Monitoring, Reporting and Evaluation of national level adaptation in Europe: Lessons and experiences from other policy domains







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1 Introduction

National level monitoring, reporting and evaluation (MRE) of climate change adaptation is a topic of growing interest to policymakers, researchers and practitioners across Europe. The 2015 EEA report on national level MRE for adaptation in Europe illustrated the considerable progress made in implementing national level MRE systems and highlighted a number of interacting issues that make MRE for adaptation challenging. These include long timescales, uncertainty, attribution and shifting baselines (EEA 2015). Individually, these are not unique to climate adaptation therefore there is potential for learning between evaluation communities working on different policy domains and facing similar challenges.

This paper highlights transferable lessons learned that may inform MRE practice for climate change adaptation from evaluation communities working in the following three policy domains: biodiversity, adaptation and international development, and sustainability. The aim of this working paper is to reveal insightful, inspirational and relevant perspectives for those working on MRE for adaptation in Europe, in particular at national level. It builds upon some of the key themes identified in the EEA 2015 report, including the purposes of MRE, issues of governance and stakeholder engagement, and methodological approaches.

In Chapter Two specific insights from the biodiversity domain are presented including the role of multi-level governance frameworks in MRE, exploiting synergies between policy areas, the use of Theory of Change (ToC) methods and the improvement of stakeholder engagement in evaluation processes. In Chapter Three we examine adaptation in developing countries where MRE approaches are evolving rapidly, often using innovative methods and approaches. We consider the way these donor-led programmes have sought to embed learning into MRE systems, used methods to address cross-scale information needs, and enhanced participation in MRE processes. Chapter Four examines transferable lessons from sustainability evaluation practice in European countries, mainly focusing on the multi-level issue for evaluation, the use of indicators and other methods used in evaluation.

The three domains were chosen following a two-stage review to identify policy areas that exhibit similar characteristics or face similar MRE challenges to adaptation. For example we looked for policy areas characterised by long timescales, high degrees of uncertainty or shifting baselines. The first stage assessed policy domains against a set of criteria to understand their likely relevance to adaptation MRE at national level. The second stage comprised a literature review for three short-listed policy domains that was then supplemented by interviews with relevant stakeholders. At this point we also considered the differences in the approaches to MRE as these can also be a valuable source of transferable knowledge. Recent publications on climate adaptation MRE in Europe were reviewed and we also considered the main conclusions and discussions from recent conferences and events such as the 5th European Environmental Evaluators Network Forum hosted by EEA in September 2016. The key selection characteristics for each policy domain are described in Table 1.

Table 1: Key selection characteristics

Policy domain	Selection characteristics		Drivers of MRE
	Relevant similarities	Relevant differences	
Biodiversity	 Biodiversity and adaptation are both complex and cross-sectoral issues Relevant policies require multi-level governance and local implementation Long timescales, attribution, baseline conditions, data availability and access are challenges for the monitoring and evaluation of policies in both fields 	Stronger role of international and European policy frameworks and regulations	EU policy are important and influencing factors for MRE
Adaptation & International development	 MRE is addressing the same policy area (adaptation) so many similar challenges Domain appears to consider learning as an important purpose of MRE (consistent with findings of the EEA 2015 report) 	 Stakeholder engagement is a critical aspect MRE often is used to measure changing resilience 	Motivation for MRE is both bottom-up (context-specific learning) and top-down (accountability to funder)
Sustainability	 Characterised by long timescales There is a lack of measurable goals Sustainability and adaptation are cross-sectoral and multi-level issues 	MRE for sustainability is a well-established field compared to adaptation, which enables lessons to be learnt	International policies and frameworks (e.g. SDGs) are important drivers

The transferable lessons outlined in the remainder of the document have been selected as we believe they can help adaptation MRE practitioners improve national level systems. However, they represent just a selection of the issues that could be considered. For example, the valuation of costs and benefits can be an important aspect of evaluation in both biodiversity and adaptation. However the complex and contested nature of these processes means that comparison can be difficult. We would strongly encourage readers to 'dig deeper' where they find topics of interest.

2 Transferable lessons from the biodiversity policy domain

- Multi-level governance frameworks can support monitoring and evaluation of policies at national level
- Identifying overlaps between policy domains can facilitate knowledge exchange and support the use of common indicators for monitoring policy progress
- Applying Theory of Change approaches can support policy evaluations through the explicit identification of intervention logics and the assessment of co-benefits
- Creating mechanisms to ensure actors' engagement across different sectors and governance levels along with the broader public supports active and informative participation in policy evaluation processes

2.1 Common characteristics and differences

Over the last decades ecosystems have changed at an unprecedented rate and extent (MEA 2005) as a result of multiple pressures that impact on them (e.g. pollution, climate change, overexploitation, urban development). This has urged the scientific community to focus on the long-term monitoring and assessment of their conditions (e.g. EEA 2016). Also it has called for biodiversity conservation to become a more widely acknowledged societal and environmental goal. This has been reflected not only in the scientific agenda but also in public awareness activities and international, national and local policies and frameworks (Santamaría & Méndez 2012).

In Europe, much of the implementation of biodiversity policies at national level follows from international agreements. These include the Convention on Biological Diversity (CBD) and at the European level the European Biodiversity Strategy to 2020 and a variety of specific legal instruments, such as the Birds Directive and the Habitats Directive. Despite a common regulatory framework for biodiversity in Europe, literature illustrates that conservation activities and measures are not always part of or shaped by a coherent top-down plan (Vokou et al. 2014). The same can be argued for adaptation, in that the European Adaptation Strategy (EC 2013) whilst non-mandatory has still to some extent steered Member States to develop national adaptation strategies and plans, and other adaptation relevant policies.

The biodiversity domain, similarly to adaptation, has a broad scope and its objectives can be broken down into various dimensions in terms of its practical pursuit (e.g., to halt species loss; maintain genetic variation and population sizes; the provision of other tangible and intangible benefits (Santamaría & Méndez 2012)). During the last 20 years, biodiversity policies have broadened in their focus from individual species categories, habitats and ecosystems, towards more comprehensive frameworks that aim to capture the complexity of natural systems and their interactions with human activities, including climate change. This is evident in the emergence and integration of concepts such as ecosystem services (i.e. provisioning, regulating, supporting and cultural) (MEA 2005) and more recently natural capital into the biodiversity policy domain.

Biodiversity policies aim, among others, to track changes in natural systems (both species and habitats) and avoid those leading to their degradation. Such changes depend largely on the resilience of ecosystems, which shapes the rate at which ecosystems respond to pressures affecting them. Ecosystem changes, however, usually occur very slowly and often take much longer to observe than typical policy and programme cycles. This, together with the complexity of ecosystems and the multiple pressures acting upon them, makes attribution of changes to specific biodiversity policies challenging. These factors contribute to the inherent uncertainty in the field of biodiversity policy, similarly to that observed in climate change adaptation (EEA 2015).

Another similarity to the adaptation domain is that both the success of conservation measures and the nature of their impacts are highly context-specific. This emphasises the need to understand whether and under what conditions conservation measures can be effective (Miteva et al. 2012). Given the differing baseline conditions of sites targeted by conservation measures (e.g. protected areas), for example, the impact of the latter is expected to vary (Miteva et al. 2012). Thus, it is particularly important to understand the mechanisms through which measures aim to affect environmental outcomes, i.e. the intended intervention logic. Other challenges identified in the evaluation of biodiversity policies include the lack of data availability and accessibility (Laylock et al. 2009), the limited evidence of biodiversity policies designed to include evaluation considerations from an early stage, and the few examples of impact evaluations carried out to date (Mascia et al. 2014; Baylis et al. 2015), despite the wide recognition of their need.

The fields of biodiversity and climate change adaptation share some common characteristics (e.g. complex, cross-sectoral, multi-level issues), and the same applies to some of the challenges associated to the monitoring and evaluation of their policies (e.g. attribution, timescales, baseline conditions, context-specific policy impacts, availability and access to relevant data). This chapter aims to draw transferable lessons for national evaluation approaches for adaptation in Europe focusing on the issues of governance, knowledge exchange, actors' engagement and public participation, and the application of specific methodological approaches.

2.2 Multi-level governance frameworks can support monitoring and evaluation of policies at national level

Well-established, multi-level governance frameworks have influenced monitoring and evaluation of biodiversity policies at the national level. While adaptation is often managed in similar multi-level governance settings, strong links between various levels are less established, thus creating opportunities to learn from experiences in the biodiversity domain.

A key mechanism for cross-scale interactions is the monitoring and reporting requirements following from provisions of international agreements. The CBD's Strategic Plan for Biodiversity 2011-2020 includes the 20 Aichi Biodiversity Targets under five Strategic Goals¹. These provisions frame a major part of national reports to the CBD and have been influential in countries, such as the UK, in driving biodiversity indicator development. European frameworks have been equally influential in other countries. In Greece, for example, the framework for the designation of the National Biodiversity Strategy (NBS) and Action Plan (YPEKA 2014) makes reference to national, European and international

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¹ https://www.cbd.int/sp/targets/

legal frameworks, including international treaties and European Directives. Furthermore, in the monitoring and evaluation of the implementation of the Greek NBS (M&E system is expected to be complete in 2019), preliminary indicators have been developed for each of its targets based on the output of the Streamlining European 2010 Biodiversity Indicators (SEBI²) project. Also national indicators have been developed to complement the European indicators in cases where the latter could not cover certain NBS targets.

Meeting European and international reporting requirements, for example, under the EU MMR Article 15 and the development of national communications under the UNFCCC has been identified as one of the main motivations underpinning the development of MRE systems of adaptation (EEA 2015). As the requirements of more recent frameworks and other relevant policy initiatives (e.g. UN Sustainable Development Goals, the Sendai Framework for Disaster Risk Reduction, the Paris Agreement and also DG CLIMA's Scoreboard for Adaptation) will become clearer, the demand for national level MRE systems to identify and account for policy overlaps, as well as possible contradictions, and more importantly to consider these requirements is expected to increase. Experiences with MRE at national level can also provide important insights to inform the development of monitoring and evaluation provisions of these emerging policy initiatives.

2.3 Identifying overlaps between policy domains can facilitate knowledge exchange and support the use of common indicators for monitoring policy progress

Biodiversity and adaptation policy fields are intrinsically linked. This is because climate change poses clear risks for natural ecosystems and biodiversity conservation, and vice versa the state and vitality of ecosystems has an important role in our efforts to adapt to climate change impacts. At a practical level the link between the two policy domains is visible in national indicator sets developed for monitoring and evaluation of biodiversity and adaptation. In Finland, for example, the national biodiversity monitoring system includes climate change as one of the 11 monitored areas. This area includes 12 indicators on climate change as a phenomenon and various impacts of climate change on natural systems, such as species distributions or pollen seasons. Many of these indicators are of direct relevance to monitoring progress in adaptation, thus highlight the opportunity to use existing indicators where appropriate. Explicit references to climate change adaptation are also made in the NBS of Greece. These are linked to certain implementation indicators (e.g., number of forest management plans in the context of promoting their contribution to biodiversity conservation and climate change mitigation and adaptation), specific actions set to achieve the NBS targets and via the consideration of the Aichi targets. Furthermore, there is some evidence of alignment between the biodiversity and adaptation MRE communities in the UK. For example, the indicator set used for monitoring adaptation progress in the area of natural environment made use of the indicators used to monitor the Biodiversity 2020 Strategy for England (ASC 2015 - Annex 6: Natural Environment).

While these overlaps provide opportunities for the shared use of indicators, it must be noted that relevant indicators must be carefully selected. Even then, biodiversity indicators can only provide a partial view on adaptation progress to the extent that it covers key aspects of trends and impacts on natural ecosystems and measures impacting them. However, knowledge exchange among different policy domains, such as the one illustrated in the aforementioned examples, can be further promoted in

² http://biodiversity.europa.eu/policy/eu-biodiversity-indicators-and-related-eu-targets-simplified-overview

European countries especially when it comes to the fields of biodiversity and climate change adaptation. In the current era of austerity in which resources available for research and policy implementation have become scarcer, such initiatives can help reduce the duplication of work and support a more efficient allocation of resources. Yet their success is based largely on the assumption that good communication and adequate vertical and horizontal coordination exist among different fields. In the case of adaptation both of these elements are prerequisites if the current climate change challenges are to be addressed. Thus efforts should focus on ensuring that strong coordination and communication mechanisms are in place.

2.4 Applying Theory of Change approaches can support policy evaluations through the explicit identification of intervention logics and the assessment of co-benefits

The application of "Theory of Change" approaches was identified in EEA (2015) report as useful in tracking and evaluating critical assumptions behind adaptation policies along with the implementation of measures towards a long-term goal.

Box 1: Description of Theory of Change (Source: EEA 2015)

"Theory of Change" (ToC) is a critical thinking approach to programme design, monitoring and evaluation. The approach identifies a long-term outcome(s) then 'works backwards' to outline the building blocks and relationships between them that would lead to the accomplishment of the identified long-term goal(s). ToC explicitly identifies assumptions ('if Y occurs, we expect X to happen'), enabling these assumptions to be tracked and evaluated. The approach may be of particular use for national level adaptation MRE, as it can 'tie together diverse projects and programmes into a coherent and strategic portfolio that enhances linkages across climate change adaptation sectors and scales' (Bours et al. 2014). The implementation of adaptation measures can be seen as a way of testing the hypotheses of explicitly formulated 'Theory of Change' on adaptation.

The importance of adopting approaches based on theories of change and assessing the relevance of assumptions and the intervention logic behind policies on a regular basis was also highlighted by the evaluation practitioners' community at the 5th EEEN Forum in September 2016. Such approaches can also be used in guiding the collection of data and the interpretation of evaluation results (Miteva et al. 2012).

Baylis et al. (2015) discuss empirical approaches to impact evaluation in the biodiversity policy field and note that there are typically difficulties in creating explicit theories of change for biodiversity policy (e.g. difficulties in bridging different epistemological fields; establishing close collaborations between scientists and actors implementing conservation programmes; developing methodologically mixed (quantitative and qualitative) and multidisciplinary approaches; making decisions on the right analytical scale; considering possible spillover effects). In response, the authors argue for the explicit evaluation of co-benefits as a way to address the challenges created by the presence of multiple scales and distributed nature of outcomes, which also challenge the empirical designs of adaptation policy evaluations. Furthermore, the authors highlight the importance of using multi-disciplinary evaluation teams to refine theories of change in an attempt to ensure that both natural and social science perspectives are sufficiently represented.

This approach is likewise instrumental for adaptation evaluation, perhaps even more so, as the impacts of climate and adaptation policies on both natural and human systems are at the heart of adaptation policy. Another important consideration put forward by Baylis et al. (2015) is the sensitivity to heterogeneous policy outcomes, in other words not blindly assuming average effects. This has parallels to climate justice and distributive impacts of adaptation policies, an aspect which is increasingly recognised as of importance in the adaptation policy domain as the impacts of climate change fall unequally on different groups in society. Likewise the benefits of adaptation measures can be unequally distributed.

Some European countries such as Switzerland and the Netherlands have already included elements of ToC thinking in their national adaptation MRE systems (EEA 2015). Adaptation policy evaluations can further benefit from applying Theory of Change approaches, for example, to enrich understanding of intervention logics underpinning adaptation policies and measures and assessing co-benefits.

2.5 Creating mechanisms to ensure actors' engagement across different sectors and governance levels along with the broader public supports active and informative participation in policy evaluation

Like adaptation, biodiversity policies are typically cross-cutting in nature. The achievement of their objectives demands that actions are implemented in a number of sectors, from land use planning through agriculture and forestry to water management. Likewise the implementation of specific conservation measures often touches upon the interests of multiple other sectors, creating a broad range of stakeholders relevant to policy implementation and hence to its monitoring and evaluation. Furthermore, it is recognised that local actors in constant interaction with the environment are well placed to observe changes in it and thus hold valuable knowledge relevant to assessing the implementation and impacts of biodiversity policies and measures (see Miteva et al. 2012).

Monitoring and evaluation systems of both adaptation and biodiversity face similar challenges in engaging a broad range of stakeholders across society. At the national level, institutional bodies tasked with the monitoring and evaluation of biodiversity policies implementation attempt bring together multiple actors, in order to benefit from the available knowledge and expertise, and accommodate a wide and representative range of interests.

In the UK the development, monitoring and update of the biodiversity indicators is governed across different levels. This multi-level institutional setting aims to maximise the number of relevant actors engaged in this process and expand the range of the views considered in them. These are organised in four groups, each one with a different purpose and composition, but with certain actors being involved in more than one group to ensure an efficient and well-coordinated communication and coherence across them (Fig.1). Following a top-down hierarchical order, the groups include the:

- Four Countries' Biodiversity Group: A high level committee, which sets the direction of overall work, taking account of the devolved nature of implementation of environment policy in the UK. The group receives advice from the Biodiversity Indicators Steering Group, usually via papers written by Defra and the Joint Nature Conservation Committee (JNCC).
- **UK Biodiversity Indicators Steering Group (BISG)**: This group provides advice relevant to the work on the UK biodiversity indicators to the Four Countries' Biodiversity Group and implements

- the decisions of the latter. BISG is responsible for ensuring that any proposed biodiversity indicator is appropriate and that its presentation is fit-for-purpose.
- **Project group**: This is a small group that collects data and reports to the BISG. Once a new indicator has been examined and an agreement has been reached that it is fit-for-purpose, it is the responsibility of the Project Group to implement the indicator without the need for further reference to the Steering Group. Decision-making process about the fit of the indicators follows at least a two-level iteration³. Overall around 100 organisations provide data to support the implementation of the UK indicator work.
- The UK Biodiversity Indicators Forum (BIF): This is a broader group of stakeholders. It aims to facilitate the exchange of experience in the development and use of UK biodiversity indicators, at a range of scales and across sectors. It also helps the Project and Steering Groups to get a broader review of the proposed indicators, and thereby help with the evaluation of whether proposals are fit-for-purpose⁴.

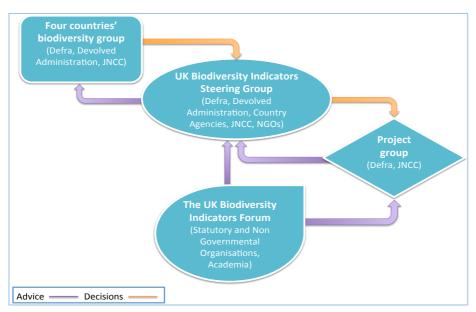


Fig. 1: Schematic representation of the links among the different groups involved in the UK Biodiversity indicators work (Source: adapted from Williams 2015)

An analogous example comes from France, where over 100 members comprise the National Biodiversity Strategy (NBS) Committee. The NBS Committee further connects with other bodies involved in monitoring the impacts of the NBS on biodiversity. These include:

- the National Biodiversity Observatory that monitors the effects of the NBS on biodiversity and the multiple interfaces between biodiversity and society;
- the Grenelle Environment Forum National Sustainable Development Committee that is consulted on annual monitoring and evaluation reports before their submission to parliament; and
- the French Economic, Social and Environmental Council that is consulted on the Strategy's implementation.

³ Details of how this works in practice, including compliance with the Code of Practice on Official Statistics, are available at http://jncc.defra.gov.uk/page-1824.

 $^{^4}$ Details of the specific objectives of the Forum, and of the meetings held to date are available at http://jncc.defra.gov.uk/page-1818

The French NBS 2011-2020 invites all societal actors to join its implementation through accession and voluntary commitments, and the NBS Committee evaluates the voluntary commitments by stakeholders. The voluntary commitments are 1-3 year projects designed to protect biodiversity as part of the actors' core activities, following the principles of continuous improvement and going beyond compliance with regulatory requirements. The projects are implemented by different actors, including private companies, associations and public entities.

This broad participation in the implementation is coupled with a participative approach to the evaluation of the voluntary activities. Annual calls for voluntary commitments are organised and submissions are subject to an ex ante evaluation prior to selection for receiving an official recognition for their commitment. A tool for self-assessment is offered for actors to assess their submissions. A member of the NBS Committee Secretariat and an external expert evaluate submissions individually using a common evaluation framework. Recognised commitments are to monitor the implementation of their projects (including indicators established in the commitment documents, to assess the implementation of activities and their impact on the conservation of biodiversity and the behaviour of their collaborating actors) and results of such self-monitoring are submitted to the NBS Committee through mid-term and final reports. The NBS Committee carries out an overall evaluation of the commitments in terms of major trends and innovations on an annual basis, looking into concerned biodiversity areas, types of project and their status, the NBS objectives and innovative modes of governance.

The French approach of inviting broad participation from societal actors in the implementation of the NBS, and consequently in the evaluation of their voluntary commitments, is an example of an approach to gauge the scope and impact of activities falling beyond the regulatory reach of traditional policy instruments. In a similar vein, the new Finnish approach to sustainable development policy is built on voluntary commitments by both public and private entities.

Adaptation policies to date have not been designed or implemented in accordance with such a principle of voluntarism. However there is increasing recognition of the need to integrate adaptation action across societies into the activities of businesses and other actors. The term 'autonomous adaptation' is often used to refer to such activities by e.g. private sector, voluntary organisations and in some cases even local government actors that are not steered by formalised adaptation policy instruments. In order to evaluate the progress being made towards achieving adaptation policy goals and objectives, it is crucial to broaden the scope beyond process-focused evaluations of the activities of national level public sector actors. Mechanisms for collecting and recognising autonomous adaptation action could be one option to enrich our understanding of how adaptation action is progressing 'on the ground', which to date has remained on the wish-list of those designing and carrying out adaptation policy evaluations.

In Finland, certain modalities for public participation are typical for policy evaluations across policy fields. In biodiversity policy evaluation, the need for public participation has been founded on an observation of the pertinence of unresolved conceptual issues in biodiversity conservation and furthermore acknowledging that people's willingness to protect biodiversity depends on their values that in turn reflect their material interests (Auvinen et al. 2007). For these reasons, participation opportunities for different interest groups were included from the beginning of the national biodiversity policy evaluation in 2004-2005 via dedicated seminars, workshops and a stakeholder hearing organised specifically for the evaluation process. Such open consultations can give the opportunity to citizens, organisations and actors that are not part of formal institutional mechanisms but nonetheless have an interest in the field

to share views that may not otherwise be considered in policy evaluations. Similar processes for engaging views from the public were also applied for the most recent national adaptation policy evaluation in 2012-2013. The evaluation of adaptation policies at national level can benefit from existing processes and mechanisms for public participation in other policy areas, insofar as they provide examples of successful ways to engage views "from the ground" on policy implementation.

3 Transferable lessons from adaptation in the international development domain

- Considering learning as a key objective from the outset can enhance MRE systems
- Addressing cross-scale information needs can improve the utility and relevance of MRE outputs
- There is potential to enhance participation in MRE for adaptation and to incorporate a broader range of perspectives

3.1 Common characteristics and differences

There has been an increasing level of investment in climate adaptation in developing countries in recent years in the form of a variety of projects, programmes and initiatives, many of which span international borders. This includes a wide range of projects and programmes funded through multilateral funds and initiatives (e.g. the Climate Investment Funds, activities funded via Multilateral Development Banks), bilateral funds and programmes funded through international Non-Governmental Organisations (INGOs). Larger programmes, often implemented by multiple partners incorporating donors, Governments and NGOs and Community-Based Organisations (CBOs), share similarities with national level adaptation in Europe in terms their complexity and multi-sectoral, multi-scale nature. They also share the common challenge of how best to monitor, report and evaluate progress and performance.

The underlying purposes for which adaptation MRE systems are commonly designed at national level in Europe and in developing country programmes are often similar with accountability, understanding effectiveness and efficiency of policies and actions, and learning all important considerations. However, there are differences in governance, conceptual framing and methods when contrasting European national level MRE and programmatic MRE in the Global South, resulting in differing emphasis within the respective MRE systems. Typically, development programmes place a strong methodological focus on learning, participation and understanding casual relationships, so it is perhaps not surprising that this reflected in emerging MRE practice for adaptation programmes in developing countries. There is also often a focus on the concept of resilience, reflecting a more holistic consideration of both climatic and non-climatic drivers of vulnerability, especially at local level. In contrast, National level MRE systems in Europe are often closely aligned to the delivery of a national policy or programme and place less emphasis on lessons from the community and household levels. Participation also tends to focus the collation of knowledge and expertise through existing systems and institutions rather than on 'bottom up' data collection. These differences, and similarities, provide valuable opportunities for transferable lessons suggesting there is more common ground between these geographically distinct communities of practice than may appear at first glance. It is in this spirit that this chapter focuses upon three practical lessons from development programme evaluation practice that we believe can enhance MRE for adaptation in a European context: embedding learning in MRE; addressing cross-scale information needs; and enhancing participation of stakeholders in MRE.

3.2 Considering learning as a key objective from the outset can enhance MRE systems

The importance of learning as a critical purpose of MRE is increasingly acknowledged in the European context (EEA 2015) and in the specific objectives of MRE systems, yet ensuring reflexive learning

processes are embedded in MRE can be challenging in practice. There can be tensions between differing purposes of MRE and it can be difficult to reconcile MRE as a tool for learning with its role in supporting accountability (Spearman & McGray 2011; EEA 2015). As result it can be difficult to establish a learning environment and culture even where it is overtly recognised in MRE systems and processes. The recent EEA report that consolidated emerging information on MRE systems across European countries (EEA 2015) emphasised the importance of learning as a key purpose of MRE for adaptation. 'Learning' in this context refers to new knowledge that is used to shape behaviours, as manifested in decisions or actions (O'Dell 2011), thus is strongly focused on application and links closely to the need to ensure that MRE informs adaptation policy and practice (EEA 2015).

While the challenge of improving the learning element for evaluation appears universal, a number of developing country-focused initiatives are now providing valuable and transferable insights regarding the practical realities of supporting learning within MRE. Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) is a UK government-funded programme that aims to improve the lives of up to five million vulnerable people facing climate extremes and disasters with a geographical focus on the Sahel, East Africa and Asia. BRACED typifies a growing trend to integrate innovative longitudinal learning mechanisms into programme design and delivery. Instead of viewing learning as an output of evaluation this more fluid perspective integrates learning as an on-going process set within an MRE system designed to enable iteration and improvement, as well as assessment. BRACED was designed with a specific Knowledge Management function charged with understanding "the manner in which and the extent to which BRACED is enhancing the resilience of communities through different types of interventions and in different contexts" and with "measuring outcomes but also reconciling the diverse visions of resilience embraced by the different projects being implemented in highly varied geographies" (Bahadur et al. 2015). BRACED has also developed an over-arching framework for understanding the results of the programme and their impact on resilience. This framework focuses on '3As'; assessing resilience outcomes as adaptive, absorptive and anticipatory capacities. The framework, alongside M&E guidance for the implementing partners, sets out a consistent approach for M&E, including a shared logframe and theory of change (ToC).

Within this overall framing, there are a number of innovative approaches that aim to embed learning more fundamentally with the M&E process. Action-research projects have been used to explore the lessons learnt and to help to overcome challenges faced by implementers and beneficiaries that have been identified through the on-going M&E, thus encouraging the rapid integration of findings into ongoing practice. Facilitated learning spaces have been created within existing project and programme processes to encourage reflection and learning, including online discussions and webinars and these enable experiences to be shared between geographically remote projects. BRACED has also sought to engage a variety of stakeholders including journalists, climate scientists and regional experts to generate, collect and disseminate evidence of practices that have been particularly effective in building resilience. These, and other initiatives, aim to ensure that learning is integral to BRACED rather than a 'loose ambition'.

The emphasis on learning through MRE is being acknowledged within large global programmes that are now looking to adjust or supplement their MRE systems with greater emphasis learning and understanding the complex factors that determine effectiveness in a given situation. For example, the Climate Investment Funds (CIF) have established the Evaluation and Learning Special Initiative in response to the "urgent need to increase the evaluative work within the CIF, capture real-time learning,

and facilitate sharing of lessons learned and good practice to improve effective delivery and achievement of results" (CIF 2016). The business plan for this three-year initiative articulates a useful set of 'Guiding Principles for Evaluation and Learning' as well as setting out actions to support four learning themes (Transformational change; Private sector investment; Local stakeholder engagement and benefit; and CIF design and approach). The plan also sets out an illustrative set of evaluation and learning approaches (see Table 2).

Table 2: Illustrative evaluation and learning approaches and methods/activities (Source: CIF 2016)

Potential evaluation approaches & methods	ds Potential learning approaches & activities	
Formative evaluation	Real-time learning	
Outcome evaluation	Peer-to-peer learning	
Peer evaluation	Communities of practice	
Rapid stakeholder feedback	Knowledge networks	
 Comparative case studies 	 Knowledge exchange visits 	
Process tracing	Co-creation of learning products	
 Surveys and focus groups 	Knowledge sharing events	

While it appears development-focused adaptation programmes have made greater progress in institutionalising the capacity for learning within MRE systems, the Dutch Delta Program illustrates that this is now being considered in greater detail at national level in Europe. The design of the monitoring and evaluation function of the Delta Program acknowledges the critical role of learning and reflection in adaptive management. The system identifies two key types of feedback; 'technical learning' (learning about indicators and unforeseen values) and 'social learning' (learning in and through interaction, about plans and the perspectives of others). There is also tacit recognition that learning is not easy and that 'learning to learn' needs to be part of the MRE approach (Loeber & Kunseler 2016).

The evidence presented above highlights the increasing emphasis on moving beyond learning rhetoric to embed learning into MRE systems in a meaningful way. It is also clear that much can be learned through improved interaction between those designing MRE approaches in Europe and the Global South.

3.3 Addressing cross-scale information needs can improve the utility and relevance of MRE outputs

The demand for national M&E systems that can provide meaningful information at different scales, and for distinct yet related policy objectives, is likely to become greater as emerging global and European policy reporting frameworks become clearer. These include the European adaptation scoreboard, and emerging requirements relating to the Paris Agreement and the Sendai Framework for Disaster Risk Reduction. National level MRE frameworks also need to 'reach downwards' as an accurate picture of the adaptation progress can only be established if information from national and subnational levels is combined effectively (Leiter 2015). Experience from developing countries suggests that MRE approaches that span different scales and are able meet different stakeholder information needs can benefit community-based adaptation initiatives by avoiding viewing the community scale in isolation from its broader context (Ensor 2014; Faulkner 2015). Both international development programmes and national level adaptation MRE systems are implemented in the context of multiple levels of governance that often have different information needs. These differing needs, as well as practical issues such as data availability, can make it difficult for an M&E system to develop indicators that are meaningful at all levels. Attempts to aggregate metrics across levels can compromise the utility of the information, hindering critical analysis and the identification of key adaptation lessons. Consequently, lessons in

managing information across scales are therefore extremely useful.

Leiter (2015) provides a valuable overview of the extent to which national level MRE systems in European and developing countries are considering issues of scale and found that often they are poorly addressed, with subnational adaptation actions analysed in a separate and independent process. Norway and Kenya's adaptation M&E systems were identified as rare examples of national level systems that do address cross-scale dynamics. Norway has established a knowledge-exchange process through stakeholder forums and regular surveys of municipalities while Kenya's adaptation M&E system links national and sub-national levels with consistent processes and outcome-based indicators for both levels.

In addition to national level efforts, there are a number of practical examples of linking MRE across scales when examining international programmes in the Global South. The Pilot Programme for Climate Resilience (PPCR) is currently the largest multilateral adaptation fund (Trujillo et al. 2014) and aims to pilot and demonstrate ways in which climate risk and resilience may be integrated into development planning and current operates in approximately 30 countries and regions. This complexity brings significant challenges when seeking to aggregate, and draw lessons across, a diverse range of adaptation activities. The PPCR M&E system required careful iteration to find a suitable balance between detail, practicality and transferability. Initially a total of 30 indicators were developed but many were not specific enough, were impractical to measure and lacked relevance (Roehrer & Kouadio 2015). A second version of the PPCR M&E framework appears better suited to capturing information at difference scales and uses on five core indicators that are measured in each partner country through scorecards. This more flexible approach is supported by a new PPCR evidence-based learning initiative which aims to strengthen in-depth learning throughout the project cycle by supplementing formal indicators with tailored learning and evaluation approaches (Leiter 2014). Such an approach is consistent with discussions at the EEEN Forum (2016) that highlighted the need for enhancing learning across multiple levels of governance in a European context.

There are a number of examples of MRE frameworks developed for assessing adaptation and resilience which aim to more effectively connect the information needs of different spatial scales and to reconcile top down and bottom up perspectives. These may provide useful inspiration for European practitioners when considering how to better conceptualise connections across scales. For example, the Tracking Adaptation and Measuring Development (TAMD) framework (Anderson 2012; Brooks 2013) is specifically designed to span multiple governance levels through a 'twin-track' approach that considers adaptation MRE in terms of "a combination of how widely and how well countries or institutions manage climate risks (Track 1) and how successful adaptation interventions are in reducing climate vulnerability and in keeping development on course (Track 2)" (Anderson 2012). The Action Research for Community Adaptation in Bangladesh (ARCAB) program based in Bangladesh is focused on community level adaptation but has developed a multi-track strategy for M&E, seeking to address the diverse cross-scale information needs of stakeholders and enable multidirectional knowledge and learning flows on effective adaptation (Faulkner et al. 2015). This is achieved by emphasizing specific scales and information needs to which MRE tools need to be applied. Working from bottom up, these scales include participatory M&E at community level; M&E at and across project sites; M&E of capacity of implementing institutions; and M&E of Community of Practice. In addition to specific MRE frameworks, there are also pragmatic responses to demands to align national or programmatic MRE to international reporting requirements. For example, the BRACED programme M&E guidance is designed to ensure project level logframes and M&E plans provide comparable programme-wide results reporting on two Key Performance Indicators which are then used to inform DFID's contribution to, and reporting against, the International Climate Fund (ICF).

To date, most national level MRE systems in Europe have not fully considered how to best incorporate information from, and generate knowledge for, sub-national and community levels and are still grappling with how to contribute to a regional or international perspective. Building cross-scale thinking into the overarching MRE framework (e.g. TAMD) is a good starting point as it ensures the flow of information across scales is possible. This must be backed up by practical methods such as stakeholder forums, surveys of municipalities and other sub-national actors and where possible more spatially coherent indicator sets.

3.4 There is potential to enhance participation in MRE for adaptation and to incorporate a broader range of perspectives

Another area where valuable lessons may be identified is in the establishment of participatory approaches for MRE and incorporating multiple perspectives on resilience and adaptation. The need for improved engagement throughout evaluation processes was highlighted at the EEEN Forum (2016) and as climate adaptation MRE systems in European nations are further developed so the need for greater consideration of how best to engage a variety of stakeholders becomes apparent. Participation is often highlighted as key tenet of adaptation efforts in developing countries and their associated evaluation activities. This is partly because of a strong focus on Community Based Adaptation, but is also symptomatic of an emphasis on participatory approaches within international development over the last three decades. This in turn stems from Participatory Rural Appraisal methodologies designed for use at community level that have been used in both programme design and MRE. In spite of this long track record, participatory approaches to MRE for adaptation are exposed to similar pressures as in Europe. For example, approaches may often focus on value for money and upward accountability in line with the information needs of funders, meaning that success is often defined by top-down institutional M&E processes (Faulkner et al. 2015) which are then only later cross-checked with local experiences.

Nevertheless, it would appear that there are useful lessons for European practitioners in terms of enhancing participation in MRE processes. The question of 'whose voice should be heard?' (EEA 2015) is as pertinent in Europe as it is in the Global South as in both cases there is the potential for powerful actors to dictate definitions of what successful adaptation means (Ensor 2014). Furthermore, both national adaptation programmes in Europe and transnational programmes often span highly varied geographies, a diversity of stakeholders and values and subsequently a multitude of views of successful adaptation. This complexity has led to a growing recognition that it is insufficient to simply take topdown perspectives and 'plug' these into an MRE system as arbiters of success. Instead, more participatory approaches reflect the importance of exploring, understanding and, where possible, reconciling these differences. MRE frameworks such as The Resilience, Adaptation Pathways and Transformation Assessment Framework (RAPTA, see O'Connell et al. 2015), and those developed for the BRACED programme (BRACED 2015), emphasize the critical role of the participation of a wide range of stakeholders in programmatic planning, implementation and MRE. In doing so, they appear to allow to multiple definitions of success at different scales and for different groups, within a broader vision or set of objectives at programmatic level. Practical actions such as engaging stakeholders in the development of project and programme Theories of Change (ToC) and in undertaking evaluation activities can contribute to enhanced adaptive capacity while strengthening the connection between programme design and evaluation. Participatory approaches can also be used to assess stakeholder information needs (Faulkner 2015), ensuring that MRE outputs can inform and influence future adaptation actions at multiple scales, at not only Government level policies.

An emphasis on establishing a deeper understanding of multiple interests is also highlighted in the emerging field of Rapid Impact Evaluation (RIE), currently being used by the Global Environment Facility. In RIE, stakeholder engagement processes are identified as the single most important part of the process and require approximately 75% of the resources. When contrasted with national level MRE systems, this level of investment suggests that European countries are still at a relatively immature stage in their consideration and use of participatory approaches and in accounting for multiple perspectives of adaptation effectiveness. Generally these national level systems tend to limit stakeholder engagement to specific sectors, other departments and experts rather than multiple governance levels or vulnerable groups and communities. The use of broader engagement processes may add to the complexity of MRE at one level but could also deepen our understanding of what is working, why and for whom.

4 Transferable lessons from the sustainability policy domain

- Close interaction on MRE between various scales of administration ensures a comprehensive overview on progress and trends
- Policy overlaps require close cooperation beyond institutional and thematic boundaries in order to ensure coherence
- Indicators are valuable in illustrating trends but mixed approaches integrating various sources of information are needed to better capture the complexity of the systems
- Peer review processes support learning within and between countries, while external evaluation provides scientifically sound information

4.1 Common characteristics and differences

Since the publication of the Brundtland Report "Our Common Future" in 1987 and the accomplishment of the United Nations Conference on Environment and Development in 1992, the concept of sustainability has been adopted as key political principle by most governments worldwide (UNCED 1992). By definition, sustainable development (SD) aims to minimise trade-offs and maximise synergies between economic, social and environmental goals. MRE for sustainability, as with climate adaptation, must deal with inherent uncertainties in terms of both socio-economic (demographic development, etc.) and environmental factors.

Sustainability is a cross-sectoral concern that requires multi-sectoral responses at all levels of government and beyond, including businesses and societal actors (Steurer 2013). Policies for sustainability address these characteristics with integrated strategy processes following a multi-sectoral and multi-level scope that require vertical and horizontal coordination mechanisms – in a similar manner than climate change adaptation (Nordbeck & Steurer 2016). Sustainability is also characterised by long timeframes similar to climate change adaptation. It is not necessarily lacking clear and common objectives on a meta-level (see also SDGs), but can lack clear and measurable goals, which is challenging for MRE activities.

Sustainable development - as well as adaptation - is seen as a cyclical policy and learning process, key elements of which include regular monitoring, reporting and evaluation. As sustainability evaluation has been considered for the last 20 years valuable lessons can be learned regarding these processes. The knowledge and insights gained from sustainability MRE do not only support better policymaking, but also can help to build capacities, raise awareness and establish policy networks (Nordbeck & Steurer 2016). SD as a learning process cannot be implemented like a 'plan', but needs flexible approaches on the government side (Niestroy 2005).

As sustainability and climate change adaptation share many common issues, this chapter aims to draw transferable lessons for national evaluation approaches for adaptation in Europe focusing on the following three themes: Connecting MRE across multiple scales; the use of indicators and mixed-

methods approaches; and the application of peer-review processes and internal and external evaluations to support learning.

4.2 Close interaction on MRE between various scales of administration ensures a comprehensive overview on progress and trends

Sustainable development is an issue at multiple scales, from international, regional and local levels, thus requires MRE inputs from different levels, where possible systematically synchronizing relevant targets and activities (vertical coordination). This need is reflected in a number of guidance documents on SD (e.g. UNCED 1992; UNDESA 2001) requesting a strong link between the national and local level, especially when it comes to monitoring and evaluation. Well-established systems for vertical coordination and integration are available in a few countries. In Switzerland, the Sustainable Development Forum (NSSD) was established in 2001 and comprises a network of representatives of the Federal Government, all cantons and larger cities. The Forum, led mutually by the Conference of Cantonal Governments and the Swiss Towns Association, meets twice a year and all outcomes are made transparently available in the internet (available in German language⁵). The Forum is dedicated to exchanging information and good practice, implementing common targets of sustainability, working on joint projects and establishing a common MRE system. In order to guarantee policy coherence between these scales, since 2005 indicators for cantons and cities are available based on the national MRE system (MONET⁶). Through this interlinked and coordinated approach, an integrated and countrywide overview on the progress of sustainability for the last decade is available in Switzerland.

However, the need for vertical coordination goes beyond the national borders, including activities on European and international level. Of relevance for the European level, but also for the national to the sub-national level, is the adoption of the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) in 2015⁷. A number of SDGs are affected by, and affect, climate change (e.g. SGD 14 - life below water, SDG 6 - clean water and sanitation) and in addition, a direct link was set with Goal 13 ('Climate Action'). SDG 13 is dedicated to "Take urgent action to combat climate change and its impacts" and highlights that the implementation of the Paris Agreement is essential for the achievement of the SDGs.

The Inter Agency and Expert Group on SDG Indicators (IAEG-SDGs⁹) are developing a global indicator framework for monitoring and evaluation of the SDGs. The mechanics of this framework are being finalised, however agreement on its 230 indicators has already been reached. Seven qualitative indicators aim to track the progress on the Goal 13 related to climate change. National governments have the primary responsibility for follow-up, review and report the progress made in implementing the SDGs over the coming fifteen years. In 2016 the European Commission stated that it will launch a multistakeholder platform comprising actors from public and private sphere, with the role to follow-up and exchange best practices on SDG implementation across sectors, at Member State and EU level (European Commission, 2016). In addition to current activities in sustainability, European countries also face reporting requirements for adaptation under the Monitoring and Reporting Regulation (MRR) and the

⁵ http://www.are.admin.ch/themen/nachhaltig/00262/00530/index.html?lang=de

⁶ https://www.bfs.admin.ch/bfs/de/home/statistiken/nachhaltige-entwicklung/monet/methodische-aspekte.html

⁷ https://sustainabledevelopment.un.org/

⁸ http://www.un.org/sustainabledevelopment/climate-change-2/

⁹ http://unstats.un.org/sdgs/iaeg-sdgs/

Paris Agreement. When the details of all the reporting requirements are available, the policy overlaps as well as possible contradictions need to be detected to ensure coherence (EEA 2016). Thus, besides a vertical coordination mechanism that ensures integration of monitoring and reporting from national to international scale, additional coordination mechanisms are needed going beyond a single policy fields or sectors. In this specific case, exchange platforms bringing together stakeholders working in sustainability and climate change adaptation at national/EU level could help to increase synergies and avoid contradictions.

4.3 Indicators are valuable but mixed-methods approaches are needed to better capture the complexity of the systems

Available guidelines recommend that SD strategies should be monitored and evaluated regularly, "based on clear indicators and built into strategies to steer processes, track progress, distill and capture lessons, and signal when a change of direction is necessary" (OECD-DAC 2001: 27). The UN states that SD indicators perform multiple functions: (i) to lead to better decisions by simplifying, clarifying and making aggregated information available to policy makers; (ii) to help incorporate science knowledge into decision-making; (iii) to help measure and calibrate progress toward sustainable development goals; (iv) to provide an early warning to prevent economic, social and environmental setbacks and (v) to be a useful tools to communicate ideas, thoughts and values (UN 2007:3). However, what makes an indicator a robust indicator? The following criteria for selecting indicators are being suggested for SD that are also transferable when selecting indicators for adaptation (based on UN 2007 and 2003):

- Highly relevant to assessing sustainable development progress (or progress in adaptation to climate change);
- Limited in number, but remaining open-ended and adaptable to future needs;
- Clear, understandable, and unambiguous;
- Conceptually sound;
- Based on reliable data base and draw on well-established sources of public and private data;
- Broadly consistent with national systems and policies; and
- In line with European/international standards.

At national level, most countries have developed their indicator sets based on their national strategy's policy objectives, although linkages between policy objectives and indicators are often not transparent (Nordbeck & Steurer 2016). The number of indicators ranges widely, from 12 in France or 28 in Germany to more than 100 in several other countries (among them Italy, Latvia, Switzerland and the UK) (Nordbeck & Steurer 2016). Most indicator sets are comprised of economic, social, and environmental indicators such as GDP per capita, R&D expenditures, or CO₂ emissions (Steurer & Martinuzzi 2005). The current practice in SD monitoring usually provides a sense of the sustainable or unsustainable trends in a country but is rather remote from strategy implementation (Nordbeck & Steurer 2016). Similar challenges can be observed in the case of adaptation monitoring. Stronger and transparent linkages between the strategy's objectives and the indicators can help to better track policy impact and implementation (Steurer & Hametner 2013).

Most monitoring approaches for Sustainable Development Strategies (SDSs) combine quantitative indicators and qualitative assessments (Steurer & Martinuzzi 2005). By following a mixed methods approach (using indicators alongside qualitative assessments) the understanding gained through the monitored system is broadened and deepened (Bamberger 2012). Based on suggestions of the OECD

(OECD 2006), a mix of internal and external sources and information (e.g. indicators, self-reflections from private actors, learning experiences from public authority) will help to provide a more nuanced picture. This mixed-methods approach was also identified by EEA (2015) as useful to overcome some of the limitations of quantitative adaptation indicators as it provides a more accurate, insightful description of the adaptation progress and performance.

Box 2: Description of the mix-methods approach (Source: EEA 2015)

A mixed-methods approach to MRE makes use of multiple sources of information and combines both the quantitative and qualitative methods (for example using a range of indicators, alongside stakeholder perspectives gained through self-assessments, surveys and consultations with experts). This allows for more effective triangulation of information gathered through MRE processes as different data sources can be checked against each other to ensure that the overall narrative of adaptation progress is robust, consistent and contextualized.

4.4 Peer review supports learning within and between countries, while external evaluation provide scientifically sound information

The evaluation of sustainability development policy and the monitoring of sustainability targets has been recognised as important and introduced in almost all European countries. The European Sustainable Development Network (ESDN ¹⁰) clusters the practical experiences with qualitative evaluations and reviews made in European countries into the following three groups: (i) Peer reviews; (ii) External evaluation; and (iii) Internal evaluation. Depending on the context, these methods are combined in various ways by countries working on evaluation. In the following section all three approaches are explained in brief and transferable lessons for adaptation are highlighted.

Peer review is a systematic assessment of the performance of a country by other countries with the ultimate goal of helping the reviewed country improve its policymaking and adopt best practices. Furthermore, it creates a space that allows mutual learning. The process should be a bottom-up exercise with participatory elements involving stakeholders from all political levels but with no intention to 'name and shame' (ESDN 2006). The European Commission proposes to follow the peer reviews and provides methodological help by publishing a "Guidebook for Peer Reviews of National Sustainable

Development Strategies" ¹¹ in 2006. The guidebook sets out the following key steps in the review process (cf. Figure 2), which might be

STEP 1: Getting started

Secure a commitment to the review process
Initiating the review process
Getting external support

STEP 2: Preparing for the review

Drafting background materials Involve partners from government, business, civil society and peer countries Agree scope and extent of review

STEP 3: Undertaking the

review

Gathering information Workshop to draft the review Presenting draft conclusions and recommendations Finalising review document

STEP 4: Dissemination of the review findings

Reporting back to stakeholders
Dissemination to the public
Feedback to and exchange of lessons
with member states

STEP 5: Implementation and review

Setting out implementation plans Reviewing progress in implementation Exchange of lessons from the review process

Fig. 2: Schematic representation of the review process for National Sustainable Development Strategies.

¹⁰ http://www.sd-network.eu/?k=quarterly%20reports&report_id=2

¹¹ http://ec.europa.eu/environment/pdf/nsds.pdf

easily transferred when setting up peer reviews for adaptation evaluation.

For example, Germany has conducted two rounds of peer learning in 2009 and 2013 to discuss progress as well as barriers and to receive recommendations for strengthening the transition to a more sustainable society (both review reports are available in the internet in English). When setting up the process, the following factors proved to be successful in the German case: (i) gain high-level commitment by dedicating the Chancellor of Germany as 'owner' of the review process; (ii) carefully choose peers according to the content and focus of the peer review; and (iii) create a process that is inclusive and bring in people from all kinds of backgrounds (Bachmann in Pisano 2016). The members of the Peer Group from more than 10 countries met several times and held discussions with a wide range of interested groups and individuals from all parts of the society. Although the process was timeconsuming, the responsible authority concluded that the inclusive peer-review ultimately helped to reduce costs (Bachmann in Pisano 2016).

Based on the positive experiences in the past, in the light of the efforts necessary to implement the international Sustainable Development Goals (SDGs), the European Sustainable Development Network (ESDN) is currently establishing a European SD Platform for Peer Learning between responsible national ministries to facilitate the exchange of experiences and good practices.

The second approach is an external evaluation undertaken by institutions that have no direct responsibility for the development or implementation of the sustainable development strategy. External, government independent evaluators (e.g. research institutes, consultants) from either within the country or from other countries undertake this form of evaluation. For example, Austria, Belgium and Switzerland have scheduled external evaluations of their strategy process (Austria, Belgium) and/or content, outcomes and impact aspects (Switzerland).

In the case of Austria, the main objective was to evaluate the implementation instruments of the strategy not, however, the strategy and the policy goals. The requirement to undertake such an evaluation was set out in the strategy itself with the aim to improve its impact and institutional effectiveness. The evaluation process was based on a range of selected criteria, i.e. consistency, effectiveness, efficiency, appropriateness and transparency. Information to assess the criteria was gained from standardised interviews, workshops and recommendations from other countries. A report presenting the results is available (in German language¹²).

Internal reviews of sustainable development strategies are undertaken by national governments in order to measure progress towards the commitments, targets and objectives that were set out in the strategy document. The review is usually undertaken by government-related bodies, i.e. ministries or other administrative bodies, with little or no external inputs and delivered. A number of European countries have undertaken internal reviews over the last several years, e.g. UK, Belgium and Finland.

ESDN developed an overview with the pros and cons of the presented three qualitative evaluation approaches. This table has been adopted to provide meaningful insights for evaluation adaptation to climate change (cf. Table 3).

¹²http://www.forschungsnetzwerk.at/downloadpub/Evaluationsbericht_Nachhaltigkeitsstrategie.pdf

 Table 3: Overview table on pros and cons of three evaluation approaches

Approach	Pros	Cons
Peer Review	 Close relationship, intensive dialogue and exchange of good practice between various countries; Peers (public administrators) provide their insight about political processes and administrative issues; Possibility of inclusion of a variety of actors and stakeholders; Higher acceptance of outcomes among public administrators. 	 Time-intensive; Risk of peers not being critical enough; Dependent on high-level political commitment.
External evaluation	 Independence and outside perspective as evaluation is undertaken by researchers or consultants; Scientific methods used; Results may help policy-makers to justify further implementation actions. 	 Quality of evaluation depends on selection process of external evaluators and their methods; External evaluators have less inside knowledge about strategy processes and implementation procedures; Possible influence from policy- makers or public administrators on external evaluators may dilute evaluation outcomes.
International evaluation	 Undertaken by internal actors who know the strategy process and implementation procedures best; Involvement of important governments may be easier as no external actors participate. 	 If external stakeholders are not involved, there is danger or bias and lack of objectivity; Lack of "outside view" can imply lack of innovation.

(Source: adapted from http://www.sd-network.eu/?k=quarterly%20reports&report_id=2)

5 Conclusions

It is evident from the three chapters that there are synergies between MRE for climate change adaptation and MRE in other policy domains. Whilst adaptation presents a distinct set of issues for evaluation practitioners, valuable lessons can be gleaned by examining evaluation practice in other policy areas and geographies.

The review of MRE activities in the domains of biodiversity policy, adaptation in the international development and sustainability policy reveals a number of highly pertinent lessons for those tasked with developing national level MRE approaches in Europe. The highlighted lessons contribute to the four criteria for policy evaluation used by the EEA and the European Commission (EC 2015; EEA 2016): relevance, effectiveness, efficiency and coherence. They coalesce around the following main themes:

5.1 Exchanging methodological approaches

Theory of Change (ToC) approaches are already being used in MRE for adaptation, but to date have been less prevalent at national level. Chapter Two highlights how ToC is being applied to the biodiversity domain and calls for greater exchange of knowledge between biodiversity and adaptation MRE practitioners to develop such approaches. Drawing upon experiences in sustainability evaluation, Chapter Four highlights the importance of mixed methods approaches that integrate social science disciplines in order to better capture the complexity of the systems. This reinforces the findings from EEA's 2015 report on MRE for adaptation (EEA 2015).

5.2 Embedding learning mechanisms in MRE processes

Chapter Three highlights how the international development community is increasingly establishing ongoing learning partnerships and mechanisms alongside, and embedded in, programme evaluation efforts. Likewise the peer review approach from the sustainability policy domain described in Chapter Four demonstrates an approach that facilitates learning. Such mechanisms are generally less evident at national level adaptation MRE in Europe. Whilst efforts to more comprehensively address learning in national level adaptation MRE are only now emerging, the experiences from other domains suggest that they could provide a critical link between evaluation and learning outputs and thus contribute to future enhancement of adaptation policies and actions. This is supported by the findings of the EEA report on national level MRE for adaptation (EEA 2015), which emphasised the need to foster learning from the evaluation of adaptation policies. There may also be space for a cross-European evaluation and learning instrument or platform to help exchange lessons derived from adaptation evaluation efforts.

Parallel to supporting MRE as a process for learning, it is important to understand whether, and to what extent, learning is taking place in policy implementation processes and among involved actors. The Dutch Delta Programme evaluation framework referenced in Chapter Three includes elements of reflexive learning in its approach that are designed to also support learning among actors. Embedding such mechanisms for learning in MRE systems can also facilitate making learning a more integral part of policy implementation processes. Theory of Change (ToC) approaches, as outlined in Chapter Two, can also support improved learning as they help to reassess assumptions and check the intervention logic.

5.3 Addressing evaluation across multiple scales (vertical coherence) and between related policy domains (horizontal coherence)

All discussed policy domains highlight the issue of assessing effectiveness across multiple scales, and how to make evaluation outputs relevant to enhance future adaptation policies and actions at multiple scales. Chapters Two and Four both identify the need for such interaction to be underpinned by multi-level governance frameworks (Biodiversity) or at least close interaction on MRE between various scales of administration (Sustainability). Chapter Three emphasises the need for national level MRE frameworks to specifically address information needs across multiple scales and to reinforce these conceptual frameworks with practical methods such as stakeholder forums, surveys of sub-national actors and spatially coherent indicator sets.

Examples of evaluation in the biodiversity domain illustrate the benefits of facilitating knowledge exchange and sharing available indicators for monitoring policy progress across sectors and policy areas. Perhaps not surprisingly a similar theme was picked up in the field of sustainability. As adaptation is also cross-sectoral, greater efforts need to be made to improve horizontal coherence to inform MRE approaches. There may even greater demand for such approaches as global policy frameworks relevant to national level adaptation, such as the Sendai Framework for Disaster Risk Reduction (SFDRR) and Sustainable Development Goals (SDGs), establish national level indicators and reporting mechanisms.

5.4 Participation

All three of the policy domains examined in this paper provide valuable insights in terms of improving participation within MRE processes. Experiences from the biodiversity sector illustrate the value of establishing groups and fora through which stakeholders can engage, while Chapter Three makes the case for greater investment in participatory approaches within evaluation processes to increase the range of perspectives from which adaptation success is considered. This view was reinforced at the EEEN Forum 2016 and in particular in the presentation of Rapid Impact Evaluation (RIE) methods. Chapter Four demonstrates how sustainability evaluations have used peer review processes, something that is already being considered in national level MRE for adaptation.

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