-offs across various sectors, regions, or social groups leading to unsustainable land-use practices and maladaptation.

AdaptNet thus examines how distal flows impact adaptation and maladaptation processes. **Distal flows** are transfers of resources or ideas between geographically distant regions and often disparate socio-ecological systems (Liu et al. 2018). With a notable exception of Carter 2021, research on the influence of distal flows on climate change adaptation is scarce. The prevailing patterns of cross-sectoral and transregional flows constitute broader power-laden structures, such as feedback loops and cascading effects (see Carter 2021) – that might decrease, reproduce, or increase existing inequalities. In particular, economic flows shape the distribution and availability of resources, affecting the ability of different stakeholders to engage in adaptation activities (material power). Discursive flows influence the framing of adaptation issues, shaping the discourse and narratives around climate change and its impacts (ideational power).

SO2: Create awareness of synergies and trade-offs across levels of governance and policy objectives
AdaptNet analyzes how multi-level policy networks impact adaptation and maladaptation processes in terms of the synergies and trade-offs between adaptation options, mitigation, biodiversity, and development policy objectives (Schipper et al. 2022). These four policy objectives often interact and interfere. For example, forest-based mitigation, such as establishing a new forest conservation area, can negatively impact the ability of local people to access land for agriculture to increase adaptative capacity. **Policy networks** are durable patterns of interactions among interdependent policy actors attempting to influence particular, issue-defined, policy processes (Kenis and Schneider 1991). Since involved actors, ranging from competent ministries to non-governmental organizations (NGOs) to local communities, cannot achieve their adaptation-oriented objectives alone, they engage in various forms of relationships, such as collaboration or climate services exchange. Actors holding similar preferences on adaptation form **advocacy coalitions** (Weible and Sabatier 2007) to influence the direction of policy processes shaping adaptation strategies and responses (institutional power).

SO3: Co-designing just adaptation pathways enabled through social and policy learning
The interdependency of (mal)adaptation processes across sectors and regions means that the effectiveness, efficiency, and equity of adaptation efforts are contingent upon various factors, including the diverse stakeholders' understanding, access, and control over tangible and intangible resources and assets. AdaptNet thus employs a multi-actor participatory process utilizing the Three Horizons Workshops (Sharpe et al. 2016), drawing on climate modeling inputs, distal flows and policy networks analyses, and diverse knowledge, experiences, and perceptions of relevant actors ranging from local communities to civil society, businesses, and government organizations. This objective (**SO3**) aims at providing a shared space for **deliberation and learning** around the AdaptNet's findings, communicating complex climate information about the role of economic and discursive flows, as well as policy networks and discursive practices tailored for non-academic audiences (**climate services**). To achieve this objective, AdaptNet aims to bring together stakeholders from different sectors and governance levels to identify and prioritize the most pressing adaptation needs and co-design effective strategies that address existing power structures and inequalities. By doing so, it is possible to develop more inclusive and equitable adaptation processes better suited to local contexts and the needs of vulnerable communities.

1.1.3. Ambition

● **Innovative approach and novel methods:** AdaptNet is proposing cutting-edge science, by bringing together co-learning in the **Horizon** workshops, originating in business innovation theory and practices, with advanced policy **network** analysis of information and collaboration ties among policy actors, and with multi-regional input-output **models** that sheds light on the global political economy. This approach allows to bring out the synergies and trade-offs among the multiple policy objectives, and to identify brokers, bridges as well as structural holes in the domestic policy networks in SSH. Most importantly, it allows us to scale up project results through social and policy learning.

● **Ambitious, high-quality outputs:** We will advance theory and methods related to the identification of just and well-informed adaptation pathways within a global political economy. These significant contributions, which are co-produced in and verified through the participatory Horizon workshops, will be published in at least 6 **papers in high-**

impact journals and presented in at least 6 international conferences, including The European Consortium for Political Research.

● **Targeted engagement across all levels of adaptation decision-making:** We are building on the consortium's strong track record with the organisation of impactful knowledge sharing, and have developed tailored engagement strategies to reach policy and practitioner communities, e.g. by organizing at least **2 side events at UNFCCC** events with state and non-state actors, engaging through at least **2 Global Landscape Forum, 1 AFORPOLIS conference** and other accessible platforms with decisionmakers throughout the project cycle. Through the in total **15 Horizon workshops** we will be engaging domestic policy actors from state and non-state organsiations, climate observatories, rights based organisations and others that then over the course of the project will become knowledge vectors within their domains, carrying insights from the workshops into the wider society to effectively upscale the learning and further grow the initial seeds for building just adaptation pathways.
#§PRJ-OBJ-PO§#

1.2 Methodology #@CON-MET-CM@# #@COM-PLE-CP@#

1.2.1. Research design

AdaptNet builds on a sound methodological knowledge of the consortium equipped with specific advanced methods skills, long-term experiences and collaboration from previous research studies with a strong focus on network analysis and climate policy (Broadbent 2016), combined with experts from adaptation (Djoudi et al. 2022) and interdisciplinary climate research (Prell and Sun 2015). The main scientific objective is to map, disentangle, and examine how prevailing patterns of transnational economic flows, dominant discourses, and power imbalances in policy networks affect (mal)adaptation processes in SSA. The methodological innovation of AdaptNet is the of integration of **policy network** perspective with **distal flows** analysis through **multi-stakeholder participatory** workshops in order to create knowledge for empowering actors to gain more agency and to translate adaptation needs into roadmaps for resilient development and just, desirable future.

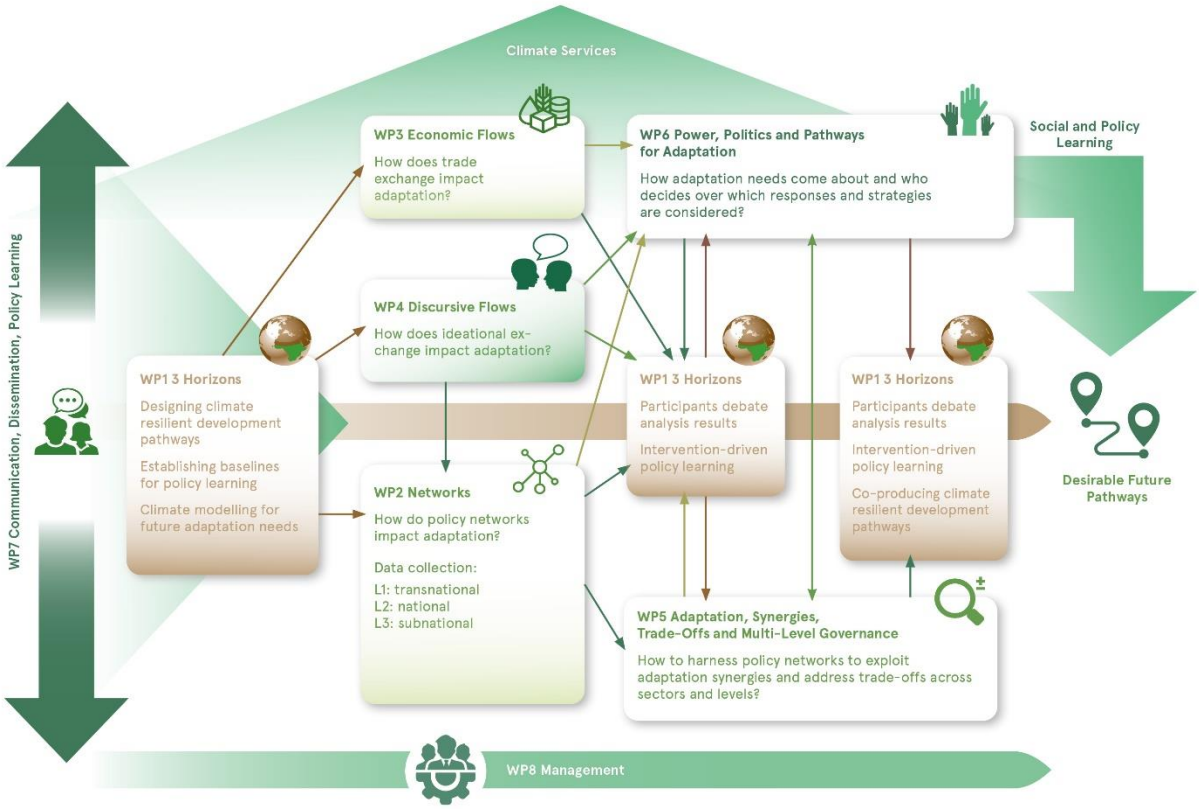

Figure 1: *AdaptNet overall research design.*

AdaptNet uses a **mixed-methods research design** with **comparative** and **longitudinal** components. While the project focuses on adaptation needs in SSA countries, the research design explicitly includes also relevant actions in the EU affecting (mal)adaptation processes in SSA, such as political decisions on regulation or subsidies, consumption patterns, or transnational discourses into a single integrated model. The three series of **participatory workshops** (Work Package 1, WP1) constitute a backbone of the project by (1) providing contextualized insights drawing on diverse stakeholders' engagement, including local and indigenous knowledge, that inform data collection planning (WP2 and WP5) as well as interpretation of the results (WP2-6) and by (2) facilitating policy learning that enables co-designing roadmaps to resilient development and desirable futures. While the WP2 maps and investigates national adaptation arenas by examining **policy networks** and adaptation strategy, the WP5 builds on data collection and analysis conducted in the WP2 to identify adaptation synergies and trade-offs across sectors and levels of governance. The WP3 analyzes impacts of global **economic flows** on (mal)adaptation, while the WP4 examines the influence of **discursive flows** therein. The WP2-5 are informed by the first workshop series in terms of validation of network borders (WP2, 5) and adaption needs (WP3-4), while they inform the second series about, often cross-sectoral and transboundary, structures and mechanisms that affect (mal)adaptation processes. The WP2-4 also feed into the WP6 synthetizing their findings in the political economy context and, by using **QCA**, identifying configurations of conditions (pathways) leading to (mal)adaptation. Finally, both WP5 and WP6 inform the final workshop series to aid deliberation and co-design roadmaps unlocking pathways to desirable futures. The overall research design consists of 8 work packages, 5 country cases (Burkina Faso, Cameroon, Ghana, South Africa, and Tanzania) and covers a 4-years project period. The WP descriptions are available in section 3.1b.

Table 1. List of methods used in AdaptNet

Methods overview
Literature review identifies key literature to inform questionnaire development (WP2, 5), theoretical framing (WP2-6), stakeholder engagement (WP1), and models specifications (WP3-4, 6).
3H participatory workshops will be conducted 3 times in each country as a platform to (1) identify relevant actors (network border validation) and adaptation issues that feed into climate models (WP1), MRIO / FABLE (WP3), policy network analysis (WP2, 5), (2) deliberate and intervene to facilitate policy learning (WP1), and (3) co-designing of the roadmaps toward desirable, just futures (WP1, WP6).
Climate models: Global Climate Models (GCMs), with their dynamically coupled atmosphere, ocean land surface, and dynamic vegetation, allow for predicting the effects of future greenhouse gas concentrations on temperature, precipitation, and wind speed at a coarse resolution. At the level of regional planning Regional Climate Models (RCMs) and downscaling techniques will be applied, which allow the translation from GCM grid boxes to km-scales. This is required for developing tailored efficient and appropriate adaptation solutions at the scale of actors considered in AdaptNet (WP1).
The **questionnaire** was initially created, tested and applied within the COMPON project and is now modified to AdaptNet (WP2, 5). Invaluable experiences from the questionnaire data collection on forest and climate change policies in the Global South (GCS-REDD+ project) are also incorporated. The know-how and experiences from COMPON and REDD+ will ensure a high data quality. The questionnaire collects data on inter-organizational network ties (e.g., collaboration) and individual attributes (e.g., adaptation preferences).
Policy network analysis (PNA) analyses actors' networks spanning across various levels and sectors of adaptation arenas. The PNA includes: (1) boundary specification, (2) data collection via questionnaires, (3) data analysis focusing on actor-, network- and sub-group levels of analysis within national boundaries (WP2) and (4) multi-level governance analysis focusing on horizontal (cross-sectoral) and vertical (cross-jurisdictional) network structures (WP5) using descriptive and inferential techniques (esp. exponential random graph models).
Discourse network analysis (DNA) is a mixed-methods approach combining content and network analyses to analyse actors' and issues' constellations in adaptation policy discourses at a national level using newspaper articles of the case countries, and trans-national discursive flows using reports, documents or other text sources (WP4). Data generation process includes coding scheme and codebook, reliability and validity checks. Discourses can be (1) visualized as network graphs and (2) analyzed using descriptive and inferential techniques. Both DNA and PNA draw on previous experiences in COMPON and GCS-REDD+ projects.
Synergies and trade-offs policy analysis is a mixed methods approach using policy documents analysis, key informant interviews, and PNA tracing the positive and mutually reinforcing interactions (synergies) as well as negative impacts across policies (adaptation, mitigation, biodiversity, development) and sectors (land, water, energy) (WP5). Unlike existing studies our approach takes a bottom-up view starting from a key regional adaptation needs, tracing upward positive and negative interactions across policies and sectors.

Expert interviews are conducted with actors who are in prominent positions and/or have significant expertise within the investigated adaptation policy arenas to triangulate PNA, DNA, and synergies and trade-offs analyses.
EMRIO analysis is an input-output approach with a focus on consumption-based environmental pressures and impacts along the supply chain of consumption in the EU can be calculated with the MRIO (multiregional input-put framework) analysis. EMRIO is applied to analyse environmental pressures and impacts on SSA generated by consumption and trade patterns in the EU in terms of environmental, GHG or biodiversity footprints (WP3).
FABLE calculator accounts for agricultural and land use, using flexible scenarios which can be customised for each country involved. It focuses on agriculture as the main driver of land-use change and tests the impact of different policies and changes in the drivers of these systems through the combination of a number of predetermined scenarios in the tool (whose parameters are selected by country teams and stakeholders). The outputs from the FABLE calculator include estimate for food demand (focused on caloric intake), production and trade (total production value), land (area in each land cover type), greenhouse gas emissions, biodiversity (land where natural areas dominate), and water (e.g. crop water footprint). Scenario selection includes population dynamics, diets, food waste, trade, productivity, land availability, afforestation, climate change, protected areas, post-harvest loss, and biofuels (WP3).
Causal loops diagrams (CLDs) represent social-ecological processes of change - here driven by distal economic and discursive flows, and policy networks. CLDs represent systems with three different types of variables: key elements of the system (such as sectors), connections (distal flows) between them and the sign of these interactions. If the link between the elements is increasing (e.g., the demand of economic value increases) the the sign is positive, otherwise if it decreases negative (WP6).
Qualitative Comparative Analysis (QCA) is a mixed-method allowing to identify patterns of logical relationships between compared cases that lead to a specific outcome (such as efficient, equitable adaptation) or its absence. QCA brings together for each case country the global, national and subnational factors affecting occurrence of just adaptation pathways and systematically identifies enabling and hindering condition (WP6). QCA builds on earlier analysis in COMPON and GCS-REDD+ projects.

• **Case selection and backgroud**

Since AdaptNet has an ambition to explore political economy of inequality that drives maladaptation in Sub-Saharan Africa, it investigates five case countries – **Burkina Faso, Ghana, Cameroon, South Africa and Tanzania** – following the reasoning of diverse case selection (Gerring 2009). The **diverse case selection** is designed to capture a wide range of key parameters' variance to increase representativeness of the sample; in our case political regime type and governance system (constituting opportunity structures for policy networks), integration to global economy (opportunity structure of distal flows), geographical location (affects adaptation needs), and adaptive capacity. The research design assumes **cross-case** (5 case studies), **within-case** (cross-level and cross-sectoral focus), and **temporal variation** (for WP1, 3, 4), which increases both internal and external validity (SSA region as a target population) of the research. The selected cases vary substantively in all the observed parameters (see Table 2). Since some of these are low/middle-income countries, and all are non-EU (see Self-Assessment), there will be a designated task in WP8 to manage ethical issues related to research in these areas.

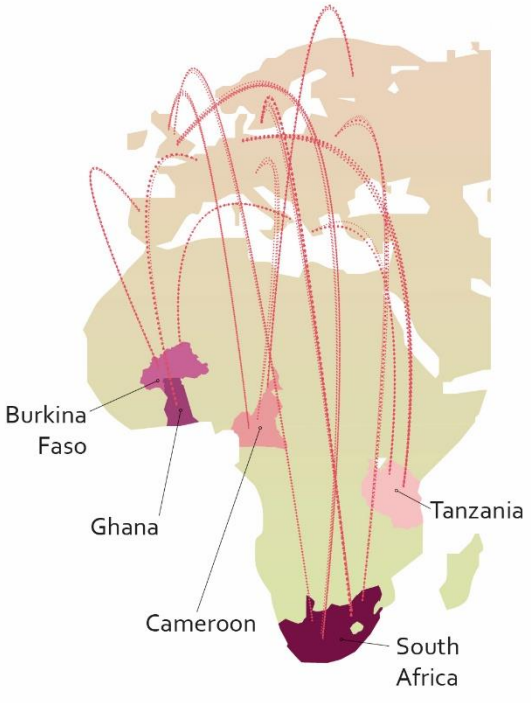

Figure 2: *Case countries/distal flows.*

Table 2. Background information and case selection parameters (KOF 2023; ND-GAIN 2023; SNG-WOFI 2023; V-DEM 2023)

Burkina Faso's area is 274 220 km^2 with **population** of 21 million. **GDP per capita**: 2274 $; **HDI**: 0.452 (low; 182nd)
Political regime type: Closed autocracy – citizens do not choose either the chief executive of the government or the legislature through multi-party elections.
Governance system: Burkina Faso is unitary authoritarian semi-presidential republic with a unicameral parliament, directly elected president, and a substantial degree of government decentralization.
Integration to global economy (KOF Globalisation Index): 51.16 (132nd; Q3). Index assesses interconnectedness of the country through variety of transnational flows across three dimensions: economic, social, and political (Gygli et al. 2019).
Adaptive capacity (ND-GAIN Country Index): 37.2 (161st; Q4). Index summarizes country's vulnerability to climate change and its readiness to improve resilience. In Burkina Faso, adaptive capacity is very low in social dimension. The most pressing adaptation needs refer to agricultural production.
Cameroon's area is 475 442 km^2 with **population** of 27 million. **GDP per capita**: 3898 $; **HDI**: 0.563 (low; 153rd)
Political regime type: Electoral autocracy – citizens can choose either the chief executive of the government or the legislature through multi-party elections, but they lack some of political freedoms.
Governance system: Cameroon is unitary authoritarian presidential republic with a two-chamber parliament, directly elected president, and a limited degree of government decentralization.
Integration to global economy (KOF Globalisation Index): 49.13 (146th; Q4)
Adaptive capacity (ND-GAIN Country Index): 39 (146th; Q4). Adaptive capacity is very low across all three dimensions: economic, governance, social. The most pressing adaptation needs refer to agricultural production.
Ghana's area is 238 540 km^2 with **population** of 31 million. **GDP per capita**: 5744 $; **HDI**: 0.611 (med; 138th)
Political regime type: Electoral democracy – citizens can choose the chief executive and the legislature in meaningful, free and fair, and multi-party elections.
Governance system: Ghana is a unitary semi-presidential republic with a unicameral parliament, directly elected president, and a substantial degree of government decentralization.
Integration to global economy (KOF Globalisation Index): 61.10 (91st; Q2)
Adaptive capacity (ND-GAIN Country Index): 44 (111th; Q3). Adaptive capacity is very low in social dimension. The most pressing adaptation needs refer to agricultural production.
South Africa's area is 1 219 090 km^2 with **population** of 59 million. **GDP per capita**: 13 361 $; **HDI**: 0.709 (high; 114th)
Political regime type: Electoral democracy
Governance system: South Africa is a quasi-federal parliamentary republic with a bicameral parliament, directly elected president, and a high degree of government decentralization given by the three tiers of government (national, provincial, and local) – the multilevel governance is anchored in the constitution.
Integration to global economy (KOF Globalisation Index): 69.42 (61st; Q2)
Adaptive capacity (ND-GAIN Country Index): 44 (96th; Q3). Adaptive capacity is very low in social dimension. The most pressing adaptation needs refer to agriculture and water management.

• Three Horizons participatory workshops for social learning, policy engagement, and adaptive capacity (WP1)

Adaptation to changing local, national and global environments requires adaptive capacity and transformations of the wider economic and governance frameworks (IPCC 2022). The design of **just and fair adaptation pathways** needs an understanding of the implications of countries' and actors' own and others' adaptation strategies (Sovacool et al. 2015, Djoudi et al. 2013). Besides local and national interdependencies, adaptive strategies are also shaped by and shape global dynamics such as economic and ideational flows between the Global North and South. These adaptation strategies and desired futures, while often being very local, are embedded within a global political economy and its competing sectors, competing needs, and competing ideas of what is or ought to be done, and for whom (Brockhaus et al. 2021). In addition, institutional path dependencies and actor's interests, beliefs and information enable or hinder desired transformations and the underlying processes of learning (Brockhaus and Angelsen 2012). In light of global commitments for effective, efficient and just climate change adaptation, we need a broader understanding of **how adaptation needs and policy preferences come about**, and how different strategies in the North and South are affecting each other.

The **main objective of WP1 is social and policy learning**. We understand **social learning** as a change in understanding that has taken place in the individuals involved which then become learning vectors beyond the individual into wider communities of practice. **Policy learning** on the other hand focuses on the policy process with learning outcomes being reflected in de facto policy change and the performance of policy to realise desired outcomes (Prell et al. 2016).

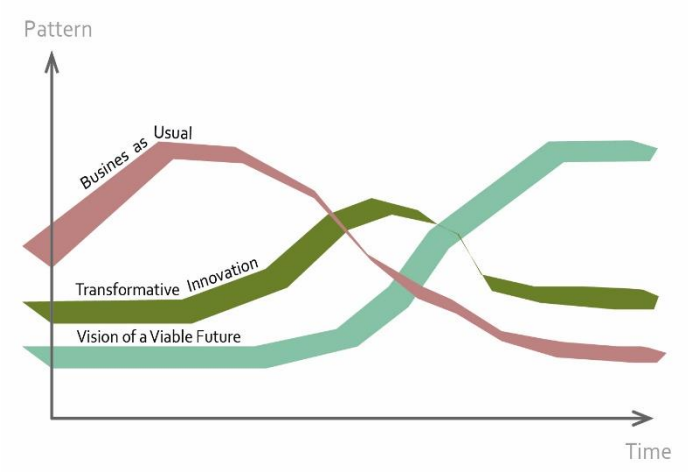

Figure 3: *The 3 Horizons Approach.*

Facilitating change and agency in finding new pathways for just futures under a rapidly changing environment with high uncertainty requires new approaches in knowledge generation. We are building in WP1 on the **3 Horizons approach** (Sharpe et al. 2016, Aguiar et al. 2020) which enables us to move beyond other existing approaches to futures when we aim to identify the current business as usual of adaptation to CC (H1), the most likely future due to existing interdependencies, institutions and flows and their underlying power relations (H3), and the very messy middle where novel pathways are constrained but also may lead to desired adaptive futures, disrupting existing power structures and engaging with patterns of renewal (H2).

The 3 Horizon workshops are at the **core of the AdaptNet project**. We adapt the 3 Horizon method (Aguilar et al. 2020; Sharpe et al. 2016) to (1) identify key adaptation needs in each country (2) capture the domestic adaptation policy arena (WP2), and (4) debate interdependencies with wider economic flows (WP3) and dominant interests and narratives (WP4); (5) and explore cross-sectoral and cross-level challenges to adaptation (WP5) in order to (6) to develop new **pathways for just adaptation**. These pathways will be informed by climate predictions and the analysis of the global political economy context with its economic and ideational flows and multi-level policy network structures that shape synergies and trade-offs across climate change and sectoral policy options and ultimately which transformative changes are considered possible and which climate resilient development pathways can lead there. Over the course of the project, in total **3 Horizon workshops** will take place in each of the five SSA countries. The first workshop will also be the kick-off meeting for the project in the case country (Y1-Q1), followed by a workshop in Y3-Q1 and the final workshop in Y4-Q3, linked to a wider knowledge sharing event. The work is organised in 3 distinct modules.

- **Module 1** is concerned with **implementation of the 3H workshops** and acts as interface between the different WPs including the climate module so to inform the Horizon I-III building.
- **Module 2** provides regional and local **climate projections** as input into the Horizon II building. We assume that the development of political strategies for climate change adaptation and mitigation often refer to climate projections, which while available in some countries (e.g. in Europe/North America), detailed (downscaled) regional climate projections are not fully available in other regions (e.g., Africa). In collaboration with local partners, this module will develop regional climate change projections that will inform the identification of effective, efficient and equitable adaptation pathways.
- **Module 3** analyses and evaluates progress regarding **social and policy learning** within and beyond the 3H workshops. Here, we will assess (a) the changing networking and related tie formation over time and (b) the changing perceptions of what is considered possible and just - with networks and perceptions as important dimensions of adaptive capacity and adaptive governance. Findings will be as an in-time evaluation approach shared with facilitators and participants to adjust 3H workshops if needed but will also enable us to assess the overall learning processes in AdaptNet and contribute to fill above outlined knowledge gaps.

The following box gives an example to illustrate the complex interdependencies we plan to unpack in AdaptNet.

Example: First, within **policy networks**, unevenly interdependent actors collaborate and compete to influence policy processes concerning climate change adaptation. Hence, policy networks are enduring informal institutional structures, shaping decisions on what kind of adaptation strategies and options should be adopted or not. For instance, we can assume that a dominant coalition, including both transnational and domestic actors, promotes reforestation as a key adaptation strategy legitimized by expected gains through avoided desertification, marketable carbon stocks, and new income opportunities for local population. However, it simultaneously produces trade-offs in terms of increased water consumption negatively impacting local livelihoods in the area. Second, **discursive flows** transfer narratives or frames (Entman 1993) that communicate and (de)legitimize particular choices on the nature and scope of the adaption problems, identification of victims and villains, as well

as adaptation options considered (in)feasible and (in)efficient. For example, let's assume that foreign donors use narratives and frames promoting afforestation through arguments highlighting overall adaptation and mitigation co-benefits, while suppressing its negative impacts on adjacent local communities. Third, **material flows** include investment and commodity trade within and between countries as well as across sectors redistributing resources available for adaptation. In the context of global political economy of adaptation, discursive and material flows create a web of **distal connections** transmitting adaptation-relevant impacts and responses from one remote area to another. Besides, distal flows are often configured through **feedback loops** or **cascading effects**. For instance, let's assume that afforestation program in Cameroon also includes biofuel plantations providing supplies to the EU consumers establishing both monetary and commodity flows between the two distant regions since biofuels are exchanged for money. Since decarbonization transition increases demands for renewables, including biofuels, EU over time invests more in the reforestation program, which creates a positive feedback loop. At the same time, this creates a negative cascading effect by reducing resources available to other adaptation options in the case country. **Synergies and trade-offs** across countries, societies, sectors and groups are brought to the forefront (WP5). These causal loops are identified and discussed in the series of learning-oriented 3H workshops and lead to a critically reflection of the diverse pathways for adaptation that were identified for the country. Similar patterns occur in other country cases in SSA, and a comparative analysis allows us to identify how particular factor combinations affect outcomes of the different adaptation pathways identified.

• **Policy network analysis of adaptation policy arenas (WP2)**

The **main objective of WP2 is to examine** the climate change **adaptation policy arenas** in SSA countries, in order to understand the complex relational drivers of adaptation policy-making processes and adaptation responses. The investigation focuses on assessing network structures among policy actors, collaboration patterns underlying coalitions, relational influence of specific agents of change, and flows of climate services information in various (national and cross-level) adaptation policy arenas. AdaptNet recognizes (**WP2** and **WP5**) that despite the localized and context-dependent nature of adaptation to climate change, responses to adaptation needs require coordinated efforts of diverse actors across various sectors and levels (see Carter 2021). Relevant policy actors, ranging from competent ministries to NGOs to local communities, therefore cannot provide adaptation solutions on their own and engage in various forms of interactions, such as collaboration or climate services information flows, constituting policy networks. Policy networks are relatively stable and topically bounded relational patterns (Kenis and Schneider 1991) whose structuring can enable or constrain needed transformational change. Advocacy coalitions consisting of actors embedded within policy networks as cohesive subgroups sharing similar policy beliefs (Satoh et al. 2021) are considered to be primary vehicles of political influence (Weible and Sabatier 2007). Importantly, decisions on particular adaptation strategies and options result from power struggles among multiple actors often unfavourable to local people and environments (Brockhaus et al. 2021). Thus, unlike in the cases of sectoral policies, adaptation-related cross-sectoral and cross-level interdependencies cannot be neglected. Quite the contrary, their improved understanding (**WP2** and **WP5**) is critical to identify (1) bottlenecks and brokers affecting the effective provision of climate services and (2) to analyse constellations of actors and coalitions favouring or opposing transformational adaptation. Hence, AdaptNet uses a concept of **adaptation policy arenas** defined as networks of actors whose interactions, across different levels and sectors, revolve around (1) particular **adaptation issues** and (2) attempt to affect the **policy processes** determining what adaptation strategies and options in response will be adopted or not.

While **WP2** focuses on a **national scale of interactions**, **WP5** builds on those findings by investigating the **multilevel structure** of the adaptation policy arenas and identifying **synergies and trade-offs** therein. Despite the different analytical focus of WP2 and WP5, they jointly draw on data from shared policy networks questionnaire. Thus, the development of questionnaire and data collection are joint activities of the WP2 and WP5. WP2 provides key inputs to WP5 focusing on the multilevel analysis. Likewise, WP2 importantly feeds (together with WP3, WP4) to WP6 aiming at relational power-structures underpinning unequal ecological exchange. WP2 (together with WP3, WP4) draws on the first series of the 3H Workshops (WP1) providing crucial insights on network borders definition and key adaptation problems. To the second and third 3H Workshops series, WP2 contributes (together with WP3, WP4) by delivering findings (Task 1.6 and Task 2.3) on how local communities and actors are affected by the configurations of the investigated adaptation policy arena. Thus, WP2 provides valuable information for local communities and actors on how to collaborate and strategize towards the resilient development. For WP2, AdaptNet relies on a **policy networks analysis** (**PNA**) as a methodological grounding enabling to analyse how various interdependent actors interact to affect the policy process. Actor-level uses mostly various centrality indices to identify important actors. Network-level examines structural properties of network, e.g., its polycentric structure by

using block modelling techniques and tie-formation mechanisms by using exponential random graph modelling. Sub-group level allows to analyse advocacy coalitions by employing subgroup detection techniques (Satoh et al. 2021).

• EEMRIO-FABLE models to analyse the ecological unequal trade flows influencing adaptation (WP3)

The **main objective of WP3 is to co-develop**, via insights and feedback from stakeholders from 3H workshops from WP1, **an integrated EEMRIO-FABLE model** and a set of **roadmaps** that will inform policy decisions regarding a more adaptive, resilient transition in the face of ongoing and future climate change impacts. The WP3 draws on an **unequal ecological exchange** approach (Bruckner et al. 2023) that recognizes that distribution of environmental resources and burdens is often uneven across regions, while typically impacting disproportionately more Global South. In particular, this work package will combine environmentally extended multiregional input-output analysis (EEMRIO) with the FABLE calculator, to deliver insights into the economic and environmental impacts of policy decisions, also highlighting the role of adaptation strategies. The **EEMRIO** (see Prell and Sun 2015) includes inter-sectoral and interregional relationships with the rest of the world to evaluate the impacts of global supply chains on the national economies and the environmental resources. The approach is based on **monetary flows between sectors and regions** and has become a widely used tool to establish consumption-based accounts for analyzing complex global supply chains and to connect distally (teleconnected or telecoupled) natural and human systems. The EEMRIO approach considers the entire (global) economy as its system boundary and is thus able to model the entire global production web. It also distinguishes intermediate and final products and includes inter-sectoral flows in monetary values as well as environmental terms (referred to as virtual, embodied, or embedded flows) within and between countries, environmental impacts throughout global supply chains can be captured and allocated to a wide range of final products. In contrast, the **FABLE** calculator (see Moisner et al. 2023) looks almost exclusively into the dynamics within a given country and accounts for water, biodiversity, agricultural and land use, using **flexible scenarios** are **customized for each country** involved. It focuses on agriculture as the main driver of land-use change and tests the impact of different policies and changes in the drivers on a number of desired policy targets). The outputs from the FABLE calculator include estimates for feasible food (focused on caloric intake), production and trade (total production value), land (area in each land cover type), greenhouse gas emissions (CO2 equivalents), biodiversity (land where natural areas dominate), and water (e.g., crop water footprint) based on availability of land. Scenario selection includes population dynamics, diets, food waste, trade, productivity, land availability, afforestation, climate change, protected areas, post-harvest loss, and biofuels.

Results from FABLE can then be linked to the EEMRIO analysis to identify the major trade-based driving factors of land demand changes. For example, the EEMRIO-FABLE model can explore the land implications, in a given country, when increases in biofuel production or of organic agriculture in that country occur. In addition, how land-use needs/impacts change in a given case country, when policy changes to a geographically distant country or region occur, e.g., EU CAP or Green Deal policies . In turn, how consumption-driven behaviors resulting from, for example, certain policy measures might impact or drive increases in demand of crops in other countries, and in turn, what land availability issues are present to constrain or make possible this increases in demand.

• Discourse network analysis to analyse networks, actors, and coalitions (WP4)

The **main objective of WP4 is** first to **identify and analyse actors, coalitions and issues** in the **discursive layer** of national adaptation policy arenas of the five countries. Second it aims at collecting the **discursive flows**, which are narratives and ideas on adaptation policies and strategies that often align with and (de)legitimize financial or material flows at the **transnational level**. We will apply discourse network analysis (**DNA**) of the national newspapers to analyse national discourse actors' constellations, related to the most relevant issues in the energy and land systems as identified in National Action Plans for Adaptation and based on knowledge from participatory workshops (3H workshops WP1) in the five SSA countries. For the collection and analysis of discursive flows we are looking for different data sources such as documents, reports and websites that contain information about the ideational context at the transnational level between EU and SSA countries. These frames and narratives will be discovered and coded using a coding scheme (deductive and inductive).

DNA is a well-established and widely used method (Leifeld 2017) in which, based on textual data (such as newspaper articles or parliamentary records), statements by actors are manually coded as agreements or disagreements with particular issues (e.g., support of nature-based adaptation options). In a further step, actors are linked to specific issues and visualized as discourse networks. DNA enables application of all standard network measures (such as

centrality or subgroup detection) as well as the use of inferential methods. DNA can be used to identify **discourse coalitions**, groups of actors jointly promoting or opposing particular **frames** (Entman 1993) constituted by sets of interconnected issues. Moreover, DNA allows to exmine evolution of coalitions, relevant actors, and key issues in the adaptation policy arenas over time (Leifeld 2017). We hereby identify key media representations of national policy processes, actors and adaptations issues. The WP4 complements and corresponds to the policy actor network analysis (WP2), contributes to the analysis of WP5 and WP6 and draws on the inputs from the first series of the 3H workshops (WP1 I), while feeding into WP1 II to inform the workshop participants.

• **Analysis of synergies, trade-offs and multi-level governance in adaptation policy (WP5)**

The **main objective of WP5 is analysis of the synergies and trade-offs** between adaptation, mitigation, biodiversity, and development policy objectives as well as across investigated sectors (land, water, energy) and levels of governance (transnational, national, subnational). Such analysis is crucial for identifying opportunities and challenges to achieve climate resilient pathways (Schipper et al. 2022). For example, the four policy objectives often interact and interfere. Forest-based climate change mitigation, such as the creation of a new forest conservation area, can negatively impact the ability of local people to access land for agriculture to support climate change adaptation. Yet, agroforestry approaches and other sustainable agricultural practices, might display synergies, if they can enhance food security and support both adaptation and development goals, while also contributing to biodiversity and carbon emission reductions (Locatelli et al., 2015). But other agricultural developments, especially large-scale commercial activities, while contributing to economic development goals, might both support livelihoods of some actors enhancing their adaptive capacity, but might displace other actors, increasing their vulnerability and reducing biodiversity. Building on data collection from the WP2, the WP5 addresses two particularly complex aims in climate change policy decision making and implementation relations to **cross-sectoral and cross-level mismatches** (Young 2002). First, it investigates how to best exploit existing synergies and manage trade-offs across climate change responses (adaptation and mitigation options/policies) as well as biodiversity and development aims. Second, it explores how to improve adaptation decision-making processes across levels of governance. We identify potential synergies and trade-offs between diverse policy options and in relation to a specific local adaptation context, e.g., a selected region experiencing major climate impacts with a highly vulnerable population and then trace associated policy processes from the bottom-up across levels of governance. We then investigate these **multi-level policy processes** associated with adaptation responses and identify barriers across jurisdiction levels that hamper the development and implementation of climate resilient pathways (Di Gregorio et al., 2019; Young 2002). Local level actors experience the main impacts of climate change, but often have the least influence on policy decisions. We use a policy networks approach (Kenis and Schneider 1991) to explore cross-level power dynamics and interactions on climate services information flows, and collaboration between national and sub-national jurisdictions. The aim is to identify the main **cross-governance bottlenecks** and possible policy responses to support **co-production processes** on locally relevant climate resilient development pathways (3H workshops WP1) as well as broader climate change policy processes.

• **Analysing power, politics and pathways for adaptation in a global political economy (WP6)**

The **main objective of WP6** is to develop through a comparative perspective **a sound understanding of enabling conditions for just adaptation pathways** in the Global South and North, and **communicate roadmaps** for just adaptation effectively to decision makers and practitioners. The WP6 brings together a holistic analysis of the distal economic (WP3) and ideational (WP4) flows and structural/institutional conditions in the multi-level and multi-sectoral adaptation policy arena (WP5) with the insights from the participatory 3H workshops (WP1), including **causal loops** and the identified **pathways for adaptation**. AdaptNet distinguishes institutional (policy networks), material (economic flows), and ideational (discursive flows) forms of power which are typically interwoven in ways that favor business-as-usual scenarios and reproduce or deepen existing inequalities (Newell 2021), what we call the **infrastructures of inequality**. The work package draws on data and results from all other WPs. The policy network analysis in WP2 provides insights into structural conditions within the adaptation policy arena, including the role of local and international actors in often competing or overlapping efforts for mitigation, adaptation and development (Di Gregorio et al. 2019). The political economy analysis provided in WP3 allows us to unpack implications of sector developments globally for local adaptation efforts and needs in the case countries in SSA (Prell et al. 2016). Yet, whose voice (and interest) matters in adaptation policy process and related narratives and argumentations, and what narratives favor one adaptation strategy over another (Di Gregorio et al. 2012, Takala et al. 2022; Wong et al. 2022) is revealed in WP4. In WP1, all these insights are discussed with the actors involved in the 3H workshops and

informed the developing of the different scenarios and identification of country specific pathways for just adaptation. AdaptNet posits that all three forms of power - institutional, material, and ideational - interact in a complex manner that generates and sustains inequality, crucially affecting recognition of and responses to adaptation needs and shape adaptation outcomes globally.

WP6 uses a **qualitative comparative analysis** (**QCA**) as main methodological framework. A QCA approach to comparative analysis is characterised by a constant dialogue of the researcher with theory and the cases, a "dialogue between ideas and evidence" (Ragin 1998). This process requires multiple feedback loops, which will be elaborated on in WP1. While the three times five proposed individual cases are considered complex entities (which would represent a challenge for conventional statistical approaches), QCA acknowledges that causality is context- and conjuncture-sensitive and uses the concept of **multiple conjunctural causation to reduce complexity** (Korhonen-Kurki et al. 2019; Sehring et al. 2013). This is reflected in the process of performing a QCA, when both types of knowledge, theoretical and case-specific, inform its main phases: (1) the case selection and description phase, when complexity is maximal (includes the definition of outcome, identification of conditions and set-up of the model); (2) the actual analysis (software-supported, with QCA implementation in R) when throughout the different steps a maximal possible parsimony is achieved; and (3) the phase of interpretation of the results, with re-growing complexity when interpreting cross-case patterns, all of which should enable generalisation of the findings beyond individual cases.

Our proposed study integrates these core characteristics of a QCA approach. The composition of the research team with highly experienced researchers from SSA for each case will allow us to build on 'thick' case knowledge and sound theoretical knowledge. This will be highly valuable especially during the defining phase for the outcome (just adaptation pathways) and conditions related to the material, ideational and institutional analysis, and also during the interpretation phase.

1.2.2. Multidisciplinarity & role of Social Sciences and Humanities

AdaptNet is bridging different disciplines in a holistic way from the very beginning due to the inter- and transdisciplinary co-design of the project and the constant interdisciplinary exchange and learning processes. Needs-based adaptation through climate services to build adaptive resilience and just societal transformation in SSA countries is a complex endeavour that needs to involve many different disciplines working closely together, transcend disciplinary boundaries and exchange their specific knowledge. In the past decades climate research was dominated mainly by the natural sciences, however recent studies emphasize that Social Sciences and Humanities (SSH) are key to translating these complex issues to different actors and facilitate social and political learning processes that lead to social change which is more important than physical tipping points (see Hamburg climate future outlook report 2023). AdaptNet involves researchers from political, economic and other social sciences, forest and agriculture sciences and, geography, and geo- and environmental sciences. Besides the interdisciplinary nature of the research team, collaboration with diverse groups of actors from local adaptation arenas in the different countries enable to exchange knowledge and to build a framework for climate services with the aim of increasing adaptive resilience. These AdaptNet activities contribute to the engagement, involvement and empowerment of all actors in adaptation policy arenas, increasing their agency and enabling co-learning between scientists and local actors.

Interdisciplinary aspects of AdaptNet include the following activities:

- **Co-development of 3H workshops** with climate adaptation experts, financial and trade modelers, climate modelers, social scientists and local municipal actors to enable social learning.
- We organize an **interdisciplinary learning workshop** in the first months of the AdaptNet project, that will take place at the Masaryk University in Brno. In this workshop the AdaptNet team will teach and learn from each other a portfolio of different methods skills (PNA, DNA) from political and social sciences, adaptation experts introduce adaptation research. The goal is to have a common high-quality standard for the relevant methods and understanding of research activities, sensitivity for adaptation issues, and the use of communication and management tools for the project.
- WP leaders are often from different disciplines and therefore knowledge sharing and transdisciplinary learning is part of the **collaborative working process**.
- We incorporate **geo-science** with climate models into our predominantly SSH approach.

Our approach, with a strong focus on SSH, involving different disciplines within the SSH is critical for translating these complex adaptation issues on the ground with local actors involving different views combined with

transnational influences that shape these adaptation arenas to policy decision making, community of practice and the scientific community.

1.2.3. Gender dimension

The AdaptNet consortium and partners are strongly committed to the gender issue in following the guidelines and conducting gender-sensitive research as stated in the EU Commissions **Gender Equality Strategy** 2020-2025 (EU Commission 2020) to engage in achieving a Union of equality. Since the gender equality in research and innovation is a priority of the European Research Area (ERA) our projects will support this strategy in the research by ensuring gender equality in scientific careers, a gender balance in decision making processes and the integration of the gender dimension in the content of research and innovation (see Council of the EU document on Advancing gender equality in the European Research Area). AdaptNet will integrate gender- and equality-based analysis in all the activities of the project and especially in WP6, in which we embed a gender- and intersectional-analysis. Our approach is inclusive and considers intersecting social categories such as identity, ethnicity, age, disability, or vulnerability, thus confirming the societal relevance and quality of the project's results.

More concretely, we include these aspects in many different parts of the AdaptNet project work:

- AdaptNet partners are committed to develop the **gender equality plan** in their HR policies including training on gender equality, unconscious biases within their organizations with frequent monitoring and reporting to the AdaptNet project management (WP8).
- We ensure that for the communication and dissemination of the AdaptNet project results gender-neutral language is being used and we explicitly support equal opportunities for men and women and non-binary individuals (WP7).
- We make sure that all gender aspects are considered, we elect a gender issue contact person for the project during the first meeting of the AdaptNet GA.
- AdaptNet will follow and integrate models of engagement to foster gender-sensitive approaches in the participatory workshops (3H workshops WP1) and all other actor engagement and co-production activities to involve underrepresented citizens to ensure gender, cultural and regional diversity.
- AdaptNet considers also gender aspects in the survey studies, the selection of expert interview partners and the use of gender sensitive questionnaires.
- AdaptNet uses graphs to show gender aspects of the study to reflect these within the findings.
- We build on our expertise within the consortium, in particular CIFOR and UH to ensure gender-sensitive research that allows for intersectional analysis.

1.2.4. Open Science practices

AdaptNet will collect a wide range of diverse data sets. Therefore, the Open Science Approach is particularly important for the AdaptNet project which is closely linked to our exploitation of results plan, our commitment to **FAIR principles** (see open research Europe FAIR data) and open science and research data management efforts and in line with the requirements of the consortium member institutions. A Data Management panel will be formed at the first meeting of the AdaptNet GA, consisting of one participant from each WP and led by the project data manager. All data management issues will be handled according to the EC requirements based on the Guidelines on FAIR Research data Management in Horizon Europe. The open science and research data policy will be supervised by the project coordinator. In the AdaptNet project we work in line with the requirements of the Open Access ambitions of EU Horizon and deliver a **Data Management Plan** (DMP) (see section 1.2.5) in the first six month of the project and update it if needed during the time of the project.

All of the data collected in the AdaptNet project will be made publicly available and stored in a public data repository combined with descriptions and comments, while following overall ethical guidelines of respect, beneficence and justice when conducting research involving human subjects. We ensure that the extensive data collection for the analysis of policy networks, discourse networks, distal flow analysis, economic and climate models, all data produced from the 3H participatory workshops (anonymized) from the investigated SSA countries as well as the online teaching materials from the **MOOCs** are all made publicly available and usable.

1.2.5. Data management

The data generation and collection are central elements of AdaptNet and therefore data management is particularly

important, must be carefully planned and controlled in accordance with the FAIR principles. Data management in AdaptNet is linked to the Open Science goals and the exploitation plan and lead by UH (WP7). We will collect different types of data such as network data stored in typical data format as a quantitative matrix for policy network analysis of key organizations, discourse network data of media outlets (mostly newspaper articles) and other documents (parliamentary records, reports, webpages, etc.), financial and trade data from different sectors for economic models of the distal flows analysis, quantitative and qualitative data from survey studies, qualitative data from 3H participatory workshops and geo-climate related data (Table 3). All the data collections are accompanied by a document with detailed comments and anonymized if needed. Since the project focuses on organizational actors, personal data will be generated only as a by-product of the organizational data collection – typically, contact lists of the questionnaire respondents. Such sensitive data will be available only to the research team members to ensure their protection. The organizational data will be treated as public data. They will be thus stored, backed up, and versioned at the local, and AdaptNet repository storages, following EU data guidelines. The published articles, if possible, will be complemented with reproducible datasets. Following the Open Science model, the project will, whenever possible, be using preprints in its publication pipeline to enhance transparency, quality, and outreach of the research outputs. A **data management panel** will be formed at the AdaptNet kick-off meeting consisting of one participant of each WP, led by the project manager, supervised by the coordinator and frequently reported to the AdaptNet GA. In accordance with the requirements of the Open Access ambitions of Horizon Europe, we deliver in the first six month a data management plan (DMP) and update it twice throughout the project time. The DMP will outline which and when the data will be openly available and shared with the scientific community or the public. It will also include information on how the research data will be handled during and after the AdaptNet project. The DMP will be followed during the whole project lifetime and interconnected with the exploitation and dissemination activities also to enable the exploitation beyond the AdaptNet project. The DMP involves an integrated approach for the identification, capture, retrieval, distribution, sharing and (re)use of the generated data sets in the AdaptNet project. Responsibilities for services for local storage, backups, sharing and data security issues and publication of the data sets are also part of the DMP. The overall strategy of the data management of AdaptNet is to promote the sustainability of the results and their successful dissemination. Hereby we manage the data to the highest standards also in line with the research excellence and experience of the consortium's members, research data will be available for access and re-use within the data security requirements combined with necessary information for reproduction of the result.

Table 3. Summary of outputs/data types and their management following FAIR principles

Type of data	Findability	Accessibility	Interoperability	Reusability
Peer-reviewed journal articles	DOI; websites (journals, projects)	OA, immediate	n.a.	CC-BY
Reports about country cases, findings	Project website	OA, immediate	n.a.	
Datasets DNA, PNA	DOI; repositories (GitHub, Mendeley), stored in case countries	OA, immediate	Standard format as matrix (csv)	CC0
Models from climate modelling, financial and trade models	Slides available on project website, data stored on repositories (GitHub, Mendeley)	OA, immediate	Metadata and documentation explained thoroughly	CC0
Qualitative data from 3H workshops	DOI; repositories (Mendeley)	OA, as soon as data is cleaned and anonymized	Metadata and documentation explained thoroughly	CC0
Policy briefs	Project website	OA, immediate	n.a.	CC-BY-NC-SA

1.2.6. Links to national and international initiatives

AdaptNet project is committed to the ambitions of the EU and its member states to support climate resilience in African countries within the Green Deal with a wide range of research and development initiatives that can be found in the Team Europe Initiatives (TEIs) and Joint Programming (JP) tracker with a focus on SSA. In addition, the AdaptNet project office as well as all individual country teams will establish links to the EU's mission and the

respective EU representations including donor round tables in the SSA countries to explore how our research project can best complement the proposed activities and EU strategy. We also consider the EU offices a policy actor which will feature in the diverse policy networks and possibly participate in our project workshops, and hence will be a direct beneficiary of possible lessons regarding brokers, bridges and structural holes within the domestic policy arenas. We also plan to engage with the European Environmental Agency's ClimateAdapt platform for a consistent and coordinated dissemination of the AdaptNet project's results and enhance the exploitation of the project's outcomes. In addition, our consortium has strong ties to the Global Landscape Forum as an outreach and learning platform, as well as the African Forest Policy Network AFORPOLIS. The following initiatives and projects are potentially relevant for AdaptNet, such as Climate Change Adaptation & Resilience Africa (EU), AfriAlliance Africa-EU, FOCUS-Africa (H2020, 2020-2024), and others. Furthermore, we build on existing projects in which the consoritum members are involved, including long-term efforts such as **COMPON** (Comparing Climate Change Policy Networks in 20 countries since 2007), and the global comparative study on **REDD+** (GCS-REDD+).
#§CON-MET-CM§# #§COM-PLE-CP§# #§REL-EVA-RE§#

2. Impact #@IMP-ACT-IA@#

2.1. Project's pathways towards impact

AdaptNet's aim of promoting social and political learning will contribute to the expected outcomes and impacts through various pathways:

1) **Scientific:** our innovative approach will produce **novel empirical evidence** of complex transnational interdependencies that influence local adaptation arenas in SSA countries, which is a highly relevant aspect that has not been researched before. Moreover, most of the research on transforming climate adaptation in African countries was solely done before by natural or environmental sciences. As such, AdaptNet's unique but critical political and social science perspective will accelerate societal transformation and political learning needed to fully address climate change and mitigation. AdaptNet will also contribute to **capacity-building**, especially of junior researchers in third countries, and diffusion of knowledge through open science practices. **Diffusion of knowledge** is fostered by our participatory inclusion of diverse actors such as national ministries, civil society organisations, businesses, and financial institutions. At the global level, we engage with the international climate community and other global knowledge forums (such as the COP) by producing targeted knowledge products and also contributing to the scientific community.
2) **Economic:** AdaptNet will contribute to **leveraging investments** in research and innovation by advocating for a better allocation and more efficient use of financial resources. In highlighting and demonstrating how misleading financial, trade and ideational flows can result in non-intended maldevelopments and maladaptation, our project questions existing patterns of trade and financial aid flows with their respective narratives of justification for a just societal transition within the framework of available financial resources.
3) **Societal:** AdaptNet will create **political impact** not only within SSA but also in the EU, where we work closely together with our Advisory Board that provides links to relevant on-going processes and networks beyond our project. We will translate the specific needs from the local and domestic level combined with global transnational interdependencies in policy briefs to policy decision makers on the EU and global level. AdaptNet addresses several **EU policy priorities** such as the EU-Africa partnership, biodiversity objectives and supporting the SDGs. In line with the EU-Africa strategy (2020) our approach will contribute to a just transition that involves local stakeholder engagement as well as reflections on the global political economy of adaptations. AdaptNet contributes to **strengthening the uptake of R&I** through providing forums for community of practice and translating scientific knowledge to targeted audiences. We also provide a learning platform with MOOCs for practitioners, researchers and students.

2.1.1. Contributions to Expected Outcomes

EO1: Accelerated deployment of climate services to build climate resilience
Our 3Horizons (3H) participatory workshops (WP1) serve as a point of departure to involve in each country all relevant actors of the adaptation issue arena, and to discuss in the light of global commitments for effective, efficient and just transition a broader understanding of what shapes adaptation needs and policy preferences. With the aim of **social and policy learning** across jurisdictions and levels of governance we will discuss questions of how strategies in North and South affect each other and hamper or facilitate change to develop ideas for a roadmap of the desired

pathway and for a just future. How can we manage this just transition in a framework for dialogue among actors with diverse and often conflicting interests and believes within a complex decision-making process? We ask for key issues in the selected adaptation arenas with their actors, structures and (financial, material, and ideational) flows that shape adaptation needs and visions. The **3H participatory workshops** enable us and our participants from state and non-state organisations across levels of governance to evaluate and receive information about actors and issues in the adaptation policy arenas, develop an initial horizon based on current business as usual (BAU), and an initial desired future horizon based on policies and action affecting the selected adaptation issues and changing BAU. This information feeds directly back into other work packages of policy actors' networks (WP2) and distal flows (WP3, WP4). The analysis in these WPs will be fed back into the work of unpacking the messy middle between these two horizons in the following 3H workshops, together with findings from the climate modelling. The findings will allow us and our partners and participants to identify causal relations in a global political economy context, and define a viable and just future horizon. We will discuss and evaluate in the final horizon workshop services and action required to build **just adaptation pathways**. Social and policy learning is enabled through the 3H workshops combined with our strategic outreach and engagement strategy, within and across cases and scales and the wider adaptation policy arena and public to better develop tailored strategies for climate resilient development.

EO2: Better informed climate adaptation policy response, stronger adaptive capacity and climate resilience in Africa, with a focus on the Sub-Saharan region.

The SSA region is heavily affected by climate impacts, which differ due to regional diversities, extreme weather events and geographical peculiarities such as deserts, lakes, rivers. Economic, social and cultural context factors must be included and especially the needs of the most vulnerable groups. Adaptation is reducing climate risks and vulnerability mostly via adjustments of existing systems with different adaptation options that help to manage climate impacts (IPCC 2022, p. 20). Their implementation depends upon capacity and effectiveness of governance and decision-making processes, that can support or hamper **climate resilient development**. An often-underestimated part of the story are climate adaptation strategies in developed countries that not only affect local but also **distal adaptation needs** in developing countries that are not directly visible and which will be revealed by AdaptNet. The participatory workshops (3H) WP1 provide a platform for policy and other relevant actors of the adaptation policy arena for social and policy learning. This platform enables us to collect in participatory processes information regarding specific adaptation needs and relevant actors, selection criteria for studying the overall structures and distal flows feed into the research process. Besides this, for a better policy response, when it comes to climate change and extreme weather events, in order to reduce climate uncertainties, we include **climate models** (global models, regional models/statistically downscaled data) and based on this derive **climate services** to inform the different decision-making scenarios. In a second 3H workshop the findings from analytical WPs (WP5, WP6) and climate models are brought back in to develop pathways for desirable futures that are discussed and in a third (3H) workshop manifested in roadmaps for a **climate resilient development**.

EO3: Improved synergies between adaptation action and other policy objectives, notably the Sustainable Development Goals agenda.

Policy formulation and implementation aimed at solving complex environmental problems, such as climate change, require challenging political decisions, as they interact with other sectoral policies, which can create both mutually reinforcing (synergistic) effects or negative impacts on other goals (trade-offs) (Di Gregorio et al., 2019; Locatelli et al., 2015). AdaptNet will consider and investigate **synergies and trade-offs** between climate change adaptation and other policy objectives in various WPs. First, the 3H workshop serve as a platform where locally appropriate adaptation options are discussed in relation to other policy objectives across the land use, water, and energy sectors. Second, findings from the policy networks analysis (WP2) and discourse network analysis (WP4) in combination with distal flow analysis of financial, trade and ideational flows reveal interdependencies and potential synergies and trade-offs with other policy objectives. Third, work packages 5 (WP5) on 'adaptation, synergies, trade-offs and multi-level governance' focuses specifically on the assessment of synergies and trade-offs between adaptation policy aims and practices, climate change mitigation responses, **across sectors** (land use, water, and energy) and **levels of governance** (sub-national to global). Unlike other approaches to climate policy integration, this package takes a **bottom-up approach** tracing synergies and trade-offs from specific localities, and covers practices as well as policy processes. Finally, all work packages directly address three key **SDG**s, namely G13 'Climate Action' and G15 'Life on Land' and G10 'Reduced Inequality' and contribute to three others, G7 'Affordable and Clean Energy', G1: 'No Poverty' and G2 ' Zero Hunger' by supporting better adaptation futures and more climate resilience development pathways.

EO4: Contribution to the international dimension of the EU Adaptation Strategy and to the Africa-EU Partnership.
AdaptNet will provide novel insights into the **mechanisms and impacts of transnational interdependencies between the EU and SSA** (WP3-4) with a focus on their unintended consequences (WP 5&6) across five case country studies (Burkina Faso, Cameroon, Ghana, South Africa, and Tanzania) (WP2, WP5), thus, making a crucial contribution both to the **EU Adaptation Strategy** (EUAS) and the **Africa-EU Partnership** (AEUP). First, policy networks analysis (WP2) delivers key findings on bottlenecks, brokers, and structural holes needed to facilitate the EUAS's and the AEUP objectives regarding the support of **knowledge, information, and climate services exchange**. Second, results from the WP5&6 will facilitate related EUAS's objectives concerning integration of adaptation into policymaking and decision-making processes in SSA to enable **mainstreaming of climate resilience** into development strategies. Likewise, the WP5 contributes to the sustainable development agenda of the AEUP by examining **synergies and trade-offs** between mitigation, adaptation, and development. Third, AdaptNet goes behind the analysis of bilateral relations by examining global flows of commodities (WP3) as well as transnational discursive (WP4) and inter-organizational relationships (WP5) – thereby producing knowledge vital to the primary goal of the AEUP, which is the development of **multilateral cooperative framework** between (Sub)Saharan Africa and the EU. Similarly, AdaptNet findings on transnational networks and flows (WP3-5) will aid the EUAS's international dimension emphasizing collaboration on adaptation, including capacity building, research cooperation or technological transfer. Finally, the 3H Workshops (W1) engage actors from local and domestic level to reflect on how the transnational networks and flows shape the available adaptation responses and to deliberate on formulation of **climate resilient pathways**.

EO5: Knowledge base to underpin major international scientific assessments
AdaptNet will provide start-of-the-art evidence on the transnational and multi-level political economy drivers of maladaptation and provide key additional evidence on how to support climate **resilient development pathways** in a variety of SSA contexts, paying special attention to **justice and equity**. It will provide new evidence on how to reduce the likelihood in actual policy processes in Africa of "cross-sectoral, transboundary and long-term planning, adaptation and mitigation response options in one sector can become response risks, exacerbating impacts in other sectors and causing maladaptation (very high confidence)." (IPCC 2022, p. 1289). In particular, it will contribute to the assessment of the **role of inequalities** in exchanges across regions in the world to local adaptation outcomes; it will illustrates how domestic policy network structures affect adaptation options and outcomes in specific countries; it will show how discursive practices impact potential adaptation options and it will provide new evidence on how power imbalances across scales affect determinants of actual synergies and trade-offs between adaptation and other cross-sectoral (mitigation and development) policies and practices in five country contexts. The 3H Workshops will provide key insights into the importance of taking into account actual **political economy constraints and opportunities** to co-produce adaptation future and climate resilient pathways that understand justice and equity as a major target outcome.

2.1.2. Contribution to wider impact

AdaptNet considers the overall expected impact of the **Destination** "Climate sciences and responses for the transformation towards climate neutrality" which is to contribute to the "Transition to a climate-neutral and resilient society and economy enabled through advanced climate science, pathways and responses to climate change (mitigation and adaptation) and behavioural transformations" notably through advancing knowledge and providing solutions in any of following areas:

Expected impact (EI)	AdaptNet's contribution
EI1: Advancing knowledge in Earth system science, Climate change adaptation, Climate services, Social science for climate action	Climate models downscaled for the SSA case countries will be developed and presented; roadmaps for future just adaptation transformation in the five SSA countries; including climate models in combination with other information sources (financial, trade, ideational flows). The strong focus on SSH of this call is addressed by AdaptNet with expertise of the consortium and a research design from a political and social sciences perspective, which is innovative and produces novel empirical evidence.
Target challenges and pathways At the level of regional planning Regional Climate Models (RCMs) and downscaling techniques will be applied,	

which allow the translation from GCM grid boxes to km-scales. This is required for developing tailored efficient and appropriate adaptation solutions at the scale of actors considered in AdaptNet. Participatory 3H workshops informed by financial, trade and ideational flows (WP2-4), synergies and global political economy of adaptation lead to roadmaps. Combining climate models with other national and transnational influences offer an added value to conventional approaches. Methods and analysis from social and political sciences are used to analyse pathways for just transition and adaptive capacity building.	
EI2: Contributing substantially to key international assessments such as those of the Intergovernmental Panel on Climate Change (IPCC), the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) or the European Environment Agency (e.g. European environment - state and outlook reports, SOER).	AdaptNet contributes substantially with scientific studies and high-quality publications to the gain of scientific knowledge to improve adaptation issues in SSA countries which can be used for further strengthening the knowledge base of the IPCC report and other international assessments.
Target challenges and pathways Analysing adaptation issues in SSA countries from a social science perspective and the combination of transnational and domestic data produces novel empirical evidence.	
E13: Increasing the transparency, robustness, trustworthiness and practical usability of the knowledge base on climate change for use by policy makers, practitioners, other stakeholders and citizens.	We unpack complex dependencies and analyse policy networks and transnational flows from an academic perspective and translate these findings to practitioners and policy makers "on the ground" to evaluate and discuss our findings and receive input from the participants to inform our research activities.
Target challenges and pathways The 3H participatory workshops create a platform for translating scientific results and also receiving practical input to foster learning processes for both sides (practitioners and researchers).	

2.1.3 Requirements and potential barriers to impact

Potential barrier	AdaptNet's mitigation strategy
Lack of uptake and engagement with our findings	The 3H participatory workshops will take place three times in the case countries and are conducted by 3H-experts from CIFOR. Hereby we use a tailored communication strategy to invite and include the relevant actors, all the activities are co-designed with the country teams and the 3H experts to ensure engagement and high level of acceptance of the workshop results.
Power asymmetries among Global North and Global South interests	The AdaptNet project highlights precisely these inequalities and, by presenting and translating our research through knowledge sharing events, raises awareness of the need to overcome or even eliminate power asymmetries and imbalances.
Lack of political will and the powerful business as usual	We advocate for a just transition with sound empirical evidence from our innovative and holistic approach and show that BAU scenarios need to be overcome. With our convincing outreach strategy with tailored knowledge sharing events, we will influence policy makers in the EU, at the international level and in the different countries involved.
Domestic and international actors who do not care about equality and justice	The AdaptNet project aims at sensitizing domestic and international actors to equality and justice by involving all relevant actors of the adaptation issue arenas to develop strategies together. We are translating these issues of equity and justice by unpacking previously hidden interconnections.
Persistence of dominant discourses favoring BAU	In addition to analyzing financial and trade flows, the AdaptNet project also focuses on analyzing discursive influences related to national and transnational narratives that help foster these BAU-favoring discourses. We unpack these and critically examin the underlying assumptions.
More powerful countries focusing on their own	Our AdaptNet project work with the EU and MS and provides targeted information on interdependencies and the global political economy of adaptation to civil society

adaptation strategies (our example in box)	organisations that are able to hold governments and private sector actors accountable to commitments for socially and environmentally just adaptation. More comprehensible and detailed information about these interdependencies will lead to a better allocation of resources.

2.2. Measures to maximise impact: Dissemination, exploitation & communication #@COM-DIS-VIS-CDV@#

Dissemination, exploitation, and communication (WP7) are crucial elements in maximizing the scientific, economic and transformative impact of the project. All AdaptNet project partners will contribute to these activities with the aim of informing policymakers and community of practice by showing alternatives for adaptation issues in SSA countries and to emphasize the need of a broader understanding of how adaptation needs and policy preferences come about, and how different strategies in the North and South are affecting each other.

The dissemination, exploitation and communication activities for AdaptNet will be led by UH with a communication expert with a strong record in environmental communication. The **communication manager of UH** will be supported by all partners, and especially **CIFOR-ICRAF** through the **Global Landscape Forum**. The AdaptNet consortium also includes experienced dissemination practitioners, and while being employed at academic institutions, the members are highly engaged in a large variety of science-policy and society interfaces, ranging from leadership in panels such the IPBES, IPCC to being voices in media, or active in development networks. All researchers in the AdaptNet project are expected to participate in D, E & C activities as part of their work within their WPs and tasks. The activities and strategies to maximize the impact of the AdaptNet project will be explained in the communication, dissemination and exploitation of results plans (D7.1.1), which will be developed within the first six month of the project (M6) and organized and managed through the different tasks in WP7.

2.2.1 Dissemination

AdaptNet aims to unpack how specific adaptation needs come about and plans to communicate the outcomes and results to three primary target audiences for dissemination: Policy decision makers, the community of practice and scientific community.

- The **scientific community** consists of researchers from environmental sciences, political and social sciences as well as interdisciplinary scholars from other disciplines, the climate services community and the broader climate change adaptation community. Besides peer-reviewed publications, conference presentations and workshops are the main outlets.
- The **community of practice** of adaptation policy as an important target group will be involved and informed. The roadmaps for desirable future pathways that will be developed in the third 3H workshops and will be communicated in proper formats and channels for this audience, considering multi-lingual, multi-cultural communication approaches when necessary.
- The main target audience is **policy decision makers** from the EU and international policy actors to inform and provide them with a sound understanding of the framework for equitable adaptation pathways in the Global South and North.

The target audiences will be further described in the first Communication and Dissemination plan. An initial outline of D & C activities for these audiences is provided in Table 5.

Table 5. Preliminary plan for dissemination and communication measures during the project

D & C Activities	Target Audience	Objective	KPI
AdaptNet website	Community of practice, climate scientist, practitioners, community representatives, policymakers	Social learning, complex information will be translated	>5000 visits per year
Policy briefs	Policymakers	Advocate for just transition and policy change, policy learning	5-8 per year
Side events	policymakers	Advocate for just transition and	2 events attended and 1-3

COP		policy change, policy learning	events organized per year
Social media (LinkedIn/Twitter/Facebook)	General public	Social learning, complex information will be translated	>30 posts per year; 100 new followers per year
MOOCs	Students, practitioners, researchers	Knowledge gain, social learning	5-8 courses per year
Open-access journals, conferences, workshops	Scientific community	Contribute to scientific research, knowledge gain	5-10 publications per year, 6 articles in high-impact journals and 6 international conferences (overall)
Participatory workshops	Community of practice, policymakers	Participative workshops with self-evaluation processes, social learning, bottom-up approach	15 3H workshops
Press releases	General public, research, academia, policy makers, governments, community of practice	Reaching a larger audience is press communication. This will ensure project outcomes are visible beyond the project network.	5-10: Hundreds of readers
Collaboration with other projects	Scientists, practitioners, community representatives, citizens	Collaboration and knowledge sharing, use of synergies.	1-3 joint activities per year
Global Landscapes Forum (GLF)	diverse range of stakeholders, including researchers, policymakers, practitioners, and community representatives, Indigenous Peoples	Forum (hybrid to reach a wider audience) to share knowledge, learn from each other's experience, building partnership for collaborative action, to establish communities of practice focused on adaptation in different sectors	1 in year 3 (climate) and 1 in year 4 (Africa)

2.2.2 Communication

Project communication includes both internal and external communication. **Internal communication** activities will be carried out in WP7 for a clear and effective communication between partners and establishing appropriate communication channels. The purpose of **external communication** is to increase the project visibility to advocate and inform policy makers and international institutions at European and international level. AdaptNet is a collaborative research project with interdisciplinary researchers from SSA and EU countries. A glossary helps us to transcend disciplinary boundaries. We offer a toolbox in different languages to unpack and understand complex interdependencies of beliefs, distal flows and actors' networks with the aim of translating adaptation needs in local adaptation arenas and empowering actors to gain more agency. Tailor-made and target group-specific communication tools are a useful support for this strategy. The participatory 3H workshops (WP1) create an optimal setting for deliberative and participatory tasks, social learning and communication processes. WP7 is intended to support every activity of the research endeavour with customized communication tools. These consist of standard tools such as webpages, media articles, policy briefs etc. and, moreover, integrate also innovative newer approaches such as MOOCs (learning platforms for online and modular teaching and learning), participatory workshops. We also participate at side events at the COP or other important venues to inform and provide scientific knowledge. WP7 will use gender-neutral language, in all communication activities we reflect potential gender-biases and even if AdaptNet consists of a higher percentage of high-profile leading female researchers, we encourage young female scientist to engage and support them with communication toll to gain visibility in the scientific community and beyond. WP7 is connected with all other WPs.

2.2.3. Exploitation

AdaptNet will produce different kinds of key exploitable results:

- **Scientific knowledge:** advanced methods and theory to capture a global political economy of adaptation and just adaptation pathways peer review publications, deliverables

- **Policy knowledge:** advise for policy decision makers.
- **Practical knowledge and informed decision making:** AdaptNet Roadmap; Lessons learned on co-production; climate models and upscaling; Transdisciplinary approaches in EU projects.
- **Data, tools, applications:** Open Science availability of data collection.

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2.3 Summary

SPECIFIC NEEDS	EXPECTED RESULTS	D & E & C MEASURES
• **Maladaptation due to unclear interdependencies and power structures** SSA countries heavily affected by climate risks need to adapt to climate change and rely on financial investment for development from other countries and actors, which often leads to local maladaptation and failed adaptation policy when knowledge and awareness of trade-offs and synergies is lacking. • **Adaptive capacity** SDG target-seeking scenarios require a consistent process for capturing multiple and contrasting perspectives and learning on how to build adaptive capacity, including the perspectives from multiple scales and geographic regions. • **Evaluation of pathways for just transition** Trajectories of change and visions for just transition pathways towards desirable futures are often lacking an evaluation of who benefits from decisions and policies or who bears the burden to enable policy and social learning processes.	• **Avoidance of maladaptation** By unpacking the complex interdependencies and influences of financial, trade and discursive flows that lead to maladaptation and informing policymakers and community of practice, these maldevelopments can be reconsidered and changed. • **Adaptive capacity building** Adaptive capacity will be constantly rebuilt that rely not only on local actors' resources but also on global better coordinated and informed flows of finance and trade, and critically refected flows of ideas. • **Policy and social learning for just transition** Policy and social learning is faciliated by evaluating and informed decisionmaking about different pathways and alternatives for just transition.	• **Exploitation** Holistic analysis of the global political economy of adaptation with transnational economic and ideational flows, the policy arenas of adaptation, and insights from the participatory 3H workshops, for a sound understanding of enabling conditions for just adaptation pathways in the Global South and North implemented through compelling communication strategies for decision makers and practitioners. • **Dissemination towards the scientific community and policymaking** Scientific publications with the results of the complex models and multilevel cross-sectoral, trans-national network analysis, analysis of the global political economy; policy briefs with summary of study results, policy implications and policy advise, convincing knowledge sharing at side events. • **Communication towards community of practice** Tailored communication products using different languages and different channels (social media, webpages, multipliers), enabling citizen engagement and communication in SSA countries, knowledge sharing and social learning for community of practice through 3H participatory workshops or Global Landscape Forums (GLFs), MOOCs online platform for teaching / learning for students and practitioners.

TARGET GROUPS	OUTCOMES	IMPACTS
• Community of practice • Climate scientists and members from other scientific communities • Policy makers • Adaptation practitioners • Financial institutions • European Commission	• **Maladaptation due to unclear interdependencies and power structures** Understanding the global dimension of domestic adaptation policy arenas and learning loops – international and national decision makers are better informed and understand risks of distal (financial and ideational) flows, specifically what influences these have on adaptation issues in SSA countries. • **Adaptive capacity building and just transition** Policy makers, adaptation practitioners and researchers at all levels (local, national EU and international) have evidence available on effects and risks of maladaptation due to unclear interdependencies and power structures, and alternative pathways are emphasized.	• **Maladaptation due to unclear interdependencies and power structures** Changes in trade and financial structures, based on critical reflection of discursive and power relations for avoidance of maladaptation and more efficient allocation of resources. • **Adaptive capacity building** Positive changes in adaptive capacity of local actors through gain and exchange of knowledge and climate service tools. • **Policy and social learning for just transition** Changes in land use policies and empowerment of local actors and their respective needs based on better informed decisionmaking for alternative pathways to the desired futures.

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3. Quality and efficiency of the implementation #@QUA-LIT-QL@# #@WRK-PLA-WP@#

3.1. Work plan and resources

AdaptNet is organized into **8 work packages** (WPs). The central element of the project consists of the three **3H participatory workshops** (WP1) in the **five case countries**. WP2-WP4 collect data and produce knowledge initially start with these 3H workshops and collect data that feed into the second round of 3H workshops. WP5 and WP6 synthesize and analyse these findings in a broader context (**multilevel governance** and **global political economy**).

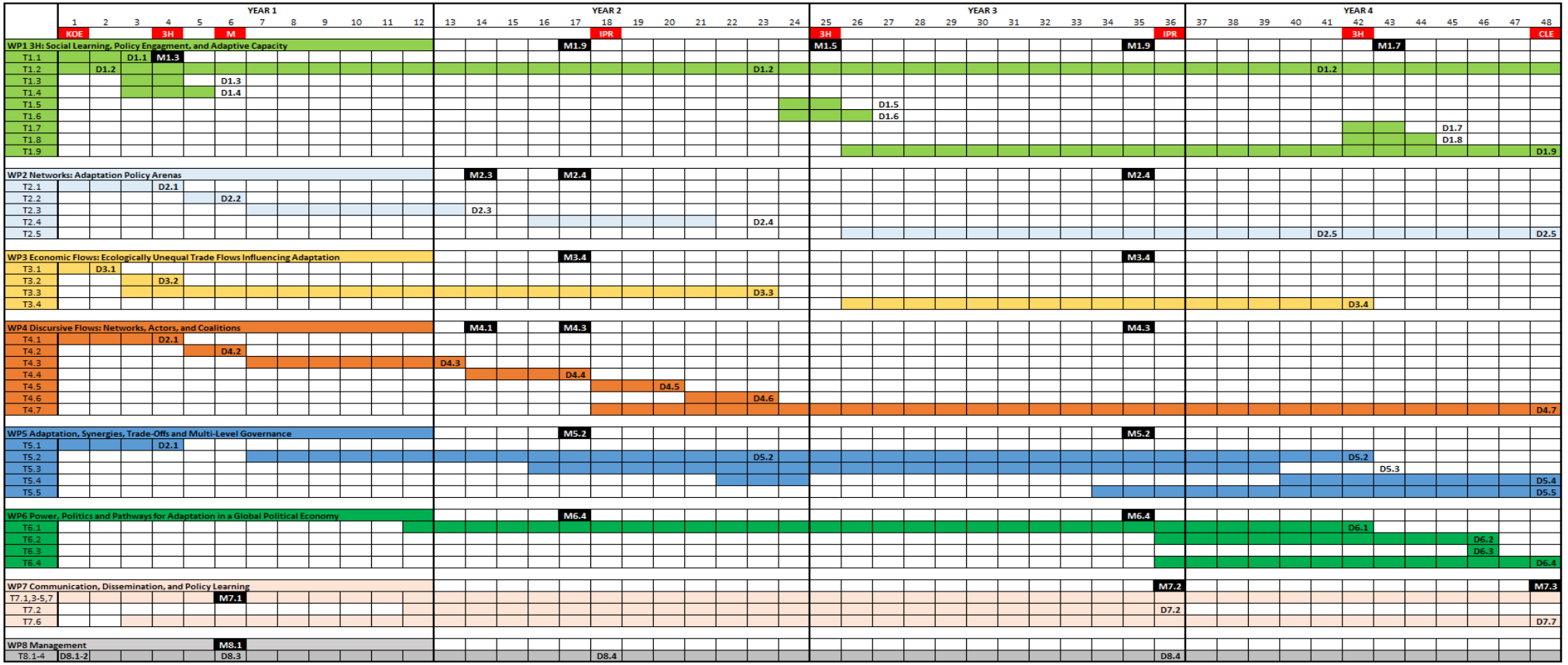

Figure 4: *AdaptNet Gantt chart. D – Deliverable, M – Milestone, T – Task, KOE – Kick-off Event, CLE – Closure Event, 3H – 3H Workshops, IPR – Iterim Progress Report. Note that for some tasks there are multiple deliverables. The project Final Report is not displayed since it will be submitted 1-2 months after the end of the project (M48).*

WP7 accompanies the AdaptNet project with communication, dissemination and exploitation of results tasks. Management (WP8) ensures that everything runs smoothly. The **timeline** of the overall project and the different WPs is shown in the **Gantt chart** (Figure 4). The work of the different WPs is interrelated and WPs operate not in silos and correspond with each other frequently, they share partners and personnel and many tasks are jointly undertaken and rely on inputs from another. Several milestones are defined in the following table, which complement the WP descriptions and deliverables. **Milestones** serve as way markers and together with Key Performance Indicators (**KPIs**) as project management tools. The work plan and resources provide the framework for efficient and successful progress and development of the AdaptNet project

Table 3.1a: List of work packages

WP No	Work Package Title	Lead Participant		Person-Months	Start Month	End month
1	3H: Social learning, policy engagement, and adaptive capacity	1,2	UH, CIFOR	182,5	1	48
2	NETWORKS: Adaptation policy arenas	4, 2	MU, CIFOR	205,8	1	48
3	ECONOMIC FLOWS: Global political economy of adaptation	5, 11	RUG, UP	127,3	1	48
4	DISCURSIVE FLOWS: Networks, actors, and coalitions	3,6	UT, SAUT	143,5	1	48
5	ADAPTATION, SYNERGIES, trade-offs and multi-level governance	10	UNIVLEEDS	91,3	1	48
6	POWER, POLITICS AND PATHWAYS for adaptation in a global political economy	1	UH	81,7	1	48
7	COMMS: Communication, dissemination, upscaling knowledge	1	UH	56,6	1	48
8	MANAGEMENT	1	UH	47,8	1	48
			Total PMs	936,5		

Table 3.1b: Work package description

Work package number	**WP1**	Lead beneficiary	**UH, CIFOR**
Work package title	**3H: Social learning, policy engagement, and adaptive capacity**		

Objectives

The main aim is to **generate new knowledge** and **facilitate processes of learning** in each of the SSA country cases and the corresponding networks in Europe. Specific objectives include: learn and reflect upon adaptation (and maladaptation) policy processes and power structures, the distal economic (e.g., trade & investment) and ideational flows shaping adaptation – the futures envisioned, the present opportunities and constraints across scale constituted by causal loops.

Description of work

Task 1.1 Identification of adaptation issue arenas [M1-M3] (Lead: CIFOR, UH; UJKZ, UG, UP, SAUT, LETS) Country teams identify an initial set of (15-20) actors in the domestic adaptation arena representing different actor groups (state, (I)GOs incl. UN and EU organizations, (E)NGOs, international and domestic private sector, roundtables, professional associations, others) (**D1.1** Adaptation issues list, actors' roster)

Task 1.2 Climate projections [M1-M48] (Lead: UT, SAUT; UJKZ, UG, UP, LETS)

Module 2 (climate projections) develops collaboratively projections on the scales required for developing adaptation solutions and informs 3H workshops I-III. (**D1.2** Climate projections)

Task 1.3 Implementation of first 3H workshop in 5 SSA countries [M3-M4] (Lead: CIFOR, UH; UJKZ, UG, UP, SAUT, LETS and UT, MU, RUG, UNIVLEEDS, SRC)

Country teams implement the first 2-day 3H workshop (3H I) with the initial set of actors, project facilitators and participants to define a) Horizon 1 (business as usual) and identify up to two exemplary multi-level adaptation cases at jurisdictional scale, and the related multi-level actor arena; b) Horizon 3 (most likely future pathway) and c) dissect the 'messy' middle between Horizon 1 and Horizon 3. (**D1.3** Workshop report I focusing on Horizons)

Task 1.4 Social and policy survey with participants [M3-M5] (Lead: CIFOR, UH, RUG; UJKZ, LETS, UG, UP, SAUT)

Initial 'evaluation and learning' survey, including self-evaluations, conducted with participants (beliefs, knowledge sources, tie formation). (**D1.4** Learning survey analysis I)

Task 1.5 Implementation of second 3H workshop [M24-M25] (Lead: CIFOR, UH; UJKZ, UG, UP, SAUT, LETS, and UT, MU, RUG, UNIVLEEDS, SRC)

Country teams implement the second 2-day 3H workshop (3H II) with WP2-4 and domain actors (incl. subnational), to refine a) Horizon 1 (business as usual); b) Horizon 3 (most likely future pathway) and c) initiate based on M3 and WP2-4 inputs Horizon 2 (transformations required for adaptation pathways towards desired future) emerging in 'messy' middle between Horizon 1 and Horizon 3. The participants are shown slides with climate projections, policy networks and distal flows results to facilitate deliberation and learning. (**D1.5.1** Slides projection II, **D1.5.2** Slides findings II, **D1.5.3** Workshop report II focusing on transformations towards desired futures)

Task 1.6 Social and policy learning [M24-M26] (Lead: CIFOR, UH, RUG; UJKZ, LETS, UG, UP, SAUT)

Second 'evaluation and learning' survey, including self-evaluations, conducted with participants to assess learning and change in perceptions, beliefs, sources, tie formation. (**D1.6** Learning survey analysis II)

Task 1.7 Implementation of third 3H workshop [M42-M43] (Lead: CIFOR, UH; UJKZ, UG, UP, SAUT, LETS, and UT, MU, RUG, UNIVLEEDS, SRC)

Implementation of the third 3H workshop (3H III) to reflect transformations for adaptation pathways towards desired futures and critically examine enabling or hindering conditions to unlock just adaptation. The participants are shown slides with climate projections, policy networks and distal flows results to facilitate deliberation and learning. (**D1.7.1** Slides projection III, **D1.7.2** Slides findings III, **D1.7.3** Workshop report III focusing on just adaptation pathways and initial reflections on roadmaps and policy recommendations)

Task 1.8 Social and Policy learning [M42-M44] (Lead: CIFOR, UH, RUG; UJKZ, LETS, UG, UP, SAUT)

Third 'evaluation and learning' survey, including self-evaluations, conducted with participants and domain actors to assess learning progress, change in perceptions, beliefs, sources, tie formation. (**D1.8** Learning survey analysis III)

Task 1.9 Results reporting and dissemination [M26-M48] (**Lead: CIFOR, UH, RUG** and all other partners)

Reporting and disseminating findings through (1) country policy briefs on just adaptation pathways (**D1.9.1**), (2) a working paper on the use of climate modelling for scenario building for future adaptation needs (**D1.9.2**), (3) an academic article assessing social and policy learning (**D1.9.3**).

Task 1.10 Progress reporting [M1-M48] (Lead: CIFOR, UH)

Providing inputs to two Interim progress reports and the Final project report. **(D1.10.1** Input to Interim progress report I, **D1.10.2** Input to Interim progress report II, **D1.10.3** Chapter in the Final project report**)**

Work package number	**WP2**	Lead beneficiary	**MU, CIFOR**
Work package title	**NETWORKS: Adaptation policy arenas**		

Objectives

The main aim is to **examine the climate change adaptation policy arenas** in SSA countries at the **national level**, in order to **understand the complex relational drivers** of adaptation policy-making processes. Specific objectives include: (1) provide national level policy actors with **insights on the adaptation policy arenas**, including its coalition structure, policy brokers and entrepreneurs, and structural holes; (2) support **better-informed policies** by identifying patterns and **bottlenecks** of collaboration relationships and climate services exchange, and (3) **support collaborative governance** by mapping distribution of **adaptation preferences** and identifying the most polarizing ones.

Description of work

Task 2.1 Methods development, training, and data collection protocol (in conjunction with WP4, WP5) [M1-M4] (Lead: MU; UNIVLEEDS; UT)

Development the data collection protocols for the sub-national level (policy document coding on synergies/trade-offs; sub-national policy actor mapping; PNA (climate services, collaborative ties, policy preferences and sectoral focus, key informant interviews) and DNA (actor-concept networks) data. Methods training development on policy documents analysis, policy network analysis (PNA), and discourse network analysis (DNA) with country teams. Identification (in conjunction with 3H Workshops, WP1) of a main sub-national adaptation need (major climate impact in high vulnerability context) and of the associated sub-national jurisdictions (one tier 1 and two tier 2 jurisdictions) for the investigation. (**D2.1.1** Methods protocol, **D2.1.2** Methods training documentation)

Task 2.2 Policy networks questionnaire development [M5-M6] (Lead: MU; CIFOR; UNIVLEEDS; UH; SRC; UJKZ; UG; UP; SAUT; LETS)

The list of organizational actors used in the policy networks questionnaire is defined by country teams and informed by consultations with experts in case countries via interviews and an expert questionnaire and outputs of the first series of the 3H Workshops (T1.3). The policy networks questionnaire includes actors at transnational, national, and

subnational level and follows the design formulated in Task 2.1. (**D2.2** Policy networks questionnaire)
Task 2.3 Data collection [M7-M13] (Lead: MU, CIFOR; UNIVLEEDS; UJKZ; UG; UP; SAUT; LETS)
(1) Policy network questionnaire collects both attribute (e.g., beliefs) and relational data (e.g., collaboration ties) through online surveys or personal interviews; (2) policy documents analysis and expert interviews analysis to provide information on institutional and adaptation context of the adaptation policy area. (**D2.3** Policy networks dataset)
Task 2.4 National-level PNA [M16-M21] (Lead: MU, CIFOR; UNIVLEEDS; UJKZ; UG; UP; SAUT; LETS)
Examining national adaptation policy arenas by using (1) PNA at the individual, network, and sub-group levels (2) content analysis of policy documents and expert interviews. The slides summarizing analysis will be shown to stakeholders in the 3H Workshop II. Attention will be given to mapping the policy networks and advocacy coalitions structures – who participates and who decides in policymaking processes related to adaptation. (**D2.4.1** Report on national adaptation policy arenas; **D2.4.2** 3H Workshop II PNA slides)
Task 2.5 Comparative PNA [M26-M48] (Lead: MU, CIFOR; UNIVLEEDS; UJKZ; UG; UP; SAUT; LETS)
Comparing national adaptation policy arenas across case countries by using PNA at the individual, network, and sub-group levels. The slides summarizing analysis will be shown to stakeholders in the 3H Workshop III. Attention will be given to through what mechanisms (how) the policy networks and advocacy coalitions shape (mal)adaptation processes. (**D2.5.1** 3H Workshop III PNA slides; **D2.5.2** Academic article draft)
Task 2.6 Progress reporting [M1-M48] (Lead: MU, CIFOR)
Providing inputs to two Interim progress reports and the Final project report. **(D2.6.1** Input to Interim progress report I, **D2.6.2** Input to Interim progress report II, **D2.6.3** Chapter in the Final project report**)**

Work package number	**WP3**	Lead beneficiary	**RUG, UP**
Work package title	**ECONOMIC FLOWS: Global political economy of adaptation**		

Objectives
The main aim of WP3 is to develop, across both regions, an extended modeling approach, which will be used in participatory 3H workshops, to co-develop with stakeholders a number of potential future scenarios pertaining to adaptation in the context of ecological unequal exchanges occurring in global trade networks. Specific objectives include: (1) **inform national-level policy actors** of past and current global trade trends, and their direct and indirect environmental impacts, within the context of Ecological Unequal Exchange theory; (2) **combine insights** from longitudinal multiregional input output (MRIO) data and models with FABLE outputs; (3) **capture**, at sectoral detail, the **feedback loops** of tele-coupled systems, i.e. how consumption in one country (e.g. Global North) can trigger environmental impacts in another (e.g. Global South); (4) provide local and national level policy actors insights into the **economic and land-use requirements** of potential adaptation scenarios; (5) provide policy actors **roadmaps of adaptation strategies**, calling attention to the impacts to land and economic sectors of those strategies; (6) **support better-targeted policies**, at the local and national level, regarding the economic and environmental impacts and trade-offs for transitioning to a more adaptative, resilient society.

Description of work
Task 3.1 Set up the EEMRIO and FABLE models [M1-M2] (Lead: RUG, UP; UH; SRC; UNIVLEEDS; UJKZ; UG; SAUT; LETS)
Two models will be organized and a clear plan of integration will be created. (1) MRIO model: the RUG team will organize the EEMRIO dataset; develop simple power point slides to communicate the EEMRIO approach to stakeholders for the first 3H workshop; and communicate with the UP team about how FABLE outputs can be brought into MRIO as inputs for modeling purposes. (2) FABLE: the UP team will organize the FABLE calculator, develop simple PowerPoint slides to communicate the FABLE approach to stakeholders for the first 3H workshop; and communicate with the EEMRIO team about coordinating model outputs to the EEMRIO analysis. (**D3.1.1** EEMRIO dataset, **D3.1.2** FABLE dataset, **D3.1.3** EEMRIO-FABLE slides)
Task 3.2 Gain inputs from stakeholders from first 3H workshop [M3-M4] (Lead: RUG, UP; UH; SRC; UNIVLEEDS; UJKZ; UG; SAUT; LETS)
The slides developed in T3.1, combined with other work package materials via WP6, will first be shown to all Consortium partners for feedback, before being shown to stakeholders in the first 3H workshop. Here, members of the RUG and UP teams will be present to answer any questions from stakeholders about these models. In addition, the demonstration will show some exemplary scenarios drawn from past research, for example, how consumption in the EU has been shown to impact land and water use in African countries. Following this demonstration, RUG and UP partners will seek inputs from stakeholders on what kinds of scenarios they would like to explore, e.g., how CAP or EU Green Deal policies might impact their home environments and economies, or other potential scenarios. (**D3.2** Slides summary for 3H I)

Task 3.3 Develop scenarios for second 3H workshop [M3-M23] (Lead: RUG, UP; UH; SRC; UNIVLEEDS; UJKZ; UG; SAUT; LETS)
Based on stakeholder inputs from the first 3H meeting, an initial round of scenarios, using the EEMRIO-FABLE approach will be generated, to show to the second 3H workshop. The slides will be shown to stakeholders in the second 3H workshop, incorporating stakeholder feedback from T3.2. Attention will be given to the global trade networks, global commodity flows, and unequal wealth/environmental impacts shown. RUG and UP partners will be present to answer any questions stakeholder may have. In addition, stakeholders may suggest additional scenarios to be modelled for the final 3H workshop. (**D3.3.1** EEMRIO-FABLE model, **D3.3.2** EEMRIO-FABLE slides, **D3.3.3** Academic article, **D3.3.4** Policy brief, **D3.3.5** Slides summary for 3H II)
Task 3.4 Develop scenarios for third 3H workshop [M26-M42] (Lead: RUG, UP; UH; SRC; UNIVLEEDS; UJKZ; UG; SAUT; LETS)
Based on stakeholder inputs from the second 3H meeting, a second round of scenarios, using the EEMRIO-FABLE approach will be generated, to show to the third 3H workshop. The **slides** will be shown to stakeholders in the third (final) 3H workshop. Attention will be given to the global trade networks, global commodity flows, and unequal wealth/environmental impacts shown. RUG and UP partners will be present to answer any questions stakeholder may have. In addition, all will participate in developing a final **roadmap** (policy recommendation). (**D3.4.1** EEMRIO-FABLE updated model, **D3.4.2** Slides summary EEMRIO-FABLE results for 3H III, **D3.4.3** Academic article, **D3.4.4** Policy brief, **D3.4.5** Academic article, **D3.4.6** Policy brief)
Task 3.5 Progress reporting [M1-M48] (Lead: RUG, UP)
Providing inputs to two Interim progress reports and the Final project report. **(D3.5.1** Input to Interim progress report I, **D3.5.2** Input to Interim progress report II, **D3.5.3** Chapter in the Final project report**)**

Work package number	**WP4**	Lead beneficiary	**UT, SAUT**
Work package title	**DISCURSIVE FLOWS: Networks, actors, and coalitions**		

Objectives
The main focus is on the **discursive flows** when it comes to adaptation policy issues on the **national and the trans-national levels** since adaptation measures are approached very differently, depending on the discursive negotiations and beliefs of policy actors within diverse adaptation policy arenas. The specific objective is to analyse, from a discursive angle, the different actors' constellation, discursive negotiation processes and influential ideas that shape adaptation policy decisions within and between the countries.

Description of work
Task 4.1 Methods development, training, and data collection protocol (in conjunction with WP2, WP5) [M1-M4] (Lead: MU; UNIVLEEDS; UT)
Development the data collection protocols for the sub-national level (policy document coding on synergies/trade-offs; sub-national policy actor mapping; PNA (climate services, collaborative ties, policy preferences and sectoral focus, key informant interviews) and DNA (actor-concept networks) data. Methods training development on policy documents analysis, policy network analysis (PNA), and discourse network analysis (DNA) with country teams. (**D2.1.1** Methods protocol, **D2.1.2** Methods training documentation)
Task 4.2 Coding scheme preparation [M5-M6] (Lead: UT; SAUT; UJKZ; LETS; UG; UP)
Based on literature review and knowledge gained from 3H workshops a deductive coding scheme will be prepared. Pre-test coding will be conducted and the coding scheme will be adapted in an iterative and inductive process. (**D4.2** Codebook)
Task 4.3 National media DNA data collection [M7- M13] (Lead: UT; SAUT; UJKZ; LETS; UG; UP)
Preparation and selection of suitable text sources and media outlets and time frame for each of the five case countries, coordination between the teams to ensure comparability of cases. Selection of keywords to select text sources for coding in coordination with the other teams. Start of the coding and shared codebooks, iterative coding process. Data collection of the country teams will be checked regarding consistency, inter-coder reliability checks, consultation in case of differences in coding, etc. to ensure highest possible data quality. (**D4.3** DNA National media data)
Task 4.4 DNA of national media discourses [M14-M17] (Lead: UT, SAUT; UJKZ; LETS; UG; UP)
National level discourse network analysis with first findings is reported in a working paper for each country. The slides summarizing analysis will be shown to stakeholders in the 3H Workshop II. Attention will be given to how the dominant national discourses shape (mal)adaptation processes and (de)legitimize unequal wealth/environmental impacts. (**D4.4.1** DNA draft working paper; **D4.4.2** 3H Workshop II DNA slides).
Task 4.5 Transnational DNA data collection (discursive flows) **[M18-M20] (Lead: UT; SAUT**)
Preparation of data collection of the trans-national discursive flows. Literature review of relevant studies such as trans-

national (distal) flows. Consultation with the WP1 and WP2 teams to identify and select respective text sources, keywords, time frame. Data coding process with iterative coding procedure (deductive and inductive coding). (**D4.5** DNA Transnational data)

Task 4.6 DNA of transnational discursive flows [M21-M23] (Lead: UT, SAUT)

Analysis of trans-national discursive flows. The slides summarizing analysis will be shown to stakeholders in the 3H Workshop II. Attention will be given to how the discursive flows shape (mal)adaptation processes and (de)legitimize unequal wealth/environmental impacts. (**D4.6.1** DNA extended working paper draft; **D4.6.2** 3H Workshop II DNA flows slides).

Task 4.7 Cross-case comparison of DNA [M18-M48] (Lead: UT, SAUT; UJKZ, LETS, UG, UP)

Country comparison will we conducted together with the country teams and published. The slides summarizing analysis will be shown to stakeholders in the 3H Workshop II. Attention will be given to how media discourses and discursive flows across countries shape (mal)adaptation processes and (de)legitimize unequal wealth/environmental impacts. Policy briefs for decisionmakers will be prepared. (**D4.7.1** 3H Workshop III DNA slides; **D4.7.2** Policy brief, **D4.7.3** Academic article)

Task 4.8 Progress reporting [M1-M48] (Lead: UT, SAUT)

Providing inputs to two Interim progress reports and the Final project report. **(D4.8.1** Input to Interim progress report I, **D4.8.2** Input to Interim progress report II, **D4.8.3** Chapter in the Final project report**)**

Work package number	**WP5**	Lead beneficiary	**UNIVLEEDS**
Work package title	**ADAPTATION, SYNERGIES, trade-offs and multi-level governance**		

Objectives

The main aim is to inform policy actors at multiple levels of governance of the opportunities and challenges to achieve climate change integration in policy and practices and to **improve cross-level coordination of climate change adaptation policy** decision-making processes and outcomes. Specific objectives include: (1) inform national level policy processes of the opportunities to **enhance synergies and address trade-offs** between climate change adaptation, mitigation and development objectives; (2) provide information to policy actors from the national to local levels in the five country cases about major bottlenecks and opportunities to **enhance collaborative processes in multi-level governance (MLG)** in relation to specific climate change adaptation needs; (3) **support climate change adaptation decision-making processes** across levels of governance regarding integration of adaptation policies and practice across sectors; draw insights from cases and comparative analysis of the five country cases to inform decision-making processes for **improved pathways for climate resilient development**.

Description of work

Task 5.1 Methods development, training, and data collection protocol (in conjunction with WP2) [M1-M4] (Lead: MU; UNIVLEEDS; UT)

Development the data collection protocols for the sub-national level (policy document coding on synergies/trade-offs; sub-national policy actor mapping; PNA (climate services, collaborative ties, policy preferences and sectoral focus, key informant interviews) and DNA (actor-concept networks) data. Methods training development on policy documents analysis, policy network analysis (PNA), and discourse network analysis (DNA) with country teams. Identification (in conjunction with 3H Workshops, WP1) of a main sub-national adaptation need (major climate impact in high vulnerability context) and of the associated sub-national jurisdictions (one tier 1 and two tier 2 jurisdictions) for the investigation. (**D2.1.1** Methods protocol, **D2.1.2** Methods training documentation)

Task 5.2 Climate policy integration analysis [M7-M42] (Lead: UNIVLEEDS; CIFOR; UT; MU; SAUT; UJKZ; LETS; UG; UP)

Climate policy integration analysis (identification of synergies and trade-offs between adaptation, mitigation and economic development objectives across levels of governance) in relation to current responses to one pressing local level climate change adaptation need identified in H3 workshops (WP1) in one selected geographic region. The analysis is based on policy document analysis, policy network survey data. (**D5.2** Policy integration brief)

Task 5.3 Multi-level policy network analysis [M16-M39] (Lead: UNIVLEEDS; CIFOR; UT; MU; SAUT; UJKZ; LETS; UG; UP)

Analysis of policy network processes across selected local jurisdictions (local to national level). It investigates climate service information, collaborative interactions and policy preference supporting or impeding synergies/trade-offs in policy implementation. The assessment of barriers focuses on cross-level power differentials, coalition building and institutional mismatches. (**D5.3** Report on synergies)

Task 5.4 Input into building locally appropriate future climate resilient pathways [M22-M24 and M40-M48] (Lead: UNIVLEEDS; UH, CIFOR)

Findings of T5.2 and T5.3 will be used as input for 3H Workshops 2 and 3 contributing to co-production of locally appropriate climate resilient pathways that recognise and try to mitigate trade-offs and enhance synergies across climate adaptation, mitigation and development goals. The findings will be reported in an academic article draft. (**D5.4.1** Academic article, **D5.4.2** 3H Workshop II synergies slides, **D5.4.3** 3H Workshop III synergies slides)

Task 5.5 Comparative multi-level policy network analysis [M34-M48] (Lead: UNIVLEEDS; CIFOR; RUG; UT; MU; SAUT; UJKZ; LETS; UG; UP; UH)

This task involves a cross-country comparison of multi-level climate change adaptation policy networks resulting from T5.2 and T5.3. It will involve a comparative policy network analysis across the five country cases. Output will inform ongoing policy processes at various levels of governance. (**D5.5.1** Report on MLG, **D5.5.2** Policy brief on synergies and MLG, **D5.5.3** Academic article)

Task 5.6 Progress reporting [M1-M48] (Lead: UNIVLEEDS)

Providing inputs to two Interim progress reports and the Final project report. **(D5.6.1** Input to Interim progress report I, **D5.6.2** Input to Interim progress report II, **D5.6.3** Chapter in the Final project report**)**

Work package number	**WP6**	Lead beneficiary	**UH**
Work package title	**POWER, POLITICS AND PATHWAYS for adaptation in a global political economy**		

Objectives

The main aim is to develop, through a comparative perspective, a **sound understanding of enabling conditions** for just adaptation pathways in the Global South and North and **communicate these effectively** to decision makers and practitioners. The comparative analysis assesses the economics, the politics, and discourses to highlight how proposed pathways enable adaptation to climate change in one place but limit it in another - or that enable adaptation for one social group yet thereby constrain another. Here, we bring together the insights of previous work packages, alongside the insights from actors across levels, to develop a **series of roadmaps and policy pathways**. Policy makers at all levels are informed about potential outcomes of current adaptation policies and preferences across levels and are able to decide for effective, efficient and equitable adaptation pathways. They have policy recommendations, which also reflects the insights of actors in the diverse adaptation arenas.

Description of work

Task 6.1 QCA Case construction [M12-M42] (Lead: UH; all other partners)

Theorising and identifying relevant factors and define outcome in up to 15 cases (1 national domain and up to 2 subnational domains per case country) enabling change for just adaptation pathways towards desired futures based on input from all work packages and informed by WP1 3Horizon workshops. (**D6.1** QCA dataset)

Task 6.2 Analysis [M36-M46] (Lead: UH; all other partners)

Analysing data from cases using QCA protocols in R. (**D6.2** QCA analysis)

Task 6.3 Writing workshop (hybrid) with WP and country case leaders [M46] (Lead: UH; all other partners)

Verification of initial analysis results and writing up enabling and hindering conditions summarized in an article draft identifying roadmaps and overarching policy recommendations. (**D6.3** Academic article)

Task 6.4 Reporting key findings to scale up policy learning for just pathways of adaptation [M36-M48] (Lead: UH; all other partners)

Engaging of project members and 3H participants in national and international policy and knowledge sharing events to provide policy recommendations for roadmaps towards just futures based on analysis of enabling and hindering conditions. Publishing policy briefs targeted at decisionmakers and practitioners in international and regional and national policy events (UNFCCC COPs, Climate Action days, etc). (**D6.4.1** Policy paper providing case and event-specific policy recommendations, **D6.4.2** Policy briefs)

Work package number	**WP7**	Lead beneficiary	**UH**
Work package title	**COMMS: Communication, dissemination, upscaling knowledge**		

Objectives

The main aim is to **ensure high visibility** of AdaptNet and to **facilitate learning and knowledge sharing** through reaching a broad range of different target groups (civil society and people “on the ground”, interested public audience, students, university lecturers, other scientists). We will establish different communication channels and use different tools. We focus on enhancing social and policy learning between different civil society actors and researchers, for intercultural and interdisciplinary exchange, cross-fertilization and sharing of different types of knowledge. The results of AdaptNet’s activities will be disseminated to the general public and we apply principles of engagement, involvement of civil society, empowerment and open science throughout all our activities for a lasting impact beyond the project period.

Description of work

Task 7.1 Webpage, logo and social media appearance [M1-48] (Lead: UH; all other partners)

Webpage will be created with basic information about the research project, and blog posts about different topics are regularly posted to different outlets. Corporate design and a meaningful logo will support the visibility of the project and ensure a professional, consistent visual appearance of the project across all outreach activities. Social media activities will be performed by country teams and will cover adaptation topics from the project and related information. (**D7.1** Plan for Dissemination and Exploitation (PDEC), **D7.2** Interim report on Communication and Dissemination (CD), **D7.3** Final report on CD)

Task 7.2 Global Landscape Forums [M12-36] (Lead: UH; all other partners)

The GLFs are large-scale hybrid events that bring together stakeholders from across sectors and regions to discuss AdaptNet findings and recommendations on emerging adaptation issues and share their experiences in implementing adaptation strategies and provide a platform for participants to learn from each other, exchange best practices, and build partnerships for collaborative action. We plan 1 GLF package in year 3 (climate) and 1 in year 4 (Africa). Additionally, we will establish communities of practice focused on adaptation in different sectors including forestry, agriculture, and landscapes within the GLF platform. (**D7.2** Report on GLF)

Task 7.3 MOOCs for students, researchers, and practitioners [M1-48] (Lead: UH; all other partners)

Freely available MOOCs (massive open online course) for all interested participants will be organized and local country teams will be supported and trained. (**D7.3** MOOCs)

Task 7.4 Translating science to action [M1-48] (Lead: UH; all other partners)

AdaptNet will disseminate and communicate results by short videos on social media and on the project webpage. We will also map all the relevant events (COPs, EU science2policy workshops, national events regarding adaptation issues) that we plan to cover during the project period. For these events we plan to provide info materials for sharing our findings (such as factsheets, policy-briefs, infographics), also in different languages. AdaptNet will also aim to have a significant presence at European Climate Change Adaptation conferences through organizing side events to disseminate and communicate project results. (**D7.1** PDEC)

Task 7.5 Research findings prepared and summarized for politics [M1-48] (Lead: UH; all other partners)

Communication of research related topics in policy briefings for EU commission and parliament, but also national and local policy actors. Policy briefs (in different languages: Czech, Dutch, English, Finnish, French, German, Swahili) for domestic advisory committees and policymaker with key findings. (**D7.1** PDEC)

Task 7.6 Exploitation of results plan [M1-48] (Lead: UH; all other partners)

A specific exploitation of results plan (D7.1 PDEC) with concrete deliverables will be prepared and updated throughout the project, culminating in a final report with post-project plans. This task will be carried out in close cooperation with the coordination and data management tasks in WP8. (**D7.6.1** Interim report on exploitation activities (EA), **D7.6.2** Final report on EA)

Work package number	**WP8**	Lead beneficiary	**UH**
Work package title	**MANAGEMENT**		

Objectives

The main aim is to **manage effective implementation of the AdaptNet project**, ensure that all objectives are met, support successful collaboration and establish high standards and quality, and enable innovation action for building adaptive capacity and just transition for our SSA partner countries. Specific objectives include: (1) **coordination of the consortium**, ensuring timely fulfilment of scientific objectives and requirements of the Grant Agreement; (2) management of all legal, financial and administrative issues; (3) ensuring compliance of non-EU partners with the HE rules and practices; (4) provision of continuous risk management and risk-mitigation measures; (5) management of the cross-cutting issues of data management, ethics, open science practices, IPR, etc. including continuous assistance to the non-EU partners.

Description of work

Task 8.1 General coordination [M1-48] (Lead: UH; all other partners)

The **Coordinator** manages the whole consortium, is responsible for project level obligations and agreements, organises physical and on-line meetings, keeps track of decisions taken, and implements them into practice. The Coordinator also enables constant communication between Partners, and between the project and the European Commission. The decision-making body includes the **General Assembly** (lead PI of each beneficiary, authorized to make decisions on behalf of their institution), chaired by the Scientific Coordinator. General Assembly meetings will occur annually to discuss major decisions regarding project strategy, allocation of the budgets in accordance with the contract, any changes in the consortium etc. Possible conflicts are dealt with according to the respective provisions of

the Consortium Agreement. A **Project Manager** will be selected by the GA and appointed at UH to oversee the non-scientific and technical aspects of the project.
AdaptNet plans two **in-person meetings of the consortium**: a kick-off meeting in Europe (to be determined) and closure meeting in SSA (location to be determined). Other meetings are planned, if possible, online to reduce costs and to limit CO2 footprints of our project. The annual project meetings will involve all participants and the SSC (see T8.2). The WP participants report their progress during the plenary meetings and develop plans in break-out sessions. Annual AdaptNet meetings are combined with workshops, if possible. The locations for the in-person meetings will be selected mainly regarding reachability by train or direct flight for most of the partners. (**D8.1.1** Management structures, **D8.1.2** Minutes kick-off meeting, **D8.1.3** Data management plan (DMP), **D8.1.4** Interim progress report I, **D8.1.5** Interim progress report II)

Task 8.2 Scientific coordination [M1-48] (Lead: UH; all other partners)

The **Scientific Coordinator** (UH) has the overall responsibility of project implementation and scientific management. She will oversee work in all of the work packages, supported by a **Scientific Steering Committee (SSC)** consisting of WP leaders, as well as the Coordinator. The main responsibility of the SSC is to ensure the successful management and organisation of the AdaptNet project, including monitoring progress and reporting of the project's deliverables, managing risks, communicating/consulting with GA when necessary, and ensuring overall coherence of work. The SSC will be responsible for organizing input to the EC. The SSC will meet at the annual project meeting as well as monthly online. In addition, each country case study will be supervised by a lead researcher who will be responsible for training and performance of PhD candidates involved. (**D8.2.1** General Assembly minutes, **D8.2.2** External Advisory Board recommendations)
We define 5 KPIs that will guide the SSC in its assessment of the project's progress, which will be evaluated during the project and discussed at the annual project meetings, if needed redefined and updated. Two reports of the KPIs are planed (**D8.2.3** and **D8.2.4** KIP reports I and II) and will be included in the project reporting to the EC.

KPI1: Measure the social learning process and developed participatory 3H approach (WP1) through quality assessment with respective measures such as process evaluation, perceived gain in knowledge, perceived increase in confidence for future adaptation pathways, reduction of perceived uncertainty (quantitative, qualitative).

KPI2: Self-evaluation of the 3H workshops by the involved scientists and partners through quality assessment with respective measures such as perceived ability to reduce complexity and translate scientific findings to participants, perceived activity of the participants, (un)successful strategies (quantitative, qualitative).

KPI3: Measure internal processes and functioning of project management structures through interviews with selected scientists in the WPs where follow-up actions are published and internal processes are reassessed at the next project assessment stage (quantitative, qualitative).

KPI4: Measure the early career development by elevating at least two postdocs to lead WP tasks and encourage especially female early career scientists to take over leading roles.

KPI5: Measure engagement and activity of the involved scientists by selected interviews or in case of an event; to ensure full engagement and prevent research fatigue and to find counter measures for individual cases and if the problem is more frequent than discuss / eliminate the source if possible.

Task 8.3 Financial management [M1-48] (Lead: UH; all other partners)

Financial issues will be handled by the specialized units in all partner institutions, overseen and coordinated by the Project Manager. The Project Manager ensures fulfilment of financial obligations, monitors the project spending and progress, prepares partners for periodic reporting, and compiles the reports. The Coordinator provides a support service to ensure the non-EU partners comply with the HE rules and practices and are provided with timely advice to solve all implementation-related problems.

Task 8.4 Management of cross-cutting issues [M1-48] (Lead: UH; all other partners)

The Scientific Coordinator will oversee management of cross-cutting fields such as data management, ethics, open science and IPR, under the guidance of research support staff at UH. An internal **Gender Action Plan (GAP) (D8.4)** will be drafted to ensure that a gender-sensitive approach will be followed in our activities, through (1) ensuring gender equity in the consortium (we have an unusually high percentage of female scientist and WP leads), (2) increasing the number of women in science, by encouraging gender action in hiring the PhDs and Postdocs and other research and development activities, and (3) providing gender-sensitive coaching and mentoring of female scientists. The GAP, which contains all activities and the management of gender equality, will be frequently updated. The aim of this GAP is to increase visibility of female and non-cisgendered scientists, develop possibilities to support scientists with small children to participate, family unfriendly circumstances are avoided, invite women to scientific and organizing committees.

Table 3.1c: List of Deliverables

Num.	Deliverable name	Short description	WP	Lead	Type	Diss. level	Delivery date
D1.1	Adaptation issues list, actors' roster	Selected jurisdictional/subnational adaption issues; Full actor roster for multi-level adaptation arena	WP1	MB, HD	R, DATA	PU	M3
D1.2	Climate projections	Module 2 (climate projections) develops collaboratively projections and informs 3H workshops I-III.	WP1	KR, NN	DATA	PU	M21
D1.3	Workshop report I focusing on Horizons	Report on identified conditions affecting adaptation (messy middle between H1 and H3)	WP1	MB, HD	R	PU	M6
D1.4	Learning survey analysis I	Report on findings from evaluation to assess learning and inform next workshop design	WP1	MB, HD	R	PU	M6
D1.5.1	Slides projection II	Knowledge tool (ppt) to share projection for Workshop II	WP1	MB, HD	DEM	PU	M21
D1.5.2	Slides findings II	Knowledge tool (ppt) to share findings for Workshop II	WP1	MB, HD	DEM	PU	M21
D1.5.3	Workshop report II	Workshop report II focusing on transformations towards desired futures. Knowledge tool (ppt) to share projection	WP1	MB, HD	DEM	PU	M27
D1.6	Learning survey analysis II	2nd Learning survey analysis. Knowledge tool (ppt) to share findings.	WP1	MB, HD	DEM	PU	M27
D1.7.1	Slides projection III	Knowledge tool (ppt) to share projection for Workshop III	WP1	MB, HD	DEM	PU	M40
D1.7.2	Slides findings III	Knowledge tool (ppt) to share findings for Workshop III	WP1	MB, HD	DEM	PU	M40
D1.7.3	Workshop report III	Workshop report III focusing on just adaptation pathways and initial reflections on roadmaps and policy recommendations.	WP1	MB, HD	R	PU	M45
D1.8	Learning survey analysis III	3rd Learning survey analysis Report on findings from evaluation to assess learning and inform next workshop design	WP1	MB, HD	R	PU	M45
D1.9.1	Policy brief	At least 1 policy brief in each country highlighting just adaptation pathways and roadmaps to desired adaptation futures that acknowledge the wider structures and flows constraining and enabling adaptation	WP1	MB, HD	R	PU	M48
D1.9.2	Working paper	At least 1 climate modelling working paper on advancing methods for scenario building for future adaptation needs	WP1	KR, NN	R	PU	M48
D1.9.3	Academic article	At least 1 academic article assessing social and policy learning related to tie formation and changing perceptions/beliefs	WP1	CP, OS	R	PU	M48

D1.10.1	Input to Interim progress report I	Providing input (Workshop I reflection) to the project Interim progress report I	WP1	MB, HD	R	PU	M17
D1.10.2	Input to Interim progress report II	Providing input (Workshops I and II reflection) to the project Interim progress report II	WP1	MB, HD	R	PU	M35
D1.10.3	Chapter in the Final project report	Submitting chapter on policy and social learning and just adaptation pathways.	WP1	MB, HD	R	PU	M48
D2.1.1	Methods protocol	Protocol for data collection and processing used in WP2,4,5	WP2	PO, MK	DEM	PU	M4
D2.1.2	Methods training documentation	Materials (slides, codes) and documentation (photos) from the Methods school	WP2	PO, MK	DEM	PU	M4
D2.2	Policy networks questionnaire	Questionnaire for data collection within adaptation policy arenas across transnational, national, subnational levels (used in WP2 and WP5)	WP2	PO, MK	OTHER	PU	M6
D2.3	Policy networks dataset	Dataset including network and attribute data for all 5 case countries.	WP2	PO, MK	DATA	PU	M14
D2.4.1	Report on national adaptation policy arenas	Summary report including PNA results for Burkina Faso, Cameroon, Ghana, South Africa, Tanzania	WP2	PO, MK	R	PU	M23
D2.4.2	3H Workshop II PNA slides	Slides summarizing country-level PNA findings to be presented to Workshop II participants	WP2	PO, MK	DEM	PU	M21
D2.5.1	3H Workshop III PNA slides	Slides summarizing comparative PNA findings to be presented to Workshop III participants	WP2	PO, MK	DEM	PU	M40
D2.5.2	Academic article	Academic article examining advocacy coalitions and their influence over adaptation across case countries.	WP2	PO, MK	R	PU	M48
D2.6.1	Input to Interim progress report I	Providing input (case study drafts) to the project Interim progress report I	WP2	PO, MK	R	PU	M17
D2.6.2	Input to Interim progress report II	Providing input (case study drafts) to the project Interim progress report II	WP2	PO, MK	R	PU	M35
D2.6.3	Chapter in the Final project report	Submitting chapter on adaptation policy arenas in case countries and comparative perspective.	WP2	PO, MK	R	PU	M48
D3.1.1	EEMRIO dataset	EEMRIO dataset capturing inter-regional trade flows driven by consumption patterns	WP3	CP, OS	DATA	PU	M2
D3.1.2	FABLE dataset	FABLE dataset capturing agricultural production and land use to model land-use change	WP3	CP, OS	DATA	PU	M2
D3.1.3	EEMRIO-FABLE slides	Slides demonstrating, to stakeholders how FABLE and EEMRIO models will work	WP3	CP, OS	DEM	PU	M2

		together to deliver scenarios will be produced. These slides, moreover, will be handed to WP6, where they will be integrated with other stakeholder materials.					
D3.2	Slides summary for 3H I	Slides summarizing inputs from stakeholders on what kinds of scenarios they would like to explore	WP3	CP, OS	DEM	PU	M3
D3.3.1	EEMRIO-FABLE model	MRIO-FABLE outcomes for all countries involved	WP3	CP, OS	DATA, R	PU	M23
D3.3.2	Slides with EEMRIO-FABLE results	Slides prepared, that summarize EEMRIO-FABLE results, for second H workshop, and combined with slides developed in D3.2	WP3	CP, OS	DEM	PU	M23
D3.3.3	Academic article	Academic article based on D3.3.1 written	WP3	CP, OS	R	PU	M23
D3.3.4	Policy brief	Policy brief based on D3.3.1 written	WP3	CP, OS	R	PU	M23
D3.3.5	Slides summary for 3H II	Slides summarizing insights and requests of stakeholders from second H workshop	WP3	CP, OS	DEM	PU	M41
D3.4.1	EEMRIO-FABLE updated model	MRIO-FABLE updated outcomes for all countries involved	WP3	CP, OS	DATA, R	PU	M23
D3.4.2	Slides summary EEMRIO-FABLE results for HIII	Slides prepared, that summarize EEMRIO-FABLE results, for third H workshop, and combined with slides developed in D3.3.5	WP3	CP, OS	DEM	PU	M41
D3.4.3	Academic article	Academic article based on D3.4.1 written	WP3	CP, OS	R	PU	M41
D3.4.4	Policy brief	Policy brief based on D3.4.1 written	WP3	CP, OS	R	PU	M41
D3.4.5	Academic article	Academic article that synthesizes and compares insights from D3.3.3 and D3.4.3	WP3	CP, OS	R	PU	M48
D3.4.6	Policy brief	Policy brief that synthesizes and compares insights from D3.3.3 and D3.4.5	WP3	CP, OS	R	PU	M48
D3.5.1	Input to Interim progress report I	Providing input (EEMRIO-FABLE integration) to the project Interim progress report I	WP3	CP, OS	R	PU	M17
D3.5.2	Input to Interim progress report II	Providing input (EEMRIO-FABLE results) to the project Interim progress report II	WP3	CP, OS	R	PU	M35
D3.5.1	Chapter in the Final project report	Chapter on economic distal flows impacts on (map)adaptation in case countries	WP3	CP, OS	R	PU	M48
D4.2	Codebook	Coding scheme and codebook	WP4	MN, DK	OTHER	PU	M6
D4.3	DNA National media data	DNA national data collection	WP4	MN, DK	DATA	PU	M14
D4.4.1	DNA draft working paper	Case country DNA working paper drafts	WP4	MN, DK	R	PU	M18

D4.4.2	3H Workshop II DNA slides	3H Workshop II slides with input on national discourses	WP4	MN, DK	DEM	PU	M29
D4.5	DNA Transnational data	Data collection discursive flows	WP4	MN, DK	DATA	PU	M20
D4.6.1	DNA extended working paper draft	DNA working paper extended by findings on discursive flows	WP4	MN, DK	R	PU	M23
D4.6.2	3H Workshop II DNA flows slides	3H Workshop II slides with input on discursive flows	WP4	MN, DK	DEM	PU	M23
D4.7.1	3H Workshop III DNA slides	3H Workshop III slides with input on comparative DNA	WP4	MN, DK	R	PU	M45
D4.7.2	Policy brief	Policy briefs on ideational influence	WP4	MN, DK	R	PU	M45
D4.7.3	Academic article	Academic article examining discursive flows	WP4	MN, DK	R	PU	M45
D4.8.1	Input to Interim progress report I	Providing input (national media discourse) to the project Interim progress report I	WP4	MN, DK	R	PU	M17
D4.8.2	Input to Interim progress report II	Providing input (discursive flows) to the project Interim progress report II	WP4	MN, DK	R	PU	M35
D4.8.3	Chapter in the Final project report	Submitting chapter on national media discourses and discursive flows.	WP4	MN, DK	R	PU	M48
D5.2	Policy integration brief	Materials for 3H workshop input: Policy	WP5	MDG	R	PU	M24
D5.3	Report on synergies	Reporting on climate policy integration: extensive report	WP5	MDG	R	PU	M27
D5.4.1	Academic article	Reporting on climate policy integration: Draft of academic publication(s) on climate policy integration.	WP5	MDG	R	PU	M42
D5.4.2	3H Workshop II synergies slides	3H Workshop II slides with input on adaptation synergies	WP5	MDG	DEM	PU	M23
D5.4.3	3H Workshop III synergies slides	3H Workshop III slides with input on adaptation synergies	WP5	MDG	DEM	PU	M45
D5.5.1	Report on MLG	Report on multi-level policy network governance country cases.	WP5	MDG	R	PU	M39
D5.5.2	Policy brief on synergies and MLG	Policy brief on synergies and MLG	WP5	MDG	R	PU	M45
D5.5.3	Academic article	Comparative multi-level policy network integration	WP5	MDG	R	PU	M48
D5.6.1	Input to Interim progress report I	Providing input (policy integration) to the project Interim progress report I	WP5	MDG	R	PU	M17
D5.6.2	Input to Interim progress report II	Providing input (MLG and synergies) to the project Interim progress report II	WP5	MDG	R	PU	M35
D5.6.3	Chapter in the Final project	Chapter on synergies and MLG	WP5	MDG	R	PU	M48

	report						
D6.1	QCA dataset	List of factors, with indicators and data sources along the land-water-energy adaptation nexus	WP6	MB	DATA	PUB	M42
D6.2	QCA data analysis	QCA data analysis – identifying configurations of conditions enabling just adaptation pathways	P06	MB	DATA	PUB	M46
D6.3	Academic article	Academic article based on D6.2 identifying roadmaps and overarching policy recommendations	WP6	MB	R	PUB	M46
D6.4.1	Policy paper	Policy paper providing case and event-specific recommendations	WP6	MB	R	PUB	M48
D6.4.2	Policy briefs	A series of policy briefs, at least 3, targeted at decisionmakers and practitioners in international and regional and national policy events (UNFCCC COPs, Climate Action days, etc)	WP6	MB	R	PUB	M48
D7.1.1	PDEC	Plan for Dissemination and Exploitation	WP7	UH	R	PUB	M6
D7.1.2	Interim report on CD	Interim report on communication and dissemination activities	WP7	UH	R	PUB	M12
D7.1.3	Final report on CD	Final report on communication and dissemination activities	WP7	UH	R	PUB	M48
D7.2	Report on GLF	Internal report on Global landscape forums	WP7	UH	R	PUB	M36
D7.3	MOOCs	MOOCs online reaching and learning platform	WP7	UH	OTHER	PUB	M48
D7.6.1	Interim report on EA	Interim report on exploitation activities	WP7	UH	R	PUB	M24
D7.6.2	Final report on EA	Final report on exploitation activities	WP7	UH	R	PUB	M48
D8.1.1	Management structures	Management structures & procedures	WP8	UH	R	PUB	M1
D8.1.2	Minutes kick-off meeting	Kick-off meeting minutes	WP8	UH	R		M1
D8.1.3	DMP	Data management plan	WP8	UH	R	PUB	M6
D8.1.4	Interim progress report	Interim progress report I	WP8	UH	R	PUB	M18
D8.1,5	Interim progress report	Interim progress report II	WP8	UH	R	PUB	M36
D8.2.1	GA minutes	General Assembly meetings minutes	WP8	UH	R	PUB	M48
D8.2.2	EAB recommendations	External Advisory Board recommendations	WP8	UH	R	PUB	M48
D8.2.3	KIP report I	Key Performance Indicator report I	WP8	UH	R	PUB	M25
D8.2.4	KIP report II	Key Performance Indicator report II	WP8	UH	R	PUB	M40
D8.4	GAP	Gender Action Plan	WP8	UH	R	PUB	M6

Table 3.1d: List of milestones

Num	Milestone name	Related WP(s)	Due date	Means of verification
M1.1	Milestone project start: Initial actor list	WP1	M1	Data/internal report
M1.2.1	Dataset for regional climate models complete	WP1	M15	Data/internal report
M1.2.2	Regional climate models for AdaptNet compiled/set-up	WP1	M27	Data/internal report
M1.3.1	Workshop participant list completed	WP1	M3	Final participant database
M1.3.2	Workshop I implemented	WP1	M4	Workshop report I
M1.4.1	Survey designed for round I of learning assessment	WP1	M2	Survey I file
M1.4.2	Survey data entered	WP1	M5	Learning database
M1.5.1	Workshop participant list updated	WP1	M24	Updated participant database with subnational actors
M1.5.2	Workshop II implemented	WP1	M25	Workshop report II
M1.6.1	Survey round II updated	WP1	M23	Survey II file
M1.6.2	Survey data entered	WP1	M26	Learning database with rounds I and II
M1.7	Workshop III implemented	WP1	M43	Workshop report III
M1.8.1	Survey round III updated	WP1	M41	Survey III file
M1.8.2	Wider actor contact database updated for policy and social learning	WP1	M41	Actor and Participants Contact database
M1.8.3	Survey data entered	WP1	M44	Learning database with rounds I, II, III
M1.9.1	Input to Interim progress report I	WP1	M17	Interim progress report I
M1.9.2	Input to Interim progress report II	WP1	M35	Interim progress report II
M2.1	Methods school documentation	WP2,4,5	M4	Training materials, PPT slides
M2.2	PNA data collection finished	WP2	M13	Data/internal report
M2.3	Policy networks dataset compiled	WP2	M14	Data/internal report
M2.4.1	Input to Interim progress report I	WP2	M17	Interim progress report I
M2.4.2	Input to Interim progress report II	WP2	M35	Interim progress report II
M3.1	EEMRIO-FABLE integrated model	WP3	M3	Slides with EEMIRO-FABLE explanation
M3.2	Socio-economic-environment scenarios for 2nd 3H workshop	WP3	M23	Slides with EEMRIO-FABLE results
M3.3	Finalization of roadmaps	WP3	M42	Slides with EEMRIO-FABLE recommendations
M3.4.1	Input to Interim progress report I	WP3	M17	Interim progress report I
M3.4.2	Input to Interim progress report II	WP3	M35	Interim progress report II
M4.1	DNA national dataset compiled	WP4	M14	Data/internal report
M4.2	DNA transnational dataset compiled	WP4	M21	Data/internal report
M4.3.1	Input to Interim progress report I	WP4	M17	Interim progress report I
M4.3.2	Input to Interim progress report II	WP4	M35	Interim progress report II
M5.1.1	3H Workshop II inputs	WP5	M23	Slides for 3H Workshop II
M5.1.2	3H Workshop III inputs	WP5	M45	Slides for 3H Workshop III
M5.2.1	Input to Interim progress report I	WP5	M17	Interim progress report I
M5.2.2	Input to Interim progress report II	WP5	M35	Interim progress report II

M6.1	Initial set of QCA factors/conditions shared with all partners for input	WP6	M12	Slides with QCA factors and outcomes
M6.2	QCA dataset compiled	WP6	M36	Data/internal report
M6.3	Analysis shared with partners	WP6	M46	Word file
M6.4.1	Input to Interim progress report I	WP6	M17	Interim progress report I
M6.4.2	Input to Interim progress report II	WP6	M35	Interim progress report II
M.6.4	Toolbox for roadmap design with key QCA analysis findings incl. 3H prepared in different languages	WP7	M47	A set of tools incl. visualisations for building roadmaps for just adaptation
M7.1	PDEC	WP7	M6	Report/internal review
M7.2	Report on GLF	WP7	M36	Report/ internal review
M7.3	Final report EA	WP7	M48	Report/internal review
M7.8	MOOCs	WP7	M48	Online learning videos, teaching materials, slides
M8.1.1	Establishing management structures	WP8	M1	Report/internal review
M8.1.2	Establishing protocol for data management	WP8	M6	Report/internal review

Table 3.1e: Critical risks for implementation #@RSK-MGT-RM@#

	Description of risk (indicate level of (i) likelihood, and (ii) severity: Low/Medium/High)	Work package(s) involved	Proposed risk-mitigation measures
External	Key actors do not collaborate and engage with us, e.g. due to research fatigue (high likelihood, high severity)	WP1, WP7, ALL	Design builds on existing consortium networks and partners.
	In-person interaction in interviews, workshops, and meetings hampered by travel restrictions (medium likelihood, high severity)	ALL	Design allows for shift to online interaction and experience with tools such as FLINGA, ZOOM and others are available
	Missing participation in participatory workshops (medium likelihood, high severity)	WP1	Advanced planning and engagement, clear communication of learning benefits, expenses are covered, engagement and approach through senior team members.
	Limited uptake of key results in adaptation policy arena (high risk, high severity)	WP7	Tailored communication products and strategic outreach.
	Lack of reliable and high quality data (medium likelihood, high severity)	WP 1, 3 and 4	triangulation of data, and access to multiple global data sources, incl different media sources, triangulation with expert interviews and other sources.
Internal	Research collaboration between WPs and delays of input to 3H (medium likelihood, high severity)	ALL	established relationships among consortium members; involvement of WP leaders in 3H workshops; Consortium Agreement defines process and tools for conflict resolution
	Collaboration of WPS for impact (medium likelihood, high severity)	ALL	Consortium Agreement provides pathways for impact, , active engagement and dialogue; WP5 and 6 are designed to foster collaboration among partners.
	CIFOR not granted funding (medium likelihood, high severity)	WP1, WP2, WP7	CIFOR would search alternative sources of funding. Some tasks can be taken over by the UH.
	Security risks with instable political regimes (medium likelihood, high severity)	WP1, partly WP2	Consortium Agreement stipulates procedures for each country, incl. availability of emergency tree.

#§RSK-MGT-RM§#

Table 3.1f: Summary of staff effort

	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	Total PMs
P1/UH (Coo)	22	6	3	3	6	36	30	38	144
P2/ CIFOR	3	2	0	2	0,5	0,5	2	1	11
P3/ UT	16	8	16	25,2	8	8	2	2	85,2
P4/ MU	2	60	14	17	19	5	2	1	120
P5/ RUG	1	0	32	1	0	1	1	0	36
P6/ SAUT	31	14	2	48	6	6	0	0	107
P7/ SRC	0,5	0	0	0	0,5	2	0,5	0,5	4
P8/ UJKZ	26	43	9	8	5	10	3	2	106
P9/ LETS	22	25	10	20	5	3	9	2	96
P10/ UG	36	32	5	11	1	5	6	0	96
P11/ UNIVLEEDS	1	3,8	0,3	0,3	35,3	1,2	0,1	1,3	43,3
P12/ UP	22	12	36	8	5	4	1	0	88
Total PMs	182,5	205,8	127,3	143,5	91,3	81,7	56,6	47,8	936,5

Table 3.1g: 'Subcontracting costs' items

None of the partners has subcontracting. Hence, no need to fill in this table.

Table 3.1h: 'Purchase costs' items (travel and subsistence, equipment and other goods, works and services)

1/UH	Cost (€)	Justification
Travel and subsistence	71,500	**WP1:** 12 intl. travels to 3H workshops (facilitation) (€48,000). **WP7:** 3 travels to conferences and 4 visits to partner institutions in Europe (€10,500). **WP7**: organising side-events at the UNFCCC conferences (2 travels), Global Landscape Forum (2 travels), EU Finland event (domestic travel) (€7,000). **WP8:** Kick-off and closure meeting – travel for advisory board (€ 6,000).
Other goods, works and services	109,000	**WP7:** Final conference package in coordination with AFORPOLIS in SSA (€60,000). **Services:** translation services (**WP7**); video studio services for MOOC; contribution to webpage design (**WP7**); catering services for project meetings (**WP8**); catering Finland knowledge sharing meeting (**WP7**) (€24,000). **WP7:** project flyer material, data access fees, consent forms, costs for knowledge products incl. open access fees (€14,000). Audit costs (€7,000). **WP1:** Material for 3H workshops (€4,000).
Remaining purchase costs (<15% of pers. Costs)	0	
Total	180,500	
2/CIFOR	**Cost (€)**	**Justification**
Travel and subsistence	45,583	**WP8**: Travel to kick-off and closure meetings (€10,000); **WP7**: travel to one conference for two people presenting the project results (€5,000); **WP1:** Travel for team members to facilitate 15 workshops in 5 SSA countries (20 trips, €30,583).
Other goods, works and services	37,653	**WP7:** conference fees, open access fees (€10,000). Office supplies (€4,000), proof-readings (€4,000), translations and interpretation costs (€4,653). materials and services needed for facilitation of GLF sessions (€14,000). **WP1:** materials and services needed for facilitation of 3H workshops (€1,000).
Remaining purchase costs (<15% of pers. Costs)	0	
Total	83,236	

6/SAUT	Cost (€)	Justification
Travel and subsistence	33,718	**WP8**: Travel to kick-off and closure meetings (3 people; €13,500); **WP1:** Travel costs for 3H workshop participants: €9,000. **WP7**: Travel for team members to conferences (€6,000 – 3 people will present at 2 conferences). **WP1:** Two people will attend a two-week workshop in Czechia (€5,218).
Other goods, works and services	26,800	**WP7:** The budget for dissemination costs: conference fees and open access fees (€8,000). **WP1:** refreshments, materials and services (rent of premises, printing...) for 3H workshops (€6,800). The capacity of the university to realise purchases necessary for fulfilment of project tasks is limited. Following purchases are necessary for the beneficiary to conduct work on the planned tasks: office supplies (€4,000), books for doctoral (€3,000) and postdoctoral research (€1,000) on methods and approaches to be used, and on regional and global adaptation context. Proof-readings (€4,000).
Remaining purchase costs (<15% of pers. Costs)	0	
Total	60,518	
7/SRC	**Cost (€)**	**Justification**
Travel and subsistence	6,000	**WP7:** Travel to two international conferences (€6,000).
Remaining purchase costs (<15% of pers. Costs)	0	
Total	6,000	
8/UJKZ	**Cost (€)**	**Justification**
Travel and subsistence	34,192	**WP1:** Two people attend a two-week workshop in Czechia (€9,172). **WP8**: Travel to kick-off and closure meetings (2 people; €8,500); **WP1:** Travel costs for 3H workshop participants: €6,020. **WP7**: Travel for team members to conferences (€5,000 – 2 people will present at 2 conferences). **WP2:** The MA and PhD student (€3,000), fieldwork for the team lead (€2,500).
Equipment	5,000	The capacity of the university to realise purchases necessary for fulfilment of project tasks is limited. Following purchases are necessary for the beneficiary to conduct work on planned tasks: 2 laptops, a printer, a video projector (€5,000) plus relevant books (see below).
Other goods, works and services	24,980	**W1:** refreshments, materials and services (rent of premises, printing...) for 3H workshops (€11,980). **W7:** conference fees, open access fees, proof-readings, printing etc. (€6,000). Books (€2,000 for team lead, €2,000 for the PhD student) on methods and approaches to be used, and on regional and global adaptation context, office supplies (€3,000).
Remaining purchase costs (<15% of pers. Costs)	0	
Total	64,172	
9/LETS	**Cost (€)**	**Justification**
Travel and subsistence	48,250	**WP1:** Travel costs for 3H workshop participants: €30,250. **WP8**: Travel to kick-off and closure meetings (€8,000); **WP7**: Travel for team members to conferences (€7,500 – 3 people will present at 2 conferences). **WP1:** One person will attend a two-week workshop in Czechia (€2,500).
Other goods, works and services	13,200	**WP1:** refreshments, materials and services (rent of premises, printing...) for 3H workshops (€11,200). Proof-readings and translations (€1,000), printing (€1,000).
Remaining purchase costs (<15% of pers. Costs)	0	
Total	61,450	

10/UG	Cost (€)	Justification
Travel and subsistence	37,980	**WP1:** €15,000 will cover the transport and subsistence allowances for participants of the three workshops. **WP8, WP7:** €19,500 will be used for travel of the research team to kick-off meeting in Helsinki, ca. 2 conferences and a closure meeting. **WP1:** €3,480 will cover travel expenses of a PhD student to the workshop in Brno.
Other goods, works and services	40,000	**WP2:** €28,000 will be used to cover expert services contributing to D2.1 Adaptation policy arena report for Burkina Faso, Cameroon, Ghana, South Africa, Tanzania (Ghanian case). **W1:** €6,000 for refreshments, materials and services for 3H workshops. **WP7:** €4,000 will cover open access fees and other publication-related costs. €1,000 for small purchases and office supplies. €1,000 – proof-reading.
Remaining purchase costs (<15% of pers. Costs)	0	
Total	77,980	
12/UP	**Cost (€)**	**Justification**
Travel and subsistence	26,100	**WP1:** €9,500 will cover the transport and subsistence allowances for participants of the three workshops. **WP8:** €7,300 for travel to kick-off and closure meeting. **WP7:** €6,600 to present project's results at 2 conferences. **WP1:** €2,700 for travel expenses of a PhD student to the workshop in Brno.
Other goods, works and services	26,250	**W1:** €18,250 for refreshments, rent, materials and services for 3H workshops. **WP7:** €5,000 will cover open access fees and other publication-related costs. €2,000 for printing services, €1,000 for office supplies.
Remaining purchase costs (<15% of pers. Costs)	0	
Total	52,350	

Table 3.1i: 'Other costs categories' items

None to declare.

#§QUA-LIT-QL§# #§WRK-PLA-WP§#

3.2 Capacity of participants and consortium as a whole #@CON-SOR-CS@# #@PRJ-MGT-PM@#

The consortium consists of members that while anchored in academic or research institutions have strong track records for impact, with infrastructures such as the GLF facilitating these, and excellent scientific merits that in their sum provide the perfect qualifiaction for the proposed research.

University of Helsinki (UH) seeks solutions for global challenges and creates new ways of thinking for the best of humanity. UH is one of the world's leading universities for inter- and transdisciplinary research and features typically among the top 100 research universities. In addition to our strong expertise in forest sciences, environmental sciences and social sciences in the University of Helsinki (e.g. in INAR), we are also hosting the Helsinki Sustainability Research Centre (HELSUS) as well as INEQ, the Helsinki Inequality Initiative. UH is committed to advancing citizen sciences and the engagement of the wider public, e.g. through the Tiedekulma and other innovations to facilaite social and policy learning. The University is also leading a global network of researchers, comparing mitigation policy networks (COMPON), with the PI Brockhaus being a long-time member. With the Faculty of Agriculture and Forestry, located on the Viikki Campus, we have a strong history of science and research along the (forest) land-water-energy nexus and of linking natural resources and human wellbeing with questions of equity and justice. With a track record of successfully managed EU-funded projects we offer local infrastructures and skills in the management, communication and intellectual leadership of larger research consortia with a strong ambition for societal impact.

Center for International Forestry Research (CIFOR) and its partner the **World Agroforestry Centre (ICRAF)** with its headquarter in Nairobi, Kenya, and numerous offices in SSA incl. Burkina Faso and Cameroon as an international organization has a strong impact commitment and a long-standing research expertise at the intersection development, conservation and climate change adaptation and mitigation. In 2019, the two organisation have effectively merged and joined forces in combatting climate change across tropical forest landscapes. We are committed to capacity-building, and have produced numerous training materials and toolboxes, ranging from policy guidelines and roadmaps for deforestation-free supply chains to analytical tools for unpacking benefit sharing, policy networks and discourse analysis. Over the past decades, we contributed successfully to mainstreaming adaptation into policy and practice through the development of strategic partnerships, innovative learning tools and a wide range of relevant networks. Our excellent relationships with for example national weather forecast/meteorological agencies have allowed us to benefit from a privilege access to climatic data (historical and present) for meaningful climatic information services production that help the farming communities adopt climate appropriate decisions. CIFOR-ICRAF is also leading the Global Landscapes Forum (GLF), which is the world's largest, most respected knowledge-led forum on sustainable and inclusive landscapes, dedicated to achieving the Paris Climate Agreement and the Sustainable Development Goals. Through global events and learning opportunities, the GLF has connected more than 7,400 organizations, over 50,000 young people, 90 Governments and 205,000 participants from 185 countries, reaching over 995 million people online. Our consortium members have done gender-sensitive research at the intersection climate, development and environment, and both have extensive experience in facilitating science and and policy learning at very diverse levels, from the local to the global, and established communities of practice with respect to forestry, agriculture, and landscapes.

The **UNIVERSITY OF TÜBINGEN (UT)** is one of the 11 Excellence Universities in Germany. Environmental Science is one of its core research areas. Kira Rehfeld is Professor for Climatology and Biosphere, and brings in her expertise in climate projections, and climate change mitigation and adaption strategies. Thomas Potthast is Professor for Ethics, Theory, and History of the Life Sciences, and a member of the Executive Committee of the International Center for Ethics in the Sciences and Humanities (IZEW), which addressed Global South Studies. Melanie Nagel is a senior researcher at the Institute of Political Science, working on environmental policy, and in particular on discourse (network) analysis. She has a long experience in co-organizing summer schools for discourse and network analysis, and is member of COMPON. All involved researchers from UT are members of the Tübingen platform for Environmental Systems, established by the Tübingen Excellence Strategy. The consortium will also be supported by the Tübingen Interdisciplinary Centre for Global South Studies, who is engaged upon the exploration of the intellectual challenges of the Global South.

Masaryk University (MU) Masaryk University is a research-oriented university which ranks 7th amongst all universities in the EU-countries joined the EU since 2004 and occupies the same, 7th, position in the Emerging Europe & Central Asia QS EECA University Rankings 2022. The proposed research fits well with the research profile of the Faculty of Social Studies, which hosts research teams working on energy transition and socio-ecological systems, thereby creating opportunity for synergistic effects, cross-fertilization and knowledge integration. The research team can rely on a full material, institutional, and administrative support of the Department of International Relations and European Studies which considers the analysis of energy and climate subsystems among the core of its research. The PI Petr Ocelik, another member of COMPON, has published extensively on policy networks and learning, and is head of Standing Group on the Political Networks at the European Consortium of Political Research – ECPR - (together with Brockhaus), an important venue to advance theory and methods in the field.

Rijksuniversiteit Groningen (RUG) The University of Groningen is among the European top in the field of academic research. We are consistently ranked among the top 100 universities in the world. The World University Rankings gave us a ranking of 73 in 2023. The University has a strong foundation and history in the field of social network analysis, has a cross-Faculty school on sustainable development, and research centre on renewable energy & climate change, and expertise in Multiregional Input Output Analysis, in particular relation to issues of climate change mitigation and adaptation. PI Prell, another member of COMPON has extensive experience at the intersection climate change adaption, social networks and learning, and modelling of global political economy effects, mainly with MRIOs.

St. Augustine University of Tanzania (**SAUT**) is Tanzania's largest private university, with more than eight constituent colleges spread across the country. Mwanza is home to the main campus. SAUT is dedicated to providing high-quality education, research, and administration. Through its constituent colleges, SAUT has access to various parts of the country. The location of the University in the Lake Zone region will benefit the AdaptNet project as most areas with climate change maladaptation are located within the region. The PI has vast experience at the intersection of science, management and learning and has succesfully led and implemented a large number of projects over the

past decades.

Université Ouaga 1 JOSEPH KI-ZERBO (UJKZ) is the oldest and largest University in Burkina Faso. It has been ranked these recent years the best universities in French-speaking Africa. It occupies a place of choice on the international level in terms of scientific productions, contribution of teachers-researchers to debates, their presence and participation in scientific bodies (learned societies, projects and international research programs, colloquiums and seminars), etc. Created in 2013 following order No. 2012_MESSRS/SG/UO/P, the Gender and Development Laboratory/UNIT (LGD) is an administrative and academic entity of the Doctoral School, Humanities and Communication (ED-LE.SH.CO) of the Joseph KI-Zerbo University. It has been directed since May 2020 by Pr B. Claudine Valérie ROUAMBA/OUEDRAOGO, Full Professor of Sociology. Dr Sita Zougouri is a lecturer and researcher at the University and a member of the Gender and Development Laboratory/UNIT (LGD). She has been working on climate change for years and she has a paper on Gender-responsive climate change strategies and policies: How far West African countries have gone (2018).

The **Université de Yaoundé I (LETS)** is a research-oriented institution which, according to edurank.org (2022), is the first in Cameroon and the second university in French-speaking Africa. Following a sub-regional reform of the Central African Economic and Monetary Community (CEMAC) in 2006 aiming at a professionalization among the higher education insitiuions in the region, the LMD system was implemented at the University. Amongst its faculties, we have the Faculty of Arts, Letters and Social Sciences (FALSS) in which the department of sociology is found, which is headed by th PI of the project and which hosts the project team. One of the specialization in FALSS is the domain of environmental sociology with the CERESC laboratory focusing on environment, social forestry and political ecology and study tracks at MSc and PhD levels. The proposed research can build on these capacities developed in the department of sociology and in the CERESC Laboratory and contributing to further build these. There is equally a possibility to complete the expertise from the department of geography of the same faculty in case there is need to do cartography.

The University of Ghana (UG) is the premier university in Ghana founded in 1948 for the purpose of providing and promoting university education, learning and research. University of Ghana is at the forefront of climate change education and sustainable development learning and actions in Ghana and beyond. Climate change is one of its core research areas, strengthened by the Institutional Strategy. Albert Ahenkan is an Associate Professor of climate change and sustainable development, leads the project at UG, comes with extensive experience in climate change financing, climate policy and governance, climate investments and impacts and gender responsive climate adaptation, institutional building and capacity development. Dr. Agyemang Yaw Boafo is a senior researcher fellow at the Centre for Climate Change and Sustainability Studies (C3SS), university of Ghana. He has expertise in sustainability assessment; climate change adaptation and mitigation; disaster risk reduction and management. Prof Justice Bawole is a professor of public policy and management. He has enormous experience in policy management, organizational reforms, public sector reforms, leadership and innovative problem solving within organizations, climate change expenditure tracking and verification, institutional review and reforms, and stakeholder mapping.

The **University of Leeds' (UNIVLEEDS)** School of Earth and Environment is major international powerhouse for interdisciplinary environmental research that has wide-ranging and positive impacts on the world. It ranks top 20 in the world for Earth and Marine Sciences, and top 23 in Environmental Sciences. High impact policy research is carried out within five institutes with much of the work is cross-cutting, tackling complex global environmental challenges, such as climate change, biodiversity loss, deforestation and desertification, which at the forefront of global research agendas. Researchers are working with partners in business, industry and the third sector to tackle major environmental, economics and social challenges. The School has an excellent track-record of national and global collaborations with academic institutions, businesses, NGOs, policymakers and governmental bodies. PI Monica Di Gregorio is an Associate Professor in Environmental Politics and Governance and the Co-Director of the Sustainability Research Institute, the largest of the five institutes in the School, is member of COMPON and in the advisory committee for the ECPR standing group for policy networks. She has a background in international development and is an expert in climate change policy integration and land-based climate change mitigation, adaptation and development linkage in the Global South, her work being cited in numerous IPCC reports. She is a Research Associate of the Priestley International Centre for Climate and the Centre for Climate Change Economics and Policy (CCCEP).

The **University of Pretoria (UP)** is a multi-campus research intensive institution with a very rich bouquet of programmes. It is also one of Africa's universities with the highest research outputs and most productive researchers. It has a very strong tradition of student and staff mobility. The University of Pretoria is one of the top 5 rated research universities in South Africa. It offers undergraduate and postgraduate programmes and research opportunities in more than 120 departments spread over 9 Faculties with 82 research centres and institutes - some are Centres of

Excellence and world renowned e.g. FABI - Forestry and Agricultural Biotechnology Institute. UP also has a top rated Business School (GIBS), being one of the Top 100 Business Schools in the world for the past 10 years. In 2021 UP enrolled 53,912 students at the University. The University has also become a postgraduate destination not only for South Africa but also for the SADC region, the rest of Africa as well as internationally. It continuously seeks new research areas, as it wants to be at the cutting edge of research. The University will in realising its objective strive towards exposing students/researchers and staff to world class research opportunities whether through the strategic appointment of leading researchers or regular interaction with leading international researchers. PI Odiriliwe Selomane is senior lecturer at UP, and focuses in his research on disentangling complext interactions between social and ecological systems and its distal connections. He is co-ordinating lead author in the current IPBES report and Director of the Programme on Ecosystem Change and Society (PECS).

The **Stockholm Resilience Centre (SRC)** was established in 2007 and has developed into a world-leading science centre for carrying out research on the complex and dynamic interactions of people and nature in the Anthropocene. A core focus of the centre is to advance research in the frontier of biosphere-based sustainability science, applying a social-ecological approach, complex adaptive systems and resilience thinking as core perspectives. The centre's research is organized into six themes: Ocean, Food, Anthropocene, Resilience and Development, Complexity, and Stewardship and Transformations. Rooted in a culture of collaboration and co-production at all scales, a common thread across centre research is a willingness to experiment and explore transdisciplinarity for biosphere stewardship and transformations towards sustainability. PI Grace Wong is a researcher at SRC with a background in forest policy and natural resource economics. Over the past two decades, her research has focused broadly on forest and land governance, rural development and the poverty-environment nexus. She has led and/or been involved in international research projects on benefit sharing within forest-based climate change mitigation policies in the tropical South, social forestry systems in Southeast Asia, resilience and development in the Global South, and gender in forest governance in Sweden; all addressing issues of (in)equity and social-environmental (in)justice. She has published work related to politics, policy and equity in forest and resource governance, development and ecosystem services. Her current research is on understanding the interlinkages between ecosystem services and human wellbeing, with a particular interest on the politics, power and equity in forest-agriculture frontiers.

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