Draft impact and priority tracker

ENERGY

ELECTRICITY

Impact 1: the share of renewable energy in the global power mix increases substantially.

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Recognize under a policy perspective of the role of renewable energy, energy efficiency and productivity in tackling climate change challenge - Enact renewable energy policies and ambitious targets into national energy planning and NDCs; - Governments provide enabling frameworks for deployment of low carbon solutions, investment in innovation and a range of R&D solutions. - The development of operational and market frameworks to harness and value the full potential of renewable generation and facilitate the deployment of new business models; - Consider the benefits and synergies between renewables supply and demand-side management, and other flexibility options. - By COP 23: Use the expertise of the existing international financial institutions and climate finance institutions to establish a multilateral risk mitigation facility for investment in renewable energy at scale; - National governments to ensure lending decisions take into consideration the land-water-energy nexus to promote a holistic and ambitious approach to NDC implementation;	- International financial institutions and national banks to respond to what governments need, including guarantees and de-risking to leverage private finance; - By COP23: Work with the international financial institutions, national banks, private investors and other key finance actors to refine existing financial tools and design new financial solutions that use public money more effectively to unlock private finance at scale;	- National governments, utilities, and distributors to accelerate innovation in system operation and flexibility options; - Private sector innovation and investment in a range of R&D solutions and business models, market design and system solutions. - Innovation Lab on models for community renewables		- Civil Society to strengthen advocacy and public awareness activities on renewable energy deployment and benefits; - Proactively debunk misconceptions around renewables and other clean energy technologies on their costs and reliability;

END-USE, GENERAL

Impact 2: Significant increase of renewables in energy end-use.

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Facilitate development of enabling infrastructure for renewables-based end-use. - Provide enabling frameworks for investment and innovation and a range of R&D solutions. - Develop mandates and clear environmental criteria for the production and use of sustainable liquid fuels. - Ensure lending decisions take into consideration the land-water-energy nexus to promote a holistic approach to NDC implementation;		- Innovation focus on end-use R&D and business model solutions. - Economic incentives for the RTD, production and use of liquid fuels. - Innovation Lab on engagement with the industry.		

END-USE, TRANSPORT

Impact 3: Sustainable energy solutions integrated into transport sector planning and operations, along the value chain.

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Facilitate development of enabling infrastructure for electrification of the transport sector. - Sustainable power incentives/obligations for port operators - Electrification and other low carbon solutions (e.g. hydrogen) requirements for road infrastructure managers and economic incentives for vehicle operators. - Promote electrification of transport as key element to achieve 2ºC goal	- Business models/ financial products for the provision and use at scale of e-charging points (private and public) - Support for ship retrofit and shore power installation - Financial products to support supply of infrastructure (e.g. hydrogen) deployment to increase sustainability	- Sector coupling to maximize benefits of vehicle battery storage in grid balancing/management. - Accelerated R&D on renewables-based hydrogen solutions.	- Ports to install shore power facilities. - Installation and operation of hydrogen filling stations.	- Public understanding and acceptance of the sustainability challenge of the transport sector and its impacts on climate change and air quality and specific solutions (e.g. hydrogen vehicles).

ENERGY EFFICIENCY

Impact 4: Energy demand and consumption decreased through efficiency measures and increased energy productivity.

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Adopt clear and ambitious energy efficiency policies and put in place the right enabling environment, together with performance standards, shifting to view energy as a service rather than a commodity; - Promote energy efficient products and services as part of NDCs and national policy, and consider the cost of efficiency in planning. - Act on Kigali Amendment to maximize energy efficiency benefits; - Provide robust pricing frameworks (e.g. environmental taxation) to transition towards a low carbon energy model - Prioritize LED adoption, including through the introduction of supporting policies. - Concentrate financial resources around technologies that have not reached market maturity; - Integrate energy efficiency and energy productivity across individual sectors to make it tangible and real	- By COP 23: Develop and adopt a roadmap to scale-up and track finance for energy efficiency, including public finance, to meet 2030 objectives; - New financing models to assist large scale LED and smart city infrastructure upgrades in cities, and similar financing solutions for corporations.	- Business to ensure the HFC phasedown by bringing HFC replacement technologies to all markets and energy efficiency technology penetration globally; - Innovation Lab on energy efficiency in buildings	- Working in partnership with lighting, telecom, and big data solutions providers to demonstrate benefits and best practices. - Convening workshops on LED street lighting adoption, and smart city initiatives - Corporates adopt efficiency strategies and make measurable commitments.	- Consumer groups and civil society to work with communities to promote behavioral change around energy consumption and efficient energy use;

ENERGY ACCESS

Impact 5: Universal access to sustainable energy, enabling economic prosperity and social inclusion.

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Enabling frameworks for the development and deployment of on grid and decentralized energy solutions, including mini- and off-grid, to accelerate the pace of electrification. - National governments, local governments and business to work with civil society and local leaders to transition cooking fuel from non-solid fuels to clean liquid or gaseous fuels or electricity by 2030;	- Develop practical ways to link rural consumers to asset-based financing. - Investors, international financial institutions, philanthropy and impact investors to commit technical assistance and finance to urgently scale-up funding for energy access and bring clean affordable energy to remote rural places for cooking, lighting, clinics, and schools and businesses; - Investors, philanthropy and impact investors to invest portion of assets to massively scale up funding for energy access (e.g. “One-for-All” campaign) - Investors, international financial institutions, philanthropy and impact investors, together with national governments, create large dedicated funds for female entrepreneurs at all levels in the energy value chain;	- Accelerated innovation in the enabling technologies (converters, control systems, the demand side) and systems (e.g. plug-and-play, battery storage). - Takeoff and revenue generation risks for off-grid renewable energy operators reduced though innovative business models and new technology solutions.		

ENERGY PRICING

Impact 6: Phase out of subsidies and public finance for fossil fuels as part of NDC implementation (wider impact – transition away from fossil fuel production and consumption)

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Develop long term low emission development plans to highlight Paris-compatible assets and technologies - Transparent annual disclosure of fossil fuel subsidies, including public finance for fossil fuels. - Development of action plans and clear timelines for the removal of fossil fuel subsidies (including public finance). These plans should include opportunities for a just transition away from fossil fuel production (where relevant). - Level the playing field to enable investment in renewables, efficiency and auxiliary low carbon solutions, and shift fossil fuel subsidies towards low carbon technologies. - Provide robust pricing frameworks (e.g. environmental taxation) to transition towards a low carbon energy model	- MDBs and bilateral finance institutions shift support away from fossil fuels and towards renewable energy, storage and efficiency.	- Improved databases of fossil fuel subsidies, and detailed analysis of their impacts at national level (on GHG emissions, renewable energy investment, energy access, efficiency etc.)	- Engagement and analysis by businesses and investors of the impact of fossil fuel subsidies	- Active CSO engagement on the fossil fuel subsidies – in terms of both increased transparency, and the development of national and local plans around subsidy phase out - Engagement by CSOs in supporting just transition away from fossil fuel production (where relevant)

CORPORATE SOURCING

Impact 7: Corporate sector drives the deployment of renewable power generation, growing existing and creating new markets.

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Enabling frameworks to facilitate access to renewable electricity markets by corporate customers and across their supply chains	- Corporate demand for, and long-term commitment to, purchasing renewable electricity reduce risks for developers.	- New utility business models created to serve as demand-aggregators for corporate sourcing of renewables for SMEs.	- Convening learning opportunities and best practice sharing on procuring energy from renewable sources and energy productivity for corporates.	- Advocate and recruit companies to commit to 100% renewable power (e.g. RE100) - Advocate and recruit companies to commit to significantly increase their energy productivity (e.g. EP100)

HUMAN SETTLEMENTS

Summary of impact areas
The areas identified as priorities are summarized as follows:

A. Cross-Cutting priorities, primary driver is national government

- Impact 1: Promote greater coordination and integrated planning across levels of government and place adaptation and mitigation on the same level
- Impact 2: Increase access to finance and to support local and subnational climate action
- Impact 3: Support capacity development in local and subnational governments

B. Sectoral priorities

- Impact 4: Transform the building sector
- Impact 5: Shift to clean, decentralized energy
- Impact 6: Promote integrated, climate resilient urban planning
- Impact 7: Minimize urban transport demand by planning for self-sufficient, dense neighborhoods
- Impact 8: Promote design for safe and attractive local walking and cycling routes and make connections to public transport.
- Impact 9: Prioritize use of urban space for efficient/clean modes
- Impact 10: Shift to clean, sustainable mobility
- Impact 11: Towards Zero Waste

Where possible, references to existing SDG indicators have been included.

Impact 1: Promote greater coordination and integrated planning across levels of government and place adaptation and mitigation on the same level

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Create platform or taskforce to facilitate vertical integration or alignment of climate policies at the local, subnational, and national level and ensure that subnational climate actions are incorporated into NDCs and NAPs - Encourage national and subnational governments to develop long term, deep decarbonization plans and promote integrated approaches and disclose these in a transparent matter - Embed integrated, sustainable urban and territorial development and disaster risk reduction into NDC implementation; - Establish long-term, structured and regular dialogue and engagement of the local and sub-national governments and urban resilience community with national and international partners - Promote commitment to the long-term objectives of the Paris Agreement by businesses and local and subnational governments	- Ensure that sustainable urban development and resilience are prioritized in national budgets and included in development country assistance strategies with bilateral and multilateral - Create incentives to encourage cross-jurisdictional/ metropolitan governance models that can facilitate coordination across boundaries - Support capitalization, transfer of knowledge and best practices, and access to available funding sources and their engineering to foster mitigation and adaptation outcomes in human settlements.		Form coalitions with state, regional, city, and local governments to strengthen dialogue with national government on vertical alignment	- Engage target populations, especially traditional and indigenous groups, in community-based approaches aimed at delivering mitigation and adaptation goals included in the Paris Agreement. - Contribute to awareness-raising activities for changing lifestyles in line with low-carbon and climate-resilient, sustainable, integrated urban and territorial development - Engage actively in local and subnational climate action and planning that address both mitigation and adaptation;

Impact 2: Increase access to finance and to support local and subnational climate action

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Establish a national price on carbon that reflects its true social cost and redirect funding towards investment in low carbon, resilient infrastructure - Encourage development banks and climate funds to earmark a proportion of funding for climate action planning and investments in urban areas	- Increase funding for project preparation facilities focused on subnational infrastructure projects - Dedicate funding for guarantees or credit enhancement for local and subnationals - Integrate local and subnational dimensions in the global financial ecosystem by creating dedicated funds for investment, calling for projects from local and subnationals, supporting the development of regional finance institutions that can lend to local and subnationals or even a new institution such as a Green Cities Development Bank - Support local and subnationals in becoming creditworthy, in gaining greater authority and autonomy over own-source revenues, and becoming empowered to take on debt (e.g, green bonds) - Support the definition and implementation of a Global Action Framework on Localizing Climate Finance by 2020	- Create innovative new investment vehicles to enable aggregation of projects and pooling of finance - Develop frameworks to promote standardized approaches to project development and preparation - Support major global R&D programs targeted at key technologies for low carbon urban transition (e.g. EV batteries)	Strengthen municipal creditworthiness	

Impact 3: Support capacity development in local and subnational governments

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
Provide funding for technical assistance for the development of Paris-compatible climate actions (mitigation and adaptation) plans by local and subnational governments	Expand technical assistance funding to develop local and subnational capacity to prepare and execute sustainable infrastructure projects	Enhance the access of local and subnational governments to early warning and assessment, disaster risk preparedness and response tools;	- Expand opportunities for city to city cooperation and peer exchanges and engagement in networks to support capacity development and knowledge sharing - Strengthen the capacity of local and subnational governments to carry on vulnerability assessments, anticipate climate change impacts, run cost-and-benefit evaluations related to adaptation measures, and effectively plan adaptive pathways.	

Impact 4: Transform the building sector

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Put in place the required ambitious regulations with the involvement of all the players in the sector's value chain; - Establish strict building energy codes for all new buildings - Establish strict energy efficiency requirements for major refurbishments and renovations - Introduce national programs to mandate reporting and disclosure of energy performance	- Develop a program on the energy and water efficiency of buildings PEEB - Develop national incentives to encourage large scale retrofit (commercial and residential) - Develop innovative mechanisms to pool large scale retrofit programs	In new building construction, launch zero-emissions and energy-positive buildings in an affordable way for developing countries;	- Develop large scale municipal retrofit programs - Develop city-wide programs to promote energy efficiency in commercial and residential buildings - Track and disclose energy performance of buildings - Strengthen local enforcement of building codes - Create coalitions between stakeholders across the value chain to promote retrofit, encourage growth of high performance buildings and address the performance gap	Encourage household energy efficiency and retrofit

Impact 5: Shift to clean, decentralized energy

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Commit to 100% renewable energy - Incorporate clean and efficient district energy systems into urban planning - Develop policies to increase industrial energy efficiency and shift to clean energy	- Develop incentives to encourage renewable energy generation in buildings - Develop incentives to encourage renewable energy at district level	Promote R, D & D in microgrid, smart grid and district energy solutions	- Procure clean energy for municipal supply - Promote and develop district level clean energy systems	Encourage households to shift to clean energy providers

Impact 6: Promote integrated, climate resilient urban planning

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Promote joint land use and urban planning and establish policies for transit-oriented development - Ban development in high risk areas - Establish development controls for moderate risk areas - Establish urban design requirements that incorporate climate adaptation measures (e.g. sustainable drainage systems) - Promote development of low carbon, resilient eco-districts - Require all new infrastructure to be climate proof	- Create new finance mechanisms that enable land value capture - Create incentives for development of eco-districts		- Undertake city-wide climate hazards and vulnerability assessment - Develop climate adaptation and resilience plans	Engage diverse stakeholders in urban planning, in particular, disadvantaged and vulnerable groups

Impact 7: Minimize urban transport demand by planning for self-sufficient, dense neighborhoods (i.e., neighborhoods that have high local availability of basic goods and services such as admin, education, healthcare, shops, employment etc.)

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- National and local urban design standards requiring compact, connected, mixed used neighborhoods - Health, education and social services policy supporting local / in home provision of services. - Economic incentives for smaller/local suppliers. - Local waster/recycling/re-use collections. - Service and delivery plans for developments.		Innovative services and solutions for local supply of goods and services.	Re-design of product and services for local delivery.	

Impact 8: Promote design for safe and attractive local walking and cycling routes and make connections to public transport.

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Urban design standards that promote sustainable mobility and incorporate climate adaptation - Planning requirements for walking and cycling infrastructure.	- Developer funded public transport services. - Economic models to assess health benefits of increased walking and cycling.		Design and construction of quality walking and cycling infrastructure.	Public campaigns to increase walking and cycling.

Impact 9: Prioritize use of urban space for efficient/clean modes e.g. priority for walking, cycling, clean delivery, shared vehicles, bus lanes etc.

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Clear local transport policy priority for efficient/clean modes. - On street implementation and enforcement. - Comprehensive parking policy (maximum standards in buildings, pricing and enforcement). - Public policy support for shared / clean vehicles. e.g. parking space allocation. - National policy for the definition and evolution of "clean" and "efficient" modes – to give clear signals to users/market		- Technologies for the monitoring and enforcement of on street prioritization (e.g. bus lanes, parking management) - Technologies for dynamic management of street space.		

Impact 10: Promote clean, efficient, sustainable mobility

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Introduce transportation demand management (TDM) policies (e.g. congestion charge) - Expand light rail where feasible and bus rapid transit - Create low emission zones - Shift municipal cars and buses to electric drive - Extend electric vehicle infrastructure	- Create incentives to encourage TDM - Support massive expansion of public transit - Create incentives or funds to finance shift top electric drives buses - Create incentives to increase demand and shift to clean vehicles	- Promote greater R&D to foster lower cost EV batteries and components - Promote innovation in sustainable freight and logistics		Promote sustainable transport

Impact 11: Towards Zero Waste

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Develop policies that promote holistic solutions based on the waste management hierarchy (avoid, reduce, reuse, recycle, recover, treat, dispose) - Expand recycling collection for residential, commercial, industrial - Introduce food waste collection programs - Implement mandatory construction waste reuse - Ban open dumping and burning of waste	- Develop incentives to promote sustainable waste management - Promote investment in material recovery facilities	- Promote R&D to scale up facilities that can turn sewage and organic waste into energy - Engage with manufacturers to encourage extended producer responsibility (e.g. product takeback, elimination of toxics in waste stream, etc.)	- Develop programs to address generation and recycling of waste in key sectors (e.g. electronics product take backs) - Optimize waste collection management	Engage in education and awareness campaigns

INDUSTRY

Impact 1: General recommendations: setting up the right policies and economic incentives to further scale up the implementation of innovative solutions for emission reduction and resilience in the industry sector

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Scaling up sustainable business solutions requires a stable, predictable and transparent policy and regulatory environment to enable companies to invest with confidence in low carbon technologies, skills and solutions on the long term. - Adopt FSB TCFD recommendations to set up policy frameworks and reporting requirements that drive corporate change and better financial reporting on climate risks and opportunities - Unlock the potential of innovative business solutions by investing in large R&D programs and providing the right economic incentives for new technologies to go beyond incremental change and instead to transformation.	Business and industry need some consistent market structures and economic incentives which allow a levelled-off playing field across low carbon technologies, sectors, regions and countries. This includes putting a meaningful price on carbon and removing fossil fuel subsidies as they create a distortion of the economic price, and setting up economic incentives for large capital projects to allow scaling up (e.g. grants for new infrastructure deployment).	Invest in R&D programmes and innovative solutions for both mitigation and adaptation.	- Business and industry can develop and scale up innovative solutions and low carbon technologies by agreeing on ambition, identifying barriers, proposing solutions and joint action plans, while also reporting on progress every year at COP. - Companies must measure their GHG emissions and can adopt company targets in line with climate science (e.g. Science Based Targets initiative). - Companies can start developing tools to respond to new FSB TCFD recommendations. - Companies can build resilience by identifying the potential impacts of climate change on their global supply chains, integrate the climate factors into their risk management strategies and monitor the implementation and effectiveness of their resilience measures. - Companies can adopt internal carbon pricing mechanisms.	Civil society can raise awareness and create demand for low carbon technologies and reward companies with such solutions.

Impact 2: Scaling up the deployment of renewable energy technology and increasing the use of renewable energy sources in the industry sector

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Recognize under a policy perspective of the role of renewable energy, energy efficiency and productivity in tackling climate change challenge - Make a dedicated use of revenues from carbon pricing mechanisms for investing in renewable energy and other low carbon solutions; - Create a level playing field between renewable and conventional technologies, addressing issues such as subsidies to fossil fuels, discriminatory market rules in some markets, systemic bias in financial regulation and unfavorable administrative requirements; - Develop operational market frameworks to harness and value the full potential of renewable generation and facilitate the deployment of new business models; - Plan and invest in transmission and distribution infrastructure with consideration for the growing penetration of distributed renewable energy - Unlock the potential of innovative business solutions by investing in large R&D programs and providing the right economic incentives for new technologies to go beyond incremental change and instead to transformation.	- Facilitate the significant scaling up of green bond finance through a commitment to robust verification and transparency as well as de-risking project pipelines; - Remove systemic bias that provides a disincentive for investments in clean energy infrastructure; - Make "smart" use of limited public funds, as the targeted use of these public funds can help to scale-up private sector investment; - Develop innovative finance instruments to support the startup of microgrids and other low carbon solutions.	Invest in R&D programmes and innovative solutions to scale up the production and demand of renewable energy sources.	Corporate Renewable Power Purchase Agreements (PPAs): - Create an enabling environment for the development of Corporate Renewable PPAs to allow businesses and consumers to buy power directly from independent power producers. - Working with corporate renewable energy buyers to scale up renewable energy procurement will increase direct demand for renewable energy and boost the market of renewable sources of energy. This will require the removal of prohibitions for entering third-party PPAs. - Essential to combine this with renewable incentives that cost-effectively support the development of renewable electricity projects (where necessary) and establish guarantees of origin or other similar certificate systems to show that renewable power is available for corporate buyers at a sensible cost. Micro-grids: - Scale up microgrid projects in developing countries to promote sustainable energy access for all (SDG7); - Promote sustainable electrification of remote areas can be done via accelerated deployment of low carbon microgrids; - Integrate the energy production and consumption of microgrids into the well inter-connected electricity market at local, national and regional level.	Advocacy for 100% renewables (e.g. RE100)

Impact 3: Transforming major industrial sectors (starting with cement and chemicals), by scaling up the implementation of innovative low carbon solutions and creating a new circular economy for industry

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Take measures to support the development of the circular economy. This includes governments introducing industrial ecology frameworks and promoting a recycling-based society and rewarding investments in energy efficiency in relation to their societal benefits. Policy measures should: o secure access to sustainably sourced raw materials, bio-based materials and biomass; o enhance re-use, recycling and cascading at the end-of-life; o boost demand for circular economy products and services by training local governments in green public procurement and extending fiscal reform; o aim for increasing the uptake of high-quality secondary raw materials. - Regulatory frameworks should support the development of regional processes that encourage the use of alternative fuels. - To stimulate the uptake of sustainability offerings, essential to develop a common understanding between the various stakeholders involved at each value chain level, and to implement actions and policies to make not just individual sectors but entire value chains more sustainable.	- Long-term policies that ensure a level-playing field and appropriate financial mechanisms will enable huge CAPEX investments in innovative and sustainable industrial solutions. - Risk sharing is important in technologies that are at their earlier stages of development. Sharing upfront costs of breakthrough technologies and low-carbon solutions through collaborative financing mechanisms, public-private partnerships and steady protection of intellectual property. This may require supportive regulatory frameworks that allow the development of innovative business models (e.g. capturing OPEX as well as CAPEX). - Particularly at early stages of technology readiness levels, upfront costs may necessitate access to novel financing mechanisms for appropriate risk sharing. - Green fiscal reform should aim at resource efficiency. Price signals sent to the markets (fiscal incentives, financial possibilities, etc.) can stimulate the demand for secondary raw materials.	- Enabling policies and international collaboration for the deployment of carbon capture storage & use technologies should also be promoted. - To facilitate the market reach of these technologies we must overcome information gaps on new product solutions and work on universally accepted criteria that consider the whole life-cycle of a product. This may, for instance, involve developing common standards for specific products or value chains (e.g. sustainable buildings, biofuels, transportation). It could also involve strengthening platforms for knowledge sharing. We must find ways to address the skills gap, by building more capacity and understanding of how our low-carbon, sustainable solutions can be deployed in key applications like buildings, automotive, food and packaging. - Innovation can significantly improve resource utilization and efficiency. It can be stimulated by promoting performance-based business models in public/private partnerships, and introducing digitalization and new IT solutions to monitor and track better utilization of products and components and increase efficiency of sorting and recycling.	- Efforts to mitigate climate change should be accompanied by a concerted corporate strategy to build adaptation and resilience to climate change. This should include a revision of existing standards, strengthening of building codes and inclusion of resiliency criteria in the development of industrial infrastructure. - Companies must measure their GHG emissions and can adopt company targets in line with climate science (e.g. Science Based Targets initiative). - Facilitating cooperation across industries can strengthen circular models and incentivize reverse logistics (eg: companies can join the LCTPi initiatives and Factor10 initiative to collaborate on innovative, scalable solutions). - Companies can move beyond focusing on waste and recycling, and use circular supplies, implement resource recovery, extend product life, share platforms and sell products as services., and use circular supplies, implement resource recovery, extend product life, share platforms and sell products as services., and use circular supplies, implement resource recovery, extend product life, share platforms and sell products as services. - Transitioning from a resource-intensive model of industry to a low carbon model of circular economy require support and training for the workforce to adapt to these changes. The new services economy has the potential to create many new opportunities and jobs for the workforce if employees are strongly engaged in the just transition.	- Call on companies to measure their GHG emissions and adopt company targets in line with climate science (e.g. Science Based Targets initiative) - Call on companies and policy-makers to develop the circular economy. - Highlight the new opportunities for the workforce in terms of job creation and social inclusion.

Impact 4: Scaling up the development of the bio-economy and climate smart agriculture creating win-win opportunities for both mitigation and adaptation

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Develop national CSA strategies that can be used to meet NDC commitments for both adaptation and mitigation from the sector. - Develop regulatory approaches to stimulate the development of the bio economy. Such regulatory approaches include amendments to building codes that facilitate larger and higher wooden buildings and mandated fuel formulation to include sustainable fuels. - Encourage the increased uptake of forest products, such as through the USDA bio preferred program. - Develop agricultural, forestry and biofuel strategies that are coherent and maximize synergies across the different supply/material value chains.	- Provide the much-needed demand side stimulus for an increase in the global productive forest extent. - Maintain or enforce carbon neutral accounting approaches for sustainably produced woody biomass and sustainable fuels (e.g. below50 fuels). - Phase out fossil fuel subsidies creating a level playing field for renewable resources. - Economic incentives for large capital projects to allow scaling up (e.g. grants for new sustainable fuels production facilities).	- Invest in R&D to develop business solutions maximizing the use of bioenergy and circular economy. - Support early and pre-commercial demonstration projects with capital grants and market incentives (e.g. renewable fuel standards).	- Enhance landscape, ecosystem and soil management: o Enhance sequestration of carbon by soils; o Diversify crops and rotate cultures at different times; o Make a more reasonable use of chemicals and fertilizers; o Develop win-win scenarios for food security, environment and health (SDG2); o Re-use agricultural waste and side products (circular bio economy) o Re-use methane from large cattle production; o Re-use biomass and waste for low carbon fuels. - Enhance sustainable forest management: o Develop projects for reforestation o Manage forests more intensively o Rotate cultures - Re-use by-products (e.g. forest derived biofuels).	- Develop awareness for the need to procure products from sustainably managed forests and climate smart agriculture practices. - Support and develop awareness of sustainable fuels and biomass solutions available (e.g. below50).

- **Impact 5: Cargo owners/controller's commitment to prioritizing sustainable freight transport**

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Support for establishment of green freight / operator schemes. - Promote electrification of transport as key element to achieve 2ºC goal			- Business commit to prioritizing sustainable freight operations/suppliers – through procurement processes. - Transformation of own fleets/operations to low carbon transport.	Establishment of green freight / operator schemes

Impact 6: Support for site based mobility plans (for employees, visitors, suppliers, waste etc.)

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Support for sites / companies preparing mobility plans - Commitment to implementation of complimentary off site measures.			Commitment to prepare, implement and maintain a site based mobility plans.	

Impact 7: Supply chain re-design to de-fragment procurement, production, distribution and waste circuits

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Policy support for local production and consumption. - Support for packaging waste reduction and re-use. - Requirements for clean local delivery. - Allocation of public space for "collection boxes". - Post-consumer re-cycling/re-use obligations. - Support establishment of shared freight consolidation centers		- Tools for local production (e.g. 3 D printing) and finishing. - ICT for supply chain co-operation and consolidated delivery. - Digital alternatives to physical processes/services. - ICT solutions for optimized routing and low carbon vehicle use	- Efforts to re-design products, packaging, and supply chains to minimize transport demand. - Increased transparency / labeling of product origins. - Increased range of sustainable final delivery options e.g. consolidation, common collection points, drop boxes etc. - Post-consumer collections/re-use services.	- Consumer awareness of supply chain impacts of consumption choices.

TRANSPORT

Impact 1: Urban transformation and changes in travel behaviour

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Promote the transition to low-carbon transport infrastructure and systems based on the avoid, shift and improve approach - Support changes in travel behaviour through a shift to sustainable transport modes (e.g. walking, cycling and public transport) and Mobility as a Service programs - Encourage sustainable urban mobility planning and development at all levels along with increased public transport supply and demand measures - Create supportive institutional, legal and regulatory frameworks to promote sustainable urban transport	- Scaled up and diversified funding for supportive and coherent fiscal frameworks for infrastructure and services (e.g. public transit, walking and cycling, charging infrastructure for e-mobility, and shared mobility assets) - Increase international funding and climate support for sustainable urban transport	- Accelerate action on development of zero emission urban transport and freight vehicles and systems - Optimal design and allocation of charging infrastructure to accelerate market penetration of e-mobility and ultra-low-emission vehicles (ULEV) - Digitalisation of transport information for personalised transport services - Promote sustainable transport / urban mobility technologies through outcome oriented investment and policies and actions as well as through various incentive structures	- Launch corporate leadership campaigns for companies committed to electric vehicles - Public transport companies incentivised shift towards electric vehicles for public transit operations - Integration of transport services, technology and big data through the engagement of public transport agencies, technology companies and the automobile industry - Establish monitoring and evaluation frameworks and build capacity to deliver SUMPs - Integrate sustainable transport planning efforts and across modes and sectors - Reduce barriers to intermodal public transport by improving journey planning and ticketing	- Promote development of comprehensive sustainable urban mobility plans (SUMPs) that are consistent with the SDGs (e.g. Goal 11) - Build capacity of implementers through partnerships and organisations by sharing of best practice and knowledge, notably through collaborative initiatives under the NAZCA Platform

Impact 2: Low-carbon energy supply strategy

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Prioritize electrification and the production and distribution of renewable energy for transformation of the transport sector - Reduce the carbon intensity of shipping and implement stricter Energy Efficiency Design Index (EEDI) - Encourage the use of sustainable biofuels (i.e. second and third generations) in transport - Support and incentivise the electrification of the rail and public transport sector (both vehicles and infrastructure)	- Investment in development, production and scaling up of sustainable, low carbon energy (and related infrastructure) for transport - Investment in alternatively powered/more energy efficient ships and infrastructure in ports (e.g. shore power facilities, bunkering facilities for lower carbon energy supplies, such as LNG, biofuels and others)	- R+D for electric/hybrid and biofuel powered shipping and aviation, including options for solar and wind - Fast charging technology developed and deployed integrated with sustainable transport systems	- Production and distribution of renewable energy related to companies increases - Split incentives of ship owners/operators should be resolved - Ports have a role to play in the availability of alternative energy supplies for shipping and port activities	Capacity building

Impact 3: Improve modal shift and system efficiencies

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Tighten emission and fuel economy standards for light and heavy duty vehicles - Successful implementation of a global market-based measure (GMBM) through the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) program and the pursuit of even more ambitious targets for aviation - Promote electrification of freight transport - Include the electrification systems for ships when docked - Increase network and system efficiency for multi-modal passenger and freight transport - Increase implementation of freight vehicle and route optimisation measures through a combined use of economic tools and regulations - Define and agree on a global target for shipping to align to "less than 2 degrees" scenario - Create supportive institutional, legal and regulatory frameworks to promote effective sustainable transport - Integrate all sustainable transport planning efforts with an appropriately-balanced development of transport modes: integration vertically among levels of government and horizontally across modes, territories and sectors. - Make transport planning, policy and investment decisions based on the three sustainable development dimensions—social development, environmental (including climate) impacts and economic growth—and a full life cycle analysis.	- Scaled up and diversified funding for supportive and coherent fiscal frameworks to advance sustainable systems, initiatives and projects - Increase international development funding and climate funding for sustainable transport	- Automotive, aviation and shipping industry commit to scale up R&D in efficiency improvements - Electronic pricing for differentiated road pricing based on the weight and dimension of heavy duty vehicles to enable greater vehicle utilisation - Synchronisation of payment method and arrival and departure time across modes - Promote sustainable transport technologies through outcome-oriented government investment and policies that encourage private sector investment and action through various incentive structures	- OEMs commitment towards accelerating action on deployment of more fuel-efficient vehicles - Increased efficiency of air transport through improved operations, more direct navigation, more stringent CO_2 emission standards and reduced carbon footprint of ground operations - Integration of ICT into sustainable transport operations allowing for optimised networks and improved system efficiencies - Integrated ticketing, shared information within and between modes allowing for fast, easy and seamless multimodal journeys - Build technical capacity of transport planners and implementers especially in developing countries, through partnerships with international organizations, multilateral development banks, and governments at all levels, to ensure equitable access to markets, jobs, education and other necessities.	- Promote real-world testing - Public education and public information campaigns to achieve sustainable transport behaviour - Foster an informed, engaged public as a crucial partner in advancing sustainable transport solutions.

Impact 4: Optimise supply chains

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Promote modal shift from road to rail or water, and from air to rail and water, depending on commodity type - Facilitate smoother maritime supply chains to reduce idling times - Boost cooperation within the supply chain to increase efficiency and solve bottlenecks	- Investment program to enable/encourage modal shift towards low carbon modes - Integration or interconnection of ICT and planning systems of all stakeholders in the maritime supply chain	- Apply ICT to better manage freight with the aim to optimise systems - Develop cargo community systems	Restructuring of urban freight systems by using smaller and cleaner vehicles, delivering during off-peak hours and optimising route choice	Advocate for zero-emission urban freight as part of overall low carbon transport planning

Impact 5: Reduce travel distance and vehicle kilometres

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Establish stronger linkages between land use and transport planning for higher density levels and mixed land use to increase accessibility and reduce travel distance - Deployment of innovative transport demand management measures alongside increased sustainable transport supply - Promote alternative work practices and flexible work schedules	- Fiscal incentives for companies with transport demand management measures to reduce personal vehicle based commute trips - Employers provide subsidies for public transport and remove parking subsidies for employees	- Accelerate the development of high quality online conference facilities - Integrate advanced Intelligent Transportation System (ITS) with transport demand management measures (e.g. dynamic pricing, dynamic ridesharing, routing, smart parking, and predictive traveller information)	- Online shopping companies commit to streamlined, integrated delivery systems - Employers implement transport demand management measures	Encourage the reduction of vehicle kilometres through changes in trip patterns and behaviour and making better informed choices

Impact 6: Large scale deployment of economic instruments

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Price the cost of economy-wide carbon emissions - Roll-out of alternative and dynamic pricing mechanisms to accelerate transformation of transport sector - Introduce market-based measures (MBMs) to reduce greenhouse gas emissions in shipping - Roll out environmentally differentiated port tariffs - Include carbon targets in port terminal concessions	- Businesses quantify necessary strategic investments to integrate the cost of carbon in their business models - Establish clear criteria for access to development funding for sustainable transport	Accelerate the development of information technology tools to incentivise and facilitate the pricing of transport systems and modes	Transport operators shift towards low carbon transport options as response to price signals linked to the use of carbon intensive transport modes	- Encourage the inclusion of transport in carbon pricing - Advocate sufficiently high price for high carbon transport modes

Impact 7: Provide low-carbon solutions for the rural (non-urban) populations

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
Rural transport infrastructure development matched with development of resilient, low-carbon transport services	Dedicated funding made available for development of low carbon rural transport	Dedicated R&D efforts to develop adapted low-carbon solutions for rural transport – both engines and fuels	Transport operators (passengers and freight) willing to pilot low-carbon transport solutions	Advocate that rural transport is part of low-carbon transport discussion

Impact 8: Accelerate action on adaptation in Transport sector

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Support institutional capacity-building to identify and manage climate risks - Promote flexibility in infrastructure design; revised or new design standards, planning processes and evaluation techniques - Promote engagement of stakeholders to identify opportunities for improved integration, interconnectivity and efficiency	- Develop institutional capacity to identify and manage climate risks - Develop and deliver climate-resilient refurbishment, retrofitting or renewal programs, using nature-based solutions where relevant - Embrace flexibility in new infrastructure design; use adaptive management principles - Engage with stakeholders to identify improved integration, interconnectivity and efficiency opportunities - Review business case and investment financing criteria to facilitate delivery of climate-resilient infrastructure	- Develop real-time hydro-meteorological monitoring and early warning systems - Develop modelling and information management systems - Develop new design standards, planning processes and evaluation techniques to accommodate climate change-related risks - Facilitate information exchange, share evolving good practice and feedback into industry guidelines and standards	- Build institutional capacity to manage climate risks to existing assets and operations - Implement real-time monitoring and early warning systems; prepare and publicize contingency plans - Monitor asset condition; prioritize maintenance activity to maximize adaptive capacity - Develop and deliver programs for climate-resilient refurbishment, retrofitting or renewal, using nature-based solutions where relevant - Apply climate-resilient design standards, planning processes and evaluation techniques - Work with stakeholders to identify opportunities for improved integration, interconnectivity and efficiency - Refocus business case criteria to facilitate delivery of climate-resilient infrastructure	- Ensure familiarity with disaster recovery and other contingency plans - Engage where relevant in decisions on resilient transport infrastructure; help to identify no regret or win-win opportunities - Facilitate information exchange, share evolving good practice and feedback into industry guidelines and standards

OCEANS AND COASTAL ZONES

Abbreviations and Acronyms

CB	Capacity Building
CBD	Convention on Biological Diversity
CC	Climate Change
CD	Capacity Development
CREWS	Climate Risk and Early Warning Systems
CS	Civil Society
EbA	Ecosystem-based Adaptation
EbM	Ecosystem-based Mitigation
FAO	Food and Agriculture Organization of the United Nations
FOA	Future Ocean Alliance
GCA	Global Climate Action
GHG	Greenhouse Gas
GOAON	Global Ocean Acidification Observing Network
GOF	Global Ocean Forum
ICD	Institutional Capacity Development
ICT	Information and Communication Technologies
IMO	International Maritime Organization
IT	Information Technologies
IUCN	International Union for Conservation of Nature
MPA	Marine Protected Area
MRV	Measurement, Reporting and Verification (of climate change adaptation at national level)
NBS	Natural-based Solutions
NDC	Nationally Determined Contributions
OCIA	Ocean and Climate Initiatives Alliance
PM	Policy Makers
RCP	Representative Concentration Pathways
SD	Sustainable Development
SDG	Sustainable Development Goal
SDG 14	Sustainable Development Goal 14, Life below water: Conserve and sustainably use the oceans, seas and marine resources
SDG13	Sustainable Development Goal 13, Climate action: Take urgent action to combat climate change and its impacts
SIDS	Small Island Developing States
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
IPCC	Intergovernmental Panel on Climate Change
GCF	Green Climate Fund

1. Introduction

This priority tracker aims to systematize some climate action needs concerning ocean and coastal areas and to assist on the selection process of priority actions or activities based on their expected impact.

The template for the priority tracker was developed by the UNFCCC secretariat to facilitate the understanding of levels of specificity and objectivity needed for defining concrete actions as priorities:
- What is the impact for the sector?
- What are the priority actions to deliver these impacts?
- What are the indicators that actions are being undertake and are effective?

The following section highlights impacts and actions identified by some GCA group participants, as well as some of the Marrakesh Outcomes. The impacts and respective priority actions are organized under overall themes, and when possible, targets and/or indicators are provided:

1. Themes Specific to the Ocean and Coastal Zones

- UNFCCC and SDG Processes (promoting synergies between processes)
- Nature Based Solutions (Ecosystem-based Mitigation and Ecosystem-based Adaptation) and NDCs
- Ecosystem-based Adaptation (EbA) and Mitigation (EbM) in Implementation actions (long-term adaptation, disaster risk reduction, costal resource management, coastal communities' livelihoods and aquaculture and fisheries/food security).
- Community involvement and economic development
- Knowledge, Monitoring and Science

2. Cross-Cutting Themes

- Watchdog: Implementation tracker, and independent monitoring and evaluation system for implementation the Global Climate Action (on Ocean and Coastal Areas)
- Institutional Capacity Development
- Communities: Environmental Displacement
- Mitigation (Ocean-based renewable energy and reduction of GHG emissions from shipping)

2. Priority Impacts and Actions

2.1 Themes Specific of the Ocean and Coastal Zones

1. Promoting Synergies between the UNFCCC and Sustainable Development Goals Processes

Impact 1. UNFCCC Process: Enabling and mainstreaming synergies between UNFCCC processes and the Sustainable Development Goals on the ocean and coastal zones

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- High level Declaration and Decision at the COP23 for the UNFCCC process formally addressing Ocean and Coastal zones in the face of Climate Change and Ocean Acidification (political, for the champions, and programme for the UNFCCC to implement with parties and partners)	- The COP 23 to decide to increase the Secretariat budget to incorporate staff member(s) with expertise in integrated ocean and coastal management, climate change and ocean acidification to support technical work within UNFCCC - Incentives for developing a coastal and ocean climate change tracker, and respective indicators, in support of the UNFCCC process and Paris Agreement Implementation - Financial means to support the work of the GCA platform/process in general and for the Oceans and Coasts so that ocean-related matters are technically sustained within the UNFCCC framework	- Tracker for Ocean and Coastal Adaptation and Mitigation programs, projects, actions, monitoring and evaluation (and inclusive of local communities) to be launched at the COP24 (associated to the Watchdog system)	- Secure within the UNFCCC Secretariat an expert on oceans and coastal issues to serve as focal point for oceans and coastal affairs within the UNFCCC process as well as to support this theme in the GCA - Ensure synergies are harnessed to jointly implement UNFCCC commitments and SDG Actions (in particular SDG13 and SDG14): o Mitigation: Seek synergies of using Blue Carbon to strengthen NDCs as well as SDG13 and SDG14 implementation o Adaptation: Seek synergies of using coastal and marine EbA to strengthen NDCs, as well as SDG13 and SDG4 implementation o Promote Institutional Capacity Development with Mentoring to support countries to lead their ocean and coastal climate change affairs o Strengthen the UNFCCC regional focal points and offices to interact, assist and mentor (ocean and coastal) projects and programmes with national representatives and to monitor implementation , and interact with national CS (‘Regional GCAs’) o Increase public awareness of impacts by greenhouse gas emissions less known, such as ocean acidification and impacts associated to climate change, such as ocean deoxygenation.	- Assist in the establishment and implementation of inclusive frameworks to maintain the integrity and advance the implementation of the Paris Agreement: The Ocean and Coastal Climate Change Tracker- at all scales - Support the continuation and strengthen with the necessary resources and means the GCA group within the UNFCCC process as a Platform/Process that supports the Champions’ in implementing the UNFCCC and its Paris Agreement - Improve the knowledge base on the interactions between oceans and climate, and on the effects of climate change on ecosystem services (including the role of marine ecosystems as carbon sinks), and the impacts of climate change on ocean and coastal-dependent communities

2. Nature Based Solutions (EbA approaches into mitigation and adaption) mainstreamed into NDCs

Impact 2. Blue Carbon (Nature-based solutions to mitigation) and Ecosystem-based Adaptation (Nature-based solutions to adaptation) are mainstreamed into Nationally Determined Contributions and relevant UNFCCC policy processes and implementation activities

Actions				
Policy makers	Finance and investment	Technology and innovation	Activity implementers	Civil society
- Secure high-level awareness and support for Countries to include coastal mitigation (blue) carbon and ocean and coastal adaptation solutions) - PMs informed and aware of opportunities from coastal and marine nature-based solutions to adaptation and mitigation for NDCs	- Highlight that "traditional" climate funding (e.g. GCF and AF) can be accessed for NDC in coastal and marine areas, and ensure private sector engagement and investment - Providing financing opportunities to implement and realize their NDCs	-	- Assessing benefits of 'Blue' NBS in various locations - Further develop Blue Carbon inventory methodologies in support of Parties for including Blue Carbon in NDCs - UNFCCC to assist in developing inventory methodologies of Blue Carbon as carbon sinks - Assist countries which are already addressing the ocean in their NDCs in providing expert assistance and guidance to implement and realize their NDCs - Prepare a guide to the inclusion of oceans and coasts in NDCs for nations which have not yet addressed oceans in their NDCs	- Encourage CS to provide examples and lessons learned from the ground

3. Fast-tracking ecosystem-based mitigation and adaptation to climate change in the ocean and coastal areas and increase action on disaster risk reduction

Impact 3. EbA in action: Enhancing coastal and marine nature-based solutions to adaptation, inclusive of local communities' livelihoods and cultures

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- High-level Declaration and launch of the Ocean and Coasts Adaptation Initiative (political, for the champions, and programme for UNFCCC implementation and partners)	- Scale-up investments in ecosystem based adaptation and resilience for all types of marine and coastal natural ecosystems and local communities whose livelihoods depend on coastal/shoreline and marine resources - Enhance funding through public finance mechanisms to support inclusive, integrated, sectoral and cross-sectoral adaptation and mitigation measures for ocean and coastal-dependent communities with a special focus on the most affected coastal regions, low-lying States and SIDS	- Independent and neutral tracking system: The Adaptation Watchdog for Implementing (see Impact nr.10): o Accountability and traceability of finance and actions to hold governments and all private partners accountable (including NGOs) for actions and commitments, at all scales o Increase efforts to advance transparency and promote use and access to digital including coastal and ocean use of mobile technologies for users (e.g. fisherman) o Develop climate projections for planning and management of natural resources, including environmental impact assessments	- Develop integrated, place-based, cross-sectoral ecosystem-based adaptation (EbA) programmes - Apply EbA approaches to provide natural system defense against sea level rise, saltwater intrusion, storms, flooding - Include climate change projections in the design of natural resources and conservation management plans and environmental impact assessments - Develop a tracking system with objectives, targets and indicators	- Assist in the establishment and implementation of inclusive frameworks to maintain the integrity and advance the implementation of the Paris Agreement: The Adaptation Watchdog at all scales - Promote low-carbon solutions through behavioural change and awareness raising - Raise awareness on using low-carbon solutions and their economic benefits

Impact 4. Coastal blue carbon in action: Enhancing coastal nature-based solutions to mitigation, inclusive of local communities' livelihoods and cultures

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Support of the International Blue Carbon Partnership	- Scale-up investments in coastal blue carbon ecosystems and local communities associated with these systems - Enhance funding through public finance mechanisms to support inclusive, integrated, sectoral and cross-sectoral mitigation/Blue Carbon measures for ocean and coastal-dependent communities with a special focus on the most affected coastal regions, low-lying States and SIDS	- Increase efforts to advance transparency and promote use and access to digital MRV efforts - Develop climate projections for planning and management of natural resources, including environmental impact assessments	- Develop integrated, place-based, cross-sectoral blue carbon programmes, with synergies with EbA efforts - Include climate change projections in the design of natural resources and conservation management plans and environmental impact assessments - Develop a tracking system with objectives, targets and indicators	- Implementation of projects and programmes on the ground

Impact 5. Increasing resilience and adaptive capacity of ocean-dependent coastal communities: fisheries and aquaculture

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Mainstream climate change scenarios in the planning of sectoral policies (e.g. fisheries and aquaculture) - Implement holistic approaches to fisheries and aquaculture management (Ecosystem Approach to Fisheries and to Aquaculture) and promote cross sectoral integration (e.g. Integrated coastal management) - Foster adaptation of the Fisheries and Aquaculture Sectors and Activities to Climate Change by ensuring that the fisheries and aquaculture sectors are included in climate instruments (e.g. national adaptation plans, NDCs) and/or develop specific adaptation plans for the sector	- Develop investment plans to climate proof the fisheries and aquaculture sector - Develop and put in place financial instruments to support fishers and fish farmers (e.g. insurance schemes, microfinance, savings schemes)	- Design and put in place innovative technology and techniques for climate adaptation of fisheries and aquaculture-dependent communities, including mobile technologies for signs of distress, monitoring systems, early warning systems, updated farming and handling techniques - Produce baseline information on climate change and variability so as to develop adequate response for managers, fishers, fish farmers and fisheries and aquaculture-dependent communities	- Implement integrated and inclusive fisheries and aquaculture management taking into account climate considerations (e.g. safety at sea and communication, physical defenses, infrastructure for fish farming and fishing)	- Implement awareness raising programmes to build capacity on climate change, promote knowledge sharing and best practices

Impact 6. Enhancing protection of the coastal zone and its local communities from climate change impacts through clear coastal zoning and tenure for the protection and resilience of coastal habitats as natural infrastructure

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Ocean and coastal resources policy and management mindful of climate change impacts - Public acquision of coastal/shoreline areas for resilience and disaster risk reduction (for setbacks and buffer zones) - Establish clear coastal land tenure (including usage rights), particularly for indigenous peoples and local communities	- Incentives for setbacks of coastal local communities whose livelihoods depend on coastal and marine resources - Incentives for restoring natural barriers to coastal erosion and sea level rise - Ensure full transparency across value chains, financial transactions, and decisions on land-use and land and marine 'sides' of the coastal zone - Earmark public and private funds for increasing resilience of coastal infrastructure	- Track coastal habitats and land-use evolution to hold governments and all private partners accountable for actions and commitments, at all scales	- Establish frameworks for "produce, protect, include" with private, public and civil society: o Protecting and reinforcing Transitional Ecosystems (coastal/estuarine) by preventing human activities to reduce coastal habitats (natural barriers) and carbon sinks (e.g. saltmarshes, mangroves, other transitional coastal habitats, such as sand dunes and estuarine vegetation) o Promote Public acquision of coastal/shoreline areas for setback and ecosystem restoration - Include climate change projections in the design of natural resources and conservation management plans and environmental impact assessments - Develop investible projects and programs (including multi-sectoral) that support public land use policy goals	- Raise awareness on the importance of protection, restoration and land-use of coastal habitats to increase resilience and disaster risk reduction while adapting to climate change

Impact 7. Early warning, climate risks and emergency: Implementing early warning systems to protect and build resilience of coastal local communities and their livelihoods in the most vulnerable coastal communities and areas

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Support the development of adaptive management programmes, early warning systems, disaster risk reduction measures, and sound policies on climate insurance, - Support community-based early warning system projects (e.g. Climate Risk and Early Warning Systems, CREWS)	- Enhance funding through public finance mechanisms to support early warning systems for ocean and coastal-dependent communities in the most vulnerable coastal regions and SIDS	- Design and put in place innovative solutions for disaster risk reduction and climate adaptation. - Promote use and access to digital and mobile technologies for users: o Early warning of coastal communities o For sudden storms warning, search/geolocation, and/or SOS calls (e.g. fishermen in distress)	- Identify vulnerable populations and regions, estimate risk potential and costs associated with precautionary action vs. lack of precautionary action - Implement community-based early warning system projects (e.g. CREWS) - Carry out awareness raising programs on climate change adaptation and emergency response for coastal communities - EbA in coastal zones to include precautionary measures to enhance resilience and prevention of disasters and - Implement EbA and NBS measures for disaster risk reduction	- Developing awareness and readiness

4. Community involvement and social and economic development

Impact 8. Enhancing social and economic development of SIDS and coastal nations by promoting the low-carbon Blue Economy while addressing livelihoods, culture and traditional knowledge and actively engaging local communities

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Planning cross-sectoral policies and sectoral policies for the low-carbon Blue Economy and manage ocean and coastal production systems (e.g. fisheries and aquaculture) considering climate change scenarios - Ensure that Blue Economy measures and ocean and coastal production systems are included in national adaptation and mitigation plans and/or develop specific adaptation plans	- Promote economic benefits to developing countries and SIDS - Finance - Allocate funding to allow for the integrated institutional, market and livelihood development options - Develop investment plans to climate proof ocean and coastal production systems - Provide financial support to Climate proof trade and markets by supporting diversification of markets and productions	- Design and put in place innovative technology and techniques for climate adaptation of coastal and SIDS communities, (e.g. mobile technologies for signs of distress and monitoring systems, updated farming and handling techniques) - Produce baseline information on climate change and variability to develop adequate response for coastal and SIDS communities	- Promote and apply Blue Economy/Blue Growth principles and tools with emphasis on low-carbon solutions and economic benefits to developing countries and SIDS - Develop gender and youth specific considerations in adaptation plans and measures - Carry out awareness programs, giving due consideration to gender and youth	- Raise awareness of impacts to climate change - Raise awareness and engage CS in planning livelihoods for adaptation to climate change - Engage CS into planning social and economic development based on climate projections

5. Knowledge, Monitoring and Science

Impact 9. Improving understanding and management of impacts of GHG emissions and climate change in the ocean and coastal zones with support of research and monitoring

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Support science and research to increase the understanding of the role of the ocean in adaptation and mitigation - Include sustained ocean observation as part of national commitments and policies within the framework of UNFCCC and SDG14	- Invest in data collection and monitoring systems for oceans and coastal areas	- Support the IPCC report on oceans and cryosphere to provide scientific underpinning to tech and innovation in this area - Support research on impacts of ocean acidification and ocean deoxygenation - Strengthen the advancement of global marine observations where appropriate - Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels and the continued development of the Global Ocean Acidification Observing Network and data interpretation - Increase the resolution of climate models to increase accuracy of projections at a finer scale and inform response at national, sub-regional and regional level	- Strengthen data collection systems and repositories on climate and oceanography - Scientific adaptation program focused based on ocean and coastal zones - Improve the knowledge base on the interactions between the ocean and climate, and on the effects of climate change on ecosystem services (including the role of marine ecosystems as carbon sinks), and the impacts of climate change on ocean and coastal-dependent communities	- Raise awareness, produce synthesis, share experiences

2.2 Cross-Cutting Themes

6. Watchdog: Implementation tracker, and independent monitoring and evaluation system for implementation (ocean and coastal) Global Climate Action

Impact 10: Watchdog: To enhance the development and implementation of the Paris Agreement, through a Bottom-Up and Across-Scales Joint Tracking Mechanism of Programmes, Projects and Activities and Needs for ocean and coastal climate action (Adaptation/EbA, Blue Carbon and Mitigation, CD, acidification, early warning)

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Mainstream at High-level the need of tracking implementation and developing synergies for enhancing implementation of adaptation and mitigation programmes to CC Programming	- Incentives to communicate concrete actions and programmes on adaptation to ocean and coastal adaptation and mitigation - Incentives for monitoring and evaluating adaptation/mitigation projects and programme at national/local levels - Ascertain current patterns of expenditure in climate funding addressing ocean and coastal areas (global/regional/national) to identify needs, gaps, and inefficiencies, such as through a financial tracker mechanism	- Common IT platform and process for tracking efforts and impacts by all organizations, - Provide IT facilities for partners to use the IT means - Reporting system and process for local/national and regional reporting	- Provide IT means for contributions by CS - Reporting system and process for local/national and regional reporting	- Involve and provide means for contributions by CS into UNFCCC processes

7. Institutional Capacity Development

Impact 11. Capacity Development: Develop and deliver Tailored Institutional Capacity Development (ICD) to Countries to enable direct development and adaptive management of actions, projects and programmes for ecosystem based adaptation (and mitigation) to ocean and coastal climate change

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Enabling National Institutions to Adapt to Ocean and Coastal Climate Change and Ocean Acidification (cross-cutting) through Institutional Capacity Development with long lasting articulation across scales - Encouraging the participation by coastal countries and SIDS in the processes of the UNFCCC Capacity Committee	- Financial and Institutional UN incentives to retain recipients of (Tailored) Institutional Capacity Development (ICD) in their original countries - Long-term investment on institutional capacity development with mentoring, to strengthen public administration institutions that deliver programme development and management, as well as marine (policy) centers and marine scientific observations - Include a budget line in climate finance specific for this type of Institutional CD in preparation to access to climate finance	- Common IT platform for recipients of ICD countries to collaborate regionally and in conjunction with regional focal points of UN organizations	- Tailored ICD and mentoring for Public Administration officers and respective national CS partners - Long term mentoring program by the UN to be implemented at regional levels by UN focal points, such as the UNFCCC regional focal points - Increase knowledge to manage marine ecosystems sustainably, and develop capacity to adequately reflect ocean aspects in NDCs and to implement them effectively	- Include CS in ICD. Provide means for contributions and collaboration by CS

8. Communities: Environmental Displacement

Impact 12. Safeguards for displaced costal populations due to environmental distress or emergencies caused by ocean and coastal emergencies Climate Change

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Clarify international law in terms of definitions, rights, and procedures for climate-induced refugees and migrants - Develop and support legal, political and financial measures to address the displacement of coastal and island populations - Find resources to evaluate long term migration policies and to address and mitigate the consequences of displacement	- Develop financial measures to: o Mitigate consequences of displacement, and o Address issues associated with the displacement of coastal and island populations - Finance the rebuilding of damaged sites considering coastal problems - Earmark funds in global public finance mechanisms to support adaptation in coastal areas and SIDS	- Distress, threat and emergency tracker including enabled to mobile technology - Mobile means to communicate distress	- Estimate need of displaced populations on a long term - Analyze past migration and resettlement cases worldwide relevant to climate-induced displacement to draw lessons - Designed and installed appropriate settlement for displaced populations with due rights and obligations - Management of land for agriculture devoted to food security - Rehabilitate damaged sites to reduce migration (ecosystem, sustainable fisheries…) - Develop access to jobs in the new settlement - Identify high-risk populations and develop measures to address the potential consequences of their displacement	

9. Mitigation (Ocean-based renewable energy and reduction of GHG emissions from shipping)

Impact 13. Mitigation. Reducing GHG emissions through the production of ocean-based renewable energy and by addressing GHG emissions from ships

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Support the transition process of reducing GHG in the context of the International Maritime Organization and other fora - Accelerate progress in addressing air emissions from ships on international and national level - Integrate Measurement, Reporting and Verification (MRV) in the NDCs - Add an ambitious percent of MRV in the mitigation strategies - FAO: Include mitigation in relation to oceans and coastal areas in the NDCs	- Support countries and communities for the adoption of low fuel fishing, fish farming and fish processing techniques with appropriate investments - Finance green shipping industries - Invest in MRV	- Develop sustainable systems of ocean-based renewable energy and accelerate efforts to implement these through integrated marine and coastal planning and management - Further improve fishing, fish farming and fish processing techniques to reduce GHG emissions and decrease reliance on fossil fuel and/or wood - Consider the potential for ocean-based carbon capture and storage with strict regulatory measures	- Support capacities development program in MRV towards countries which need	

WATER

Impact 1: Increase visibility for water within climate discussions

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil ociety**
- Increase reference to water within NDCs and NAPs	- Improve access to financing for resilient water (and water-related) management projects to the climate funds	- Consider the relevance of an IPCC report focusing on water to bring the scientific evidence to decision-makers and send a wake-up call		

Impact 2: Harmonization of the water and climate policies and agendas

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Establish the link between the achievement of the water related goal of the SDG Agenda and the implementation of the Paris Agreement		- Implement a priority Water Action Plan for Climate Resilience	- Create synergies and policy coherence between the agendas of climate change and water	- Implement the concept of a five fingers alliance between water, energy, food, health and education as social fuel for resiliency.

Impact 3: Promote expertise and knowledge exchange on risks associated with the climate change impacts at all levels

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Ensure that risk assessment relevant, harmonized policies exist at all governance levels		- Technology transfer and tools developed to assess risk associated with CC		- Promotion of civil society involvement in data collection and validation through crowd-sourcing

Impact 4: Promote expertise and knowledge exchange on best practices and adaptation strategies to climate change impacts

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Advocate on existing plans developed at local, regional and national levels	- Establish / strengthen mechanisms for financing adaptation strategies	- Collect and synthesize existing best practices for water use efficiency improvements	- Science Policy forums	

Impact 5: Develop common projects involving water stakeholders with complementary approaches focusing at different levels and on distinct domains: Urban level, Basin level, industry/business level…

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Create spaces (enabling environment) for water stakeholders to get together and express their own concerns and learn from others		- Establish platforms for sharing data coming from different domains but all in relation to water		

Impact 6: Develop sharing of best practices in Smart water Management

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
	- Demonstrate the business case model of smart water management	- Publish a white paper on Smart Water systems with case studies, benefits and recommendations	- Water utilities	

Impact 7: Equitable access to agricultural water resources and services in the context of climate change

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Consider women and men's different access and control over water resources, technologies and waterrelated services, markets and water-related industries in the agriculture sector. - Assess women's involvement in rural and local institutions related to water access and management.	- Provide financial and investment mechanisms to overcome women's specific barriers	- Introduce innovative technologies to increase water use efficiency and increase women's productivity. Invest in gender-responsive research to develop and disseminate labour and water-saving technologies.	- Analyze and upscale genderresponsive infrastructure and technologies Address women's infrastructure needs in both large-scale irrigation schemes and smaller-scale initiatives, including labour and watersaving technologies to free their time and increase agricultural productivity.	- Involve women's organizations and small producers' groups in the development and upscaling of infrastructure and technologies

Impact 8: Gender-responsive regulatory frameworks to improve women's access to water resources and services in the context of climate change

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Address gender implications of existing policies and regulatory frameworks related to the water sector	- Design gender-responsive instruments and incentives to improve women's access to water resources and services		- Use gender-sensitive methodological frameworks to assess and monitor gender related impacts. Raise awareness on the water and land rights of women to protect their natural resource rights and reduce existing discrimination.	- At local level empower women by building their leadership and technical skills to let them be more involved in community-based organizations and negotiations related to water management

Impact 9: Ensure more efficient use of water and energy in agrifood chains

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- Create policies, regulations and institutional set ups that are based on a waterenergy-food nexus approach	- Finance water-energy-food nexus assessments regarding water management projects in agriculture		- Systematically assess tradeoffs and synergies between energy and water in agrifood chains through a water-energy-food nexus approach	

Impact 10: Capacity-building

Actions				
Policy makers	**Finance and investment**	**Technology and innovation**	**Activity implementers**	**Civil society**
- (I) Support the countries capacity to set up and operationalize cross-sectoral agencies tasked to formulate and implement policies and programs for water management, supported by integrated scenarios taking into account demand for irrigation, energy, grey water and other water users (applied at the territorial level). - (II) Support countries to develop coherent policies and programs that achieve improved water use efficiency (maximizing “crop per drop”) AND sustainable water use (optimized over the entire hydrological unit) using a mix of incentives and regulations, including participatory governance to manage equitable water access among different users	- (I) Create investments funds for developing water infrastructure (with priority for small-scale and localized structures) and for providing incentives for small-scale water-saving technologies, including water use target compliance to meet water sustainability targets; (II) Design water pricing instruments combined with water use regulations, monitoring and compliance adapted to local situation, especially under water scarcity conditions.	- (I) Support countries to introduce and evaluate the socioeconomic constraints and opportunities for successful adoption of proven/tested water-saving and water-harvesting technologies, supported when possible by renewable energy systems required for sustainable water use.	- (I) Support countries to put in place institutional structures in water management, including effective multi-stakeholder structures for water use governance, and for ensuring equitable water access, especially under water scarcity and emergency situations (like droughts).	

LAND USE

Summary of Detailed Impact Matrix for Land Use

Core Impact Areas:

I. Stop Deforestation
   a. Policy reform in forested countries
   b. Increased funding from investors
   c. Pay for performance/ results-based partnerships
   d. Law enforcement
   e. Public-private sector innovation
   f. Land rights/tenure for indigenous peoples

II. Restore Forests and Arable Land
   a. Increase ambition of forest restoration policy frameworks / strategies at landscape, subnational, national levels
   b. Develop / reinforce domestic incentives for restoration
   c. Develop bankable restoration projects at a landscape scale for investors

III. Climate Smart Agriculture: Leverage the Potential of Agriculture and Ensure Food Security
   a. Soil restoration
   b. Livestock management
   c. Agro-forestry
   d. Reduce post-harvest losses and food waste

Key Cross-Cutting Areas Linked to Land-Use: Knowledge/Learning, Research, Information Technology Access, Social Protection, Gender, Water, Energy, Finance

Forests, ecosystems

Impact 1: At least halve the rate of loss of natural forests globally by 2020 and strive to end natural forest loss by 2030 (NYDF Goal #1) - Overall indicators: Reduction of deforestation associated with a particular commodity. Annual gross natural forest/tree cover loss (in ha); Annual net natural forest/tree cover change (in ha); Annual emissions from gross tropical deforestation (in CO2e)

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Increase the level of ambition on forest mitigation in national NDCs - Step up investment in building national and local capacity to ensure implementation of NDC commitments, including mitigation activities related to REDD+. - Strengthen forest governance frameworks and law enforcement, and enhance integrated landscape planning. - Clarify and formalize indigenous and local community forest tenure and use rights – including through the large-scale adoption of voluntary guidelines on the governance of tenure of land, water, fisheries and forests. - Take the needed measures – land use planning, regulatory, taxes, public finance – to free up non-forested, underutilized lands for high productivity agriculture - Ensure that any government support to the agricultural sector, in cash or in kind, is aligned with the country's sustainable forest management policies, especially conservation and restoration objectives and do not encourage in any way deforestation or forest degradation practices. - Provide adequate incentives to reorient and increase investments in forests especially through scaled-up incentives for reduced deforestation as well as risk capital. - Promote policies addressing demand side measures to incentivize deforestation free commodities in producing and consuming countries. - Restore degraded landscapes and forestlands. - Support alternatives to deforestation driven by basic needs (such as subsistence farming and reliance on fuel wood for energy) in ways that alleviate poverty and promote sustainable and equitable development (NYDF Goal #4) - Promote legislation to increase sustainable use of and reduced deforestation from wood energy. - Advocate for an all of government approach to mainstreaming food security in climate policies.	- Support and help meet the private sector goal of eliminating deforestation from the production of agricultural commodities such as palm oil, soy, paper and beef products by no later than 2020 (NYDF Goal #2) - Create clear market signals, especially a price on carbon (including forest and soil carbon). - Improve the access of developing countries, especially in Africa, to the financial mechanisms of the UNFCCC, and accelerate development of national investment frameworks. - Promote transparency of value chains, financial transactions and land use decisions. - Establish clear compliance mechanisms to ensure investors and lenders in the forest risk commodities do not support unsustainable practices. - Scale up – through ambitious public private partnerships – finance to encourage a combination of increased agricultural productivity and forest protection and restoration. - Incorporate gender considerations in payment schemes for ecosystem services.	- Further improve tools to advance transparency and to promote use of and access to land use monitoring systems and mobile technologies for various stakeholders (farmers, indigenous peoples, NGOs). - Facilitate implementation of open access tools for monitoring forests and land use, such as Collect Earth, GFW, etc. to carry out rapid, reliable and transparent assessments. - Invest in R&D on innovative approaches to forest friendly value creation in and around forests, including innovative approaches to natural forest restoration, silvopastoralism, and agroforestry.	- Support and help meet the private-sector goal of eliminating deforestation from the production of agricultural commodities such as palm oil, soy, paper, and beef products by no later than 2020, recognizing that many companies have even more ambitious targets (NYDF Goal #2). - Establish more tripartite frameworks with private, public and civil society for sustainable production of forest risk commodities. - Develop investible projects and programs (including multi-sectoral) that support public land use policy goals. - Integrate forests and other land uses by leveraging existing information and guidance on integrated approaches and invest in effective multi-stakeholder engagement in scaled-up forest landscape protection and restoration efforts. - Reward countries and jurisdictions that, by taking action, reduce forest emissions—particularly through public policies to scale-up payments for verified emission reductions and private-sector sourcing of commodities.	- Advocate for more integrated, sustainable landscape solutions, transparency and mechanisms to monitor actions and commitments of governments and private sector. - Assist in the establishment and implementation of inclusive frameworks for public-private-civil society action that maintain the integrity and advance the goals of the Paris Agreement, and support those stakeholders who most need it (indigenous peoples and local communities). - Step up public advocacy for ambitious public and private investments in climate change adaptation efforts with mitigation co-benefits in developing countries. - Advocate for enlarged areas set aside for protection and Indigenous Peoples' Territories. - Continue to generate and communicate experience with innovative approaches.

Impact 2: Restore 150 million hectares of degraded landscapes and forestlands by 2020 and significantly increase the rate of global restoration thereafter, which would restore at least an additional 200 million hectares by 2030 (NYDF Goal #5)

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Enable and develop forest restoration policy frameworks and strategies at the landscape, subnational and national levels to achieve mitigation and adaptation results. - Increase ambition in national governments and sub-national jurisdictions to make and implement ambitious restoration pledges aimed at achieving the Bonn Challenge/NYDF restoration targets as part of NDC implementation. - Strengthen forest governance frameworks and law enforcement, and enhance integrated landscape planning. - Clarify and formalize indigenous and local community forest tenure and use rights – including through the large-scale adoption of voluntary guidelines on the governance of tenure of land, water, fisheries and forests.	- Develop and reinforce domestic incentives for restoration, including to create an enabling environment for external investment. - Develop bankable projects based on restoration of trees and forests at a landscape scale for investors to include in their portfolios. - Proactively build or reinforce networks matching governments, project developers and investors. - Communicate the economic, including carbon, benefits of restoration at a landscape and (sub)national scale to build the case for restoration.	- Invest in developing in-country capacity through sharing of technological know-how aimed at the development of restoration strategies and quantification of estimated benefits. - Explore the use of innovative technologies such as drones to assist in restoration action and to monitor progress.	- Plan interventions in the forest and land use sector at a landscape scale to arrive at an optimal and negotiated package of land uses, thereby increasing prospects for sustainable results in the long term.	- Equip decision makers in the public and private sector with new knowledge and technical support to encourage restoration action with benefits for climate. - Connect with communities and forest peoples to generate awareness of the benefits of restoration, providing tools to empower them to be a voice in forest and land use decisions.

Impact 3: Climate Smart Agriculture: Leverage the potential of agriculture for climate and ensure food security

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Step up investment in building national and local capacity to ensure implementation of NDCs commitments, including adaptation priorities. - Ensure that any government support to the agricultural sector, in cash or in kind, is aligned with the country's sustainable forest management, and does not negatively affect capacity to adapt to climate change at national or local level, e.g. through forest protection and restoration in high disaster risk areas. - Promote an inclusive regulatory and investment framework for climate change adaptation and mitigation in agriculture. - Connect small holder farmers / forest dwellers to land use-related value chains. - Strengthen forest and other land-use related governance frameworks and law enforcement, and enhance integrated landscape planning. - Promote gender equality in the transition to climate-resilient agriculture. - Create policy to increase the use of renewable energy in agrifood chains. - Support countries to formulate and develop new policies, strategies and programs required to diversify away from a few major crops on which the country relies upon which are challenged by evolving climatic conditions.	- Support the development of climate-smart financial instruments to aggregate and scale up investment in sustainable intensification and sustainable production. - Increase R&D for sustainable, low carbon and zero-deforestation/zero forest degradation agriculture, agroforestry and sustainable management of forests. - Support the development of climate smart financial instruments to scale up investment in adapting farming, livestock raising and forestry practices to climate change, and in funding the protective ecosystem services provided by forests (mountain forests, mangroves etc.) - Increase R&D for sustainable, low carbon and zero-deforestation/zero forest degradation agriculture, agroforestry and sustainable management of forests.	- Facilitate implementation of open access tools for monitoring forests and land use, such as Collect Earth, GFW, etc. to carry out rapid, reliable and transparent assessments. - Support the country capacity to enact programs and initiatives to assess the socio-economic (including gender) and institutional parameters required for successful adoption of new technologies by farmers and herders and to promote the enabling conditions for the climate-resilient agriculture transformation.	- Establish more tripartite frameworks for joint action by private, public and civil society action to help smallholder farmers, pastoralists and foresters adapt to climate change. - Develop investible projects and programs (including multi-sectoral) that support public land use policy goals including long-term climate change adaptation. - Integrate forests and other land uses by leveraging existing information and guidance on integrated approaches to harness protective ecosystem services in multiple use landscapes, as a contribution to disaster risk reduction, for example through scaled-up forest landscape restoration efforts in areas prone to landslides and other disasters that will become more frequent as a result of climate change.	- Continue to generate and communicate experience with innovative approaches. - Advocate for more integrated, sustainable landscape solutions that take into account the need to adapt land use sectors to climate change and to enhance the protective functions of forests in the face of increased frequency of hydro-meteorological disasters. - Assist in the establishment and implementation of inclusive frameworks for public-private-civil society action that maintain the integrity and advance the goals of the Paris Agreement, and support those stakeholders who most need it (indigenous peoples and local communities). - Step up public advocacy for ambitious public and private investments in climate change adaptation efforts with mitigation co-benefits in developing countries.

Impact 4: Ensure proper integration / cross-pollination across areas of the 'Water, Energy, Forests, Food' Nexus

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Improve knowledge of how climate change affects smallholder land use and develop policies for supporting adaptation of affected communities, including through dedicated adaptation mechanisms as well as through adaptation co-benefits of REDD+ investments. - Address gender differences in forestry value chains, shaping access to, management of and use of forest, agroforestry and tree resources and markets and their associated benefits, technology access and dissemination, women's labor or skills constraints, natural resource use and ownership, and cultural barriers to accessing markets and harvesting infrastructure. - Promote legislative framework around energy for biomass.	- Scale up investments in adaptation and resilience of all types of forest ecosystems and of rural communities that depend on them. - This transformative agricultural program requires significant investments in part coming from re-allocation of current expenditures, as well as new funding sources either through climate related funding mechanisms or the engagement of the private sector investments under public-private partnerships.	- Further improve tools to promote use of and access to land use monitoring systems and mobile technologies for farmers. - Provide support to countries for agricultural technology development through research and field testing. - Create incentive systems that remove the barriers faced by women in the informal Non-Wood Food Product market where women often play a crucial role but are largely invisible. - Assess the gender implications when introducing new technologies and practices, and the different level of uptake of men and women farmers.	- Integrate solutions for more equitable forestry value chains, use guidance and survey modules for measuring the multiple roles of forests in household welfare and livelihoods.	- Strengthen coordination mechanisms with the involvement of relevant CSO members that deal with gender and the environment / climate with invaluable field level knowledge (IUCN, WEDO, GGCA).

Agriculture and food security

Impact 1: Gender equality in transition to climate-resilient agriculture

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Promote women's equal rights to productive resources, ownership and control over land, natural resources, appropriate new technologies and financial and climate services in climate change adaptation and mitigation strategies for agriculture	- Provide investment support to facilitate access to production inputs and financial services	- Enable large-scale diffusion of gender-responsive climate-smart practices and services	- Promote functional farmer training centers conducting training on gender responsive CC adaptation and mitigation technologies (with demonstration plots, trained extension officers in gender and CSA, appropriate equipment and inputs, use of meteorological information, etc.)	- Engage actively in local and subnational climate action and planning that address women's land tenure and access to productive resources;

Impact 2: Inclusive regulatory and investment framework for climate change adaptation and mitigation in agriculture

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Create an adequate regulatory framework and support services for the transition to climate-resilient agriculture, with coherence across climate and agricultural policies	- Enabling public and private investment gender-responsive in climate-resilient agriculture - Increase R&D for sustainable, low carbon and zero-deforestation/zero forest degradation agriculture, agroforestry and sustainable management of forests.	- Development of gender-responsive climate advisory services	- Gender transformation where: women are not disproportionately affected by climate change; both women and men have an equal voice in decision-making on climate change and broader governance processes; both women's and men's needs and knowledge are taken into account in all policy and practice; and the broad social constraints that limit women's access to strategic and practical resources no longer exist.	- supporting women farmers to form market associations or cooperatives, and strengthening their capacity to meaningfully participate

Impact 3: Increased use of renewable energy in agrifood chains

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Develop / strengthen policies, regulations and institutions to promote the use of renewable energy in agrifood chains	- Finance assessments of constraints of opportunities to increase the use of renewable energy in agrifood chains, including implications on mitigation and adaptation	- Assess the possibilities to use GHG emissions from agrifood chains to produce energy and/or bio-materials	- Carry out assessments of constraints of opportunities to increase the use of renewable energy in agrifood chains, including implications on mitigation and adaptation	

Impact 4: More sustainable use of residues from agrifood chains

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
	- Finance work aimed at assessing the availability to use residues from agrifood chains to produce bioenergy and/or bio-materials	- Use country-level remote sensing results from combined land change and biomass fires to assess the availability of residues from agrifood chains to produce bioenergy and/or bio-materials	- Systematically consider tradeoffs and synergies regarding different uses of residues from agrifood chains (for soil management, animal feed or bioenergy)	

Impact 5: Support to countries

Policy makers (national, sub-national and local)	Finance and investment	Technology and innovation	Activity implementers	Civil society
Actions				
- Support countries to develop the capacity to test and deploy improved and locally adapted crops (drought and disease resistant crops) and locally adapted animal breeds as part of climate-resilient diversification strategy of agriculture - Support countries to formulate and develop new policies, strategies and programs required to diversify away from few major crops on which the country relies upon challenged by evolving climatic conditions.	- This transformative agricultural program requires significant investments in part coming from re-allocation of current expenditures, as well as new funding sources either through climate related funding mechanisms or the engagement of the private sector investments under public-private partnerships.	- (I) Provide support to countries for agricultural technology development through research and field testing; - (II) Support the country capacity to enact programs and initiatives to assess the socio-economic and institutional parameters required for successful adoption of new technologies by farmers and herders and to promote the enabling conditions for the climate-resilient agriculture transformation.	- Support the agricultural research agencies that develop the technologies by promoting data and information exchanges with research partners; - Support the extension services and consolidate close working relations with research institutes to accelerate technology field testing; - Support national or regional platforms involving multiple players interested in the technology deployment and adoption; this includes credit and finance institutions; agribusiness; input suppliers; and producer organizations	- NGOs working with farmers and farmer organizations to test pilot new technologies, and disseminate best practices among farmers and herders.