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Nairobi work programme on impacts, vulnerability and adaptation to climate change

Outcomes of the work under the Nairobi work programme on impacts, vulnerability and adaptation to climate change

Summary report by the secretariat

Summary

This report provides a summary of the outcomes of work under the Nairobi work programme on impacts, vulnerability and adaptation to climate change since the forty-eighth session of the Subsidiary Body for Scientific and Technological Advice. It also summarizes progress and challenges in implementing activities in accordance with the workplan, mandates and functions of the Nairobi work programme. The knowledge curated under the programme has been instrumental in closing adaptation knowledge gaps. User-friendly knowledge products about adaptation practices, networks and results have been created and disseminated. Activities under the programme have focused on catalysing or enhancing adaptation action through knowledge under several thematic areas. Through its network of global partners, the Nairobi work programme has responded to the adaptation needs of Parties. Through fostering collaboration with UNFCCC constituted bodies, the programme has facilitated the scaling up of adaptation action, in particular in developing countries. Subregional networks have allowed work to advance on closing priority knowledge gaps in countries and subregions under the Lima Adaptation Knowledge Initiative. The report concludes with lessons learned, which will inform the stocktake of the Nairobi work programme to be conducted at the fifty-sixth session of the Subsidiary Body for Scientific and Technological Advice.



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Abbreviations and acronyms

| | |
|--------|---|
| AC | Adaptation Committee |
| CBD | Convention on Biological Diversity |
| COP | Conference of the Parties |
| ICIMOD | International Centre for Integrated Mountain Development |
| IPCC | Intergovernmental Panel on Climate Change |
| IUCN | International Union for Conservation of Nature |
| LAKI | Lima Adaptation Knowledge Initiative |
| LDC | least developed country |
| LEG | Least Developed Countries Expert Group |
| NAP | national adaptation plan |
| NWP | Nairobi work programme on impacts, vulnerability and adaptation to climate change |
| RCC | regional collaboration centre |
| SBSTA | Subsidiary Body for Scientific and Technological Advice |
| SIDS | small island developing State(s) |
| TEC | Technology Executive Committee |
| UNEP | United Nations Environment Programme |

I. Executive summary

1. The focus of the NWP, with its network of almost 450 partner organizations, is to enhance implementation of adaptation action by closing gaps in knowledge on adaptation and resilience identified by Parties, in particular developing country Parties, including the LDCs and SIDS, in line with the objectives of the Paris Agreement.
2. SBSTA 48 encouraged the NWP to enhance its role as a knowledge-to-action hub on adaptation and resilience, and subsequent mandates have strengthened this role.
3. The NWP has developed its modalities for work to enhance adaptation action through knowledge by:
 - (a) Enhancing the efficacy of modalities of work with NWP partners, which has included following the NWP knowledge-to-action methodology and organizing and implementing work under priority thematic areas, in collaboration with thematic expert groups comprising NWP partners and other experts;
 - (b) Implementing work in subregions through collaborative action with experts and countries to identify, prioritize and close knowledge gaps in the context of LAKEI;
 - (c) Strengthening and expanding collaboration with constituted bodies to support the implementation of their adaptation-related mandates and workplans, including in the context of the process to formulate and implement NAPs.
4. A large, diverse global network of expertise and experience has been built and institutional linkages have been established under the NWP. NWP partners have expertise spanning many thematic areas, sectors, countries and regions, which they use to support countries in scaling up adaptation action through knowledge.
5. Monitoring and evaluation approaches are integrated into work under the NWP in order to gauge the impact of the work and progress in closing knowledge gaps towards scaling up adaptation action.
6. The lessons learned and challenges captured in this report can inform Parties in their stocktake of the NWP at SBSTA 56 and their recommendations for strengthening modalities of the programme. Such recommendations may also strengthen the role of the NWP as a knowledge-to-action hub on adaptation and resilience.
7. A systematic approach to delivering specific, actionable knowledge to users under the NWP will facilitate scaling up adaptation action through knowledge by all countries and, in particular, developing countries, including the LDCs and SIDS.

II. Introduction

A. Context

8. The Glasgow Climate Pact¹ highlights the urgency of scaling up action and support, including finance, capacity-building and technology transfer, to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change in line with the best available science, taking into account the priorities and needs of developing country Parties. The scale-up of action and support is also required for implementing the Paris Agreement.
9. The IPCC also highlights the urgency of adaptation action in its Sixth Assessment Report, which states that knowledge relevant to mobilizing and accessing financial resources, monitoring and evaluation, and inclusive governance processes is needed to overcome barriers to addressing observed and expected adverse climate risks and impacts and

¹ Decisions 1/CP.26, 1/CMP.16 and 1/CMA.3.

implementing, accelerating and sustaining adequate adaptation of human systems and ecosystems.²

10. To help countries scale up adaptation action commensurate with unfolding climate impacts, adaptation action and associated means of implementation require a foundation of practical, comparable knowledge. Communities and countries need to be equipped with relevant knowledge and tools to ensure that the adaptation actions they take move them towards a climate-resilient future. The closing of knowledge gaps helps to inform the provision of support for adaptation. Collaboration among governments, international organizations, international financial institutions, civil society and the private sector is essential to scaling up action.

B. Nairobi work programme

11. Established at COP 11 as the first stakeholder engagement mechanism under the Convention, the NWP is a demand-driven knowledge-to-action hub on adaptation and resilience. The challenges of adaptation and resilience are addressed under the NWP under the guidance of the SBSTA Chair and in collaboration with the constituted bodies and almost 450 partner organizations representing a diversity of knowledge and expertise, coalitions and existing networks working in different thematic areas, sectors, regions and countries.³

12. The objective of the NWP is to assist Parties, in particular developing countries, including the LDCs and SIDS in (1) improving their understanding and assessment of climate impacts, vulnerability and adaptation; and (2) making informed decisions related to implementing measures in response to climate change on the basis of sound scientific, technical and socioeconomic information and with due consideration of observed and anticipated climate change and variability.⁴

13. The following efforts under the NWP facilitate the scaling up of adaptation action by helping to close gaps in knowledge on adaptation and resilience:

(a) Curating and sharing relevant knowledge in collaboration with NWP partner organizations and thematic expert groups in relation to various thematic areas, countries and subregions;

(b) Curating and sharing knowledge relevant to adaptation-related mandates arising from the Paris Agreement, and informing adaptation policies and actions through long-term strategic engagement with the constituted bodies, including supporting them in addressing knowledge gaps in the context of capacity-building, finance and technology;

(c) Addressing knowledge gaps and needs of developing countries related to the process to formulate and implement NAPs through long-term strategic engagement with the LEG.

C. Mandates

14. SBSTA 48 encouraged the NWP to enhance its role as a knowledge-to-action hub on adaptation and resilience.⁵ Subsequent mandates have strengthened the role of the NWP in scaling up adaptation action in countries and enabling efforts under the NWP to become more responsive to the adaptation knowledge needs of Parties.

15. SBSTA 56 will take stock of the NWP. The stocktake will assess the performance and effectiveness of the NWP in responding to knowledge needs relevant to implementing the Paris Agreement with a view to identifying ways of strengthening its operational and

² IPCC. 2022. Summary for Policymakers. In: H Pörtner, D Roberts, M Tignor, et al. (eds.). *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, United Kingdom: Cambridge University Press. Available at <https://www.ipcc.ch/report/ar6/wg2/>.

³ See <http://unfccc.int/nwp>.

⁴ Decision 2/CP.11, annex, para. 1.

⁵ FCCC/SBSTA/2018/4, para. 16.

institutional modalities for scaling up adaptation action through knowledge. SBSTA 52–56 proposed guiding questions and modalities to inform the stocktake.

D. Scope of the report

16. This report outlines the outcomes of work under the NWP since SBSTA 48. The report also conveys progress, challenges and lessons learned in implementing activities in accordance with its workplan, mandates and functions. The report concludes with proposed next steps for the NWP in line with its mandates and functions.

17. Outcomes under the NWP are organized in this report as follows:

(a) Scaling up adaptation action through knowledge, including through applying the knowledge-to-action methodology (see chap. III below);

(b) Scaling up adaptation action under priority thematic areas, including with thematic expert groups (see chap. IV below);

(c) Scaling up adaptation action in subregions through LAKI, including with NWP partners and the UN Climate Change and Universities Partnership Programme (see chap. V below);

(d) Enhancing adaptation action through collaboration with constituted bodies on adaptation-related activities, including work arising from the advice of the AC on the delivery of NWP mandates (see chap. VI below);

(e) Scaling up adaptation action through monitoring, evaluation and learning (see chap. VII below).

III. Scaling up adaptation action through knowledge: Nairobi work programme modalities

A. Knowledge-to-action methodology

18. An iterative knowledge-to-action methodology is applied under the NWP to generate useful knowledge for implementing adaptation action (see figure 1). This methodology is applied to thematic work with NWP partners, subregional work under LAKI and adaptation-related work of the constituted bodies.

19. The methodology guides knowledge co-development through partnership and its collaborative approach responds to the adaptation needs of Parties, with an emphasis on developing country Parties. The methodology also supports the process to formulate and implement NAPs and work arising from the adaptation-related mandates of constituted bodies. The approach has been refined over the years by incorporating lessons learned.

20. The methodology involves:

(a) Responding to Parties' needs by taking a demand-driven approach to collaborative action;

(b) Tailoring knowledge products to the needs of those who use the information to enact adaptation;

(c) Endeavouring to increase the uptake of adaptation knowledge by ensuring knowledge products are accessible and useful to those implementing adaptation action;

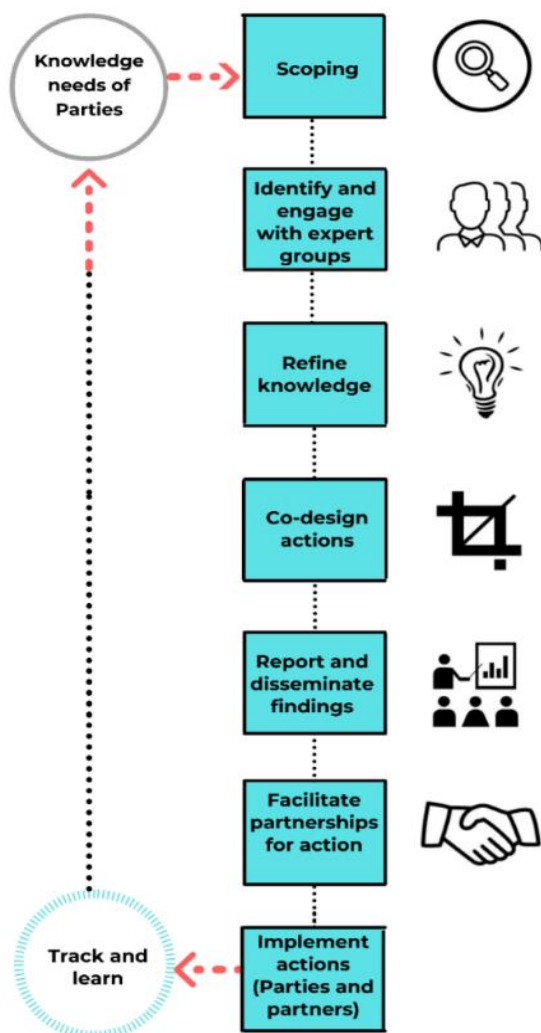
(d) Adopting a long-term perspective that facilitates and supports implementation of action on adaptation and resilience in an inclusive and participatory manner;

(e) Enhancing the exchange of information, experience, challenges and best practices among a broad range of stakeholders;

(f) Monitoring the impacts of implemented actions in order to improve the uptake of knowledge products by target users and integrate lessons learned into future interventions and actions.

Figure 1

Nairobi work programme knowledge-to-action methodology



B. Modalities of work with Nairobi work programme partners

21. The NWP partner network is made up of over 450 organizations, which include United Nations agencies, academic and research institutions, global and regional centres and networks, and civil society organizations. NWP partners have broad expertise on adaptation and resilience covering many regions and countries.

22. Some partners join thematic expert groups, and some contribute to scaling up adaptation actions in subregions in the context of LAKI. Partner organizations also support the work of the LEG in implementing NAP-related activities. In addition, partners contribute case studies, methods, tools and other knowledge resources to the adaptation knowledge portal.

23. Experience and lessons learned from NWP partner engagement under thematic areas and in the context of LAKI emphasize the need to develop a long-term strategic plan for collaboration to strengthen actions under the NWP in countries.

1. NWP thematic expert groups

24. NWP partners contribute to thematic expert groups. In response to needs identified by Parties, these expert groups generate knowledge for adaptation action using the iterative knowledge-to-action methodology of the NWP.

25. Working closely with the secretariat, the thematic expert groups help address key adaptation gaps through collaboration among group members and with expert groups on other NWP thematic areas, as well as with the constituted bodies and relevant communities of practice.

26. The NWP expert group in each thematic domain is diverse, multidisciplinary and inclusive, ensuring balanced representation in terms of region, gender, and type and role of organization. Members have expertise in and deep insight into specific topics under the thematic area.

2. UN Climate Change and Universities Partnership Programme

27. The UN Climate Change and Universities Partnership Programme⁶ under the NWP was launched at the UNFCCC Climate Dialogues 2020.⁷ The Programme is designed to strengthen collaboration between the United Nations and academic and research institutions, especially in the global South.

28. The United Nations University Institute for Environment and Human Security, an NWP partner, works to build connections under the UN Climate Change and Universities Partnership Programme through its network of universities in both the global South and the global North. The secretariat also works with RCC Bangkok, under the Programme.

29. The UN Climate Change and Universities Partnership Programme provides an opportunity for graduate students from universities to work closely with local, national and regional NWP partners on a research project undertaken as part of their master’s thesis. The projects are focused on producing tangible outputs in response to the needs of targeted knowledge users in countries and subregions. This work aims to address knowledge barriers that prevent countries from implementing adaptation actions, priority knowledge gaps identified in the context of LAKI and gaps related to the process to formulate and implement NAPs.⁸

30. The secretariat has fostered synergies in work under the UN Climate Change and Universities Partnership Programme and under Action for Climate Empowerment. For example, Action for Climate Empowerment events showcase how young professionals taking part in the Programme have been engaged in building the resilience of countries.

31. Actions have been undertaken through collaborations between universities and NWP partners that are part of the Programme as well as global and regional centres and networks to address adaptation knowledge gaps in countries and subregions (see table 1).

Table 1
Closing knowledge gaps in countries and subregions through actions under the UN Climate Change and Universities Partnership Programme

| <i>Subregion(s)</i> | <i>Partners</i> | <i>Action</i> |
|---------------------------------|--------------------------------|--|
| Andes (Paraná Delta, Argentina) | National University of Rosario | Contributing to understanding and closing knowledge gaps and needs concerning food security, sustainable land-use planning and implementation, and local tourism, including ecosystem-based adaptation solutions in the context of Argentina’s NAP (2021–2022) |

⁶ <https://www4.unfccc.int/sites/NWPStaging/Pages/university-partnerships.aspx>.

⁷ <https://unfccc.int/event/scaling-up-adaptation-actions-through-partnerships-addressing-knowledge-gaps>.

⁸ For an overview of the projects, see <https://www4.unfccc.int/sites/NWPStaging/Pages/Stories-from-our-partners.aspx>.

| <i>Subregion(s)</i> | <i>Partners</i> | <i>Action</i> |
|--|--|---|
| Andes (Peruvian Andes) | Yale University in partnership with IUCN and The Mountain Institute | Measuring ecosystem-based adaptation: six good practices for monitoring, evaluation and learning (2019–2020) |
| Andes, Hindu Kush Himalayas | Yale University in partnership with IUCN and The Mountain Institute | Advancing knowledge on traditional water resource management and climate change adaptation planning (2020–2021) |
| Hindu Kush Himalayas | Jawaharlal Nehru University in partnership with RCC Bangkok and the Global Water Partnership | Addressing the impacts of climate extremes on water quantity and quality in mountainous urban areas (2021–2022) |
| Hindu Kush Himalayas | The University of Michigan in partnership with ICIMOD | Developing a methodological framework for linking climate change to biodiversity and ecosystem services (2021–2022) |
| Hindu Kush Himalayas | Harvard University (Harvard Kennedy School) in partnership with ICIMOD | Developing solutions to overcome barriers and create an enabling environment where multi-hazard early warning systems can be effectively developed, implemented and scaled up (2019–2020) |
| Indian Ocean island countries (Seychelles) | The University of Michigan in collaboration with the Government of Seychelles (Ministry of Agriculture, Climate Change and Environment; National Bureau of Statistics; Department of Risk and Disaster Management) | Evaluating the impacts of sea level rise and storm surges on critical infrastructure (2018–2020) |
| Pacific SIDS | The University of Michigan in partnership with the Australia Pacific Climate Partnership and the UNEP Asia Pacific Adaptation Network | Addressing limitations in accessing climate knowledge, including early warning information for scaling up climate action in the Pacific Island countries (2022–2023) |
| Southern Africa (Namibia) | The University of Michigan in partnership with the Global Water Partnership Southern Africa and the University of Namibia through the Namibia Water Partnership | Strengthening adaptation solutions for agricultural development: a study to assess potential for innovation in climate-smart agricultural capabilities (2020–2021) |

IV. Scaling up adaptation action under priority thematic areas

32. SBSTA 48 concluded that NWP thematic areas should focus on 10 issues in relation to climate change.⁹ SBSTA 50 requested the secretariat to prioritize the following NWP thematic areas: (1) extreme weather events such as heatwaves, flash floods, sand and dust storms, cyclones and heavy precipitation; (2) drought, water scarcity and land degradation neutrality; (3) forests and grassland; (4) oceans, coastal areas and ecosystems, including mega deltas, coral reefs and mangroves; and (5) agriculture and food security.¹⁰

33. The secretariat has applied an iterative knowledge-to-action methodology to work under these thematic areas by considering three key elements:

⁹ FCCC/SBSTA/2018/4, para. 21.

¹⁰ FCCC/SBSTA/2019/2, para. 18.

- (a) Understanding knowledge gaps and raising awareness of these gaps with a view to finding opportunities for coordinated action on addressing the gaps;
- (b) Building long-term engagement with constituted bodies and thematic expert groups to catalyse actions to close knowledge gaps in the respective thematic areas and to monitor and evaluate those actions;
- (c) Fostering synergies with relevant processes and initiatives under and outside the Convention to promote the coherence of work on enhancing adaptation action through knowledge.

A. Agriculture and food security

34. The agriculture and food security expert group created by the secretariat in 2022 has the aim of enhancing adaptation action under the UNFCCC process in this thematic area.¹¹
35. The secretariat is preparing a scoping paper, drawing on, for example, NAPs and nationally determined contributions, that will identify adaptation- and resilience-related knowledge needs and good practices in this thematic area. In addition, the secretariat has explored linkages of this thematic area with the Koronivia joint work on agriculture.

B. Forests and grasslands

36. The NWP expert group on biodiversity and climate change¹² engaged with NWP partners that work closely with bodies and processes under and outside the Convention. The secretariats of the CBD and the United Nations Convention to Combat Desertification, as members of this expert group, explored synergies in their respective mandates and collaborative actions that scale up adaptation action.
37. The expert group curated knowledge in a scoping paper on how forest and grassland biodiversity, and ecosystems and their services, can strengthen countries' resilience to the effects of climate change.¹³ The key findings of the scoping paper are:
- (a) Forest and grassland biomes are home to critical biodiversity and ecosystem functions and services;
 - (b) Actions to conserve and restore biodiversity and ecosystems are an integral part of adaptation strategies. There are many examples of how countries are already using integrated forest and grassland approaches to adapt to climate change;
 - (c) Targeted and actionable knowledge can help countries to scale up adaptation strategies that integrate ecosystems and biodiversity, enhancing resilience to climate change impacts.
38. In the scoping paper, the expert group compiled case studies, good practices and guidance for governments on addressing knowledge gaps that hinder the scaling up of climate change adaptation action plans to increase resilience. The expert group curated knowledge about how integrating biodiversity into resilience-building actions can strengthen ecosystems and the services they provide.¹⁴
39. The scoping paper provided lessons learned regarding integrated approaches to adaptation, including ecosystem-based adaptation and nature-based solutions. For example, strengthening synergies between effective climate change adaptation and biodiversity conservation provides many opportunities to increase integration, reduce duplication and

¹¹ See <https://www4.unfccc.int/sites/NWPStaging/Pages/Agriculture-and-food-security-page.aspx>.

¹² See <https://www4.unfccc.int/sites/NWPStaging/Pages/Biodiversity.aspx>.

¹³ UNFCCC. 2021. *Scoping paper on knowledge gaps in integrating forest and grassland biodiversity and ecosystems into adaptation strategies*. Bonn: UNFCCC. Available at <https://unfccc.int/documents/309256>.

¹⁴ The case studies are available at <https://www4.unfccc.int/sites/NWPStaging/Pages/CaseStudies.aspx>.

make the best use of limited financial and other resources for planning, implementing and monitoring of actions.

40. The scoping paper also identified knowledge gaps and possible actions for widespread implementation. The expert group prepared a briefing paper to highlight the key findings of the scoping paper.¹⁵

41. A policy brief being prepared by the expert group explores the interconnections between climate change adaptation and biodiversity conservation and the potential to foster synergies between the process to formulate and implement NAPs under the UNFCCC and the national biodiversity strategies and action plans process under the CBD. The policy brief will highlight practical entry points and lessons learned from case studies on effective coordination and joint implementation of climate change adaptation and biodiversity conservation at the national level.

C. Oceans, coastal areas and ecosystems

42. While awareness of the role of biodiversity and oceans in enhancing resilience is growing, knowledge gaps relevant to adapting to the impacts of climate change persist that constitute barriers to the ability of countries to take necessary adaptation action.

43. To address needs identified by Parties, the secretariat established an NWP expert group on oceans,¹⁶ which includes the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and the IPCC, prepared several knowledge outputs in collaboration with constituted bodies such as the LEG and the TEC. The expert group contributed to the following work:

(a) A report on enhancing the resilience of oceans, coastal areas and ecosystems through collaborative partnerships.¹⁷ This report curates knowledge regarding how countries and coastal communities can build resilience and address challenges in adapting to the adverse impacts of climate change. Nature-based solutions for oceans and coastal areas are a vital part of strategies to strengthen livelihoods, ensure food security and protect lives. The report highlights approaches and good practices for building the resilience of oceans and coastal areas and provides an overview of existing knowledge gaps and opportunities for coordinated action to address them;

(b) A scoping paper on closing knowledge gaps and advancing adaptation action for oceans, coastal areas and ecosystems, including mega deltas, coral reefs and mangroves.¹⁸ The paper addresses climate change impacts, including of slow onset events, as well as building resilience and adapting to climate change;

(c) A policy brief on scaling up adaptation actions and cooperation to build the climate resilience of oceans, coastal areas and ecosystems.¹⁹ Urgent actions are needed in this regard. The policy brief provides an overview of knowledge gaps, as well as recommendations to strengthen governance and participation, which include:

(i) Ensuring the availability of and facilitating access to robust data, information, methods and tools for implementing and monitoring adaptation actions that build the resilience of oceans;

(ii) Developing a collaborative, long-term approach to protection and restoration;

¹⁵ Available at

https://unfccc.int/sites/default/files/resource/NWP_Biodiversity_BP.v06%20%281%29.pdf.

¹⁶ <https://www4.unfccc.int/sites/NWPStaging/Pages/oceans-page.aspx>.

¹⁷ UNFCCC. 2021. *Enhancing resilience of oceans, coastal areas and ecosystems through collaborative partnerships*. Bonn: UNFCCC. Available at <https://unfccc.int/documents/307871>.

¹⁸ UNFCCC. 2019. *Adaptation of the Ocean, Coastal Areas and Ecosystems: Scoping Paper on Closing Knowledge Gaps and Advancing Action*. Bonn: UNFCCC. Available at https://unfccc.int/sites/default/files/resource/Scopingpaper_Final%20version_300620.pdf.

¹⁹ UNFCCC. 2020. *Policy brief on the ocean: Scaling up adaptation actions and co-operation to build climate resilience of the ocean, coastal areas and ecosystems*. Bonn: UNFCCC. Available at <https://unfccc.int/documents/266434>.

(iii) Facilitating support for capacity-building, education, technology and innovation, and facilitating access to finance;

(iv) Adopting innovative adaptation approaches, such as those that integrate technology and nature, to enhance the resilience of oceans and coastal communities;

(d) A policy brief prepared by the NWP expert group on oceans in collaboration with the TEC, IUCN and Friends of Ecosystem-based Adaptation that summarizes actions and recommendations for scaling up specific, innovative and integrated approaches to adaptation.²⁰ Given the progressive challenges of climate change, the urgency of adopting innovative adaptation approaches is increasing. Such approaches include integrating technology and nature to enhance the resilience of ocean and coastal communities. The policy brief contains examples of approaches that deliver multiple benefits for communities and nature.

(e) A report prepared by the NWP expert group on oceans in collaboration with the Green Climate Fund and the LEG that provides insights for developing countries relevant to implementing NAPs to increase resilience to extreme climatic events.²¹ According to the report, the capacity of the LDCs and SIDS to develop high-quality proposals must be enhanced in order to unlock access to funding for nature-based solutions, including ecosystem-based adaptation. The report identifies entry points and financial instruments for enhancing access to the Green Climate Fund for implementing coastal and marine nature-based solutions.

D. Ecosystems, rural systems and communities, and indicators of climate adaptation and resilience

44. Vulnerable groups, communities and ecosystems are at risk of being excluded from adaptation planning and implementation, which could exacerbate their existing vulnerability. Appropriate regulatory frameworks and institutional arrangements, as well as targeted programmes and resources, can strengthen the consideration of these groups, communities and ecosystems in adaptation action, as can their inclusion in NAPs.

45. As a supplement to the UNFCCC technical guidelines for the NAP process,²² the LEG, with inputs from NWP partners based on their work, prepared a paper providing guidance regarding consideration of vulnerable groups, communities and ecosystems in formulating and implementing NAPs.²³

46. An NWP technical session held jointly with the LEG²⁴ enabled Parties and NWP partners to share their experience and case studies on metrics and indicators for assessing the progress of adaptation of vulnerable groups, communities and ecosystems. Insights were gleaned into:

(a) Determining whether and how adaptation interventions help vulnerable groups and communities maintain or improve their adaptive capacity or resilience;

²⁰ The draft policy brief, presented at the 24th meeting of the TEC, is contained in TEC document TEC/2022/24/5. The findings of the policy brief are derived from a series of events on integrated adaptation approaches held in 2021 as part of Technology Day. See https://unfccc.int/tclear/events/2020/2020_event07.

²¹ UNFCCC. 2021. *Coastal adaptation and nature-based solutions for the implementation of NAPs: Considerations for GCF proposal development*. Bonn: UNFCCC. Available at <https://unfccc.int/documents/278047>.

²² Available at <https://www4.unfccc.int/sites/NAPC/Guidelines/Pages/Technical-guidelines.aspx>.

²³ UNFCCC. 2018. *Considerations regarding vulnerable groups, communities and ecosystems in the context of the national adaptation plans: Least Developed Countries Expert Group*. Bonn: UNFCCC. Available at

<https://unfccc.int/sites/default/files/resource/Considerations%20regarding%20vulnerable.pdf>.

²⁴ <https://unfccc.int/topics/adaptation-and-resilience/workstreams/nairobi-work-programme-nwp/workshops-meetings/assessing-progress-in-adaptation-in-vulnerable-groups-communities-and-ecosystems-a-technical-session>.

(b) Reducing vulnerability of groups, communities and ecosystems in the face of climate change;

(c) Facilitating ecosystem restoration and enhancing the capacity of vulnerable ecosystems to provide ecosystem goods and services for local communities;

(d) Helping ecosystems to withstand both current and anticipated climate change impacts as well as non-climatic stressors.

47. The engagement with the LEG on knowledge relevant to vulnerable groups, communities and ecosystems has enhanced knowledge about practical steps countries can take to use indicators and metrics, including those at the regional and global level, to support national efforts in assessing the progress of adaptation.

E. Economic diversification

48. The secretariat facilitated the exchange of experience with and ideas on opportunities for economic diversification²⁵ and adaptation at the 12th NWP Focal Point Forum (see para. 53 below). The exchange focused on knowledge resources, measures, methodologies and tools for increasing economic resilience, including through developing institutional capacity.

49. Traditionally, economic diversification has been applied as a strategy to encourage positive economic growth and development. In the context of climate change adaptation, economic diversification is a relevant strategy to reduce exposure to products, markets and jobs affected by climate change and to shift climate change policy towards low-emission, climate-resilient income sources.

F. Human settlements, cities and urban systems

50. More than 50 per cent of the world's population lives in urban areas, a figure which is expected to approach 70 per cent by 2050. Increasing the resilience of human settlements to climate change is thus an important measure to protect lives and livelihoods, preserve development gains and promote sustainable development. Under the NWP, the secretariat prepared a report on adaptation in human settlements based on submissions from NWP partners and Parties.²⁶ The report shares good practices and lessons learned on adaptation in human settlements; provides evidence of coordinated local engagement with national and subnational governments in building climate resilience; and offers Parties guidance on and tools for collaborating with communities, civil society organizations, research centres and the private sector on urban adaptation actions.

51. Key findings of the report include:

(a) Adopting a long-term view of adaptation should include developing land-use plans to manage the geographical expansion of human activities;

(b) National governments should emphasize human settlements in national adaptation strategies, including NAPs; link national and local adaptation planning; and support the role of local governments in planning and implementing adaptation in human settlements;

(c) City-to-city partnerships, including those facilitated by mayors and other urban networks, have helped NWP partners improve their understanding of climate risks and adaptation methods and can accelerate the pace of innovation and implementation.

²⁵ For information on economic diversification, see <https://unfccc.int/topics/resilience/resources/economic-diversification>.

²⁶ FCCC/SBSTA/2018/3.

G. Nairobi work programme Focal Point Forums

52. NWP Focal Point Forums are mandated annual events held under the NWP in conjunction with the COP.²⁷ They provide an interactive space for representatives of national governments and NWP partner organizations, as well as thematic experts. The Forums:

(a) Facilitate the exchange of views on thematic areas, knowledge gaps and adaptation actions needed at different levels of government;

(b) Enhance the engagement of experts and expert organizations, including those from developing countries and those working on formulating and implementing NAPs, in closing context-specific knowledge gaps;

(c) Facilitate collaboration among Parties, NWP partners and other relevant organizations, which could contribute to translating the key findings and gaps identified through activities carried out under the NWP into adaptation actions.

53. At the 12th NWP Focal Point Forum, on diversifying economic activity as an adaptation strategy, held at COP 24,²⁸ Party and NWP partner representatives and experts discussed how diversifying economic and livelihood activities, from the national to the household level, can reduce the impacts of climate change while supporting broader development goals. Participants shared examples and lessons learned and offered insights into current and future opportunities for economic diversification.

54. At the 13th NWP Focal Point Forum, on the ocean, held at COP 25,²⁹ an IPCC presentation on the findings contained in its Special Report on the Ocean and Cryosphere³⁰ was followed by a discussion among Party and NWP partner representatives and experts on knowledge needs and the co-design of specific actions that national governments and NWP partners could undertake to address knowledge gaps in order to build the resilience of oceans, coastal areas and ecosystems.

55. At the 14th NWP Focal Point Forum, on biodiversity and climate change adaptation, held at COP 26,³¹ Party representatives, including UNFCCC national focal points, experts and NWP partners shared knowledge and learning on innovative and integrated solutions for biodiversity and climate change adaptation to strengthen national planning processes and action on the ground. The NWP expert groups on oceans and on biodiversity and climate change adaptation presented several joint initiatives, which brought together cross-sectoral and interdisciplinary experts to help enhance technical and financial capacity for implementing adaptation actions that have multiple benefits for communities and ecosystems.

V. Scaling up adaptation action in subregions through the Lima Adaptation Knowledge Initiative

56. The aim of LAKI, a joint action pledge under the NWP and the UNEP Global Adaptation Network, is to enhance adaptation action in subregions by closing priority knowledge gaps in all countries, but particularly in developing countries, including the LDCs, SIDS and African States.³²

²⁷ For objectives and outcomes of the Forums, see <https://unfccc.int/topics/adaptation-and-resilience/workstreams/nairobi-work-programme-nwp/focal-point-forums>.

²⁸ <https://unfccc.int/event/12th-focal-point-forum-of-the-nairobi-work-programme>.

²⁹ <https://unfccc.int/event/13th-focal-point-forum-of-the-nairobi-work-programme-on-the-ocean>.

³⁰ IPCC. 2019. *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate*. H-O Pörtner, DC Roberts, V Masson-Delmotte, et al. (eds.). Available at <https://www.ipcc.ch/srocc/home/>.

³¹ <https://unfccc.int/event/FPF14-NWP-biodiversity-adaptation>.

³² For more information on LAKI, see <https://www4.unfccc.int/sites/NWPStaging/Pages/laki.aspx>.

A. Approach to prioritizing and closing subregional knowledge gaps

57. The LAKI methodology is used to identify, categorize and prioritize, and then close, adaptation knowledge gaps in subregions across the world (see figure 2). The first phase of the methodology focuses on understanding critical knowledge gaps. A workshop for a multi-stakeholder group of experts is convened with experts from diverse backgrounds in the applicable subregion. At the workshop, priorities are set, using as input a scoping paper containing a review of national government reports and other authoritative reports from countries in the given subregion.

58. After the prioritization exercise, LAKI brings together relevant actors to co-design collaborative actions to close the priority knowledge gaps for targeted knowledge users. The systematic methodology leads to a validated, reliable list of priority knowledge gaps.

Figure 2

Lima Adaptation Knowledge Initiative methodology



B. Outcomes

59. Since its inception, LAKI priority-setting workshops have been convened in seven subregions: Andes, Hindu Kush Himalayas, Indian Ocean island countries, North Africa, Pacific SIDS, Southern Africa and West Asia/Gulf Cooperation Council countries. Together, these regions cover 52 countries, including 17 SIDS, 13 African countries and 11 LDCs. As a result of the workshops, 150 priority knowledge gaps for targeted knowledge users have been identified.

60. A virtual priority-setting workshop for Pacific SIDS was co-convened by the Pacific Regional Environment Programme and UNEP.³³ At the workshop, subregional climate change experts discussed, categorized and prioritized adaptation knowledge gaps. These gaps were found to span multiple sectors, and include a lack of knowledge on (1) how to include women, girls and people with disabilities in the design and implementation of adaptation plans and policies; and (2) how government officers working in climate change, finance and relevant sectoral ministries can access climate change adaptation funds.

61. In the context of the second phase of LAKI in the North Africa and West Asia/Gulf Cooperation Council subregions,³⁴ NWP partners are addressing priority knowledge gaps through actions that include:

(a) Scaling up studies on mangrove carbon sequestration (which has adaptation co-benefits) in the United Arab Emirates and Oman;

(b) Developing a mobile application for communicating to farmers in Jordan key knowledge on how to shield their farms from climate shocks and increase the sustainability of food production;

(c) Developing frameworks and systems for collecting data on and monitoring climate impacts, and making technological advances in drought management and climate-smart agriculture.³⁵

VI. Enhancing adaptation action through collaboration with UNFCCC constituted bodies

A. Modalities of work with constituted bodies

62. SBSTA 52–55 requested the secretariat to strengthen long-term engagement with constituted bodies under the NWP.³⁶ Collaboration with bodies whose mandates and workplans align with those of the NWP can support Parties in designing interventions, building capacity, accessing finance and technology, and scaling up actions for adaptation.

63. The SBSTA Chair convened a meeting with constituted bodies to strengthen collaboration in the context of the NWP.³⁷ Following the request from SBSTA 52–55, the SBSTA Chair also invited constituted bodies to identify strategic areas for joint work in the context of the NWP in response to their needs and mandates, including by engaging with the secretariat and NWP partners.³⁸

³³ [https://www4.unfccc.int/sites/NWPStaging/Pages/Lima-Adaptation-Knowledge-Initiative-\(LAKI\)-for-the-Pacific-sub-region.aspx](https://www4.unfccc.int/sites/NWPStaging/Pages/Lima-Adaptation-Knowledge-Initiative-(LAKI)-for-the-Pacific-sub-region.aspx).

³⁴ The multi-stakeholder groups for the North Africa and West Asia/Gulf Cooperation Council subregions were co-convened by the secretariat, RCC Dubai, the UNEP West Asia Office and the United Nations Economic and Social Commission for Western Asia.

³⁵ See <https://www4.unfccc.int/sites/nwpstaging/Pages/LAKI-WestAsia.aspx> and <https://www4.unfccc.int/sites/nwpstaging/Pages/LAKI-NorthAfrica.aspx>.

³⁶ FCCC/SBSTA/2021/3, para. 17(b).

³⁷ The Chair convened an informal meeting with representatives of constituted bodies on 5 October 2021 to inform work under the NWP and discuss how to ensure that it continues to be demand-driven and responsive to the needs of Parties in a synergistic manner. The summary note on the meeting is available at <https://unfccc.int/documents/307677>.

³⁸ The Chair sent an official letter to constituted bodies on 23 February 2022.

64. Constituted bodies have provided regular feedback to the secretariat on work undertaken jointly as part of the NWP and have also invited the secretariat and NWP partners to report on progress in their collaboration and possible areas of joint work with constituted bodies.

65. The LEG invited the NWP, through collaboration with NWP partner organizations, to continue contributing to the efforts of the LEG in providing technical guidance and advice on NAPs through its workplan activities and in its reports.

66. In response to an invitation from SBSTA 48,³⁹ the AC provides advice (communicated to the SBSTA Chair) on the delivery of NWP mandates that relate to the work programmes of constituted bodies and on opportunities to align efforts under the NWP with relevant bodies, workstreams and institutional arrangements under the UNFCCC. This advice also supports the work of the AC under its mandates from the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement and relates to the adaptation-related knowledge activities in its workplan. (See the annex for an overview of the advice from the AC on work under the NWP.)

67. The AC has invited the secretariat to report during AC meetings on knowledge and information provided through the NWP to support the work of the AC and on the most recent findings from LAKI activities. This arrangement facilitates a transparent flow of information and feedback on work carried out under the NWP and by its partners. The information also feeds into the advice provided by the AC on the delivery of NWP mandates. The AC discusses and finalizes the advice during its first regular meeting each year on the basis of the current and upcoming work of the AC. The AC reports on progress in its provision of the advice in its annual report to the COP.

B. Outcomes of collaboration with constituted bodies

68. Collaboration with NWP partners under the NWP has supported constituted bodies in implementing their workplans in the context of implementing the Paris Agreement.

69. Collaboration of NWP partners under the NWP with constituted bodies and institutional arrangements under the UNFCCC has taken the following three forms.

1. Collaborating with constituted bodies in response to specific mandates

70. Collaboration with the TEC has focused on actions and recommendations for scaling up specific, innovative and integrated approaches in order to achieve multiple benefits for communities and nature (see para. 43(d) above).

71. The AC, the Facilitative Working Group of the Local Communities and Indigenous Peoples Platform and the LEG held a joint event under the NWP at COP 25⁴⁰ on integrating indigenous and local knowledge into adaptation action. The event provided an opportunity for representatives of indigenous peoples, constituted bodies and NWP partners (e.g. the United Nations Educational, Scientific and Cultural Organization) to exchange experience and explore collaborative opportunities to bring together and harness the power of diverse knowledge systems in climate adaptation action.

2. Supporting developing countries in formulating and implementing national adaptation plans

72. Under the NWP, the LEG receives technical support for its work on addressing the gaps and needs of developing countries related to the process to formulate and implement NAPs. The secretariat has continued to engage NWP partners and thematic expert groups in contributing to the work of the LEG in implementing NAP-related activities and supporting the LDCs.

³⁹ FCCC/SBSTA/2018/4, para. 19.

⁴⁰ See <https://unfccc.int/topics/local-communities-and-indigenous-peoples-platform/events-meetings-and-workshops/joint-event-on-integrating-indigenous-and-local-knowledge-into-adaptation-action#eq-3>.

73. For example, the secretariat mobilizes experts and NWP partners to provide up-to-date knowledge to the LDCs, including by producing supplementary materials to the UNFCCC technical guidelines for the NAP process and technical papers. These materials are on topics such as strengthening the consideration of vulnerable groups, communities and ecosystems in adaptation action (see paras. 44–47 above) and accessing financial and other support by developing countries wishing to implement coastal and marine nature-based solutions (see para. 43(e) above).

74. Another example is the secretariat's support of several NWP partners to engage with the NAP technical working group, thereby contributing to organizing the NAP Expo 2019, advancing the integrative framework for NAPs and the Sustainable Development Goals, and rolling out the Open NAPs initiative for the LDCs that are in the early stages of the process to formulate and implement NAPs.⁴¹

3. Identifying further opportunities for engagement with constituted bodies

75. Information on engagement opportunities is shared regularly with UNFCCC national focal points and NWP partners via the adaptation knowledge portal,⁴² the quarterly NWP bulletin and social media, as well as through targeted outreach for participation in events and calls for submissions and inputs.

76. The following actions have been taken under the NWP in response to advice from the AC on the delivery of NWP mandates (see para. 66 above)

(a) Promoting collaboration of constituted bodies under the NWP on closing adaptation knowledge gaps and scaling up adaptation action, including addressing gaps and needs in the context of formulating and implementing NAPs;

(b) Sharing information on relevant work and engagement opportunities with a global network of partners;

(c) Strengthening partnerships for closing adaptation knowledge gaps at the subregional level;

(d) Deepening understanding among Parties and other stakeholders of adaptation thematic areas and establishing partnerships for relevant collaborative action;

(e) Improving the adaptation knowledge portal to enhance the relevance, accessibility and use of adaptation knowledge.

C. Impacts of work under the Nairobi work programme

77. Work under the NWP has been informed by existing inputs (e.g. national government reports) and solicited inputs (e.g. from Parties through their UNFCCC national focal points). These inputs have identified domains in which knowledge is needed to enhance adaptation action.

78. Work under the NWP has focused on supporting the adaptation-related activities of the constituted bodies through catalysing collaboration among NWP partners, thematic expert groups, constituted bodies and Parties. By supporting the constituted bodies in implementing their workplans and mandates, the NWP and its partners can help countries build resilience by addressing knowledge gaps, enhancing access to finance, and formulating and implementing NAPs.

⁴¹ FCCC/SBI/2020/6, paras. 20 and 67.

⁴² <https://www4.unfccc.int/sites/NWPStaging/Pages/contribute-resource.aspx>.

VII. Scaling up adaptation action through monitoring, evaluation and learning

A. Gauging the uptake and impact of action

79. Following mandates from SBSTA,⁴³ monitoring and evaluation approaches are integrated into work under the NWP in order to gauge the impact of the work and progress in closing knowledge gaps towards scaling up adaptation action. Monitoring, evaluation and learning is also integrated within the NWP knowledge-to-action methodology (see chap. III above).

80. The secretariat has implemented various tools and approaches for soliciting feedback from knowledge users, including UNFCCC national focal points, to help it understand the relevance of knowledge outputs and actions and how they can be enhanced to inform adaptation action.

81. On the basis of the findings of the recent survey on the accessibility, applicability and clarity of NWP knowledge products,⁴⁴ conducted in response to a request of the SBSTA,⁴⁵ the secretariat has been continuously developing and integrating solutions to addressing the gaps and challenges identified by respondents, including by:

(a) Improving the identification and profiling of users to respond better to their knowledge needs;

(b) Examining the relevance of content and determining the best approach to ensuring that knowledge products are responsive to the needs of users;

(c) Developing and disseminating NWP knowledge products to targeted users using diverse tools and modalities.

82. The secretariat has convened several events and learning sessions to (1) share information on progress under the NWP in enhancing adaptation through knowledge and (2) solicit feedback from constituted bodies, Parties and NWP partners on the impact of actions undertaken under the NWP. As feedback and information on lessons learned is received by the secretariat, it is used to inform, update and implement work under the NWP.

83. Further, the secretariat has conducted interviews with knowledge users and NWP partners to solicit feedback and has shared the feedback widely with Parties and partners.⁴⁶

B. Disseminating knowledge and fostering learning

84. NWP knowledge products are disseminated via NWP partner networks, UNFCCC national focal points and the UNEP Global Adaptation Network, and work has been undertaken to enhance uptake of adaptation knowledge by target users involved in implementing adaptation action.

1. Adaptation knowledge portal

85. The aim of the adaptation knowledge portal is to provide knowledge of practice to Parties and communities in an accessible and user-friendly manner to facilitate countries in scaling up adaptation action. The portal provides information on the NWP partners and their adaptation action in countries, as well as on opportunities for NWP partners and experts to engage in work under the NWP, including with constituted bodies.

⁴³ FCCC/SBSTA/2021/3, para. 27, and FCCC/SBSTA/2019/2, para. 17.

⁴⁴ There were 84 respondents, including 8 UNFCCC national focal points, to the survey. The survey results are available at <https://unfccc.int/documents/274671>.

⁴⁵ FCCC/SBSTA/2019/2, para. 16.

⁴⁶ For example, interviews on the UN Climate Change and Universities Partnership Programme are available at <https://www.youtube.com/watch?v=zLO53OADzZ4>.

86. The number of knowledge resources on the portal increased to over 1,260 in March 2022, including 475 case studies and 409 methods and tools.⁴⁷

2. Communication tools

87. Knowledge-sharing and learning in relation to the NWP is promoted through UNFCCC communication platforms, including the Adaptation Exchange Facebook page, which has more than 18,500 followers.

88. Further, the Adaptation Exchange NWP Twitter account (@AdaptXchange), launched in 2017, increased its followers from 900 in April 2018 to 3,810 in March 2022, a fourfold increase. Its followers include NWP partners, national governments, practitioners, researchers, academics and journalists. Daily tweets showcase work under the NWP, including collaboration with constituted bodies and NWP partners, and adaptation action and results in subregions. The Adaptation Exchange account now has over 2,400 retweets, 3,750 likes, 570,000 impressions and 17,700 engagements.

89. Nine issues of the NWP bulletin (formally called eUpdates) have been published since SBSTA 48.⁴⁸ The bulletin highlights progress and opportunities for engagement under the NWP and provides information on knowledge resources and forthcoming events.

90. The content on the NWP web pages of the UNFCCC websites is regularly updated to include resources and outputs recently developed under the NWP.⁴⁹

91. Outcomes and learning from work under the NWP are documented and shared in official reports to the UNFCCC and in NWP knowledge products. A total of 67 news articles showcasing activities under the NWP, including collaboration with NWP partners and constituted bodies, have been disseminated via the adaptation knowledge portal.⁵⁰ A total of 16 articles published on the UNFCCC Newsroom have featured work under the NWP.⁵¹

3. Events

92. The secretariat has convened both in-person and virtual events and meetings, global and regional, in partnership with NWP partners and constituted bodies. These events have fostered NWP global and regional networks, promoted learning and enabled the secretariat to solicit feedback on actions undertaken under the NWP from Parties, NWP partners and knowledge users. The 23 events organized between May 2018 and March 2022 include virtual expert group meetings in the thematic areas of oceans, coastal areas and ecosystems, and forests and grasslands; events related to the UN Climate Change and Universities Partnership Programme; events related to LAKEI; and a dialogue with constituted bodies.⁵²

93. Further, the secretariat and NWP partners participated in several UNFCCC and external events, including those organized by constituted bodies to showcase current work and promote opportunities for collaboration on scaling up adaptation action in countries.

C. Enhancing accessibility and applicability of knowledge products

94. The secretariat has worked to make the adaptation knowledge portal more accessible, user-friendly and relevant. Efforts have included soliciting feedback from Parties and NWP partner organizations and updating the available knowledge resources (see table 2).

⁴⁷ See <https://www4.unfccc.int/sites/nwpstaging/Pages/Home.aspx>.

⁴⁸ <https://unfccc.int/topics/resilience/resources/adaptation-newsletters>.

⁴⁹ <http://unfccc.int/nwp>.

⁵⁰ <https://www4.unfccc.int/sites/NWPStaging/News/Pages/All.aspx>.

⁵¹ <https://unfccc.int/news>.

⁵² See the NWP workshops and meetings web page for details: <https://unfccc.int/topics/adaptation-and-resilience/workstreams/nairobi-work-programme-nwp/workshops-meetings-nairobi-work-programme>.

Table 2

Improving the relevance, accessibility and usability of the adaptation knowledge portal

| <i>Goal</i> | <i>Approach</i> |
|---|---|
| Provide relevant and robust knowledge of practice for Parties and communities in an accessible and user-friendly manner to facilitate countries in scaling up adaptation action | Identify knowledge resources and mobilize targeted knowledge providers to share their resources on the portal Update the case studies, methods and tools, and knowledge resources on the portal Enhance user navigation, such as by improving visibility of and access to content on the portal Supplement the resources on the portal with communication tools such as webinars and other audiovisual content |
| Provide information on NWP partners and their adaptation action in countries | Showcase updates from partners and promote their work via UNFCCC and other communication channels |
| Provide information for NWP partners and experts on opportunities to engage in work under the NWP, including with constituted bodies | Solicit regular input from the constituted bodies on engagement opportunities Keep the information on engagement opportunities under the NWP up to date and promote the opportunities through the UNFCCC, and other, communication channels |

95. To ensure that knowledge products are accessible and tailored to the needs of the users:

(a) Existing sources of information, such as NAPs and nationally determined contributions, have been used to identify adaptation- and resilience-related knowledge needs and good practices to inform work under the NWP;

(b) Inputs on knowledge and good practices have been solicited from Parties (through UNFCCC national focal points) and NWP partners to inform work under the NWP and the information has been disseminated via the adaptation knowledge portal and other communication platforms;

(c) Feedback has been solicited from Parties, constituted bodies, NWP partners and expert groups, and knowledge users on the relevance of knowledge products and outcomes under the NWP through informal dialogues and at UNFCCC and external events.⁵³

VIII. Lessons learned and challenges

96. Since SBSTA 48 encouraged the NWP to strengthen its role as the UNFCCC knowledge-to-action hub on adaptation and resilience, modalities for work have been developed under the programme that have enabled it to achieve successes in this role.

97. **Lessons learned and challenges in scaling up adaptation action through the knowledge-to-action methodology** (see chap. III above):

(a) The NWP knowledge-to-action methodology has proven useful in the cycle of understanding Party adaptation knowledge needs, organizing work under priority thematic areas with thematic expert groups and fostering partnerships to close adaptation knowledge gaps;

(b) In the future, additional work can be done to understand not only the domains in which Parties require adaptation knowledge, but also the target knowledge users and the

⁵³ An informal event held in October 2021 provided an opportunity for Parties, including the UNFCCC national focal points and other stakeholders to discuss lessons learned and ways for work under the NWP to address knowledge needs of different users. See <https://unfccc.int/event/sbsta-informal-event-on-the-nairobi-work-programme-closing-adaptation-knowledge-gaps-through>.

specific information needed to enable uptake of knowledge for the purpose of enacting adaptation;

(c) Work under the NWP has been informed by existing inputs (e.g. national reports) and solicited feedback from Parties (via UNFCCC national focal points) through surveys, meetings and informal dialogues. Parties have expressed a need for adaptation knowledge that is relevant to the needs of users. This feedback has helped in identifying areas in which knowledge is needed to enhance adaptation action;

(d) Systematic approaches to understanding target knowledge users and their needs and delivering practical knowledge relevant to enhancing adaptation action are needed. These approaches could build on existing methods of tailoring knowledge products to user needs. Knowledge products need to be tailored to users implementing adaptation actions on the ground. Work to ensure that knowledge products are useful and accessible to target users is continuing, but further human and financial resources are required. In addition, networks of knowledge users should be enabled to share information;

(e) Long-term partnerships with thematic expert groups are central to ensuring the sustainability of the knowledge-to-action methodology;

(f) Further work can be done to integrate monitoring, evaluation and learning into the latter phases of the knowledge-to-action methodology to help further refine adaptation knowledge that is relevant to users and useful for action.

98. Lessons learned and challenges in scaling up adaptation action under priority thematic areas, including with thematic expert groups (see chap. IV above):

(a) Thematic groups of experts representing different regions, different areas of knowledge and diverse organizations, including indigenous peoples organizations, have proven useful for enhancing technical understanding of thematic areas and knowledge needs related to them. Their inputs have also contributed to closing knowledge gaps in addressing the needs of Parties;

(b) Linking a large, diverse global network of expertise and experience such as the NWP partner network through specific thematic and subregional work has enabled the dissemination of information and provision of targeted support to countries for scaling up adaptation action;

(c) Ensuring continuity of contact between experts via networks and building relationships between experts and countries so that knowledge needs are addressed has been accomplished in part through ongoing coordination of these networks, including the organization of virtual meetings during the coronavirus disease 2019 pandemic.

99. Lessons learned and challenges in scaling up adaptation action in subregions through LAKI, including with NWP partners and the UN Climate Change and Universities Partnership Programme (see chap. V above):

(a) LAKI is gaining international recognition and support from NWP partners and Parties. Engagement under LAKI of partner organizations operating in countries and subregions (e.g. UNEP Global Adaptation Network nodes, regional centres and networks, and RCCs) has already led to collaborative design and delivery of actions that close knowledge gaps in subregions, but such engagement requires a long-term approach and the investment of human and financial resources;

(b) Lack of financial resources has been identified by NWP partners, including partners in the UN Climate Change and Universities Partnership Programme, as a barrier to taking action to close knowledge gaps. Exploring global and region-specific funding opportunities and supporting partners in mobilizing financial resources could expedite closure of the gaps.

100. Lessons learned and challenges in enhancing adaptation action through collaboration with constituted bodies, including work arising from the advice of the AC on the delivery of NWP mandates (see chap. VI above):

(a) Iterative, innovative modalities have been developed for collaborating with constituted bodies and involving thematic expert groups to enhance adaptation action through

knowledge. Collaboration of constituted bodies under the NWP has expanded, and these bodies have been supported in implementing their adaptation-related mandates and workplans;

(b) Specific knowledge needs have been addressed under the NWP through collaboration among NWP partners, thematic expert groups, constituted bodies and Parties;

(c) Long-term strategic engagement with constituted bodies in line with their workplans and mandates could support Parties in designing adaptation interventions, accessing finance and scaling up adaptation action;

(d) Regular engagement between NWP partners and constituted bodies could help partners understand the evolving mandates of the constituted bodies and enable the network of NWP partners to support the constituted bodies effectively in their mandated work.

101. Lessons learned and challenges in scaling up adaptation action through monitoring, evaluation and learning (see chap. VII above):

(a) Monitoring and evaluation approaches have been integrated into work under the NWP in order to assess progress in closing knowledge gaps, thus helping scale up adaptation action and strengthening the impact of the NWP;

(b) Tools and approaches for soliciting feedback from knowledge users have been used to gain an understanding of the usefulness of knowledge outputs and actions and to determine how they can be enhanced to better inform adaptation action in countries;

(c) Systematic approaches that incorporate monitoring and evaluation, and learning, are needed to understand current adaptation practice and results, track the use of information in adaptation practice over time and assess the uptake of knowledge products by target knowledge users. These approaches could be helpful to understand better the impact of knowledge products, including how knowledge translates into enhanced adaptation action and how networks diffuse or halt adaptation innovation and implementation.

IX. Conclusion

102. The NWP stocktake at SBSTA 56 will review the performance and effectiveness of the NWP in addressing knowledge needs relevant to implementing the Paris Agreement and will identify ways of strengthening the operational and institutional modalities of the NWP to help scale up adaptation action through knowledge.

103. Building on the lessons learned and challenges captured in this report, SBSTA 56 will be a useful opportunity for Parties to provide recommendations for strengthening modalities of work under the NWP and in turn strengthening the role of the programme as a knowledge-to-action hub on adaptation and resilience that facilitates the scaling up of adaptation action by all countries, in particular developing countries, including the LDCs and SIDS.

104. As countries ramp up efforts to achieve the objectives of the Convention and the Paris Agreement, work under the NWP must evolve from identifying and describing adaptation knowledge gaps in broad terms under thematic domains to applying a systematic approach to delivering specific, actionable knowledge to users.

105. To help countries scale up adaptation action commensurate with unfolding climate impacts, adaptation action and associated means of implementation require a foundation of practical, comparable knowledge.

106. The systematic approach under the NWP will facilitate scaling up adaptation action through knowledge. Scaling up work under the NWP could entail:

(a) Shifting from one-off interventions to longer-term strategic, systematic and sustainable engagement with Parties, constituted bodies and NWP partners;

(b) Becoming modular in nature and responding to Parties' needs through:

(i) Scaling up existing activities (i.e. building a foundation of practical, comparable knowledge relevant to adaptation action) for all countries and regions, which could include gaining an understanding of the adaptation knowledge gaps of countries and

subregions and those under the priority thematic areas, and then providing relevant information to close the gaps;

(ii) Deepening engagement through fully catalysing the expertise of NWP partners and networks to respond to the needs of Parties, which could include scaling up adaptation action – including in the context of the process to formulate and implement NAPs, finance, capacity-building and technology – by applying the knowledge that has been provided in line with user needs;

(iii) Developing new and transformative activities, which could include systematically assessing progress in closing knowledge gaps, assessing the uptake of knowledge and knowledge products by users, evaluating the impact of knowledge in enhancing adaptation action, and learning about the ongoing adaptation needs and efforts of all countries.

Annex

Advice from the Adaptation Committee on work under the Nairobi work programme

The AC has provided advice on the delivery of NWP mandates on four occasions: at its 15th, 17th, 19th and 21st meetings.¹ This advice has focused on:

- (a) Suggesting areas of work under the AC to strengthen its long-term engagement with the NWP;
- (b) Inviting the secretariat to regularly review the workplans of adaptation-related constituted bodies with a view to identifying areas where further knowledge support could be provided for the work of the AC;
- (c) Inviting the secretariat to continue identifying and addressing knowledge gaps under the NWP and LAKE and to explore strategic partnerships with regional networks so that NWP work can be disseminated widely to target audiences;
- (d) Promoting synergy and coherence through the NWP Focal Point Forums with the aim of engaging NWP partners in work under the NWP and aligning their efforts with Parties' needs and the workplan of the AC;
- (e) Inviting NWP partners to draw on the outcomes of LAKE and the work under the thematic areas of the NWP in contributing to:
 - (i) The development and update of an inventory of methodologies for assessing adaptation needs;
 - (ii) The work of the AC and the LEG on compiling methodologies, on the adaptation knowledge portal, for reviewing the adequacy and effectiveness of adaptation needs;
 - (iii) The work of the AC on monitoring and evaluating adaptation action through sharing experience and lessons learned from developing and implementing monitoring and evaluation systems;
 - (iv) An AC technical paper on priorities and needs for technologies for adaptation in agriculture, water resources and coastal zones, by collecting new case studies and synthesizing information from the adaptation knowledge portal;
 - (v) The work of the AC and the LEG on gaps and needs related to the process to formulate and implement NAPs, by expressing interest in addressing specific knowledge gaps, including in the context of the UN Climate Change and Universities Partnership Programme, and informing the AC and the LEG accordingly;
 - (vi) The implementation of mandates relating to adaptation communications and the global stocktake;
 - (vii) Dialogues on progress in closing the capacity gaps identified in accessing adaptation funding, and preparation of action-oriented briefs or case studies to demonstrate how capacity gaps could be closed.

¹ AC 15 advice is available at <https://unfccc.int/documents/194841>, AC 17 advice is available at <https://unfccc.int/documents/227674>, AC 19 advice is available at <https://unfccc.int/documents/271477> and AC 21 advice is available at <https://unfccc.int/documents/461777>.