



8. Achieving international climate and development goals through water

This chapter discusses how major international climate change, sustainable development and disaster risk reduction (DRR) policy processes, as well as corresponding institutional frameworks, have been dealing with water-related challenges introduced in the previous chapters. By elaborating on selected international policy processes and frameworks, including major global agendas, and linking them to the water sector, the chapter offers approaches for the water community to address future challenges.

The chapter focuses on institutions and processes relating to the international climate change architecture that have originated within the context of the UNFCCC, and identifies promising entry points for dealing with water challenges. An integrated perspective involving the 2030 Agenda framework to implement the Sustainable Development Goals (SDGs) and the Sendai Framework on Disaster Risk Reduction can pave the way for resilient and low-carbon economies through sustainable water security.

Key Messages of Chapter 8

- 💧 Water can play a significant part in achieving climate objectives – not only as part of the adaptation agenda, but also to support equally important mitigation objectives.
- 💧 The Paris Agreement of 2015 and its “Rulebook”, which was adopted in 2018 at the 24th Conference of the Parties (COP 24) to the UNFCCC in Katowice, are the main reference frameworks that need to be considered, when formulating water-related climate priorities.
- 💧 Strategy and planning processes to implement the Paris Agreement on a national level are key areas in which water-related activities play a prominent role. This is especially relevant in the context of Long-term Strategies, Nationally Determined Contributions (NDCs) and the National Adaptation Plans (NAPs).
- 💧 The next round of NDC ambition raising (update), to be completed in 2020, can demonstrate a more comprehensive recognition of the water sector’s potential for climate change mitigation and adaptation. The role of water for mitigation of GHG in particular requires a more prominent acknowledgment.
- 💧 Due to the significant overlaps between water- and climate-related SDGs, the implementation processes of the 2030 Agenda and the Paris Agreement can benefit from stronger integration of the two subject areas.
- 💧 DRR and its application, disaster risk management, need to be considered when addressing climate change adaptation priorities in the water sector. By using synergies, water-related activities offer important entry points. To this end, different initiatives that can be systematically strengthened are already underway, such as the Global Initiative on Disaster Risk Management (GIDRM).

8.1 UNFCCC, Paris Agreement and water

Water significantly contributes to the objectives of the cross sectorial international climate policy framework. The references to water in the key documents are mainly indirect – as the following list of key elements indicates:

Article 4 of the 1992 UNFCCC related to commitments of Parties to the Convention emphasises the need to cooperate and implement adaptation actions to address climate change impacts. The particular focus of Article 4 concerns the needs of developing countries. Article 4, paragraph 1(e) of the Convention commits Parties “to develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods.”

During the 2010 UNFCCC Conference of the Parties (COP 16) in Cancun, Parties agreed to establish the **Cancun Adaptation Framework**. Its objective is to enhance action on adaptation, including through international cooperation and coherent consideration of matters relating to adaptation under the Convention. Apart from information-sharing, paragraph 14(a) of the Cancun Agreement makes specific reference to water resources, freshwater, marine ecosystems and coastal zones in a footnote, referring to “planning, prioritizing and implementing adaptation actions, including projects and programmes”.

In addition, the **Nairobi Work Programme** has provided useful guidance on climate change and freshwater resources. Examples are the synthesis of adaptation actions undertaken by Nairobi Work Programme partner organizations (2011), as well as the synopsis of the Nairobi Work Programme, which focuses on water resources, climate change impacts and adaptation planning processes. The overview of good practices and lessons learnt presented in the Nairobi Work Programme can inform important steps towards a stronger integration of climate change adaptation and resilient water management.

More recently, the **Subsidiary Body for Scientific and Technological Advice (SBSTA)**, one of the two Subsidiary Bodies under the UNFCCC responsible for guiding the implementation process at the technical level, requested that decision-makers prioritise select thematic areas, many of which are water-related, such as dealing with extreme events like flash floods and heavy precipitation as well as droughts, water scarcity, coastal areas and mega deltas (SBSTA, 2019). Thus, in this context, water-related activities remain a focus.

→ *The text of the Paris Agreement makes no direct reference to water. Still, there are several entry points for water-related issues.*

The **Paris Agreement** itself, adopted in December 2015, makes no direct reference to water. However, with additional guidance for implementation as adopted at COP 24 in Katowice in 2018 (often referred to as “**rulebook**”), there are references related to different parts of the Paris Agreement. These mainly concern the provision of information on implementation, for instance as part of **Article 13** (modalities, procedures and guidelines for the **transparency framework**):

- Information related to climate change impacts and adaptation under **Article 7** of the Paris Agreement: adaptation strategies, policies, plans, goals and actions to integrate adaptation into national policies and strategies. Each Party should provide the following information, as appropriate on plans, strategies, policies, priorities (e.g. priority sectors, priority regions or integrated plans for coastal management, water and agriculture).
- Information on financial support provided and mobilized under **Article 9** of the Paris Agreement (sectors including water and sanitation).

As one result of the COP in Katowice and the adopted Rulebook, **adaptation communications** have received increased attention. The Rulebook contains guidelines for countries on how to communicate and report on adaptation measures. Every five years, a global review is carried out in order to jointly analyse whether adaptation efforts are adequate and whether they consider how to deal with the impacts of climate change in a more effective manner.

In addition, the call in the Paris Agreement to develop **long-term strategies** can be relevant in particular concerning climate change mitigation through water. In accordance with Article 4, paragraph 19, of the Paris Agreement, all Parties should strive to formulate and communicate long-term low greenhouse gas emission development strategies, keeping in mind the common but differentiated responsibilities and respective capabilities of Parties in light of different national circumstances. As of June 2020, however, only sixteen countries and the EU have submitted long-term strategies to the UNFCCC, and water plays a minor role as an entry point for GHG reduction efforts.

The importance of climate policy planning processes has increased since the adoption of the Paris Agreement. Ever since, long-term strategies (main focus on long-term mitigation) and NDCs (regular updates on short- to medium-term priorities and planned contributions to climate change mitigation and adaptation) have become important drivers for policy planning processes.

→ *Climate change challenges can only be solved through ending siloed sector-thinking, while promoting cooperation across different line ministries.*

In many cases, one big barrier to effective adaptation planning and action is the lack of coordination in both directions – horizontal and vertical, including inter-ministerial coordination in some countries. Roles and responsibilities related to the formulation and implementation of climate action may be unclear: For instance, climate change policies are usually under the remit of the ministry of environment. Not all sector-related questions, including water – also with

respect to DRR strategies and management – might be appropriately covered, if responsibilities are scattered among ministries. It might be beneficial to promote and improve the inter-ministerial and inter-sectorial coordination in order to comprehensively address climate goals. With respect to the implementation of the Paris Agreement, various relevant policy planning processes relate to water issues to different degrees.

Definition of terms



Key climate policy planning processes

Long-term Strategies

All Parties should strive to formulate and communicate long-term low GHG emission and climate resilient development strategies, being mindful of Article 2, i.e. taking into account their common but differentiated responsibilities and respective capabilities, in light of different national circumstances.

Article 4, paragraph 19 of The Paris Agreement

Nationally Determined Contributions (NDCs)

Nationally Determined Contributions (NDCs) are a written explanation of national efforts taken by each country to reduce emissions and adapt to the impacts of climate change. The Paris Agreement requires the preparation, maintenance, and communication of NDCs. Starting in 2020, every five years, governments will take stock of the implementation and the collective progress towards achieving the purpose of the Agreement and its long-term goals. The NDCs will be updated by the countries and their ambition raised to be in line with the objectives of the Paris Agreement.

Adapted from UNFCCC n.d.: Nationally Determined Contributions (NDCs).

National Adaptation Plans (NAPs)

Developed under the Cancun Adaptation Framework, National Adaptation Plans (NAPs) are nation-specific means to identify medium- and long-term adaptation needs. They outline ways to develop and implement strategies and programmes to address the identified needs.

UNFCCC n.d.: National Adaptation Plans

The following sections show how selected climate policy processes have been dealing with water issues and what can be learnt by the water sector. So far, the mitigation potential through water (*see Chapter 7*) has not been extensively considered. Nevertheless, water’s relevance for strengthening climate adaptation and resilience has gained strong attention in the NDC and also the NAP process.

Long-term Strategies and Low Emission Development Strategies

In order to take advantage of the water sector’s potential to support climate change mitigation, it is necessary to integrate objectives and measures in relevant strategic documents.

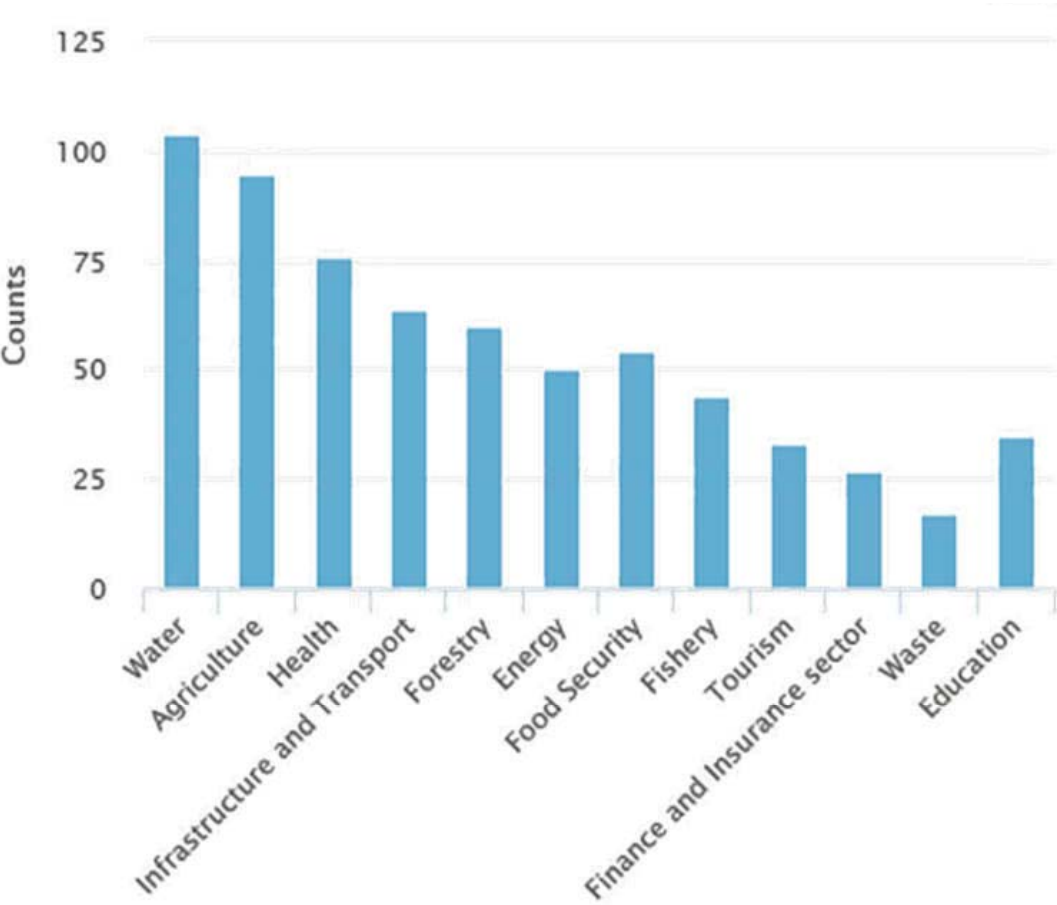
However, neither the process of designing and implementing Low Emission Development Strategies (LEDS), which started back in 2008, nor the long-term low GHG emission development strategies, as requested through the Paris Agreement, have been prominently highlighting activities in or of this sector.

LEDS as a concept was first used by UNFCCC in 2008 and then also included in the Copenhagen Accord of 2009, which recognized LEDS as indispensable to sustainable development. Further operationalized in the years after the Copenhagen climate conference, the LEDS concept today has a great deal of overlap with the request by the Paris Agreement to formulate and communicate long-term low GHG emission development strategies. These should recognize common but differentiated responsibilities and respective capacities of the countries. There is significant scope to involve ministries or agencies representing the water sector during the participatory process envisaged by UNFCCC, in addition to the other sectors prominently covered in the longterm strategies submitted so far (e.g. energy, transport, housing, agriculture).

Nationally Determined Contributions

The Paris Agreement requires all Parties to put forward their best efforts to reduce emissions and outline their reduction targets through Nationally Determined

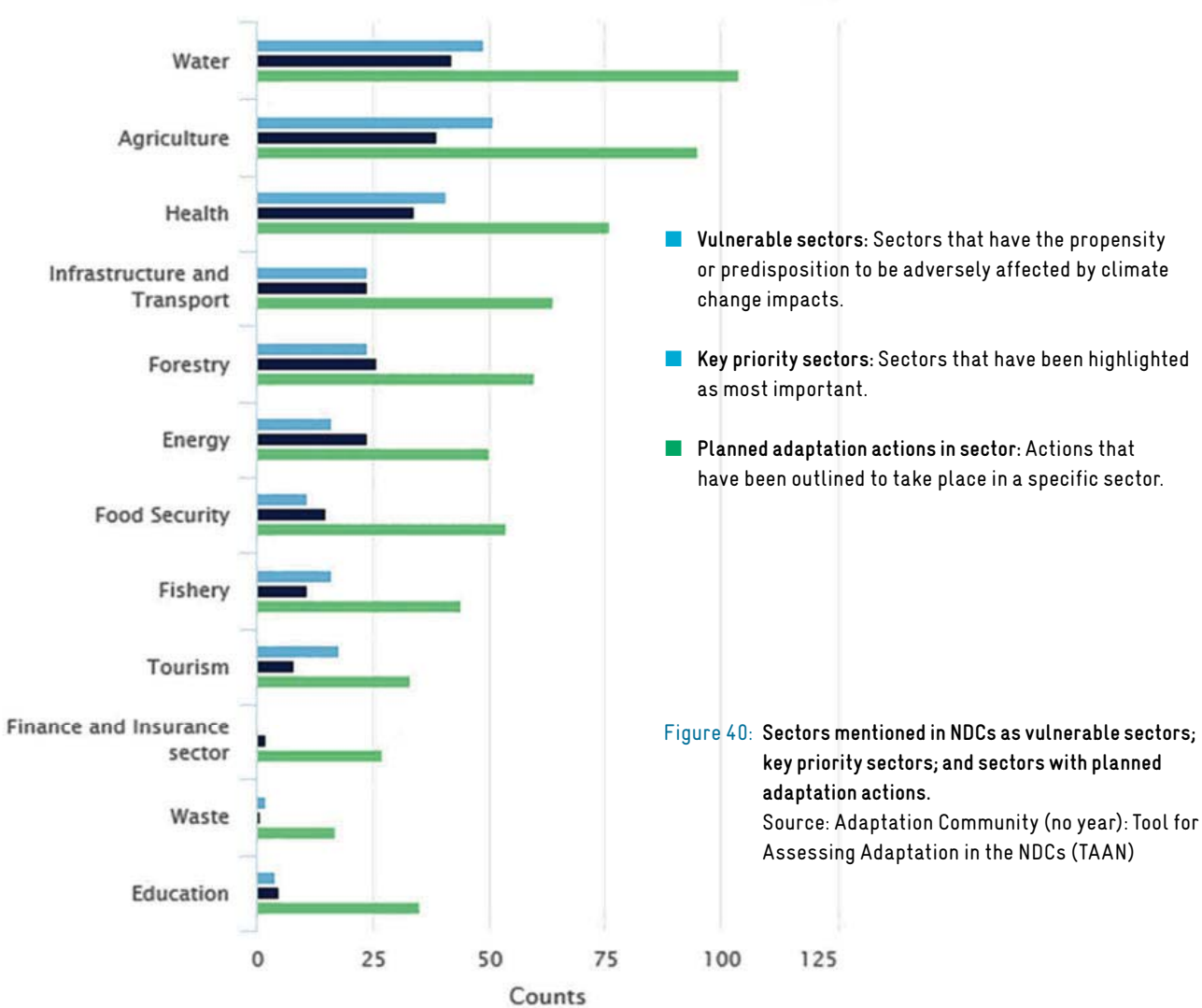
Figure 39: Number of NDCs with sectoral adaptation plans components for twelve different sectors.
Source: Adaptation Community (no year): Tool for Assessing Adaptation in the NDCs (TAAN)



Contributions (NDCs). Furthermore, Parties should strengthen their climate efforts in the future by updating their NDCs every five years before submitting them to the UN-FCCC.

The next round of NDC updates, in which Parties are called to raise their ambitions compared to previous NDCs, is scheduled for 2020. Thus, the role of water can still be strengthened substantially within NDCs. In general, emission targets set by current NDCs are insufficient to comply with the Paris Agreement. Consequently, policymakers will most likely face additional pressure to further explore GHG reduction potential within all sectors – including water – as well as to integrate sectors through cross-sectoral decarbonisation efforts. Sectoral NDC guidelines, such as Timboe et al. (2019) and *Chapters 6 and 7* of the present report, help water and climate actors to identify and include potential water-related issues.

In current NDCs of the Parties, water is prominently addressed with regard to adaptation. As a result of the Paris Agreement Rulebook, as well as the outcomes of COP 24, decision-makers agreed to provide further guidance and support in communicating adaptation needs and experiences; thus, more concrete priorities and activities can be expected for updated NDCs. With respect to specific adaptation references in the NDC documents, tools like the “Tool for Assessing Adaptation in the NDCs” (TAAN) database, hosted by GIZ via the knowledge platform adaptation-community.net, or overview studies, such as the Global Water Partnership (GWP) NDC assessment (2018), offer information needed to provide a general status quo assessment on the relevance of water for the NDC process. According to the TAAN database, water is the sector most frequently mentioned in the NDC adaptation components. More than a hundred NDCs already include a reference to a sectoral plan on water (*see Figure 39*).



Within the original NDCs, water is frequently considered as a vulnerable sector (*see Figure 40 on previous page*). It is identified as “vulnerable” in 49 NDCs, and considered a priority sector for implementing new adaptation measures in 42 NDCs. Such a prominence of water within current NDCs, however, raises further questions regarding the actual implementation of water-related adaptation activities. For instance, how can perceived or actual vulnerabilities outlined in NDCs be translated into concrete adaptation measures? Furthermore, keeping in mind that NDCs were initially designed for mitigation concerns – addressing mid- to long-term emission targets, rather than stating actual plans, strategies or roadmaps for adaptation measures – challenges associated with implementing concrete adaptation measures become even more apparent. Consequently, the degree to which Parties will focus on adaptation components within their next NDCs remains to be seen. Eventually, the success of the NDC process – as one country-owned part within the international climate architecture – essentially depends on political support and determination.

In order to fully exhaust the water sector’s potential within the NDC process, the periodic ambition-raising (update) process could address some of the contemporary flaws with respect to water. For instance, there are still gaps in adequately reflecting the close relationship between water issues and DRR concerns. Furthermore, the water sector’s mitigation potential does not seem to be fully exhausted – creating an untapped GHG reduction potential within upcoming NDCs (*see Chapter 7*).

National Adaptation Plans

Another country-owned key planning element of the international climate architecture is the NAP process. It was established in 2010 as part of the Cancun Adaptation Framework – not least to complement existing short-term NAPAs, which represented the main planning approach to guiding adaptation options by Least Developed Countries (LDCs). In prioritising adaptation options, countries are advised to pay attention to specific criteria, such as potential co-benefits, conflict prevention and integrating adaptation and development planning (LDC Expert Group 2012). The core principles, defined in 2012 (*see box below*), mirror the country-owned, voluntary, participatory and transparent nature of this process.

Consequently, the NAP process is an integral part of the assessment of overall climate change vulnerabilities and, more generally, risks at different levels. NAPs can thus be decidedly useful for developing countries in assessing measures to counter climate change impacts (LDC Expert Group 2012a). As of June 2020, 20 countries have officially submitted a NAP document under UNFCCC.¹ However, several additional countries have started their NAP processes.

¹ see www4.unfccc.int/sites/NAPC/Pages/national-adaptation-plans.aspx for current status

The core principles of the NAP process include:

- 💧 continuous planning process at the national level with iterative updates and outputs.
- 💧 country-owned, country-driven.
- 💧 not prescriptive, but flexible and based on country needs .
- 💧 building on and not duplicating existing adaptation efforts.
- 💧 participatory and transparent.
- 💧 enhancing coherence of adaptation and development planning.
- 💧 supported by comprehensive monitoring and review.
- 💧 considering vulnerable groups, communities, and ecosystems.
- 💧 guided by best available science.
- 💧 taking into consideration traditional and indigenous knowledge.
- 💧 gender-sensitivity.

Source: Based on LDC Expert Group, 2012a

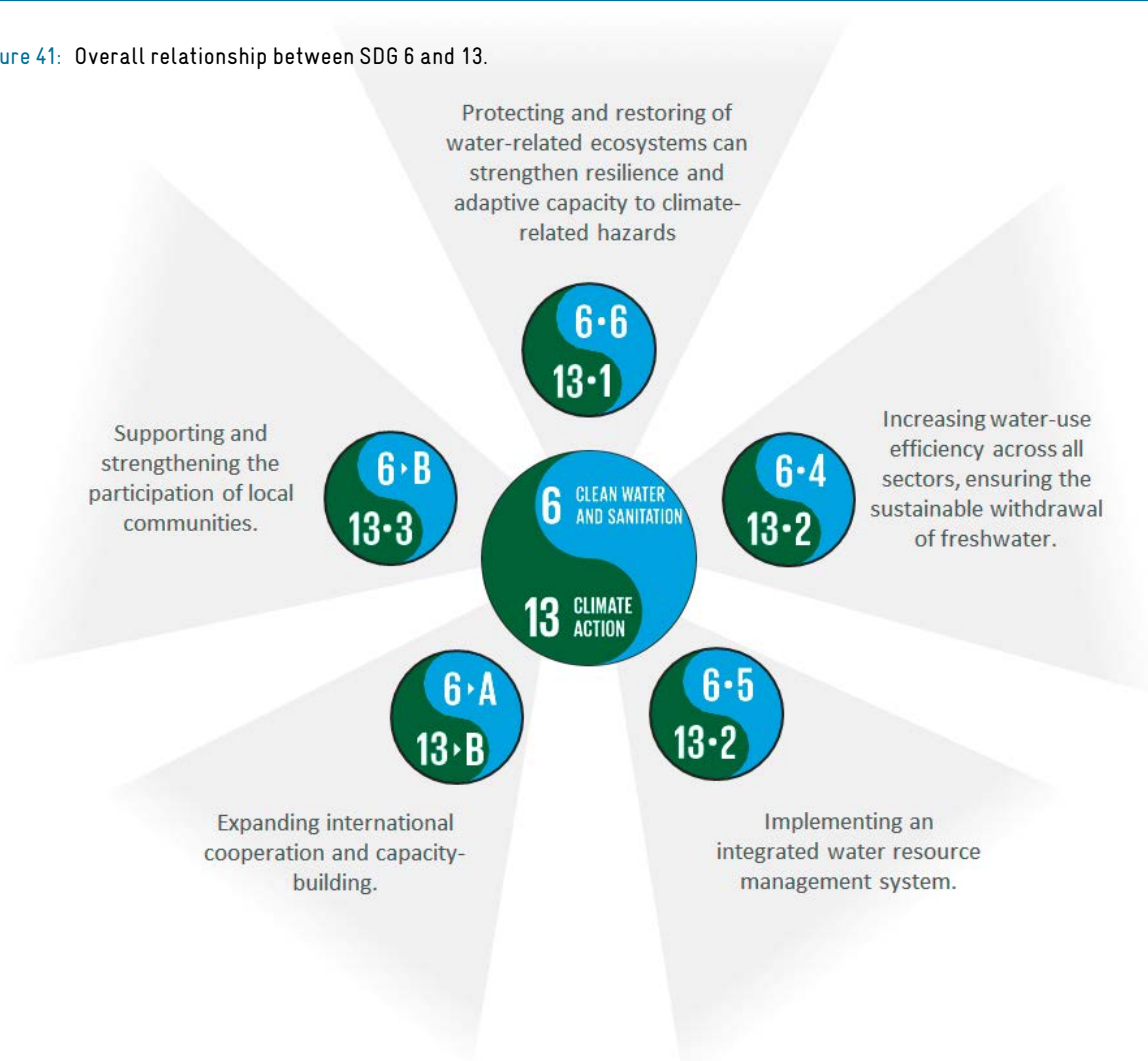
Potential entry points for the water sector in support of the NAP process can be identified (GWP, 2018):

- The identification and selection of potential adaptation options must be supported by appropriate data and information, and it requires adequate analytical capacities. At the same time, the stakeholders involved in this process are asking for easy-to-apply screening tools in addition to more sophisticated vulnerability and risk assessments (*see Chapter 6.2*).
- An effective and strong process of stakeholder engagement can help to create broad ownership of the NAP process (and the selected adaptation actions) by different stakeholder groups, especially sectors such as water. In addition, inter-ministerial and inter-sectoral coordination and cooperation is needed to ensure successful implementation. Water-related adaptation activities – as well as other sectoral adaptation activities – need to be aligned with the overall NAP implementation strategy. Continuous capacity-building can further help to improve the ownership and engagement of stakeholders.

- A due reflection on budget needs and how additional resources can be mobilised will be a key aspect of further implementation. Similar to the NDC implementation process, a financing and investment strategy and/or action plan is essential to identify and attract potential sources of funding. Such an approach can also consider innovative financing options, such as climate-related risk-transfer mechanisms.

Overall, throughout the NAP process, the perspective of water sector stakeholders can be integrated at several stages. To this end, water priorities can be communicated through the representation of relevant stakeholders at national climate change coordination entities and/or through cooperation among ministries responsible for water and climate change issues. Analysing and summarising sector assessments on risk and opportunities related to climate change and consulting with civil society and the private sector, can be helpful first steps for an effective engagement of water stakeholders.

Figure 41: Overall relationship between SDG 6 and 13.



8.2 Sustainable Development Goals

Climate change impacts pose substantial threats not only to water-related SDG targets, but also to the achievement of development targets as a whole. However, some of these threats are particularly critical with regard to SDG 6 on clean water and sanitation and its targets. Efforts to implement SDG 13 on climate action and SDG 6 can mutually reinforce each other, thereby creating a set of valuable synergies (UN Water, 2016).

Potential areas for the creation of synergies between the implementation of SDG 6 on water and SDG 13 on climate action can be identified (*see Figure 41 on previous page*), including increased water efficiency across sectors (SDG target 6.4). By combating climate change and its impacts (SDG 13), water scarcity can be limited (6.4), water quality improved (6.3) and water-related ecosystems and their services protected and restored (6.6).

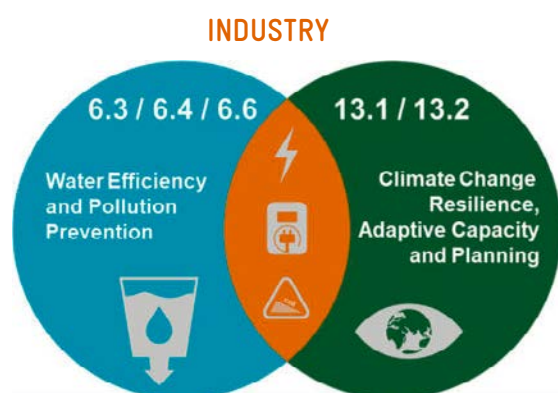
Implementing approaches for IWRM (6.5) can support both targets on climate awareness-raising (13.3) and mainstreaming climate and ecosystem values across development processes (13.2). By supporting and strengthening the participation of local communities in improving water and sanitation management (6.B), communities can also improve education, awareness-raising and capacity on climate change mitigation and adaptation (13.3). Finally, expanding international co-operation and capacity-building in developing countries in water- and sanitation-related activities (6.A) can help promote climate change-related planning and management in vulnerable countries and communities (13.B).

Beyond SDG 6 and in relation to climate change, water is explicitly mentioned in SDG 3 (good health and well-being), specifically on health impacts from waterborne

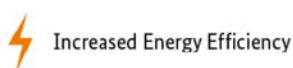
diseases (3.3) and contaminated water (3.9) and SDG 11 (sustainable cities and communities), specifically target 11.5 on disasters. With regard to ecosystems, SDG 15 (life on land), which addresses terrestrial ecosystems, reveals some important links to climate action and water security issues (Bhaduri et al., 2016). For instance, target 15.1 promotes the conservation, restoration as well as the sustainable use of terrestrial and inland freshwater ecosystems and their services – with likely positive impacts on water and climate action. Conversely, the adherence to Integrated Water Resources Management principles (6.5) can support SDG 15 and 13 targets, including through mainstreaming climate and ecosystem values across development processes.

Selected sector specific interlinkages

With respect to specific sectors, measures related to buildings, industry, transport, agriculture, forests, oceans and coal replacement that can help to implement both SDGs 6 and 13 have been identified. Beyond behavioural changes, key entry points for synergies between water and climate-related SDGs are the implementation of energy efficiency measures and related alternative low-carbon policies. This applies especially to the building, industry and transport sectors. With regard to the agricultural and forest-related spectrum of synergies, another set of activities, such as sustainable manure management and avoiding deforestation and promoting sustainable forest management, offers promising co-benefits. However, some areas also show potential trade-offs where cross-sector cooperation is needed to avoid negative side effects, e.g. with respect to the role of new nuclear energy or carbon capture and sequestration.



- (+) Reduced energy demand will reduce water consumption
- (+/-) Low-carbon fuels can lead to a reduction in water demand and waste water, as long as the low-carbon fuel comes from a less water intensive alternative to higher carbon fuels
- (+/-) CCU/S can contribute to localised water stress.

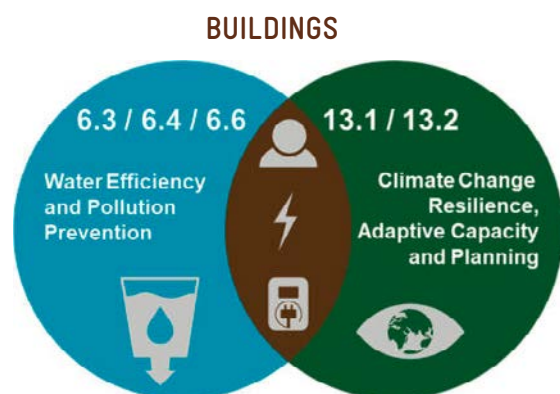


Accelerating energy efficiency improvements: Accelerating energy efficiency and behavioural changes in the industry sector is likely to serve climate and water purposes alike. Lower demand for energy is often accompanied by reduced water consumption and an overall reduction of water withdrawal for industrial processes.

Low-carbon fuel switch: A switch to low-carbon fuels can have positive as well as negative effects on water efficiency and pollution prevention. It can lead to a reduction in water demand and wastewater – but also to increased water use, if the switch leads to a larger dependency on biofuels. But the effects on climate change are likely to be positive, due to reduced carbon emissions. In other words, in a region threatened by increasing water scarcity, low-carbon fuels will have positive consequences overall, if a less water-intensive alternative to higher-carbon fuels can be used. The specific

context needs to be considered during the planning stage of industrial processes.

Decarbonisation via Carbon Capture and Sequestration and Carbon Capture and Utilisation (CCS/CCU): The IPCC also sheds light on the use of potential carbon capture sequestration or usage practices. From a water scarcity perspective, CCU/S can be both positive and negative. It can contribute to water stress, but in principle, it can also be configured in a way that it contributes to increased water efficiency compared to a system without carbon capture. From a climate perspective, CCU/S will most likely have positive effects in terms of mitigating emissions, though the efficiency and impacts of this approach are still subject to discussion.



- (+) Reduced residential energy demand might reduce water consumption
- (+/-) Low-carbon fuels can lead to a reduction in water demand and waste water, as long as the low-carbon fuel comes from a less water intensive alternative to higher carbon fuels
- (+) Improved access to energy can support clean water and sanitation technologies.



Behavioral Response



Increased Energy Efficiency



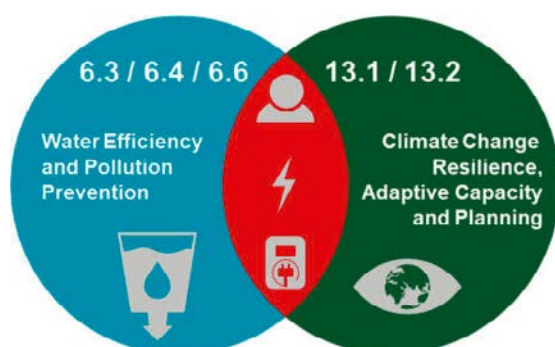
Low-carbon Fuel

Behavioural response: Behavioural changes in the residential sector are likely to affect both water efficiency and climate change resilience in a positive way, due to the effects of reduced energy demand and reduced water demand (in case of climate change-induced water scarcity).

Accelerating energy efficiency improvement: Efficiency changes in the residential sector might have benefits for both water efficiency and climate change resilience. Using low-carbon fuels might lead to a reduction in water demand, though, so far, there is little evidence of this.

Improved access and fuel switch to modern, low-carbon energy: Using low-carbon fuels in the residential sector is likely to reduce water demand. However, water use can actually be higher in some cases – it depends on which low-carbon fuel is used. Improved access to energy, which can be supported by subsidies for renewable energies, can support clean water and sanitation technologies.

TRANSPORT



- (+) Efficiency measures leading to reduced demand will reduce water consumption
- (+/-) Low-carbon fuels can lead to a reduction in water demand, as long as the low-carbon fuel comes from a less water intensive alternative to higher carbon fuels
- (+/-) Transport electrification can have mixed outcomes, depending on the water intensity of power generation.



Behavioral Response



Increased Energy Efficiency



Low-carbon Fuel

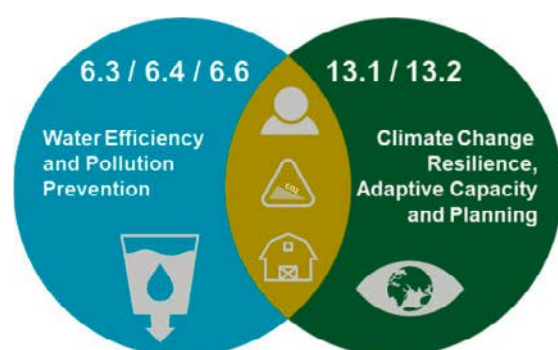
Behavioural response: Behavioural changes in the transport sector are likely to benefit water efficiency and pollution prevention because of reduced water consumption and waste water. GHG are likely to be reduced, too, because of reduced transport energy supply.

Accelerating energy efficiency improvement: Efficiency measures in the transport sector are likely to be positive from both a water and climate perspective, thanks to reduced transport energy demand and reduced water consumption as a result of greater efficiency.

Improved access and fuel switch to low-carbon energy:

Low-carbon fuels in the transport sector can be positive and negative from a water perspective. The switch can lead to reduced water demand, but can also increase water use compared to existing conditions depending on the low-carbon fuel used.

AGRICULTURE AND LIVESTOCK



- (+) Reduced food waste avoids direct water demand
- (+) Healthy diets can incorporate supply chains that are less water intensive
- (+/-) Soil carbon sequestration can alter the capacity of soils to store more water
- (+) Livestock efficiency is expected to reduce water demand, in addition to waste water flows.



Behavioral Response



Decarbonisation and CCU/S



Agricultural Management

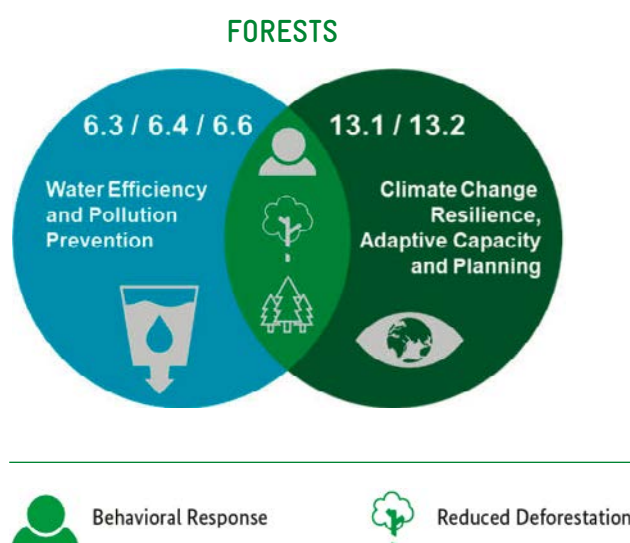
The WEF Nexus approach (see Chapter 6.1) offers tools and concepts to enhance cooperation among water, agriculture and energy stakeholders in order to enhance overall resilience and efficiency.

Behavioural response: Activities to ensure sustainable healthy diets and reduce food waste can yield major positive synergies. Behavioural changes in the agriculture and livestock sector are likely to benefit the areas of water efficiency and climate change resilience. Reducing food waste also helps reduce water demand for crops and food processing, as well as prevent water being used for energy supply.

Land-based GHG reduction and soil carbon sequestration:

Soil carbon sequestration can affect water efficiency in a positive and negative way. The capacity of soils to store water can change as a result of sequestration efforts which can also impact the hydrological cycle. Many current agricultural practices have played a role in destroying the carbon sink and water storage functions of soils.

GHG reduction from improved livestock production and manure management systems: Livestock efficiency measures are likely to reduce water demand. But they could also cause increased water demand and water stress if agricultural intensification is mismanaged



- (+) Co-benefits from responsible sourcing if the strategy incorporates water metrics
- (+) Forest certification programmes and sustainable forest management provides freshwater supplies
- (+/-) Forest management alters the water cycle in an unclear way, but it does provide sustainable and regulated provision for water purification
- (+) Tree belts can remediate dryland salinity. Watershed scale reforestation can result in the restoration of water quality.

Behavioural response: (responsible sourcing): Responsible sourcing of forest products refers to the commitment to use wood (e.g. for its products and packaging) that is sourced from certified or verified responsibly managed forests or recycled content. Related activities can benefit water efficiency and pollution prevention and climate change resilience, if the strategy incorporates water-related indicators and metrics.

Reduced Deforestation, REDD+: Forest management can have a positive effect from both a water and climate perspective. Changes in forest management and the

hydrological cycle can be positive or negative, while conserving ecosystem services is likely to help countries maintain their watershed integrity and also benefit climate change resilience. It is not always clear how forest management alters the water cycle, but it often provides for sustainable, regulated water purification. Afforestation and Reforestation can remediate dryland salinity. Watershed scale reforestation can help restore water quality.

8.3 Disaster Risk Reduction

In addition to the strong linkages between climate and water SDGs, there are also important interlinkages with the Disaster Risk Reduction (DRR) agenda. Both, the 2015 Sendai Framework for DRR and the Paris Agreement, recognise the linkages between climate change and disasters (see e.g. AGWA, 2018). In practice, however, the two policy communities and their respective implementing bodies still

have the potential to improve coherence, particularly with regard to implementation.

In particular, the need to promote resilient water management as a key to climate change adaptation as well as DRR underlines this point. Water can be a bridge between both policy communities.

Figure 42: Interlinkages between SDG 6, 13 and DRR. Source: Own compilation based on SDGs targets and IPCC 2018



SDG context

A starting point for examining the interrelations between climate, water and DRR are, again, the SDGs. SDG target 13.1 is most directly linked to water, aiming to strengthen resilience and adaptive capacity to climate-related hazards

and natural disasters in all countries. There are also major linkages to DRR and climate in SDG 6, e.g. the importance of expanding sustainable water management for reducing vulnerabilities to hazards. Ecosystem management also plays a major role here (see Figure 42 above).

Initiatives to foster integration between DRR and CCA

Several efforts to contribute to a better integration of the different policy agendas of DRR and climate change adaptation already exist.

a) Global Initiative on Disaster Risk Management (GIDRM): The GIDRM, originally launched in 2013, started its second phase in February 2018. It supports national and international activities to strengthen the coherence of the Sendai Framework, the Paris Agreement, the 2030 Agenda for Sustainable Development and the New Urban Agenda. It is directed at governmental as well as non-governmental actors, and has a focus on planning, implementing and reporting on disaster risk management. The Initiative aims to deliver good practices in different regions, such as Latin America and the Caribbean and in the Asia Pacific Region. These practices may eventually also be presented as regional recommendations to platforms such as the Global Platform for Disaster Risk Reduction. GIDRM is commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by GIZ.

b) Climate Resilient Infrastructure Development Facility (CRIDF): The CRIDF aims to provide long-term solutions to water issues that affect poor communities in Southern Africa, and it puts a strong emphasis on enabling organisations to build their own water infrastructure. Funded by DFID (UK), it works with twelve different countries in Southern Africa that share water resources. With its facility approach, CRIDF seeks to facilitate access to finance for projects in the region and provides advice on how to best select and manage the projects. It also advises partners on resilient ways to select, manage and implement their projects with regard to infrastructure. One of the core ideas is to share successful cases from other regions that are convincing to local partners, thereby contributing to the diffusion of good practices.

c) Technical Expert Meetings on Adaptation (TEM-A): Furthermore, in the framework of the climate change negotiations, there have been considerations on the interconnectedness of climate change, sustainable development and disaster risk reduction. In 2017, the second technical expert meetings on adaptation (TEM-A) focused on the prospects of increasing collaboration between the three agendas – with a special focus on country-level implementation. As one potential entry point, participants identified NAPs that can support using the linkages to further integrate sustainable development and DRR considerations into the adaptation process (TEP-A, 2017).



8.4 References

Adaptation Community (without year): **Tool for Assessing Adaptation in the NDCs (TAAN)**.

<https://www.adaptationcommunity.net/nap-ndc/tool-assessing-adaptation-ndcs-taan/taan/#>

AGWA (Alliance for Global Water Adaptation) (2018): **Mastering disaster in a changing climate: Reducing disaster risk through resilient water management**. <http://www.globalwaterforum.org/2018/12/02/mastering-disaster-in-a-changing-climate-reducing-disaster-risk-through-resilient-water-management/>

Bhaduri, A., Bogardi, J., Siddiqi, A., Voigt, H., Vörösmarty, C., Pahl-Wostl, C., Bunn, C., Shrivastava, P., Lawford, R., Foster, S., Kremer, H., Renaud, F., Bruns, A., and Rodriguez Osuna, V. (2016): **Achieving Sustainable Development Goals from a Water Perspective**. In: *Environmental Science* 4: 64, pp.1-13.

GWP (Global Water Partnership) (2018): **Preparing to Adapt: The Untold Story of Water in Climate Change Adaptation Processes**. <https://www.gwp.org/en/About/more/news/2018/preparing-to-adapt-the-untold-story-of-water/>

IPCC (Intergovernmental Panel on Climate Change) (2018): **Global warming of 1.5°C An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty**. https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf

LDC Expert Group (2012): **Synthesis report on the progress made in the implementation of the least developed countries work programme, including the updating and implementation of national adaptation programmes of action, and in accessing funds from the Least Developed Countries**. Note by the secretariat. Report FCCC/SBI/2012/INF.13.

LDC Expert Group (2012a): **National Adaptation Plans. Technical guidelines for the national adaptation plan process**. UNFCCC.

SBSTA (Subsidiary Body for Scientific and Technological Advice) (2019): **Report of the Subsidiary Body for Scientific and Technological Advice on its fiftieth session, held in Bonn from 17 to 27 June 2019**. https://unfccc.int/sites/default/files/resource/sbsta2019_02E.pdf

TEP-A (Technical Examination Process on Adaptation) (2017): **Integrating climate change adaptation with the Sustainable Development Goals and the Sendai Framework on Disaster Risk Reduction**. <https://unfccc.int/topics/adaptation-and-resilience/workstreams/technical-examination-process-on-adaptation-tep-a>

Timboe, I., Pharr, K., and Matthews, J. H. (2019): **Watering the NDCs: National Climate Planning for 2020 – How water-aware climate policies can strengthen climate change mitigation and adaptation goals**. Corvallis, Oregon: Alliance for Global Water Adaptation (AGWA). <https://www.wateringthendcs.org/>

UN Water (2016): **UN-Water Annual Report 2016**.

<https://www.unwater.org/publications/un-water-annual-report-2016/>

