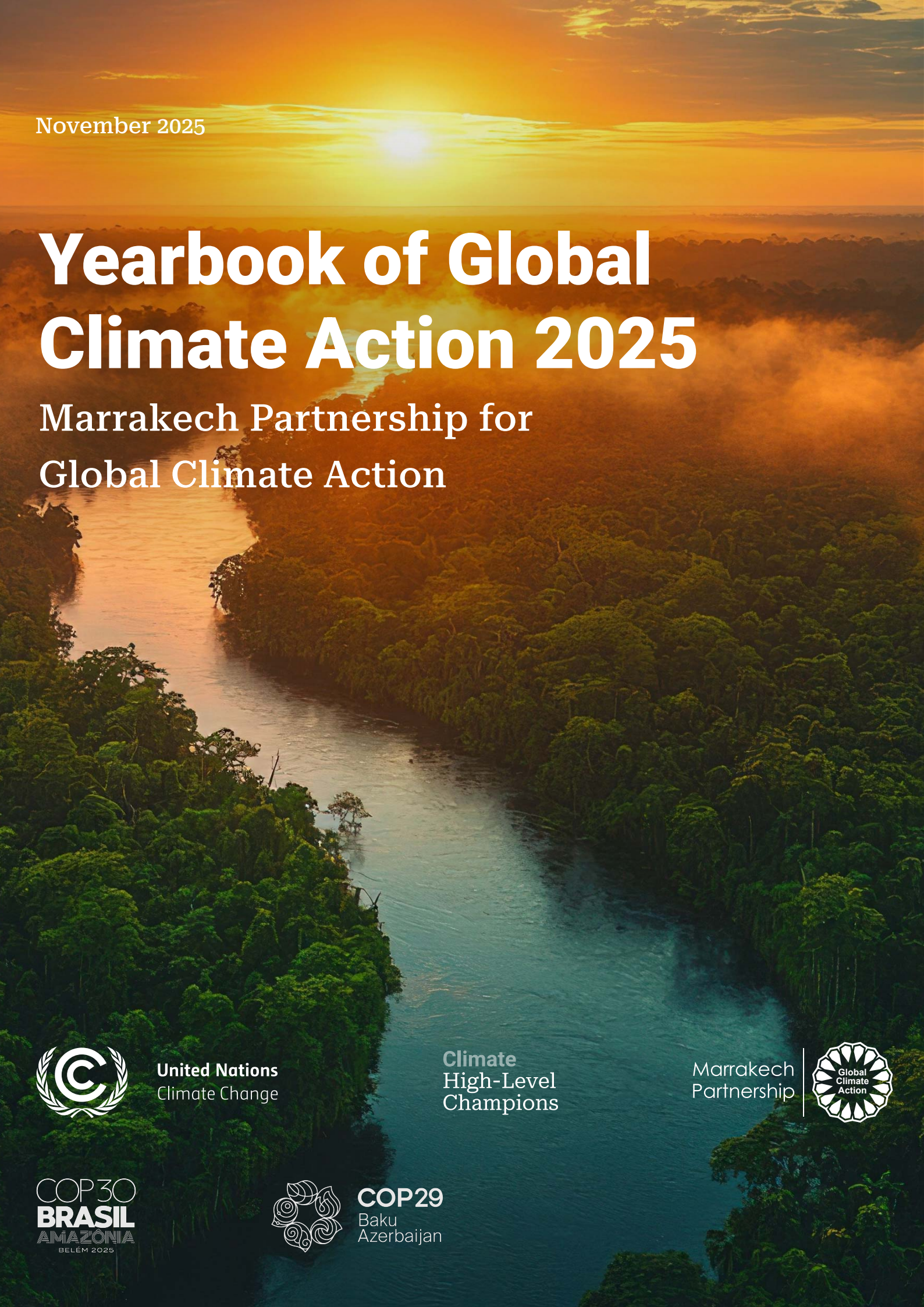


November 2025

Yearbook of Global Climate Action 2025

Marrakech Partnership for Global Climate Action

United Nations Climate Change

Climate High-Level Champions

Marrakech Partnership for Global Climate Action

COP30 BRASIL AMAZÔNIA BELÉM 2025

COP29 Baku Azerbaijan

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Abbreviations and Acronyms

AI	Artificial Intelligence
CBD	United Nations Convention on Biological Diversity
CCI	Cooperative climate initiatives
CHLC	Climate High-Level Champion
CO_2e	Carbon dioxide equivalent
COP	Conference of the Parties
EbA	Ecosystem-based Approaches
FID	Final Investment Decision
GBF	Kunming-Montreal Global Biodiversity Framework
GCAA	Global Climate Action Agenda
GEF	Global Environment Facility
GHG	Greenhouse gas
GPP	Green public procurement
GST	Global Stocktake
IEA	International Energy Agency
LT-LEDS	Long-Term Low Emission Development Strategies
MP	Marrakech Partnership for Global Climate Action
NAP	National Adaptation Plan
NAZCA	Non-State Actor Zone for Climate Action
NbS	Nature-based Solutions
NDC	Nationally Determined Contributions
NGO	Non-Governmental Organization
NPS	Non-Party stakeholders
RtR	Race to Resilience
SBTi FLAG	Science Based Targets initiative – Forest, Land and Agriculture
SDG	Sustainable Development Goals
SMEs	Small and medium-sized enterprises
UNCCD	United Nations Convention to Combat Desertification
UNSG	United Nations Secretary-General



Foreword, Simon Stiell

Executive Secretary of the UNFCCC

Ten years ago, the world came together in Paris and pledged to limit global heating to 1.5°C, strengthen resilience, and align finance with a sustainable future.

Since then, global climate action has expanded beyond governments to become a truly collective effort – driven by cities, regions, businesses, investors, communities, and citizens everywhere. This *Yearbook of Global Climate Action* marks that decade of progress and transformation.

We are now entering a decisive new phase. The first Global Stocktake clearly showed us that while progress is real, it remains insufficient.

In response, COP 28 in Dubai set the direction we must follow: a just, orderly, and equitable transition away from fossil fuels by mid-century; and a tripling of renewable energy; a doubling of energy efficiency, and supporting efforts to halt and reverse deforestation and forest degradation by 2030. COP 29 in Baku took important steps to translate those commitments into action – especially through a new collective quantified goal on climate finance. COP 30 in Belém will be the moment to accelerate. Across every country, sector, and society.

That is where non-Party stakeholders – the main actors featured in this *Yearbook* – play an indispensable role. Every tonne of carbon avoided, every ecosystem restored, every community made more resilient depends on action taken locally. Subnational governments - cities, states, and regions - have become critical drivers of implementation.

Through initiatives such as the Sustainable Urban Resilience for the Next Generation (SURGe), the Coalition for High Ambition Multilevel Partnerships (CHAMP), and the appointment of the COP 30 Special Envoy for Urban Solutions, we are witnessing a new era of climate localism – one that connects global ambition with concrete results on the ground.

This *Yearbook* also shows how the tools for tracking and transparency of voluntary climate action have continued to evolve. The role of the Non-State Actor Zone for Climate Action (NAZCA) portal is instrumental – providing a more comprehensive picture of climate action worldwide. With the huge growth of voluntary cooperative initiatives reporting their work to the portal, transparency is deepening. And this transparency matters – it is how we move from pledges to proof, from intention to impact.

The 2025 *Yearbook of Global Climate Action* – produced with the High-Level Climate Champions with the support of UN Climate Change, and in collaboration with other stakeholders and data partners – offers an integrated overview of the state of global climate action across six thematic axes: energy, industry and transport; nature and biodiversity; food and agriculture; cities and infrastructure; human and social development; and the enabling conditions of finance, technology, and capacity building.

It captures both qualitative and quantitative progress, building a clearer foundation for comparability, oversight, and learning year on year.

This ninth edition demonstrates that the Global Climate Action Agenda has matured from a platform for mobilization into an instrument for implementation. It provides evidence that systems transformation is underway, and highlights where momentum must now accelerate. It also informs the Climate Champions' next five-year vision, ensuring that the Global Climate Action Agenda helps us achieve the negotiated outcomes of UNFCCC process and, meet the goals of the Global Stocktake, benefitting people all over the world.

Our task in this critical decade is to close the gap between where we are and where we need to be – by aligning real-economy transformations with science, equity, and solidarity.

The spirit of *mutirão* – collective effort – embodies what success must look like at COP 30 and beyond: everyone, everywhere, working together to achieve measurable progress.

This *Yearbook* celebrates that collective effort. It recognizes the innovators, communities, partnerships, and coalitions turning ambition into action. It reminds us that the story of the Paris Agreement is not written in negotiating rooms alone – it is written in the streets of our cities, the fields of our farmers, and the decisions of our financiers. The next chapter must be one of scaled-up implementation, grounded in transparency, inclusion, and shared purpose.

I hope this 2025 *Yearbook* serves as both a mirror and a compass – reflecting how far we have come and guiding us to go further and faster, together.



Dan Ioschpe, Climate High-Level Champion of the COP 30 Presidency (Brazil)

Nigar Arpadarai, Climate High-Level Champion of the COP 29 Presidency (Azerbaijan)

Foreword

Climate High-Level Champions

In 2015, national governments committed to act together on the defining challenge of our age, recognizing that their success would be judged not by the words agreed in that hall but by the delivery that followed. A decade on, that moment of judgement has arrived.

Today, the promises of Paris are tested in a world already altered by climate change, where every decision made by governments, markets and communities is tied to the stability of economies and the resilience of societies. This is also the year identified by the IPCC as the point by which global emissions must peak if the 1.5°C goal is to remain within reach.

The first Global Stocktake assessed delivery against that promise, showing that while action has expanded across sectors and geographies, it remains far from sufficient in speed and scale. It also revealed that those most exposed to climate risks are the least equipped to withstand them, as support for adaptation continues to lag.

The climate record has now delivered its own verdict. In 2024, global average temperatures passed the 1.5°C threshold for the first time in a calendar year, with a high likelihood that the years ahead will be hotter still. The consequences are already visible in water scarcity, food insecurity and health pressures that are straining communities across regions. This combination of slow response and accelerating disruption defines the choices now confronting the world in 2025.

Yet this is also the year in which climate action is beginning to reshape the very systems most responsible for risk. Since Paris, renewable energy capacity has more than doubled to over 4,400 GW, creating more than 16 million jobs as investment flows shift decisively towards clean energy. Nearly 300 million people have gained access to electricity in the past decade, while the number without clean cooking has fallen by almost 600 million. Farmers are restoring soils and reducing methane through new practices. Cities are redesigning infrastructure to cope with intensifying heat and floods, and financial institutions are recalibrating portfolios as climate risk moves from the margins to the centre of valuation. What was once described as a transition is now altering the foundations of development itself, placing climate action at the core of how societies function and economies grow.

The Global Stocktake also pointed to the structures through which delivery can be secured. Coalitions that cross borders and sectors are influencing markets and technologies, Indigenous stewardship is increasingly recognized as central to resilience, and decisions taken outside negotiating halls are now among the most powerful drivers of the global response. These shifts are uneven, but they are beginning to take shape at the scale where ambition and delivery can meet.

As Climate High-Level Champions, we offer this Yearbook as a contribution to that effort. It provides evidence of progress, acknowledges where barriers persist and draws on the Action Agenda to show how ambition can be connected with delivery. First launched in Lima and formalized in Paris, the Action Agenda has become the framework for organizing action by non-Party stakeholders, extending responsibility to businesses, investors, cities, regions, civil society organizations and Indigenous Peoples whose decisions shape the systems on which societies depend. With COP 30 it has been organized to accelerate implementation through six priority areas that capture these interdependent systems. A catalogue of solutions and new global indicators strengthen accountability further, providing visibility to hundreds of initiatives and enabling assessment of both pledges made and delivery underway.

Ten years after Paris, the Agreement will be judged by the changes made in the world rather than the promises written into declarations. Its record will be found in the emissions reduced, ecosystems safeguarded, energy secured, and lives protected. As High-Level Champions, we believe the responsibility that follows from Paris is not to renew promises but to carry them through, for the measure of the Agreement is nothing less than the stability of societies and the preservation of the conditions of life on earth.



Foreword, H.E. Mukhtar Babayev

COP 29 President

Last year the world gathered in Baku to answer a question. Could we still work together to set the framework for global climate action? Could countries still unite to take action against a shared challenge, when there were so many factors that threatened to distract us and pull us apart?

The journey to finding that answer was not always easy. There were many that thought success was not possible. But the climate community did not give up. Negotiators from each country worked throughout the year to bridge our differences, and the COP 29 Presidency led an intensive diplomatic schedule to identify how we could make progress.

And at COP 29 in November we answered that question with a resounding yes, securing a package of agreements that have set the foundations for the next decade of climate action.

At its heart was the Baku Finance Goal, the largest financial commitment ever agreed in UN climate negotiations. Donors pledged to mobilise at least USD 300 billion annually by 2035 in climate finance for developing nations, with developed countries leading, and we set a wider goal to scale up total public and private flows to USD 1.3 trillion per year in the same timeframe. This collective goal sends a powerful signal to markets, providing long-term certainty that can enable public and private actors to deliver ambitious mitigation and adaptation plans.

After years of delay, we also reached a breakthrough on high-integrity carbon markets. These markets could channel USD 1 trillion a year by 2050 to developing-country projects and cut implementation costs for national climate plans by USD 250 billion annually. We also saw the Fund for Responding to Loss and Damage, a critical vehicle for delivering support to those on the frontlines of climate change, become fully operational.

We brought together different actors to deliver major new thematic pledges, covering topics from boosting energy storage sixfold by 2030, to reducing methane from organic waste. And finally, we created new coalitions to drive action on shared issues, from water basins to the peace-climate nexus.

All of this was complemented by an ambitious programme of activity from the High-Level Champions, who pushed for progress across SMEs to climate resilience.

Now, as we approach COP 30 in Belém, our key challenge is to protect the process, and the best way we can do that is to deliver on our promises. The second decade of the Paris era will be defined by implementation, and this will require a whole-of-society mobilization. The COP 30 Presidency of Brazil has embodied this in their call for a Global Mutirão, in which everyone comes forward to make their own contribution to the climate movement.

We need donors to honour their climate finance commitments, and all climate finance actors to work towards the USD 1.3 trillion goal. We need public and private actors to engage in high-integrity carbon markets under the UN. We need governments and businesses to deliver credible transition plans and work together to make that happen. None of these actions will solve the climate crisis alone, but they are all needed, and when combined, each one can build upon the other.

The COP process is truly special. In a divided world, it is a reminder that collaboration benefits us all. We now all have a duty to protect the process, restore faith in the system, and show that multilateralism can still meet the most pressing challenges of our day. We need to stay united in solidarity for a green world.



Foreword, H.E. André Aranha Corrêa do Lago

COP 30 President-Designate

The full potential of voluntary action depends on openness: clear data, shared learning, and periodic assessment of both progress and setbacks. Without transparency, even the most sincere efforts risk fading into noise; with transparency, they become the architecture of a new climate governance built on credibility. Such architecture can deliver real transformation if transparency is paired with accelerated implementation, ensuring that commitments rapidly translate into measurable change.

The full potential of voluntary action depends on openness: clear data, shared learning, and periodic assessment of both progress and setbacks. Without transparency, even the most sincere efforts risk fading into noise; with transparency, they become the architecture of a new climate governance built on credibility. Such architecture can deliver real transformation if transparency is paired with accelerated implementation, ensuring that commitments rapidly translate into measurable change.

In recognition of this, both Parties and non-Party stakeholders of the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, through formal consultations as well as informal dialogues, expressed a consistent call for COP 30 to advance implementation and transparency. In response, the Action Agenda strategy was developed as a catalytic pillar to support long-standing aspirations shared across the climate action community.

By engaging initiatives across 30 Activation Groups to support the implementation of the Global Stocktake of the Paris Agreement, agreed in Dubai, at COP 28, we invited voluntary actors to inspire the world with tangible solutions and positive examples, and to collaborate in accelerating their scale. Additionally, we encouraged initiatives to help us tell the story of how voluntary coalitions with concrete climate goals are delivering on their commitments in practice. Ten years after the Paris

Agreement, we must now aspire to demonstrate tangible outcomes, marking a decisive transition from the language of negotiations to the practice of implementation.

The enthusiastic response to our call for greater transparency confirms that our efforts are gaining traction. In total, 157 initiatives shared their individual-level indicators, representing an increase of approximately 420 percent compared to the number of initiatives that reported to the NAZCA platform last year. These indicators reflect outcomes such as CO_2 emissions reduced, hectares of forest protected and land restored, or finance mobilized for adaptation: evidence that voluntary climate action is advancing in scale and impact. Many indicators also highlight the central role of women, Indigenous Peoples, and local communities in driving implementation on the ground. In this edition of the *Yearbook of Global Climate Action*, we present a snapshot of these achievements.

We accomplish more when we act in collaboration. These outcomes were made possible only through close cooperation between the High-Level Champions from COP 29 Azerbaijan Presidency and COP 30 Brazilian Presidency under a unified Action Agenda. There is still much to advance, and we encourage data experts to continue refining existing methodologies, as well as improving data visualization and public access. We can rely on the most promising developments in science, data, and artificial intelligence to support these efforts. We invite all stakeholders to join a global *mutirão* to enhance transparency and improve information integrity in climate change matters.

The incoming Presidency has led sustained efforts to ensure that the Action Agenda, together with all other dimensions of COP 30, contributes to putting into practice what we have collectively agreed so far under the Paris Agreement. As we move forward together on this shared journey toward climate responsibility, the call for transparency is the light by which trust is built between governments, businesses, investors, NGOs, scientists, academics, and communities.

Acknowledgments

The Climate High-Level Champions (CHLCs) would like to thank all contributions from many organizations and individuals that made this edition of the Yearbook of Global Climate Action possible, especially those engaged in the activation groups of the climate action agenda. We would like to extend thanks to the CoAct Database/ACHIEVE Project team, the Systems Change Lab team from the World Resources Institute, and all of the data providers supporting the data included in this year's edition of the Yearbook. The CHLCs would also like to thank their entire team, the UNFCCC secretariat, and the extended COP 29 and COP 30 Presidency teams for their support.

Executive Summary

The 30th session of the Conference of the Parties (COP 30) to the UNFCCC marks the 10-year anniversary of the adoption of the Paris Agreement, a landmark achievement in multilateral cooperation towards tackling the climate crisis. Much has advanced in the past decade, but much remains to be done to get the world on track to meet the long-term temperature goal of the Agreement.

In that sense, a total of 64 Nationally Determined Contributions (NDCs) were considered by 30 September 2025 as the next generation of NDCs. Nearly all of them were informed by the outcome of the first Global Stocktake (GST), which provided an assessment of the collective progress towards achieving the Paris Agreement goals. The GST also provided a roadmap for global climate action to align itself with these goals, by pointing out gaps to bridge, barriers to overcome and opportunities to replicate and scale up.

The new NDCs reflect a deepening and more structured engagement of non-Party stakeholders (NPS) in climate action, with 95 per cent of Parties reporting engagement of NPS in NDC implementation. The crucial contribution of NPS to global climate action was recognized earlier in the UNFCCC process, with the appointment of Climate High-Level Champions (CHLC) in 2015 and the launch of the Marrakech Partnership for Global Climate Action (MP) the following year.

At COP 29, the mandate of the CHLC was renewed until 2030, and as a result, a new proposed five-year vision was developed to guide the work going forward – a vision informed by the COP 30 Climate Action Agenda proposed by the Brazilian Presidency in the spirit of *mutirão* (collective action), and supported by the COP 29 CHLC. This Agenda, organized into six thematic axes and 30 key objectives centred around the GST outcome, seeks to encourage accelerated implementation and enhanced transparency, building on the negotiated outcomes of the UNFCCC process.

The 2025 Yearbook – the ninth iteration of its series – has been structured around these axes and objectives, with the purpose of providing a progress-looking report aligned with the Global Climate Action Agenda and the first GST outcome. Each chapter thus addresses a Climate Action Agenda axis, with a final chapter presenting a forward-looking approach to track progress and drive implementation. Each of the axis-oriented chapters in turn presents four sections, summarized below.

Section I. Trend analysis in the past decade (year-on-year global socio-economic indicators)

This section addresses a key element of the COP 30 Climate Action Agenda, which is the proposed development of a tracking framework aimed at enhancing year-on-year comparability and transparency of progress. In alignment with this framework, section I presents a set of axis-oriented global socio-economic indicators[1] drawn from well-established sources (i.e. IEA, IRENA, Systems Change Lab, FAO, WHO, Climate Policy Initiative, Mission Possible Partnership) offering insights into progress in the last ten years, gaps, and direction of travel. The framework explicitly acknowledges this is a *work in progress* – with adaptation and resilience tracking significantly lagging behind mitigation indicators at the moment. The following boxes highlight main progress and gaps identified under each of the axes.

Axis 1: Energy, Industry & Transport

Progress

- Renewable capacity more than doubled 2015-2024 (1,900 to 4,448 GW);
- 91 per cent of new renewables are cheaper than fossils;
- Clean-to-fossil investment ratio reached 10:1 in 2024;
- EVs at 22 per cent of vehicle sales (2024);
- 1,001 commercial-scale clean industrial projects underway.

Gaps

- Annual growth (15.1 per cent) below tripling target (16.6 per cent);
- Grid investment critically low;
- Energy efficiency declined to 1 per cent;
- Fossil subsidies increased to USD 1.5 trillion;
- Near-zero steel/cement capacity – only 10 per cent of required;
- Methane emissions rising.

Axis 2: Forests, Nature & Oceans

Progress

- Forest finance nearly quadrupled 2015-2023 (USD 11 billion to USD 38 billion);
- Global forest area increased to 4.14 billion hectares;
- Indigenous Peoples and local communities' land tenure grew;
- Business nature-positive tool adoption tripled (330 to 1,003 from 2023-2025).

Gaps

- Deforestation worsened (7.0 to 8.1 Mha/year);
- Only 17.6 per cent land protected vs. GBF's 30×30 goal;
- Restoration projects cover 10.6 million vs. 350 million hectares target;
- NbS finance at one-third of need;
- Mangroves still declining;
- Marine protected areas only 8 per cent.

Axis 3: Agriculture & Food Systems

Progress

- GHG emissions intensity declining across agricultural practices;
- Crop yields and meat productivity improved;
- Agri-food SBTi FLAG targets rose to include over 300 companies;
- Ruminant meat consumption declining in high-consuming regions.

Gaps

- One billion hectares degraded agricultural land (no progress);
- 100 million hectares healthy land lost annually;
- Food loss and waste increased (121 to 130 kg/capita from 2015-2022);
- Food waste generation and related methane emissions show increasing trends;
- Investment USD 95 billion vs. USD 260 billion needed;
- 35 per cent of the population cannot afford a healthy diet.

Axis 4: Cities, Infrastructure & Water

Progress

- NDCs with urban content doubled (27 to 52 countries);
- Cities reporting adaptation tripled (380 to 910 from 2017-2023);
- Disaster mortality halved (1.62 to 0.79 per 100,000);
- Early warning coverage expanded in past 10 years (44 per cent to 55 per cent);
- Building energy intensity improved.

Gaps

- <10 per cent climate finance reaches subnational governments;
- Building emissions increased despite efficiency;
- Only three countries with zero-carbon codes;
- 1.1 billion people living in slums or informal settlements.

Axis 5: Human & Social Development

Progress

- Capacity building reached 85 countries for NDCs/NAPs;
- Renewable energy jobs grew (10 million to 16 million from 2015-2023);
- As of 2025 Race to Resilience reached 437.7 million people with USD 4.18 billion deployed;

Gaps

- 3.6 billion people in highly vulnerable areas;
- 295 million acute food insecurity (record high);
- 242 million students with climate-disrupted schooling;
- Health receives <6 per cent climate finance;
- Green talent gap widening (demand +11.6 per cent, supply +5.6 per cent);

Axis 6: Finance, Technology & Capacity

Progress

- Total climate finance flows tripled from 2015-2023 (USD 700 billion to USD 1,900 billion);
- AI investment grew 13-fold from 2014-2024 (USD 250 billion);
- GCF Readiness Programme expanded (798 to 874 requests);
- 80+ countries received NDC 3.0 support;
- 32 countries operate emissions trading;
- Green goods trade up 243 per cent (from 2000-2020).

Gaps

- MDB finance (USD 85.1 billion in 2024) well below goal (USD 250-300 billion/yr);
- Adaptation finance only at USD 28 billion (2022);
- Only nine of 90 Parties with Article 6 tracking;
- Methane rising despite 75 per cent reduction potential;
- Fossil subsidies increasing;
- Progress data insufficient and lacking key digital infrastructure;
- SME finance data elusive.

Key Patterns

- Momentum is visible across all axes, but progress consistently falls short of targets;
- Strongest: renewable cost economics, early warning systems, disaster mortality;
- Weakest: deforestation (worsening), fossil subsidies (increasing), methane (rising), adaptation finance gaps;
- Critical need: scaling from pilots to economy-wide transformation while ensuring just transition reaches vulnerable populations.

Section II. Insights into the progress of cooperative initiatives since the Paris Agreement

This section examines progress across voluntary cooperative climate initiatives in the past 10 years for each of the axes, based on a preliminary analysis developed jointly by the ACHIEVE, BioCAM4, and CAMDA projects of 387 initiatives tracked in the CoAct Database (Chan, S. et al., 2025). The sample is selected based on initiatives featured on NAZCA, launched at recent COPs (COP 26-29), or that have an explicit nature-based climate action element.

The CoAct Database analysis reveals substantial growth in both the number and membership of active initiatives launched at major international climate conferences and summits, and as part of international campaigns since 2013, with the landscape expanding from fewer than 50 active initiatives in 2013 to over 350 by 2024.

Mitigation-focused initiatives continue to prevail, accounting for 48 per cent of all initiatives tracked in the CoAct database. Though adaptation efforts have grown rapidly, they still lag behind at 23 per cent, with an additional 29 per cent of initiatives addressing both adaptation and mitigation equally.

Thematically, land use (34 per cent), energy (28 per cent), and industry (26 per cent) remain the most frequently addressed areas regarding mitigation, while critical adaptation prioritized themes such as water (7 per cent), resilience (11 per cent), and oceans and coastal zones (13 per cent) remain significantly underrepresented. The landscape shows encouraging signs of maturation, with output effectiveness improving between 2014 and 2018. Progress has largely levelled off since then, suggesting that the next phase of voluntary climate action will require renewed effort and targeted support to sustain this trajectory.

Participation has broadened considerably, with businesses comprising 45 per cent and subnational governments 30 per cent of all instances of participation. Leadership, however, remains concentrated among international organizations, international non-governmental organizations (NGOs), and national governments from high-income countries, particularly in Europe and Northern America. Indigenous Peoples and local communities remain notably absent from governance structures, with only five initiatives including Indigenous Peoples and local communities as leaders.

Geographically, implementation is heavily skewed toward high-income contexts, with 42 per cent of implementation instances occurring in high-income countries, though adaptation initiatives show a more balanced distribution toward vulnerable regions including Least Developed Countries (LDCs), Small Island Developing States (SIDS), and Sub-Saharan Africa. These trends underscore both the remarkable expansion of cooperative climate action and the persistent challenges of inclusivity, equity, and balanced thematic coverage that must be addressed to realize its full transformative potential within the Paris Agreement architecture (Chan, S. et al, 2025).

Section III. Progress of Individual Actors and Cooperative Climate Initiatives (CCIs) registered on NAZCA

NAZCA data on individual actors and CCIs shows an impressive rise in the number of global actors engaged in climate action. The number of individual actors engaging in climate action registered through the NAZCA Portal has more than doubled in five years, from around 18,000 in 2020 to over 43,000 in 2025. A massive increase in registered CCIs has been recorded in the same period, from 149 to 243 initiatives, demonstrating growing engagement and collaboration in climate action.

This year, 49 registered CCIs submitted information on their progress to NAZCA, providing a better understanding of their efforts. Their responses show most engagement contributing towards knowledge production, sharing and capacity building; mobilization of finance and financial approaches; and advocacy, policy engagement and awareness-raising. Access to finance or funding remains the main challenge reported in their submissions.

In order to best showcase the work of CCIs registered at NAZCA around the COP 30 Climate Action Agenda axes, existing taxonomies such as MP themes and SDGs were selected as proxy. Based on this approach, 26 of the 49 CCIs that reported their progress to NAZCA under the common framework in 2025 were identified as related to axis 1; 15 to axis 2; 21 to axis 3; 21 to axis 4; 27 to axis 5; and 35 to axis 6.

Section IV. Highlights of initiative self-tracking progress (initiative-level indicators)

This section addresses another key element introduced by the COP 30 Climate Action Agenda, which is the development of initiative-level indicators designed to address how climate initiatives and coalitions can measure and successfully demonstrate the delivery of concrete results. In combination with the global socio-economic indicators and the information available on the NAZCA Portal, these indicators provide a clearer and broader overview of global climate action progress and gaps while also enhancing comparability, transparency and accountability at all levels. The COP 30 Presidency, in collaboration with the CHLC, has proposed a first exercise in that sense, aimed at encouraging the Action Agenda community to take a further step towards advancing the transition from negotiation to implementation.

A total of 157 initiatives reported initiative-level indicators as part of this exercise; of these, 34 primarily focus on the energy, industry, and transport sectors; 27 on forests, oceans, and biodiversity; 26 on agriculture and food systems; 35 on resilience for cities, infrastructure and water; 22 on fostering human and social development; and 59 primarily focus on finance, technology and capacity building.

Looking ahead: tracking future progress and driving implementation

As the world continues its efforts to keep the temperature goal of the Paris Agreement alive, the coming years will be critical to boost implementation, including through broad participation of NPS in climate action. The extension of the CHLC mandate and the continuous evolution of the Marrakech Partnership provide a solid foundation to this end.

The proposal for the new five-year vision for the Global Climate Action Agenda (GCAA) also aims to foster the implementation of agreed outcomes under the UNFCCC process, helping ensure alignment between the efforts of voluntary initiatives and NPS, with Party-agreed priorities. Its structure around six thematic axes, as presented in the 2025 Yearbook, is informed by the first GST outcome.

The GCAA will continue to strengthen transparency of voluntary action through continuous improvement of UNFCCC reporting platforms to drive voluntary action and stimulate implementation. This will be done by increasing visibility of implementation through global socio-economic indicators and initiative-level indicators, as presented in the 2025 Yearbook. Looking ahead, the aim is for the Yearbook to continue to evolve into a tracking instrument that strengthens accountability and transparency across the Global Climate Action Agenda.



Introduction

The 30th session of the Conference of the Parties (COP 30) of the United Nations Framework Convention on Climate Change (UNFCCC), to be held in Belém, Brazil, from 10 to 21 November 2025, marks the 10-year anniversary of the adoption of the Paris Agreement, a landmark achievement in multilateral cooperation towards tackling the climate crisis.

Much has advanced in the past decade in addressing this challenge, but much remains to be done to achieve the goal of the Paris Agreement. As it is, 2025 is also the year the Intergovernmental Panel on Climate Change (IPCC) indicated greenhouse gas emissions (GHG) should peak at the latest in order to limit global warming to 1.5°C. In October 2025, the United Nations Secretary-General (UNSG), António Guterres, **noted** that with a paradigm shift, it is possible 'to anticipate as much as possible to get to net zero and then to be consistently with negative net in the future' in order for temperatures to decline. It is imperative, therefore, to take action towards this paradigm shift and accelerate implementation.

The year of 2025 also welcomes the submission of the third round of Nationally Determined Contributions, or NDCs 3.0. These revised NDCs are to be informed by the outcome of the first Global Stocktake (GST), concluded in 2023. The aim of the GST – a Party-driven process with broad participation by non-Party stakeholders (NPS) – is to assess the collective progress towards achieving the Paris Agreement goals, and the outcomes of this first 'report card' indicate that the global community is still quite shy in its efforts towards a 1.5°C resilient world.

The GST does, however, also provide a roadmap for global climate action to align itself with the 1.5°C goal, by pointing out gaps to bridge, barriers to overcome and opportunities to replicate and scale up. The NDCs 3.0 need to ramp up ambition, then, as they may be the last opportunity to course-correct. Ideally, they should also signal Party and non-Party stakeholders' vital collaboration towards implementation.

The NDC Synthesis Report published in late October reviewed the information contained in 64 NDCs submitted in this new cycle.[2] The report plays a critical role in informing Parties and stakeholders on progress and gaps with regard to raising ambition and accelerating implementation. The new NDCs reflect a deepening and more structured engagement of non-Party stakeholders in climate action. An increasing number of Parties are involving subnational entities, the private sector and civil society in both the design and implementation of NDCs.

Notably, 95 per cent of Parties reported engagement of non-Party stakeholders in NDC implementation, 20 per cent more than in their previous NDCs. Subnational entities are increasingly involved as partners in planning, implementing and monitoring climate action, helping to embed national goals into local plans for coherent implementation. The private sector is positioned as a co-implementer and financier, contributing through innovation, partnerships and investment mobilization. Civil society and academia play vital roles in shaping inclusive policies, advancing climate justice and providing scientific expertise (UNFCCC, 2025a).

Parties are collaborating with non-Party stakeholders through voluntary efforts, initiatives and coalitions to mobilize resources and scale up climate action, and reported in the NDCs that enhanced enabling

environments, such as appropriate incentives, sectoral road maps and knowledge platforms, are supporting stakeholder contributions. This shift from broad consultation to multi-stakeholder implementation underscores an increasing whole-of-society and whole-of-economy approach to climate action, thus signaling an alignment with the outcome of the first GST and reinforcing the importance of collaborative climate governance.

Climate action by NPS has been instrumental to the advances made these past 10 years, a contribution which was recognized early in the UNFCCC process. Both the appointment of **Climate High-Level Champions** (CHLC) in 2015 and the launch of the **Marrakech Partnership for Global Climate Action** (MP) the following year helped kickstart a more structured approach to scaling up the global response to climate change, and enabled a better connection between the Convention and the many voluntary and collaborative actions that were already taking place.

At COP 29, the mandate of the CHLC was renewed until 2030, and as a result, a new five-year vision – to be presented at COP 30 – was developed to guide the work going forward. To that end, an inclusive consultation process was held with Parties and NPS to better inform a shared roadmap aimed at accelerating the implementation of climate action through to 2030. A **synthesis report** published in September 2025 summarized key messages from 67 insights and recommendations coming from these stakeholders, highlighting, for instance, the need to strengthen transparency by incorporating regular review cycles as a way to enhance the credibility of the Climate Action Agenda. The Yearbook, as well as the NAZCA Portal (see the dedicated section below), were cited as central tools for that.

As the global community shifts gears, ramps up ambition and accelerates implementation, cooperation is key to put the world on track towards the Paris Agreement goal. This means aligning agendas and boosting cooperation at every front to reach a common goal.

With that in mind, the incoming President of COP 30, Ambassador André Corrêa do Lago, urged all stakeholders to approach the climate crisis under the spirit of *mutirão* – a word originated from the Tupi-Guarani Indigenous language and grounded in the concept of community, signifying collective action towards a shared task.

Building on this concept and all the work carried out throughout the past 10 years, the COP 30 Presidency structured an ambitious and integrated Global Climate Action Agenda, using the outcome of the first GST as a roadmap. This Agenda seeks not only to accelerate implementation of already agreed outcomes, but also to enhance transparency and monitoring across all climate-related pledges and initiatives.

The COP 30 Climate Action Agenda is organized into six thematic axes, each with a set of key objectives: (i) Transitioning Energy, Industry, and Transport; (ii) Stewarding Forests, Oceans and Biodiversity; (iii) Transforming Agriculture and Food Systems; (iv) Building Resilience for Cities, Infrastructure and Water; (v) Fostering Human and Social Development; and the final cross-cutting axis of (vi) Unleashing Enablers and Accelerators, including on Finance, Technology, and Capacity Building.

This systemic approach taken by the Climate Action Agenda also restructures the sectoral nature of the Marrakech Partnership's themes (Energy, Industry, Transport, Land Use, Oceans and Coastal Zones, Human Settlements, and Water, and the cross-cutting themes of Finance and Resilience) into a framework that more thoroughly reflects the GST outcome.



The 2025 Yearbook of Global Climate Action

The Yearbook of Global Climate Action, first launched in 2017, is one of the tools developed by the CHLC with the support of the UNFCCC secretariat to track progress, impacts and results, and to identify best practices and lessons learned. Each Yearbook is unique, in that it is adjusted to provide readers with the best information available as the climate agenda advances, but its main objective remains to reflect the range and state of global climate action and to bring key messages to the international community to encourage a higher level of ambition by Parties and non-Party stakeholders alike.

The 2025 Yearbook – the ninth iteration of its series – seeks to do so by providing a progress-looking report, reflecting on the trends in global climate action spanning the past decade and presenting the plan for the next five years, using the GST outcome as its lodestar. As such, this Yearbook is divided into seven chapters, with the first six addressing the Climate Action Agenda axes, and a final chapter presenting forward-looking key messages.

Each of the Climate Action Agenda axis-oriented chapters presents four sections, namely: (I) trend analysis of global progress under the axes' key objectives in the past decade; (II) insights into trends across specific cooperative initiatives since the Paris Agreement; (III) progress of individual actors and Cooperative Climate Initiatives (CCIs) registered on the NAZCA Portal; and (IV) highlight of selected initiatives self-tracking progress through initiative-level indicators.

Section I addresses a key element of the COP 30 Climate Action Agenda, which is the proposed development of a tracking framework and cooperation platform aligned with the GST and the Global Goal on Adaptation aimed at enhancing year-on-year comparability and transparency of progress. As a response, this Yearbook introduces a set of tailored global socio-economic indicators drawn from established international tracking mechanisms and organizations, including the Systems Change Lab (SCL), the International Energy Agency (IEA), the International Renewable Energy Agency (IRENA), Mission Possible Partnership (MPP), the Climate Policy Initiative (CPI), and the Food and Agriculture Organization (FAO), among others. The goal is to provide year-on-year measurements of global progress across the six Climate Action Agenda axes, offering insights of where transformation progress has been made and where more is needed to inform future efforts across the axes.

Section I of each chapter thus presents these indicators in the format of tables, showcasing trends from 2015 to the present across key metrics aligned with the GST outcome. These global socio-economic indicators, which complement the self-reported data by CCIs collected through the NAZCA Portal, are organized by the key objectives within each axis, showing baseline values (typically 2015), the most recent data available, direction of travel, and the data sources used.

This Climate Action Agenda tracking framework is a work in progress; as such, main gaps in this initial exercise are intended to be addressed over time. Most notably, global tracking of mitigation indicators is currently far more robust than tracking of adaptation and resilience measures. As countries work toward finalizing indicators for the Global Goal on Adaptation, these standardized indicators metrics are expected to be incorporated into the framework to enable more comprehensive tracking of adaptation and resilience progress. Best practices have been improved in recent years thanks to the work of Race to Resilience (RtR) and Sharm El-Sheikh Adaptation Agenda (SAA) partners, and so these inputs were used to facilitate the current gaps in tracking progress in these areas.

On the other hand, there are indicators that are yet to be fully developed by international tracking mechanisms, or that lack baseline data, or simply have not yet been connected to the framework. Others have inconsistent reporting methodologies or address dimensions only recently recognized as critical to monitor. These limitations are flagged in the Yearbook whenever they appear for clarity purposes. In order to address these gaps, collaborative effort to develop new tracking methodologies, establish reporting standards, and build institutional capacity for consistent monitoring over time will be required.

Moving forward, the aim is to strengthen this framework by establishing monitoring systems for missing pieces and enhancing granularity through subnational attribution. Future iterations should enable a better understanding not just of whether global indicators are moving in the right direction, but which regions, sectors, cities, and initiatives are driving that progress. This understanding is essential for identifying best practices, targeting support where most needed, and understanding how voluntary climate action translates into real-economy outcomes.

Section II of the chapters then examines progress across voluntary cooperative initiatives in the past 10 years for each of the axes, based on an analysis of 387 voluntary climate initiatives tracked in the CoAct Database (Chan, S. et al. 2025) and developed jointly by the ACHIEVE, BioCAM4, and CAMDA projects.[3] *Section III* in turn shows the sharp increase in the number of individual actors and CCIs registered on the NAZCA Portal from 2020

to 2025, presents updates from CCIs reporting progress under the common framework and case studies[4] showcasing CCI climate action under each of the axes.

Finally, *section IV* of each chapter highlights initiatives which successfully demonstrated how they are tracking progress, showcasing the potential of enhancing year-on-year comparability and the transparency of results. This section addresses another key element introduced by the COP 30 Climate Action Agenda, which is the development of initiative-level indicators designed to address how climate initiatives and coalitions can track the delivery of concrete results. These initiative-level indicators are aimed at complementing both the Climate Action Agenda global socio-economic indicators and the information available on the NAZCA Portal, thus providing a clearer and broader overview of global climate action progress and gaps while also enhancing comparability, transparency and accountability at all levels.

The COP 30 Presidency, in collaboration with the CHLC, has proposed a first exercise in that sense, with the development of a 'Key Performance Indicators Progress Tracking Form' aimed at gathering initiative-level data.

The indicators formulated through this process were organized around three categories and 11 levers recognized as pivotal for accelerating both the scale and speed of climate solutions. The categories were divided into 'real-world quantifiable impact', 'process-based, implementation metrics' and 'engagement or commitment metrics', with the following enabling levers: (1) risk-informed decision-making; (2) technology shifts; (3) knowledge & capacity building; (4) inclusive governance & design; (5) standards & taxonomies; (6) supply; (7) demand; (8) public/private finance; (9) partnerships & collaboration; (10) policy & regulatory; and (11) public opinion.

A total of 157 initiatives reported their initiative-level indicators[5], and up to two initiatives were selected per Action Agenda key objective and showcased in section IV of each axis-oriented chapter in this Yearbook. The selected initiatives were chosen so as to ensure balanced representation of approaches, geographies, and stakeholders, and to include indicators that effectively capture outcomes across the Mitigation, Adaptation and Resilience, and Just Transition dimensions. Selection was also based on the ability of each initiative to demonstrate progress against its pledges.

The information presented is self-reported and relies on a trust-based approach, as each initiative applies its own methodologies, and no independent validation or verification of the reported data was conducted. The overarching objective of this exercise was to establish an annual process that encourages greater transparency, supporting the much-needed shift from commitments to implementation.

The Non-State Actor Zone for Climate Portal (NAZCA)

NAZCA, also known as the Global Climate Action Portal, or GCAP, is an online platform where actors from around the globe can register their climate commitments and actions. First launched in 2014 by the UNFCCC and the governments of Peru and France, it served as a central tool to help build momentum and support the adoption of the Paris Agreement. As a result, it was formally included in the decision text of the Agreement, in which countries welcomed the efforts of non-Party stakeholders to scale up their climate actions and encouraged the registration of these actions in the platform.

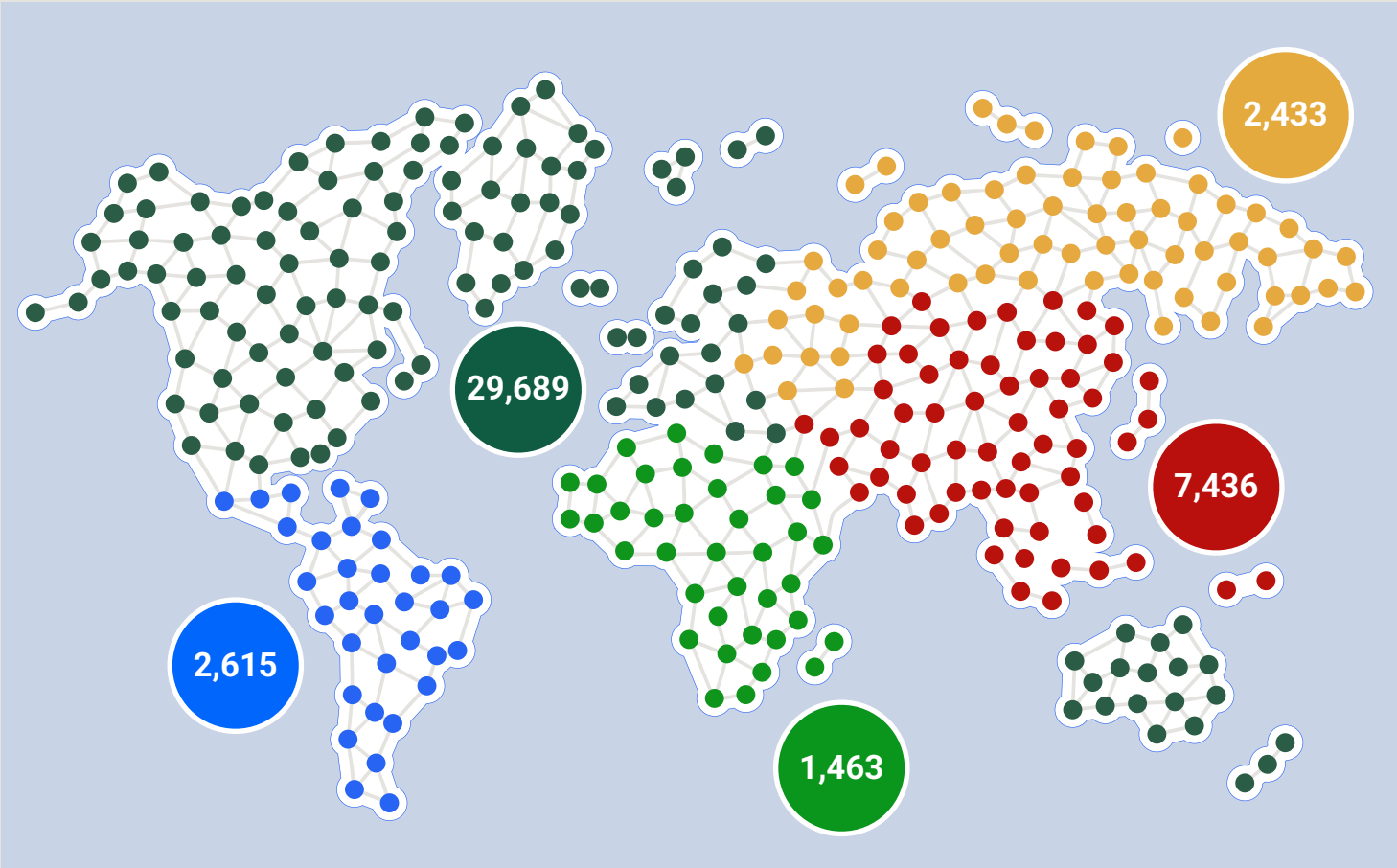
The aim of the Portal is to present a clear and comprehensive view of global climate action, recognizing actors and in turn encouraging greater ambition and engagement while contributing to the transparency of these voluntary actions. With that in mind, NAZCA is also projected as an ever-evolving tool, constantly changing in order to present the best available information to users on the current state of global climate action across a range of actors, with a view to encouraging efforts towards the full implementation of the Paris Agreement.

Currently, the Portal tracks individual actors – registered through voluntary disclosures made by NPS to data partners like CDP – and Cooperative Climate Initiatives (CCIs) – whose information is collected through voluntary registration. CCIs are defined as voluntary efforts undertaken jointly by multiple stakeholders (including Parties and NPS) working towards achieving a clearly defined climate-related goal shared by the stakeholders within the initiative. The focus of these partnerships is to contribute to the implementation of the Paris Agreement goals, but they may also address multiple goals under the 2030 Agenda for Sustainable Development (the Sustainable Development Goals – SDGs). Individual actor tracking includes their commitments, actions, inventories and engagement in CCIs, while CCI tracking also provides information on the work and progress of these initiatives.

NAZCA offers an interactive site which allows users to apply different filters to browse climate actions by geographic area, engagement type, and type of actor, among other options. Climate action is tracked and updated on an annual basis, and users can explore progress against commitments made, including timeframes and emissions reduction value, the scope of a commitment (direct or indirect emissions), type of target (absolute, intensity, business as usual, fixed level), and the coverage of the commitment (all or selected in scope emissions). Specific Marrakech Partnership (MP) themes can also be selected, and in the case of CCIs, the SDGs that they may address in addition to their main climate goal.

The evolution of the Portal so far shows not only a more refined tool, but also an impressive rise in the number of global actors engaged in climate action. At COP 21 in 2015, there were 5,098 actors in total registered at the Portal. By November 2020, the Portal already registered 18,279 individual actors across the globe, ranging from cities (10,691) and regions (243) to companies (4,052), investors (1,136), and other organizations (1,966). As of October 2025, there are 43,831 individual actors engaging in climate action registered at the Portal. These encompass 20,832 companies covering 50 industry sectors, 1,808 investors across 98 countries, 6,253 organizations located in 160 countries, 304 regions, and 14,439 cities.

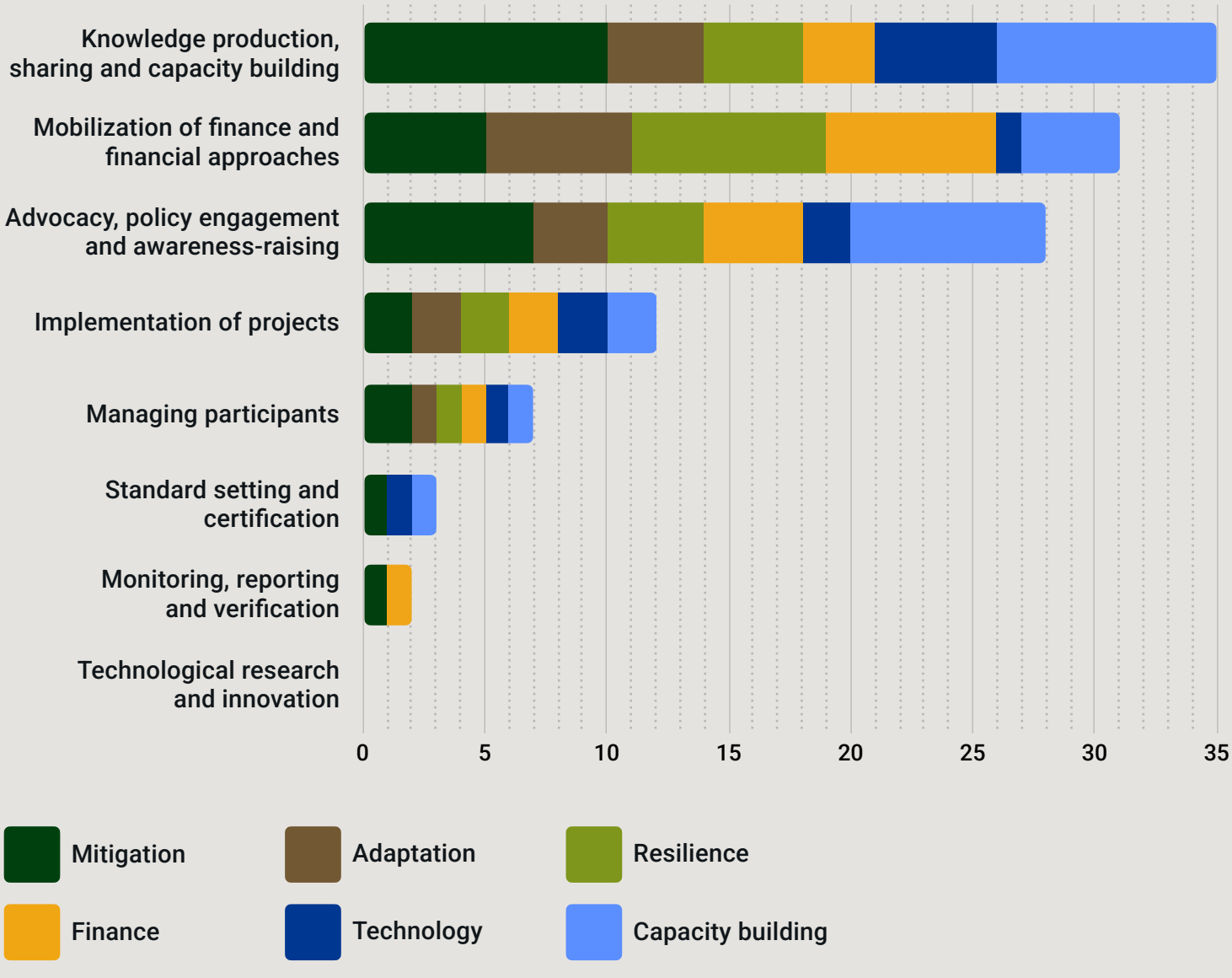
Figure: Actors recognized in the NAZCA Portal (October 2025)



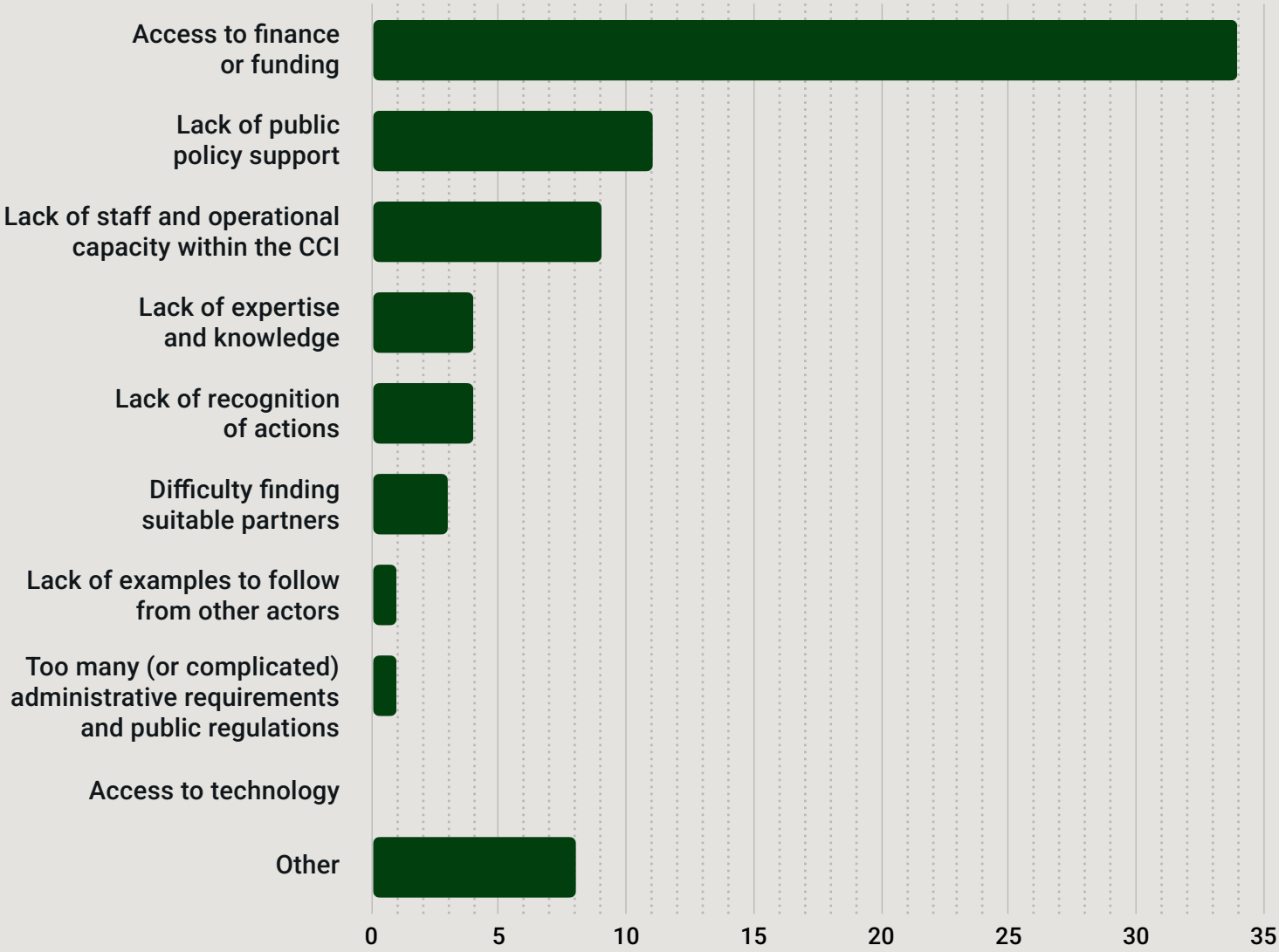
	City	Region	Company	Organization	Investor	Total
Western European and Others Group	10,375	136	13,897	3,876	1,405	**29,689**
Eastern European Group	1,986	9	293	94	51	**2,433**
Latin American and Caribbean Group	970	102	1,067	408	68	**2,615**
Asia-Pacific Group	662	29	5,100	1,417	228	**7,436**
African Group	446	28	475	458	56	**1,463**
Total	**14,439**	**304**	**20,832**	**6,253**	**1,808**	**43,636**

As for CCIs, the Portal registered 149 initiatives in November 2020, while in October 2025, this number is at 243. Every year, the secretariat invites registered CCIs to report progress under a common framework, providing registered initiatives with the opportunity to demonstrate key actions undertaken, submit information on the progress made against their self-identified targets, and share challenges and opportunities faced. The annual submission of CCI progress information to NAZCA can contribute to enhancing transparency of the work of voluntary cooperative initiatives and also to a better understanding of their efforts. This year, 49 registered CCIs participated in the process and submitted progress information within the requested timeline. The figures below present an overview of some of the information received (Appendix 1 lists all the CCIs that have participated in the 2025 survey).

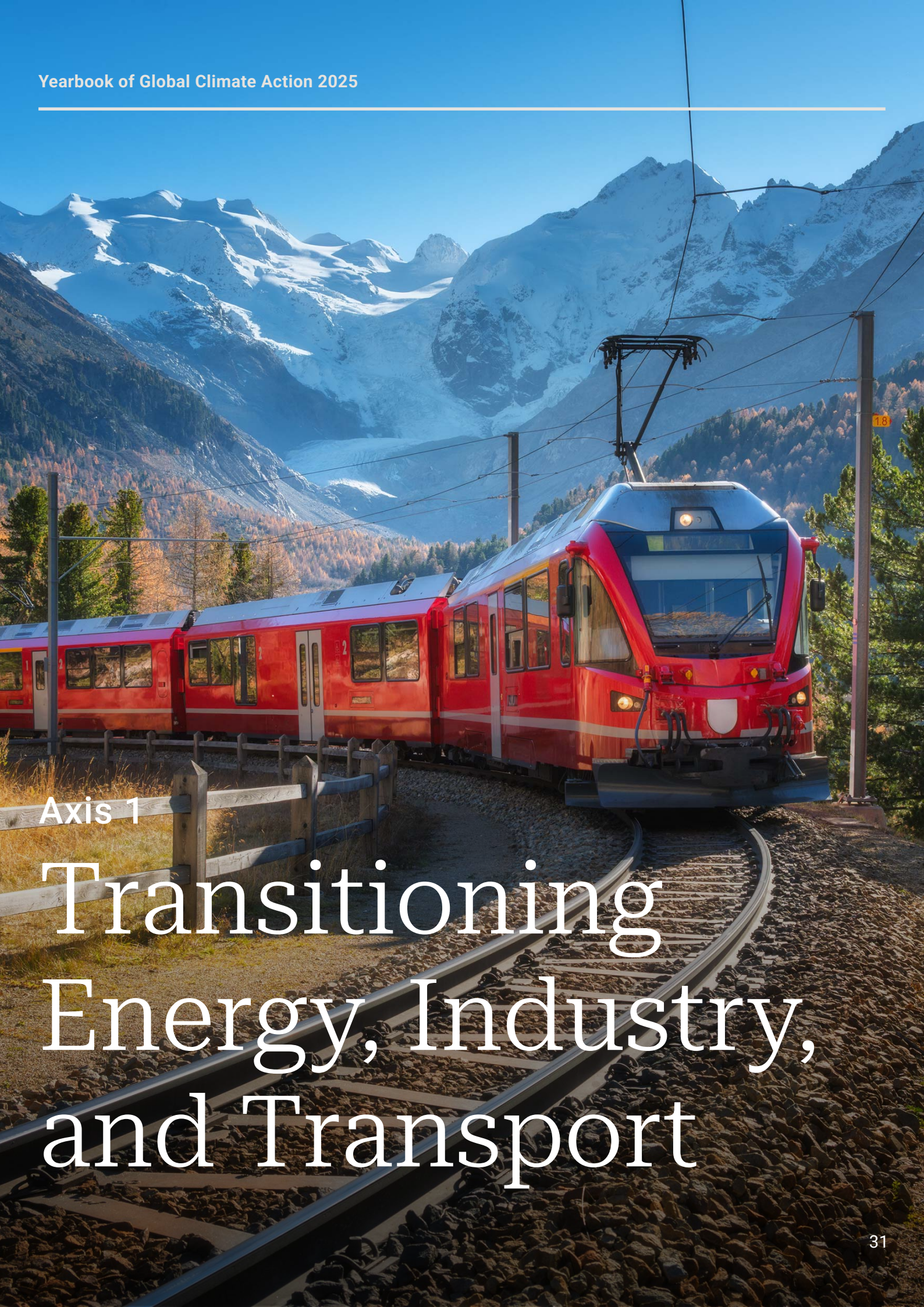
Distribution of CCIs by Function and Climate Focus Areas



Main challenges identified by CCIs



As the following chapters zoom in on the Climate Action Agenda axes, section III of each chapter provides a tailored overview of the progress of CCIs as reported in this year's survey. As mentioned before, the Portal's tracking framework allows for CCIs to be browsed across a number of options using various filters. In order to best showcase the work of CCIs registered at NAZCA around the COP 30 Climate Action Agenda axes, existing taxonomies such as MP themes and SDGs were selected as proxy. This choice provides the opportunity to illustrate the multifaceted and cross-sectoral nature of the initiatives within the concept of the Climate Action Agenda, whose systemic approach encompasses other recommendations of the GST outcome beyond specific sectors.



Axis 1

Transitioning Energy, Industry, and Transport

The first axis of the COP 30 Climate Action Agenda addresses the GST outcome's recognition of the need for deep, rapid and sustained reductions in GHG emissions in the energy, industry and transport sectors and to transition away from fossil fuels, noting the importance of transitioning to sustainable lifestyles and sustainable patterns of consumption and production (UNFCCC, 2023a). The synthesis report on the technical dialogue of the first GST had already noted that 'scaling up renewable energy and phasing out all unabated fossil fuels are indispensable elements of just energy transitions to net zero emissions' (UNFCCC, 2023b).

The key objectives within this axis therefore focus on: (1) tripling renewables and doubling energy efficiency; (2) accelerating zero- and low-emission technologies in hard-to-abate sectors; (3) ensuring universal access to energy; and (4) transitioning away from fossil fuels, in a just, orderly and equitable manner.

Some progress towards these objectives has already been achieved, as rapid advances in technology, cost reduction and record-high investments have helped mainstream renewables in the last years. The unitary costs of several low-emission technologies have significantly fallen, with 91 per cent of new renewable projects now being cheaper than fossil fuel alternatives (IRENA, COP30 and GRA, 2025). Government subsidies, previously crucial to deploy solar photovoltaic (PV) and wind projects, are now being deprioritized as the policy debate shifts to electricity prices for consumers and grid integration (IEA, 2025a). In that sense, investments in grid expansion and flexibility, and storage are critical to ensure price stability and affordability (IRENA, COP30 and GRA, 2025).

The International Energy Agency (IEA) also notes in its World Energy Outlook report from 2024 that clean energy transitions have accelerated sharply in recent years not only due to national energy policies and climate targets but also as a result of strong cost drivers and intense competition for leadership in clean energy sectors (IEA, 2024a). Despite the positive momentum, uncertainties around raw material supply, regulatory barriers, geopolitical tensions and fragmentation pose risks to both energy security and to the coordination of the power sector decarbonization (IEA, 2024b; IEA, 2025a; IEA, 2025b). In light of this, the emergence of a new energy market context, with relative abundance of distinct fuels and technologies is an opportunity to offset these risks (IEA, 2024b).

The GST outcome also notes that 'transitional fuels can play a role in facilitating the energy transition while ensuring energy security' (UNFCCC, 2023a). Despite the significant reduction in fossil-fuel dependence and demand associated with the usage of renewable fuels in transport, cross-sectoral mandates remain scarce (IEA, 2025a) as most countries prioritize power as their energy carrier, while targets covering power, heat and fuels in cross-sectoral applications fall short. While crucial to achieving global climate goals, hard-to-abate sectors remain heavily reliant on fossil fuels. Besides increasing the electrification in their operations, it will be necessary for these sectors to significantly scale up sustainable fuels from current negligeable levels (IRENA, COP30 and GRA, 2025).

According to the IEA, sustainable fuels are low-emission energy carriers – including biofuels, biogases, hydrogen, and hydrogen-based fuels – that play a critical role in decarbonizing sectors where electrification is limited, such as aviation, shipping, and heavy transport. These fuels must adhere to robust carbon accounting standards, be scalable and cost-effective, and contribute to long-term climate, energy security, and development goals. Scaling up the production and use of sustainable fuels is therefore a crucial step to enable a sharp emission reduction in hard-to-abate sectors such as aviation, shipping and heavy-duty transport, while simultaneously investing in a structural shift towards multimodality and the modernization of infrastructure (see also Chapter 4).

Investments in cleaner technologies and solutions in the production of cement and steel – responsible for 14 per cent of global energy and process-related emissions on a direct basis – are also imperative to curb emissions in industry. According to another report by IEA, first mover producers of near-zero emissions materials in these sectors are positioning themselves in the market, but progress is yet to advance at the speed and scale needed, as the announced capacity for near-zero emissions iron-based steel production and cement production by 2030 amounts to only 10 per cent of what would be required in the same year to achieve net-zero emissions by mid-century (IEA, 2025c).

Ensuring energy security is an important part of ensuring universal access to energy – and while a recent report found that nearly 92 per cent of the world's population has basic access to electricity, it also notes that 666 million people remain without it (IEA, IRENA, UNSD, World Bank, WHO, 2025). On the positive side, global electricity from renewable energy sources is forecast to overtake coal-fire generation by 2026 at the latest, and the latter is expected to contract – albeit slightly – in the same period (IEA, 2025d). While this is good news, the pace for the transition needs to be accelerated, and changes need to be both wide-ranging and long-lasting. It should also be noted that a just and inclusive transition away from fossil fuels needs to take into consideration not only the environmental gains, but also the socioeconomic aspects that can be improved with the right policies and decisions (see also Chapter 5).

A total of 77 per cent of Parties reported on mitigation ambition and action in response to the outcomes of the first GST. Of those Parties, 71 per cent outlined efforts to advance the energy transition, 40 per cent of which elaborated on their domestic targets and policies related to, inter alia, increasing renewable energy capacity and energy efficiency, accelerating the phase-down of unabated coal power, transitioning away from fossil fuel use in energy systems, accelerating the development of zero- and low-emission technologies, and reducing CH_4 and other non-CO_2 emissions.

A total of 75 per cent of Parties reported in their NDCs quantitative targets relevant to at least one of energy-related global efforts or mitigation options covered in decisions 1/CMA.3, 1/CMA.4 and 1/CMA.5, including targets for increasing the installed capacity for renewables-based electricity generation and the average annual rate of primary energy intensity improvement, and for reducing coal power generation and the share of unabated fossil fuels in electricity generation, all by 2030. In addition to the information in NDCs, some Parties have announced domestic pledges and projects relevant to these efforts, including tripling renewable energy capacity globally by 2030, enhancing low-carbon hydrogen production and expanding capture capacity for carbon capture, utilization and storage (CCUS). The combined effects of these pledges and projects are projected to significantly exceed the aggregated targets based on the NDCs for the same global efforts, indicating that submitted NDCs do not cover all domestically announced pledges and projects.

A total of 25 per cent of Parties described the role of NPS in the context of the outcomes of the first GST, with 9 per cent of Parties highlighting partnerships with the private sector, research institutions and local communities for advancing measures related to renewable energy, zero- and low-emission technologies, and energy efficiency. The role of the private sector was mentioned in activities such as co-developing and delivering renewable energy and energy efficiency programmes, and driving industrial and sectoral decarbonization efforts (UNFCCC, 2025a).

Section I below presents an overview of trends in energy, industry and transport using tailored global socio-economic indicators drawn from authoritative sources by the Climate Champions Team in alignment with the GST outcome to show global progress under this Axis. Section II provides insights into the progress of cooperative climate initiatives in the past 10 years based on the analysis of 387 voluntary climate initiatives in the CoAct Database developed jointly by the ACHIEVE, BioCAM4, and CAMDA projects, while section III shows the growth in the number of individual actors and CCIs registered in the NAZCA Portal in the past five years, presents updates from CCIs reporting progress under the common framework and case studies[6] showcasing CCI climate action under Axis 1. Finally, section IV highlights initiatives which demonstrated how they are tracking progress through initiative-level indicators, illustrating the potential of enhancing year-on-year comparability and the transparency of results.

I. Trend analysis in the past decade (year-on-year global socio-economic indicators)

As mentioned in the chapter introduction, the GST outcome calls for deep, rapid and sustained reductions in GHG emissions, recognizing that emissions in energy, industry, and transport must decline by accelerating efforts toward more efficient, lower-carbon systems and transitioning away from fossil fuels.

Tripling renewable energy capacity and doubling energy efficiency under **Key Objective 1** forms the foundation of the energy transition. Renewable energy capacity has more than doubled from 1,900 gigawatts (GW) in 2015 to 4,448 GW in 2024 (IRENA, COP30 and GRA, 2025), with solar and wind now providing 15 per cent of global electricity, up from just 4.5 per cent in 2015 (Ember, n.d.; Schumer, C., S. Boehm, J. Jaeger, Y. Kirana, K. Levin et al, 2025). Yet annual growth of 15.1 per cent in 2024 remains short of the 16.6 per cent (IRENA, 2025a) needed to achieve the tripling target. The critical bottleneck is grid infrastructure, and investment grew only nine per cent in 2024, while USD 791-912 billion annually is required through 2030 (IRENA, 2025b). Energy efficiency improvement rates declined to one per cent in 2023, requiring renewed focus to meet the GST outcome's doubling target. The positive signal: renewable electricity is forecast to overtake coal-fired generation by 2026 (IEA, 2025a), marking a historic inflection point.

Deploying zero- and low-emission technologies in hard-to-abate sectors under **Key Objective 2** addresses industries where electrification alone is insufficient. Clean industry is entering a new phase of momentum, with 1,001 commercial-scale projects now announced, past Final Investment Decision (FID) or operating. Another 70 projects are poised to reach FID in the near term, representing better-known technologies that have already secured part of their offtake and financing. If realized, this next wave would expand projects past FID by almost 50 per cent (from 144 to more than 210) and inject USD 140 billion into the global industrial ecosystem (Mission Possible Partnership, 2025a).

Sustainable fuels, including biofuels, hydrogen, and hydrogen-based alternatives, are essential for aviation, shipping, and heavy transport, and are leading the industrial transition. Ammonia leads with 21 projects past FID representing more than 8 million tonnes per annum (Mtpa) capacity, though the remaining pipeline of 330+ Mtpa in announced projects far exceeds total sector production volumes of 190 Mtpa (Global LNG Hub, 2025). Methanol has 18 projects past FID representing more than 3.5 Mtpa capacity (Mission Possible Partnership, 2025b). Aviation has 45 projects representing more than 5 Mtpa past FID, targeting a five per cent CO_2 reduction through sustainable aviation fuel (SAF) by 2030 with focus on accelerating policy implementation and innovative interoperability models across regions (Mission Possible Partnership, n.d.). Looking forward, renewable fuels in transport must grow from 3.8 per cent in 2025 to 11.5 per cent in 2030 (IEA, 2025e), while green hydrogen production costs need to decline from USD 3.4-26.9/kg H_2 to USD 2-9/kg H_2 in the same period (IEA, 2023c).

Progress is less advanced in the materials sectors focusing on cement, steel, and aluminum. Complementary approaches are contributing alongside critical decarbonization technologies. In steel, 70 near-zero emission plants with net-zero standards were adopted in national policies (UNIDO,

2025). Cement production has reduced carbon intensity from 660 to 610 $kgCO_2$ per tonne between 2015 and 2023 (IEA, 2023a). However, announced capacity for near-zero emissions steel and cement by 2030 represents only 10 per cent of what's required for mid-century net-zero, and steel production intensity actually increased from 1,870 to 1,920 $kgCO_2$ per tonne (Mission Possible Partnership, 2025b). The challenge is scaling from pilot projects to economy-wide transformation while creating employment. Renewable energy jobs expanded from 10 million in 2015 to 16 million in 2023 (IRENA, 2024), demonstrating the transition's potential.

Ensuring universal access to energy under **Key Objective 3** has advanced substantially but unevenly. The number of people without electricity access declined from 957.5 million to 666 million (World Bank, 2025), and renewables power generation per capita doubled. Critically, 91 per cent of new renewable capacity now provides cheaper power than fossil alternatives (IRENA, 2025c), removing the economic barrier to access. Yet progress is geographically skewed. Africa has approximately six times less energy investment per capita despite hosting the largest access deficit (UNSDG, 2025). Financial flows to developing countries for clean energy reached USD 21.57 billion, up from USD 12.14 billion in 2015, but remain concentrated in a few countries. Universal access by 2030 requires not just technology deployment but equitable distribution of capital and capacity.

Transitioning away from fossil fuels in a just, orderly and equitable manner under **Key Objective 4** represents the most transformative challenge. The headline achievement is the investment ratio reversal: clean energy to fossil fuel investment reached 10:1 in 2024, increasing fivefold from 2:1 in 2015 (IEA, 2024b). This demonstrates renewables have transformed from subsidy-dependent to economically preferred. Transportation electrification shows strong momentum. Electric vehicles (EVs) surged to 22 per cent of light-duty vehicle sales (IEA, 2025f). Coal's generation share declined from 39 to 34 per cent, and 14 member countries of the Organisation for Economic Co-operation and Development (OECD) now operate coal-free power systems (Ember, n.d.; Schumer, C., S. Boehm, J. Jaeger, Y. Kirana, K. Levin et al, 2025).

Despite promising progress, the global energy system remains 80 per cent reliant on fossil energy sources (IEA, 2023b). Subsidies grew to USD 1.5 trillion in 2023, moving in the wrong direction (IMF, n.d.; Schumer, C., S. Boehm, J. Jaeger, Y. Kirana, K. Levin et al, 2025). Oil and gas methane emissions increased from 78.7 to 80.7 Mt despite technologies that could cut emissions by 75 per cent (IEA, 2025g). The transition is underway but not yet at the pace or scale required, with critical gaps in subsidy reform, methane abatement, and ensuring the benefits of the transition reach vulnerable populations and workers in fossil fuel-dependent sectors.

The data tell a compelling story of accelerating progress across energy, industry, and transport systems. Cost reductions have transformed market economics. Investment capital is flowing decisively toward clean energy. Transportation electrification and urban low-carbon infrastructure are advancing. Hard-to-abate sectors show early proof points in sustainable fuels and cleaner industrial production. Universal energy access has improved substantially. These trends confirm the global energy transition is underway – even as the pace must accelerate in grid investment, energy efficiency, sustainable fuel scaling, fossil subsidy phase-out, and ensuring a just transition that leaves no one behind.

Objective 1: Tripling renewables and doubling energy efficiency

Paragraph **28(a)** Tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030.*

Trend[1]	Indicator	Baseline	Latest Year
Progress	Renewable Energy Capacity Source: IRENA, SCL	1,900 GW 2015	4,448 GW 2024
Progress	Distribution and Transmission grid coverage Source: IRENA, SCL	Not Available	46M Km 2021
Progress	Energy storage capacity deployed Source: IRENA	Not Available	155 GW 2024
No Progress	Rate of Improvement of energy intensity Source: IEA, SCL	2% 2010-2019	1% 2023

** Relevant excerpts from the outcome of the first GST are provided for reference, noting the paragraphs where they are found*

Paragraph **28(e)** Accelerating zero- and low-emission technologies, including, inter alia, renewables, nuclear, abatement and removal technologies such as carbon capture and utilization and storage, particularly in hard-to-abate sectors, and low-carbon hydrogen production;

Trend	Indicator	Baseline	Latest Year
Progress	Share of solar and wind in electricity generation Source: Ember, SCL	4.5% 2015	15% 2024
Progress	Share of zero-carbon sources in electricity generation Source: Ember, SCL	34% 2015	41% 2024
Progress	Renewables power generation per capita Source: Tracking SDG7	248 W 2015	478 W 2023
Progress	Electricity as % of total final energy consumption Source: IEA	19% 2015	21% 2022

Objective 2: Accelerating zero and low emission technologies in hard-to-abate sectors

Paragraph **28(c)** Accelerating efforts globally towards net zero emission energy systems, utilizing zero- and low-carbon fuels well before or by around mid-century

Trend	Indicator	Baseline	Latest Year
Progress	Sustainable Aviation Fuels (SAF) share Source: MPP	0% 2015	1% 2025
Progress	# of commercial scale clean industrial plants being financed and built (i.e. reaching Final Investment Decisions) Source: MPP	44 2015	144 2025
Progress	Green hydrogen production Source: MPP, SCL	0.001 Mt H_2 2015	0.074 Mt H_2 2023
Insufficient Data	Clean methanol production capacity Source: MPP	Not Available	3.95 Mtpa capacity 2025
No Progress	Share of zero-emissions fuels in maritime shipping fuel supply Source: Baresic et al.[2], SCL	Not Available	0% 2024

Paragraph **28(e)** Accelerating zero- and low-emission technologies, including, inter alia, renewables, nuclear, abatement and removal technologies such as carbon capture and utilization and storage, particularly in hard-to-abate sectors, and low-carbon hydrogen production;

Trend	Indicator	Baseline	Latest Year
No Progress	Carbon intensity of global steel production Source: MPP	1,870 Kg CO_2/T steel 2015	1,920 Kg CO_2/T steel 2023
No Progress	Carbon intensity of global cement production Source: IEA, WEF	540 Kg CO_2/T cement 2015	580 Kg CO_2/T cement 2023

Paragraph **28(g)** Accelerating the reduction of emissions from road transport on a range of pathways, including through development of infrastructure and rapid deployment of zero and low-emission vehicles

Trend	Indicator	Baseline	Latest Year
Progress	Transport final-energy consumption Source: IEA	112.68 EJ 2015	117.53 EJ 2022
Progress	Share of low-emission energy in transport Source: IEA	Not Available	4.8% 2022
Progress	Number of kilometers of rapid transit per 1 million inhabitants Source: ITDP, SCL	19 Km 2015	24 Km 2024
Progress	Number of public charging stations Source: IEA, SCL	0.16 M 2015	5.4 M 2024
Progress	Share of electric vehicles in light-duty vehicle sales Source: IEA, SCL	0.68% 2015	22% 2024
Progress	Share of electric vehicles in the light-duty vehicle fleet Source: IEA, SCL	0.12% 2015	4.5% 2024
Progress	Share of electric vehicles in bus sales Source: IEA, SCL	3.5% 2015	6.2% 2024
Progress	Heavy goods vehicle sales that are ZEV Source: IEA, SCL	0.4% 2015	1.8% 2024

Objective 3: Ensuring universal access to energy

Paragraph **28(d)** Transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science

Trend	Indicator	Baseline	Latest Year
Progress	People without access to electricity Source: Tracking SDG7, SCL	957.5 M 2015	666.4 M 2023
Progress	People without access to clean cooking Source: Tracking SDG7	2,678.86 M 2015	2,077.65 M 2023
Progress	USD to developing countries for clean energy Source: Tracking SDG7	12.14 B 2015	21.57 B 2023
Progress	New renewable capacity cheaper than fossil fuel Source: IRENA	Not Available	91% 2024

Objective 4: Transitioning away from fossil fuels in a just, orderly and equitable manner

Paragraph **28(d)** Transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science

Trend	Indicator	Baseline	Latest Year
Progress	Share of coal in electricity generation Source: Ember, SCL	39% 2015	34% 2024
Progress	Share of unabated fossil gas in electricity generation Source: Ember, SCL	23% 2015	22% 2024
Progress	Share of fossil fuels in the transport sector's total energy consumption Source: IEA, SCL	96% 2015	95% 2024
Progress	Fossil fuels as % of final energy consumption Source: IEA	68.3% 2015	65.4% 2022
Progress	Fossil-based power as % of generation Source: IEA	66.3% 2015	60.9% 2022
Progress	Investment ratio: low-carbon to fossil fuel Source: IEA, SCL	0.5 2015	1.1 2024

Paragraph **28(f)** Accelerating and substantially reducing non-carbon-dioxide emissions globally, including in particular methane emissions by 2030;

Trend	Indicator	Baseline	Latest Year
No Progress	Oil & gas methane emissions Source: IEA	78.7 Mt 2015	80.7 Mt 2024
No Progress	Energy sector methane emissions (total) Source: IEA	~125 Mt CH_4/year 2015	135 Mt CH_4/year 2022
Insufficient Data	Methane abatement potential (fossil fuels) Source: IEA	Not Available	70% 2023
Insufficient Data	Oil and gas production covered by methane pledges Source: IEA	Not Available	80% 2024

Paragraph **28(h)** Phasing out inefficient fossil fuel subsidies that do not address energy poverty or just transitions, as soon as possible;

Trend	Indicator	Baseline	Latest Year
Progress	Investment ratio: low-carbon to fossil fuel Source: IEA, SCL	2:1 2015	10:1 2024
No Progress	Explicit fossil fuel subsidies Source: IMF, SCL	0.9 Trillion USD 2015	1.5 Trillion USD 2023
No Progress	Public fossil fuel finance Source: OECD and IISD 2025; Laan et al. 2023[3]; OCI 2025; Gerasimchuk[4] et al. 2024, SCL	900 Billion USD 2015	1,500 Billion USD 2023

II. Insights into the progress of cooperative initiatives since the Paris Agreement

The analysis developed jointly by the ACHIEVE, BioCAM4, and CAMDA projects shows that cooperative initiatives have played a crucial role in driving the energy, industry, and transport transitions over the past decade. The analysis, which tracked 387 voluntary climate initiatives in the CoAct Database, reveals that energy and industry are among the most frequently addressed themes, with 110 initiatives (28 per cent) focusing on energy and 99 (26 per cent) on industry, while 58 initiatives (15 per cent) address transport.

These initiatives have predominantly emphasized mitigation, with business actors accounting for 66 per cent of participants in mitigation-focused initiatives. Large corporate initiatives such as the Science-Based Targets Initiative (SBTi) and RE100 have mobilized thousands of companies to set ambitious targets, while city networks have driven urban transport transformation.

Axis 1 initiatives currently represent the highest number of active cooperative initiatives across all thematic areas, particularly concentrated in high-income countries where technological capacity and resources enable implementation of renewable energy, industrial decarbonization, and zero-emission vehicle deployment. The focus on this axis has consistently increased over the past decade, with notable peaks in launches during 2021 and 2024 compared to other axes (Chan, S. et al, 2025).

III. Progress of Individual Actors and Cooperative Climate Initiatives (CCIs) registered on NAZCA

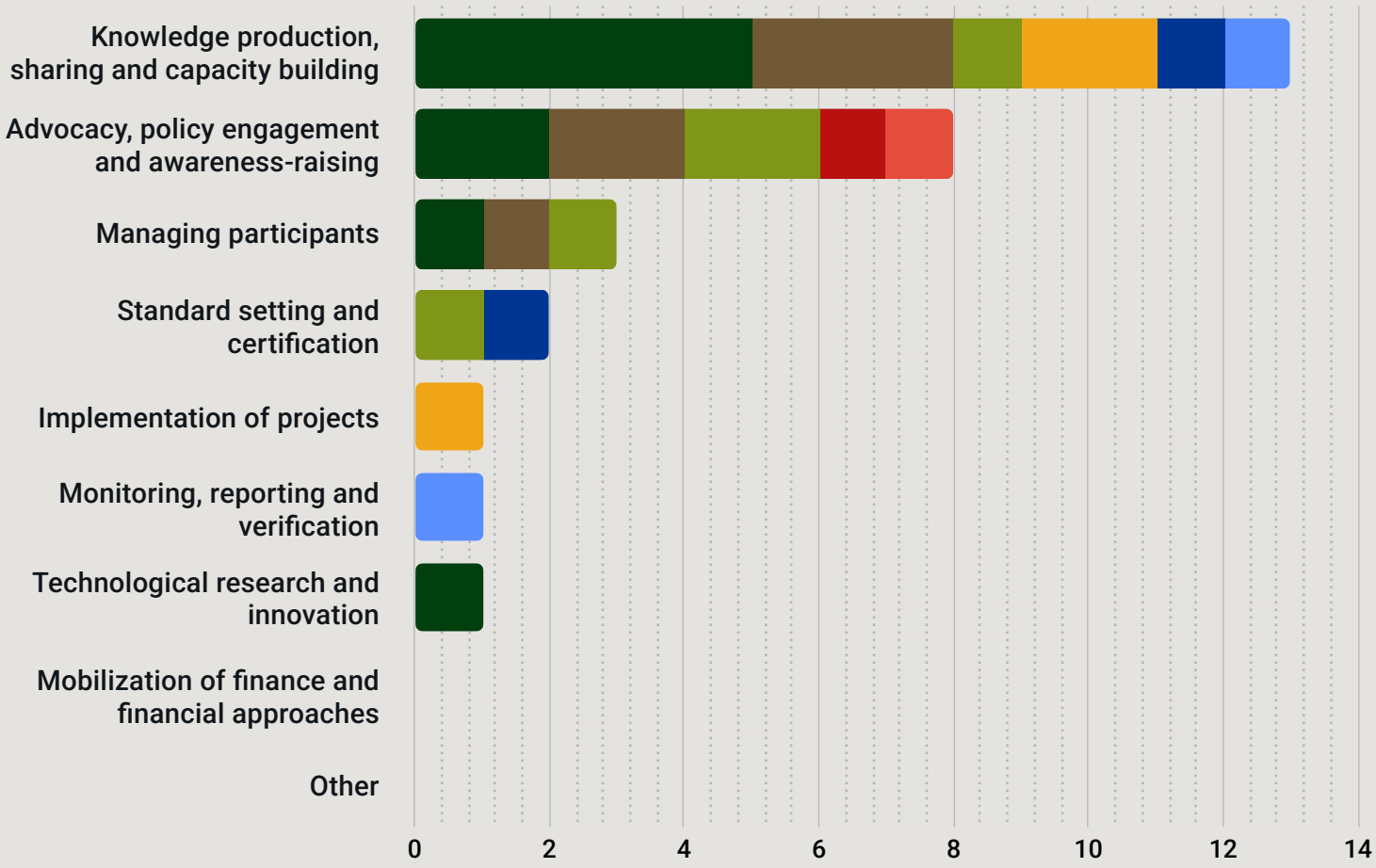
A comparison between the number of individual actors and CCIs registered in the NAZCA Portal in October 2020 and in October 2025 shows a sharp rise in participation in the thematic areas of Energy, Industry and Transport, as shown in the tables below.

	Energy		Industry		Transport	
	October 2020	October 2025	October 2020	October 2025	October 2020	October 2025
Total number of individual actors	**13,687**	**32,815**	**1,109**	**19,566**	**508**	**19,597**
Companies	1,877	13,383	475	13,203	294	13,377
Investors	264	1,236	380	1,120	8	1,110
Organizations	779	3,774	78	3,705	35	3,524
Regions	75	176	29	170	20	168
Cities	10,510	14,058	68	1,189	78	1,237
Total number of CCIs	**49**	**102**	**25**	**57**	**19**	**51**

Figure: Number of individual actors and CCIs registered in the NAZCA Portal

In 2025, 26 of the 49 CCIs that reported their progress to NAZCA under the common framework identified their main thematic focus as Energy, Transport or Industry. The figure below specifies the primary function and the types of action these CCIs reported engaging in.

Figure: Functions and types of actions reported by CCIs (Axis 1)



Types of Actions

- Generation of knowledge products
- Enhancing collaboration
- Event organization
- Mobilization of finance and funding
- Advocacy and policy engagement
- General reporting
- On-the-Ground Project Implementation
- Establishment or update of new standards or practices
- Institutional arrangements
- Capacity Building
- Innovation
- Other

CASE STUDY

No New Coal Call to Action

CCI: Powering Past Coal Alliance

At COP 29, 26 countries and the European Union signed on a Call to Action for No New Coal, announcing their intention to put forward national climate plans that reflect no new unabated coal in their energy systems and calling on others to do the same. The Call was also supported by investors and business organizations, who underlined that commitments to No New Coal are essential to give investors certainty to finance the transition.

The Call to Action was aimed at delivering on the UAE Consensus to transition away from fossil fuels and the phase-down of coal power through national climate plans, including the new NDCs. Signatories declared their intention to put forward national climate plans that reflect no new unabated coal in their energy systems and call on others to do the same.

The diplomatic campaign around the Call to Action strengthened momentum for no new coal globally. At the launch at COP 29, it included a new commitment to not build any new unabated coal power plants from Australia. In Latin America, the campaign in the lead up to the launch inspired OLADE to develop its own No New Coal statement securing more than 20 signatories in Latin America. As a result, Honduras joined the PPCA in May 2025, affirming the country's commitment to not build any new coal power plants. In Southeast Asia, Cambodia and Sri Lanka both recently included a commitment to No New Coal in their NDC. In addition, the support from business and investor groups helped build a narrative that commitments to No New Coal are essential to give investors certainty to finance the transition.

CASE STUDY

Expand Global Memorandum of Understanding (MOU) countries to represent 30 per cent of the overall MHDV market

CCI: Memorandum of Understanding on Zero-Emission Medium- and Heavy-Duty Vehicles (MHDV)

This action is aimed at prioritizing recruitment of large markets in developing economies to join the Global MOU. That entails partnering with networks in countries such as Brazil, Mexico, and India to identify key barriers, align with government priorities, and craft the most compelling case for adoption. In parallel, it entails engaging industry stakeholders, including original equipment manufacturers (OEMs), infrastructure providers, subnational governments, financial institutions, utilities, and fleets to endorse the Global MOU and advocate for stronger policy action.

This year, the Global MOU welcomed Peru and Montenegro to the Global MOU community, as well as 55 new private sector endorsers including Windrose, ABB E-mobility, Greenlane, Sennder, UC Berkley, and many others.

While only representing a small share of the total vehicles, the addition of Montenegro provides deeper insight and connection with the Balkan countries adding to the global perspective and enabling stronger connections in the region. Similarly, with Peru signing the Global MOU, connections were deepened in South America to more effectively impact policy. This has enabled a better position to work directly with policymakers in these countries to inform best practices, facilitate investment, and ensure strategic alignment with other nations who are working to promote commercial vehicle decarbonization.

The growing number of countries and companies endorsing the Global MOU strengthens its ability to directly shape policy, driving progress toward firmer regulations and market mechanisms that accelerate the adoption of zero-emission MHDVs. Endorsers actively participate in the Global MOU Forum, a platform for sharing policy best practices, exchanging knowledge, and fostering collaborative bilateral initiatives.

CASE STUDY

Enterprise Twinning Platform

CCI: Alliance for Industry Decarbonization (AFID)

The Alliance has developed an Enterprise Twinning Platform to enhance collaboration by supporting AFID members and partners in exchanging innovations and best practices for climate action and energy transition.

The AFID Secretariat launched the platform on the AFID website as a repository of information regarding its members and, in case available, including links to each member's sustainability report.

The platform aims to build business partnerships by establishing mutually beneficial collaborations between enterprises in developing countries and other regions to support the energy transition.

As such, the platform helps companies integrate sustainability by embedding it into their strategies through environmental, social and governance (ESG) knowledge-sharing to advance sustainable energy and is open for any external organization interested in collaborating with AFID members and partners.

IV. Highlights of initiative self-tracking progress (initiative-level indicators)

As mentioned in the Introduction, the COP 30 Presidency, in collaboration with the CHLC, proposed an exercise to showcase initiatives successfully demonstrating progress through initiative-level indicators, based on a 'Key Performance Indicators Progress Tracking Form'. Of the total 157 initiatives which reported their initiative-level indicators, 34 primarily focus on the energy, industry, and transport sectors. The indicators formulated through this process were organized around three categories and 11 levers recognized as pivotal for accelerating both the scale and speed of climate solutions. The overarching objective of this exercise is to establish an annual process that encourages greater transparency, supporting the much-needed shift from commitments to implementation.

The figures below illustrate a range of initiatives[7] which responded to the Progress Tracking Form with examples of how they track progress against targets that meet the Climate Action Agenda Axis 1 key objectives.

Key Objective 1: Tripling Renewables and Doubling Energy Efficiency

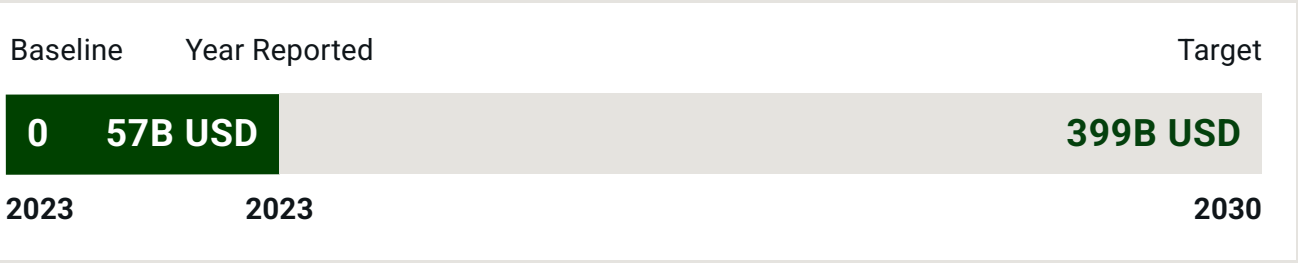
Real-World Quantifiable Impact

Utilities for Net Zero Alliance (UNEZA)

This Alliance unites leading global utilities and power companies with the aim of spearheading the development of grids that are ready for renewable energy, promoting clean energy solutions, and advancing electrification efforts.

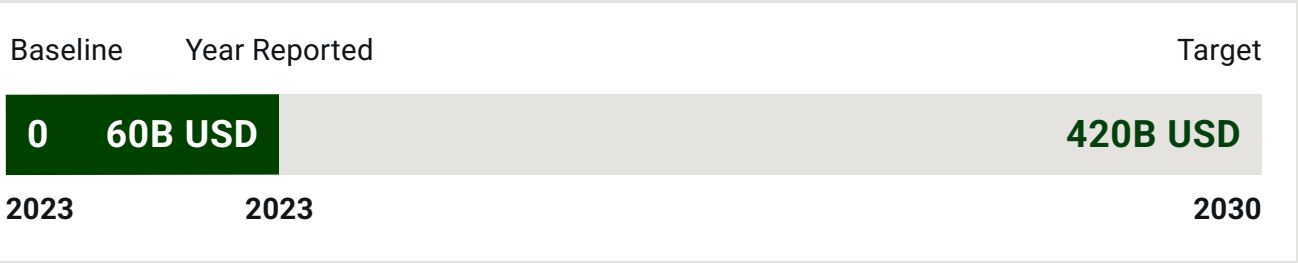
Indicator: Investments committed in Renewable Energy

Investment already committed for the coming year



Indicator: Investments committed in grids

Investment already committed for the coming year



Tags: Finance, Africa, Asia, Europe, Latin America and the Caribbean, Northern Africa, Oceania, Middle East.

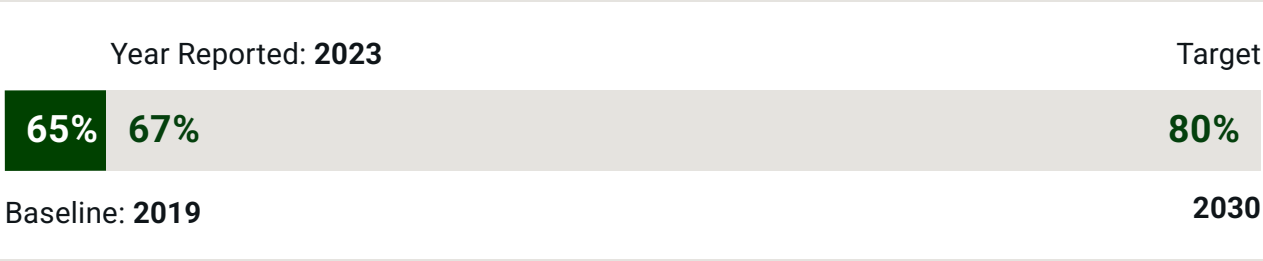
Real-World Quantifiable Impact

Renewables in Latin America and the Caribbean (RELAC)

RELAC is a regional initiative created in 2019, with the initial objective of reaching at least 70% of renewable energy participation in the region's electricity matrix by 2030.

Indicator: Percent of electric power generation RELAC

The proportion of total electricity generated annually in RELAC countries from renewable energy technologies.



Tags: Mitigation, Latin America and the Caribbean.

Key Objective 2: Accelerating Zero and Low Emission Technologies in Hard-to-Abate Sectors



Real-World Quantifiable Impact

Global Cement and Concrete Association

Global Cement and Concrete Association (GCCA) is a global industry initiative focused on promoting the use of cement and concrete as sustainable building materials and driving decarbonisation of our industry.

Indicator: CO_2 intensity reduction in cement and concrete industry

Tracking sustainability progress on indicators such as use of alternative fuels, energy efficiency and clinker to cementitious materials.

Baseline	Year Reported	Target
756 CO_2 per Kg	**567 CO_2 per Kg**	**474 CO_2 per Kg**
1990	**2023**	**2030**

Tags: Mitigation, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.

Key Objective 3: Ensuring Universal Access to Energy



Process-Based Implementation Metrics → Public & Private Finance

Right Energy Partnership with Indigenous Peoples (REP)

The Right Energy Partnership with Indigenous Peoples (REP) is an indigenous-led, multi-stakeholder partnership with the goal of increasing renewable energy systems that respect human rights and leveraging the leadership of indigenous communities to develop solutions.

Indicator: Indigenous Peoples have access to and are leading or co-owning renewable energy that is developed an managed in ways that are consistent with their self-determined need and development.

Indigenous Peoples having access to renewable energy

Year Reported: **2024**		Target
0	**5453**	**50M**
Baseline: **2018**		**2030**

Tags: Mitigation, Resilience, Finance, Technology, Capacity Building, Africa, Asia, Latin America and the Caribbean.

Key Objective 4: Transitioning Away from Fossil Fuels in a Just, Orderly and Equitable Manner

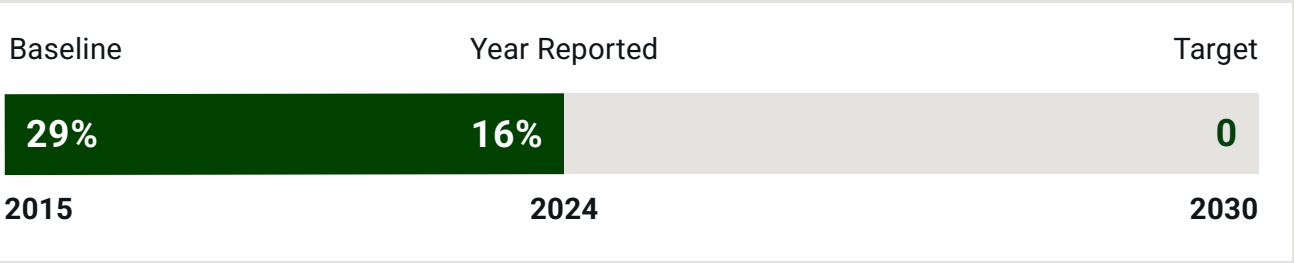
Real-World Quantifiable Impact

Powering Past Coal Alliance (PPCA)

The PPCA unites 180+ governments, businesses, and organisations to phase out coal, drive clean energy investment, and support just transitions, accelerating the global shift from unabated coal power to a sustainable, equitable energy future.

Indicator: OECD Coal Electricity Generation

Share of coal electricity generation in the 38 OECD countries.

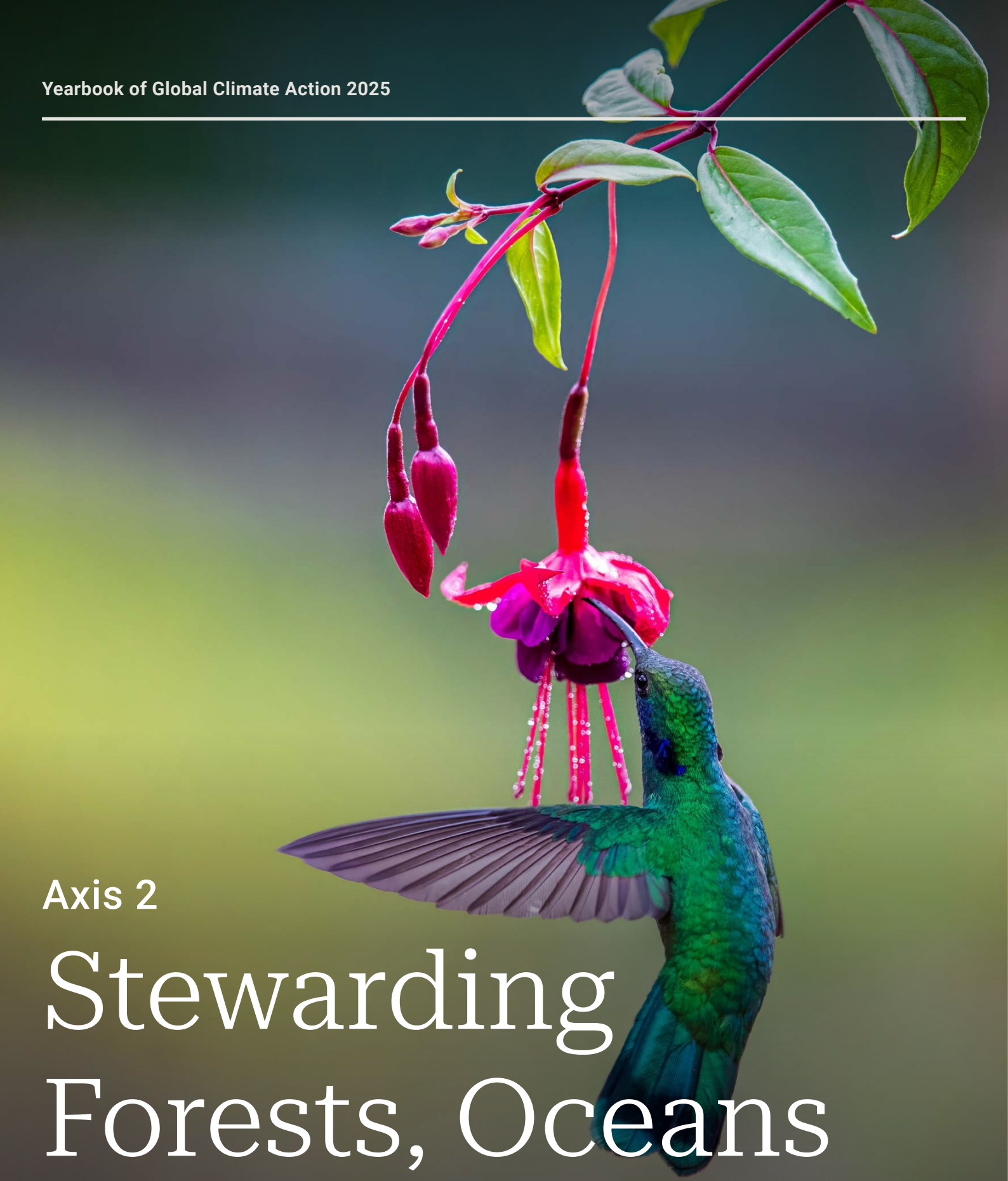


Indicator: Global Coal Pipeline

Coal-fired power capacity under development (including both construction and pre-construction) worldwide.



Tags: Mitigation, OECD, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East, Global.



Axis 2

Stewarding Forests, Oceans and Biodiversity

Axis 2 of the COP 30 Climate Action Agenda addresses the GST outcome's emphasis on the importance of 'conserving, protecting and restoring nature and ecosystems towards achieving the Paris Agreement temperature goal, including through enhanced efforts towards halting and reversing deforestation and forest degradation by 2030, and other terrestrial and marine ecosystems acting as sinks and reservoirs of greenhouse gases and by conserving biodiversity, while ensuring social and environmental safeguards, in line with the Kunming-Montreal Global Biodiversity Framework'.

It also addresses the need for 'enhanced support and investment, including through financial resources, technology transfer and capacity-building' in forest action, and the invitation to Parties to 'preserve and restore the ocean and coastal ecosystems and scale up, as appropriate, ocean-based mitigation action'. Finally, the axis addresses the GST outcome urge for Parties and invitation for NPS to increase ambition and enhance adaptation action and support towards 'reducing climate impacts on ecosystems and biodiversity and accelerating the use of ecosystem-based adaptation and nature-based solutions' (UNFCCC, 2023a).

The key objectives within this axis therefore focus on (5) investments to halt and reverse deforestation and forest degradation, (6) efforts to conserve, protect and restore nature and ecosystems with solutions for climate, biodiversity and desertification, and (7) efforts to preserve and restore oceans and coastal ecosystems.

According to the Sustainable Development Goals Report 2025, there are still challenges in the sustainable management of natural resources and in tackling the biodiversity crisis. Although the deforestation rate is slowing – from 12 million hectares/year between 2010 and 2015 to 10 million between 2015 and 2020 – the report notes that it would take 25 years to halt it completely at the current rate. Similarly, the report notes that restoration efforts on the ground are advancing too slowly (UN, 2025a).

Deforestation and forest degradation threaten not only the survival of various species but significantly reduce the myriad of essential services forests are able to provide. Both are substantial contributors to GHG emissions, but it turns out that climate change is also a relevant driver for forest degradation. A Food and Agriculture Organization's (FAO) report finds that climate change is making forests even more vulnerable to stressors such as wildfire and pests, some of which can accelerate positive feedback loops in the carbon cycle (FAO, 2024).

Oceans are suffering too – the rate of ocean warming has more than doubled since 2005 due to climate change, and this rate is expected to continue rising, even under future low-emissions scenarios. Ocean warming can cause widespread and often irreversible marine ecosystem degradation. For instance, coral reefs – home to a quarter of marine life and supporting nearly a billion people worldwide – have been under severe stress from repeated coral bleaching events, which could result in the mass extinction of coral species, threatening biodiversity, food security and climate resilience (UN, 2025a).

On the bright side, the SDG Report 2025 finds that significant progress has been made in biodiversity conservation through protected and conserved areas since 2000, with 17.6 per cent of terrestrial and inland areas now under protection. However, there are still challenges – the protection of key biodiversity areas has stalled recently, and species extinction is accelerating (UN, 2025a).

The Kunming-Montreal Global Biodiversity Framework (GBF), adopted during the 15th meeting of the Conference of the Parties (COP 15) to the Convention on Biological Diversity (CBD) in December 2022, set 23 action-oriented global targets to be achieved by 2030, including the effective restoration of at least 30 per cent of degraded terrestrial, inland water, and coastal/marine areas, and conservation of at least another 30 per cent of these ecosystems, recognizing and respecting the rights of Indigenous Peoples and local communities, including over their traditional territories.

GBF's Target 8 is specifically aimed at minimizing the impacts of climate change, on the recognition that it is one of the main drivers of biodiversity loss, and directly responsible for ocean acidification, among other threats. It also stresses that nature-based solutions (NbS) and/or ecosystem-based approaches (EbA) not only have the potential to increase the resilience of ecosystems and human livelihoods to the impacts of climate change, but can also deliver numerous social, economic and environmental co-benefits (CDB, 2022).

Safeguarding nature is critical to achieving both the Paris Agreement and the 2030 Agenda for Sustainable Development goals, and the data shows that not only is this feasible, but also cost-effective. In addition to presenting a high carbon mitigation potential (1.3 gigatonnes CO_2e by 2030) nature-positive activities can also substantially enhance resilience to the impacts of climate change – for instance, about half of all climate-resilience infrastructure needs by 2050 could be met with nature-based infrastructure (Center for Global Commons, 2023).

Nature-based solutions and ecosystem-based approaches are part of a range of sustainable stewardship measures that can enable nature's recovery and contribute towards mitigation and adaptation goals, but which require scaled-up investment, global cooperation and innovative partnerships across all levels of society, including both Parties and NPS.

According to the 2025 NDC Synthesis Report, reducing emissions from forests and land-use change was mentioned in the new NDCs as a key mitigation option, with 84 per cent of Parties including the LULUCF (Land Use, Land-Use Change and Forestry) sector in their economy-wide mitigation target. Synergies with CBD were referenced by 39 per cent of Parties, while 22 per cent mentioned synergies with the Convention to Combat Desertification (CCD). These Parties emphasized the benefit of integrating national biodiversity strategies and action plans with NDC implementation, including to enhance financial efficiency and maximize impact. A total of 16 per cent of Parties noted that mainstreaming NbS and EbA across the Rio Conventions enhances the coherence and effectiveness of national responses, delivering simultaneous benefits for climate adaptation, biodiversity conservation and land restoration.

Parties also reported a significant increase in ocean-based climate action; 78 per cent of Parties included at least one explicit reference to the ocean in the new NDCs, of which 82 per cent included ocean-based adaptation measures and 54 per cent ocean-based mitigation measures. Adaptation measures in these NDCs included the development of integrated coastal zone management frameworks, shoreline restoration and marine spatial planning, sustainable aquaculture, and NbS such as mangrove reforestation and coral reef rehabilitation, while some of the mitigation measures mentioned relate to ocean-based renewable energy, blue carbon sequestration through the protection and restoration of blue carbon ecosystems, and decarbonization of maritime transport (UNFCCC, 2025a).

Section I below presents an overview of trends in forests, oceans and biodiversity using tailored global socio-economic indicators drawn from authoritative sources by the Climate Champions Team in alignment with the GST outcome to show global progress under this Axis. Section II provides insights into the progress of cooperative climate initiatives in the past 10 years based on the analysis of 387 voluntary climate initiatives in the CoAct Database developed jointly by the ACHIEVE, BioCAM4, and CAMDA projects, while section III shows the growth in the number of individual actors and CCIs registered in the NAZCA Portal in the past five years, presents updates from CCIs reporting progress under the common framework and case studies[8] showcasing CCI climate action under Axis 2. Finally, section IV highlights initiatives which demonstrated how they are tracking progress through initiative-level indicators, illustrating the potential of enhancing year-on-year comparability and the transparency of results.

I. Trend analysis in the past decade (year-on-year global socio-economic indicators)

Forests, oceans, and biodiversity form the planet's critical life-support systems, regulating climate, storing carbon, and sustaining livelihoods and resilience. This axis calls for a rapid scale-up of conservation, restoration, and sustainable use of terrestrial and marine ecosystems through integrated actions that align mitigation, adaptation, and biodiversity outcomes. It brings together three key objectives which collectively underscore the need to place nature at the heart of climate action, unlocking its potential to deliver resilience and stability for people and the planet.

Building on the global momentum to protect critical carbon sinks, **Key Objective 5** centers on halting and reversing deforestation by 2030 through targeted investments that safeguard forests, promote restoration, and empower Indigenous Peoples and local communities. It emphasizes scaling financial mechanisms, such as payments for ecosystem services (PES), REDD+, direct access to finance for Indigenous Peoples and local communities, and restoration finance to ensure sustainable land use and equitable access to resources, securing both environmental and social outcomes.

The GST outcome elevates forests as essential for both mitigation and adaptation, urging Parties to enhance efforts to halt and reverse deforestation and forest degradation by 2030. It calls for increased investment and results-based finance under Article 5, coupled with stronger recognition of non-carbon benefits, ecosystem resilience, and social safeguards in line with the GBF. This renewed emphasis positions forests as a cornerstone of 1.5°C pathways and resilient people-centered development, linking forest protection directly to water security, food systems stability, and reduced vulnerability to climate impacts.

However, evidence from global indicators signals that progress remains off track. Global deforestation has worsened from a 2015 baseline of 7.0 Mha/year to 8.1 Mha/year in 2024. While global forest area declined from 3,999 million hectares in 2015 to 3,960 million hectares in 2020, there has been an increase in global forest area as of 2025 to 4.14 billion hectares (FAO, 2025a; 2025b). Financial flows to forests and land use have increased from USD 11 billion in 2015 to USD 38 billion in 2023 (CPI, 2025a; Schumer, C., S. Boehm, J. Jaeger, Y. Kirana, K. Levin et al, 2025), nearly a fourfold increase, yet this remains insufficient to meet 2030 goals. There has also been an increase in corporate engagement, which has accelerated dramatically, with over 300 agri-food businesses having validated Science Based Targets initiative Forest, Land and Agriculture (SBTi FLAG) targets as of 2025, up from 149 by the end of 2024 (AFi, 2025).

Despite this progress, data on Indigenous Peoples and local communities' tenure security remain incomplete. Land legally recognized for Indigenous Peoples and local communities has grown from 1.48 billion hectares in 2015 to 1.58 billion hectares in 2020 (RRI, 2023), though significant gaps persist. Accelerating jurisdictional results-based payments, expanding restoration finance, enforcing no-conversion corporate supply-chain standards, and formalizing Indigenous Peoples and local communities' land rights emerge as the most effective levers to reverse the trend and deliver durable climate and biodiversity gains while strengthening adaptive capacity and livelihood resilience.

Grounded in the understanding that nature underpins both climate resilience and human well-being, **Key Objective 6** advances the conservation and restoration of ecosystems through integrated, multi-benefit approaches. It calls for securing land tenure, combating environmental crime and wildfires, and deploying NbS that align mitigation, adaptation, and biodiversity goals across landscapes and sectors.

The GST outcome explicitly underscores the role of conserving, protecting, and restoring ecosystems in achieving the Paris Agreement's temperature goal. It encourages Parties to adopt NbS, EbA, and resilient food systems as cross-cutting strategies, while highlighting ecosystem integrity and biodiversity protection as global adaptation targets for 2030. It further recognizes that resilient ecosystems are a foundation for sustainable livelihoods, health, and equitable development. Nature action is thus reframed not only as a climate sink but also as a resilience infrastructure and a social and economic necessity for sustainable development. The GST outcome also recognizes the role of Indigenous Peoples and calls on Parties to respect Indigenous Peoples' rights, among others, and to meaningfully engage Indigenous Peoples and local communities in their climate policies and action.

Indicators are moving, but not fast enough for 2030. Only 17.6 per cent of land and inland waters are protected (Protected Planet, 2025), short of GBF's 30×30 goal, underscoring the need to expand, connect and equitably govern area-based conservation with strong tenure safeguards. Reforestation shows positive momentum, with 56 Mha of total forest gain between 2010-2020, an average of 5.6 Mha annually (Schumer, C., S. Boehm, J. Jaeger, Y. Kirana, K. Levin et al, 2025), though restoration efforts on the ground are advancing more slowly than needed, with only 10.6 million hectares under active restoration projects as of 2025 (Forest Declaration Assessment, 2025).

Tenure finance is improving: USD 1.7 billion Indigenous Peoples and Local Communities Forest Tenure Pledge has been met and surpassed (Forest Tenure Funders Group, 2025), and the Path to Scale coalition targets USD 10 billion (Path to scale, n.d.) to secure community rights across tropical forests, an essential foundation for durable outcomes. Risk-management platforms are also scaling: the Riyadh Global Drought Resilience Partnership has mobilized ~USD 2.15 billion and plans support for ~80 countries (UNCCD, 2024), while FAO/UNEP's Global Fire Management Hub (FAO, n.d.-a) is building national capacity for integrated fire management.

Business and financial institution adoption of nature-positive tools has surged from 330 businesses in 2023 to 1,003 in 2025, demonstrating growing private sector commitment to biodiversity action (Climate Champions, n.d.). Yet NbS finance remains at ~USD 200 billion/year, which is about one-third of what is needed (UNEP, 2023), representing a sizable gap. Closing it requires mainstreaming resilience metrics, scaling rights-based tenure and high-integrity NbS investment, linking adaptation finance to nature outcomes, mainstreaming corporate nature disclosures and targets, and strengthening monitoring so hectares conserved/restored and emissions/removals are transparently counted and their resilience dividends tracked.

As the ocean is the planet's largest carbon sink and a foundation for life, **Key Objective 7** focuses on preserving and restoring oceans and coastal ecosystems to stabilize the climate, enhance resilience to hazards, and sustain economies and livelihoods. Oceans absorb over 90 per cent of excess heat and around 25 per cent of global CO_2 emissions (UN, n.d.), yet degradation of blue ecosystems continues to accelerate. The GST outcome urges Parties to integrate ocean-based mitigation and adaptation into national strategies and enhance finance flows to blue carbon

ecosystems such as mangroves, seagrasses, saltmarshes, and coral reefs. It also highlights the importance of building the adaptive capacity of coastal communities and safeguarding marine biodiversity as part of resilient development pathways.

Current data show that while marine protected areas (MPAs) now cover eight per cent of the global ocean (Protected Planet, n.d.), only a fraction are effectively managed. There has been improvement in the coverage of effectively managed MPAs expanding from 4.1 per cent in 2015 to 8.5 per cent in 2024 (UNEP-WCMC and IUCN, 2024). Coastal ecosystems continue to decline. Mangroves are still disappearing at 0.07–0.12 per cent per year (FAO, 2023a), and coral bleaching is intensifying across tropical regions, undermining natural coastal defenses and food security.

At the current pace, the world is not on track to harness the full potential of ocean-based climate solutions. Restoring and protecting blue ecosystems could cut up to 35 per cent of global emissions needed for a 1.5°C pathway (Hoegh-Guldberg, O., Northrop, E. et al., 2023) while reducing disaster risks, strengthening adaptive capacity and safeguarding livelihoods and biodiversity. Expanding integrated coastal management, mainstreaming ecosystem-based adaptation in marine spatial planning, strengthening governance, and closing the finance gap – blue finance currently represents less than one per cent of global climate investment (Thiele, T., A. Pouponneau et al, 2025) – are critical to reverse degradation trends. Embedding ocean and coastal restoration into NDCs, National Adaptation Plans (NAPs), and long-term strategies, creating robust monitoring systems, and ensuring locally-led, equitable benefit-sharing for coastal and small-island communities will be essential to deliver measurable progress towards healthy, regenerative, and resilient oceans.

Progress indicators for forests, oceans, and biodiversity reveal significant momentum in conservation and finance mobilization, though the pace of ecosystem protection must accelerate to meet 2030 goals. The nearly fourfold increase in finance for forests and land use demonstrates growing recognition that nature-based solutions offer substantial mitigation potential (estimated at 1.3 gigatonnes CO_2e by 2030 (CPI, 2022)) while simultaneously enhancing resilience to climate impacts. Deforestation rates show modest slowing, declining from approximately 10 million hectares per year between 2015-2020 to 8.1 Mha per year in 2024 (Forest Declaration Assessment, 2025). While this represents progress, current trends suggest it would take 25 years to reach zero at the present rate (UNEP-WCMC, 2021), far short of the 2030 halting goal.

SBTi FLAG targets have grown from 13 to over 300 agri-food businesses validated. This reflects growing business recognition that forest conservation and sustainable land management are essential to supply chain resilience and long-term viability (AFi, 2025). The framework notes that measuring progress comprehensively across forest degradation, mangrove restoration, and certain ecosystem metrics remains constrained by data availability, with future data collection efforts benefiting from enhanced remote sensing capabilities and standardized annual measurement protocols that can provide more complete tracking of nature and ecosystem indicators.

Objective 5: Investments to halt and reverse deforestation and forest degradation

Paragraph **33**. Further emphasizes the importance of conserving, protecting and restoring nature and ecosystems towards achieving the Paris Agreement temperature goal, including through enhanced efforts towards halting and reversing deforestation and forest degradation by 2030, and other terrestrial and marine ecosystems acting as sinks and reservoirs of greenhouse gases and by conserving biodiversity, while ensuring social and environmental safeguards, in line with the Kunming-Montreal Global Biodiversity Framework.

Paragraph **34**. Notes the need for enhanced support and investment, including through financial resources, technology transfer and capacity-building, for efforts towards halting and reversing deforestation and forest degradation by 2030 in the context of sustainable development and poverty eradication, in accordance with Article 5 of the Paris Agreement, including through results-based payments for policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches.

Trend	Indicator	Baseline	Latest Year
No Progress[5]	Deforestation rate Source: Hansen et al., SCL	7 Mha/yr 2015	8.1 Mha/yr 2024
Progress	Global forest area Source: FAO FRA, FAO	3,999 Mha 2015	4,140 Mha 2025
Insufficient Data	Forest degradation (transition to lower integrity) Source: FDA, SCL	Not Available	63 Mha 2022
Insufficient Data	Forest degradation (humid tropical) Source: Global Forest Watch	Not Available	8.8 Mha/yr 2024

Paragraph **34**. Notes the need for enhanced support and investment, including through financial resources, technology transfer and capacity-building, for efforts towards halting and reversing deforestation and forest degradation by 2030 in the context of sustainable development and poverty eradication, in accordance with Article 5 of the Paris Agreement, including through results-based payments for policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches

Trend	Indicator	Baseline	Latest Year
Progress	Financial institutions in deforestation engagement Source: FSDA	Not Available	>30 USD 8 Trillion AUM 2024
Progress	Finance for halting deforestation (AFOLU) Source: CPI, SCL	11 B USD 2015	38 B USD 2023

Objective 6: Efforts to conserve, protect and restore nature and ecosystems with solutions for climate, biodiversity and desertification

Paragraph **33** Further emphasizes the importance of conserving, protecting and restoring nature and ecosystems towards achieving the Paris Agreement temperature goal, including through enhanced efforts towards halting and reversing deforestation and forest degradation by 2030, and other terrestrial and marine ecosystems acting as sinks and reservoirs of greenhouse gases and by conserving biodiversity, while ensuring social and environmental safeguards, in line with the Kunming-Montreal Global Biodiversity Framework

Paragraph **63(d)** By 2030 Reducing climate impacts on ecosystems and biodiversity and accelerating the use of ecosystem-based adaptation and nature-based solutions, including through their management, enhancement, restoration and conservation and the protection of terrestrial, inland water, mountain, marine and coastal ecosystems;

Trend	Indicator	Baseline	Latest Year
Progress	Reforestation (total) Source: Potapov, Hansen et al.[6], SCL	Not Available	56 Mha 2010-2020
Insufficient Data	Forest restoration area with projects Source: Forest Declaration	Not Available	10.6 Mha 2024

Paragraph **33** Further emphasizes the importance of conserving, protecting and restoring nature and ecosystems towards achieving the Paris Agreement temperature goal, including through enhanced efforts towards halting and reversing deforestation and forest degradation by 2030, and other terrestrial and marine ecosystems acting as sinks and reservoirs of greenhouse gases and by conserving biodiversity, while ensuring social and environmental safeguards, in line with the Kunming-Montreal Global Biodiversity Framework

Trend	Indicator	Baseline	Latest Year
Progress	Land legally recognized for Indigenous People and local communities Source: Rights and Resources Initiative[7]	1.48 Bha 2015	1.58 Bha 2020

Paragraph **63(d)** By 2030 Reducing climate impacts on ecosystems and biodiversity and accelerating the use of ecosystem-based adaptation and nature-based solutions, including through their management, enhancement, restoration and conservation and the protection of terrestrial, inland water, mountain, marine and coastal ecosystems

Trend	Indicator	Baseline	Latest Year
Progress	Businesses adopting B4L tools Source: Nature Positive 4 Climate Action (NP4CA)	330 2023	1003 2025

Objective 7: Efforts to preserve and restore oceans and coastal ecosystems

Paragraph **35** Invites Parties to preserve and restore oceans and coastal ecosystems and scale up, as appropriate, ocean-based mitigation action

Trend	Indicator	Baseline	Latest Year
Progress	Share of marine environment in MPA or OECM Source: Protected Planet, SCL	4.1% 2015	8.5% 2024
No Progress	Global mangrove extent Source: Global Mangrove Watch	~140,000 Km² 2015	~137,000 Km² 2020
Insufficient Data	Mangrove restoration (total direct gain) Source: Murray et al.[8], SCL	Not Available	15,000 Ha 1999-2019
Insufficient Data	Mangrove loss (annual average) Source: Murray et al.[9], SCL	Not Available	32,000 ha/yr 2017-2019
Progress	Annual mangrove loss rate Source: FAO; Global Mangrove Watch	0.13% (avg) 1996-2016	0.07-0.12% 2010-2020

II. Insights into the progress of cooperative initiatives since the Paris Agreement

Nature-based climate action features strongly in the CoAct Database, with 119 initiatives (31 per cent of the sample) primarily addressing this area. This reflects both the growth of nature-based efforts over the past decade and the fact that CoAct's sampling approach includes a thematic focus on nature-based climate initiatives.

Land use remains the most common theme across all initiatives, with 132 of them (34 per cent) focused on forest conservation, restoration, and sustainable land management. However, oceans and coastal zones remain comparatively underrepresented, with only 49 initiatives (13 per cent) addressing marine ecosystems. The initiatives focused on Axis 2 show distinct implementation patterns, with relatively lower numbers of launches before 2019 but increased stabilization at higher prevalence since then, compared to other axes.

Axis 2 initiatives are more prevalent in lower-income countries compared to other axes, reflecting their alignment with regions hosting critical biodiversity hotspots such as Indonesia and the Democratic Republic of Congo.

International NGOs and international organizations play particularly important leadership roles in these initiatives, with Axis 2 initiatives featuring more instances of leadership by international NGOs (26 per cent) and international organizations (24 per cent).

Notable initiatives like the Global Campaign for Nature and FABLE Consortium demonstrate how cooperative action can balance agricultural productivity, biodiversity conservation, and climate mitigation, but also the need to manage possible trade-offs (Chan, S. et al, 2025).

III. Progress of Individual Actors and Cooperative Climate Initiatives (CCIs) registered on NAZCA

The MP thematic area of Land Use includes both forest- and agriculture-based activities, and therefore there is an intersection with Axis 3 (Transforming Agriculture and Food Systems). For the purposes of this Yearbook, this chapter will present the aggregate numbers currently registered under Land Use, Water, and Oceans and Coastal Zones, and disaggregation will be flagged whenever possible.

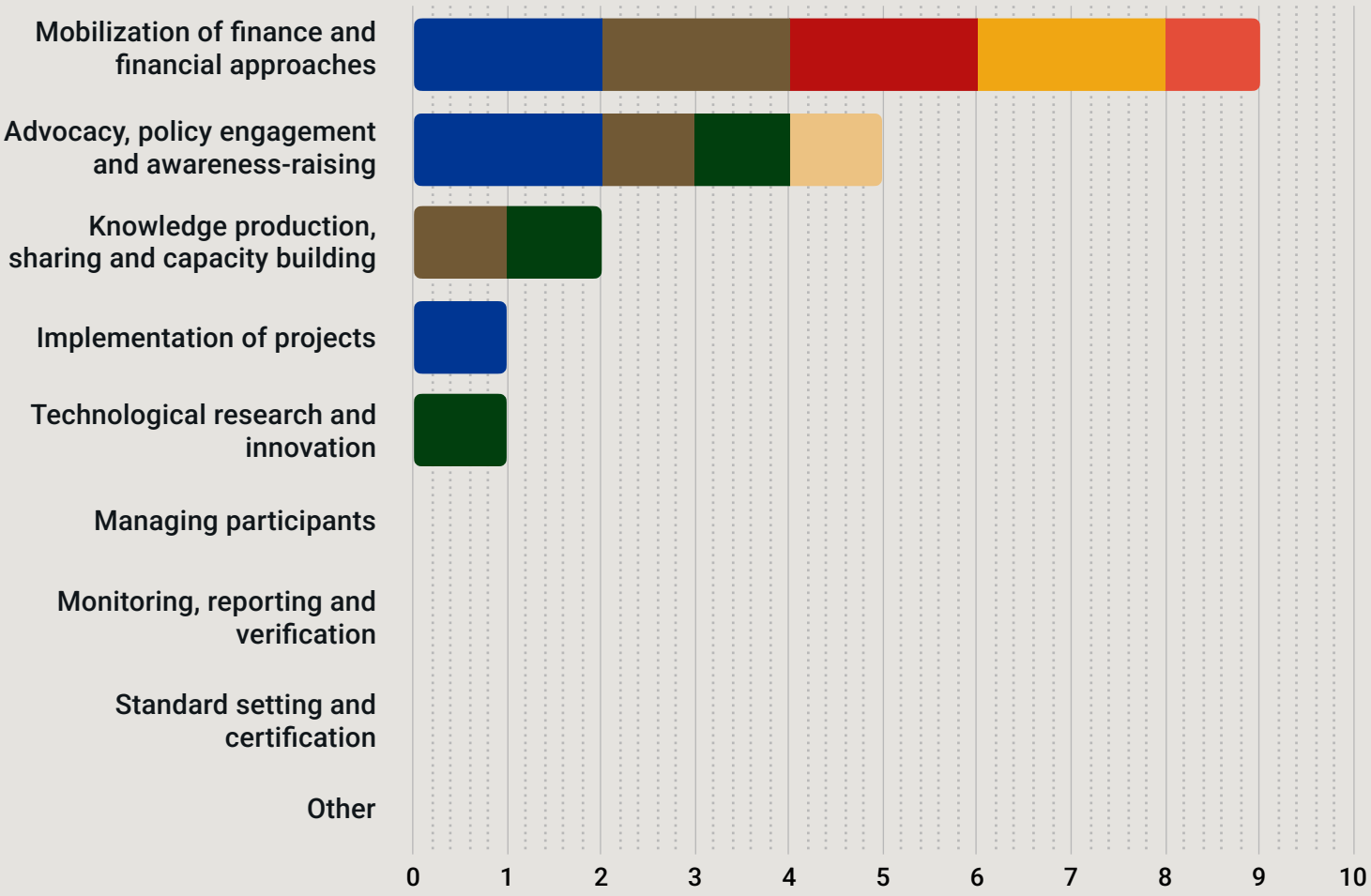
The tables below show a comparison between the number of individual actors and CCIs registered in the NAZCA Portal in October 2020 and October 2025 under the thematic areas of Land Use and Oceans and Coastal Zones, demonstrating a sharp rise in participation in both. Information on the actors engaged in the thematic area of Water is shown in Chapter 4.

	Land Use		Oceans and Coastal Zones	
	October 2020	October 2025	October 2020	October 2025
Total number of individual actors	**345**	**19,560**	**46**	**13,988**
Companies	171	12,974	-	10,182
Investors	10	881	4	703
Organizations	32	4,167	9	1,750
Regions	11	187	-	49
Cities	6	1,162	-	1,148
Total number of CCIs	**19**	**64**	**5**	**23**

Figure: Number of individual actors and CCIs registered in the NAZCA Portal

This year, 15 of the 49 CCIs that reported their progress to NAZCA under the common framework identified their main thematic focus as Land Use, Water or Oceans and Coastal Zones. The figure below specifies the primary function and the types of action these CCIs reported engaging in.

Figure: Functions and types of actions reported by CCIs (Axis 2)



Types of Actions

- Generation of knowledge products
- Enhancing collaboration
- Event organization
- Mobilization of finance and funding
- Advocacy and policy engagement
- General reporting
- On-the-Ground Project Implementation
- Establishment or update of new standards or practices
- Institutional arrangements
- Capacity Building
- Innovation
- Other

CASE STUDY

Launch of the Blueprint for a New Forest Economy

CCI: Governors' Climate and Forests Task Force (GCF)

Building a New Forest Economy requires a sustained commitment to creating whole new industries that will generate the jobs and economic opportunities that people need and deserve.

The Blueprint for a New Forest Economy, launched by the Governors' Climate and Forests Task Force (GCF Task Force), identifies four building blocks for a New Forest Economy: Bioeconomy, Natural Infrastructure, Restoration, and Intensification (e.g., scaling sustainable supply chains by enhancing productivity of existing agricultural commodities and forestry activities to increase value, and meet demand, while preventing further expansion into natural ecosystems). This Blueprint outlines some of the new and existing funding mechanisms that could be used to support promising initiatives in these four key areas.

This member-based network of 45 states and provinces from 11 countries has developed and coalesced around the New Forest Economy framework for advancing their climate, forest protection, and community-development strategies. The framework has enabled the network to engage more consistently within international spaces such as the UNFCCC COPs, donor and multilateral development bank discussions, and ongoing development and implementation of jurisdiction-scale REDD+ and other strategies.

The member states and provinces are working together with the Blueprint to attract partners, investment, and funding into their bioeconomy plans, REDD+ strategies, forest conservation efforts, sustainable supply chain certification systems, and community consultation and co-management processes.

The impacts are different for each member jurisdiction/country, but the ability to coalesce around a uniform blueprint and the GCF Task Force commitments has increased the effectiveness of member jurisdictions' individual and joint partnership proposals. In addition, these efforts are being undertaken in a consultative and partnership manner with Indigenous Peoples and local communities, which is a key aspect of GCF Task Force membership.

The necessity and success of subnational action to support national efforts and increase ambition/action where national efforts are lacking continues to underline the critical importance of the GCF Task Force and its members' contribution to the multilateral process. This was highlighted by a report released by UNDP in January 2025.

1. Highlights of initiative self-tracking progress (initiative-level indicators)

As mentioned in the Introduction, the COP 30 Presidency, in collaboration with the CHLC, proposed an exercise to showcase initiatives successfully demonstrating progress through initiative-level indicators, based on a 'Key Performance Indicators Progress Tracking Form'. Of the total 157 initiatives which reported their initiative-level indicators, 27 primarily focus on the forests, oceans, and biodiversity sectors. The indicators formulated through this process were organized around three categories and 11 levers recognized as pivotal for accelerating both the scale and speed of climate solutions. The overarching objective of this exercise is to establish an annual process that encourages greater transparency, supporting the much-needed shift from commitments to implementation.

The figures below illustrate a range of initiatives[9] which responded to the Progress Tracking Form with examples of how they can track progress against targets that meet the Climate Action Agenda Axis 2 key objectives.

Key Objective 5: Investments to halt and reverse deforestation and forest degradation

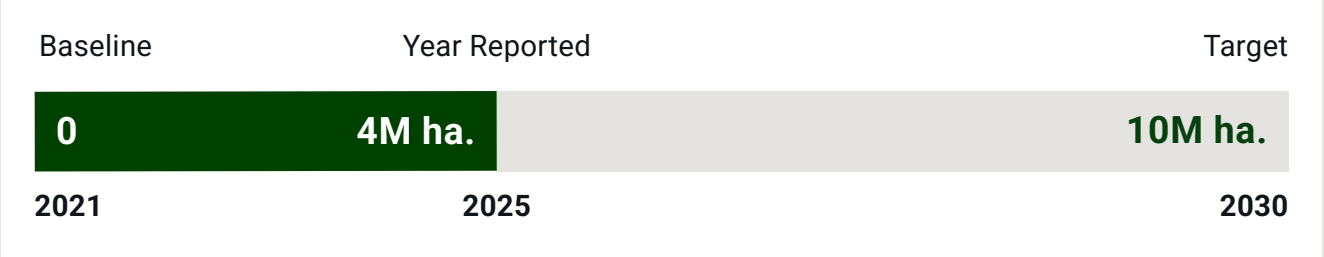
Real-World Quantifiable Impact

Forest Forward Initiative

Forests Forward is a signature WWF program for corporate action in support of nature, climate, and people.

Indicator: Forest area benefitted

Forest area under enhanced protection, restoration and/or improved management, as a result of Forests Forward partner action or investment.



Tags: Mitigation, Adaptation, Resilience, Finance, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania.

Indicator: Seedlings planted

Number of trees planted for the restoration of landscapes and ecosystems.



Tags: Mitigation, Africa.

Real-World Quantifiable Impact

Green Rising

The Green Rising is a bold, youth-led global movement building community resilience and a just green transition through climate action, supported by UNICEF and a wide ecosystem of public, private, and youth partners.

Indicator: Trees

of trees planted by young people, up to 24 yrs old, within the context of Green Rising programming.

Year Reported: **2025**

Target

0 **19M** **500M**

Baseline: **2021**

2030

Tags: Resilience, Africa, Asia, Latin America and the Caribbean, Middle East.

Key Objective 6: Efforts to conserve, protect and restore nature and ecosystems with solutions for climate, biodiversity and desertification



Real-World Quantifiable Impact

Race to Resilience

Mobilizing Non-party stakeholders to increase the resilience of 4 billion people by 2030.

Indicator: Natural systems increased resilience

Ecosystems protected, restored, and conserved as part of adaptation action plans.

Baseline	Year Reported	Target
0	18.4M ha.	67.7M ha.
2021	2025	2030

Tags: Adaptation, Resilience, Global.

Key Objective 7: Efforts to preserve and restore oceans and coastal ecosystems

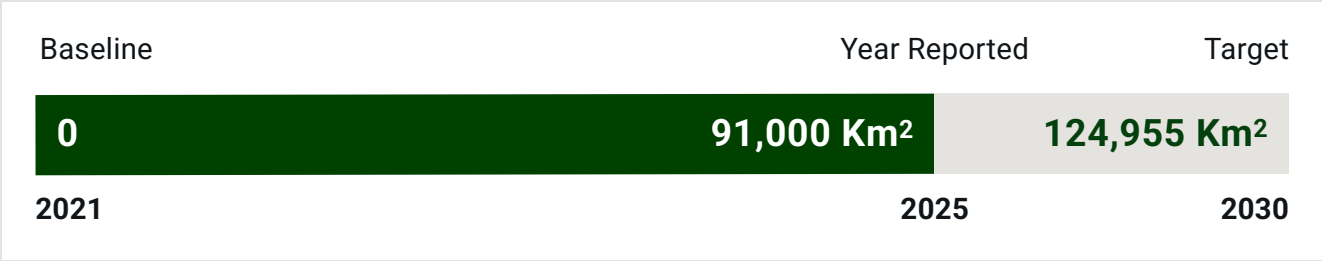
Real-World Quantifiable Impact

Coastal 500 (c/o Rare)

A global network of local government leaders committed to leading action for protected oceans and thriving coastal communities.

Indicator: Coastal waters under protection or effective community co-management

Coastal waters under protection (via no take zones or OECMs) or under effective sustainable co-management with local communities/stakeholders.



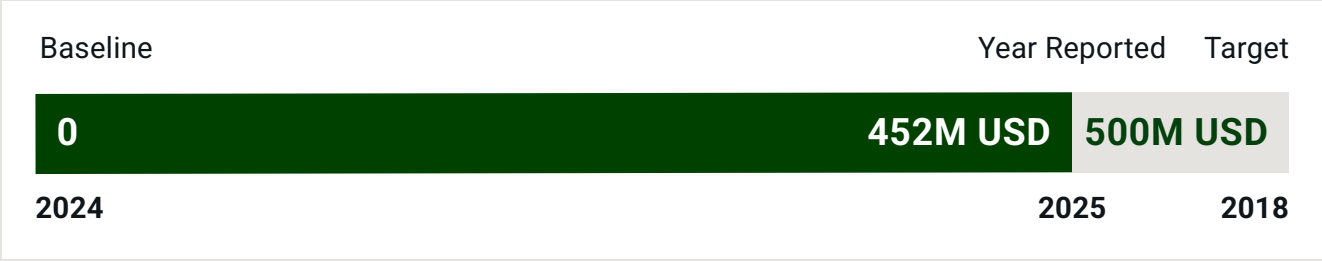
Tags: Mitigation, Adaptation, Resilience, Africa, Asia, Latin America and the Caribbean, Oceania.

Process-Based Implementation Metrics → Public & Private Finance

Ocean Resilience & Climate Alliance (ORCA)

The Ocean Resilience and Climate Alliance (ORCA) is a global philanthropic initiative mobilizing resources for ocean-based climate solutions, from carbon sequestration and emissions mitigation to adaptation and resilience.

Indicator: Philanthropic funding mobilized for ocean climate action



Tags: Mitigation, Adaptation, Resilience, Finance, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.



Axis 3

Transforming Agriculture and Food Systems

The third axis of the COP 30 Climate Action Agenda addresses the GST outcome's call on Parties to contribute to global efforts towards 'accelerating the substantial reduction of non-carbon-dioxide emissions globally, in particular methane emissions by 2030' and its recognition of the 'fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change'.

It further encourages 'the implementation of integrated, multi-sectoral solutions, such as land-use management, sustainable agriculture' and resilient food systems, among others, in addition to urging Parties and inviting NPS to increase ambition and enhance adaptation action and support in 'attaining climate-resilient food and agricultural production and supply and distribution of food, as well as increasing sustainable and regenerative production and equitable access to adequate food and nutrition for all' (UNFCCC, 2023a).

The key objectives within this axis therefore focus on (8) land restoration and sustainable agriculture; (9) more resilient, adaptive, and sustainable food systems; and (10) equitable access to adequate food and nutrition for all.

Agriculture is a large contributor to climate change, but the sector is also highly impacted by it – thus playing a central role in both mitigation and adaptation goals. Unsustainable activities and practices in agrifood systems are also contributing to natural resource degradation and the unaffordability of healthy diets, which result in additional environmental and socioeconomic impacts. A FAO report analysed the true cost of food for sustainable agrifood systems and estimated the hidden environmental, health and social costs associated with them at over USD 10 trillion, considering aspects such as GHG emissions, water use, and productivity losses associated with undernourishment, among others. Recognizing and factoring these costs into decision-making is a relevant step for the transformation of agriculture and food systems (FAO, 2023b).

This transformation is essential to achieving not only the goals of the Paris Agreement, but also those under the 2030 Agenda for Sustainable Development, the GBF and the Convention to Combat Desertification (UNCCD). According to the second edition of the Global Land Outlook, food systems are 'responsible for 80 per cent of deforestation, 70 per cent of freshwater use, and are the single greatest cause of terrestrial biodiversity loss'. The report also notes that current global land degradation is estimated at between 20 and 40 per cent of the world's total land area, including croplands, drylands, wetlands, forests, and grasslands (UNCCD, 2022).

The adoption of nature-friendly, sustainable, regenerative and agroecological practices is essential to help reverse these trends. Land and ecosystem restoration provides a cost-effective solution to help tackle both climate change and biodiversity loss, while creating opportunities that improve livelihoods by boosting incomes and ensuring food and water availability (UNCCD, 2022). Resilient, sustainable and equitable food systems can also safeguard food and nutrition security, build resilience to climate impacts, help to meet climate mitigation needs, protect and restore nature and create prosperous and inclusive societies and economies.

As mentioned before, agriculture is extremely vulnerable to the impacts of climate change, but other challenges such as conflicts, inequalities and economic volatility put additional pressure on food production systems. These compounded stressors can undermine not only food security but also livelihoods, especially those of more vulnerable groups, such as smallholder and family farmers, women, Indigenous Peoples and youth.

Addressing these vulnerabilities requires a systemic approach that supports frontline food systems actors to adapt and build resilience to climate risks and other shocks and stresses, taking into consideration the variety of interconnected ecosystems that are vital to food production. In that sense, it is also fundamental to enhance water resilience, quality, and availability through integrated management of water and food systems and restoration of water-related ecosystems, and to shift towards more water-efficient crops and practices to meet future food demand and build resilience to predicted water insecurity (see also Chapter 4).

Building more resilient and sustainable food systems is also key to combat food insecurity and, consequently, global hunger and malnutrition, which tend to be exacerbated by the climate crisis. Although there was a decline in global hunger and food insecurity in recent years, both are still well above 2015 levels, with 8.2 per cent of the global population undernourished and about 28 per cent being moderately or severely food insecure in 2024 (UN, 2025a). Addressing this objective and ensuring equitable access to adequate food and nutrition for all will require structural changes in how food is accessed, distributed, and valued.

The importance of addressing these issues under an integrated agenda is increasingly recognized by national governments. A UNSG report on the occasion of the Second Food Systems Summit Stocktake (UNFSS+4) carried out in July 2025 notes that countries are aligning their food systems pathways with broader transitions to green economies 'that create decent jobs and are anchored in social protection and education, necessary to achieve resilience and sustainability', reflecting strong political will and institutional commitment from national leaders, food systems convenors and stakeholders working together'. The report also stresses national efforts to align these pathways with climate and biodiversity planning instruments such as NDCs and National Biodiversity Strategies and to build and strengthen inclusive partnerships and coalitions to advance them (UN, 2025b).

Section I below presents an overview of trends in agriculture and food systems using tailored global socio-economic indicators drawn from authoritative sources by the Climate Champions Team in alignment with the GST outcome to show global progress under this Axis. Section II provides insights into the progress of cooperative climate initiatives in the past 10 years based on the analysis of 387 voluntary climate initiatives in the CoAct Database developed jointly by the ACHIEVE, BioCAM4, and CAMDA projects, while section III shows the growth in the number of individual actors and CCIs registered in the NAZCA Portal in the past five years, presents updates from CCIs reporting progress under the common framework and case studies showcasing CCI climate action under Axis 3.[10] Finally, section IV highlights initiatives which demonstrated how they are tracking progress through initiative-level indicators, illustrating the potential of enhancing year-on-year comparability and the transparency of results.

I. Trend analysis in the past decade (year-on-year global socio-economic indicators)

Agriculture and food systems are the bedrock of global food and economic security, providing food, jobs and livelihoods for billions of people around the world, and serve as a vital link between climate, nature and development. They are context-specific and deeply enmeshed in peoples' history, culture, daily lives, and livelihoods. Access to food is a fundamental human right, providing vital nutrients for health and well-being. However, as mentioned in this chapter's introduction, current food systems are facing unprecedented and accelerating challenges, with impacts on climate, biodiversity, water, and society in general.

Funding from all sources – domestic, public, private, multilateral, philanthropic and blended – must be scaled-up and reoriented to fund the transition to resilient, equitable and sustainable food systems. To match the predicted climate transition scenarios and halve current agriculture and food systems emissions by 2030, it is estimated that finance to food systems must reach at least USD 260 billion per year (Food System Economics Commission, 2024).

Climate finance to agriculture and systems rose from USD 28 billion in 2019/2020 to USD 95 billion in 2021/2022 – significant, but only representing less than four per cent of the global mitigation finance in 2021 (Global Center on Adaptation, 2023). The cost of food systems transition will be high, but the cost of inaction will be much higher, with hidden social, economic and environmental costs amounting to USD 10 trillion per year, roughly 10 per cent of global GDP (FAO, 2023b).

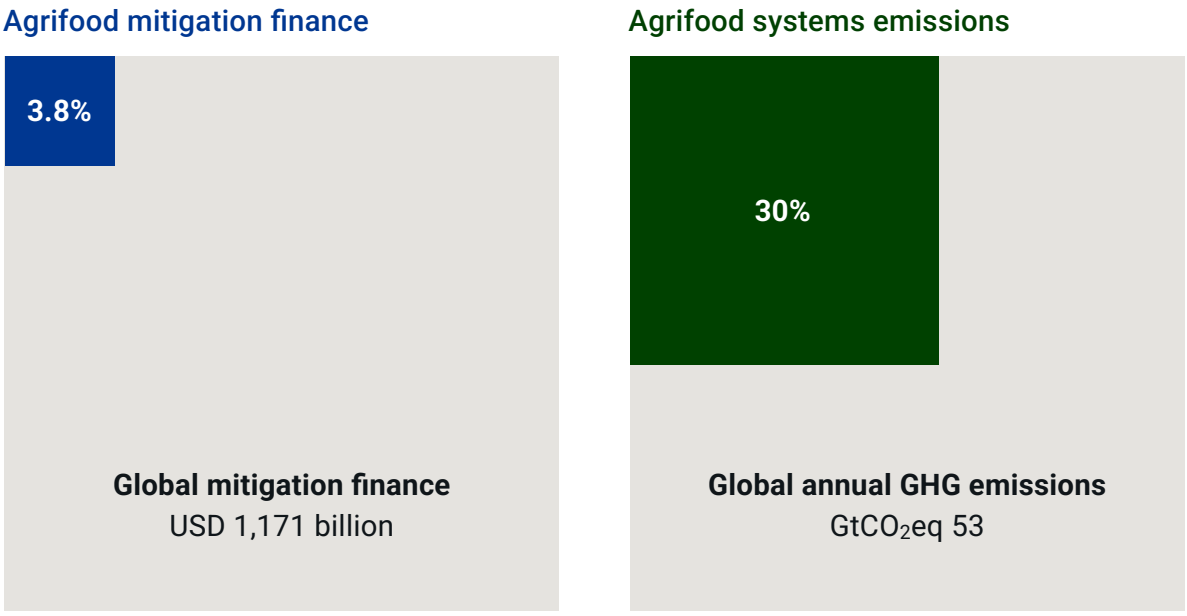


Figure: Agrifood share of mitigation finance in 2021/2022 and corresponding share of global GHG emissions
Source: CPI analysis and FAO (2023b)

Transforming agriculture and food systems is essential to achieving the Paris Agreement, the SDGs, the goals of the UNCCD, and the GBF target of restoring at least 30 per cent of degraded ecosystems by 2030. Resilient, sustainable and equitable food systems can safeguard food and nutrition security, build resilience to climate impacts, help to meet our climate mitigation needs, protect and restore nature and create prosperous and inclusive societies and economies. Transforming food systems can unlock USD 4.5 trillion in new business opportunities annually by 2030 (Food and Land Use Coalition, 2019).

The GST outcome recognizes the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change. It also encourages the implementation of integrated, multi-sectoral solutions, such as land-use management, sustainable agriculture, and resilient food systems, and calls on collective progress towards attaining climate-resilient food and agricultural production and supply and distribution of food, as well as increasing sustainable and regenerative production and equitable access to adequate food and nutrition for all.

Axis 3 builds on the work of milestone initiatives to ensure coherence and leverage synergies across efforts. These initiatives include: **The COP28 UAE Declaration on Sustainable Agriculture, Resilient Food Systems and Climate Action** signed by 160 countries committing to take urgent action on agriculture and food systems to adapt and transform in order to respond to the imperatives of climate change; **The Food Systems Call to Action**, endorsed by over 300 food systems actors, setting out 10 priority actions and four principles, calling on all actors to take urgent action to transform food systems and deliver better outcomes for people, nature, and climate; **The Sharm-El-Sheikh Adaptation Agenda**, tracking progress along seven priority outcomes from all food actors across agriculture and food systems; and **The Riyadh Action Agenda**, launched at UNCCD COP 16, a global multi-stakeholder platform, mobilizing ambitious, voluntary commitments and actions from state and non-state actors to combat desertification, land degradation and drought, and promote land conservation and restoration.

At the foundation of sustainable food systems lies the health of land and soil. **Key Objective 8** focuses on restoring degraded ecosystems and transitioning agriculture towards sustainable and regenerative practices that balance productivity, resilience, and environmental integrity. Agriculture and food systems are deeply dependent on natural ecosystems and resources, including healthy land and soil; yet current agricultural practices are a leading driver of their degradation. The scale of the challenge is immense: from 2015 to 2019, the world lost an estimated 100 million hectares of healthy and productive land each year, affecting the livelihoods of 1.3 billion people who directly depend on land resources (UNCCD Data Dashboard, n.d.).

Globally, an estimated 52 per cent of agricultural land is now moderately or severely degraded, a (FAO, n.d.-b). In many cases, the degradation is irreversible. Agriculture is the largest user of productive land globally, covering nearly 5 billion hectares. About two-thirds of this land is pastureland, while the remaining one-third is used for growing crops. Agricultural production emissions are primarily of methane and nitrous oxide, largely coming from enteric fermentation, manure management, rice cultivation and fertilizer application (FAO, n.d.-c).

Progress so far is limited. Although GHG emissions intensity across agricultural practices have declined related to enteric fermentation, manure management, soil fertilization, and rice cultivation, efforts are still off track. Pilot initiatives using feed additives,

improved water management, and precision nutrient application demonstrate emission reductions of 20–30 per cent, but these technologies remain at limited scale (FAO, n.d.-c). Crop yields have improved and ruminant meat productivity increased, but not at the pace needed. However, progress is visible in dairy productivity, with positive trends globally. Agricultural production is becoming more efficient per unit of food produced, but there is a need to accelerate these efforts as overall production increases to meet global food security needs, and to combine them with a holistic set of solutions across consumption and food loss and waste.

The GST emphasizes that making food and agricultural production, supply and distribution more climate-resilient, and reducing non-CO_2 emissions, particularly methane from livestock and rice cultivation, is critical to build adaptation and resilience, while helping to stabilize global temperatures in the near term. Accelerating progress will depend on strengthening monitoring, integrating local knowledge, building capacity, and mobilizing investment in land restoration, and scaling regenerative production approaches.

Key Objective 9 advances the transition toward resilient, adaptive, and sustainable agriculture and food systems. Climate shocks, conflict, and economic volatility are increasingly disrupting these systems, particularly affecting vulnerable groups including smallholder and family farmers, women, Indigenous Peoples and youth. Addressing these vulnerabilities requires a systemic approach that supports frontline food systems actors to adapt and build resilience to climate risks, and other shocks and stresses. This includes supporting smallholder and family farmers, reducing food loss and waste, promoting aquatic food solutions, and building diversified, resilient supply chains, with supportive policy, regulations, and incentives to scale action faster. Integrating these measures into updated NDCs and national agriculture and food systems food-system pathways will be essential to link productivity gains with measurable climate outcomes. Food waste stands at 130 kg per capita in 2022, up from 121 kg per capita in 2015, indicating that circular economy approaches in food systems are not yet scaling effectively (FAOSTAT, n.d).

However, consumption patterns show gradual shifts. Ruminant meat consumption in high-consuming regions has declined from 107 to 104 kcal per capita per day between 2015 and 2022 (FAOSTAT, n.d.), suggesting dietary changes that reduce agriculture's climate footprint while contributing to the GST's call for substantial non-CO_2 emissions reductions, particularly methane.

A groundswell of action is occurring across agriculture and food systems transformation initiatives. Farmers are adapting and responding to climate impacts and other shocks and stresses and implementing context-specific approaches, demonstrating results through farm- and landscape-level efforts. Financial institutions are developing innovative finance mechanisms to de-risk agricultural investments and catalyse more private capital. Cities are using their public procurement powers to increase access to healthy, locally appropriate foods. Civil society and philanthropies are providing support to a range of efforts to build the evidence base and scale action. Corporate commitments to agricultural sustainability have accelerated dramatically, reflecting growing recognition that transformation of agriculture and food systems is essential to achieving not only Paris Agreement goals but also the 2030 Agenda for Sustainable Development and the GBF. The number of agri-food businesses with validated SBTi FLAG targets has reached over 300 in 2025 (AFi, 2025), up from just 13 companies in 2024. This surge in target-setting reflects business understanding that climate action and sustainable

land management are integral to long-term supply chain resilience and food system viability.

Completing the Axis 3 vision, **Key Objective 10** centers on the human dimension of food-system transformation, ensuring that everyone has equitable access to affordable, nutritious, and culturally appropriate food. It links nutrition, health, and climate agendas, recognizing that nutritious, sustainable locally-appropriate diets are essential for both planetary and human well-being, and for building resilience to climate-induced food insecurity. Achieving more resilient, adaptive and sustainable food systems requires addressing rising hunger and ensuring vulnerable individuals, households, communities, and fragile regions experiencing crisis levels of food insecurity can meet their nutritional needs, ending hunger and malnutrition in all its forms, noting that climate change will further exacerbate these risks.

The GST recognizes the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change. Yet progress remains slow. Global hunger and food insecurity remain above 2015 levels. In 2023, 9.1 per cent of the global population remained undernourished (FAOSTAT, n.d). These indicators have remained largely stagnant, signaling a lack of meaningful improvement. Achieving equitable access will require addressing the compounded stressors of climate change, conflicts, inequalities, and economic volatility that disproportionately affect smallholder farmers, women, Indigenous Peoples, and other vulnerable groups. Scaling up progress will require convergence of policies, affordability programmes, resilient social protection frameworks safeguarding vulnerable groups, and transitioning to more diversified protein sources and nutritious, sustainable, locally-appropriate diets in line with global goals and national contexts.

Land tenure rights for Indigenous Peoples, Afro-descendant Peoples, and local communities, a critical enabler of sustainable land management, ecosystem restoration, and food security, gained legal recognition in at least 39 countries between 2015 and 2020, resulting in over 100 million hectares of additional formally recognized community lands (RRI, 2015). This progress supports more equitable governance of the landscapes vital to food production. Current trajectories fall short of the 2030 goal of universal access to affordable, nutritious diets. Financing for nutrition-sensitive agriculture and smallholder adaptation remains under two per cent of total climate finance flows. To reverse this trend, policies must integrate social protection and secure land tenure into food security strategies. Linking nutrition indicators to climate adaptation programmes, especially those targeting smallholders, women, and Indigenous Peoples, can create a multiplier effect, ensuring that climate action contributes directly to human well-being and resilience.

Objective 8: Land restoration and sustainable agriculture

Paragraph **36** Notes the importance of transitioning to sustainable lifestyles and sustainable patterns of consumption and production in efforts to address climate change, including through circular economy approaches, and encourages efforts in this regard

Trend	Indicator	Baseline	Latest Year
No Progress	Degraded agricultural land worldwide Source: FAO	1,000 Mha 2015	1,000+ Mha 2024
No Progress	Healthy productive land lost annually Source: UNCCD	100 Mha/yr 2015	100 Mha/yr 2019
Progress	GHG emissions intensity of agricultural production Source: FAOSTAT, SCL	380 gCO_2e/1,000 kcal 2015	360 gCO_2e/1,000 kcal 2022
Progress	GHG emissions intensity of enteric fermentation Source: FAOSTAT, SCL	3,336 gCO_2e/1,000 kcal 2015	3,100 gCO_2e/1,000 kcal 2022
Progress	GHG emissions intensity of manure management Source: FAOSTAT, SCL	682 gCO_2e/1,000 kcal 2015	650 gCO_2e/1,000 kcal 2022
Progress	GHG emissions intensity of soil fertilization Source: FAOSTAT, SCL	73 gCO_2e/1,000 kcal 2015	68 gCO_2e/1,000 kcal 2022
Progress	GHG emissions intensity of rice cultivation Source: FAOSTAT, SCL	399 gCO_2e/1,000 kcal 2015	380 gCO_2e/1,000 kcal 2022
Progress	Crop yields Source: FAOSTAT, SCL	6.5 T/Ha 2015	6.8 T/Ha 2023
Progress	Ruminant meat productivity Source: FAOSTAT, SCL	26.7 Kg/Ha 2015	30 Kg/Ha 2022

Objective 9: More resilient, adaptive, and sustainable food systems

Paragraph **36** Notes the importance of transitioning to sustainable lifestyles and sustainable patterns of consumption and production in efforts to address climate change, including through circular economy approaches, and encourages efforts in this regard

Trend	Indicator	Baseline	Latest Year
Insufficient Data	Share of food production lost Source: FAOSTAT, SCL	Not Available	13% 2021
No Progress	Food waste Source: UNEP, SCL	121 Kg/capita 2015	130 Kg/capita 2022
Progress	Ruminant meat consumption (high-consuming regions) Source: FAOSTAT, SCL	107 kcal/capita/day 2015	104 kcal/capita/day 2022

Objective 10: Equitable access to adequate food and nutrition for all

Paragraph **63(b)** By 2030 Attaining climate-resilient food and agricultural production and supply and distribution of food, as well as increasing sustainable and regenerative production and equitable access to adequate food and nutrition for all

Trend	Indicator	Baseline	Latest Year
Insufficient Data	Population with undernourishment Source: FAOSTAT	Not Available	9.1% 2023
Insufficient Data	Population unable to afford healthy diet Source: FAOSTAT	Not Available	35% 2022

II. Insights into the progress of cooperative initiatives since the Paris Agreement

The CoAct Database analysis shows that cooperative initiatives targeting agriculture and food systems have evolved considerably over the past ten years, though they experienced the highest relative number of launches in 2015 and have since leveled off compared to other thematic areas. These initiatives demonstrate strong synergies with nature-based action (Axis 2), with 67.4 per cent of initiatives tracked under Axis 3 also addressing forests, oceans, and biodiversity.

Agriculture and food systems initiatives are more prevalent in low-income countries, reflecting their focus on supporting livelihoods closely tied to ecosystems and addressing food security in vulnerable regions.

Within these initiatives, research institutions feature more prominently as leaders (8 per cent) compared to other thematic areas. International NGOs emerge as the most frequent leaders (28 per cent), while also being featured more often as leaders compared to other axes. Funders for Axis 3 initiatives are mostly national governments (27 per cent), which is slightly more than for other axes.

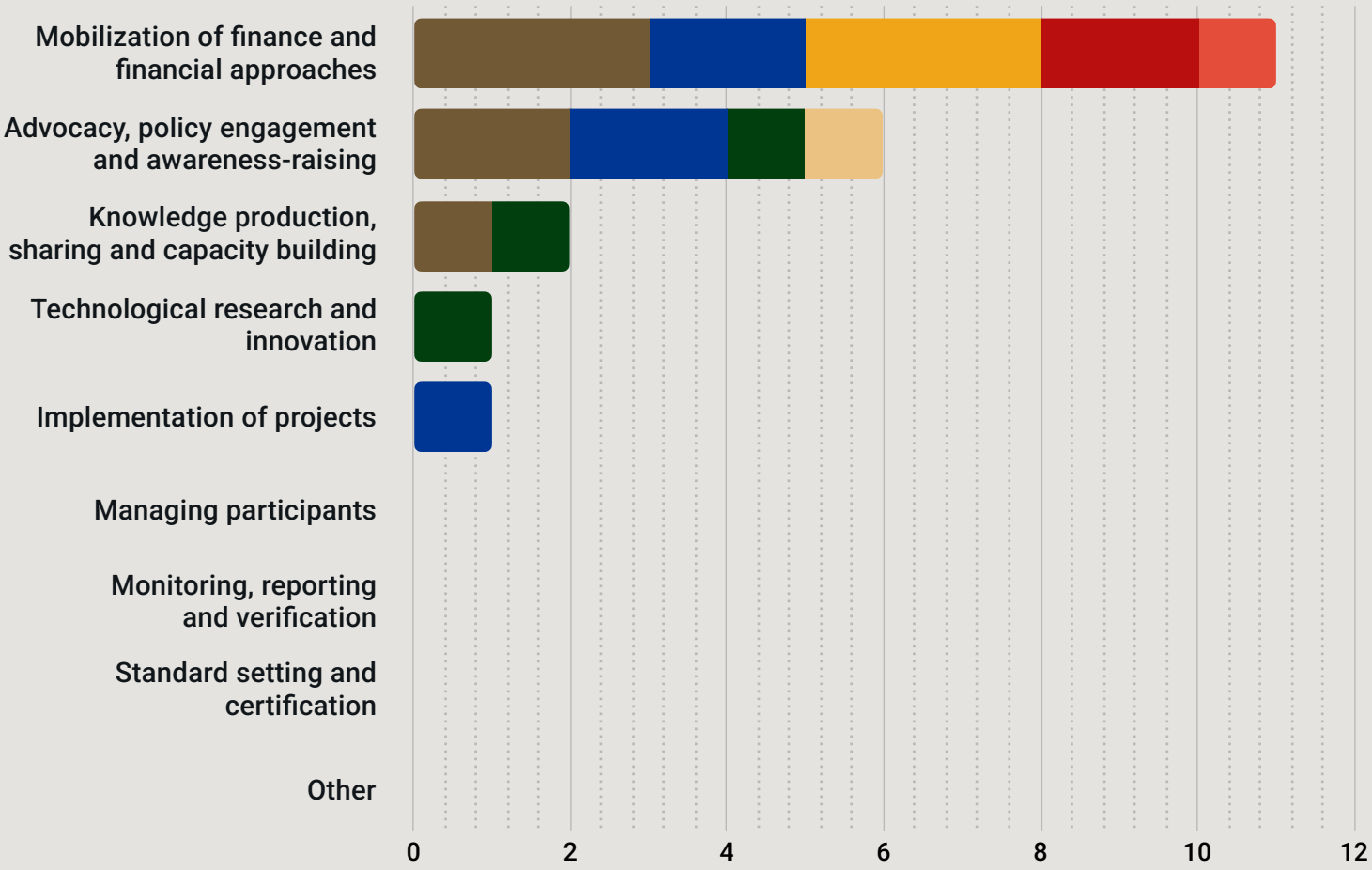
Implementation patterns show that while adaptation-related activities are increasingly occurring in highly vulnerable contexts, particularly in Least Developed Countries (LDCs), Small Island Developing States (SIDS), and Sub-Saharan Africa, middle-income countries remain underrepresented.

Initiatives like the FABLE Consortium exemplify how cooperative action can develop integrated national food and land-use pathways aligned with global sustainability goals (Chan, S. et al, 2025).

III. Progress of Individual Actors and Cooperative Climate Initiatives (CCIs) registered on NAZCA

The thematic area of Land Use includes both forest- and agriculture-based activities. As such, the evolution of individual actors and CCIs registered in the NAZCA Portal between October 2020 and October 2025 under Land Use is shown in the previous chapter. As for the CCIs that reported progress to NAZCA under the common framework in 2025, 21 reported their thematic focus as Land Use and/or reported addressing SDG 2 (‘End hunger, achieve food security and improved nutrition and promote sustainable agriculture’). The figure below specifies the primary function and the types of action these CCIs reported engaging in.

Figure: Functions and types of actions reported by CCIs (Axis 3)



Types of Actions

- Generation of knowledge products
- Enhancing collaboration
- Event organization
- Mobilization of finance and funding
- Advocacy and policy engagement
- General reporting
- On-the-Ground Project Implementation
- Establishment or update of new standards or practices
- Institutional arrangements
- Capacity Building
- Innovation
- Other

CASE STUDY

Accelerate action through the Landscape Accelerator Brazil (LAB)

CCI: COP 28 Action Agenda on Regenerative Landscapes

The LAB is working to accelerate the transformation of critical Brazilian landscapes, starting in the Cerrado biome and the state of Pará, towards a fully regenerative future. The objective for 2025 was to build private-sector convergence on key levers for three workstreams. Three foundational reports (Cerrado regenerative transition plan, Amazon bioeconomy and regenerative transition plan, and producer survey with 1,300 Brazilian farmers and ranchers) informed outcomes across the three workstreams as follows:

- Blended finance to activate the transition: Quantification of the investment opportunity to regenerate 50 million ha of degraded pastureland and collaboration with other organizations working to connect capital to programmes (e.g., Capital for Climate, Ecoinvest);
- Harmonized MRV (monitoring, measurement, reporting, and verification) to enable the transition: Harmonized metrics, MRV guidance, case studies, and exploration of connections with public subsidies and pilot implementation;
- Aligned public policy to underpin the transition: Identification of four key policy priorities to scale regenerative landscapes in Brazil and LAB referenced in National Policy for the Promotion of Regenerative Agriculture.
- The LAB aims to mobilize USD 5 billion in new investments by 2030. USD 100 million has been invested to date by the COP 28 Action Agenda on Regenerative Landscapes and LAB members, with USD 1 billion in new investments planned through 2030. Estimates on carbon impact from these investments are not yet available.

IV. Highlights of initiative self-tracking progress (initiative-level indicators)

As mentioned in the Introduction, the COP 30 Presidency, in collaboration with the CHLC, proposed an exercise to showcase initiatives successfully demonstrating progress through initiative-level indicators, based on a 'Key Performance Indicators Progress Tracking Form'. Of the total 157 initiatives which reported their initiative-level indicators, 26 primarily focus on agriculture and food systems. The indicators formulated through this process were organized around three categories and 11 levers recognized as pivotal for accelerating both the scale and speed of climate solutions. The overarching objective of this exercise is to establish an annual process that encourages greater transparency, supporting the much-needed shift from commitments to implementation.

The figures below illustrate a range of initiatives[11] which responded to the Progress Tracking Form with examples of how they can track progress against targets that meet the Climate Action Agenda Axis 3 key objectives.

Figure: Progress on initiative-level indicators.

Key Objective 8: Land restoration and sustainable agriculture

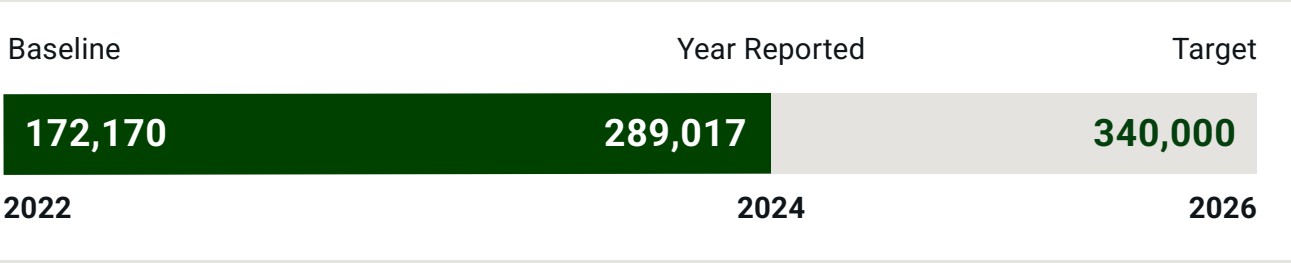
Real-World Quantifiable Impact

Forest and Farm Facility

A partnership between FAO, IIED, IUCN and AgriCord, the Forest and Farm Facility (FFF) empowers forest and farm producer organizations to shape enabling policies, incubate sustainable businesses, upscale climate action, and provide social and cultural services to their members.

Indicator: Number of people benefitting from restored landscapes

Estimated number of people benefiting from forest protection, restoration and sustainable forest management (including on-farm agroforestry systems).



Tags: Mitigation, Adaptation, Resilience, Finance, Capacity Building, Africa, Asia, Latin America and the Caribbean.

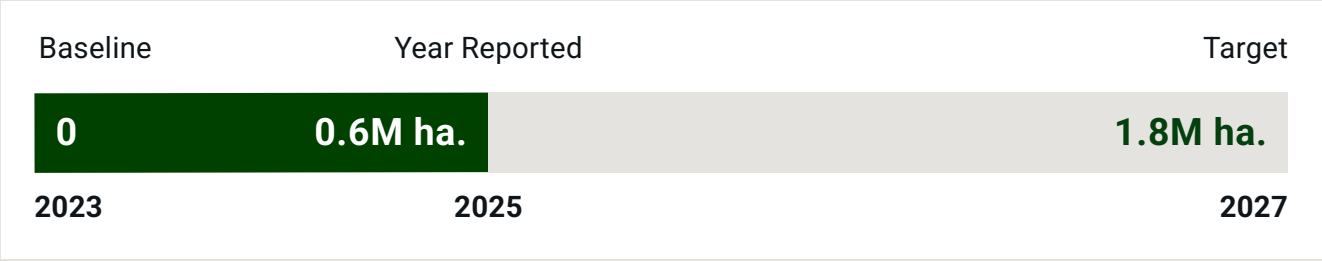
Real-World Quantifiable Impact

Restore Africa & Restore Asia

World's largest community-led, nature-based carbon removal programme. In Africa it currently spans 4 African countries & will restore over 1.8 million hectares of land, supporting 1.5 million households & in Asia it's about to begin implementation in Vietnam and the Philippines.

Indicator: Area of land under restoration

Total area of land that are under restoration through tree planting, FMNR and Agro forestry practices.



Tags: Mitigation, Africa.

Key Objective 9: More resilient, adaptive, and sustainable food systems

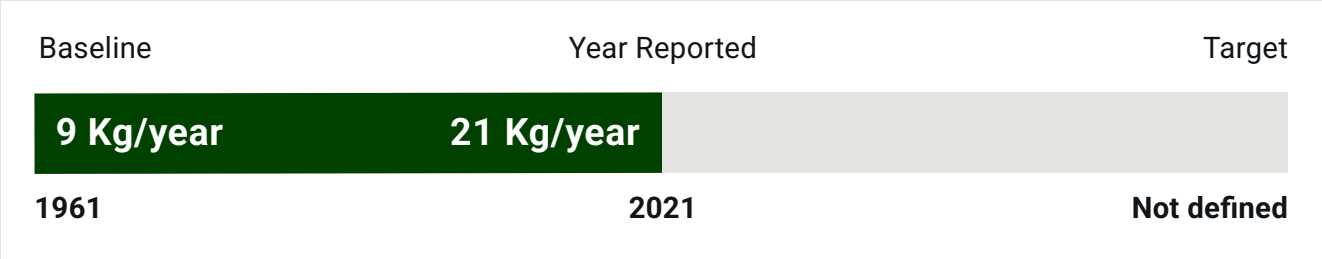
Real-World Quantifiable Impact

Blue Transformation

Anchored in FAO Strategic Framework approved by 194 Member States, Blue Transformation has 3 climate-resilient objectives: sustainably intensifying and expanding aquaculture; effectively managing 100% of fished resources; and developing and upgrading aquatic food value chains.

Indicator: Apparent consumption of aquatic foods

This indicator measures the amount of aquatic foods available for human consumption (apparent consumption) per capita expressed in live weight equivalent.



Tags: Adaptation, Resilience, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.

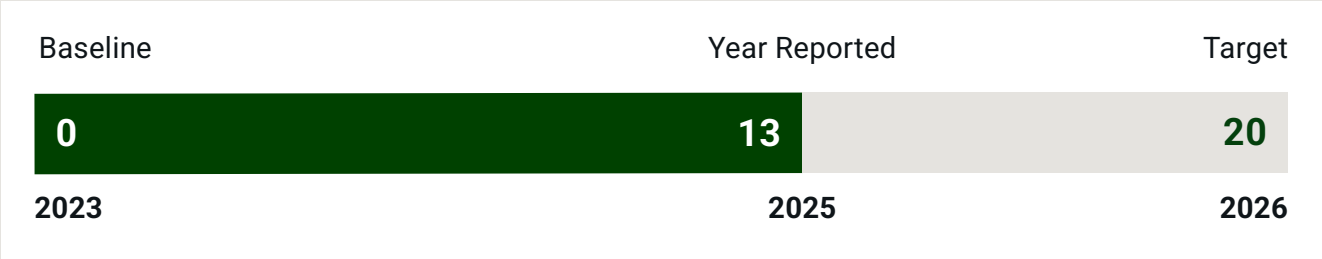
Process-Based Implementation Metrics → Knowledge & Capacity Building

Convergence Initiative (UN Food Systems Coordination Hub)

Anchored in FAO Strategic Framework approved by 194 Member States, Blue Transformation has 3 climate-resilient objectives: sustainably intensifying and expanding aquaculture; effectively managing 100% of fished resources; and developing and upgrading aquatic food value chains.

Indicator: Strategies to align food systems and climate action

Number of countries that develop strategies to align food systems and climate action.



Tags: Mitigation, Adaptation, Resilience, Finance, Capacity Building, Governance, Africa, Asia, Europe, Latin America and the Caribbean, Oceania, Middle East.

Key Objective 10: Equitable access to adequate food and nutrition for all

Real-World Quantifiable Impact

Global FoodBanking Network

Nourishing People and the Planet: Unlocking nutritional benefits and reducing methane emissions through food recovery and redistribution.

Indicator: Food Recovered and Redistributed

Total tonnage of food that would otherwise become waste in landfills, recovered and redistributed to vulnerable populations through food bank networks. This represents food loss and waste prevention at wholesale, retail, food service, and household levels, contributing to 1% FLW prevention target globally.

	Year Reported: **2024**	Target
0	**0.76M tons**	**13M tons**
Baseline: **2019**		**2030**

Tags: Mitigation, Adaptation, Resilience, Africa, Asia, Europe, Latin America and the Caribbean.

Indicator: Greenhouse Gas Emissions Avoided through Food Recovery and Redistribution

Total GHG emissions (CO_2e & CH_4) avoided through food recovery and redistribution operations, preventing food waste from reaching landfills.

	Year Reported: **2024**	Target
0.4M Mt.	**1.9M Mt.**	**9.1M Mt.**
Baseline: **2023**		**2030**

Tags: Mitigation, Adaptation, Resilience, Technology, Africa, Asia, Europe, Latin America and the Caribbean.

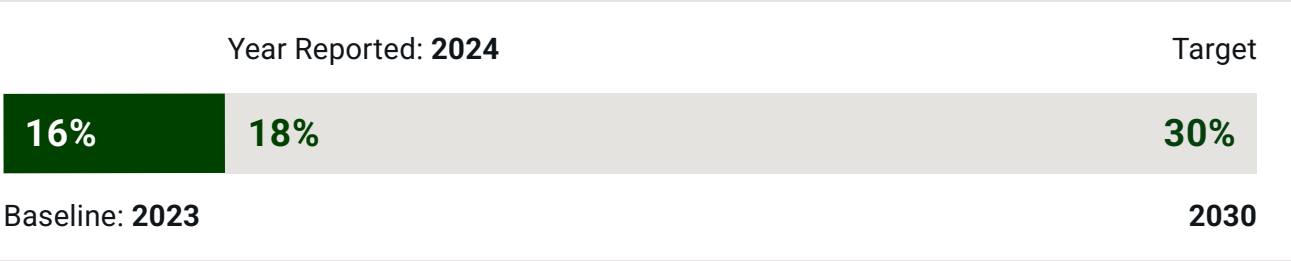
⚙ Process-Based Implementation Metrics → 🏛 Policy & Regulatory

Initiative on Climate Action and Nutrition (I-CAN)

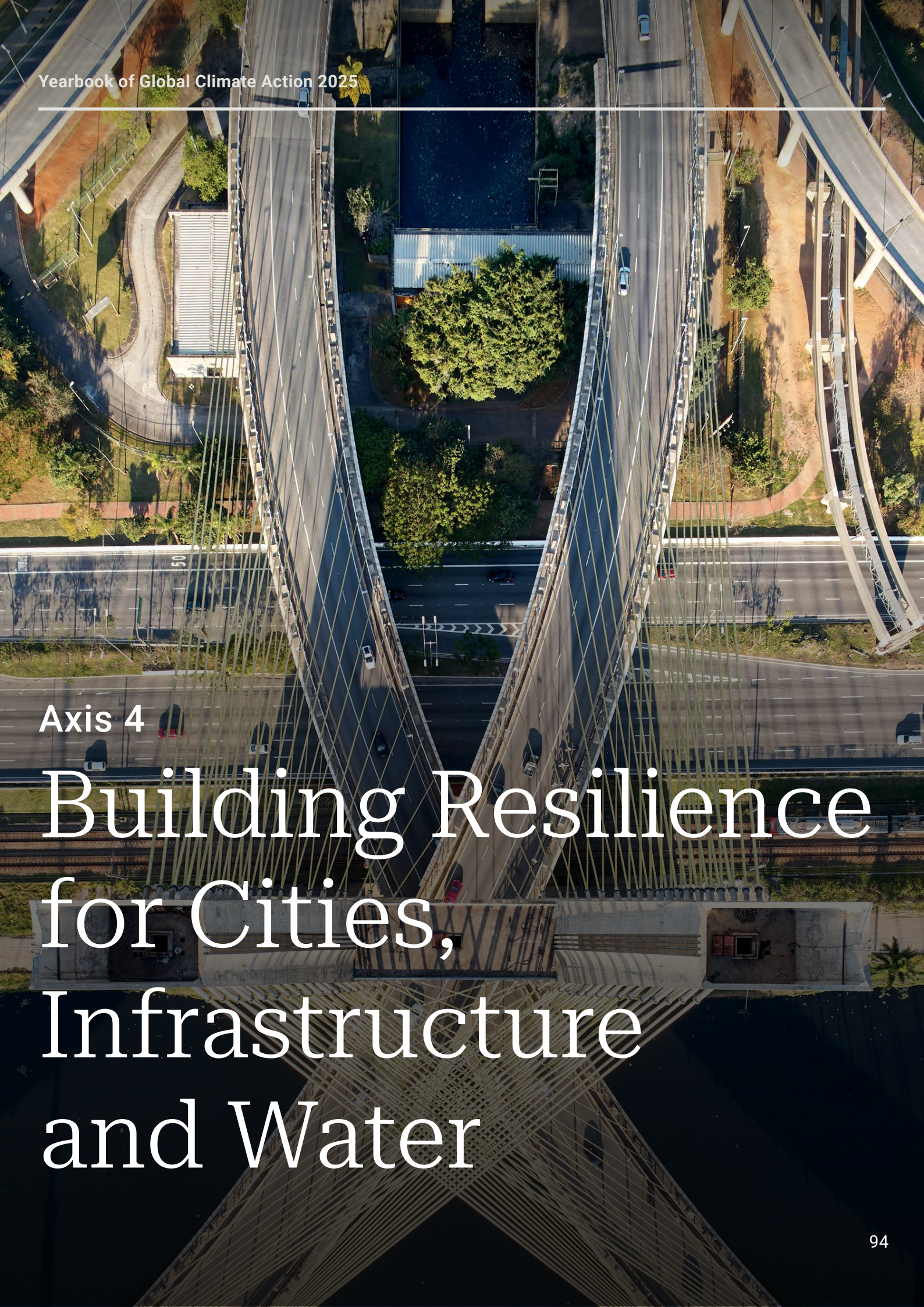
I-CAN is a multistakeholder, multisectoral global flagship initiative that aims to catalyze, mobilize, connect and advocate to address the critical nexus of climate change and nutrition.

Indicator: Percentage of NDCs, NAPs, and NBSAPs integrating nutrition

Extent to which nutrition and climate policies integrate both outcomes; policy coherence.



Tags: Capacity Building, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.



Axis 4

Building Resilience for Cities, Infrastructure and Water

The fourth axis under the COP 30 Climate Action Agenda addresses the GST outcome's urge to Parties and invitation to NPS to increase ambition and enhance adaptation action and support at all levels to increase the resilience of infrastructure and human settlements to 'ensure basic and continuous essential services for all' and to significantly reduce climate-induced water scarcity and enhance resilience towards a climate-resilient water supply and sanitation and 'access to safe and affordable potable water for all'.

It also addresses the GST outcome's affirmation regarding the global goal on adaptation targets stating that Parties should plan, implement and monitor 'country-driven, gender-responsive, participatory and fully transparent national adaptation plans, policy instruments, and planning processes and/or strategies' by 2030, informed by up-to-date impact, vulnerability and risk assessments. The targets also include the establishment of multi-hazard early warning systems by 2027, reflecting the UN Secretary-General's call for universal coverage by these systems against extreme weather and climate change (UNFCCC, 2023a).

The key objectives within this axis therefore focus on (11) multilevel governance, (12) sustainable and resilient constructions and buildings; (13) resilient urban development, mobility, and infrastructure; (14) water management; and (15) solid waste management.

The development and implementation of effective adaptation plans and related policy instruments and the proper mainstreaming of adaptation into all areas of decision-making and planning require a strong and straightforward coordination between national, regional, and local governments, as well as alignment and engagement with communities and other non-state actors. A streamlined multilevel governance framework ensures an integrated, coherent and inclusive approach to building resilience and risk reduction strategies and plans at all levels, including collaboration regarding climate-related data, information and services.

In that sense, incorporating adaptation concerns into infrastructure and building standards and codes is an essential part of climate-proofing buildings, utility services and the infrastructure systems that underpin human well-being. The construction and buildings sector is central to resilient urban systems, offering significant opportunities to reduce risk, emissions, and inequality. Solutions around low-carbon, hazard-resilient and affordable building materials, more intelligent and energy-efficient cooling and heating systems, and circular economy, for instance, can lower exposure and costs while supporting decarbonization. Investing in climate-resilient development is not only urgent, but also fundamental for long-term prosperity and stability.

Half of the world's population live in cities today; it is estimated that by 2050, this proportion will reach 70 per cent. Rapid urbanization contributes to the housing affordability crisis, which affects up to 3 billion people worldwide, and to a large number of people living in slums or informal settlements lacking basic services (1.1 billion individuals). Urban vulnerability is intensified by climate change, with billions exposed to threats such as floods and rising temperatures (UN, 2025a).

Early warning systems and disaster response strategies are key to help address these risks. Other integrated approaches can help create safe, resilient and sustainable cities, namely: urban planning for mitigation and adaptation with spatial strategies that reflect hazards, inclusivity, and low-carbon growth; resilient infrastructure (including transport, power, and communication systems) that withstands shocks and maintains service continuity; and nature-based solutions (such as urban forests, mangrove buffers, and green corridors) to manage heat, water, and biodiversity.

As mentioned in the previous chapter, enhancing water resilience, quality, and availability is a fundamental condition for climate-resilient development, so it can adequately support public health, food security, and economic stability. In the past decade, global access to essential water, sanitation and hygiene (WASH) services steadily improved, but billions of people worldwide still lack safely managed drinking water, safely managed sanitation coverage, and basic hygiene services at home (UN, 2025a).

Water systems are under strain from pollution, water stress, and climate change, which is intensifying hydrological variability, driving both scarcity and excess through more frequent droughts, extreme precipitation events, and systemic disruptions to water availability, quality, and infrastructure. Targeted interventions aimed at securing water resilience through the protection of watersheds and recharge zones, climate-proofing infrastructure, and improving water and wastewater management to ensure sanitation, treatment, and adaptability to changing rainfall and salinity can help address these challenges.

Similarly, addressing challenges in solid waste management will help tackle inadequate systems that contribute to pollution, health risks, and rising emissions. Potential solutions include effective and inclusive waste management (including reuse, methane capture, and low-emission systems) and circular economy strategies aimed at reducing material dependency, minimizing waste, and creating local jobs. In that sense, solutions should contemplate the inclusion of millions of informal waste pickers, who sustain circular economies without recognition or protection, so as to ensure a just transition to a net-zero, climate-resilient world.

According to the 2025 NDC Synthesis Report, a total of 97 per cent of Parties provided information on the legal and policy frameworks that facilitate the implementation of their NDCs; and 86 per cent reflected a strong reliance on national governance structures, including interministerial committees, local entities, councils and sectoral coordination bodies for that.

A total of 13 per cent of Parties mentioned legal and policy frameworks related to urban and spatial planning, 13 per cent of Parties referred to circular economy instruments and 25 per cent of Parties reported legislation, policies and strategies related to buildings, construction and infrastructure. These were all noted as contributing to the broader legal and policy frameworks underpinning NDC implementation.

A total of 38 per cent of Parties reported on efforts to strengthen adaptation, with 13 per cent of Parties indicating that they are aligning national adaptation targets with the global goal on adaptation; adaptation actions reported include strengthening early warning systems, improving agricultural resilience, designing and constructing climate-resilient infrastructure, developing climate-related health care plans, and preserving and restoring coastal ecosystems (UNFCCC, 2025a).

Section I below presents an overview of trends related to human settlements, infrastructure and water and waste management using tailored global socio-economic indicators drawn from authoritative sources by the Climate Champions Team in alignment with the GST outcome to show global progress under this Axis. Section II provides insights into the progress of cooperative climate initiatives in the past 10 years based on the analysis of 387 voluntary climate initiatives in the CoAct Database developed jointly by the ACHIEVE, BioCAM4, and CAMDA projects, while section III shows the growth in the number of individual actors and CCIs registered in the NAZCA Portal in the past five years, presents updates from CCIs reporting progress under the common framework and case studies showcasing CCI climate action under Axis 4. Finally, section IV highlights initiatives which demonstrated how they are tracking progress through initiative-level indicators, illustrating the potential of enhancing year-on-year comparability and the transparency of results.

I. Trend analysis in the past decade (year-on-year global socio-economic indicators)

Climate risks to cities and critical infrastructure are rising faster than their adaptive capacity. Urban areas already generate over 70 per cent of global emissions and face escalating heat, flooding, and service disruptions (World Bank, 2022; WRI, 2023). These threats call for a massive scale-up of adaptation finance, the integration of resilience across infrastructure and building codes, and stronger vertical coordination between national, regional, and local governments. Progress is visible through new partnerships and pilot projects, yet systemic transformation remains distant. Together, the five key objectives within this axis address the interconnected systems that determine whether cities become engines of climate solutions or amplifiers of vulnerability.

Adaptation finance for cities and resilient infrastructure has begun to expand, but volumes remain a fraction of what is needed – estimated at less than 10 per cent of climate finance currently reaches subnational governments (Soanes, M. et al, 2017). A growing pipeline of bankable projects is emerging, though delivery is uneven and constrained by access barriers. Faster progress depends on scaling blended-finance instruments and embedding local projects into national investment frameworks.

Strengthening multilevel governance under Key Objective 11 builds the institutional foundations for urban climate action. The number of NDCs with strong urban and subnational content has nearly doubled from 27 countries in 2016 to 52 in 2024 (UNDP, UN-Habitat, and University of Southern Denmark, 2024), demonstrating growing recognition that national climate strategies must engage cities and regions as implementation partners. However, coordination mechanisms remain weak in many contexts, and subnational governments often lack the technical capacity and fiscal authority needed to implement ambitious climate plans. Accelerating progress will require embedding multilevel governance frameworks into national climate architectures, ensuring dedicated finance flows to cities, and building institutional capacity at regional and local levels.

Advancing sustainable and resilient buildings under **Key Objective 12** targets the built environment, which accounts for approximately 40 per cent of global energy consumption and emissions (WBCSD, n.d.). Buildings are crucial enablers for expanding renewable energy: acting as sites for generation, integration, and demand flexibility. By rapidly electrifying building heating and cooking (with tailored solutions for local needs) the sector can lead a just and equitable transition away from fossil fuels.

Building sector policy frameworks are advancing, but remain insufficient, with 81 countries adopting residential codes by 2023. These numbers are up 30 per cent since 2015. However, only three countries have zero-carbon codes, and over half of new construction in developing economies still lacks any energy code coverage (UNEP, 2024a). Each adoption represents significant long-term impact given that building stock turns over slowly and locks in energy performance for decades. Energy intensity has improved from 154 kWh/m² in 2015 to 145 kWh/m² in 2022 (Systems Change Lab, n.d.), demonstrating that policy frameworks are beginning to drive efficiency gains. However, sector emissions have increased from approximately 11.1 $GtCO_2$ in 2015 to 11.7 $GtCO_2$ in 2023 (IEA, n.d.), indicating that efficiency improvements have not yet offset growth in floor area and building activity.

To accelerate progress, countries must translate building codes into enforceable standards, scale up technical assistance for implementation in developing economies, and integrate climate resilience criteria alongside decarbonization requirements.

Fostering resilient urban development under **Key Objective 13** emphasizes adaptation and the protection of vulnerable urban populations. Cities reporting climate adaptation actions have surged from 380 in 2017 to 910 in 2023, reflecting heightened awareness and commitment among urban leaders. Cities implementing people-centered adaptation measures have grown from 205 to 629 over the same period (CDP, n.d.), demonstrating that adaptation planning is increasingly considering the needs of vulnerable communities. Early warning systems coverage has expanded from 44 per cent of the population in 2015 to 55 per cent in 2024, while disaster mortality has declined dramatically from 1.62 per 100,000 population (2005-2014 average) to 0.79 per 100,000 (2014-2023 average) (Sendai Monitor. n.d). These trends provide clear evidence that investments in early warning systems and disaster preparedness save lives and reduce climate impacts on communities.

Indicators on projected reduced or avoided emissions from sustainable infrastructure projects supported by the C40 Cities Finance Facility reveals tangible results, with partner cities expected to mobilize over USD 1 billion in climate financing by 2025 and thus avoid emissions of over 7.5 $MtCO_2e$ by 2050 (GIZ, n.d.). Integrating mitigation and adaptation goals into city planning could multiply impacts and ensure long-term sustainability.

Critical gaps remain. As mentioned in this chapter's introduction, 1.1 billion people live in slums or informal settlements without basic services. These communities are disproportionately vulnerable to climate risks but contribute the least to global emissions and remain largely excluded from climate action and finance. At the same time, two billion people – 58 per cent of the world's workforce – work in the informal economy, playing essential roles in transportation, construction, retail, and waste management in urban areas (ILO, 2023). Their voices are rarely heard in climate planning, and data gaps lead to unclear policy-making by local and national governments. Migration patterns further intensify these challenges, as displaced people increasingly settle in informal urban areas, placing additional pressure on already strained infrastructure.

The scale of urban transformation ahead is immense. In Asia alone, over 2.36 billion people already live in cities, with another 1.1 billion expected to move in within the next two decades (Voets, C., Howe, and J. Pau, 2023). In Africa, the urban population is forecast to double to 1.4 billion by 2050 (OECD et al., 2025). About 60-70 per cent of the urban infrastructure these future cities will rely on is still to be built, presenting a unique opportunity to embed adaptation, resilience, social justice, and climate criteria into urban development from the outset.

Enhancing water management under **Key Objective 14** seeks to transform the scale, speed, quality and inclusivity of climate-resilient water financing, as there is a current global investment gap of over USD 140 billion (World Bank, 2024). Peatland ecosystems, critical for both carbon storage and water regulation, show stabilization in degradation rates, with recent monitoring indicating 0.06 Mha of annual degradation averaged over 1993-2018 (Conchedda, G. and F.N. Tubiello, 2020). Restoration efforts are establishing a foundation for scaled-up action. However, comprehensive tracking of water resilience indicators, including climate-resilient WASH services, wetlands restoration, and wastewater recycling, remains limited. Most indicators show insufficient data. Closing this gap

requires developing standardized monitoring frameworks and scaling investment in nature-based water solutions that enhance both mitigation and adaptation outcomes.

Transforming solid waste management under **Key Objective 15** advances circular economy approaches that reduce emissions while strengthening urban resilience. Municipal solid waste generation has increased from 2.0 billion tons in 2015 to 2.1 billion tons in 2024 (UNEP, 2024b). Gaps across these areas reveal untapped potential. With investment, coordination, and data systems, countries can move from isolated projects to systemic resilience.

By 2030, cities can access tens of billions in climate-resilient infrastructure finance; building codes and procurement rules can make Near-Zero Emission and Resilient Buildings (NZERB) construction the default; and regional governments can mainstream adaptation into planning that protects hundreds of millions of people. Axis 4 provides a foundation for transforming urban and infrastructure systems into engines of inclusion, resilience, and low-carbon growth.

Urban climate action and infrastructure resilience tracking are evolving as cities gain recognition as critical implementation sites for climate solutions, with measurement systems developing rapidly across multilevel governance, sustainable mobility, climate-responsive infrastructure, and water sector adaptation. The indicators presented in this axis reflect both established trends and emerging baselines, with comprehensive tracking frameworks still under development for several critical areas including water resilience, informal settlement adaptation, and people-centered urban infrastructure access.

Objective 11: Multilevel governance

Paragraph **64(b)** Planning: by 2030 all Parties have in place country-driven, gender-responsive, participatory and fully transparent national adaptation plans, policy instruments, and planning processes and/or strategies, covering, as appropriate, ecosystems, sectors, people and vulnerable communities, and have mainstreamed adaptation in all relevant strategies and plans.

Paragraph **158** Acknowledges the important role and active engagement of non-Party stakeholders, particularly civil society, business, financial institutions, cities and subnational authorities, Indigenous Peoples, local communities, youth and research institutions, in supporting Parties and contributing to the significant collective progress towards the Paris Agreement temperature goal and in addressing and responding to climate change and enhancing ambition, including progress through other relevant intergovernmental processes.

Trend	Indicator	Baseline	Latest Year
Progress	NDCs with strong urban/subnational content Source: UN-Habitat[10]	27 2016	52 2024

Objective 12: Sustainable and resilient constructions and buildings

Paragraph **63(e)** By 2030 Increasing the resilience of infrastructure and human settlements to climate change impacts to ensure basic and continuous essential services for all, and minimizing climate-related impacts on infrastructure and human settlements;

Trend	Indicator	Baseline	Latest Year
Progress	Energy intensity of buildings Source: SCL	154 kWh/m² 2015	145 kWh/m² 2022
No Progress	CO_2 emissions of buildings sector Source: IEA	~11.1 $GtCO_2$ 2015	~11.7 $GtCO_2$ 2023

Objective 13: Resilient urban development, mobility, and infrastructure

Paragraph **64(b)** Planning: by 2030 all Parties have in place country-driven, gender-responsive, participatory and fully transparent national adaptation plans, policy instruments, and planning processes and/or strategies, covering, as appropriate, ecosystems, sectors, people and vulnerable communities, and have mainstreamed adaptation in all relevant strategies and plans

Trend	Indicator	Baseline	Latest Year
Progress	Number of cities reporting climate adaptation actions Source: CDP-ICLEI	380 2017	910 2023
Progress	Number of cities including at least one people-centred measure for climate adaptation Source: CDP-ICLEI	205 2017	629 2023

Objective 14: Water management

Paragraph **63(a)** By 2030 Significantly reducing climate-induced water scarcity and enhancing climate resilience to water-related hazards towards a climate-resilient water supply, climate-resilient sanitation and access to safe and affordable potable water for all

Trend	Indicator	Baseline	Latest Year
Insufficient Data	Peatland degradation (annual) Source: Conchedda & Tubiello[11], SCL	0.06 Mha/yr 1993-2018	Not Available

Objective 15: Solid waste management

Paragraph **36** Notes the importance of transitioning to sustainable lifestyles and sustainable patterns of consumption and production in efforts to address climate change, including through circular economy approaches, and encourages efforts in this regard.

Trend	Indicator	Baseline	Latest Year
No Progress	Municipal solid waste generation decrease Source: UNEP	2.0 B Tons 2017	2.1 B Tons 2024
Insufficient Data	Municipal solid waste improperly disposed Source: World Bank	Not Available	33% 2024

II. Insights into the progress of cooperative initiatives since the Paris Agreement

Urban climate action through cooperative initiatives has gained momentum over the past decade – though cities, infrastructure, and water themes remain relatively underrepresented compared to energy and nature-based action. Human settlements are addressed by 79 initiatives out of the 387 tracked in the CoAct Database for this analysis (accounting for 20 per cent), while water, critical for climate resilience, is covered by only 29 initiatives (7 per cent), making it the least represented theme in the landscape.

Early in the decade, relatively few active initiatives were engaging in themes under Axis 4, but these have seen increased attention in recent years, with peak launches in 2018 and 2022 compared to other axes. These initiatives demonstrate strong overlap with energy and industry action (Axis 1), with 55.3 per cent of initiatives in this analysis addressing themes under Axis 4 also addressing energy transitions, exemplified by initiatives like the Transformative Urban Mobility Initiative (TUMI) which integrates transport decarbonization with air quality improvements. Moreover, these initiatives also show overlap with human and social development (Axis 5), with 61.7 per cent of initiatives under Axis 4 also addressing human and social development.

Subnational governments play a central role in these initiatives, comprising 51 per cent of participants, particularly through large city networks like the Global Covenant of Mayors and C40. However, implementation remains heavily concentrated in high-income countries and is comparatively underrepresented in low-income contexts where resilience needs are most acute, highlighting persistent geographic imbalances (Chan, S. et al, 2025).

III. Progress of Individual Actors and Cooperative Climate Initiatives (CCIs) registered on NAZCA

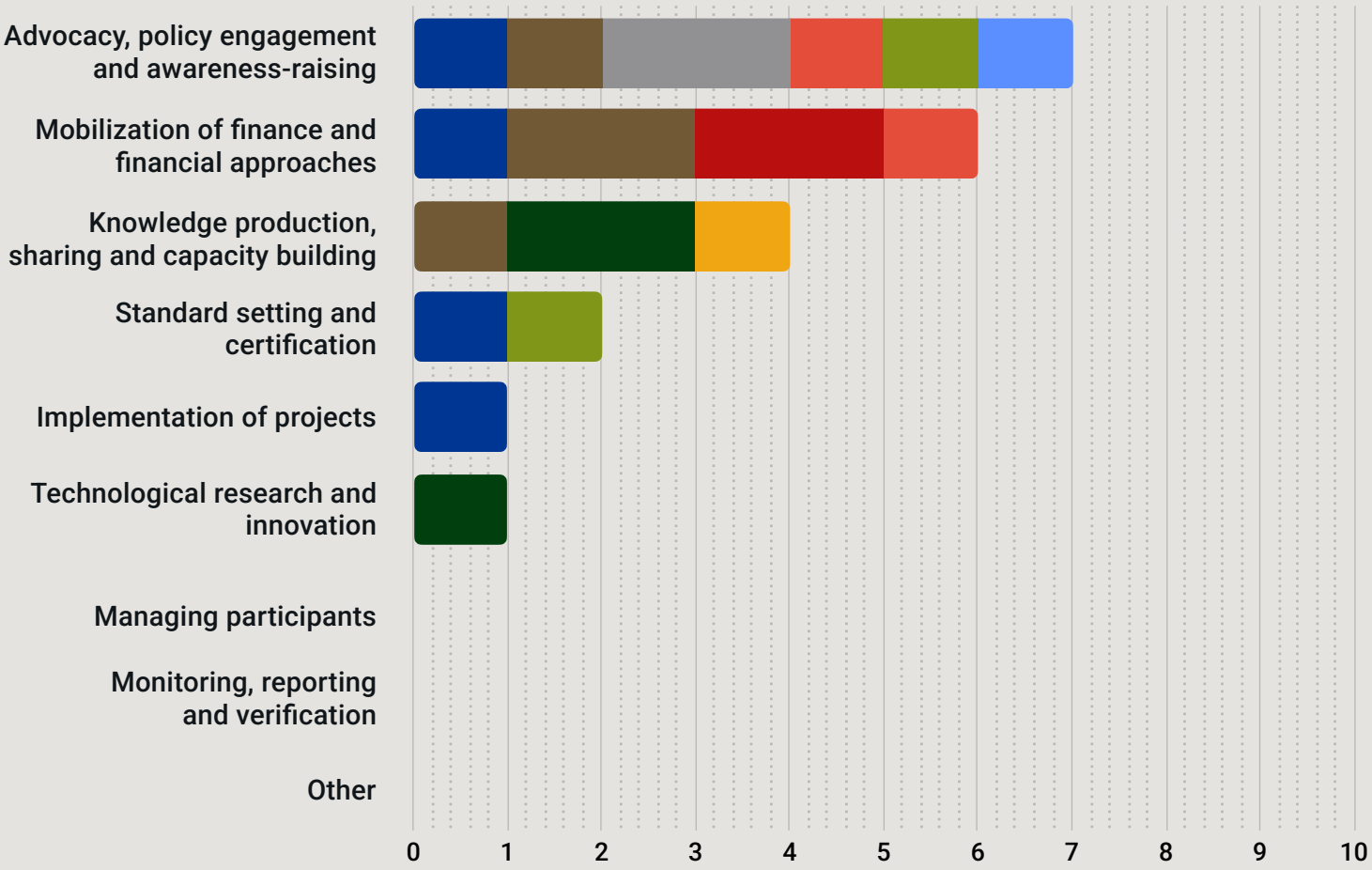
The tables below show a massive increase in the number of individual actors engaging in the thematic areas of Human Settlements and Water in the past five years, as registered on NAZCA.

	Human Settlements		Water	
	October 2020	October 2025	October 2020	October 2025
Total number of individual actors	**10,728**	**27,225**	**171**	**14,839**
Companies	42	10,229	65	10,518
Investors	17	698	3	718
Organizations	91	2,000	27	2,224
Regions	74	70	-	57
Cities	10,357	14,054	18	1,156
Total number of CCIs	**24**	**42**	**7**	**28**

Figure: Number of individual actors and CCIs registered in the NAZCA Portal

In 2025, 21 of the 49 CCIs that reported their progress to NAZCA under the common framework identified their main thematic focus as Human Settlements or Water and/or reported addressing SDG 11 ('Make cities and human settlements inclusive, safe, resilient and sustainable'). The figure below specifies the primary function and the types of action these CCIs reported engaging in.

Figure: Functions and types of actions reported by CCIs (Axis 4)



Types of Actions

- Generation of knowledge products
- Enhancing collaboration
- Event organization
- Mobilization of finance and funding
- Advocacy and policy engagement
- General reporting
- On-the-Ground Project Implementation
- Establishment or update of new standards or practices
- Institutional arrangements
- Capacity Building
- Innovation
- Other

CASE STUDY

RegionsAdapt Communities of Practice

CCI: RegionsAdapt

The RegionsAdapt Communities of Practice operationalize the multilevel governance vision of the Paris Agreement by equipping subnational governments with knowledge and tools to align regional adaptation strategies with national commitments. They also strengthen regional participation in international processes, bridging global goals with local action.

Between September 2024 and August 2025, RegionsAdapt advanced peer learning and capacity-building through two Communities of Practice sessions: one on Regional Leadership on Just Resilience (April 2024) and another on Subnational Governments on Loss and Damage (May 2024). In addition, a dedicated preparation webinar in September 2024 equipped members with insights and strategies ahead of COP 29 (climate) and COP 16 (biodiversity).

These exchanges strengthened members' capacity on key negotiation themes, generated concise briefing documents capturing actionable insights, and opened space for networking. As a result, several bilateral meetings and new collaborative opportunities emerged, reinforcing RegionsAdapt's role as a platform for knowledge sharing and joint action.

IV. Highlights of initiative self-tracking progress (initiative-level indicators)

As mentioned in the Introduction, the COP 30 Presidency, in collaboration with the CHLC, proposed an exercise to showcase initiatives successfully demonstrating progress through initiative-level indicators, based on a 'Key Performance Indicators Progress Tracking Form'. Of the total 157 initiatives which reported their initiative-level indicators, 35 primarily focus on resilience for cities, infrastructure and water. The indicators formulated through this process were organized around three categories and 11 levers recognized as pivotal for accelerating both the scale and speed of climate solutions. The overarching objective of this exercise is to establish an annual process that encourages greater transparency, supporting the much-needed shift from commitments to implementation.

The figures below illustrate a range of initiatives which responded to the Progress Tracking Form with examples of how they can track progress against targets that meet the Climate Action Agenda Axis 4 key objectives.

Figure: Progress on initiative-level indicators

Key Objective 11: Multilevel Governance

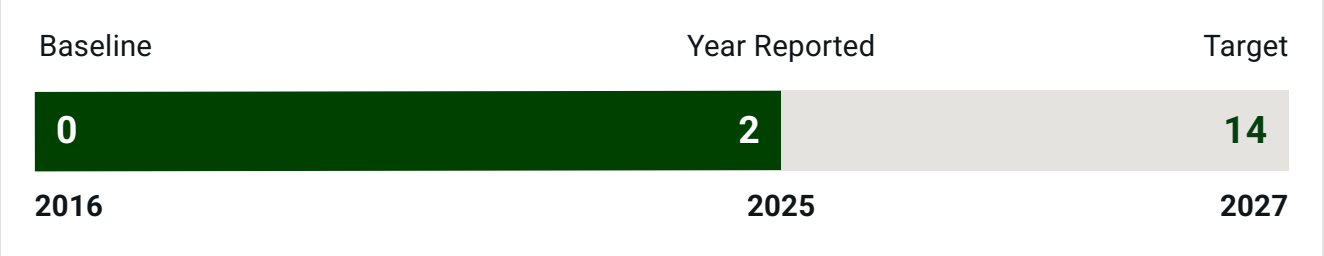
⚙ Process-Based Implementation Metrics → 🏛 Policy & Regulatory

Finance Your Cities Country Platforms for Localizing Finance

"Finance Your Cities" Country Platforms for Localizing Finance, led by FMDV with support from UCLG, EU & ADEME, are being operationalized in Cameroon and Madagascar, pioneering national financial ecosystems connecting climate & development finance to local governments.

Indicator: Number of regulatory or policy frameworks adopted or piloted through CPLFs

Tracks the number of regulatory or policy frameworks developed or piloted through the FYC CPLFs, including inclusion in national climate plans (e.g., NDCs, NAPs) and regulatory pilots such as sandbox programs.



Tags: Mitigation, Adaptation, Resilience, Finance, Governance, Africa, Asia, Latin America and the Caribbean.

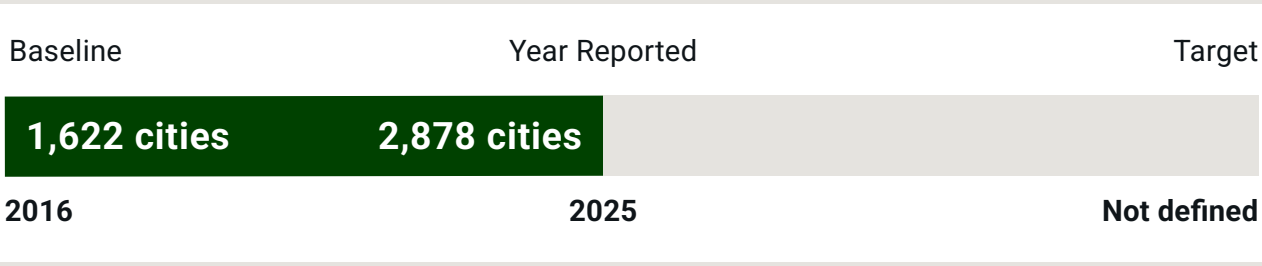
⊕ Other Types of Indicators

Global Covenant of Mayors (GCoM)

The Global Covenant of Mayors for Climate and Energy (GCoM) is the largest global alliance for city climate leadership. As a powerful response to climate change from cities around the world, GCoM unites 13,800+ cities across 147 countries, representing 1.3 billion people.

Indicator: Climate Risk and Vulnerability Assessments

Number of Climate Risk and Vulnerability Assessments completed by GCoM Signatories



Tags: Adaptation, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.

Key Objective 12: Sustainable and resilient constructions and buildings

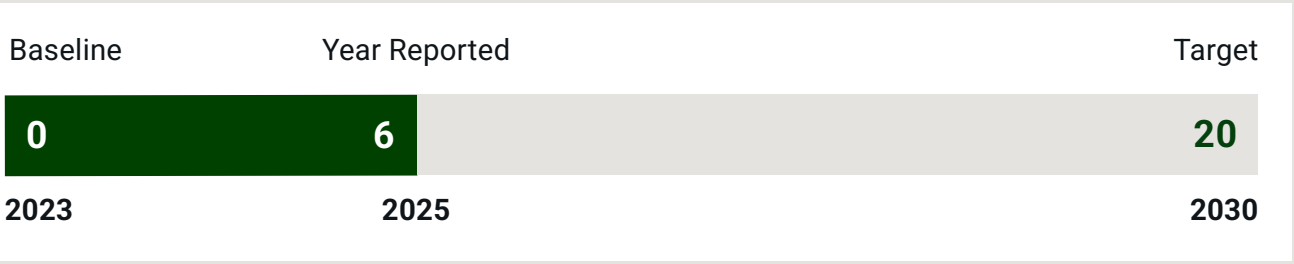
Process-Based Implementation Metrics → Demand

Buildings Breakthrough

The Buildings Breakthrough is a global framework advancing five priority actions, to enable national decarbonisation and climate resilience policies, with the goal of making all new buildings and an increased share of existing stock near-zero emission and resilient by 2030.

Indicator: Countries implementing NZERB procurement and policy commitments

of countries that have established procurement policies or policy commitments for NZERBs, covering both new builds and deep renovation projects.



Tags: Mitigation, Adaptation, Resilience, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.

Process-Based Implementation Metrics
↳ Public & Private Finance, Engagement or Commitment Metrics

Sustainable Wood for a Sustainable World

SW4SW promotes wood as a climate-neutral material to accelerate decarbonization in construction and building sector. It strengthens forest value chains to deliver climate-resilient rural and urban landscapes while enhancing livelihoods.

Indicator: Innovative finance arrangements for sustainable wood construction

Number of national or subnational distinct financial mechanisms and strategies developed, piloted or implemented to advance and scale up sustainable wood construction.

Year Reported: **2025**		Target
0	**2**	**30**
Baseline: **2024**		**2028**

Tags: Mitigation, Adaptation, Resilience, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.

Indicator: Public awareness

Total number of individuals and organizations directly engaged through awareness-raising campaigns, communication initiatives, and outreach activities promoting sustainable wood construction practices.

Year Reported: **2025**		Target
0	**1.5M**	**10M**
Baseline: **2024**		**2028**

Tags: Mitigation, Adaptation, Resilience, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.

Key Objective 13: Resilient urban development, mobility, and infrastructure

Real-World Quantifiable Impact

Cities Climate Finance Leadership Alliance (CCFLA)

The Cities Climate Finance Leadership Alliance is the only multi-level and multi-stakeholder coalition aimed at closing the investment gap for urban, subnational climate projects and infrastructure worldwide.

Indicator: Tracking urban climate finance

Total annual tracked urban climate finance flows (in USD).

Year Reported: **2022**		Target
384B	**831B**	**4.3T**
Baseline: **2018**		**2030**

Tags: Finance, Global.

Engagement or Commitment Metrics

International Coalition for Sustainable infrastructure (ICSI)

ICSI is mobilising an engineering-led coalition to make resilience and sustainability a cornerstone of every decision in the infrastructure lifecycle in communities around the globe.

Indicator: Engineering sector mobilisation

Number of top engineering companies mobilised for climate action (proxy for implementers of climate adaptation and mitigation)

Year Reported: **2024**		Target
0	**10**	**100**
Baseline: **2024**		**2030**

Tags: Mitigation, Adaptation, Resilience, Technology, Global.

Key Objective 14: Water management

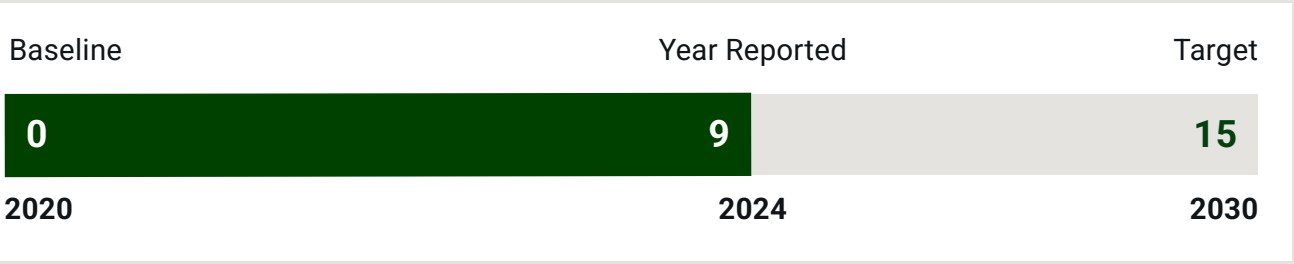
Real-World Quantifiable Impact

Climate Heritage Initiative

World Monuments Fund's Climate Heritage Initiative champions culture/climate solutions. Rather than seeing cultural heritage as a victim of climate change, this initiative showcases examples of traditional, low-carbon, green approaches whose resilience has been proven by time.

Indicator: Increased Water Resilience

Increasing water security by utilizing traditional knowledge and rehabilitating historic water systems.



Tags: Adaptation, Resilience, Asia, Latin America and the Caribbean.

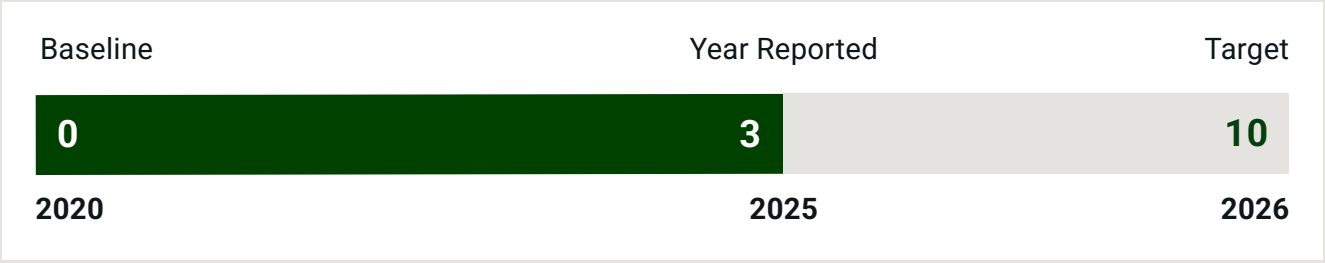
Engagement or Commitment Metrics

African Cities Water Adaptation Platform & Fund (ACWA)

Coalition of cities & partners joining forces to advance urban water resilience in Africa. Coordinates, aligns, harmonizes and scales existing programs & expertise across a wide network to accelerate advocacy & implementation of new solutions to build resilient water systems.

Indicator: New city endorsements

Increase the number of cities who have endorsed the Platform and receive its support, offerings and resources.



Tags: Adaptation, Resilience, Africa.

Key Objective 15: Solid waste management

Real-World Quantifiable Impact

Green Rising

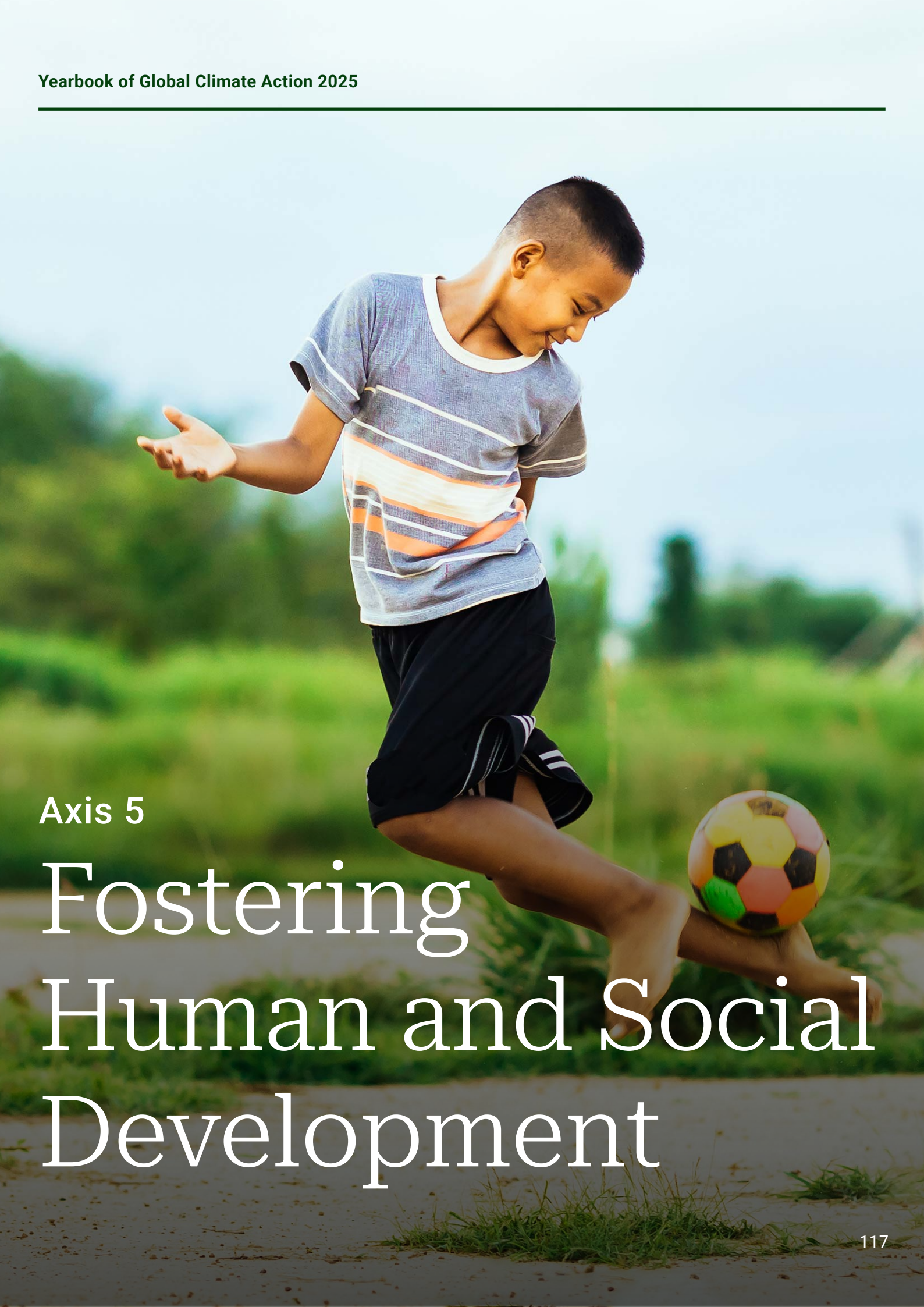
The Green Rising is a bold, youth-led global movement building community resilience and a just green transition through climate action, supported by UNICEF and a wide ecosystem of public, private, and youth partners.

Indicator: Waste collected

KGs of waste that have been reduced (i.e. avoided), recycled or managed by young people, 24 yrs or younger, in the context of Green Rising.

Year Reported: **2024**	Target
0.08M	**100M**
Baseline: **2023**	**2030**

Tags: Resilience, Africa, Asia, Latin America and the Caribbean, Middle East.



Axis 5

Fostering Human and Social Development

The fifth axis under the COP 30 Climate Action Agenda addresses the GST outcome's urge to Parties and invitation to NPS to increase ambition and enhance adaptation action and support to attain resilience against climate change related health impacts and promote climate-resilient health services, to substantially reduce the adverse effects of climate change on poverty eradication and livelihoods, in particular through adaptive social protection measures, and to protect 'cultural heritage from the impacts of climate-related risks by developing adaptive strategies for preserving cultural practices and heritage sites and by designing climate-resilient infrastructure, guided by traditional knowledge, Indigenous Peoples' knowledge and local knowledge systems'.

It also recognizes the urgent need to address persistent gaps in capacity in developing countries, such as in skills development, and encourages enhanced coherence and cooperation in the provision of effective capacity-building support. Finally, the GST outcome notes the importance of just transition of the workforce and the creation of decent work and quality jobs, and economic diversification, for which strategies should be implemented taking into account different national circumstances and contexts (UNFCCC, 2023a).

The key objectives within this axis therefore focus on (16) promoting resilient health systems; (17) reducing the effects of climate change on eradicating hunger and poverty; (18) education, capacity-building, and job creation to address climate change; and (19) culture, cultural heritage, and climate action.

Climate change has direct and indirect impacts on human health, from injuries and deaths related to extreme weather events (floods, heatwaves) to the spread of infectious diseases and malnutrition due to water and food insecurity. A changing climate also threatens the capacity of health systems to respond adequately to these challenges. Strengthening infrastructure, equipping healthcare workers with climate-health knowledge, and developing early warning systems for climate-sensitive diseases will help build stronger and more adaptable health systems, which in turn will ensure that communities can effectively anticipate, respond to, and recover from climate-induced health crises. Ultimately, investing in robust, adaptable and inclusive health systems will safeguard population well-being and ensure continued access to essential care amid a changing climate, while also helping achieve universal access to quality care, reducing inequalities and helping combat poverty.

The global transition to low-emissions and climate resilient development poses challenges, but also provides opportunities for sustainable development, economic growth and eradication of poverty. A fundamental priority in that sense is safeguarding food security and ending hunger by tackling vulnerabilities in food production systems – as highlighted in Chapter 3 – and increasing the resilience of infrastructure and human settlements to ensure basic and continuous essential services for all – as addressed in Chapter 4. In addition to that, promoting the use of adaptive social protection measures for all can help substantially reduce the adverse effects of climate change on poverty eradication and livelihoods.

To safeguard the interests of present and future generations, it is necessary to empower society to navigate environmental shifts through a strategic focus on education, skill development, and the creation of new employment opportunities. Integrating climate change into curriculums from early childhood through higher education ensures that future leaders, innovators, and citizens possess the knowledge to make sustainable choices and drive systemic change. By preparing students not just for academic success, but for the realities of a climate-impacted world, education systems can also promote the development of skills for adaptation, disaster preparedness, and community resilience.

There is a huge market opportunity to power the green economy by investing in education and training programmes that develop skills and capacity for renewable energy, sustainable agriculture, ecological restoration, and other green sectors. These efforts will drive job creation and support a just transition away from carbon-intensive industries. Investing in the care economy, particularly in affordable childcare and eldercare, can create millions of jobs and boost women's employment by recognizing and supporting both paid and unpaid care work. Providing opportunities for reskilling and upskilling existing workforces also allows people to adapt to new economic realities, ensuring livelihoods are protected and new, climate-friendly industries can flourish.

Preserving cultural heritage and incorporating it into national climate strategies is also key to ensure a holistic and inclusive participation in climate action. Culture offers a vast array of tangible and intangible solutions that can help address the climate crisis, by tapping into a pool of knowledge that often falls outside the mainstream 'technical fixes'. As such, climate solutions need to consider the aspects set out under the Barcelona Declaration, namely: the impacts of climate change on cultural practices and heritage, including natural heritage; the role of culture institutions in reducing GHG emissions; and, most importantly, yet often neglected, the role of culture and arts in raising awareness of climate challenges and driving behavioral change among people, communities and organizations to advance critical climate actions.

Fostering human and social development is not only critical to achieving the 1.5°C goal; it determines how communities adapt, thrive and shape climate solutions. Empowering people with knowledge, resources, and resilience enables adaptation and supports the transition to sustainable practices. By investing in healthcare, poverty reduction, education, capacity building, gender equality, and cultural heritage protection, societies become better equipped to understand climate science, innovate solutions, and implement effective mitigation and adaptation strategies. A just and equitable society is needed to embrace the systemic changes required to combat climate change effectively and build a sustainable future.

Section I below presents an overview of trends in human and social development using tailored global socio-economic indicators drawn from authoritative sources by the Climate Champions Team in alignment with the GST outcome to show global progress under this Axis. Section II provides insights into the progress of cooperative climate initiatives in the past 10 years based on the analysis of 387 voluntary climate initiatives in the CoAct Database developed jointly by the ACHIEVE, BioCAM4, and CAMDA projects, while section III shows the growth in the number of individual actors and CCIs registered in the NAZCA Portal in the past five years, presents updates from CCIs reporting progress under the common framework and case studies showcasing CCI climate action under Axis 5. Finally, section IV highlights initiatives which demonstrated how they are tracking progress through initiative-level indicators, illustrating the potential of enhancing year-on-year comparability and the transparency of results.

1. Trend analysis in the past decade (year-on-year global socio-economic indicators)

Advancing a just transition requires a deep commitment to social and human development. This is not just about shifting to a green economy; it is about ensuring that the benefits of this transformation are widely shared and that no one is left behind.

Climate change disproportionately impacts vulnerable populations, exacerbating existing inequalities and pushing more people into poverty. The scale of the challenge is stark. Currently, 3.6 billion people live in areas highly vulnerable to climate change (UNICEF USA, 2025a). In 2024, 295 million people faced acute food insecurity (WHO, 2023) and 242 million students globally experienced school disruptions due to climate events (heatwaves, storms, floods) (UNICEF USA, 2025b). Nearly 600 UNESCO World Heritage sites – most of which are cultural properties – are highly exposed to water stress or drought (UNESCO, 2025); yet there are no globally standardized indicators tracking implementation of adaptation in cultural heritage under the Global Goal on Adaptation (UNFCCC, 2025b). In addition to that, many health systems remain underfunded and poorly integrated with climate planning, capacity building remains fragmented and ambiguous, and many urban/local authorities lack technical and institutional capacity for climate resilience.

Axis 5 builds on milestone collaborative initiatives: the Global Alliance Against Poverty and Hunger (104 countries, 80+ organizations, 15 financial institutions working to implement SDGs 1 and 2); the Alliance for Transformative Action on Climate and Health (ATACH), advancing the COP 26 ambition to build climate-resilient health systems; the Greening Education Partnership (96 member states and over 1,600 stakeholders delivering comprehensive climate education action); and the Barcelona Declaration framework, which harnesses culture and arts to raise awareness, inspire behavioral change, and protect cultural heritage from climate impacts.

The Climate Action Agenda **Key Objective 16** centers on resilient health systems, with key ambitions to climate-proof more health facilities, integrate health into National Adaptation Plans, and build early warning systems. Those aspirations remain underfunded, with health adaptation still receiving less than six per cent of climate finance (GCF, 2024). Most countries have no baseline or tracking systems in place (WHO, 2021). While some national plans are emerging, their implementation and monitoring systems remain limited, with most countries still lacking baseline or tracking systems in place to measure progress on climate-proofing health facilities and building early warning systems. Early warning systems have expanded substantially, demonstrating that targeted investments can deliver measurable progress in protecting vulnerable populations.

Key Objective 17 aims at reducing the effects of climate change on hunger and poverty through expanding adaptive social protection, linking it to climate risk insurance, scaling and financing climate-resilient agriculture, enhancing infrastructure and human settlements, and supporting early warning systems. Social protection is widely recognized as a poverty-reduction tool and it can provide a safety net for farmers and rural populations. Thus, this objective brings a focus on enhancing the resilience of people. Without adequate and comprehensive social protection, rural populations risk being left behind, hindering progress in reducing poverty and inequality.

In addressing education, capacity-building and job creation to address climate change, **Key Objective 18** positions education and skills as enablers for systems transformation. Global demand for green talent grew twice as quickly as supply between 2023 and 2024, with demand increasing by 11.6 per cent and supply by 5.6 per cent. Job seekers with green skills or titles see a 54.6 per cent higher hiring rate than the workforce overall (LinkedIn Economic Graph, 2024). By investing in education, healthcare, gender equality, capacity building, poverty reduction, and cultural heritage protection, societies become better equipped to understand climate science, innovate solutions, and implement effective mitigation and adaptation strategies.

A just and equitable society is needed to embrace the systemic changes required to combat climate change effectively and build a sustainable future. Progress under this objective includes the celebration of achievements of the NDC Youth Clause, a forward-looking proposal encouraging Parties to include long-term intergenerational partnerships in their NDCs and fulfill commitments under the UNFCCC. These initiatives will inform advocacy for strengthened NDCs by 2030. However, measurement and alignment with labor markets remain limited, leaving a large delivery gap. By 2030, halfway to the deadline for fulfilling NDCs, one in five jobs will lack the green talent to fill it. By 2050, this gap will rise to one in two jobs (WEF, 2024). Few countries have national skills strategies aligned to climate, and no system tracks skill acquisition at scale. Jobs in renewable energy have grown from 10 million in 2015 to 16 million in 2023, demonstrating the employment potential of the energy transition, though women's representation has stagnated at 32 per cent of the workforce (IRENA, 2024; Schumer, C., S. Boehm, J. Jaeger, Y. Kirana, K. Levin et al, 2025).

Key Objective 19 looks into culture, cultural heritage protection and climate action with ambitions to develop adaptation plans for cultural sites, mobilize funding for cultural resilience, and integrate culture into national climate strategies. As these indicators are still underdeveloped, culture remains largely invisible in national adaptation planning and funding mechanisms are nascent. These gaps, however, reflect an untapped opportunity: with investment, integration, and system-building, countries can move from intention to implementation. Multiple initiatives already aspire to achieve substantial results on fostering human and social development; hence, Axis 5's key objectives offer not just a response to vulnerability, but a foundation for inclusive, just, and transformational climate action.

Race to Resilience

The progress of cooperative climate initiatives in fostering human and social development is exemplified by the Race to Resilience (RtR) campaign, which at COP 30 will demonstrate how systematic measurement can track the journey from pledge to implementation.

Bringing together over 46 partner initiatives and more than 1,700 members across 164 countries, the campaign reported that 437.7 million people have already increased their resilience, USD 4.18 billion have been deployed in adaptation finance, and 18.4 million hectares of nature are now protected across 78 countries, representing 22 per cent of planned targets and 13 per cent of overall pledges toward the goal of reaching four billion vulnerable people by 2030.

The campaign's Metrics Framework, developed with experts from the Center for Climate and Resilience Research and inputs from RtR partners, offers a pioneering approach to capture multi-sectoral and multi-regional outcomes on adaptation and resilience with demonstrable impact on people and communities.

The 72 RtR Solution Stories further illustrate how locally led adaptation – from ecosystem restoration and early-warning systems to resilient urban development, risk-finance mechanisms, and support for Indigenous Peoples and local communities – is delivering progress aligned with the six thematic axes of the COP 30 Climate Action Agenda. This milestone reflects the broader trends observed across resilience-focused CCIs in the NAZCA database.

Progress indicators reveal both momentum and measurement challenges. Capacity building for climate action has expanded to reach 85 developing countries receiving support for preparing and implementing NDCs and NAPs as of 2025 (UNDP, n.d), enabling countries to strengthen climate governance, develop robust planning frameworks, and access international finance. However, tracking human development dimensions comprehensively, specifically climate-resilient health systems, safety nets adapted for climate shocks, climate education integration, and skills development for green jobs, remains an area where measurement systems are still developing to capture the full breadth of social dimensions in climate action.

Objective 16: Promoting resilient health systems

Paragraph **50** Recalls the United Nations Secretary-General's call made on World Meteorological Day on 23 March 2022 to protect everyone on Earth through universal coverage of early warning systems against extreme weather and climate change by 2027 and invites development partners, international financial institutions and the operating entities of the Financial Mechanism to provide support for implementation of the Early Warnings for All initiative;

Paragraph **63(c)** By 2030 Attaining resilience against climate change related health impacts, promoting climate-resilient health services, and significantly reducing climate-related morbidity and mortality, particularly in the most vulnerable communities;

Paragraph **131** Calls on Parties and relevant institutions to improve coherence and synergies between efforts pertaining to disaster risk reduction, humanitarian assistance, rehabilitation, recovery and reconstruction, and displacement, planned relocation and migration, in the context of climate change impacts, as well as actions to address slow onset events, in order to make progress in averting, minimizing and addressing loss and damage associated with climate change impacts in a coherent and effective manner.

Trend	Indicator	Baseline	Latest Year
Insufficient Data	Health systems/facilities that are climate-resilient Source: WHO	Not Available	27% of countries assmt. 2021

Paragraph **63(c)** By 2030 Attaining resilience against climate change related health impacts, promoting climate-resilient health services, and significantly reducing climate-related morbidity and mortality, particularly in the most vulnerable communities;

Trend	Indicator	Baseline	Latest Year
Progress	Countries with heat early warning systems Source: UNDRR	54 2015	108 2024
Progress	Countries with climate-informed health surveillance Source: WHO	40 2015	95 2021
Progress	Health institutions committed to net zero Source: Health Care Without Harm	50 2015	70 2024

Objective 17: Reducing the effects of climate change on eradicating hunger and poverty

Paragraph **146**. Encourages Parties, in their efforts to diversify their economies, to pursue relevant policies in a manner that promotes sustainable development and the eradication of poverty, taking into account national circumstances;

Trend	Indicator	Baseline	Latest Year
Progress	Number of people living in extreme poverty Source: World Bank	839 M 2024	831 M 2025

Paragraph **63(f)** By 2030 Substantially reducing the adverse effects of climate change on poverty eradication and livelihoods, in particular by promoting the use of adaptive social protection measures for all

Trend	Indicator	Baseline	Latest Year
Progress	% of people covered by at least one social protection Source: ILO	42.8% 2015	52.4% 2024

Paragraph **64(a)** Impact, vulnerability and risk assessment: by 2030 all Parties have conducted up-to-date assessments of climate hazards, climate change impacts and exposure to risks and vulnerabilities and have used the outcomes of these assessments to inform their formulation of national adaptation plans, policy instruments, and planning processes and/or strategies, and by 2027 all Parties have established multi-hazard early warning systems, climate information services for risk reduction and systematic observation to support improved climate-related data, information and services

Trend	Indicator	Baseline	Latest Year
Progress	Number of countries with updated NAPs Source: UNFCCC	2 2015	58 2024

Intro- Recognizing the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change.

Paragraph **63 (b)** Attaining climate-resilient food and agricultural production and supply and distribution of food, as well as increasing sustainable and regenerative production and equitable access to adequate food and nutrition for all;

Trend	Indicator	Baseline	Latest Year
Progress	% in reduction of people facing hunger Source: FAO	688 M 2023	673 M 2024

Objective 18: Education, capacity-building, and job creation to address climate change

Paragraph **140** Notes that just transition of the workforce and the creation of decent work and quality jobs, and economic diversification are key to maximizing the positive and minimizing the negative impacts of response measures and that strategies related to just transition and economic diversification should be implemented taking into account different national circumstances and contexts

Trend	Indicator	Baseline	Latest Year
Progress	Jobs in renewable energy Source: IRENA, SCL	10 M 2015	16 M 2023
No Progress	Women in renewable energy jobs Source: IRENA Gender	32% 2019	32% 2024

Objective 19: Culture, cultural heritage, and climate action

Paragraph **63(g)** By 2030 Protecting cultural heritage from the impacts of climate-related risks by developing adaptive strategies for preserving cultural practices and heritage sites and by designing climate-resilient infrastructure, guided by traditional knowledge, Indigenous Peoples' knowledge and local knowledge systems

Trend	Indicator	Baseline	Latest Year
Insufficient Data	Number of National Adaptation Plans (NAPs) that explicitly integrate Indigenous/traditional knowledge for cultural heritage protection Source: UNFCCC	Not Available	Not Available
Insufficient Data	Number of UNESCO World Heritage sites with climate change adaptation integrated into management plans Source: UNESCO	Not Available	83 2024

I. Insights into the progress of cooperative initiatives since the Paris Agreement

Cooperative initiatives addressing human and social development dimensions of climate action have become increasingly prominent. Nearly half (49.7 per cent) of all 387 initiatives tracked in the CoAct Database for this analysis show linkages to Axis 5 themes, the highest prevalence among all axes. This is largely driven by the cross-cutting nature of capacity building, education, and just transition considerations, with Key Objective 18 (focused on 'education, capacity-building and job creation') being the most frequently referenced objective across the entire landscape. These initiatives recognize that climate action must address not only environmental outcomes but also social equity, livelihoods, and community resilience.

However, despite this broad acknowledgment, significant gaps persist in inclusive governance: Indigenous Peoples and local communities remain largely absent from leadership positions, with only five initiatives including Indigenous Peoples and local communities as leaders and eight as participants. Similarly, domestic NGOs and subnational governments are significantly underrepresented in executive decision-making and advisory bodies, even when initiatives aim to engage these actors.

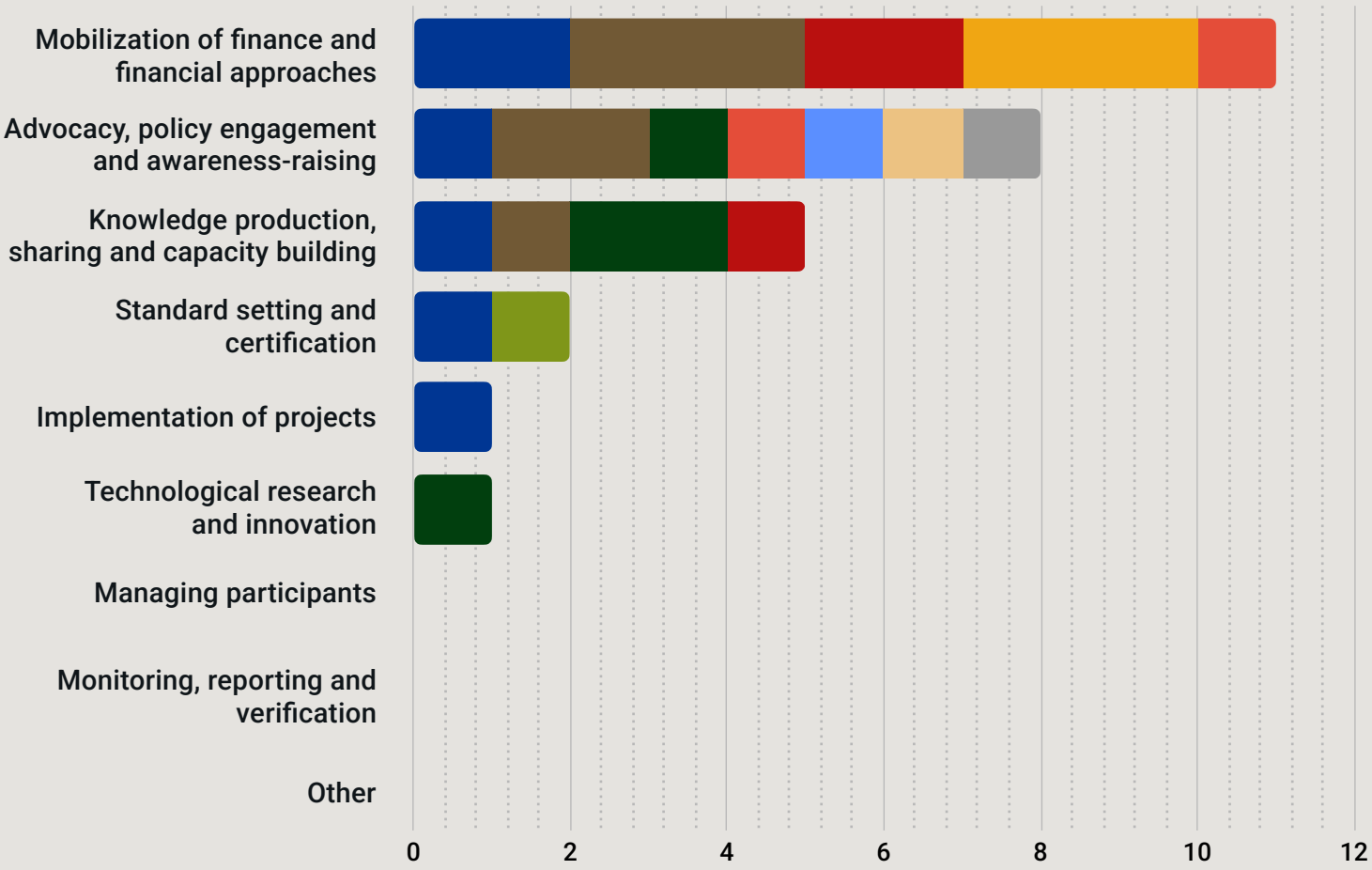
The initiatives addressing Axis 5 show strong overlaps with finance and enablers (Axis 6, 85.5 per cent), energy transitions (Axis 1, 50 per cent), and cities and infrastructure (Axis 4, 46.8 per cent), reflecting the integrated nature of social development across climate action themes. While some progress has been made (see data on early warning systems expansion in section I), ensuring procedural justice and equitable participation remains a critical priority for the next phase of cooperative climate action (Chan, S. et al, 2025).

II. Progress of Individual Actors and Cooperative Climate Initiatives (CCIs) registered on NAZCA

The themes addressed under Axis 5 do not have an equivalent under the MP thematic areas. However, for the assessment of CCIs under this section, were considered initiatives that reported addressing SDGs 1 ('End poverty in all its forms everywhere'), 2 ('End hunger, achieve food security and improved nutrition and promote sustainable agriculture'), 3 ('Ensure healthy lives and promote well-being for all at all ages'), 4 ('Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all') and 8 ('Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all').

In 2025, 27 of the CCIs that reported their progress to NAZCA under the common framework reported addressing SDGs 1, 2, 3, 4 or 8. The figure below specifies the primary function and the types of action these CCIs reported engaging in.

Figure: Functions and types of actions reported by CCIs (Axis 5)



Types of Actions

- Generation of knowledge products
- Enhancing collaboration
- Event organization
- Mobilization of finance and funding
- Advocacy and policy engagement
- General reporting
- On-the-Ground Project Implementation
- Establishment or update of new standards or practices
- Institutional arrangements
- Capacity Building
- Innovation
- Other

CASE STUDY

Country led In-Country Processes

CCI: Global Shield against Climate Risks

The Global Shield against Climate Risks aims to support countries that are most vulnerable to climate risks. Under the initiative, in-country processes were launched in 15 countries to help them identify priority risks, financial protection gaps, and potential interventions. After completing this process, countries will submit requests for support (RfS), which will be addressed by the Global Shield's financing mechanisms.

Through the Global Shield's In-Country Process, the Global Shield Solutions Platform (GSSP) provides free training modules on climate and disaster risk finance and management for governments, civil society, the private sector, and academia. Available in English, French, and Spanish, these trainings can be delivered in person or online, with all materials accessible on the GSSP website. Since 2023, 397 participants across nine countries have taken part in the Global Shield Readiness modules.

As a result:

- a total of 19 multi-stakeholder workshops were held across 14 Global Shield countries, including Bangladesh, Costa Rica, Fiji, Ghana, Madagascar, Malawi, Marshall Islands, Pakistan, Philippines, Rwanda, Senegal, Somalia, Tonga, and The Gambia.
- a total of five Climate and Disaster Risk Finance and Insurance (CDRFI) Gap Analyses have been endorsed by national governments and/or made publicly available on the website, corresponding to about 38 per cent of the target.
- a total of five Requests for CDRFI Support (RfS) have been submitted and are publicly available on the project website from Costa Rica, Ghana, Senegal, Pakistan, and The Gambia.

The submission of RfS and the organization of multi-stakeholder workshops have strengthened country ownership and collaboration under the Global Shield. By formally submitting RfS, countries have articulated their priorities for CDRFI, ensuring alignment with national resilience strategies. In addition to that, the workshops have brought together relevant stakeholders to identify financial protection gaps and explore suitable solutions. Together, these activities enhance coordination, accelerate the design and implementation of tailored CDRFI instruments, and ultimately contribute to more effective financial protection and resilience for vulnerable populations.

CASE STUDY

Capacity Building for Sport Organizations and NGOs

CCI: Sports for Climate Action (S4CA)

S4CA, in partnership with UNITAR and adidas, developed and delivered a two-track training programme to build capacity across the sport ecosystem:

- Track 1 – Online Live Workshops for NGOs: A six-module series for 40–50 grassroots organizations from Africa and Latin America working at the intersection of sport and community engagement, delivered in English and Spanish. Modules covered climate change basics, adaptation and resilience, partnerships, empowerment, and the development of climate action plans.

- Track 2 – Self-paced E-learning for Sport Organizations: Two interactive e-learning courses (introductory and advanced) designed for professional sport organizations and other stakeholders. The courses, available in English and Spanish, provide 5–5.5 hours of flexible, free learning on governance, strategy design, measurement and reporting, community engagement, transparency, and climate solidarity.

Over 2,400 participants have completed the training across both tracks. Professional sport organizations gained essential knowledge to design and implement climate strategies, improve measurement and reporting, and mobilize fans and stakeholders. NGOs in Africa and Latin America developed tailored climate action plans and enhanced their leadership in community engagement.

The training programme has scaled knowledge and action across the sport ecosystem, empowering both professional organizations and grassroots NGOs to integrate climate action into their operations and outreach.

III. Highlights of initiative self-tracking progress (initiative-level indicators)

As mentioned in the Introduction, the COP 30 Presidency, in collaboration with the CHLC, proposed an exercise to showcase initiatives successfully demonstrating progress through initiative-level indicators, based on a 'Key Performance Indicators Progress Tracking Form'. Of the total 157 initiatives which reported their initiative-level indicators, 22 primarily focus on fostering human and social development. The indicators formulated through this process were organized around three categories and 11 levers recognized as pivotal for accelerating both the scale and speed of climate solutions. The overarching objective of this exercise is to establish an annual process that encourages greater transparency, supporting the much-needed shift from commitments to implementation.

The figures below illustrate a range of initiatives which responded to the Progress Tracking Form with examples of how they can track progress against targets that meet the Climate Action Agenda Axis 5 key objectives.

Figure: Progress on initiative-level indicators.

Key Objective 16: Promoting resilient health systems

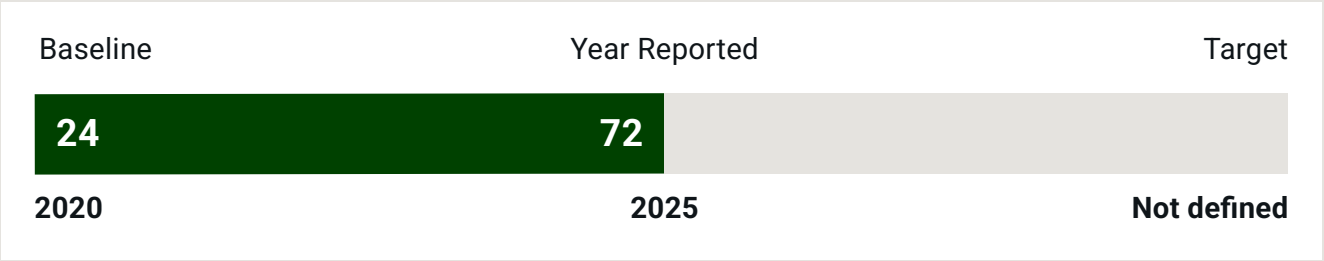
⚙ Process-Based Implementation Metrics → ⚠ Risk-informed Decision-Making

Alliance for Transformative Action on Climate and Health, Sharm Adaptation Agenda (ATACH)

The Alliance for Transformative Action on Climate and Health (ATACH) is a WHO-hosted platform aiming to support Member States in developing climate-resilient and low-carbon sustainable health systems and promoting healthy climate action in health-determining sectors.

Indicator: Climate-informed health Early Warning Systems allowing the prediction of the risk of specific outbreaks available

KGs of waste that have been reduced (i.e. avoided), recycled or managed by young people, 24 yrs or younger, in the context of Green Rising.



Tags: Adaptation, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East, Global.

Key Objective 17: Reducing the effects of climate change on eradicating hunger and poverty



Real-World Quantifiable Impact

Race to Resilience

Mobilizing Non-party stakeholders to increase the resilience of 4 billion people by 2030

Indicator: People with increased resilience

Number of People with increased resilience (resilience gains - depth, magnitude and confidence)

Year Reported: **2025**		Target
24	**0.4B**	**4B**
Baseline: **2021**		**2030**

Tags: Adaptation, Resilience, Global.

Key Objective 18: Education, capacity-building, and job creation to address climate change

⚙ Process-Based Implementation Metrics → 💬 Public Opinion

Green Rising

The Green Rising is a bold, youth-led global movement building community resilience and a just green transition through climate action, supported by UNICEF and a wide ecosystem of public, private, and youth partners.

Indicator: Young people taking action

of young people, 24 yrs old and under, taking action for environmental sustainability and/or disaster risk reduction through Green Rising.

Year Reported: **2024**		Target
0	**11M**	**100M**
Baseline: **2023**		**2030**

Tags: Resilience, Africa, Asia, Europe, Latin America and the Caribbean, Middle East.



Real-World Quantifiable Impact

Gender and Energy Compact

The Gender Energy Compact, a global multi-stakeholder coalition, fosters gender equality & women's empowerment in the sustainable energy transition. Led by ENERGIA, GWNET, UNIDO, SEforALL, it brings together over 100 members incl. governments, private sector, civil society & IOs.

Indicator: Increased employment opportunities for women in the green energy sector

Number of green jobs created for women.

Baseline	Year Reported	Target
0	98,279	
2020	2025	Not defined

Tags: Mitigation, Global.

Key Objective 19: Culture, cultural heritage, and climate action

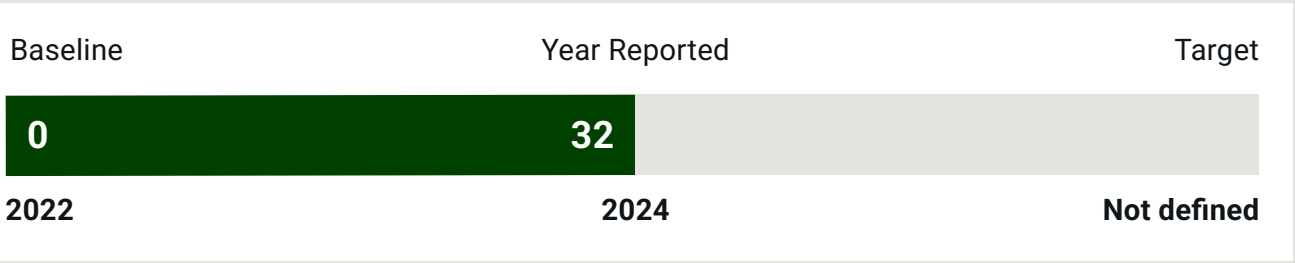
⚙ Process-Based Implementation Metrics → 🏛 Policy & Regulatory

ICOM Award for Sustainable Development Practice in Museums

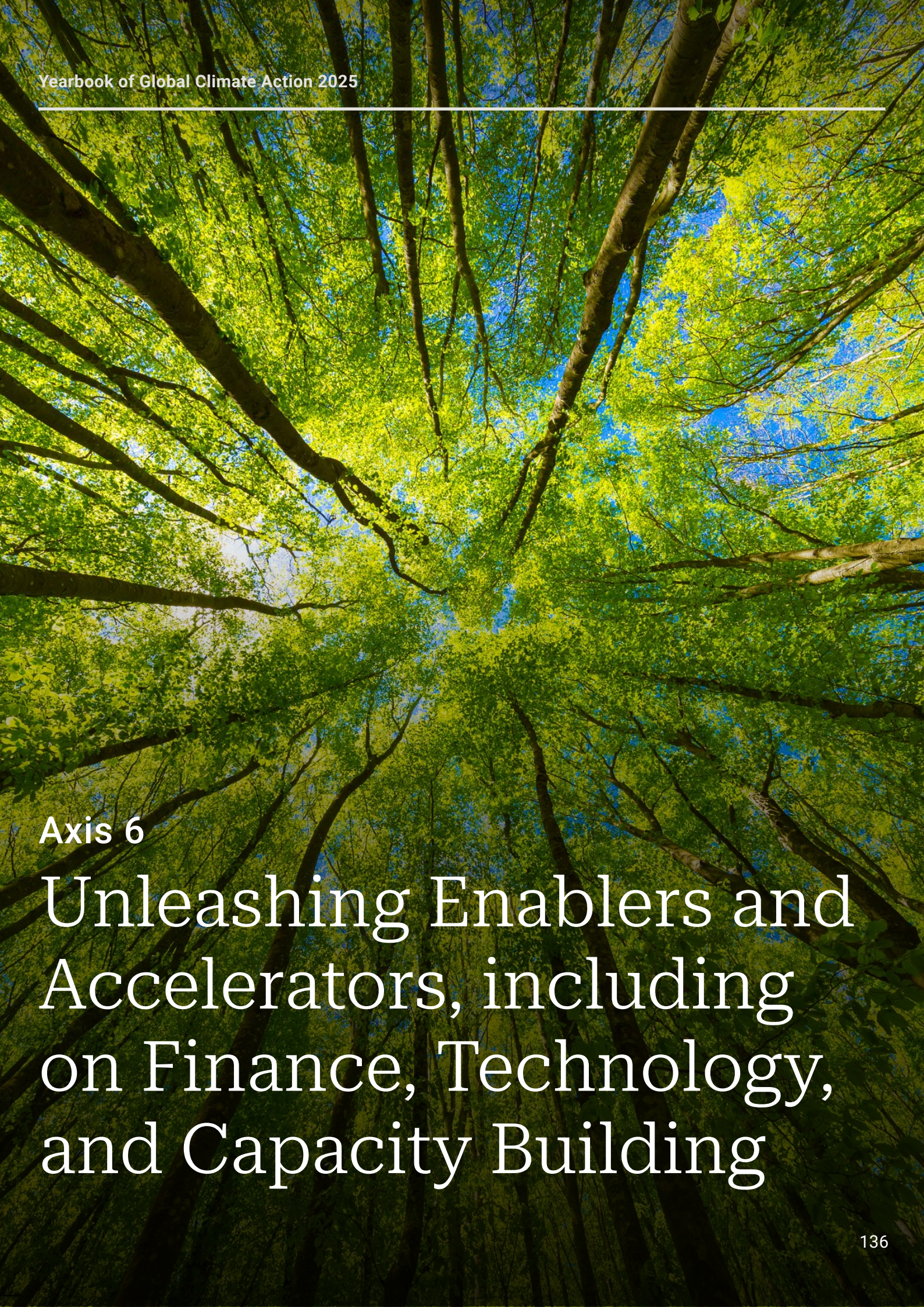
The ICOM Award is the first global award that recognises innovative initiatives and exemplary museum practices in sustainable development. It aims to highlight the essential role that museums play in advancing sustainable development, in particular, SDG Targets.

Indicator: Museums contributing to SDG 13

Monitoring of the number of museum projects that are addressed to the SDG Targets of SDG13.



Tags: Mitigation, Adaptation, Capacity Building, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania.



Axis 6

Unleashing Enablers and Accelerators, including on Finance, Technology, and Capacity Building

The sixth axis under the COP 30 Climate Action Agenda centers around the GST outcome's recognition of the importance of 'making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development', underscoring the importance of reforming the multilateral financial architecture and emphasizing the role of governments, central banks, commercial banks, institutional investors and other financial actors.

It also focuses on the 'persistent gaps and challenges in technology development and transfer and the uneven pace of adoption of climate technologies around the world' and the need for 'rapid and scaled-up deployment and adoption of existing clean technologies and accelerated innovation, digital transformation and development, demonstration and dissemination of new and emerging technologies', noting the 'Technology Mechanism initiative on artificial intelligence for climate action' as a technological tool for advancing and scaling up transformative climate solutions for adaptation and mitigation action, while also considering its challenges and risks (UNFCCC, 2023a).

As a response, this cross-cutting axis has 11 key objectives, focusing on (20) climate and sustainable finance, mainstreaming climate in investments, and insurance; (21) finance for adaptation; (22) climate-integrated public procurement; (23) harmonization of carbon markets and carbon accounting standards; (24) climate and trade; (25) reduction of non-CO_2 gases; (26) governance, state capacities and institutional strengthening for climate action, planning and preparedness; (27) Artificial Intelligence, Digital Public Infrastructure and digital technologies; (28) innovation, climate entrepreneurship and small and micro businesses; (29) bioeconomy and biotechnology; and (30) information integrity in climate change matters.

The transition to a net-zero resilient economy requires an unprecedented redirection of finance. By aligning financial flows with climate goals, actors such as financial institutions, investors, and policymakers can steer the economy away from highly emitting activities towards more sustainable choices, enabling climate action and the management of climate-related risks, and driving innovation. Though global climate finance reached an all-time high of USD 1.9 trillion in 2023, an average of at least USD 6.3 trillion in annual climate finance is needed from 2024 through to 2030 to avoid the worst impacts of climate change, a gap which can be closed with targeted climate finance roadmaps and concerted policy action (CPI, 2025a). Mainstreaming climate in insurance is also key to addressing material risks. Over the past decade, extreme weather events are estimated to have resulted in USD 2 trillion in economic losses, with only 38 per cent of global losses from extreme weather and natural catastrophes being insured in 2023, for example (Zurich Insurance Group, 2025).

Adaptation finance is also significantly underlooked. While initiatives such as **Race to Resilience** and the **Sharm El-Sheikh Adaptation Agenda** enable collaboration and action, progress is visible but not yet at the scale required, with a significant adaptation finance gap. This reinforces the need to enhance national adaptation plans to incorporate finance and investment pipelines, to expand blended and concessional mechanisms, strengthen

insurance and risk-transfer tools, and to systematically integrate physical climate risk into financial decision-making to accelerate adaptation outcomes by 2030.

Increasing green public procurement (GPP) and ensuring it aligns with national and international climate commitments is also critical. GPP leverages governments' considerable purchasing power towards more sustainable goods and services, influencing market demand for greener products. An increasing number of countries are joining the **Industrial Deep Decarbonization Initiative (IDDI)**, for instance. Coordinated by the UN Industrial Development Organization (UNIDO), IDDI is a global coalition of public and private organizations who aim to accelerate the clean industry transformation through GPP, catalyzing early demand for clean construction materials.

Harmonizing carbon markets and carbon accounting standards is also key, as it can bolster transparency and confidence in cross-border carbon trading, helping governments and businesses scale up finance for emissions reductions. Consistent, high-integrity accounting ensures that traded credits represent real, additional cuts, supporting Paris-aligned NDCs and driving global ambition.

A better alignment of trade policies with environmental and climate goals is essential for creating a green, sustainable trading system. This, in turn, can be a source of economic growth, revenue, and an enabler of a low-carbon, climate-resilient economy. The role of trade in connecting markets to reduce the costs of green goods, services, and technologies is also integral to implementing climate action where it is needed most.

Reducing non-CO_2 gases is crucial for climate change mitigation. Addressing these gases through the implementation of various solutions mentioned in previous chapters (e.g., addressing methane emissions in agricultural practices and nitrous oxide in wastewater and solid waste) offers a fast path to slow temperature rise while delivering major climate, health, food security, and clean-air benefits.

The implementation of impactful climate policies and effective climate action requires robust governance and institutional capacity. Developing countries continue to have persistent gaps in capacity and urgent needs for effectively implementing the Paris Agreement, including related to skills development, institutional capacity for governance and coordination, technical assessment and modelling, strategic policy development and implementation. Though there are a number of programmes providing capacity-building support for preparing and implementing national climate plans, there are many opportunities to expand technical support frameworks to boost the coherent and sustained implementation of national climate strategies.

Exploring opportunities provided by Artificial Intelligence (AI), Digital Public Infrastructure and Digital Technologies can help tackle climate change across sectors and strengthen climate monitoring, modelling, and decision-making. Additionally, the deployment of cutting-edge technologies, such as AI, drone monitoring, and real-time smart water meters, can contribute to improved data accuracy and operational efficiency across climate-critical sectors.

Small businesses are often the backbone of economies and innovation. There is a clear need, however, to improve access to finance for these enterprises, and to support climate solutions start-ups, particularly in developing countries. Fostering innovation and empowering these businesses through targeted support and financing can strengthen their role in the green transition. Capacity building and supply chain engagement support is also key to enable them to contribute to national climate and sustainability goals and ensure they have the tools and support needed to

implement ambitious climate commitments while thriving in a changing economy.

The G20 Initiative on Bioeconomy (GIB) established 10 voluntary, non-binding High-Level Principles that provide a framework for developing a sustainable bioeconomy, with a focus on social inclusion, climate change mitigation, and biodiversity conservation. The Bioeconomy Challenge initiative launched by the COP 30 Brazilian Presidency is an example of advancing bioeconomy potential, by translating these principles into concrete actions that can scale sustainable economic models rooted in innovation, traditional knowledge, and use of natural resources so as to contribute to resilient, nature-positive and economic growth.

Finally, the key objective of safeguarding information integrity is centered around strengthening transparency, accountability, and trust in climate-related communication and data, in conformity with the **UN Global Principles for Information Integrity** and the **Integrity Matters** report, launched by the High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities (HLEG) in 2022. This objective reinforces the need for ensuring transparency and accountability across global climate action.

A total of 88 per cent of Parties provided information in the new NDCs on the finance required to implement activities in line with their NDCs, with 75 per cent characterizing finance in terms of support needed. Some 77 per cent of Parties that reported needs in their NDCs reported finance-related challenges and limitations related to implementing them. Compared with their previous NDCs, 18 per cent more Parties provided cost estimates for adaptation-related needs, reflecting a growing focus on integrating climate change considerations into national budgeting processes, public financial management systems and the development of NDC implementation plans, climate finance policies and strategies.

Domestic sources are often used to address unconditional commitments outlined in the NDCs or for a specific area or sector being prioritized, while international sources, obtained from a variety of public, private and blended sources of finance, include green energy bonds, sustainable sovereign bonds, multi-funder trust funds and debt-for-climate swaps. In addition, leveraging mechanisms under Article 6 of the Paris Agreement was mentioned by 53 per cent of Parties as an essential financial instrument for mobilizing financial resources or attracting investment to support NDC implementation.

A total of 97 per cent of Parties provided information on technology development and transfer; as for their priorities and/or needs, 92 per cent of Parties outlined measures in support of mitigation, predominantly related to the energy sector, followed by the transport and agriculture, forestry and other land use (AFOLU) sectors. A total of 72 per cent of Parties elaborated on technology-related measures focused on adaptation, the majority of which citing technology measures related to agrifood systems, climate monitoring and observations (increased from 22 to 55 per cent since previous NDCs) and the water sector. Many of the adaptation-focused measures were formulated to address adaptation priorities in multiple sectors (e.g. early warning systems in the agriculture, water and health sectors) and/or designed to yield co-benefits for

mitigation, biodiversity and/or sustainable development (e.g. nature-based solutions and ecosystem services of forests and ocean).

Frequently cited cross-cutting and multi-sector technology measures include the application of digital solutions, including artificial intelligence; energy and material efficiency measures; measures for 'climate proofing infrastructure'; and the use of integrated spatial planning tools and climate observation technologies across various sectors to reduce GHG emissions and/or enhance climate resilience. In addition, some 30 per cent of Parties underscored the interplay of technology development, implementation and uptake with capacity-building, skills development, and the creation of decent work and quality jobs.

A total of 84 per cent of Parties referenced capacity-building in varying detail; 66 per cent explicitly stated that the implementation of their NDCs is either fully or partially dependent on receiving capacity-building support. Capacity-building support needs were highlighted across adaptation (by 66 per cent of Parties), mitigation (by 69 per cent of Parties) and cross-cutting objectives (by 47 per cent of Parties), including transparency, technology deployment and access to climate finance.

Parties articulated capacity gaps and needs across multiple cross-cutting priorities, including with regard to strengthening institutional coordination, enhancing the availability and sharing of climate data and information and improving collaboration between public, private and international stakeholders. Many Parties reported challenges in accessing climate finance, particularly in navigating financial mechanisms, attracting private investment and improving financial planning, resource mobilization and utilization. Non-Party stakeholders, development agencies, UN agencies and financial mechanisms were emphasized as vital to implementing capacity-building efforts and achieving climate action objectives (UNFCCC, 2025a).

Section I below presents an overview of trends in cross-cutting enablers such as finance, technology and capacity-building, using tailored global socio-economic indicators drawn from authoritative sources by the Climate Champions Team in alignment with the GST outcome to show global progress under this Axis. Section II provides insights into the progress of cooperative climate initiatives in the past 10 years based on the analysis of 387 voluntary climate initiatives in the CoAct Database developed jointly by the ACHIEVE, BioCAM4, and CAMDA projects, while section III shows the growth in the number of individual actors and CCIs registered in the NAZCA Portal in the past five years, presents updates from CCIs reporting progress under the common framework and case studies showcasing CCI climate action under Axis 6. Finally, section IV highlights initiatives which demonstrated how they are tracking progress through initiative-level indicators, illustrating the potential of enhancing year-on-year comparability and the transparency of results.

I. Trend analysis in the past decade (year-on-year global socio-economic indicators)

The GST outcome underscores that finance, technology, and capacity building are essential enablers of the Paris Agreement. It calls for scaling up concessional and grant-based finance, reforming multilateral financial institutions, and aligning all financial flows with low-emission and climate-resilient pathways. The GST outcome also urges accelerated development, transfer, and adoption of climate technologies, along with stronger institutional and technical capacities, particularly to developing countries. Following the establishment of the New Collective Quantified Goal on Climate Finance, Axis 6 organizes these systemic foundations through 11 key objectives that transform them into a coherent roadmap for enabling an inclusive, resilient and 1.5°C-aligned transition.

Within this enabling agenda, **Key Objective 20** targets the mobilization of climate-aligned finance and the integration of climate risks across investment and insurance systems. Multilateral Development Banks (MDBs) provided USD 85.1 billion to low- and middle-income countries in 2024 (IDB, 2025) – a sum well below the USD 250–300 billion-per-year goal for 2030 (WRI, 2025). Current progress remains moderate, calling for faster MDB reform, expanded concessional and blended instruments, and scaled deployment of country platforms, transition plans, de-risking tools, credit enhancement and insurance solutions to crowd in private finance and lower capital costs.

Key Objective 21 advances the mobilization and effective deployment of finance for adaptation and resilience building. Global adaptation finance reached USD 28 billion in 2022 (UNEP, 2024c); insurance finance for adaptation, resilient investment pipelines and the adoption of physical climate-risk assessment and disclosure by financial institutions remain at early stages of implementation.

Expanding beyond finance, **Key Objective 22** enhances the role of public spending in driving low-carbon transitions. Adoption of GPP frameworks is progressing (over 10 countries have signed up for the IDDI), but current progress remains at an early stage. Scaling GPP coverage and green-spend tracking will be critical to mainstream climate criteria and leverage public demand as a catalyst for systemic decarbonization.

Promoting integrity and interoperability, **Key Objective 23** supports the development of robust institutional and technical frameworks for international carbon markets under Article 6. In 2024, only nine of 90 Parties had full tracking arrangements in place, while 53 per cent were developing or considering them (IGES, 2024). Thirty-two countries operate emissions-trading systems. The emerging Coalition to Grow Carbon Markets aims to expand voluntary markets through high-integrity, harmonized standards. Accelerating implementation and interoperability will be essential to scale participation, unlock investment, and ensure carbon markets contribute effectively to a transparent and credible global framework.

At the intersection of trade and climate, **Key Objective 24** is enabling green and sustainable trade as a driver of both economic growth and the transition to low-carbon, climate-resilient economies. Global trade in green goods reached roughly USD 1.9 trillion in 2022, an increase of ~243 per cent between 2000 and 2020 (WTO, 2022), demonstrating that trade amplifies diffusion and affordability of climate technologies. However, fossil fuel consumption subsidies continue to increase,

highlighting the continued need to phase out inefficient subsidies and redirect support toward clean energy.

Reducing methane, nitrous oxide, and other non-CO_2 gases under **Key Objective 25** is essential, as they drive approximately half of global warming. Global energy methane emissions could be cut by up to 75 per cent with existing technologies (IEA, 2024c), highlighting the significant potential for rapid and cost-effective mitigation. However, methane emissions have increased year on year indicating that progress is not yet on track despite available solutions.

Strengthening governance and institutional capacity under **Key Objective 26** supports countries in developing the systems and skills required for effective climate action. In 2025, several programmes are providing capacity-building support for preparing and implementing NDCs, NAPs, and Long-Term Low Emission Development Strategies (LT-LEDS). For instance, over 80 countries received capacity building for preparing their NDCs 3.0 (NDC Partnership, n.d.-a), 70+ countries received technical support for preparing their NAPs (NAP Global Network, n.d.), and over 45 countries are receiving NDC Partnership's support for the development or refinement of their LT-LEDS (NDC Partnership, n.d.-b).

The Paris Committee on Capacity-building (PCCB) is actively focusing on "Capacity-building for holistic investment strategies, bankable projects, and stakeholder engagement to strengthen the implementation of NDCs and NAPs in developing countries" in 2025. Through its Capacity-building for transparency (CBIT) initiative, the Global Environment Facility (GEF) has funded extensive support for reporting activities by May 2025, including 203 Biennial Update Reports (BURs), 564 National Communications (NCs), and 163 Biennial Transparency Reports (BTRs). These progress measures track institutional readiness and the expansion of technical support frameworks that underpin coherent and sustained implementation of national climate strategies. The Green Climate Fund's Readiness and Preparatory Support Programme has grown from USD 631 million supporting 798 requests in 142 countries by the end of 2023, to USD 752.84 million supporting 874 requests in 142 countries by mid-2025, enhancing developing countries' capacity to access climate finance from international climate funds (GCF, 2025; NDC Partnership, n.d.-c).

Advancing digital and AI infrastructure under **Key Objective 27** focuses on expanding interoperable systems and technology integration to strengthen climate monitoring, modelling, and decision-making. However, comprehensive global data on digital infrastructure deployment for climate action remains limited and fragmented. Progress towards achieving many global indicators cannot currently be measured due to a lack of interoperable data and standardized reporting, especially related to resilience, capacity building, finance and technological innovation. Given the explosion of AI in recent years, global corporate investment grew more than thirteen-fold from 2014 to 2024, reaching over USD 250 billion (Stanford HAI, 2025).

Overcoming this fragmentation and adopting global environmental data standards are critical to enable action to address the triple planetary crisis. Networks such as UNEP-facilitated Coalition for Digital Environmental Sustainability (CODES) can help promote common sustainability standards and access to environmental data, and align incentives to accelerate green transitions. In September 2024, UN Member States adopted the **Global Digital Compact** as part of the Pact for the Future, establishing principles for sustainable digital development. Enhanced monitoring and reporting frameworks are urgently needed to track digital infrastructure deployment for climate action under the Paris Agreement.

Fostering innovation and empowering small and medium-sized enterprises (SMEs) under **Key Objective 28** aims to strengthen the role of SMEs in the green transition through targeted support and financing. The green finance opportunity for SMEs taking climate action has been estimated at USD 789 billion (ICC and Sage, 2024). Unfortunately, these data points related to SME finance mobilized globally are elusive at the moment and efforts are being made to track more centralized indicators going forward. These metrics track the scale of private-sector engagement and financial inclusion mechanisms, alongside capacity building and supply chain engagement support.

COP 30 marks a pivotal moment to leverage the global bioeconomy and biotechnology, as established under **Key Objective 29**. The Bioeconomy Challenge will feature over the next three years a plan centered around a multistakeholder platform with the primary goal of translating the 10 High-Level Principles into concrete actions. This will be achieved primarily through the development of an international set of standards, the establishment of comparable metrics, and the promotion of bioeconomy markets. The Earth Investment Engine, which will enable this plan, will feature over 600 vetted sustainable bioeconomy projects worth a total of USD 16 billion in the next five years.

Key Objective 30 focuses on safeguarding information integrity. By November 2024, six countries had confirmed participation in the UN Global Initiative for Information Integrity on Climate Change; countries signing on will contribute to a UNESCO-administered fund, with a goal of raising an initial USD 10 to USD 15 million, to be distributed as grants to NGOs to support their work (UN News, 2024). Establishing governance frameworks to counter disinformation that undermines climate action is crucial. This emerging focus reflects growing awareness that climate progress depends not only on finance and technology but also on public understanding and political will, which require trustworthy information ecosystems.

Over the past decade, the enabling architecture for climate action has evolved from fragmented initiatives into increasingly coordinated systems. Institutional capacity has expanded alongside finance, building the governance foundations essential for sustained implementation. PCCB's 2025 Focus Area (holistic investment strategies and bankable projects), combined with the GEF's support for 203 Biennial Update Reports, 564 National Communications, and 163 Biennial Transparency Reports by May 2025, demonstrates the scaling of technical support frameworks that underpin national climate strategies (GEF, 2025).

The enablers axis encompasses diverse systems: from finance and carbon markets to digital technologies, from institutional capacity to international cooperation mechanisms. These systems are meant to accelerate climate action across all other domains. Current tracking concentrates on areas with established measurement infrastructure, particularly financial flows, while indicators for carbon market functioning, digital public infrastructure deployment, biotechnology applications, and non-CO_2 gas reductions (methane capture rates, nitrous oxide reduction, HFC consumption reduction) remain under development. As measurement systems mature for these harder-to-quantify enablers, future framework iterations will provide more comprehensive assessment of whether coordination mechanisms, technology transfer, capacity building, and innovation support are effectively unlocking progress across mitigation, adaptation, and resilience-building efforts at the pace and scale required.

Objective 20: Climate and sustainable finance, mainstreaming climate in investments, and insurance

Paragraph **69** Notes that scaling up new and additional grant-based, highly concessional finance, and non-debt instruments remains critical to supporting developing countries, particularly as they transition in a just and equitable manner, and recognizes that there is a positive connection between having sufficient fiscal space, and climate action and advancing on a pathway towards low emissions and climate-resilient development, building on existing institutions and mechanisms such as the Common Framework

Paragraph **70** Also recognizes the role of the private sector and highlights the need to strengthen policy guidance, incentives, regulations and enabling conditions to reach the scale of investments required to achieve a global transition towards low greenhouse gas emissions and climate-resilient development and encourages Parties to continue enhancing their enabling environments;

Paragraph **83** Strongly urges the operating entities of the Financial Mechanism to make full use of their current replenishment, calls on multilateral development banks and other financial institutions to further scale up investments in climate action and calls for a continued increase in the scale, and effectiveness of, and simplified access to, climate finance, including in the form of grants and other highly concessional forms of finance

Trend	Indicator	Baseline	Latest Year
Progress	Global total climate finance Source: CPI 2023 & CPI 2025	700 B USD 2015	1,900 B USD 2023
Insufficient Data	Global public climate finance Source: CPI	Not Available	650 B USD 2023
Insufficient Data	Clean industry investment secured (FID + Operational) Source: MPP	Not Available	250 B USD 2025

Paragraph **70** Also recognizes the role of the private sector and highlights the need to strengthen policy guidance, incentives, regulations and enabling conditions to reach the scale of investments required to achieve a global transition towards low greenhouse gas emissions and climate-resilient development and encourages Parties to continue enhancing their enabling environments

Paragraph **83** Strongly urges the operating entities of the Financial Mechanism to make full use of their current replenishment, calls on multilateral development banks and other financial institutions to further scale up investments in climate action and calls for a continued increase in the scale, and effectiveness of, and simplified access to, climate finance, including in the form of grants and other highly concessional forms of finance

Trend	Indicator	Baseline	Latest Year
Progress	Global private climate finance Source: CPI	400 B USD 2015	1,300 B USD 2023

Paragraph **95** Underscores the importance of reforming the multilateral financial architecture, inter alia, multilateral development banks, acknowledges the updated vision statement by the World Bank to create a world free of poverty on a livable planet and by the multilateral development banks to strengthen collaboration for greater impact, and calls on their shareholders to expeditiously implement that vision and continue to significantly scale up the provision of climate finance in particular through grants and concessional instruments

Trend	Indicator	Baseline	Latest Year
Progress	Annual climate finance commitments from MDBs to LMICs Source: 2015 MDB Joint Report, 2023 MDB Joint Report	~$50 B USD 2015	85.1 B USD 2024

Objective 21: Finance for adaptation

Paragraph **69** Notes that scaling up new and additional grant-based, highly concessional finance, and non-debt instruments remains critical to supporting developing countries, particularly as they transition in a just and equitable manner, and recognizes that there is a positive connection between having sufficient fiscal space, and climate action and advancing on a pathway towards low emissions and climate-resilient development, building on existing institutions and mechanisms such as the Common Framework

Trend	Indicator	Baseline	Latest Year
Progress	Finance mobilized globally for adaptation Source: UNEP	19 B USD 2019	28 B USD 2022

Objective 22: Climate-integrated public procurement

Paragraph 96 Emphasizes the role of governments, central banks, commercial banks, institutional investors and other financial actors with a view to improving the assessment and management of climate-related financial risks, ensuring or enhancing access to climate finance in all geographical regions and sectors, and accelerating the ongoing establishment of new and innovative sources of finance, including taxation, for implementing climate action and thus enabling the scaling down of harmful incentives

Trend	Indicator	Baseline	Latest Year
Insufficient Data	Countries with national green public procurement frameworks Source: Data infrastructure needed	Not Available	Not Available
Insufficient Data	Share of green cement in public projects Source: Data infrastructure needed	Not Available	Not Available
Insufficient Data	Share of green steel in public projects Source: Data infrastructure needed	Not Available	Not Available

Objective 23: Harmonization of carbon markets and carbon accounting standards

Paragraph **90** Recognizes the importance of making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development for the achievement of Article 2 of the Paris Agreement and that this goal is complementary to, and no substitute for, Article 9 of the Paris Agreement, which remains essential for achieving mitigation and adaptation goals in developing countries

Trend	Indicator	Baseline	Latest Year
Progress	Revenue from carbon pricing mechanisms Source: World Bank	~50 B USD 2015	104 B USD 2024

Objective 24: Climate and trade

Paragraph **28(h)** Phasing out inefficient fossil fuel subsidies that do not address energy poverty or just transitions, as soon as possible;

Paragraph **70** Also recognizes the role of the private sector and highlights the need to strengthen policy guidance, incentives, regulations and enabling conditions to reach the scale of investments required to achieve a global transition towards low greenhouse gas emissions and climate-resilient development and encourages Parties to continue enhancing their enabling environments;

Trend	Indicator	Baseline	Latest Year
No Progress	Fossil fuel consumption subsidies Source: IEA	325 B USD 2015	620 B USD 2024

Objective 25: Reduction of non-CO_2 gases

Paragraph **28(f)** Accelerating and substantially reducing non-carbon-dioxide emissions globally, including in particular methane emissions by 2030

Trend	Indicator	Baseline	Latest Year
No Progress	Oil & gas methane emissions Source: IEA	78.7 Mt CH_4/year 2015	80.7 Mt CH_4/year 2024
No Progress	Energy sector methane emissions (total) Source: IEA	~125 Mt CH_4/year 2015	135 Mt CH_4/year 2022
No Progress	Agricultural N_2O emissions Source: FAOSTAT	~5.5 Mt CH_4/year 2015	~6.0 Mt CH_4/year 2020
No Progress	HFC consumption Source: UNEP Montreal Protocol	0.78 $GtCO_2eq$/year 2015	0.8 $GtCO_2eq$/year 2019
Progress	HFC consumption (post-Kigali trajectory) Source: UNEP Montreal Protocol	0.78 $GtCO_2eq$/year 2015	<0.5 $GtCO_2eq$/year 2030 (proj.)

Objective 26: Governance, state capacities and institutional strengthening for climate action, planning and preparedness

Paragraph **64(b)** Planning: by 2030 all Parties have in place country-driven, gender-responsive, participatory and fully transparent national adaptation plans, policy instruments, and planning processes and/or strategies, covering, as appropriate, ecosystems, sectors, people and vulnerable communities, and have mainstreamed adaptation in all relevant strategies and plans;

Trend	Indicator	Baseline	Latest Year
Insufficient Data	Developing countries receiving capacity building for NDC preparation and implementation Source: UNFCCC	Not Available	85 2025
Insufficient Data	Developing countries receiving capacity building for NAP preparation and implementation Source: UNFCCC	Not Available	70 2025

Paragraph **116** - Recognizes the role of the Local Communities and Indigenous Peoples Platform in strengthening the capacity of Indigenous Peoples and local communities to effectively engage in the intergovernmental process under the Paris Agreement and calls on Parties to meaningfully engage Indigenous Peoples and local communities in their climate policies and action;

Trend	Indicator	Baseline	Latest Year
Insufficient Data	Recognition and integration of Indigenous Peoples rights, knowledge and solutions into national climate and biodiversity policies (NDCs, NAPs, NBSAPs etc) Source: Data infrastructure needed	Not Available	Not Available

Paragraph **120**: Requests the operating entities of the Financial Mechanism and the Adaptation Fund to further enhance support for capacity-building in developing countries and to provide updates thereon in their annual reports to the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement and encourages Parties to further enhance support for capacity-building, including through international cooperation;

Trend	Indicator	Baseline	Latest Year
Insufficient Data	Value of Readiness Support Programmes which are enhancing developing countries' access to finance from International Climate Fund (ICFs) Source: GCF (2023, 2024)	**538.7** **M USD** 2023	**749.13** **M USD** 2024

Objective: 27: Artificial Intelligence, Digital Public Infrastructure and digital technologies

Paragraph **103**: Highlights the persistent gaps and challenges in technology development and transfer and the uneven pace of adoption of climate technologies around the world and urges Parties to address these barriers and strengthen cooperative action, including with non-Party stakeholders, particularly with the private sector, to rapidly scale up the deployment of existing technologies, the fostering of innovation and the development and transfer of new technologies

Paragraph **107**: Encourages inclusive international cooperation on research, development and demonstration as well as innovation, including in hard-to-abate sectors, with a view to strengthening endogenous capacities and technologies and fostering national systems of innovation

Paragraph **114** Acknowledges that developing country Parties continue to have persistent gaps in capacity and urgent needs for effectively implementing the Paris Agreement, including related to skills development, institutional capacity for governance and coordination, technical assessment and modelling, strategic policy development and implementation and capacity retention and recognizes the urgent need to address these gaps and needs that are constraining effective implementation of the Paris Agreement;

Trend	Indicator	Baseline	Latest Year
Insufficient Data	AI/digital technology integration rate in key sectors Source: Data infrastructure needed	Not Available	Not Available
Insufficient Data	Number of countries cooperating on Digital Public Infrastructure and Digital Public Goods Source: Data infrastructure needed	Not Available	Not Available

Objective 28: Innovation, climate entrepreneurship and small and micro businesses

Paragraph **70**: Also recognizes the role of the private sector and highlights the need to strengthen policy guidance, incentives, regulations and enabling conditions to reach the scale of investments required to achieve a global transition towards low greenhouse gas emissions and climate-resilient development and encourages Parties to continue enhancing their enabling environments

Paragraph **103** Highlights the persistent gaps and challenges in technology development and transfer and the uneven pace of adoption of climate technologies around the world and urges Parties to address these barriers and strengthen cooperative action, including with non-Party stakeholders, particularly with the private sector, to rapidly scale up the deployment of existing technologies, the fostering of innovation and the development and transfer of new technologies;

Paragraph **107** Encourages inclusive international cooperation on research, development and demonstration as well as innovation, including in hard-to-abate sectors, with a view to strengthening endogenous capacities and technologies and fostering national systems of innovation in line with the findings of the Intergovernmental Panel on Climate Change

Trend	Indicator	Baseline	Latest Year
Insufficient Data	Finance mobilized for climate tech small businesses Source: Data infrastructure needed	Not Available	Not Available

Objective 29: Bioeconomy and biotechnology

Paragraph **28(c)** Accelerating efforts globally towards net zero emission energy systems, utilizing zero- and low-carbon fuels well before or by around mid-century

Paragraph **63(b)** Attaining climate-resilient food and agricultural production and supply and distribution of food, as well as increasing sustainable and regenerative production and equitable access to adequate food and nutrition for all

Paragraph **107** Innovation in hard-to-abate sectors

Trend	Indicator	Baseline	Latest Year
Insufficient Data	Number of sustainable bioeconomy projects Source: Data infrastructure needed	Not Available	Not Available

Objective 30: Information Integrity in climate change matters

Paragraph **64(a)** by 2030 all Parties have conducted up-to-date assessments of climate hazards, climate change impacts and exposure to risks and vulnerabilities and have used the outcomes of these assessments to inform their formulation of national adaptation plans.. and by 2027 all Parties have established multi-hazard early warning systems, climate information services for risk reduction and systematic observation to support improved climate-related data, information and services

Trend	Indicator	Baseline	Latest Year
Progress	Countries adopting UN Information Integrity Principles Source: Data infrastructure needed	Not Available	8 2024

II. Insights into the progress of cooperative initiatives since the Paris Agreement

As the cross-cutting enabler axis, finance, technology, and capacity-building themes are addressed by a majority of cooperative initiatives under this analysis, with 80.7 per cent of all 387 tracked initiatives in the CoAct database showing linkages to Axis 6, the highest prevalence across all thematic areas.

Finance-themed initiatives have shown the highest growth among all Marrakech Partnership themes between 2014 and 2024, with 65 initiatives (17 per cent) explicitly focused on mobilizing resources for climate action. This surge reflects growing recognition that achieving Paris Agreement goals requires unprecedented capital flows, with recent COPs increasingly emphasizing finance in their agendas. Funding for initiatives is concentrated among national governments (27 per cent of funders), international NGOs (INGOs, 23 per cent), and businesses (18 per cent), while international organizations and INGOs together account for over 60 per cent of all leading actors across CCIs.

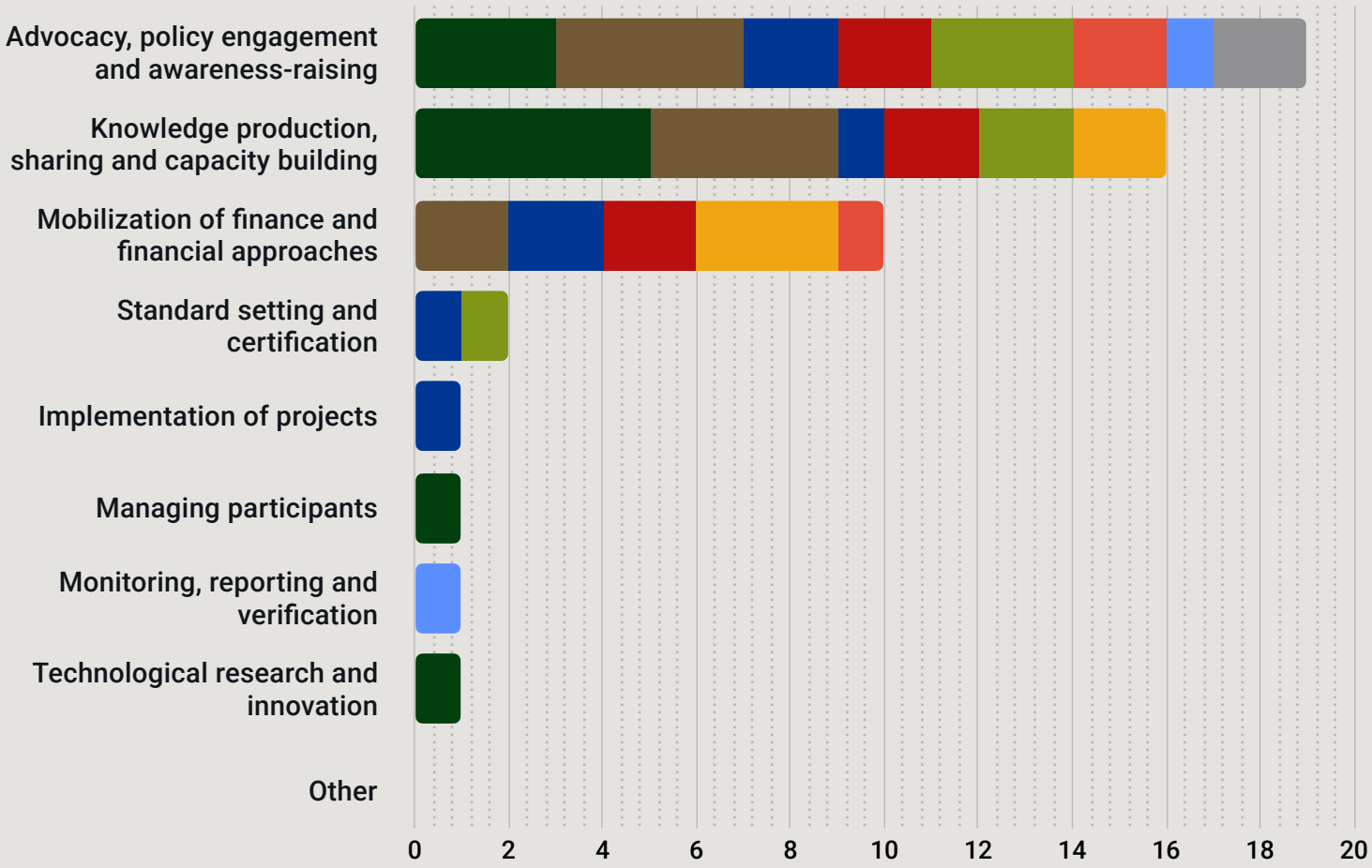
However, despite this growth, accountability and transparency mechanisms remain limited: only 17.3 per cent of initiatives publish budgets, and fewer than half (45 per cent) have published governance structures.

Strong synergies exist between Axis 6 and all other thematic areas, with particularly high overlap with human and social development (Axis 5, 52.6 per cent), energy transitions (Axis 1, 48.3 per cent), and cities and infrastructure (Axis 4, 41.1 per cent), underscoring the foundational role that finance, technology, and capacity play in enabling transformative climate action across all sectors (Chan, S. et al, 2025).

III. Progress of Individual Actors and Cooperative Climate Initiatives (CCIs) registered on NAZCA

The themes addressed under Axis 6 are many and varied. The assessment of CCIs under this section considers initiatives that identified their focus on Finance, Technology or Capacity Building. From the total 49 CCIs which reported their progress to NAZCA under the common framework in 2025, 35 reported a climate focus in these areas. The figure below specifies the primary function and the types of action these CCIs reported engaging in.

Figure: Functions and types of actions reported by CCIs (Axis 6)



Types of Actions

- Generation of knowledge products
- Enhancing collaboration
- Event organization
- Mobilization of finance and funding
- Advocacy and policy engagement
- General reporting
- On-the-Ground Project Implementation
- Establishment or update of new standards or practices
- Institutional arrangements
- Capacity Building
- Innovation
- Other

CASE STUDY

Deliver AI-powered weather forecasts to 38 million farmers

CCI: Agricultural Innovation Mechanism for Scale (AIM for Scale)

In 2025, AIM for Scale supported the Forecasting the Onset of the Indian Monsoon project through catalytic funding and coordination support. As part of this project, researchers at the University of Chicago and the University of California, Berkeley generated AI-based operational monsoon onset forecasts following a rigorous benchmarking and validation process. AI-powered weather intelligence, delivered through trusted systems, can equip farmers with tailored guidance, supporting smarter agricultural decisions and stronger livelihoods amid rising climate risks.

With support from AIM for Scale, India's Ministry of Agriculture and Farmers Welfare disseminated AI-powered monsoon onset forecasts via SMS to 38 million farmers across 13 states. This represents the largest targeted AI-based forecast dissemination effort to date. Messages were shared in regional languages, with clear dates, and probabilities to aid farmer decision-making. Monitoring surveys in two states showed near-universal demand for future services (97–98 per cent).

An impact assessment for this work is underway. However, pilots that informed the work in India showed reduced debt, more food consumption, and greater investments in high value crops over subsistence grains with every government dollar invested likely generating more than USD 100 in farmer benefits.

CASE STUDY

Scaling Resilience Innovations

Global Resilience Partnership (GRP)

GRP runs innovation challenges and develops knowledge products that seek to encourage community-based solutions and strengthen the evidence base for decision-makers, funders, and practitioners. Through its Innovation Challenges, GRP continued to support local entrepreneurs and innovators with tailored mentorship, training, and financing to scale resilience solutions.

The Innovative Finance for Resilience programme, implemented in partnership with the United Nations Development Programme (UNDP) and the Global Environment Facility (GEF), successfully closed activities in Uganda and Sudan, benefiting over 21,000 people, with results in gender inclusion and adaptive programming in fragile contexts.

GRP launched the Resilient Agriculture Innovations for Nature (RAIN) challenge to convert seed-level innovative agricultural ideas that are meeting resilience needs in East Africa and scale them to sustainable ideas of interest to private investors and funders and the Hindu Kush Himalaya Innovation Challenge for Entrepreneurs (HKH-ICE) to empower entrepreneurs from Bhutan, Bangladesh (Chittagong Hill Tracts), India (Himalayan states), and Nepal to develop innovative, climate-resilient solutions in the agriculture, water security, and sustainable tourism sectors.

In 2025, GRP also launched the Resilience Innovation through Scaling Entrepreneurship (RISE) Urban Challenge to convert idea- and concept-level innovative ideas that are meeting resilience needs in urban informality contexts and scale them to sustainable ideas, and the Technology for Evolving Challenges in Humanitarian Contexts (TECH) 4 Resilience Challenge, which aims to surface innovations that apply Artificial Intelligence (AI) to enhance humanitarian preparedness and response.

By 2030, GRP aims to have supported 15 million people and to have leveraged USD 100 million in resilience initiatives and programmes.

The action contributes to the UNFCCC multilateral process by identifying and scaling innovative systems that contribute to climate adaptation and resilience, and building a portfolio of innovations from which to draw insights. Through monitoring and evaluation of innovations funded through the GRP innovation challenges, the progress of projects towards increasing investments mobilized for climate adaptation and resilience innovations and people supported is being tracked.

IV. Highlights of initiative self-tracking progress (initiative-level indicators)

As mentioned in the Introduction, the COP 30 Presidency, in collaboration with the CHLC, proposed an exercise to showcase initiatives successfully demonstrating progress through initiative-level indicators, based on a 'Key Performance Indicators Progress Tracking Form'. Of the total 157 initiatives which reported their initiative-level indicators, 59 primarily focus on finance, technology and capacity building. The indicators formulated through this process were organized around three categories and 11 levers recognized as pivotal for accelerating both the scale and speed of climate solutions. The overarching objective of this exercise is to establish an annual process that encourages greater transparency, supporting the much-needed shift from commitments to implementation.

The figures below illustrate a range of initiatives which responded to the Progress Tracking Form with examples of how they can track progress against targets that meet the Climate Action Agenda Axis 6 key objectives.

Figure: Progress on initiative-level indicators

Key Objective 20: Climate and sustainable finance, mainstreaming climate in investments, and insurance

Real-World Quantifiable Impact

SDG Impact Finance Initiative Design Funding Window

The SDG Impact Finance Initiative (SIFI) is a multi-donor blended finance vehicle designed to catalyze innovation in the impact investing market, supporting pioneering funds and instruments that mobilize private capital toward the SDGs in emerging and developing economies.

Indicator: Private Capital Mobilized

Private capital mobilized in funds and structures supported by SIFI's catalytic capital.

	Year Reported: **2024**	Target
0	**41.5M USD**	**1,000M USD**
Baseline: **2021**		**2030**

Tags: Finance, Africa, Asia, Latin America and the Caribbean, Middle East.

Real-World Quantifiable Impact

Investment Mobilisation Collaboration Alliance (IMCA)

The Investment Mobilisation Collaboration Alliance (IMCA) is a global initiative scaling up blended finance to mobilise private capital for climate action and the SDGs.

Indicator: Private Capital Mobilized

Total amount of capital contributed by private investors into the funding windows.

Year Reported: **2024**		Target
0	**10M USD**	**1,000M USD**
Baseline: **2023**		**2030**

Tags: Mitigation, Adaptation, Resilience, Finance, Africa, Asia, Latin America and the Caribbean.

Key Objective 21: Finance for adaptation



Real-World Quantifiable Impact

Race to Resilience

Mobilizing Non-party stakeholders to increase the resilience of 4 billion people by 2030.

Indicator: Finance deployed for resilience action

Finance in USD deployed for implementation of Resilience Action Plans.

Year Reported: **2025**		Target
0	**4.2B USD**	**40B USD**
Baseline: **2021**		**2030**

Tags: Adaptation, Resilience, Global.

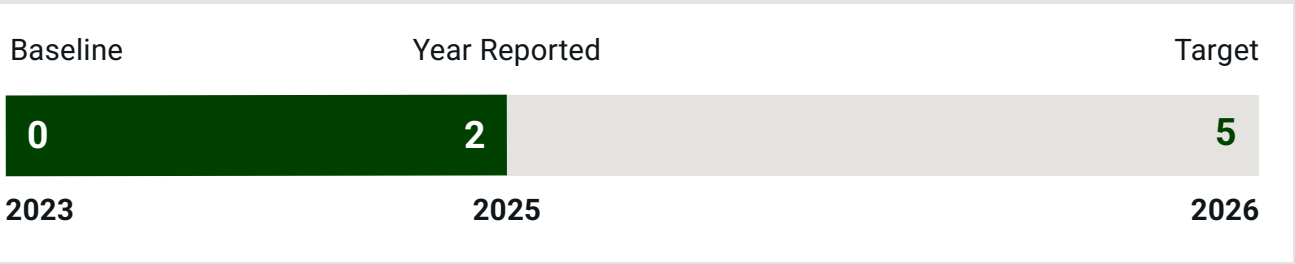
Process-Based Implementation Metrics → Public & Private Finance

Adaptation and Resilience Investors Collaborative (ARIC)

ARIC is an international partnership of development finance institutions working together to accelerate and scale up private investment in climate adaptation and resilience in developing countries.

Indicator: Development Finance Institutions A&R

DFIs articulating increased ability to identify, invest and report on A&R



Tags: Adaptation, Global.

Key Objective 22: Climate-integrated public procurement

⚙ Process-Based Implementation Metrics → 🏛 Policy & Regulatory

Industrial Deep Decarbonisation Initiative (IDDI)

The Industrial Deep Decarbonization Initiative (IDDI) aims to accelerate industrial decabonization through green public procurement (GPP), catalyzing early demand for low- emisisons steel, cement and concrete.

Indicator: IDDI's Green Public Procurement (GPP) Pledge

Governments committed to IDDI's GPP Pledge



Tags: Mitigation, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.

Key Objective 23: Harmonization of carbon markets and carbon accounting standards

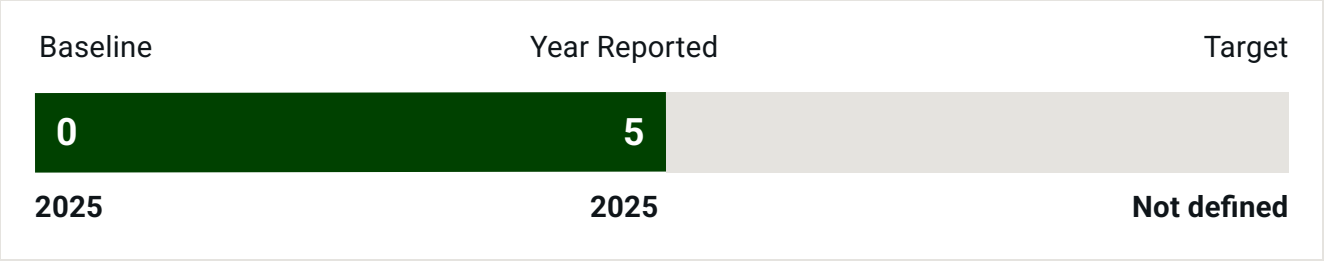
Engagement or Commitment Metrics

Coallition to Grow Carbon Markets

The Coalition to Grow Carbon Markets is a government-led Coalition to unlock demand and scale the high-integrity use of carbon credits.

Indicator: Coalition Membership Growth

Number of countries joining the Coalition to support high-integrity carbon markets.



Tags: Mitigation, Finance, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.

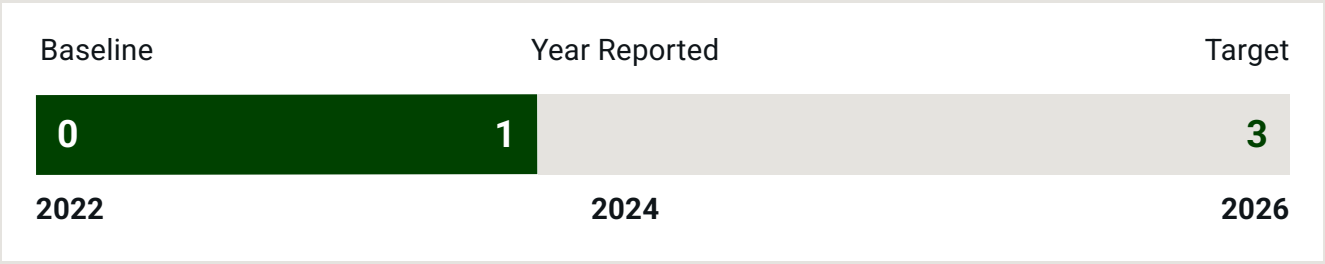
Process-Based Implementation Metrics
↳ Digital Public Information and Digital Technologies

Climate Action Data Trust (CAD Trust)

CAD Trust supports a global public transparency platform that links, aggregates and harmonizes data from diverse registries. We help prevent double counting, support accounting applications, and support data standardization. Since 2022, we have covered ~90% of issued credits.

Indicator: Global transparency and integrity use cases enabled

Enabling and/or deploying solutions advancing market transparency, integrity, and easier accounting (e.g., double counting checks, auditing of credit eligibility for various schemes, supporting tracking and reporting for Article 6 or other compliance frameworks), with partners.



Tags: Technology, Capacity Building, Global.

Key Objective 24: Climate and trade

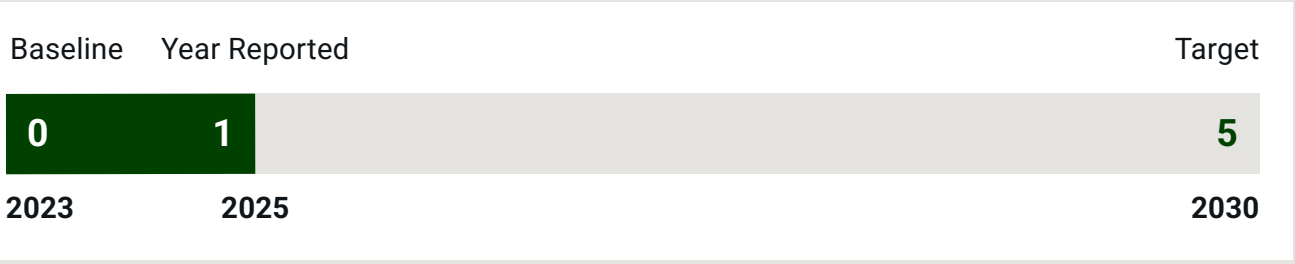
Process-Based Implementation Metrics
↳ Inclusive Decision-Making Governance & Design

Baku Initiative for Climate Finance, Investment and Trade (BICFIT)

BICFIT aims to support global coherence between UNFCCC, international trade, and development processes, aligning climate finance, investment, and trade with national development strategies, including NDCs while fostering alignment with sustainable development.

Indicator: Number of developing countries' using trade to support the implementation their NDCs

Monitoring the number of developing countries that use trade measures to design and implement their NDCs with UNCTAD support.



Tags: Mitigation, Adaptation, Capacity Building, Africa, Asia, Latin America and the Caribbean, Northern America, Oceania, Middle East.

Key Objective 25: Reduction of non-CO_2 gases

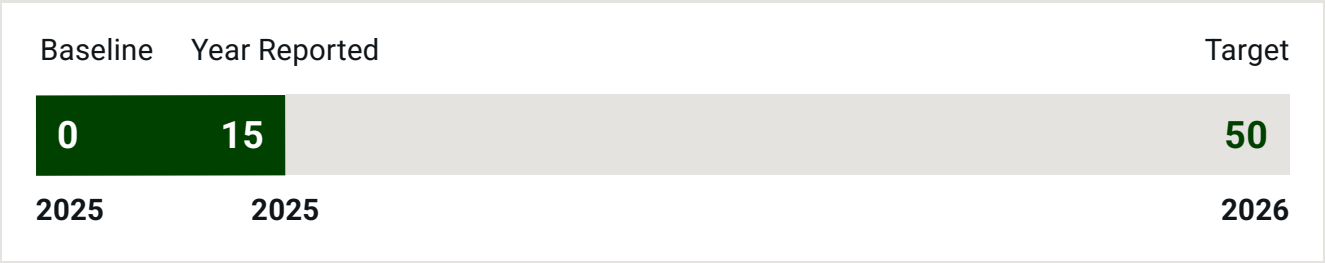
⚙ Process-Based Implementation Metrics
↳ 🕮 Knowledge & Capacity Building, 🧑‍🤝‍🧑 Partnerships & Collaboration

#MakingBiogasHappen Programme

The #MakingBiogasHappen aims to accelerate the growth of the biogas industry in a sustainable way. We have developed a Global Biogas Regulatory Framework and Anaerobic Digestions Certification Scheme International to support this work.

Indicator: Dissemination and Outreach of the GBRF and ADCS International

Engagement with organisations on GBRF and ADCS International.



Tags: Capacity Building, Africa, Asia, Latin America and the Caribbean, Northern America, Oceania, Middle East.

Indicator: Development of partnerships to deliver the Global Biogas Regulatory Framework

Establish partnership to develop the Biogas Action Plans



Tags: Capacity Building, Asia, Latin America and the Caribbean.

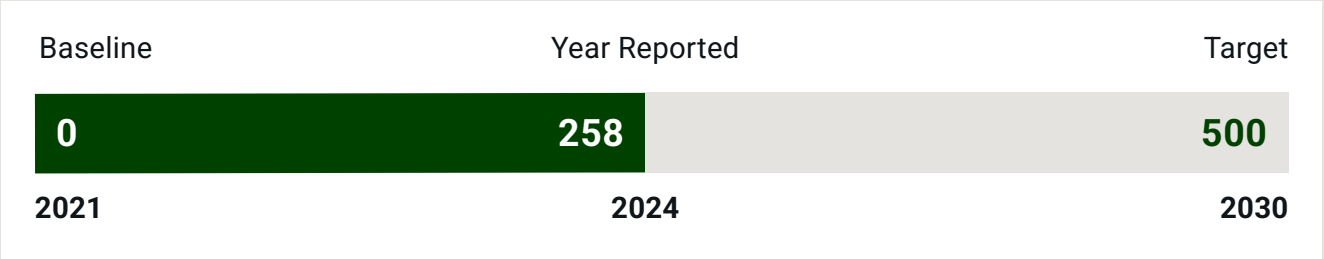
Engagement or Commitment Metrics
Process-Based Implementation Metrics → Policy & Regulatory

CA4SH (Coalition for Action for Soil Health)

The Coalition of Action 4 Soil Health (CA4SH), launched at the 2021 UN Food Systems Summit, works to improve global soil health by tackling barriers in implementation, monitoring, policy, and investment that limit adoption and scaling of healthy soil practices.

Indicator: Number of members committed to advancing soil health through CA4SH

Total organizations that signed the CA4SH Support Letter, endorsing the 4 targets and committing to joint action.



Tags: Mitigation, Adaptation, Resilience, Finance, Capacity Building, Global.

Indicator: Countries engaged in soil health policy dialogues and guidance uptake

Number of countries engaged in consultations or membership, and policy briefs/guidance published promoting soil health integration into NDCs and national strategies.



Tags: Mitigation, Adaptation, Resilience, Capacity Building, Global.

Key Objective 26: Governance, state capacities and institutional strengthening for climate action, planning and preparedness

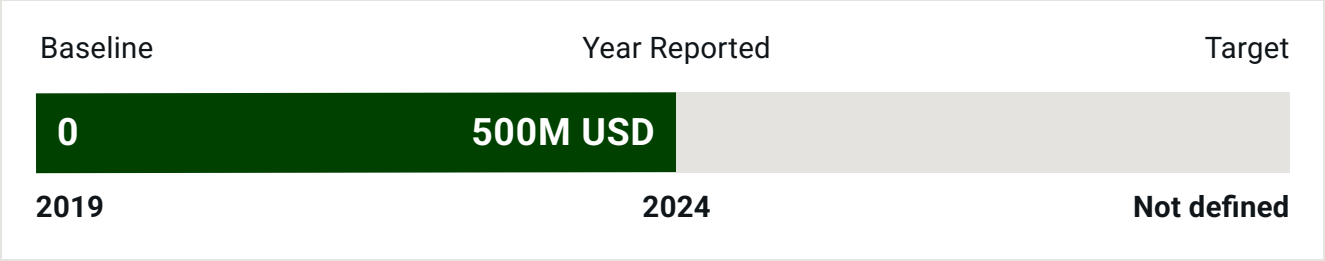
Real-World Quantifiable Impact

Risk Informed Early Action Partnership (REAP)

REAP is a diverse partnership that makes sense of the complicated early action ecosystem to help partners transform the way we invest in people's resilience and create an enabling policy environment for reducing disaster impacts through acting ahead of disasters.

Indicator: Early warning system investment

USD invested in early warning system infrastructure and institutions to target early action in 'last/first mile' communities, building on existing initiatives.



Tags: Adaptation, Resilience, Finance, Technology, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.

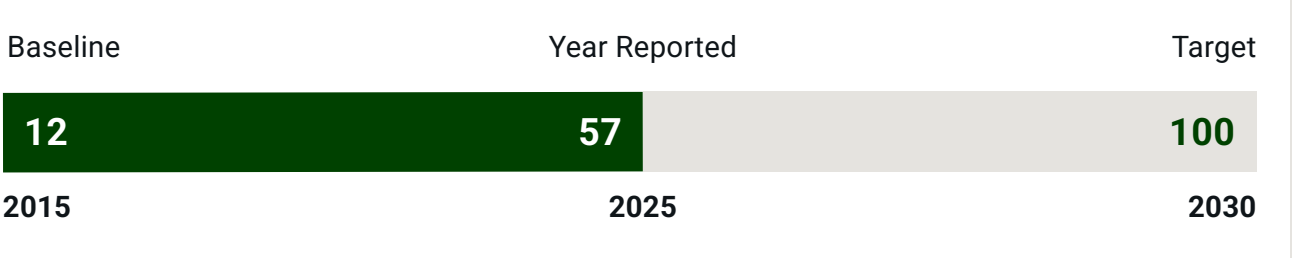
⚙ Process-Based Implementation Metrics → 🏛 Policy & Regulatory

RegionsAdapt

RegionsAdapt is the flagship climate initiative of Regions4 Sustainable Development, launched at COP21, dedicated to advancing climate change adaptation planning and actions at the subnational level, mobilizing over 80 states, provinces, and regions.

Indicator: Number of regional governments that have evidence-based, actionable adaptation plans or strategies

Number of subnational governments members of RegionsAdapt that have evidence- based, actionable adaptation plans or strategy.



Tags: Adaptation, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania.

Key Objective 27: Artificial Intelligence, Digital Public Infrastructure and digital technologies

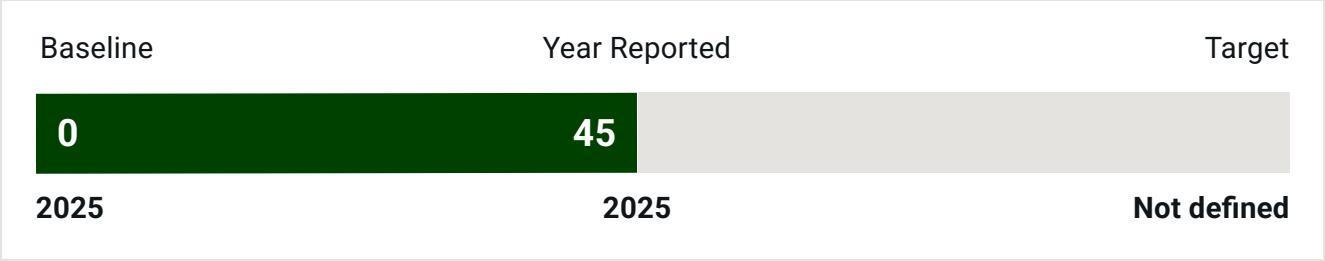
⊕ Other Types of Indicators

Innovators (teams/organizations) identified and supported solving critical People and Planet challenges through DPI

Count of unique innovators identified via DPI4PP Challenge who are solving critical People and Planet challenges through DPI.

Indicator: Innovators (teams/organizations) identified and supported solving critical People and Planet challenges through DPI

DPI4PP Challenge - a global initiative founded by JICA, the Gates Foundation, CDPI, Co- Develop and BCG, in official partnership with COP30 Presidency (https://dpi4pp.org/). The goal is to surface and support DPI-based solutions that address urgent 'People and Planet' challenges.



Tags: Mitigation, Adaptation, Resilience, Finance, Technology, Capacity Building, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.

Key Objective 28: Innovation, climate entrepreneurship and small and micro businesses

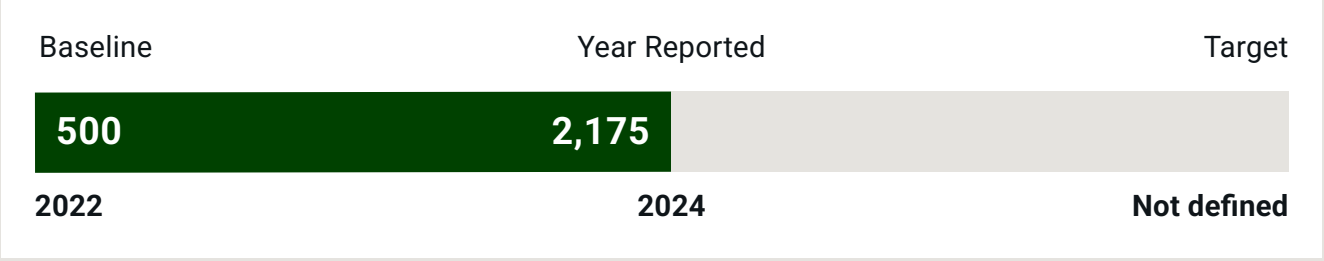
Process-Based Implementation Metrics
↳ Knowledge & Capacity Building, Public & Private Finance

EmPower

The EmPower: Women for Climate-Resilient Societies Programme (Phase II) (2023-2027), jointly implemented by UN Women and the UN Environment Programme (UNEP), works to strengthen the voice, influence, and opportunities of women and at-risk groups in climate action.

Indicator: Capacity building for women and marginalized groups in climate-resilient livelihoods

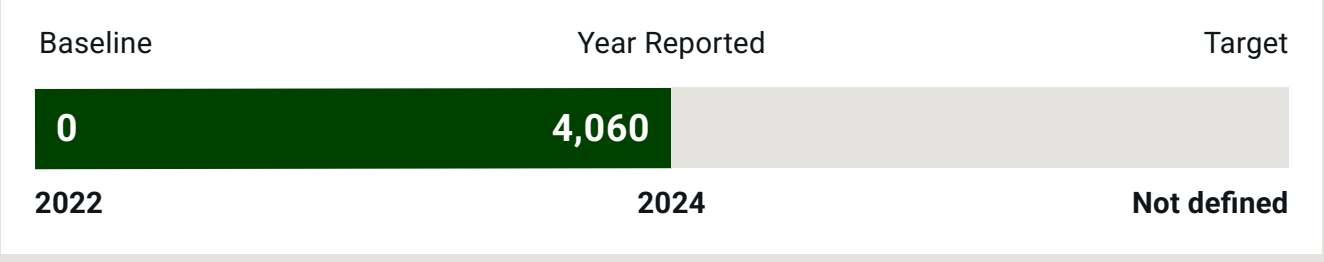
Number of women and other marginalized individuals who acquired training in skills relevant to climate-resilient livelihoods using renewable energy and low-carbon technologies.



Tags: Adaptation, Resilience, Finance, Technology, Capacity Building, Asia.

Indicator: Indicator: Women's and marginalized groups' access to renewable energy financing

Number of women and other marginalized individuals who successfully received loans or financing for renewable energy or low-carbon technology for climate-resilient livelihoods.



Tags: Adaptation, Resilience, Finance, Technology, Asia.

Key Objective 29: Bioeconomy and biotechnology

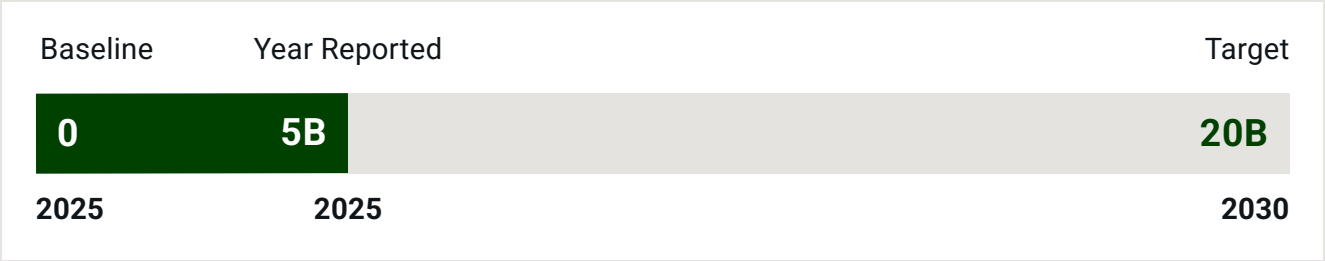
Process-Based Implementation Metrics → Public & Private Finance

Earth Investment Engine (EIE)

The Earth Investment Engine is an integrated capital mobilisation initiative that provides a coordinated governance and integrated operation, fostering collaboration with key partners to unlock capital for nature and climate solutions.

Indicator: US$ mobilised (bn/y)

US$ deployed (invested) in bioeconomy opportunities.



Tags: Mitigation, Adaptation, Resilience, Finance, Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania, Middle East.

Key Objective 30: Information integrity in climate change matters

Process-Based Implementation Metrics

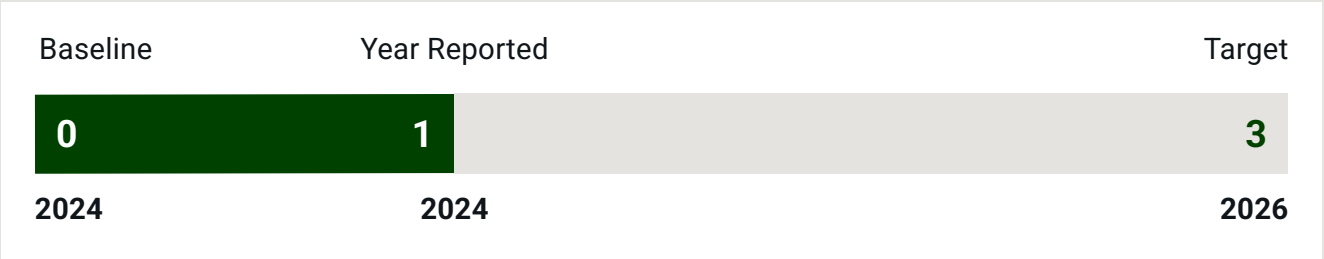
↳ Digital Public Information and Digital Technologies

Climate Action Data Trust (CAD Trust)

CAD Trust supports a global public transparency platform that links, aggregates and harmonizes data from diverse registries. We help prevent double counting, support accounting applications, and support data standardization. Since 2022, we have covered ~90% of issued credits.

Indicator: Global transparency and integrity use cases enabled

Enabling and/or deploying solutions advancing market transparency, integrity, and easier accounting (e.g., double counting checks, auditing of credit eligibility for various schemes, supporting tracking and reporting for Article 6 or other compliance frameworks), with partners



Tags: Technology, Capacity Building, Global



Looking Ahead

Tracking Future Progress and Driving Implementation

The outcome of the first Global Stocktake indicates that significant effort is needed to get the world on track to meet the long-term temperature goal of the Paris Agreement. The next few years will be crucial to course-correct and align ambition with effective implementation. That means ensuring broad stakeholder participation in effective climate action, with clear metrics and the necessary support systems in place.

In recognition of the important role and active engagement of non-Party stakeholders in supporting the UNFCCC process, Parties decided to extend the mandate of the Climate High-Level Champions. As the CHLCs prepare for the next five years of work, their focus remains on ensuring that it is fit for purpose, grounded in science, and capable of driving transformative climate action.

The proposal for the new five-year vision for the Global Climate Action Agenda (GCAA) builds on the significant progress made in the past decade of work, which includes the 2030 Climate Solutions, the Race to Zero and Race to Resilience campaigns, among other products and activities. The CHLCs were encouraged by Parties to consider the outcomes of the first GST into their work on scaling up and introducing new or strengthening voluntary efforts, initiatives, and coalitions.

Drawing from feedback received from Parties and NPS gathered from the inclusive consultation process mentioned in the introduction, guidance from the COP 29 and COP 30 Presidencies, respectively, and advice from the UNFCCC secretariat, the **vision for the Global Climate Action Agenda for 2026-2030** therefore positions the outcome of the first GST as an overall frame for the GCAA, helping voluntary initiatives and NPS to align their efforts effectively with Party-agreed priorities. The aim is to accelerate voluntary action through an enabling architecture that addresses barriers, scales up solutions and advances the delivery of outcomes already agreed under the UNFCCC process.

Under this vision, the GCAA is structured around six thematic axes informed by the first GST, as laid out in the 2025 Yearbook. Each axis hosts a number of activation groups that convene existing initiatives against key objectives, which will follow an annual implementation cycle. An initial set of key objectives has been established for COP 30, as presented here in the Yearbook; these objectives will be reviewed annually to provide agility, adaptability and also ensure that the priorities of the next set of CHLC and their respective Presidencies are taken into account under the GCAA.

To implement the vision and foster voluntary action over the next five years, a practical framework is to be established to provide clarity of purpose and a unifying space to align voluntary initiatives from national governments and NPS with the goals of the Paris Agreement. The GCAA will also continue to strengthen transparency, credibility, and regular follow-up of voluntary action through continuous improvement of UNFCCC reporting platforms to drive voluntary action and stimulate implementation, while increasing visibility of implementation through both global socio-economic indicators and initiative-level indicators that incorporate quantitative and qualitative data, as presented in the 2025 Yearbook.

Looking ahead, the aim is for the Yearbook to continue to evolve into a dynamic, tracking instrument that strengthens accountability and transparency across the Global Climate Action Agenda. The proposed framework presented here

combines global socio-economic indicators drawn from third-party analytical partners tracking aggregated progress towards the GST outcome with initiative-level progress indicators self-reported through the NAZCA portal, thus providing a clearer and broader overview of global climate action progress and gaps while also enhancing comparability, transparency and accountability at all levels.

Both indicator streams will be aligned with the axes and continuously refined to reflect the latest scientific insights and emerging priorities from Activation Groups and Plans to Accelerate Solutions. Some enhancements can be done to fully realize this tracking infrastructure: standardized yet flexible reporting templates with clear terms of reference; robust data validation through independent verification by organizations such as CAMDA members, the Net Zero Tracker, and InfluenceMap; NAZCA platform improvements including more frequent updates, and enhanced user interface; and recognition pathways at COPs for highest-impact initiatives with focus on underrepresented groups.

For example, the development of a dynamic digital dashboard could transform the Yearbook into an interactive tool featuring real-time visualization of global indicators by axis, filterable views by sector, region, stakeholder type, and Activation Group, and granular insights into the drivers of progress at subnational and regional levels. This infrastructure would provide simplified procedures for under-resourced or vulnerable regions to balance rigor with inclusion, while maintaining the expectation that CCIs actively participate in transparent reporting as a critical tool to build confidence, emphasize follow-through, and demonstrate how collective voluntary action contributes to achieving the Paris Agreement goals.

By aligning both global progress indicators and initiative-level indicators with the GST cycle, this enhanced framework aims to provide signals of NPS contributions, informing future Global Stocktakes with decision-relevant data on the pace and direction of climate action across all thematic areas. It also could display opportunities for aggregation between the two types of indicators for third party actors to drive forward. As an outlet for dissemination of the framework's outcomes, the Yearbook is strategically placed to provide insights of where global climate action is and where it needs to be to drive ambition and implementation further.

References

Footnotes

[1] These indicators, developed according to the latest available data, are aimed at complementing self-reported UNFCCC NAZCA data from voluntary cooperative initiatives.

[2] New NDCs submitted by 64 Parties to the Paris Agreement and recorded in the NDC registry between 1 January 2024 and 30 September 2025.

[3] CoAct tracks multi-stakeholder initiatives with transnational partnerships and implementation, including cooperative initiatives in the NAZCA Portal.

[4] The information, including the featured case studies, was directly submitted by CCIs and, therefore, the views expressed do not necessarily reflect the views of the secretariat. As such, the statistical data and estimates presented should not necessarily be considered as reflecting the views or bearing the

[5] The complete list of initiatives that reported their indicators is available on the NAZCA Portal.

[6] The information in the case studies was directly submitted by CCIs and, therefore, the views expressed do not necessarily reflect the views of the secretariat. As such, the statistical data and estimates presented should not necessarily be considered as reflecting the views or bearing the endorsement of the secretariat.

[7] The information presented is self-reported and relies on a trust-based approach, as each initiative applies its own methodologies, and no independent validation or verification of the reported data was conducted.

[8] The information in the case studies was directly submitted by CCIs and, therefore, the views expressed do not necessarily reflect the views of the secretariat. As such, the statistical data and estimates presented should not necessarily be considered as reflecting the views or bearing the endorsement of the secretariat.

[9] The information presented is self-reported and relies on a trust-based approach, as each initiative applies its own methodologies, and no independent validation or verification of the reported data was conducted.

[10] The information in the case studies was directly submitted by CCIs and, therefore, the views expressed do not necessarily reflect the views of the secretariat. As such, the statistical data and estimates presented should not necessarily be considered as reflecting the views or bearing the endorsement of the secretariat.

[11] The information presented is self-reported and relies on a trust-based approach, as each initiative applies its own methodologies, and no independent validation or verification of the reported data was conducted.

[12] The information in the case studies was directly submitted by CCIs and, therefore, the views expressed do not necessarily reflect the views of the secretariat. As such, the statistical data and estimates presented should not necessarily be considered as reflecting the views or bearing the endorsement of the secretariat.

[13] The information presented is self-reported and relies on a trust-based approach, as each initiative applies its own methodologies, and no independent validation or verification of the reported data was conducted.

[14] The information in the case studies was directly submitted by CCIs and, therefore, the views expressed do not necessarily reflect the views of the secretariat. As such, the statistical data and estimates presented should not necessarily be considered as reflecting the views or bearing the endorsement of the secretariat.

[15] The information presented is self-reported and relies on a trust-based approach, as each initiative applies its own methodologies, and no independent validation or verification of the reported data was conducted.

[16] The information in the case studies was directly submitted by CCIs and, therefore, the views expressed do not necessarily reflect the views of the secretariat. As such, the statistical data and estimates presented should not necessarily be considered as reflecting the views or bearing the endorsement of the secretariat.

[17] The information presented is self-reported and relies on a trust-based approach, as each initiative applies its own methodologies, and no independent validation or verification of the reported data was conducted

Progress on global socio-economic indicators

[1] Note: Because most of the GST indicators do not have explicit, time-bound targets, categorizes progress as either heading in the right direction ("progress") or wrong direction (e.g., "no progress") or data insufficient.

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[5] Note: SCL marks as "Right Direction" with -0.12 average annual change (2015-2024), despite 2024 increase. World is 63% off-track from 2030 zero-deforestation goal.

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[9] Murray, N.J., T.A. Worthington, P. Bunting, S. Duce, V. Hagger, C.E. Lovelock, R. Lucas, et al. (2022). High-Resolution Mapping of Losses and Gains of Earth's Tidal Wetlands. Science 376 (6594): 744–49. doi:10.1126/science.abm9583

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Appendix

List of Cooperative Climate Initiatives participating in the 2025 NAZCA survey





Africa Adaptation Acceleration Program











Cement & Concrete Breakthrough Initiative







COP28 Action Agenda on Regenerative Landscapes

Earth Investment Engine (EIE)
















HEALTH CARE
Climate Challenge


HIGH AMBITION COALITION
FOR NATURE AND PEOPLE


IEA Bioenergy
Technology Collaboration Programme


FREE & HIGHLY EFFICIENT COOKSTOVES FOR NIGERIA
COOKSTOVES
80 MILLION
NIGERIA


INDUSTRIAL DEEP
DECARBONISATION
AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL


IPHE
International Partnership
for Hydrogen and Fuel Cells
in the Economy


zev
ALLIANCE


JAPAN
CLIMATE
INITIATIVE


Leadit
LEADERSHIP GROUP
FOR INDUSTRY
TRANSITION


COMIDA
DO AMANHÃ


Mainstreaming
Climate
in Financial Institutions


GLOBAL
MEMORANDUM OF UNDERSTANDING
DRIVE TO ZERO


Mission
Efficiency


orraa
Ocean Risk and Resilience
Action Alliance


op2b
one planet
business for biodiversity


AOIP
Paris Agreement Article 6
Implementation Partnership


Paris Aligned Asset
Owners
Investing for a net zero future


PlanetMark


PPCA
Powering
PastCoal
Alliance


UITP
ADVANCING
PUBLIC
TRANSPORT


RACE TO ZERO


INTERNATIONAL UNION
OF RAILWAYS


REGIONSADAPT


RELAC


BREAKTHROUGH
AGENDA
Road Transport Breakthrough


Sports for
Climate Action


CLIMATE FRIENDLY
SUNx
TRAVEL


UNEZA
UTILITIES FOR NET ZERO ALLIANCE


WORLD
GREEN
BUILDING
COUNCIL



Join the Climate Champions

Click here or scan the QR code.