#### **Africa**

#### Preserving Traditional Knowledge of Earthen Architecture in Algeria

Source: Biennial Update Report of Algeria

The Algerian Center for Earthen Architecture preserves and promotes traditional building techniques through conservation, education, and restoration efforts:

"Par ailleurs, l'action du Centre algérien de l'architecture de terre s'inscrit dans la promotion des techniques de l'architecture de terre et dans les objectifs de réhabilitation du bâti traditionnel et des savoirs traditionnels associés. Ses interventions lui ont permis depuis sa création de capitaliser à travers d'importantes activités de réhabilitation, de formation et de sensibilisation, sur des connaissances techniques associées aux savoir traditionnels en produisant des corpus très riches de l'architecture."

#### Khettaras and Seguias: Traditional Water Management Systems based on Farmer's Traditional Knowledge in Morocco

Source: Biennial Update Report of Morocco

Climate change mitigation efforts highlighted in Morocco's BUR reinforce ancestral techniques being practised by farmers including traditional water management systems:

"Les besoins ressortis de l'analyse des actions et mesures entreprises pour lutter contre le changement climatique au Maroc concernent les différents secteurs (énergie, agriculture et pêche, forêts, habitat et aménagement de territoire, santé, etc.). En matière d'atténuation, les besoins en transfert de technologies portent essentiellement sur les axes suivants : • Capitaliser sur le savoir-faire des agriculteurs : Il s'agit de renforcer les techniques ancestrales qui ont montré leur efficacité au fil des années, notamment les khettaras et seguias, la différenciation entre les variétés végétales traditionnelles cultivées et leur usage, l'agroécologie ancestrale, etc."

#### Practices by Indigenous Peoples in Maryland and Grand-Kru Counties in Liberia as coastal defense systems

Source: Adaptation Communication of Liberia

In Liberia, Indigenous Peoples have been utilizing traditional practices such as planting coconut and almond trees along beaches to combat erosion, protect homes, and support livelihoods serving as an effective measure to adapt to climate change:

"Residents of those counties reported that the coconut trees or plantations along the beaches were primarily planted to be used as food or for agriculture purposes as a means to generate income. The trees also provided shelter for their homes, protecting them against the ocean's high intensity winds that often destroy roofs. The trees also serve as a preventive measure against coastal erosion. Beaches (shorelines) with coconut trees plantation are much more stable than those without them as it relates to beach degradation by coastal erosion. Most of the coconut tree plantations along those beaches were planted by women and youth."

## **Strengthening Local Climate Risk Management Committees in Mozambique**

Source: National Communication of Mozambique

Mozambique is working to enhance the role of Local Climate Risk Management Committees in responding to local climate risks:

"Strengthening the role of Local Climate Risk Management Committees (CLGRD) in reducing climate risk at the local level (Development of the terms of reference of the CLGRD, including sustainability actions; Strengthening their capacity and involvement in the flow of alert information and sensitization of communities on issues of climate change and disasters; Promotion of the exchange of experience between local communities on local knowledge of managing extreme events, including actions taken to minimize their effects)."

#### Integrating Indigenous Weather Forecasting Indicators in Uganda

Source: National Communication of Uganda

Uganda is documenting Indigenous knowledge to integrate it with modern science in hybrid forecasting models, strengthening climate risk management and planning:

"In line with disseminating and promoting use of climate information, UNMA has documented the indigenous forecasting indicators used by different communities in Uganda so that they can be researched on and integrated in modern science to come up with a hybrid forecast for planning and decision making in agricultural and other social-economic activities."



Under the second three-year workplan of the LCIPP, case studies were compiled to showcase the engagement of Indigenous Peoples and/or local communities in existing policies, actions, and communications under the Convention.

#### **Africa**

#### Combining Indigenous and Scientific Forecasting in Kenya with Nganyi Rainmakers

Source: National Communication of Kenya

By collaborating with the Nganyi community in Western Kenya, referred to as local community rainmakers, the ICPAC-LED project aims to develop a reliable and harmonised weather forecast. The project combines traditional knowledge with scientific knowledge to strengthen reliable information in local languages and ultimately support communities at risk of climate change in protecting their health and livelihood:

"To start the process, ICPAC produced a seasonal forecast downscaled for local use by the KMD, then climate scientists and Nganyi forecasters met to develop a consensus forecast for the region. With the help of local government officials and development agencies, the harmonised forecast was then converted into advisories in local languages concerning community health and agriculture for that season. Building trust between scientists and rainmakers was the delicate part of the process. Building on lessons learned in the project, ICPAC and other research partners aim to see harmonised forecasts used on a wider scale in the country and beyond."

#### Community-Based Adaptation in Batwa Communities in Burundi

Source: Nationally Determined Contribution of Burundi

The Batwa People have developed strategies for adapting to climate change based on their deep understanding of the environment. Burundi plans to include the traditional knowledge of the Batwa as written in their climate plan:

"Les suggestions de ces groupes seront recueillies pour l'élaboration et la mise en oeuvre des projets et pour une gestion communautaire des risques de catastrophes liés aux changements climatiques. Les connaissances traditionnelles des batwa seront prises en considération car ils possèdent une longue expérience d'observation et d'engagement envers leur environnement. Depuis de longues années d'interaction avec leur environnement naturel, ils ont développé des stratégies pour répondre aux impacts liés au changement climatique et ont su y répondre grâce à leur savoir-faire et leur philosophie de la nature."

#### Food & Culture: Basotho Indigenous Food Preservation Techniques in Lesotho

Source: National Communication of Lesotho

The Basotho culture in Lesotho utilizes traditional food preservation techniques to combat shortages and store uncooked foods for extended periods of time:

"Examples are the 'sesiu' constructed of reeds and hung to the rooftops in a thatched house to allow adequate air circulation and low temperatures. Raw meat can be salted and dried for future consumption. Similar techniques exist for fruits, vegetables, various legumes, and milk. Techniques also exist for the preservation of semi and fully prepared food for storage over months. Roasted and ground salted maize is popular on long trips. Various vegetables, crop seeds can also be dried and be readily consumed during times of food shortages."

### Integrating Traditional Knowledge into Climate Adaptation in Benin

Source: Adaptation Communication of Benin

Benin's approach to integrating traditional knowledge into its NAP focuses on strengthening and preserving Indigenous knowledge and promoting the exchange of traditional knowledge and lived experience on adaptation at the national level:

"Pour bien intégrer les savoirs traditionnels dans le PNA, il faut travailler dans plusieurs directions:

- 1. Renforcer les connaissances traditionnelles (CT) Cela nécessite: un renforcement des capacités des peuples autochtones pour maintenir leurs connaissances traditionnelles (et de tous les détenteurs de connaissances, hommes et femmes) ; la sensibilisation des peuples autochtones sur l'importance des connaissances traditionnelles pour la préservation de la biodiversité; l'établissement d'un répertoire des connaissances traditionnelles; la réalisation d'études analytiques pour pouvoir optimiser ces savoirs et préparer les conditions pour les restaurer sur le terrain; et la définition des connaissances traditionnelles relatives à la préservation de la biodiversité (en effectuant des études pratiques sur le terrain en collaboration avec les détenteurs de CT).
- 2. Échanger les données tirées de l'expérience Il s'agit de répertorier les connaissances traditionnelles des peuples autochtones et des communautés locales relatives à l'adaptation aux effets des changements climatiques et à la préservation de la biodiversité au niveau du pays. Aussi faut-il établir une base de données nationale de ces connaissances traditionnelles. Une modification de la législation nationale de façon à ce qu'elle soit adaptée à l'utilisation des CT s'avère nécessaire."



### The Arctic

#### Consultation on Matters Concerning the Sami People in Sweden

Source: Adaptation Communication of Sweden

In 2022, the Swedish government adopted a law requiring consultation of the Sámi People on decisions that affect them.

"It is crucial that formalized procedures are established which give indigenous peoples the opportunity to participate and the ability to genuinely influence decision-making in issues that concern them. Procedures for consultations are a step towards strengthening opportunities for the Sámi to influence and participate in matters concerning the Sámi. In 2022 the Government adopted a law entitled "Consultation on Matters Concerning the Sami People". The law entails that the government, government agencies, regions and municipalities have the duty to consult the Sámi people before decisions are made that are affecting them. From a Sámi perspective, this would entail consultations on issues relating to the national implementation of the Paris Agreement as Sápmi (the Sámi homeland) and the Sámi people – being part of the Arctic – are heavily affected by the impacts of climate change."

## Consultation procedures to ensuring Sami rights in Norway

Source: Nationally Determined Contribution of Norway

"For consultations with indigenous people, Sami People, procedures for consultation processes between the central government and the Sámediggi, established in 2005, constitute a crucial framework for ensuring Sami rights under international law to participate in processes that may affect them."

#### Safeguarding Sámi Heritage: Climate Adaptation and Traditional Livelihoods in Finland's Arctic Policies

Source: National Communication of Finland

Finland's Land Use and Building Act, alongside the Arctic Policy Strategy, emphasise climate adaptation, cultural heritage protection and the rights of the Sámi People, including their traditional livelihoods like reindeer herding:

"The major legal basis for protecting cultural heritage sites and the environment is the Land Use and Building Act. The national land-use guidelines also contribute to the efforts to adapt to climate change and extreme weather events and their consequences. Cultural environments are among the guidelines' themes. The Constitution defines nature and its diversity, as well as the intrinsic value of cultural inheritance [...]. Furthermore, the Sámi indigenous people have the right to maintain and develop their own language and culture. Climate change mitigation and adaptation is one of the four priorities of Finland's Strategy for Arctic Policy adopted by the Government in June 2021. According to the strategy, all activities in the Arctic must be based on the carrying capacity of the natural environment, the protection of the climate, sustainable development principles, and respect for the rights of indigenous populations. Reindeer herding is a large-scale Arctic subsistence livelihood based on both the reindeer's ability to obtain food and survive on natural pastures and reindeer herders' traditional knowledge of reindeer and the grazing environment"



#### Asia

### Legal Protections for Khmer People during Implementation of Cambodia's NDC

Source: Nationally Determined Contribution of Cambodia

The Cambodian Constitution and various national laws aim to protect the rights of Indigenous Peoples, particularly in the context of NDC implementation:

"It is also important to highlight an additional area related to Indigenous People. The Cambodian Constitution recognises that all Khmer citizens (which include indigenous people under the National Policy on the Development of Indigenous Peoples) are equal before the law regardless of race, colour, national origin, etc. Indigenous people are also protected by the Land Law (2001), the Forest Law (2002), the Protected Areas Law (2008), and the National REDD+ Strategy, among others. During the NDC implementation and particularly for mitigation measures in the FOLU, the RGC will seek to promote the rights of indigenous peoples, specifically concerning land ownership."

#### Community-Led Water Management Under Jal Jeevan Mission in India

Source: National Communication of India

Jal Jeevan Mission (JJM) in India is a decentralised, demand-driven community-managed programme with an active participation of women and rural communities:

"Following the bottom-up approach, JJM is being implemented as a decentralized, demand-driven community-managed programme. More than 0.524 million Paani Samitis/ Village Water and Sanitation Committees (VWSC) have been formed and over 0.512 million Village Action Plan have been prepared under Jal Jeevan Mission to manage, operate, and maintain in-village water supply infrastructure with an active participation of people especially women, and rural communities working together. For long term drinking water security, local communities and Gram Panchayats are coming forward and taking responsibility to manage village water supply systems, their water resources and grey water."

#### Role of Local Communities in Forest Conservation and Climate Change Adaptation in Indonesia

Source: Adaptation Communication of Indonesia

The Government of Indonesia sees the local wisdom of local communities as a solution to climate change adaptation:

"With the various climate problems, the Government sees the local wisdom of local communities as a solution to climate change adaptation through the maintenance and sustainable use of natural resources. The Gol has been implementing programmes to engage local communities in the forest management, such as social forestry programme and ProKlim. There is already the Aliansi Masyarakat Adat Nusantara (AMAN) as an independent community organization in promoting the fulfilment of the rights of local communities. Currently, AMAN has a total membership of 2,449 local communities, with individual members reaching 20 million people out of an estimated total population of local communities in Indonesia of 40-70 million people. AMAN has also coordinated and collaborated with the government, for example in the integration of customary maps. This map can be a modality in optimizing climate change adaptation actions based on local communities in Indonesia."

## Floating Garden and Stilt Housing Technology of the Inntharr Community in Myanmar

Source: Nationally Determined Contribution of Myanmar

The Inntharr people, a Shan ethnic minority at Inle Lake in Southern Shan State, have applied Indigenous technologies for climate adaptation since the 1960s:

"For instance, floating garden technology and stilt housing technology are the unique indigenous technology (IT) have been applied by the Inntharr (Insaar in local name) community at Inle lake in Southern Shan State since early 1960s (Seielstad and Phillips 2015). The Inntharr people, a Shan ethnic minority, have developed floating gardens by gathering water hyacinth Eichhornia crassipes (minimum thickness of 1 m), knitting clumps together, securing them by bamboo poles, then knitting the hyacinth clumps together."



#### Asia

# From Local to National: Local Adaptation Plans for Action (LAPA) Framework for Inclusive Climate Adaptation in Nepal

Source: National Communication of Nepal

The National Framework on LAPA aims to integrate local needs into climate adaptation planning through a bottom-up, inclusive and responsive approach focused on local groups across 14 districts in Nepal:

"NAPA has identified and prioritized the adaptation options, and implemented "Increasing community-based adaptation through integrated management of agriculture, water, forests and biodiversity" in the name of NCCSP [Nepal Climate Change Support Programme (NCCSP)]. [...] Through NCCSP, the LAPAs are being implemented in 14 districts: Achham, Bajura, Kailali in the Far Western region and Bardiya, Dolpa, Humla, Jumla, Mugu, Dailekh, Jajarkot, Kalikot, Dang, Rolpa and Rukum in the mid-western region."

# Collaborating with Indigenous communities for preservation, protection, and rehabilitation of cultural heritage in the Philippines

Source: National Adaptation Plan of the Philippines

The Philippines in its NAP highlights priority adaptation strategies for cultural heritage, population displacement and migration. Under its outcome on preservation, protection, and rehabilitation of cultural heritage amidst climate risks, it lists indicative key strategies, including:

"Integrate indigenous knowledge into climate risk assessments. Collaborate with indigenous communities to integrate traditional ecological knowledge, such as local climate patterns, adaptive practices, and sustainable resource management, into climate risk assessments. Develop and deploy culture-specific disaster preparedness. Develop disaster preparedness programs, especially for indigenous communities impacted by climate change, that incorporate cultural values, practices, and community roles. Activate community-led monitoring and protection. Empower indigenous communities to actively monitor and protect their heritage sites and ancestral land. Develop culturally sensitive capacity-building programs to ensure job security of traditional workers. Create capacity-building programs tailored to the cultural context of traditional workers for new green jobs, aiming to secure their employment and livelihoods while protecting informal traditional livelihoods, where possible."

#### Water Management Plans jointly drafted with the local communities in Thailand

Source: Adaptation Communication of Thailand

"The Hydro-Informatics Institute (Public Organization) and the local communities jointly drafted water management plans with the goal of creating water reserves for use during the dry season. This enables the community to have income during the dry season, such as by planting crops with low water requirement, and strengthens the community by creating a water management network. At present, there are over a thousand such networks, including notable ones such as the Baan Lim Thong in Buriram province and Baan Sala Din in Pathum Thani province."

#### Tara Bandu: a Traditional Law for Protecting and Conserving the Environment and Use of Natural Resources in a Sustainable Manner in Timor Leste

Source: National Adaptation Plan of Timor Leste

Since gaining independence in 2002, Tara Bandu has regained prominence, as it is enshrined in Timor-Leste's Constitution and widely recognized by the Timorese people as a vital and legitimate means of preserving traditional culture and fostering mutual respect within society (Asia Foundation, 2013).

"Communities across Timor-Leste have established new Tara Bandu resource management regimes that include forest conservation areas, fishery no-take zones, bans on certain types of destructive fishing methods, and prohibitions on harvesting of certain species. Tara Bandu has been incorporated into legal frameworks pertaining to natural resource management and in the management of marine protected areas. According to the Environmental Basic Law of Timor-Leste, Tara Bandu is defined as an integral custom of Timor-Leste's culture, which regulates man's relationship with his surrounding environment (Decree Law no. 26/2012). According to this law it is seen as a local custom that regulates the relationship between humans and the environment surrounding them. Article 8 of the Environmental Basic Law states that —Tara Bandu may be applied in accordance with the rituals instituted by local common law which are intended to conserve and promote the environment and the sustainable preservation and use of natural resources. This Traditional Law has been recognized by the Government of Timor-Leste as a local customary law for protecting and conserving the environment and use of natural resources in a sustainable manner. It is a common practice that local communities in Timor-Leste apply this traditional law to control the exploitation of the forests and oceans. Tara Bandu represents an important entry point for strengthening engagement with and involvement of local communities in resilience building efforts. As the NAP process evolves, it will work through Tara Bandu mechanisms that currently exist and will emerge in the future across Timor-Leste to encourage communities to plan and implement locally-appropriate climate change adaptation measures. This includes ecosystem-based adaptation measures that provide cobenefits in terms of sustainability of harvests and the provision of ecosystem services. In addition, Tara Bandu creates opportunities for the NAP process to contribute to peace building and reconciliation efforts at the local level by building community resilience."



# Central and South America and the Caribbean

### **Intercultural Dialogues to Incorporate Perspectives of Indigenous Peoples in Argentina**

Source: National Adaptation Plan of Argentina

In Argentina, the National Directorate of Climate Change (DNCC) and the Coordinator of National Organizations of Indigenous Peoples of Argentina (CONAPIA) developed a process to engage Indigenous Peoples in climate risk and impact assessments:

"In this context, four regional workshops were planned with Indigenous Peoples representatives, called 'Intercultural Dialogues.' For this work, a different regionalization grouping provinces into four regions was used: NEA (Entre Ríos, Misiones, Corrientes, Chaco, Formosa, and Santa Fe); NOA (Jujuy, Salta, Tucumán, La Rioja, Catamarca, and Santiago del Estero); Central (Buenos Aires, CABA, Córdoba, Mendoza, San Juan, San Luis, and La Pampa); and South (Tierra del Fuego, Antarctica, South Atlantic islands, Santa Cruz, Chubut, Río Negro, and Neuquén). To develop the risk and impact assessment of climate change from the perspective of Indigenous Peoples, the process started with an exchange of knowledge about the characterization of different territories, Good Living, and Indigenous cosmology.."

## Workshops for Development of Repository with Ancestral Knowledge in Chile

Source: Long-Term Low-Emission Development Strategy of Chile

To highlight the ancestral knowledge and good practices of local communities and Indigenous Peoples on biodiversity protection and climate adaptation, a series of five workshops gathered input for a web platform serving as an information repository:

"Para profundizar en el compromiso de visibilizar y difundir los conocimientos ancestrales y buenas prácticas de comunidades locales y pueblos indígenas sobre protección de la biodiversidad, mitigación y adaptación al cambio climático, se realizó un ciclo de 5 talleres, donde se buscó levantar insumos para la construcción de una plataforma web diseñada para ser el repositorio de información sobre estos temas. El ciclo de talleres constó de tres etapas: una primera etapa informativa, una segunda etapa participativa, y una tercera etapa de cierre y retroalimentación. Este proceso contó con 103 asistentes, de los cuales el 62% correspondieron a mujeres y un 38% a hombres. A estos talleres asistieron personas que se identificaron con distintos pueblos originarios, teniendo la mayor participación los pueblos Mapuche, luego el Rapa Nui y posteriormente el Huilliche, seguido del pueblo Aymara, los pueblos Diaguita y Atacameño, pueblos Alacalufe o Kawésqar, Colla, Pehuenche, Picunche y Selknam. En cuanto a las Comunidades o Asociaciones Indígenas presentes a lo largo del ciclo de talleres, se identificó la asistencia de 18 comunidades a lo largo del proceso."

## **Involving Local Communities in the Bahamas for Climate-Resilient Development**

Source: National Communication of the Bahamas

"Integrating climate change into national development must involve local communities. A number of approaches can be taken on ensuring communities are built to be safe, resilient and sustainable. The "zero casualty" approach provides a framework to better respond to natural hazards and effects caused by climate change. The approach can include: Involvement of local communities in every phase of development from project design to implementation to empower communities to determine what infrastructure will best serve them. Community members can be upskilled and potentially employed to help scale projects. These actions can enable communities to develop stronger systems and break the cycle of vulnerability."

#### National Policy for Territorial and Environmental Management of Indigenous Lands in Brazil

Source: National Adaptation Plan of Brazil

In Brazil, the National Policy for Territorial and Environmental Management of Indigenous Lands (PNGATI) aims to ensure and promote the protection, recovery, conservation, and sustainable use of Indigenous lands and territories' natural resources. Simultaneously, it aims to preserve Indigenous heritage, improve equality of life, and ensure conditions for Indigenous Peoples' physical and cultural reproduction, and respect for their sociocultural autonomy. Goals to strengthen the food and nutritional security of Indigenous People include:

"1) strengthening and promotion of indigenous productive initiatives, with support for use and development of new sustainable technologies; 2) continuous high-quality technical assistance, adapted to the particular needs of indigenous peoples; 3) certification of indigenous products and their marketing; 4) fostering of actions for environmental recovery and restoration of indigenous lands; and 5) recovery and conservation of agro-biodiversity and of other natural resources essential for the food and nutritional security of indigenous peoples, with a view to restoring and enhancing the value of traditional seeds and cultivars. Placing socio-biodiversity products on institutional markets (e.g.: PAA, PNAE, PGPM-Bio) is an important FNS promotion mechanism. It ensures fair prices for products, enabling shorter marketing cycles and stimulates revival of traditional foods at indigenous schools, thereby strengthening cultural identity."



# Central and South America and the Caribbean

# Holistic Understanding of Nature based on Scientific, Multicultural and Traditional knowledge in Colombia

Source: <u>Long-Term Low-Emission Development Strategy of Colombia</u>

Colombia aims to build a comprehensive understanding of Nature by integrating multicultural and traditional knowledge with scientific knowledge in education. This initiative will consider linguistic access of Indigenous, Afro-descendant and Raizal communities to climate-related materials:

"Se impulsará en toda la comunidad educativa la construcción de una visión holística en torno a la comprensión de la naturaleza a partir del conocimiento científico, multicultural y tradicional, producto del reconocimiento de los saberes, necesidades, roles, habilidades e intereses diferenciados de todas las comunidades y grupos sociales en los territorios del país. Se contemplará el acceso al material referente a cambio climático en distintas lenguas de comunidades indígenas, afrodes cendientes y raizales, de manera que estas sean sujeto (no solo objeto) de conocimientos."

# Incorporating Indigenous Ways of Life in Guyana's Environmental and Educational Policies

Source: National Communication of Guyana

Guyana's NC highlights its rich diverse population, including, Amerindian communities in the Hinterland maintaining their traditional ways of life. At the regional and local levels, Regional Democratic Councils, Neighbourhood Democratic Councils, Community-Based Organizations, Indigenous Communities, and Municipalities actively contribute to natural resource management. Efforts are being made to enhance local capacities and ensure effective integration of adaptation actions that reflect Guyana's diverse geographical landscape:

"The NGO Policy Forum Guyana engaged in several environmental activities: a wildlife fair was held, they introduced a board game which featured local species for its use as gamification in education and developed a reference book in several indigenous languages to cover the topic of water pollution among freshwater species. The need to integrate more indigenous subsistence ways of life into the regular school curriculum to adequate for real Indigenous needs and as a way to promote sustainable environmental practices for land preservation and lifestyle practices.

Incorporating indigenous and foreign languages into the school's curriculum and incorporating indigenous and foreign languages in the curriculum of teacher's capacitation at the Cyril Potter College of Education (CPCE) and any other relevant teacher capacitation national programme is also recommended. Teachers to begin incorporating students' own local experiences, knowledge, and everyday."

#### Ancestral Agricultural Systems for Climate Adaptation in Guatemala

Source: National Communication of Guatemala

Guatemala's NC highlights Indigenous Peoples' ancestral systems and practices rooted in adaptation to environmental conditions, including Indigenous systems of agriculture:

"1. Asocio de cultivos: se refi ere al empleo de sistemas que asocian diversos cultivos, tales como maíz, frijol y cucúrbitas, en el cual aprovechan los espacios de manera diferenciada y generan los benefi cios de una relación simbiótica (Batzín, 2019). También existen prácticas como el sistema agroforestal de café con sombra, el sistema Quesungual y Kuxur Rum (FAO, 2018), y los sistemas silvopastoriles que propician la diversifi cación de los medios de vida, gracias al uso efi ciente de la unidad productiva (Martínez-Rodríguez et al., 2017). 2. Preparación del suelo y labranza: consiste en la aplicación de conocimientos y prácticas tradicionales, que incluyen la preparación de la tierra según la región y adecuándose a distintos patrones de humedad. También se realizan ajustes en la dirección de los surcos, que debe facilitar el paso del viento para evitar la resistencia y riesgo de daño a las plantas (Batzín, 2019). 3. Selección y manejo de semillas: permite mantener la riqueza genética de las semillas locales, para responder mejor a las variaciones climáticas actuales y futuras (USAID CNCG, 2015). Algunos ejemplos de su aplicación son el rescate de las variedades de cultivos usados ancestralmente para consumo; el uso de semillas criollas resistentes a sequías, plagas y enfermedades; y la reforestación con especies locales de raíces fuertes que ayudan a conservar el suelo (Enriquez Cottón et al., 2017)."

### **Legal Recognition of Indigenous Land Rights** in **Nicaragua**

Source: Biennial Update Report of Nicaragua

Law No. 445 provides a legal framework for Indigenous Peoples in Nicaragua's Caribbean Coast regions, formally recognising their rights to traditional land use and management:

"Por su parte, la Ley de Régimen de Propiedad Comunal de los Pueblos Indígenas y Comunidades Étnicas de las Regiones Autónomas de la Costa Caribe de Nicaragua y de los ríos Bocay, Coco, Indio y Maíz (Ley No. 445 publicado en La Gaceta Diario Oficial, No. 16 del 23 de enero de 2003.), garantiza a los Pueblos Originarios y Afrodescendientes el pleno reconocimiento de los derechos de uso, administración y manejo de las tierras tradicionales y sus recursos naturales, lo que configura al régimen administrativo de los Pueblos Originarios y Afrodescendientes como la unidad base política y administrativa diferenciándolo del resto del país (Gobierno de Nicaragua, 2003)."



# Central and South America and the Caribbean

# Indigenous Peoples' Platform: Bridging Ancestral Knowledge and Climate Action in Peru

Source: National Adaptation Plan of Peru

Peru's Indigenous Peoples' Platform for Climate Change (PPICC) serves as a governance space that involves Indigenous Peoples and supports the integration of ancestral knowledge and practices into climate action:

"[...]el Perú ha lanzado la Plataforma de Pueblos Indígenas para enfrentar el Cambio Climático (PPICC), el cual funciona como un espacio de gobernanza que involucra a los pueblos indígenas u originarios en los procesos de política pública para la adaptación y la mitigación del cambio climático. Esta plataforma propicia el encuentro entre los saberes ancestrales y la acción climática, para que este trabajo en conjunto sea una oportunidad de bienestar y desarrollo en favor de la construcción de resiliencia frente a los efectos del clima."

## **Indigenous Climate Action and Disaster Risk Reduction Plan in Paraguay**

Source: National Adaptation Plan of Paraguay

The Federation for the Self-Determination of Indigenous Peoples (FAPI) has developed and submitted the "Indigenous Climate Action and Disaster Risk Reduction Plan" as a contribution to Paraguay's Nationally Determined Contributions (NDC):

"[...] la Federación por la Autodeterminación de los Pueblos Indígenas (FAPI) ha presentado al MADES el Plan Indígena de Acción Climática y Reducción del Riesgo de Desastres. El mencionado Plan visualiza claramente dos dimensiones, por un lado, la necesidad de reducir la vulnerabilidad de los pueblos indígenas al cambio climático y propiciar la adaptación, y por otro lado la contribución de los pueblos indígenas a mitigar la emisión de gases de efecto invernadero (GEI).
[...] Trece organizaciones indígenas miembros de la Federación por la Autodeterminación de los Pueblos Indígenas (FAPI) han elaborado el "Plan Indígena de Acción Climática y Reducción de Riesgos de Desastres" como un aporte de los pueblos indígenas a la NDC."

# Advancing Access and Benefit-Sharing Frameworks Promoting Traditional Knowledge in Saint Lucia

Source: Biennial Update Report of Saint Lucia

With support from regional partners and international organisations, Saint Lucia has developed a draft Access and Benefit-Sharing (ABS) policy and proposed institutional structures to regulate access to genetic resources and traditional knowledge:

"This mechanism is intended to create a formal structure that would ensure that Saint Lucia derives benefits from the use of its genetic resources (marine and terrestrial) and traditional knowledge. [...] This protocol if adopted will provide greater legal certainty and transparency for both providers and users of the island's genetic resources and associated traditional knowledge. It will serve to ensure that if a genetic resource (plant, animal or microorganism) is used for research or development, any benefits obtained are shared equitably with the people of Saint Lucia."

## Interactive Learning for Water Conservation and Cultural Heritage in Venezuela

Source: Nationally Determined Contribution of Venezuela

In Venezuela, the interactive "Water Roads" video game tool promotes awareness raising of ancestral knowledge and practices among young people about the use, protection and conservation of water:

"En cuanto a la sensibilización en torno al uso, protección y aprovechamiento del agua, promoviendo la recuperación de las prácticas y saberes ancestrales, se ha implementado en más de 2.750 instancias educativas el Programa "El Agua en nuestras Vidas" que busca sensibilizar a niños, niñas y adolescentes a través de distintas herramientas lúdico-pedagógicas, entre las que se cuenta el Videojuego "Caminos del Agua" [...] desarrollado en el marco del Proyecto TECNI-CIENCI-ANDO."



# Eastern Europe, Russian Federation, Central Asia and Transcaucasia

#### **Strengthening Traditional Water Systems** in Croatia

Source: National Communication of Croatia

The Italy-Croatia cross-border programme 'Interreg' aims to strengthen local communities' resilience to the effects of climate change as well as the harmonisation of data exchange for the implementation of climate adaptation measures. As part of this, the civil society organisation 'Tatavaka' focuses on education and awareness raising on climate change and sustainable development on the island Zlarin:

"Since 2021, Tatavaka has implemented a couple of projects so far (Lokvica - biodiversity centre of the Island of Zlarin funded by, Renovation of the traditional rainwater harvesting system on the island of Zlarin, Design And Re-engagement of Public Water Sources on The Island of Zlarin) aimed at restoring traditional water harvesting systems on the island such as the town's rainwater harvesting system (gusterna), but also the ponds inland that were created by drystone walling technique and covering of the ponds' bed with water impermeable soil, and used more for agriculture."

#### **Strengthening Climate Resilience: Ecosystem-Based Adaptation in the Kune-Vaini Lagoon, Albania**

Source: National Communication of Albania

Albania aims to strengthen climate resilience in the Kune-Vaini Lagoon by implementing ecosystem-based adaptation (EbA) strategies to enhance government and local communities' capacity:

"Some of results that will be achieved are the increased national and local technical capacity to address climate change risks in coastal areas through EbA, and the increased ecosystem and livelihood resilience from flood and drought risk through pilot EbA demonstration activities in the Kune-Vaini lagoon system. The project aims to enhance the awareness of local and national stakeholders of climate change risks and the potential of EbA to increase the resilience of local communities to climate change."

#### **Affected Cultural Heritage in Jordan**

Source: National Communication of Jordan

Climate change is increasingly impacting the rich tangible and intangible cultural heritage in Jordan – spanning over 100,000 archaeological sites and UNESCO World Heritage locations:

"For instance, through the change in humidity levels, such as experienced by Qusr Amra, Petra, and murals of churches in the north, increase in temperature causing damage to the fragile carved rocks of Petra and an increase in erosion of rock formations in Petra and Wadi Rum, as well as challenges due to the variations in precipitation, drought, and floods. It also affects biodiversity, causing decline and loss of native plants and animal species. Finally, it is worth mentioning that climate change doesn't only affect sites, but also the bifaceted connection of people, with each other and with land and heritage sites."

# Community-Led Climate Adaptation Efforts in Tajikistan: A Spotlight on the Youth Environmental Center

Source: National Communication of Tajikistan

The NGO "Youth Environmental Center" in Tajikistan engages rural communities in climate change adaptation through awareness raising and project implementation on initiatives regarding energy-efficient housing, solar greenhouses, improved cropland, and water supply systems:

"Based on the vulnerability and risk assessment together with the communities it developed local(community) action plans for climate change adaptation in Shahritus, Kabodyon, Nosiri Khusravand Gissar districts of Tajikistan. As a result more than 200 houses were insulated and 100 energy efficient stoves were built, cropland and water supply was improved, 15 solar greenhouses and 30glasshouses were created, fruit tree nurseries for 20 thousand seedlings, solar photovoltaic panels were installed in health centers. Importantly, in many cases the recipients of aid are women as heads of households."



## **North America**

#### **Strengthening Indigenous Economies Through Climate Action in Mexico**

Source: Adaptation Communication of Mexico

The 'Programme for the Improvement of Indigenous Production and Productivity' led by the National Institute of Indigenous Peoples (INPI) aims to enhance Indigenous Peoples' economies while implementing climate change mitigation and adaptation actions to protect ecosystems:

"Programa para el Mejoramiento de la Producción y Productividad Indígena (PROIN), del INPI. El PROIN tiene el objetivo general contribuir al fortalecimiento de las economías de los pueblos y comunidades indígenas y afromexicanas, con la implementación, entre otros, de acciones de mitigación y adaptación al cambio climático. En 2018 y 2020 ejerció 125.5 millones de pesos para la implementación de 637 acciones de mitigación y adaptación, tales como: reforestación, conservación de suelos, conservación de manantiales, protección de bosques, milpa intercalada con frutales, conservación de agua, monitoreo de fauna silvestre, conservación de fauna silvestre, ecotecnias, milpa tradicional, entre otros. Lo anterior, en 138 municipios de 20 entidades federativas, en beneficio de 16,204 mujeres y 20,348 hombres indígas y personas afromexicanas (INPI, 2020), (INPI, 2018b), (INPI, 2019).

## **Indigenous Leadership in Canada's Renewable Energy Transition**

Source: Long-Term Low-Emission Development Strategy of Canada

Indigenous communities and organisations across Canada are implementing renewable energy initiatives that contribute to climate change mitigation, and economic development through participative power projects and partnerships. As per Canadas LT-LEDS submission, 79 renewable energy initiatives are underway and expected to deliver co-benefits such as protection of the land, air and water alongside employment creation:

"The T'Sou-ke Nation of Vancouver Island in British Columbia, dubbed Canada's first Aboriginal Solar Community, developed three community-owned solar demonstration projects.

These include a standalone system with battery storage on a community office building, a grid-connected solar PV system that can be used as a backup power source, which that can sell surplus power back to the grid for communities that wish to have net-zero energy use, and a kilowatt grid-connected, net-metered solar PV system on the community canoe shed, which powers its administration buildings. [...]"

#### NOAA Climate and Equity Roundtables: Addressing Local Climate Resilience Needs in the United States

Source: National Communication of the United States

The National Oceanic and Atmospheric Administration (NOAA) held a series of Climate and Equity Roundtables on to gather inputs from local stakeholders on improving policies, services, and products to meet community needs:

"The roundtable in Detroit, Michigan focused on neighborhood flooding and other roundtables will focus on heat resilience in Arizona and Nevada, coastal inundation in Louisiana, equitable climate resilience in the Pacific Islands, flooding and resilience in Mississippi River communities, coastal flood risk in Connecticut, and climate risks in Alaska conducted with the Alaska Native Tribal Health Consortium."

## Supporting First Nations, Inuit, and Métis Nation Climate Leadership and Self-determined Priorities in Canada

Source: Nationally Determined Contribution of Canada

The Government of Canada worked collaboratively with First Nations, Inuit, and the Métis Nation to establish three distinctions-based senior bilateral tables based on principles of rights recognition, respect, cooperation, and partnership:

"These tables have helped foster a collaborative approach to ongoing engagement with Indigenous Peoples and have helped reflect Indigenous climate leadership in Canada's climate plan. In addition to these three tables, the Government of Canada continues to work to better support Indigenous Peoples as leaders to advance their self-determined priorities while contributing to national and global efforts to address the impacts of climate change, reduce their carbon footprint, promote wellbeing, and move towards energy sustainability."



#### The Pacific

# Butchulla K'gari Traditional Knowledge and Western Science for Adaptation Planning in Australia

Source: Long-Term Low-Emission Development Strategy of Australia

The Butchulla traditional owners of K'gari have collaborated with the Queensland Government of Australia and the Climate Systems Hub to develop an adaptation plan for the island. The process began with a discussion and agreement on Butchulla values together with the community and elders:

"A series of workshops brought together traditional and local knowledge with western science. Together participants looked at what had happened to Butchulla values in the past, what has happened in the present, and what they might be worried about for the future. Different adaptation actions highlighted ways the Butchulla could lead the response to climate risks, including returning to cultural burning, a leading role in biosecurity activities, and building and regaining knowledge and research about K'gari. The Butchulla people are developing posters, information sheets, and vulnerability stories to share outcomes of the adaptation planning project with the community. The results are also being shared with the K'gari World Heritage Advisory Committee."

## Mapping Intangible Cultural Heritage of iTaukei Community, Fiji

Source: National Communication of Fiji

The Cultural Revitalisation Programme, initiated by the Fijian Government, promotes the iTaukei culture to urban youth in Fiji:

"This cultural mapping programme documents the Intangible Cultural Heritage of the iTaukei community that is its traditional home base (the village) and its custodians (elders and chiefs). It also contributes towards reviving and using traditional knowledge and solutions for addressing climate change and its impacts. To support and restore degraded habitats, there is also a drive for stronger community engagement and close and effective coordination between Government officials, NGOs and all relevant stakeholders."

#### **Coastal Resilience and Food Security** in Pa Enua, Cook Islands

Source: National Communication of Cook Islands

The Island strategic development plan for Pa Enua, Cook Islands, aims to strengthen adaptive capacity and ensure the community's continued ability to grow traditional foods:

"Actions include improving and maintaining access to planting lands as well as maintaining traditional water wells and springs in the wetland areas to maintain ground moisture during times of drought. Initiatives to support reforestation of the receding coastline across the whole of Pukapuka with coconut trees and traditional resilient tree species like tamanu, tou and puka trees, was supported through aid funding. V&As and island strategic plans identified marine reserves, rā'ui, replanting of trees along the coastline, and maintaining traditional knowledge, as key actions required by most island communities and government."

#### Nitijela: Lived Experiences and Indigenous Knowledge for Climate Adaptation Strategies in the Marshall Islands

Source: Adaptation Communication of Marshall Islands

The Marshall Islands emphasise the importance of integrating Indigenous science, rooted in lived experiences and Indigenous knowledge known as "nitijela," as a central component in designing climate adaptation strategies:

"We consider communities' views of their impacts and vulnerability as central to designing adaptation strategies. Communities perceive, interpret and react to climate impacts and risks based on lived experiences, cultural beliefs, media coverage, and political attitudes. The highest political body in the Marshall Islands, the Parliament, is named after the term "Nitijela." In the context of this report, we use the term "nitijela" to refer to community lived experiences and indigenous knowledge. "Niti" means "to bring together," while "jela" refers to understanding, which means when we come together, more understanding and knowledge sharing is possible. What this terminology demonstrates is the importance of community engagement – that lived experiences are a valuable form of indigenous science."

#### Plural Interpretations for Equitable Growth: Vanuatu's NSDP Framework

Source: Long-Term Low-Emission Development Strategy of Vanuatu

Vanuatu's LT-LEDS vision makes room for diverse interpretations of equitable growth, including equitable economic growth, gender empowerment, and cultural growth:

"The Vanuatu LEDS seeks to capture equitable growth through use of the framework in the National Sustainable Development Plan 2030 (NSDP) and alignment of LEDS actions with NSDP targets and implementation plan. The NSDP contains goals and targets in more areas than considered in the LEDS such as vibrant cultural identity, quality education, social inclusion, stable and equitable economic growth."



#### The Pacific

# Community-Based Adaptation and Traditional Knowledge Across the Federated States of Micronesia

Source: Biennial Update Report of Micronesia

In the Federated States of Micronesia (FSM), community-based adaptation is central to climate strategies, addressing local needs and promoting community adaptive capacity. Traditional knowledge is also valued in coping with natural hazards and advancing biodiversity conservation and climate adaptation in FSM plans and strategies:

"For example, in both the FSM Nationwide Climate Change Policy of 2009 and the following Nationwide Integrated Disaster Risk Management and Climate Change Policy of 2013 communities have a central role for climate change adaptation. [...] For instance, the traditional practice of sawei in Yap State can be seen as an adaptation of mutual reciprocity between and among groups from disperse island communities where traditional patterns of support still exist (Krause, 2016) and group identity is often more valued than individuality (Lazrus, 2015)."

# Strengthening Nauru's Climate Resilience Through Community Empowerment and Cultural Preservation

Source: National Communication of Nauru

Nauru strengthens climate resilience through community development activities that prioritise strong social ties, empowerment of women, youth and disadvantaged groups, and foster preservation of culture and language:

"[...]strategies identified in Nauru as important for building community include actions to: Preserve Nauruan language and cultural heritage. Through collecting and preserving cultural resources including historical books about Nauru, translation into Nauruan language resource books found abroad such as about Nauruan myths or traditional medicines, including Nauruan language components in the school curriculum, and undertaking research into, and encouraging sharing of, traditional knowledge possessed by elders - the longer term, the vision is development of a museum archive to give communities access to important cultural resources."

## New Zealand's First Emission Reduction Plan: Integrating Māori-Led Strategies

Source: Nationally Determined Contribution of New Zealand

In developing its first emissions reduction plan under the Climate Change Response Act, the New Zealand Government is required to recognize and mitigate impacts on Māori and ensure adequate consultation. A range of existing policies and proposals were considered in shaping the emissions reduction plan, including approaches for Government collaboration with the Māori on national-level strategies or the development of a Māori-led transition strategy:

#### "Current proposals include:

- Government and iwi/Māori working together, designing a number of national-level strategies, including a National Energy Strategy, Circular Economy Strategy, Bioeconomy Strategy, National Lowemission Freight Strategy, Industry plans and policies to decarbonise the industrial sector, and a Building Transformation Plan.
- Supporting Māori to create a transition strategy that responds to the particular priorities and needs of the Māori economy and Māori people. This includes applying Māori values and mātauranga Māori (Māori knowledge) to the transition.

#### Existing policies include:

- 1. Vision Mātauranga is a government policy that aims to unlock the science and innovation potential of Māori knowledge, resources and people for the environmental, economic, social and cultural benefit of New Zealand.
- Māori-focused research aligned with integrated farm systems, which seeks to assist the Māori pastoral sector to increase resource efficiency and farm productivity while lowering greenhouse gas emissions."

## Talanga: Weaving Cultural Wisdom into Tonga's Climate Action Pathways

Source: Long-Term Low-Emission Development Strategy of Tonga

Tonga's LT-LEDS development process embraced the cultural practice of 'Talanga', an interactive dialogue between individuals or groups with a purpose. Cultural metaphors were used as visual tools for storytelling during discussions:

"All sector-based pathways and the actions they comprise must support national economic development as well as seven principles important to the Tongan people: for the purposes of the LT-LEDS, these were defined by stakeholders as environment, inclusivity, autonomy, culture, traditional knowledge, education and core values [...]. Each of the actions in the pathways [...] has been assessed through the lens of these seven principles. Overall, autonomy and the use of traditional knowledge are important considerations for all sectors. Therefore, all actions in the sector pathways are framed wherever possible to identify, support and use local and traditional knowledge and to highlight local actions that can be taken autonomously. [...] For the AFOLU and Fisheries sector, promotion of best practices in agriculture, forestry and fisheries is the highest priority. [...] Establishment of a forestry inventory and a digital library of information including traditional knowledge, are two key initiatives."

