

SUSTAINABLE DEVELOPMENT IN PRACTICE

APPLYING
AN INTEGRATED APPROACH
IN LATIN AMERICA
AND THE CARIBBEAN

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DIGITAL COMPILATION OF
ALL EXPERIENCES AND
RELATED DOCUMENTATION

FOREWORD

Last year, nearly 200 world leaders agreed to make our world more just, more inclusive and more secure by ending poverty and protecting natural resources. These nations agree they must place social, economic and environmental development on an equal footing. And they further agree that all public and private stakeholders join force. This report shares a diverse collection of inspirational stories that explain how such integrated efforts already benefit people in Latin America and the Caribbean, and could do the same elsewhere.

When it comes to balancing different objectives and budgets, decision makers across all sectors face increasingly tough choices. The good news is that we do not have to choose between the environment, the economy and the wellbeing of people. As these stories show, with a little ingenuity, a lot of determination and some careful prioritization we can have all three.

For example, it is easy to over simplify cattle farming's impact on the environment. However, new techniques are emerging from different countries in Latin America and the Caribbean. They show the huge potential to reduce poverty, food insecurity and the loss of biodiversity, while tackling climate change and economic growth. Take the Sustainable Colombian Ranching project, which community leader and rancher Alba Tamayo is involved with. This project owes much of its success to widespread co-operation among diverse stakeholders, including government, scientific and civil society organisations, as well as thousands of ranchers.

Many stories point to the benefits of new technology, while others highlight the potential for adapting the idea for new places. However, they all have one thing in common: they show how important it is to involve every level of civil society and government. This is particularly clear in a story from Honduras, which explains how traditional knowledge is reversing soil damage, increasing its value and showing new generations that slash and burn activities are not the best option.

These examples reflect Latin America and the Caribbean's determination to integrate social, economic and environmental development, by making people the priority. Achieving that right across this fragile planet of finite resources will need more international co-operation and a more strategic distribution of investment. That's why we hope that everyone seeking to make local, regional or global progress will use this report as a source of practical inspiration to tackle their own priorities.

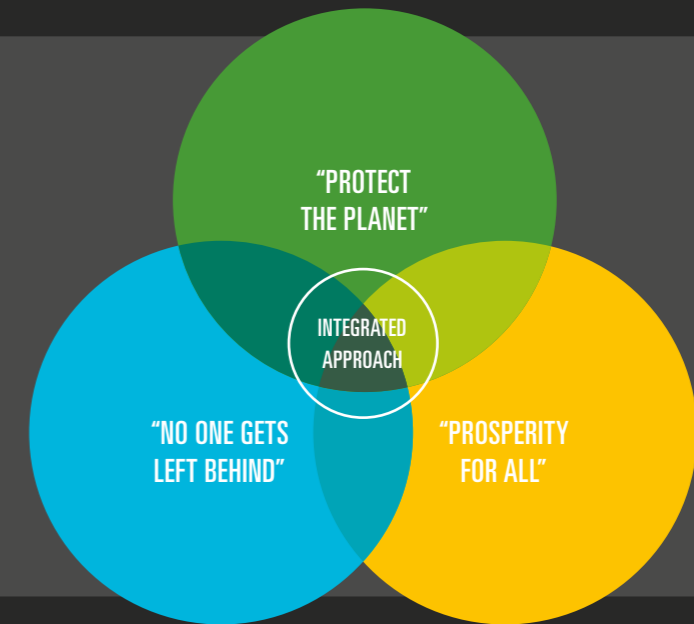
Samery Filho
Minister of Environment of Brazil

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Head of UN Environment

EXECUTIVE SUMMARY

WHAT WERE WE LOOKING FOR...

An integrated approach for sustainable development that promotes sustained and inclusive economic growth, social development and environmental protection.



WHO PARTICIPATED...



WHAT ARE THE MAIN MESSAGES FROM THE FIELD...



ABOUT THIS PUBLICATION

“Life is one and the world is one, and all these questions are inter-linked. The population explosion; poverty; ignorance and disease, the pollution of our surroundings, the stockpiling of nuclear weapons and biological and chemical agents of destruction are all parts of a vicious circle. Each is important and urgent but dealing with them one by one would be wasted effort.”

Indira Gandhi,

1972 Stockholm Human Environment Conference

The UN General Assembly adopted *Transforming our World: the 2030 Agenda for Sustainable Development* (UNGA, 2015) in September 2015. This declaration, the result of an intense participatory process by governments, civil society, the private sector, and other development stakeholders, describes the plans that will guarantee a global partnership to promote sustained and inclusive economic growth, poverty eradication and environmental protection. As it states in its preamble, “*We are resolved to free the human race from the tyranny of poverty and want and to heal and secure our planet.*”

The complexity of the development challenges faced by our societies today, such as growing inequality, rising un-

employment, climate-related disasters, migration, and natural resource degradation, demands collective action, strategic leadership, and policies that take a holistic approach to fostering a transition to a sustainable future for all. As the implementation phase of the Sustainable Development Goals (SDGs) has already begun, the global development community is assessing which strategies and resources are needed to achieve this ambitious agenda.

However, the 2030 Agenda and the SDGs were not created in a vacuum. Parallel efforts to take steps towards sustainability have been taking place worldwide. The Latin America and Caribbean (LAC) region has been developing and implementing strategies and policies that apply an integrated ap-

proach to sustainable development for years. Although designed before the definition of the SDGs, these initiatives have already contributed to their achievement.

This publication is intended to assist policymakers seeking to balance integration within different development objectives by providing insights to the challenges they face. It also highlights the roles different stakeholders, from governments to civil society and the private sector, can play in development processes. To do this, it provides an overview of concepts and tools successfully used in initiatives in the LAC region. By revealing the links of these initiatives to specific SDG targets, the experiences analysed also offer practical insights and entry points to enable the merging of the three dimen-

sions of sustainable development — maximising environmental, social, and economic benefits. In this sense it should be taken for what it is: an anthology of successful and innovative approaches to sustainable development. Readers should feel free to explore each example, and consider them carefully for ideas -- and perhaps even inspiration -- that allows them to create and implement their own integrated approaches.

In terms of structure, this publication begins by presenting a framework that defines how the 2030 Agenda has provided the structural path towards driving an integrated approach for sustainable development. It then provides an overview of the process for compiling the experiences that follow. This includes the criteria for identi-

fying and qualifying genuine integrated policies, plans and initiatives; and how they were assessed before reviewing trends and key findings.

The following section looks specifically at the experiences that were chosen to provide examples of how an integrated approach can flow from any sector, be present in any stage of the policy cycle, and be applied at scales ranging from the local to the regional. The brief presentation of nineteen experiences is concluded by summaries of nine additional experiences that were left out due to space constraints. All of them exemplify how we can simultaneously advance multiple objectives across the three dimensions of sustainable development. Outside this document, additional critical

information has been included in an online compendium that complements this publication. Its aim is to ensure that data, knowledge, and best practices can be shared in order to aid the replication and scaling up across the LAC region. This digital compendium can be found at the end of this publication as well as in UNEP Live (www.unep.org/uneplive), an on-line platform developed to share knowledge and data.

The document concludes with a look at some of the opportunities for an integrated approach to move beyond the experiences presented here and become the status quo for planning, implementing, and assessing sustainable development plans on our journey towards achieving the goals and targets as set out in the 2030 Agenda.



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THE INTEGRATED APPROACH

AND THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

Truly sustainable development outcomes cannot be achieved if development action remains within traditional social, economic and environmental silos. Instead, a more holistic or “integrated” approach is necessary. In this way, the connections between social progress, economic growth, and environmental sustainability are acknowledged.

In the UN Conference on Sustainable Development (known as Rio +20) outcome document, world leaders recognized this issue, declaring that sustainable development could only be achieved by “*promoting sustained, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, and promoting the integrated and sustainable management of natural resources and ecosystems.*” They called for “*holistic and integrated approaches to sustainable development*” to guide humanity to live in harmony with nature and help “*restore the health and integrity of the Earth’s ecosystem.*” (UN, 2012, parrag. 40).

The 2030 Agenda builds on this ethos. It synthesizes the breath and complexity of the development issues the world faces by identifying five key themes for action: people, planet, prosperity, peace, and partnerships. The Agenda goes further by establishing 17 goals with 169 targets, as mandated in Rio+20. These

Sustainable Development Goals (SDGs) are “*integrated and indivisible, and balance the three dimensions of sustainable development.*” It is therefore not possible to selectively make progress in a few of the goals; the multi-dimensional nature of development challenges and the need to simultaneously achieve long-term gains in all realms must be recognized — and any actions must take into account this recognition. An example of this multi-dimensionality lies in the role environmental sustainability plays in creating a prosperous future for all. Its inclusion in all of the SDGs challenges humanity to find new ways of ensuring well-being that do not result in the depletion of natural resources, environmental degradation, or the destruction of livelihoods.

The Agenda also seeks to ensure that comprehensiveness of the approach to development is maintained. Not only are there clear links between topics, visions, and previous international commitments (such as, the Multilateral Environmental Agreements, Human Rights mechanisms and the Millennium Declaration), but also it incorporates tools such as policy coherence, good governance, and partnerships in the targets related to the means of implementation. This framework implies that progress towards attaining one goal can lead to successes in many others if an integrated approach is applied.

2012

United Nations Conference on Sustainable Development (Rio+20) “The Future We Want” outcome document acknowledges that: “*Since 1992 there have been areas of insufficient progress and setbacks in the integration of the three dimensions of sustainable development. . . [calling for a high level political forum to] enhance integration of the three dimensions of sustainable development in a holistic and cross sectoral manner at all levels.*”

1992

UN Conference on Sustainable Development (Rio Earth Summit) defined Agenda 21 as a tool to foster a “*balanced and integrated approach to environment and development questions*” where government decision making and policy making accounts for the complexity of achieving sustainable development.

1980

World Conservation Strategy (WCS) – The International Union for the Conservation of Nature and Natural Resources (IUCN) introduces the concept of Sustainable Development. “[*There is a need to] integrate every stage of the conversation and development processes, from the initial setting of policies to their eventual implementation and operation.*”

2015

United Nations Sustainable Development Summit. “*Transforming Our World: the 2030 Agenda for Sustainable Development*” calls for “*achieving sustainable development in its three dimensions – economic, social and environmental – in a balanced and integrated manner.*”

2002

World Summit on Sustainable Development. The report from the Summit calls for: “*Integration of the economic, social and environmental dimensions of sustainable development in a balanced manner.*”

1987

United Nations’ World Commission on Environment and Development (WCED) released its report Our Common Future and popularized sustainable development. “*The ability to choose policy paths that are sustainable requires that the ecological dimensions of policy be considered at the same time as the economic, trade, energy, agricultural, industrial, and other dimensions – on the same agendas and in the same national and international institutions.*”

1972

Stockholm Conference on the Human Environment – Introduction of Principle 13: “*States should adopt an integrated and coordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve the human environment for the benefit of their population.*”

A BRIEF HISTORY OF THE INTEGRATED APPROACH FOR SUSTAINABLE DEVELOPMENT

WHY AN INTEGRATED APPROACH?

Our world faces increasingly complex issues that defy traditional categorisation and are difficult to resolve. Despite this, development efforts are often uncoordinated and encumbered with numerous independent policy processes, stakeholders, and resource burdens that often result in outcomes that are inefficient, ineffective, and unexpected — or not understood. Moving away from single issue interventions to an integrated approach that develops entire systems will ensure today's complex issues are tackled in a holistic way.

AN INTEGRATED APPROACH FOR SUSTAINABLE DEVELOPMENT PLANNING



THE REGIONAL CONTEXT

The Latin America and Caribbean region is incredibly vibrant. Its richness in political, social, and natural contrasts is evident in the spectrum of country size, economic structure, and extremely diverse geographical and ecological features it holds. However despite this diversity, several common challenges arise: national economies continue to share a persistent and heavy reliance on primary products and natural resources, and the region's composition of mainly middle income countries belies widespread inequality with many people remaining in a 'vulnerable class' that risks falling into poverty.

The region has made progress in addressing a number of high-priority socio-economic challenges such as decreasing poverty and the number of people living in slums. However, progress has taken place in many cases at the expense of the natural environment — agricultural frontiers expand and the mainly urban population continues to grow while following production patterns that exacerbate environmental degradation.

Furthermore, environmental issues in the region are also vulnerable to worldwide threats. Despite Latin America and the Caribbean having the lowest carbon content of any regional energy mix, populations and economies are already under pressure



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from trends in global climate change that are expected to become more extreme. For example, Andean glaciers, which provide a vital water resource, are melting, and an increase in the intensity and frequency of extreme weather events has left no country in the region unaffected.

This trade-off between human progress and environmental health is no longer sustainable. The future of the region's economies, as well as its ability to fight poverty and reverse inequality, depends heavily on the region's natural capital and the capacity of governments to effectively manage it. Unsustainable production and consumption patterns therefore need to be urgently addressed if the region is to secure the well-being of its growing population.

In this regard, the Latin America and Caribbean region has the opportunity to build on and upscale existing efforts. Committed and innovated social actors from, civil society, communities, governments, and the private sector have successfully put sustainable development initiatives into practice at different scales. Such initiatives were born from the need to solve complex problems, and the visions that drive them are a reflection of the resolute that the region is. The compromises by the diverse forces within nations and territories have given birth to many initiatives that take into account various development needs and approaches. They not only reconcile the short-term interests of diverse stakeholders, but also garner their commitment and co-responsibility to ensure a sustainable future.

THE PROCESS OF COMPILING EXPERIENCES

METHODOLOGY

The compilation of experiences was undertaken in three phases: identification, documentation and analysis. In the identification and documentation phases, which included consultations involving all 33 countries in the region, experiences were carefully scrutinized to ensure that only those that best complied with the criteria proceeded to the analysis phase. After a thorough process of reviewing policies, projects, and programmes, 57 experiences were identified as potentially applying an integrated approach. From that point, the decision was taken to further document the 28 strongest cases. Ninety-six people were involved in this process and contributed to the identification and provision of specific information.

The following specific criteria were applied to identify the experiences:

I. VERIFIABLE RESULTS OF THE IMPLEMENTATION OF THE INTEGRATED APPROACH

This refers to the achievement of the explicit and implicit objectives in the three dimensions of development (economic, social, and environmental). To this end, it was necessary that the objectives and methodology for evaluating them were explicit in the

documentation of the experience, and that there was progress in their achievement. Criteria used to verify that results were aligned with the three dimensions are presented in the graphic on the following page.

Key aspects

Achievement of objectives, existence of a planning process and a monitoring system/framework.

II. PERTINENCE AND LEGITIMACY

This refers to the degree to which experiences took specific needs or contexts (whether national, subnational, or local) into account, and how they responded to them. In order for experiences to be considered pertinent and legitimate, they must have responded to an objective needs assessment, and key stakeholders must have been consulted and included in the intervention.

Key aspects

Needs assessment, key stakeholders/beneficiaries involved.

III. SUSTAINABILITY

Experiences, to be considered, had to have the capacity to be sustainable over time.

Key aspects considered for this criterion were: a) the explicit support of stakeholders involved, and b) full knowledge of the resources needed to maintain results or processes. This contributes to the irreversibility of changes achieved by the intervention.

Key aspects

History of the practice or project, resource analysis, key stakeholder support.

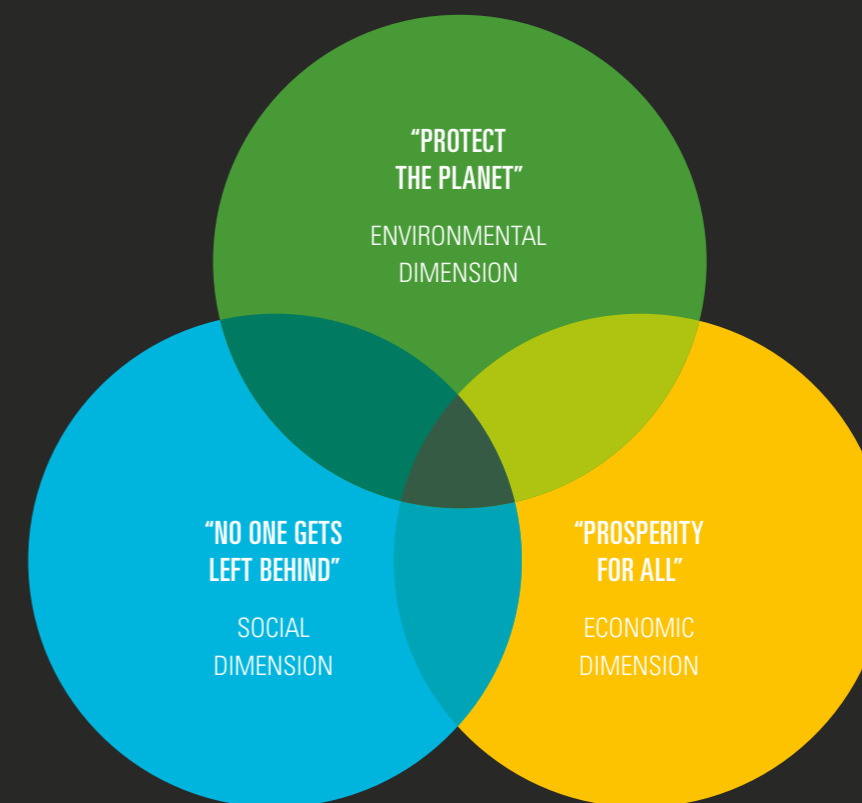
IV. REPLICABILITY AND EXPORT POTENTIAL

The potential for replication was determined by whether experiences could be implemented in other contexts. It therefore could not include unique personal or economic resources, legal frameworks, institutions, etc. that would make it difficult to replicate. One way to verify replicability was whether the experience had already been implemented in other locations.

Key aspects

Specificity of the design and objectives, existence of the same intervention (or a version in another context), necessary resources and enabling conditions.

CRITERIA USED TO VERIFY THE RESULTS OF THE EXPERIENCES IN THE THREE DIMENSIONS OF SUSTAINABLE DEVELOPMENT.



DOES THE EXPERIENCE...

- have a verifiable impact on poverty eradication or human development?
- strengthen access to social services?
- promote social participation and access to information?
- foster the inclusion of vulnerable groups?
- promote decent employment?
- strengthen food security, health, and/or education?
- promote fair access to natural resources, ecosystem services, and their benefits?
- decrease social vulnerability to disaster risk or climate change?

DOES THE EXPERIENCE...

- strengthen natural capital (ecosystem conservation, management, restoration)?
- facilitate progress to a low carbon and greener society and economy?
- reduce pollution and recover, reuse or dispose of waste in an environmentally sound manner?
- avoid or mitigate greenhouse gas emissions?
- promote an efficient use of natural resources?
- ensure the protection of life-supporting capacities of air, water, soil, and ecosystems?

DOES THE EXPERIENCE...

- increase wealth and income?
- improve economic competitiveness and productivity?
- enable positive fiscal results?
- contribute to sustainable productive transformation?
- foster the creation of new green businesses?
- drive local/sectoral/national growth?
- strengthen the inclusion of the value of natural assets in economic policy decisions?
- decrease the carbon intensity of development?
- increase economic and infrastructure resilience to disaster risk and climate change?

THE EXPERIENCES



- 1 *Barbados*
THE BARBADOS BOARDWALK
- 2 *Bolivia*
COMMUNITY FOREST MANAGEMENT
- 3 *Brazil*
BOLSA VERDE
- 4 *Brazil*
SUSTAINABLE CONSUMPTION AND PRODUCTION
- 5 *Chile*
HEALTHY AIR FOR SANTIAGO DE CHILE
- 6 *Colombia*
BANCO2
- 7 *Colombia*
SUSTAINABLE CATTLE RANCHING
- 8 *Costa Rica*
ACTUAR
- 9 *Cuba*
RECYCLING COOPERATIVES
- 10 *Eastern Caribbean*
LIVING THE BLUE ECONOMY
- 11 *Ecuador*
QUITO'S WATER FUND
- 12 *El Salvador*
MUNICIPAL SYNERGY IN ACTION
- 13 *Honduras*
QUESUNGUAL

- 14 *Mexico*
BEYOND FOOD SECURITY
- 15 *Peru*
MOUNTAINOUS COMMUNITIES DRIVING CHANGE
- 16 *The Dominican Republic*
GREENING SAFE HOSPITALS
- 17 *The Dominican Republic*
VULNERABILITY TO CLIMATE HAZARDS INDEX
- 18 *Trinidad & Tobago*
THE GREEN MARKET AND THE FUTURE OF FARMING
- 19 *Uruguay*
RENEWING ENERGY
- 20 *Argentina*
A SUSTAINABLE LIFESTYLE 🌐
- 21 *Brazil*
THE AGUA DOCE PROGRAMME 🌐
- 22 *Costa Rica*
NAMA COFFEE 🌐
- 23 *Chile*
MODEL FOREST 🌐
- 24 *Grenada*
MORE THAN A SCHOOL 🌐
- 25 *Jamaica*
A GENDER LENS FOR THE GREEN ECONOMY 🌐
- 26 *Mexico*
ENSURING WATER FOR PEOPLE AND THE ENVIRONMENT 🌐
- 27 *Panama*
ECOLOGICAL TRUST 🌐
- 28 *Paraguay*
MODERNIZING FAMILY AGRICULTURE 🌐

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MESSAGES FROM THE FIELD

The Latin American and Caribbean region has been an active player in all multilateral processes related to global governance and sustainable development. Regionally, there are diverse governmental alliances, frameworks for action, and organization platforms that address these issues from different geographic scopes and with various oper-

The average duration of the experiences compiled is between

9 to **10** years, showing the need for long-lasting efforts to produce development changes in the field.

ational approaches that involve a diverse group of stakeholders. Over the years, these have produced a body of knowledge and practices aimed at fostering the sustainability of the region's development path.

The experiences compiled in this document all produced, or even continue to produce, tangible results in the realms of economic development (prosperity for all), social well-being (no one gets left behind), and environmental sustainability (protect the planet). The common issue that required all of them to embrace this "triple-win" approach was the need to solve complex and multidimensional development problems. The holistic or systemic approach they took underlies the concept of sustainable development. However, this was not necessarily the key inspiration to the solutions adopted by the field examples presented.

The following examples present different ways and entry points to arrive at an inte-

grated approach and achieve balanced outcomes. These entry points originated from diverse initiatives such as the efforts of specific development sectors to green their strategies and ensure more sustainable results in the social realm, or the need to convene the interests of different stakeholders around common concerns such as water access, forest conservation, or adaptation to climate change. The experiences also show that holistic approaches can even come from initiatives at the local level that identify unsustainable patterns of development that can only be remedied through comprehensive solutions. In addition, national-level strategies are adopting integrated approaches when their implementation requires a longer-term perspective that seeks real transformation towards sustainability.

A preliminary result of the analysis of this compilation has been synthesized around the following key messages:



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01

BREAKING SILOS VERSUS BRIDGING THEM: THE ROLE OF SECTOR-SPECIFIC INITIATIVES IN ADVANCING INTEGRATED POLICY.

02

GLOBAL VS LOCAL RESPONSES: SUSTAINABLE DEVELOPMENT IS CONTEXT-SPECIFIC BUT BROADER POLICIES MATTER.

03

TRANSFORMING REALITIES: SUSTAINABILITY REQUIRES INNOVATION AND CULTURAL SHIFTS.

04

KNIT THE NETWORK: PARTNERSHIPS AS A TOOL FOR COHERENT IMPLEMENTATION AND SCALING UP IMPACT.

05

THE ROLE OF THE PRIVATE SECTOR TO PUSH FOR AN INTEGRATED APPROACH FROM THE ECONOMIC PERSPECTIVE.

06

MONITORING COMPREHENSIVE IMPLEMENTATION: BALANCED LONG-TERM DECISIONS REQUIRE DATA.

40% of the experiences reviewed leveraged new technologies as a foundation for sustainable change.

01

BREAKING SILOS VERSUS BRIDGING THEM

THE ROLE OF SECTOR-SPECIFIC INITIATIVES IN ADVANCING INTEGRATED POLICY

The experiences have revealed that sectoral efforts to build bridges between the three dimensions of sustainable development in their own policies, programmes, and initiatives provide excellent strategic entry points to enhance overall policy integration and coherence.

Governments naturally have different processes and structures at the strategic level to coordinate development policy and break development “silos”. These national integration efforts produce tools, optimize trade-offs, and exploit synergies in topics such as national long-term visions, climate change, or energy. However, in this compilation, several experiences were driven by one specific sector that “pulls in” others in order to tackle specific issues in an integrated manner. These include initiatives that were originally centred in health, forestry, water management, agriculture, social protection, or energy.

Examples include agricultural sectors that foster food security efforts and in-

creased agricultural productivity while combining these objectives with the sustainable use of natural resources. The Mexican Special Programme for Food Security is one example of this strategy, which has targeted marginalized communities over the past 15 years. *Safe Hospital*, an example from the health sector, provides essential social services in the case of disasters. It also preserves the public investment in health that it represents while complementing it with environmentally sound chemical, waste, and water management. Another truly notable example can be found in the environ-

mental conservation support programme *Bolsa Verde* in Brazil, which combines conditional cash transfer schemes aimed at alleviating extreme income poverty with reducing deforestation in the Amazon region. All these initiatives came into being when one sector, while fulfilling its mandate, saw the advantage of bringing in other extra-sectoral partners.

These efforts are building bridges between silos by engaging others around specific challenges and arriving at practical solutions that contribute to more comprehensive policy development and implementation.



02

GLOBAL VS LOCAL RESPONSES

SUSTAINABLE DEVELOPMENT IS CONTEXT-SPECIFIC, BUT BROADER POLICIES MATTER

The involvement and participation of civil society and local and subregional governments are crucial to tackling context-specific development challenges. These are the organizations and institutions that deal with community concerns on a constant basis, and can therefore establish effective mechanisms for participatory planning and for increasing coherence of sector objectives at the local scale.

Local communities in the region, through their participatory involvement in initiatives such as the the Santa Cruz Green Market social enterprise of Trinidad and Tobago or the Argentinian Eco-Village of Aca-pacha, are finding ways to contribute to sustainable development by changing their production and consumption patterns, and embracing economic solidarity and collaborative learning.

Local initiatives are particularly valuable when they are at the core of multidimensional responses to disaster risks and climate change threats, which often require

very context-driven responses in order to be successful. The communities of the Nor Yauyos Cochabamba Reserve in Peru, for example, have shown great success in combining socio-economic, cultural, environmental, and technological strategies to reduce local vulnerability and strengthen the resilience of productive systems.

Local initiatives that involve integrated solutions have also proven to be scalable, and can potentially lead to tangible changes towards sustainability at the national and regional levels. However on the larger scale, political leadership and policy commitments must be ensured along with an inherently longer-term vision. Such commitments were essential for the energy transition in Uruguay, which not only safeguards the nation’s energy supply and reduces its carbon footprint, it also decreases the government’s fiscal burden and contributes to national economic competitiveness.

In order to forge a more sustainable development path, all scales of interven-

tion— from the local, to the national, and even global — should be considered. It is where top-down and bottom-up approaches meet that genuine integration and coherence takes place.



03

TRANSFORMING REALITIES

SUSTAINABILITY REQUIRES INNOVATION AND CULTURAL SHIFTS

Sustainable development seeks to transform the nature and patterns of resource use, thus decoupling economic and social progress from environmental deterioration. Science and technology have an important role in supporting recycling, waste minimization, material substitution, alternative production processes, pollution control, and more efficient resource use. However, technological progress alone is not sufficient; the radical transformation needed to halt and reverse environmental deterioration cannot be considered independently of society.

The experiences collected for this publication that have successfully integrated new technology for sustainable development could not have done so without undertaking a meaningful cultural shift. In Paraguay, the large-scale introduction of agricultural techniques in order to support climate-smart family agriculture, fight poverty, and halt soil degradation required continuous awareness raising, technical support, and capacity building for small farmers. In Brazil, empowering communities to manage desalination plants on their own has been crucial to ensuring a stable water supply for 100,000 people in the country's most arid region. This, along

with the active involvement of subnational and municipal level governments, ensured the sustainability of the desalination systems' management structures.

However, cultural shifts need medium to long term processes, and they do not always require the adoption of outside solutions. In Honduras, the resurrection of the use of ancestral practices was fundamental to reducing soil degradation and strengthening economic, social, and environmental resilience. Strengthening the organizational capacities of indigenous communities and their communal management of natural resources can also generate more sustainable uses of natural resources for the long-term benefit of the local population. This has been the case in the work of the National Forestry Indigenous Association in Bolivia. In Latin America and the Caribbean, local communities are characterized by having strong knowledge systems embedded in their cultural traditions. Traditional knowledge includes subsistence technologies, environmental management, and climate variability adaptation — all of which can ensure broad support at the community level for a transition to sustainable development.

INNOVATION SHOULD ALSO COME FROM FISCAL TOOLS AND FINANCIAL MECHANISMS

Local taxation is fundamental to ensuring the sustainability of Quito's water funds, while the adoption in Chile of two national green taxes will foster lower carbon intensity in its economy. Ecological trust funds are also ensuring the availability of sustainable funding for ecological protection and restoration in several countries of the region, such as Panama.

The sustainable allocation over the years of national resources to strategic initiatives produces meaningful impacts. This has been the case of the Strategic Programme of Food Security in Mexico. Congress there has been approving federal budget for it since 2007, making it part of the public policy on rural development. The same applies to other nationally funded long-term initiatives such as Agua Doce in Brazil.

04

KNIT THE NETWORK

PARTNERSHIPS AS A TOOL FOR COHERENT IMPLEMENTATION AND SCALING UP IMPACT

To develop multidimensional responses to development challenges, a wide range of stakeholders must be involved in the analysis, proposal, and implementation of integrated policies and initiatives. Taking into account diverse perspectives in addition to expertise in different fields ensures more suitable and balanced sustainable development proposals. It also fosters accountability and shared responsibility, which are essential to creating the commitment needed to achieve outcomes and strengthen implementation. Establishing a common culture of joint work also has the potential to enhance capacities to peaceful conflict resolution, particularly regarding issues related to equitable resource access and distribution.

The majority of the experiences selected include inter-sectoral and multi-stakeholder coordinating bodies as a normal part of their integrative approach. The formulation of the National Appropriated Mitigation Action for the Coffee sector in Costa Rica for example, required the involvement of national institutions, the private sector, farmers, technical international cooperation organizations, and civil society. To effectively reduce air pollution levels in Santiago de

Chile, regulations were issued for the industrial and the transport sectors, but efforts from the private sector, the local government, national authorities, and individual citizens ensured robust change.

In addition, associative networks are proving to be useful tools in the region to scale up impacts. Recycling cooperatives guarantee the recovery, recycling, and reduction of urban waste while fostering the inclusion of social sectors that are traditionally both marginalized and stigmatized. Also, the mutually supportive association of small enterprises, foundations and cooperatives were essential to the development of rural community tourism in Costa Rica. This alternative economic model has become both an important income generation alternative for indigenous women and an effective means for preserving the environment. Municipalities' associations also play a major role as governance tools. In El Salvador, they ensure participatory planning and joint sustainable land, waste, and risk management. They have become major development actors at the local level as they create synergies between different stakeholders, take into account local prior-

ities and concerns in order to ensure sustainability, and generate coherent land use and development priorities.

There is no one-size-fits-all approach to integration. Development objectives and impacts are specific to different policy environments. However, the need for context-specific assessments at national and local levels further highlights the important role of stakeholder engagement, as stakeholders can offer specific and diverse understanding of the people's needs and the likely effects of development strategies and policies.

75% of the experiences involved four or five of the six types of stakeholders analysed. The most common associations involve governmental institutions, civil society organizations, and the private sector.

05 THE ROLE OF THE PRIVATE SECTOR

TO PUSH FOR AN INTEGRATED APPROACH FROM THE ECONOMIC PERSPECTIVE

The private sector deserves special mention due to the many different roles it can play in regards to partnerships that foster integrated approaches. For example, the National Livestock Farmers Federation in Colombia, in alliance with a scientific centre (CIPAV), is leading a process of adjusting their affiliates' practices, reaching almost 2,500 of them, in order to contribute to climate change mitigation, increase productivity, and enhance the environmental sustainability of an economically critical sector.

In the case of the financial sector, increasing access to banking services for marginalized populations has been the basis to establishing a public-private partnership in Colombia (BanCO2) that directly compensates communities for the protection of forests through contributions from 77 enterprises. The availability of new financial products and services in microfinance institutions also supports alternative livelihoods for marginalized Andean communities. The

pilot initiative, "Microfinance for Ecosystem-based Adaptation" has provided technical assistance to promote 5,000 loans for adaptation to climate change solutions in Peru and Colombia.

Private sector partnerships and contributions have been the keystones for the region's water funds as well. In Ecuador, where a broad public-private partnership works to ensure the supply of water to critical areas, such as the city of Quito in Ecuador, while benefiting local communities that protect headwater zones, the private sector's participation in kick starting the basic fiduciary mechanism has been crucial.

As the transition to more sustainable development paths takes place, the alignment of all development stakeholders' actions, funding and efforts to this new paradigm is fundamental. Development assistance aid and domestic resources are vital, but private enterprises and individual citizens should actively pursue more sustain-



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able consumption and production patterns that ensure well-being without resulting in scarcity and environmental degradation. The role of the private sector is not only fundamental as a main driver of investment, but also as part of public-private and multi-stakeholder efforts.

06 MONITORING COMPREHENSIVE IMPLEMENTATION

BALANCED LONG-TERM DECISIONS REQUIRE DATA

The need for relevant information is critical to making informed decisions with long-term implications. Several of the experiences presented in the publication show interesting approaches to better using data in the political decision-making process. Examples include the Dominican Republic, which introduced the *Vulnerability to Climate Hazards Index* as a criterion to focus its social policy in recognition of the vicious cycle between natural disasters and poverty-related vulnerability. Also exemplifying the innovative use of data is the methodology to calculating *Ecological River Flow Rates* that serve as the basis to identify, prioritize, and map a network of water reserves in Mexico — reserves that are intended to ensure the sustainability of the water supply in the country. In the Eastern Caribbean, *Carib-Node*, an online information system, allows easy access to data that inform management decisions concerning local marine resources and the wellbeing of coastal communities. Finally, the *Hospital Safety Index* is being used

in several countries in the region to prioritize and assess the impact of interventions in the health sector that mitigate disaster risks within these critical infrastructures.

It should also be noted the availability of information at the local level to monitor and evaluate the impact of policies is every bit as important as using this data to ensure that promoted objectives are being met. Strengthening the air quality monitoring system was crucial in Santiago de Chile to identifying the main sources of pollution, and to ensuring that policies were on track. The Local Economic Development Information System allows monitoring key indicators (on local economy and the management of waste, risks and the environment) for the municipalities of the Nonualcos region since 2010. "Bolsa Verde" in Brazil also depends on local-level data to monitor forest coverage with a Geographic Information System to ensure families preserve it and deserve the compensations provided by the programme.

Data is the key driver of the need for strengthening the dialogue between science and policy. Making useful information available for decision makers in a timely manner allows them to not only formulate and monitor policies, but to also strengthen public accountability systems. In addition, the need to construct new types of metrics to monitor integrated policy implementation is clear. These metrics should allow for monitoring the balance of progress in all three dimensions of sustainable development and allow for adjustments if necessary. They should therefore be related to the implementation processes, tools, and milestones themselves.

25% of the experiences have developed and applied a new assessment tool.

SUSTAINABLE DEVELOPMENT IN PRACTICE

THE EXPERIENCES



THE BARBADOS BOARDWALK

A BOON TO CONSERVATION, RECREATION AND TOURISM

Engineering solutions to adapt to climate change that create popular civic spaces to enjoy while protecting sea turtles.

Location
Barbados



Scale
Local.

Stakeholders
Government, international cooperation.

Unique factor
Culture, technology.

Small island developing states (SIDS) coastlines and coastal ecosystems are severely affected by sea-level rises and unsustainable coastal management practices. The island of Barbados is not exempt to these challenges which result in damage to headlands, the near shore, coastal and marine habitats and the livelihoods of fisher folk. Moreover, the beaches, an important part of the national tourism product of Barbados, are also being affected putting at risk the country's second largest earner of revenue and foreign exchange.

In 2007, the Government of Barbados sought loan financing from the Interamerican Development Bank (IDB) for a Coastal Infrastructure Programme with the aim to "establish a cost-effective approach to coastal risk management and climate change adaptation". This initiative, executed through the national Coastal Zone Management Unit (CZMU), included a component targeting a mile long stretch of coastline on the south of the island. The CZMU made a design decision that has proven to be a unique, innovative

approach to an engineering problem by including significant landscaping of the beachfront.

ENGINEERING INNOVATION

The prominent feature of the project is a 1.2 km long boardwalk. However, the works comprised the construction of coastal engineering structures, revetments, headlands and coastline infrastructure intended to halt erosion and stabilise a damaged and eroding coastal area. Nevertheless, the "Richie Haynes Boardwalk" is set apart by the way in which, instead of adopting remediation only by way of an engineering solution, a recreational component was introduced. The design of the project ultimately created a beautiful shoreline, the seascape improved and safe beach access has been ensured for all citizens.

The project also achieves another goal as it was combined with the restoration of coastal habitats to protect marine biodiversity, flora and fauna. For example, the beaches along this coast are used by turtles for nesting but certain types of artificial light can confuse turtle hatchlings in their way to the ocean. Project designers took this into consideration, and, as a result, this area of coastline has become an improved turtle nesting site.

BENEFITS

The economic benefits of this project are multiple. Individual property owners on the affected coast-

THE BOARDWALK HAS RESULTED IN...

↑
An increase in beach volume by
26,000 m³
Which amounts to an increase
in average beach width of

↑
20 m.
↑
Business in the areas benefitted by
the projects indicated a significant
increase in monthly revenue.

line enjoy improved property values. Hotels and other tourism facilities now possess an improved product to offer to nationals and tourists.

As for today, the project has won the support of and is popular amongst nationals, with hundreds of people using the boardwalk every day. Its wide appeal, usefulness and benefits to government, business and society, along with its effectiveness in stabilising the coastline has resulted in it being widely used and accepted and has a high sense of national buy-in and ownership. The model of the boardwalk as part of the wider engineering design for coastline stabilisation has already been replicated on the island's West coast.

The boardwalk in Barbados gives the bonus of sustainability, the opportunity for health and well being, resilient infrastructure, protection of ecosystems and marine habitats, while simultaneously providing remediation of climate change damage on the ecosystems of the island's south coast and protection of the resources on which national economic gains are based.



© Coastal Zone Management Unit, Government of Barbados.



COMMUNITY FOREST MANAGEMENT

ASSOCIATIONS FOR ECONOMIC AND SOCIAL INCLUSION WITH ENVIRONMENTAL BENEFITS

Indigenous organizational capacities ensure the necessary technical know-how, business and negotiation skills for engagement with private companies to benefit from forest resources.

Location
Bolivia



Scale
Subnational.

Stakeholders
Private sector, international organizations, civil society, government.

Unique factor
Association, indigenous.

In the eastern Bolivian region, 80% of the Velasco Province is covered by the Chiquitano Dry Forest. The hard woods in this forest have a very high value. However, the local population faces challenges to take advantage of these local resources because of the low productivity of these zones (high production costs due to the absence of machinery and equipment). Income is lower because the timber sold is unprocessed. Moreover, loans are hard to get and commercialization terms are dictated by the purchasing companies.

In recent years, changes in Bolivian legislation have assured the recognition of land ownership rights, as well as exclusive access to forest resources for indigenous peoples. But management of forest resources requires technical know-how, business skills and negotiation with private companies, along with access to information on how the state bureaucracy works. A very important aspect is the fact that indigenous peoples need to “make their presence known” within the extensive lands they own on paper, but which in reality are often

exploited by others. The management of local resources requires an organization that provides advice and training and it must represent the local population on a regional and national level to support them in exercising their rights.

PRODUCERS ASSOCIATIONS

The Community Forestry Project in Velasco Province was started in 1998, through a cooperation agreement among the three indigenous communities, the Center for Tropical Agricultural Research (CIAT) and German Cooperation in Development. The institutionalization of this initiative occurred through the creation of the Velasco Province Intercommunity Forest Committee, COINFO, a regional association of community forest organizations. The objective of COINFO is to provide support and represent indigenous and farmer communities with respect to management and sustainable, legal and efficient use of their forests.

COINFO has provided support since 2005 in the preparation of forest management instruments (organizational regulations), processes of permit authorization and registration, implementation of forest projects and strengthening of technical capacities in the use of forests, lumber remediation, dimensioning, monitoring, control of forest operations, and more. Moreover, COINFO provides advice to members in the commercialization of timber, provides support in searching for markets and negotiation and oversight of fair purchase-sale agreements.

Almost simultaneously, but on a national level, the National Indigenous Forestry Association (AFIN)



was registered in 2005 with the participation of COINFO and another ten Regional Indigenous Forest Associations (AFIRs) – incorporating more than 200 community forest organizations. AFIN supports technical, organizational and financial strengthening of its member. It was consolidated nationally through its regular congresses held with representatives from the entire country of Bolivia and with its inclusion in the preparation of the National Strategic Plan. In addition, it participates in the formulation and implementation of public policy to support local communities in exercising their rights.

SEVEN MILLION AND GROWING

These associations have been successful. In 2012, COINFO incorporated 18 member communities, representing 1,200 families in the municipalities of San Ignacio, San Miguel and San Rafael. Today, calculations indicate that nationally there are more than 6,000 families that benefit from the work of the different regional associations. Indigenous communities manage approximately 2 million hectares, following detailed management plans (10 years ago, only 250,000 hectares were covered). Of this total, 90,000 hectares are being used for commercialization of timber with sales producing an income of more than USD 7 million. Although not always easy, AFIN and COINFO (and the other AFIRs) play an important role in commercialization and in overseeing the entire process to obtain more favourable conditions for the sellers. In pursuit of this they are also seeking to formalize a strategic alliance with the Chamber of Forestry, which represents these companies.



© Asociación Forestal Indígena Nacional - AFIN.

These efforts have a significant impact on creating jobs and driving the local economy. Income is distributed fairly among the families. Part of it is used to finance infrastructure projects (schools, community centers), local festivities or the purchase of goods (bicycles, tools). In environmental terms the surveillance and oversight activities started by these associations prevent deforestation and ensure that no more native forest is lost.

Even more important is the support for indigenous people to exercise their rights pursuant to the Constitution and international treaties. Many management tools have been adopted to contribute to organizational empowerment, including by laws and business plans or management manuals seeking to develop technical and administrative capacities. The work of regional organizations such as COINFO, and AFIN has proven the importance of integrating the forest related work of associations into efforts by public and private entities and international cooperation in order to produce local transformation towards more inclusive sustainable development.



BOLSA VERDE

COMBINING CONDITIONAL CASH TRANSFERS WITH FOREST PROTECTION

The “Brazil without Poverty Plan” provides a green grant that promotes the conservation and sustainable use of ecosystems by families living below the poverty line.

Location
Brazil



Scale
National.

Stakeholders
Community, civil society, government, academia.

Unique factor
Assessment tool, technology.

While only 15.6% of Brazil’s population lives in rural areas, 47% of those under the poverty line are located there. As a supplement for beneficiary families of *Bolsa Familia*, the federal program of conditional cash transfers, the *Bolsa Verde* program aims specifically to improve living conditions and raise income levels of the extremely poor that carry out natural resource conservation activities in rural areas. This program is important because it contributes to the efforts to combat deforestation in rural Brazil, affecting mainly the Amazon, that since 2011 has resulted in significant loss of forest cover. These efforts have had a welcomed impact on the trend which has seen deforestation in the Brazilian Amazon Region decrease in the last eleven years, supported by the commitment of Brazilian authorities to addressing the still significant loss of natural vegetation in that region.

QUARTERLY TRANSFERS

Since 2011, the *Bolsa Verde* program is based on quarterly transfers of approximately USD 91 to participating families over a period of two years

(renewable for another two years). The main beneficiaries are extremely poor families that live in what are called Sustainable Use Conservation Units, in settlements arising from agrarian reform, and in areas occupied by traditional and afro-Brazilian communities.

During the past five years, the program has resulted in:

- Selection of territorial units, environmental assessment, and validation and publication of results by the Management Committee;
- Inclusion of information on possible beneficiaries in the federal government’s *Unified Registry of Social Programs (CadUnico)*;
- Preparation of the agreements with the indication of the name of the family member responsible and the area where he lives, which are then sent to the program’s local management entities (ICMbio, INCRA, SPU) and to those who go into the field to orient beneficiaries and collect information;
- Sending data to the Brazilian federal savings bank, Caixa Economica Federal (CEF), which is the agency in charge of the operational management of CadUnico, so that the beneficiaries are included on the list for quarterly payments through the *Bolsa Familia* debit card; and
- Annual monitoring of satellite images to verify that forest cover is not decreasing, which would be cause for suspending the benefits.

After five years, the program shows that it is indeed possible to transform the status quo in rural areas through simultaneous activities. Through information



and data on each family, concerning education, basic health and infrastructure, a more detailed qualitative analysis can be made. This analysis is being used to develop additional government policies that also promote economic and social wellbeing.

ASSURING GOOD RESULTS

Implementing such a large scale program has been a major challenge in terms of inter-institutional arrangements at different levels (federal, state and municipal), but also due to the large geographic distance and difficulties in getting into the field. To overcome this, a Management Committee with periodic participation of different federal government agencies involved plays an important role in implementing decisions. Also useful was the coordination and implementation of joint activities involving several federal, state and local agencies to support the families (in training, for example). In addition, “local managers,” who are key pieces in the program’s action, are being trained as agents that enter into direct contact with beneficiary families. These managers know these people and their local situation, and serves as liaison between the program’s management and the targeted public.

In several cases difficulties arose in evaluating and interpreting the results, especially because of the many causal links that could explain what was achieved. A specific methodology was developed to monitor the program’s implementation through sampling - using social, economic and environmental indicators and differentiated analytical tools depending on the local context.

Active in

25 states and in the Federal District, covering

69 Conservation Units and

849 settlements, as well as riverine beneficiaries in

67 municipalities, covering an area of

28,649,771.02 hectares

In February 2016, this government action was already reaching

76,795 families.

Of these families, almost 1/3 live in **373** settlement projects in the Amazon region.

In June 2016,

14,496 families had sufficient income to exit the programme.

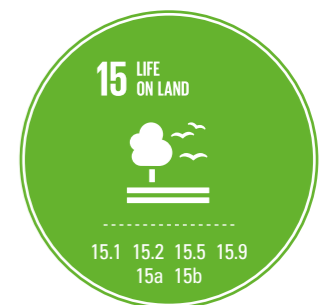
An agreement was signed with the Federal Rural University of Rio de Janeiro and Conservation International. At the same time, a cooperation agreement was signed with the Federal University of Lavras for monitoring of vegetative cover in the zones covered by the program.

REPLICABILITY AND SUSTAINABILITY

After five years, these various efforts have shown that the proposed objectives can be achieved more easily by simultaneously addressing the different aspects that require transformation. The economic compensation is not permanent, but this was not expected. What is expected is to promote the sustainability of conservation actions carried out by the population. To achieve this, the program has focused on environmental, social, educational, technical and professional training of the beneficiaries, as well as a support for producers’ organization to market their products. This is what ensures an ever-declining rate of deforestation, with country-level benefits continuing into the future.



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SUSTAINABLE CONSUMPTION AND PRODUCTION

NATIONAL ACTION PLAN FOR A PARADIGM CHANGE

Brazil is working on internalizing sustainable consumption and production logic into national development policies, plans, programs and strategies, including poverty eradication and achieving internationally agreed objectives.

Location
Brazil



Scale
National.

Stakeholders
Government, private sector, civil society.

Unique factor
Partnership.

Inspired by the Marrakech Process recognised in the Action Plan from the World Summit on Sustainable Development in Johannesburg, 2002; the Brazilian Ministry for the Environment launched the Sustainable Consumption and Production Plan (SCPP) in 2011 – the first in the region. SCPP drives the process to transform consumption and production patterns in order to contribute to the sustainable development of the country. To that end, it promotes specific current, medium and long term policies and actions involving authorities, merchants, business people, consumers, workers, researchers, scientists, communication media, civil society organizations and development cooperation organizations. In other words, the whole society.

A HOLISTIC APPROACH

Sustainable consumption and production is a holistic approach towards sustainable, efficient resource management at all stages of the value chain (both goods and services). It encourages the development of processes that use fewer materials and

less hazardous substances, to produce less waste and benefit the environment. These processes improve the quality of life and company competitiveness by reducing production costs and their impact. It converts environmental and social challenges into business opportunities and new jobs.

One of the primary objectives of SCP is to break the link between economic development and environmental degradation. In order to achieve this, it is critical to induce changes in consumer behaviour as well as in production patterns. Accordingly, it concentrates on the articulation and promotion of synergies between government actions (at different levels), business and civil society.

The Plan was structured into four-year cycles, redefining priorities in accordance with progress in each cycle and the national and international contexts and priorities. From a total of seventeen priority issues, six were selected to work on in the first cycle (2011-2014):

- Education and awareness raising for sustainable consumption, to produce a new generation of citizens who integrate sustainability into their personal and professional decisions.
- Sustainable public procurement, because the public sector is the main consumer in the national economy.
- Implementation of a national initiative, the Environmental Agenda for Public Administration (A3P), a socio-environmental management program that will become an example for other sectors of society.



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- Increase recycling of solid waste, promoting waste reduction and decreased use of resources and energy.
- Retail - a sector with great potential because of its direct contact with consumers.
- Construction - a sector that affects millions of people, workers and users, uses significant amounts of supplies, equipment and services and is responsible for the biggest portion of solid waste.

This framework encompassed a large number of initiatives and activities by all sectors at different levels and distributed throughout the country. SCPP has set the framework for the development of technical documents and training as well as facilitates agreements between associations representing economic sectors, academia, the Ministry for the Environment and other governmental institutions, with clear commitments. It organizes task forces (or working groups) to implement concrete actions, for example the Working Group on Sustainable Reporting. Voluntary initiatives carried out by civil society organizations are equally important. They work without public funds, but are recognized under the Plan.

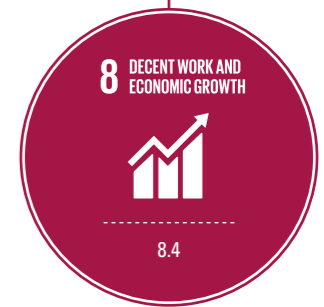
The SCP National Committee serves as the coordination mechanism of the Action Plan and comprises representatives of various ministries and agencies, the private sector, academia and

civil society - promoting the necessary dialogue, exchange of experiences and transparency.

IN THE LONG TERM

The Plan has also considered the need to generate institutional conditions for the sustainability of public policy. Because it is a relatively new process the Action Plan has focused on raising awareness through training courses, seminars, workshops and technical material emphasizing the need to establish sustainable consumption and production patterns. It has created a network of fully committed public and private institutions that promote sustainability in their sectors.

One of the main purposes for the second phase of implementation of the Action Plan is to strengthen its contributions to other national public policies and development objectives. With this in mind, other thematic areas were included in its scope, such as sustainable industry, sustainable agriculture and sustainable finance. In the future, it is planned to approve a National Sustainable Consumption and Production Policy that will ensure the conditions, including the necessary funding to promote changes in individual behaviour and in production processes. It is clear that, as a medium term objective, this will place sustainability at the core of the country's development process.



HEALTHY AIR FOR SANTIAGO DE CHILE

INNOVATIVE GREEN TAXATION FOR A BETTER QUALITY OF LIFE

Air pollution has been one of Chile's main health and environmental challenges. Science, government, enterprises and the general public joined efforts to overcome it.

Location
Chile



- Scale**
Subnational.
- Stakeholders**
Government, academia.
- Unique factor**
Assessment tool, partnership, technology.

According to Chile's first State of the Environment Report (2014), air pollution caused more than 127,000 emergency medical consultations and more than 4,000 deaths a year from cardio-pulmonary diseases, signifying an annual estimated cost of US \$670 million to US \$1.9 billion for the health sector. Today ten million people in the country are exposed to an annual average concentration of the 2.5 fine particulate matter (PM2.5) that is higher than the norm.

The process of decontaminating air in Santiago de Chile began in 1990 in the midst of a socio-environmental crisis due to harmful levels of PM10 and PM2.5, which can reach the lung alveoli and enter the circulatory system. The Ministry of Environment took definitive action in response to strong public pressure. Successive decontamination plans were accompanied by new regulatory instruments in transport, fuels, industry and the use of firewood for heating.

LOCAL TO NATIONAL STRATEGY

This local control of urban pollution was extended to the national level. The first national strategy (2010-2014) was aimed at establishing the norm level of PM2.5, strengthening air quality monitoring networks, improving fuel vehicle standards, and improving emission standards in industries, such as thermoelectric power plants and copper refineries. Today, Chile has primary environmental quality standards regulating the concentration of six of the main air pollutants, and countrywide there are ten regional decontamination plans. In addition, the objective of Chile's current Atmospheric Decontamination Strategy (2014-2018) is to implement a total of twenty plans covering more than 57% of the population, which corresponds to 87% of those exposed to air pollution.

TAXING EMISSIONS

The effect of this action was expanded with a "Green Tax Reform" in 2014, that included: (1) the establishing of a one-time tax on new motorized vehicles as an emissions levy; and (2) the tax on fixed emission sources, considered the first carbon tax in South America and which in 2017 will include the sector of thermoelectric generation, with a payment of US\$5 per ton of CO₂ emissions.

A key aspect throughout the process was the overall awareness of citizens and decision makers about the problem of air pollution and firm



"Santiago is an example for Latin America. It is the first city where fine particles of less than 2.5 microns were measured, and it's spectacular that the concentration of these particles has indeed been lowered..."

Mario Molina,
Nobel Laureate in Chemistry.

THE MAJOR ACHIEVEMENTS OF THIS EXPERIENCE ARE:

Between 1990 and 2015, levels of fine particles (PM2.5) have decreased more than

65%

alongside a period of sustained economic growth (Chile's gross domestic product rose 108% since 1990).

The number of critical pollution episodes dropped from

100 in 1989, to **27** in 2015.

In areas surrounding mining activities, sulphur dioxide emissions fell

70% by 2003.



The modal share of the subway increased, as did the number and quality of bicycle paths and green areas, and paving of streets.



Increased number and quality of bicycle paths and green areas. Conversion to natural gas in public buildings.

decision to intervene. In the technical arena, the launching of a permanent and reliable air quality monitoring system that generates real-time information was a fundamental element. Additional to this network, Chile utilises methodologies developed by the Mario Molina Center to measure and analyze pollution, and advanced techniques to characterize atmospheric aerosols.

The complete package for implementing the air quality control process also includes legislation with primary national environmental quality standards, particularly those associated with transport and fuels, and/or atmospheric decontamination plans connected with sectors such as transport, industry, trade, construction and agriculture.

As of 2012, Chile has been part of the Climate and Clean Air Coalition, a voluntary world

alliance of governments, intergovernmental organizations and businesses to reduce short-lived climate pollutants, including methane, black carbon and HFCs. Along with Chile - Colombia, Mexico, Paraguay, the Dominican Republic and Uruguay make up part of this coalition in the region.



BANCO2

HARNESSING BANKING TO PROTECT FORESTS

An agreement between financial and public sectors supports rural families to conserve forests and allows companies to offset their environmental footprint.

Location
Colombia



Scale
Subnational.

Stakeholders
Private sector, government, community.

Unique factor
Assessment tool, public-private partnership, technology.

The highest demand for ecosystem goods and services comes from cities and economic sectors that frequently use them without regard for the value of their benefits. This is why the farmer populations that protect them are not normally compensated for their work. The BanCO2 initiative took on a double challenge. First, to transform the protection of natural resources into an economic activity recognized by society; and second, to generate income to overcome rural poverty and keep the subsistence needs of rural families from becoming another source of environmental deterioration.

The primary BanCO2 innovation encompasses a plan for offsetting the environmental footprint of companies and individuals by supporting forest conservation actions. The payments are done without intermediaries, since a platform directly links contributors with rural families. This has required a strategy to facilitate access to the financial system, including rural banking, with services through corresponding banks and without minimum handling fees.

BanCO2 began in Colombia in 2013 under the leadership of the Regional Autonomous Corporation of the Negro and Nare Rivers Watershed

(CORNARE), a subnational environmental authority, in alliance with the Sustainable Forest Management Corporation (Mas Bosques) and a private bank, Bancolombia. Projections indicate that this initiative will reach 20,000 families in the medium term.

INNOVATIVE TECHNOLOGY

The digital platform developed for BanCO2 permits the calculation of the company's environmental footprint, the selection of the family to be compensated and information on their land. Finally, on-line payments are made directly into the bank account of the member families. By affiliating themselves with this system, families also receive medical, funeral and life insurance and have access to bank loans, scholarships and support to improve housing.

Contributions can be made starting with the equivalent of USD 13 and each family can receive a maximum of USD 230 per month. A donation agreement is signed with the companies that, on one hand, gives them up to a 30% of tax exemption and, on the other, complies with national standards to invest in environmental conservation (for example, of projects submitted for environmental licensing).

The bank, of course, has been the key partner that has brought this experience to fruition. Bancolombia's extensive territorial coverage and powerful technological and service platform have been vital. Other important enabling conditions to facilitate access to financial resources have been cellular telephony connectivity for farmers and rural bank services networks.

"This resource improves my quality of life, encourages my children to stay home at the farm and continues with the forest care process, isolating areas to keep livestock out and micro basin boundaries."

Moises Martínez,
Community Leader.

TODAY,

72 companies voluntarily contribute funds, for a total of

USD 1.8 MILLION for the conservation of

1,800 hectares of forest and generating additional income for

1,005 farmer and indigenous families living in poverty.



© Andrés Hernández.

For this to be fully operational, the participation of public entities was also required. In this case, the local environmental authority, Autonomous Rural Corporations (CAR), monitors and contributes technical know-how to ensure compliance with environmental objectives. The CARs are responsible for selecting the area, identifying the families and promoting the plan locally; in addition to verifying the ecosystem conservation actions and promoting supplementary sustainable production projects.

INCLUSIVE GREEN ECONOMY

Current tools and documented procedures such as the regulations for the BanCO2 fund,

the Good Governance Code and the process for surveying and map verification of beneficiary zones, can be the basis for replicating future experiences.

The BanCO2 experience has inspired progress along the road to an Inclusive Green Economy. In fact, this initiative is part of the "Green Protocol", signed in 2012 between the Colombian financial sector and the national government. Led by Asobancaria, an association representing the Colombian financial sector, the Green Protocol provides further evidence that finance, environmental conservation and social responsibility can not only work together but can drive local sustainable development.



SUSTAINABLE CATTLE RANCHING

POWERFUL ALLIANCES TO ENSURE BOTH ECONOMIC AND ENVIRONMENTAL PROFITS

Cattle ranching is associated with soil degradation, biodiversity loss and decreased water availability, which in turn lead to decreased productivity and the impoverishment of campesinos. This reality can be transformed.

Location
Colombia



Scale
National.

Stakeholders
Private sector, international organizations, civil society, government.

Unique factor
Partnership, technology.

According to the Colombian Research Center of Sustainable Agricultural Production (CIPAV), cattle ranching occupies around 32% of the national territory (approximately 38 million hectares), 66% presenting some level of degradation. Cattle production is highly important to the rural and sectoral economy and to the country's food supply, contributing 3.6% of national GDP, 27% of agricultural GDP and 64% of livestock GDP. It also represents 7% of national employment and 28% of rural employment.

The Sustainable Colombian Cattle Ranching project arose within this context. It aims to increase the productivity of cattle ranches by adopting silvopastoral production systems that in turn enhance supply of environmental goods and services (improved water regulation and erosion control, increased biodiversity and carbon storage, and lower nitrous oxide and methane emissions, among others). These arrangements include scattered trees in pastures, living fences, hedgerow foraging, mixed forage banks, and intensive silvopastoral systems.

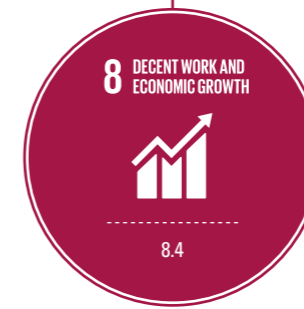
This initiative is promoted by a powerful coalition comprised of the National Federation of Ranchers (FEDEGAN), CIPAV, Fondo Acción, The Nature Conservancy, and the National Cattle Ranching Fund, and supported by the Global Environmental Facility and the United Kingdom's Department of Energy and Climate Change, with funds administered by the World Bank. The main State partners are the Ministry of Agriculture and Rural Development, and the Ministry of Environment and Sustainable Development.

BENEFITS

The project seeks to raise meat and dairy production by 5% per hectare with the consequent benefit for ranchers, and lower the use of external inputs, decreasing costs of fertilization and fly control up to 70%. Intervention is based on a model of technical assistance, complemented by other incentives for ranchers, such as payment for environmental services and support to access credit.

One tangible benefit has been the disbursement of USD 43,733 to 143 plots, generating additional income to owners from payment for environmental services, such as conservation of forest cover. Land use changes are recorded annually for this purpose, with payment based on increases in tree cover (farms receive USD 75 for each 100 points of increase in the index).

A vital aspect of cattle rearing is its contribution to climate change as, based on FAO data, it is responsible for 65% of global emissions by the livestock sector. Inspired in this experience, a Nationally Appropriate Mitigation Action (NAMA) proposal was formulated to expand the area of



THE EXPERIENCE CURRENTLY INCLUDES

2,491 farms

(72% belonging to small ranchers), with a total area of

113,707 hectares distributed in

83 municipalities.

AFTER FIVE YEARS OF IMPLEMENTATION...

Better quality of water flows close to the plots (72.7% less in BOD),

7 tons/ha less soil erosion;

32% increase in the presence of birds, and increased biodiversity of macro and micro invertebrates in the soil.

More than

200,000 trees and bushes propagated.



Carbon sequestration improved from

12,041 to **14,611** tons/year.

silvopastoral systems to more than a million hectares. This has already been included in the National Development Plan and makes up part of the country commitment to UNFCCC.

REPLICATING TOGETHER

The Sustainable Colombian Cattle Ranching project has generated important tools: the model for implementing silvopastoral systems, the payment for environmental services scheme, the monitoring and evaluation system for ecological services (recovery of soil, biodiversity and productivity) and the technical assistance model based on principles of rural outreach.

In addition, this initiative offers an interesting partnership formula: on one hand, a cattle ranch-

ers association that places technical assistance and leadership at the service of a clear wager on sustainability. On the other, there are partners with strong scientific capacity willing to identify forest and bush species that can adapt adequately to the pastures, as well as assisting with their introduction at the farm level.



"With these trees came beetles that move the earth, take the cow manure, leave it at the bottom and improve the quality of the dirt... If you cut down the trees, what nutrition will a cow have?"

Alba Tamayo,
Community Leader.



© Juan Carlos Gómez.

ACTUAR

AN ASSOCIATION OF COMMUNITIES FOR RURAL ALTERNATIVE TOURISM

Rural Community Tourism (RCT) is an alternative to the outdated agricultural and fishing model in poverty burdened communities. Forming associations is the way to make it a real opportunity for economic inclusion.

Location
Costa Rica



Scale
National.

Stakeholders
Civil Society, community, private sector, government.

Unique factor
Association, culture, indigenous.

Costa Rica's natural attractions have made it a global tourism destination since the 90's. Additionally, it has been at the forefront of innovation through successfully initiating RCT. This comprises *"planned tourism experiences sustainably integrated into the rural environment developed by the local population and organized for the good of the community."* The RCT strategy was developed in 2001 for the environmental protection, income diversification and social wellbeing of rural communities with support from the Global Environmental Fund's Small Grants Program and UNDP. In 2005, the national RCT Alliance was created. There is no doubt that the Conservationist Association of Rural and Alternative Community Tourism (ACTUAR) was one of the pioneer organizations that drove this process.

ALLIANCES FOR CHANGE

Today, ACTUAR is an alliance of thirty-six non-profit associations, foundations, companies and co-

operatives. ACTUAR benefits farmers and fishers as well as five indigenous communities - Bribris, Malejus, Terrabas, Cabecares and Boruca – developing ethno-tourism projects, food security processes and land recovery initiatives. ACTUAR ensures that 80 to 85% of the income from economic activities is distributed within the community, directly benefiting 895 people and indirectly their families (2,685 people). RCT offers an opportunity for communities to rise above extreme poverty in different regions, including the Central Valley, North and South Caribbean, Central and South Pacific and the Northern Region.

In support of its members, ACTUAR provides assistance with formalization processes, training, technology and legal advice and facilitates acquisition of property deeds. For the last 15-years, its political advocacy efforts have raised awareness of RCT as a vital tool that distributes the benefits of tourism development to the largest possible proportion of the national territory. Hence, its impact is recognized under Costa Rican tourism development policies, such as the 2002-2015 General Plan for Sustainable Tourism Development. Clearly, in Costa Rica, the RCT focus contributes to local sustainable development. It fosters national objectives for the reduction of poverty, decent jobs, social inclusion and environmental protection. This led to the 2006 declaration making RCT of public interest.

The building and strengthening of ACTUAR alliances with ICT, the National Ecotourism Network Cooperative Consortium (COOPRENA), the

Central American Association for the Economy, Health and Environment (ACEPESA), the University of Costa Rica (UCR) and with Legislative Assembly representatives, have been key factors for the approval of the Law on the Promotion of Community Tourism and the creation of the Rural Community Tourism Chamber (CANTURURAL) in 2009. Currently RCT is a priority activity in Costa Rica within its 2016-2020 National Tourism Plan and is seen as fourth among tourism products in the country by the Costa Rican Tourist Board (ICT).

LEADING BY EXAMPLE

Several relevant factors, including the ecotourism boom in Costa Rica, the political will of the state and the willingness and commitment of local partners together with entrepreneurship and continual improvement, have been its driving forces. Accordingly, ACTUAR is constantly widening horizons to strengthen the conservation of natural resources, community and cultural development, recognition of the rights of indigenous peoples and access to microloans. Moreover, ACTUAR members foster the participation and leadership of women.

While achieving these objectives, ACTUAR has played a key role in the development of instruments and tools such as RCT guides, impact assessments, advertising campaigns and promotional materials, together with the participation of its members in international fairs and forums. ACTUAR has received different awards such as the Rain Forest Alliance international quality award and the



ACTUAR'S MEMBERS

- 1 Create 350 direct and indirect jobs.
- 2 Reserve 3,300 hectares of their property for environmental conservation.
- 3 Receive income, have access to microcredits and non-reimbursable funds for infrastructure and training.
- 4 Offer cultural elements from their community as a tourism experience.
- 5 Have the deed to their land or the right to use it.
- 6 Have broken paradigms on sexual division of labor.
- 7 Sort their waste and use alternative energy sources.
- 8 Carry out reforestation initiatives and have inventories of flora and fauna.

TO DO Contest international award for responsible tourism that augment its Sustainable Tourism Certification. But most importantly, the RCT philosophy has inspired many other groups in the region. In fact, there is a Latin American RCT Catalogue; and Argentina, Chile, Uruguay, Bolivia, Ecuador, Brazil, Mexico, Nicaragua and Peru are other RCT destinations that are well-worth exploring.



RECYCLING COOPERATIVES

PROMOTING COLLECTIVE INTEREST AND SOCIAL INCLUSION

A notable trend is being observed in society, with a strong expansion of organized recycling with social inclusion.

Location
Cuba



Scale
National.

Stakeholders
Civil society, government.

Unique factor
Model, multi-country, gender.

While less than 15% of all recyclable material is reused in Latin America, some four million people make a living from informal recycling in the region. Often working in unsanitary and hazardous conditions and under the stigma of social exclusion, these men and women are doing important civic and environmental work.

Cuba's recycling cooperatives are an interesting case. They arose from state policy created in 2012 as a result of inter-ministerial and cross-sectoral work led by the Ministry of Science, Technology and Environment and the Ministry of Industries. Along with its economic and social objective, the aim of this recycling policy is to protect the environment. It is part of the state's promotion of sustainable consumption and production as a means of contributing to responsible resource use and the economic efficiency of productive sectors.

Three years after creating fifteen Cuban recycling cooperatives, statistics show that the

quantity of raw materials recovered has risen to 427,656 tons. This signifies a saving of 212 million dollars for the national economy.

BENEFITS FOR ALL

Everyone wins with recycling. The cooperatives sell paper, plastic and glass bottles they collect from state companies, earning income, while the State Raw Materials Recovery Company receives a greater quantity of recyclable waste to process and increase its value added.

In the province of Mayabeque, for example, government entities as well as the population receive benefits from selling their reusable waste. The State Raw Materials Recovery Company of Mayabeque systematically purchases all of the products recovered, so the cooperative maintains financial stability and has the cash needed to continue its flow of operations without interruption.

While it is too early to evaluate long range impacts, results thus far indicate that recycling contributes to import substitution, availability of raw materials for local economic activities, in-



THE LAC REGION GENERATES SOME

430,000 **60%**

tons of waste per day.

higher than twenty years ago.

IT COULD DOUBLE IN A DECADE.

Source: World Bank, 2013.

creased exports and care of the environment. The Cuban government's recycling policy has opened opportunities for thousands of people to participate in new associative arrangements with a business model based on social enterprise. It becomes a vehicle for exploring links between the private and the social economy, between private interest and collective wellbeing.

REGIONAL SCALE

The success of recycling policies and programs is not a phenomenon exclusive to Cuba. The Latin American Network of Recyclers exists as a way of connecting different efforts in the region. Initiatives in recycling with social inclusion are operating in Peru, Argentina, Colombia and Guatemala, to mention just some examples. With Peru's project to develop the market for comprehensive management of recyclable solid waste, which began in 2009, the number of recyclers with income under two dollars a day declined by 57%. In 2011, with the support of the Multilateral Investment Fund, private companies and NGOs, the Regional Initiative for Inclusive Recycling was launched to promote greater inclu-

sion of collectors and recyclers in the value chain of recycling in Latin America.

The presence of women recyclers is an important aspect to bear in mind, so as to ensure that policies and strategies for comprehensive solid waste management also incorporate the differentiated needs of men and women. With this, the contribution to social inclusion and the reduction of inequalities is even greater. Throughout the region, the different forms of business dedicated to recycling, along with men and women recyclers, perform important environmental work, with encouraging economic results and greater social inclusion. With these results, it is clear that recycling has a human face in the region.



GREENING SAFE HOSPITALS



HEALTH, ENVIRONMENT, AND RISK MANAGEMENT

Smart health facilities combine structural and operational safety with favorable environmental measures.

Location
Dominican Republic



Scale
National.

Stakeholders
Government, international organization.

Unique factor
Assessment tool, model, multi-country.

In the event of a crisis, health services are fundamental to save lives; but this can only be done if they remain fully operational. This is a major issue in the Dominican Republic as it is one of the most vulnerable countries to extreme climatic events. A Safe Hospital is accessible and remains operational at full capacity immediately after a disaster, specifically: 1) the structure has minimum damages; 2) the impact to facilities and equipment do not limit its functionality (there is access, adequate rendering of basic service and sufficient stock on hand); and 3) it has enough health staff to ensure coverage of the additional demand arising from the disaster.

The Safe Hospitals Initiative was conceived based on the 2005 Hyogo Framework for Action on disaster risk reduction. Its implementation in the region has included the development of national policies, action plans, programs, technical standards and diverse management tools with technical support from PAHO/WHO. Ecuador, Dominican Republic and Peru are outstanding examples of national policies enacted. Peru approved the 2006-2015 National Safe Hospital Policy and discussions began on the

new 2016-2021 action plan in January 2016. Its objective is for new hospitals to be constructed with a level of protection that ensures their operation in the event of disasters and implement mitigation measures to strengthen existing centers.

The standardization of tools, particularly assessment instruments, such as the Hospital Safety Index (HSI) has been a key factor for progress. HSI facilitates diagnostics, planning and evaluation of interventions to make health services more resilient, prioritizing those located in high disaster risk areas, serving the most vulnerable population, and with a safety level that ensures its operation during a crisis. HSI assesses three levels of protection: 1) the lives of patients, visitors and center staff; 2) investment in equipment and facilities; and 3) the operability of the health institution in a disaster.

The Dominican Republic is a case in point, due to its vulnerability to disaster risks. The government adopted a mitigation program after Hurricanes Noel and Olga in 2007 and 2008. The Ministry of Health completed the assessment of thirty seven hospitals and implemented interventions to improve the HIS at nineteen of them.

WATER MANAGEMENT, A KEY ELEMENT

One aspect of this strategy that seems to remain invisible is the environmental dimension, with repercussions beyond improvements in waste and chemical waste management. A Safe Hospital requires a guaranteed uninterrupted supply of quali-

ty water in sufficient quantity, with rainwater and wastewater channeled and disposed of in a way that does not affect hospital facilities or the surrounding environment.

Recently the emphasis on environmental sustainability has been strengthened by the idea of "smart health facilities". According to PAHO, *health facilities are "smart" when they combine structural and operational safety with favorable environmental (green) measures and a reasonable cost-benefit ratio.* There is a practical guide available to administrators, engineers and maintenance personnel to bear in mind the efficiency of resource use and operations and the reduction of carbon emissions. This tool includes new instruments such as the "green verification list", initially conceived for the British Caribbean. It includes innovative verification criteria in the areas of sustainable procurement, elimination of mercury, use of low emissions materials, use of renewable energy and efficient use of water.

AN INTEGRATED APPROACH

Experience indicates that the implementation of the Safe Hospitals Strategy encompasses several dimensions of the development agenda: health, wellbeing of the population, infrastructure resilience, adaptation to climate change and even more sustainable water management. The economic impact is also undeniable. The structural collapse of hospitals must be prevented during disasters to protect, not only the lives of patients and health staff, but also public investment. Hospitals represent more than two-thirds of the health sector budget and 85% of its financial value corresponds to equipment and facilities.

Currently, the Safe Hospital model is widespread in the region generating tangible results by linking health with risk management and increasing the resilience of vital infrastructure. The Safe Hospital Initiative will continue to generate common ground on environmental, risk management and social wellbeing agendas.

STRUCTURE OF THE SAFE HOSPITALS STRATEGY



© WHO, 2015.



VULNERABILITY TO CLIMATE HAZARDS INDEX

BREAKING THE CYCLE OF POVERTY AND ENVIRONMENTAL VULNERABILITY

Measuring environmental and climate vulnerability offers opportunities to better target the beneficiaries of social programmes.

Location
Dominican Republic



Scale
National.

Stakeholders
Government, international organization, civil Society.

Unique factor
Assessment tool, social inclusion.

In recent years, the impact of extreme climatic events on the Dominican Republic, such as storms and hurricanes followed by periods of drought, has been increasingly frequent and severe. Poor rural households are particularly vulnerable to these situations because they largely depend on natural resources and ecosystem services for their health, income, subsistence and basic needs. Moreover, these groups have less means at their disposal to combat climatic conditions that exacerbate the poverty of these households.

INTER-INSTITUTIONAL COORDINATION

A National Umbrella Program was developed between 2012 and 2014, within the framework of the UNDP and UNEP Poverty-Environment Initiative (PEI) and REGATTA a regional platform supporting the transference of climate change technologies and action. The objective was to reduce the vulnerability of poor rural households

to climatic hazards by integrating poverty, environment and climate variables into developmental planning. National participants were the Ministry of the Environment, the National Council for Climate Change and Mechanism for Clean Development, the Ministry of the Economy, Planning and Development (MEPYD), The General Land Management and Development Directorate (DGODT), the Social Coordination Cabinet (GASO) and the Single Beneficiary System (SIUBEN).

This interinstitutional work demonstrated that the mainstreaming of social protection policies with climate change adaptation and risk management policies constitutes a powerful tool to combat social vulnerability to climate change and for sustainable poverty reduction. To achieve this, the specific objective was to integrate climate change adaptation measures into two specific planning and development processes: land management and social protection strategies.

The leadership of SIUBEN along with its appropriation of technical solutions were vital to achieve these objectives and their sustainability. SIUBEN is responsible for identifying households with the greatest needs that are potential beneficiaries for the government social assistance programs. The work done by SIUBEN adjusted the criteria for the selection of beneficiaries by considering environmental and climatic vulnerability variables.

GENERATING NEW METRICS

The innovative methodology for the Environmental Vulnerability Index (EVI) and subsequently the



HOUSING CHARACTERISTICS

Wall and roof.



INCOME

Average work income for the family.



PROXIMITY OF THE HOME TO A SOURCE OF DANGER

River, creek, stream.

VARIABLES AND DIMENSIONS OF THE VCHI

Source: SIUBEN. Dominican Republic.

Vulnerability to Climate Hazards Index (VCHI), which calculates the probability that a household will be affected by hurricanes, storms and flooding, were of particular importance. The VCHI is now applied to the SIUBEN database to: a) identify the population facing high environmental risk; b) focus geographical and population related intervention, prioritizing poor households located in high risk areas; c) design public policy to generate resilience to combat the effects of hydro-meteorological hazards.

In addition to generating methodological tools, the Program produced direct benefits to the community. This included the startup of a rotating fund to drive climate change adaptation measures in Lago Enriquillo along the border with Haiti, where 22% of households were directly affected by the sequence of disasters in the period from 2004-2013.

The working agenda integrating risk management, social protection and environmental man-

agement remains fully effective. The January 2016 publication of methodological guidelines for the formulation of municipal land management plans substantiates this. These guidelines include mechanisms for mainstreaming adaptation to climate change, risk management, poverty reduction and gender equality into land planning.

The decision to combine social and environmental policies continues to produce new opportunities for innovation in the Dominican Republic. An example is the current discussions initiated by SIUBEN to develop a new multidimensional poverty index (MPI). This is an evolution in the current Quality of Life Index, used to target subsidies and transfers, by segmenting households into four different poverty levels. Hence, the application in the Dominican Republic of this integrated approach to understand poverty, the environment and climate change has garnered hurricane force whose impact will produce positive historical effects.



1 NO POVERTY



1.1 1.2 1.3 1.5



2 ZERO HUNGER



2.4



13 CLIMATE ACTION



13.1 13.2



17 PARTNERSHIPS FOR THE GOALS



17.14

LIVING THE BLUE ECONOMY

A REGIONAL NETWORK OF CLIMATE-RESILIENT MARINE MANAGED AREAS

Supporting fisher organisations that promote sustainable livelihoods and ocean use can build a pathway to protect the environment and create job opportunities.

Location
Eastern Caribbean



Scale
Regional.

Stakeholders
Government, civil society, international organization, private sector.

Unique factor
Partnerships, assessment tool, multi-country.

The 'Climate Resilient Eastern Caribbean Marine Managed Areas Network' (ECMMAN), is a regional programme which aims to improve management capacity within the Organization of Eastern Caribbean States (OECS) for existing and new marine managed areas in six countries: Antigua and Barbuda, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines.

THE MODEL

Marine Managed Areas (MMA) help minimize negative impacts to the marine environment that result from human actions, such as pollution, unsustainable fishing methods, and excessive coastal development. For example, in Saint Kitts and Nevis, three main marine habitats - coral reefs, mangroves and seagrass beds - support productive fisheries, tourism and the stabilization of coastlines. For this reason, three areas have been proposed to protect 93% of coral reefs, 4% of mangroves and 100% of seagrass beds.

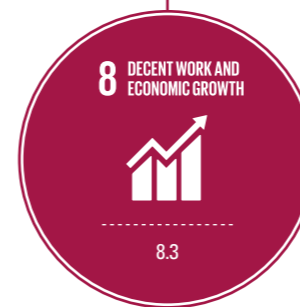
The project is geared towards the entire society and specifically the fishing community, which will benefit from the potential for increased revenues from growing and protecting fish stocks in the managed marine areas. The island's hotel sector and tourist industry benefit from the management and protection of marine areas. Adaptation to climate change impacts are strengthened, while improvement of the quality of the marine areas impacts positively on the national tourism product.

THE MULTI-STAKEHOLDER STRATEGY

Six regional entities joined the government representatives of the six beneficiary countries in an Advisory and Coordination Committee including: the OECS Secretariat; the Caribbean Marine Protected Areas Managers network; The Nature Conservancy and CARIBSAVE; and the Caribbean Network of Fisherfolk Organizations, among others.

THE TOOLS

In order to institute sustainable funding mechanisms to support marine management as part of the Caribbean Challenge Initiative, two financial facilities have been created. The Livelihoods Support Fund finances interventions that demonstrate innovative and sustainable livelihood opportunities for coastal communities. Additionally, a Small Grants Programme is aimed at improving



the capacities for creating new MMA and better managing the existing ones. This fund supports activities to foster the participation of local community groups (fishers, tour operators, women and youth, among others) and decision makers while reducing user conflicts. In St. Kitts and Nevis, for example, as a result of this programme, a MMA has recently been defined by the two miles radius of sea water around the coastline to be managed by the Department of Marine Resources.

In an effort to promote the science-policy dialogue, one important component is improving access to data. The new Coral Reef Assessment Tool provides standardized indicators to monitor the marine environment, evaluate management, and track socio-economic indicators of coastal communities. Individual coral reef report cards have been produced for the six countries. These include the Reef Health Index (RHI), which integrates four indicators to measure coral reef health (coral cover, fleshy macroalgae, herbivorous fish and commercial fish). In St. Kitts and Nevis, the RHI was 2.3 (out of 5)¹. All of the data and report card scores are also available at CaribNode.org,² an online mapping tool where users can search through data and create maps based on their interests.

Small Island Developing States are rich in maritime space, acting as an important part of the economy and a key support for fish stocks, livelihoods and the enhancement of the tourism

2 islands

261 km² land

54,901 people

107,000 visitors in 2013

6.7% GDP from tourism

5 major hurricanes since 1989

53 km² of coral reefs

0.9 km² of mangroves

35 km² of sea grasses

207 species of birds

3 species of nesting sea turtles

>250 species of reef fish

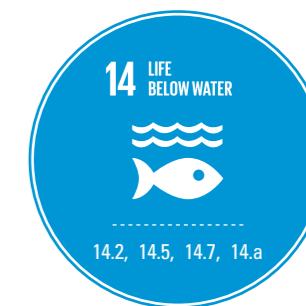
3 proposed Marine Managed Areas

Source: The Nature Conservancy, 2016.

product. The lives and incomes of island people revolve around their marine environments. The implementation of this project bridges society, economy and environment, pillars of sustainable development of the region, and it is a step toward the building up of the islands' blue economy.



13.1 13.2



14.2, 14.5, 14.7, 14.a



16.7

QUITO'S WATER FUND

LOCAL FINANCING FOR SUSTAINABILITY

The diverse interests over the use of water can lead to either conflicts or to effective partnerships in which everybody assumes responsibility to ensure equal and just access.

Location
Ecuador



Scale
Subnational.

Stakeholders
Civil society, international organizations, government, community, private sector.

Unique factor
Financial tool, model, multi-country, partnership.

The inter-Andean part of Pichincha province is one of the most densely populated areas in Ecuador. Rivers like the Guayllabamba provide the water necessary for human consumption and industry, supplemented by transfers from the Amazon sub-basins and groundwater. The entire province of Pichincha in Ecuador was experiencing serious conflicts over water use and appropriation, as well as the depletion of many aquifers and very high levels of contamination. Added to these issues, there was little protection of areas where water sources are located. All these factors were compromising access to water for the Quito metropolitan district. Water funds are a long-term financial mechanism to ensure water supply by preserving its sources. One of the region's first such schemes began with the city of Quito.

In 1995, various organizations began working together to create a mechanism towards a new water culture and integrated management of the resource. This process culminated in 2000 with the establishment of the Water Protection Fund (*Fondo para la Protección del Agua - FONAG*).

At the signing of the trust contract, constituents formed seed capital of USD 21,000, and the Quito metropolitan water company agreed to provide a fixed percentage of its monthly receipts. In a first stage (2000-2002), the aim was to build up fund assets by preparing planning instruments, incorporating constituents and seeking financing for medium-term investments.

Based on yields from the trust, donations and matched funding from national entities, several programs were structured in 2005 and have been functioning since then:

- Recovery of Ground Cover. This program receives 25% of the resources and executes restoration and forest plantation projects, as well as carrying out research and monitoring in paramos and high-Andean forests.
- Water Management. The program is aimed at integrated water resource management in the upper basin of the Guayllabamba River and its direct areas of influence. The focus is on conducting specific studies and technical analysis to support decision making.
- Sustainable Water Conservation Areas. Contributes to sustainable management of key surrounding areas, such as the buffer zone of Antisana Ecological Reserve and the Cayambe-Coca and Cotopaxi national parks.

In addition, funds support trainings for community leaders and professionals, environmental education programs that have benefited more than 40,000 primary school students, and communication campaigns for the general public.

ENSURING POSITIVE RESULTS

Currently, FONAG is a vital tool for local biodiversity conservation and forest protection in the upper basins. It also benefits families who receive direct or indirect payments for their conservation work. Above all, however, the water fund demonstrates tangible results in assuring availability of water for the more than two million residents of Quito.

Good fund governance and transparency have been key factors. The fund's rules specify where investments are to be directed and maximum amounts for administration and running expenses. This has led to relations of trust and clear responsibilities among financiers, implementers and beneficiaries.

In addition, a core objective of initial activities was to obtain in-depth knowledge of the basin and water system in order to prepare detailed information, identify hydrological models, and disseminate the results. Scenarios were also designed on the possible effects of climate change and to define one-off measures.

One of the strengths of water funds is that they are based on local financial resources and thus do not depend on outside sources, which in Ecuador's case has permitted an investment of over USD 20 million over the past 15 years. The fund's financial mechanism was strengthened by Ordinance 199, now Ordinance 213 2007, establishing that Quito's municipal water company will contribute 2% of its sales of potable water to the fund's capital assets. Ordinance 213 moreover delegates the realization of the Integrated Water Resource Plan to FONAG.

A MODEL FOR THE REGION

Water funds are proving to be a successful model to deal with the specific challenges of water provision faced by the region. They are a sustainable mechanism that mobilizes funding and promotes partnerships to ensure transparent governance of and equal access to a critical natural resource.



Source: Alianza Latinoamericana de Fondos de Agua.



MUNICIPAL SYNERGY IN ACTION

LOCALISED INSTITUTIONAL RESPONSES FOR SUSTAINABLE LAND MANAGEMENT

Local authorities play a key role in promoting the coherence of development strategies and fostering effective alliances to implement them.

Location
El Salvador



Scale
Sub-national.

Stakeholders
Government, private sector, civil society, international organization, academia.

Unique factor
Association, multi-country.

The devastating earthquakes of 2001, which claimed 944 lives in El Salvador, required swift and coordinated action in order to aid the process of reconstruction and agree on a longer term vision for local development. The Associated Municipalities of Los Nonualcos (ALN) arose to expedite the post-quake reconstruction after 2001. It allowed jointly accessing and executing international funding, avoiding fragmentation into 262 mayoral offices. Even in its earliest years, the ALN looked beyond specific post-disaster projects and financing, embracing a longer term effort for land management and risk reduction.

From just four at the start, the ALN now brings together eighteen municipalities, thanks to local, pluralistic political leadership capacity. The mayors have been fundamental in constructing a broadly recognized authority and generating a platform of political dialogue and negotiation. These have helped establish re-

gion-wide agendas, generate agreements, and move implementation forward. The key lies in forging strategic alliances to strengthen endogenous processes, political leadership, and technical and operational capacity.

German International Cooperation (GIZ) was central at the start to support participatory appraisals channelling the knowledge and interests of local stakeholders into a plan. The process started from scratch, with no tradition of territorial planning or management or self-financing. "It was difficult to visualize the path to economic sustainability," commented José Antonio Torres, manager of the ALN.

ACHIEVEMENTS

By 2005, with the Deputy Minister of Housing and Development (VMVDU by its Spanish acronym) the ALN had already been able to adjust the National Land Use Plan to apply a local focus (scale 1: 50,000), as well as develop local planning tools for *Ciudad Aeroportuaria* (airport surroundings), *Ciudad Lineal de Zacatecoluca*, and various partial plans. Intense negotiation led to the Territorial Development Plan (TDP) in 2008, vital for defining the ALN agenda to transform conflicts over use of land and its resources on behalf of the majority of the population. The VMVDU also granted a two-year stewardship to implement the TDP and set up the Office of Territorial Planning and Management. At the same time, mayors participated in exchanges in and outside the country,



"In 2003, municipalities were only responsible for minor works, collecting waste, public lighting, maintaining posts and cables, or cleaning. In other words, basic infrastructure that brings in short-sighted votes at most, but not sustainable and inclusive local development at regional level. That battle has shaped the new paradigm of the municipality's role in development."

José Antonio Torres,
Manager, *Asociación de Municipios Los Nonualcos.*

adopting a two-pronged approach: 1) multi-level to achieve "vertical" coherence between the national government and local stakeholders; and 2) networking to promote "horizontal" coherence in cooperative work, alliances, agreements, and governance among local actors.

Through its economic development strategy, the ALN has identified strategic stakeholders to strengthen the local social fabric, resulting in the creation of a public-private partnership for economic development (Economic Development Council), the Youth Network, the Women's Network, and the Association of Inter-municipal Committees for Local Development. The TDP was linked with all of them, with a strong emphasis on protecting environmental priority areas (such as the Jiboa River plan), comprehensive solid waste management, and disaster risk management. The Territorial Information System is also being created; with this and the platform of the Local Economic Development Information System, key indicators have been monitored since 2010.

The municipality and the mayor's office are the most deeply-rooted institutions in the region. Associated municipalities represent a powerful institutional evolution as platforms of local development. From El Salvador to Chile, these associations will continue providing learning regarding how the local level can contribute to greater coherence in development strategies, more sustainable cities, solid institutions, and effective alliances; all of these are objectives of the 2030 Agenda.



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QUESUNGUAL

THE REAL VALUE OF PROTECTING THE SOIL

During the 1980s, the food and environmental crisis in the southern area of the Lempira department (western Honduras) was worsened by drought, with severe impacts on the livelihoods of small-scale Lenca indigenous and mestizo farmers. The solution had to identify the root causes of this situation and harness traditional knowledge.

Sixteen mayor's offices, local farmers and FAO - through the South Lempira project - began mounting an alternative to halt processes causing food insecurity, poverty, and greater environmental degradation. The result arose as the *Quesungual agroforestry system*: "A campesino-agronomist/extensionist alliance headed by leading farmers at community level," says Ian Cherrett, coordinator of the South Lempira project.

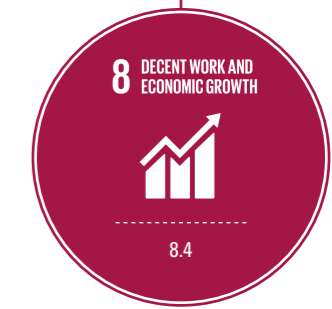
The *Quesungual system* is an alternative to the usual deforestation and burning methods of preparing land for cultivation. Its four principles are: 1) don't burn, 2) manage stubble, 3) regenerate naturally, and 4) don't till the soil. Quesungual combines traditional and scientific technologies for sustainable management of agroforestry systems. It is based on restoring some of the region's indigenous technologies, such as pruning the branches of certain tree species and applying them to the soil rather than cutting them down; and other cultivation practices that cause less degradation of the soil structure (using a sharp point or spike rather than a plow or pick).

The advantages of the system can be seen in demonstration parcels comparing indicators on erosion control, moisture and crop yield. Such validation and the farmer-to-farmer transmission of knowledge, together with the fact that part or all of the crop in demonstration parcels was saved after hurricane Mitch (1998), boosted and accelerated Quesungual's mass adoption by some 6,000 families.

To ensure what is now a social and agricultural transformation, it was essential to attract dynamic, influential forces in the area. Such is the case of *Comité Central Pro-Agua y Desarrollo Integral de Lempira* (COCEPRADIL), a grassroots organization that adopted Quesungual to improve flow from water sources. It currently supports 40,000 people in the administration of water boards, contributing to Quesungual's funding through levies on water use. *Cooperativa Mixta Lempira Sur Limitada* (COMLESUR) started out with 40 members, a number that has now risen to 5,000. Religious leaders spread messages against burning, while the municipalities created Municipal Food Security Units and passed ordinances against burning.

What began as a local effort (with FAO providing Dutch funds) gradually incorporated support from the national Secretariats of Natural Resources, Agriculture and Livestock, and Education. The last of these, for example, created an agricultural degree program at the Community Technical Institutes ensuring the sustainability of the process, and deliberately incorporating young women and girls.

A critical mass of inhabitants was consolidated against burning. Currently there are three "zero-burn municipalities" where there have been no



BETWEEN 2005 AND 2008,

CIAT compared the Quesungual system vs slash-and-burn, with the following observations:

100% more conservation of vegetation at the parcel level (14 tree species),

Restoration of biodiversity and its ecosystem functions (50 tree species),

Higher yields of corn (42%) and beans (38%),

Better water use in corn production (20%) and beans (120%),

Corn yield sustained with 35% less fertilizer, greater water retention capacity (20%),

10 times less nutrient loss (N, P, K), and

6 times less soil loss from erosion.

Source: CIAT, 2009.

"There are response options in the territory; it's a question of assuming and implementing them. For example, outside actors didn't know which trees were valued and why, and which ones can take pruning; they were also unaware of the diversity of local practices, such as weed control without herbicides. If it hadn't incorporated farmers' knowledge, Quesungual would never have taken off, no matter how much funding, technicians and machinery were brought in."

Edwin García,

International Center for Tropical Agriculture (CIAT).

fires for 20 years, and four "green municipalities" with no more than 1% of their territory burned. As a result, this practice is no longer considered "normal" among the new generations. The social fabric is denser, stronger and thriving, while the existence of cooperatives and a network of rural funds contributes to better organization and improved income allowing beneficiaries to escape from the previous level of extreme poverty. While inhabitants continue emigrating, some have begun to return.

Quesungual areas have greater vegetative cover and fauna. The system has improved water security and infiltration, moisture retention, and soil quality. Emissions from burning have been avoided and the new forest cover captures car-

bon. The zone generates agricultural surpluses for commercialization in local markets and outside the region. For all these reasons, land with Quesungual has a value three or four times higher than traditional plots.

Given the recognized impact of the system, similar processes have been implemented in the Association of Municipalities of *La Montañona* (El Salvador) and *Somotillo* (Nicaragua), and its technology has been incorporated in the food security program of FAO Guatemala and the FAO Special Programme for Food Security in Central America. Quesungual has also served as a model for the Honduran and Salvadoran national agro-silvopastoral policymaking.



Location
Honduras



Scale
Local.

Stakeholders
Community, international organizations, government.

Unique factor
Technology, indigenous, multi-country.

BEYOND FOOD SECURITY

FIFTEEN YEARS OF AGRICULTURAL PRODUCTIVITY TO COMBAT POVERTY

Improving food and nutritional security sustainably requires a combination of increased food production, income generation, soil and water protection and the development of social capacities.

Location
Mexico



Scale
National.

Stakeholders
Government, civil society, community, international organization.

Unique factor
Partnership, social inclusion.

The Mexican Special Programme for Food Security (SPSF) supports the productivity of family farming units in marginalized and highly marginalized rural areas, through access to comprehensive investments for capacity building, organizational strengthening and the implementation of agricultural projects.

Unquestionably, adapting the SPSF methodology to Mexico included decentralized interventions so that the project's implementation was expansive and effective at local level. To this end, as of 2005, Rural Development Agencies (RDAs) began to be set up as key local promoters. The RDAs are comprised of women and men with technical and social capabilities who also have roots in and prior knowledge of the localities. This assures close involvement of communities in order to achieve the sustainability of the results.

The SPSF strategy focuses on four aspects: 1) backyard farming and livestock-raising, 2) grain staples and corn, 3) predominant agricultural systems,

and 4) the local market. These agricultural aspects are complemented by family strengthening that includes education about nutrition, financial management, sustainable agriculture, and associated practices. From the start, SPSF methodology has social and community roots and is based on the use of participatory tools. Through their work with family members and communities, the RDAs have been able to increase knowledge of new technologies and the availability of assets and resources for investment, thereby winning their trust, reducing dependence on governmental support, and raising the efficiency and effectiveness of public funding.

With the incorporation of an environmental component, 1,200 comprehensive projects have been implemented for soil conservation and water storage to irrigate surfaces that were previously only productive during the rainy season, along with multiple conservation practices such as terracing, and reforestation, among others.

ACHIEVING NATIONAL COVERAGE

Today SPSF, which arose at the global level as a result of the 1992 World Food Summit, is a public instrument of the federal government with its own budget and legislation. There are coordination mechanisms between the Secretariat of Agriculture, Livestock, Rural Development, Fishing and Food (SAGARPA) and the state governments, and at the local level, participation of municipalities and civil society. With the support of 343 RDAs, in 2015 the SPSF benefited 298,770 families in 8,711 locations of 845 municipalities in 25 states. Currently (2016), coverage has reached the national level, attending 32 country entities with investments amounting USD 170 million. It is important to note that SPSF funding has grown since 2007 when the Congress provided



for its first allocation in the federal budget, making this part of public policy on rural development.

FUTURE DEVELOPMENTS

Thanks to the joint work of FAO and SAGARPA, the SPSF as a component of the Comprehensive Rural Development Program has been positioned as "an innovative initiative that can be replicated and sustainable over time". The groups responsible for SPSF operations in each federal entity have supported its institutionalization in each state and promoted an effective linkage with the actions of different institutions. At subregional level, similar programmes exist in Central America and mechanisms for South-South cooperation have been promoted to allow the exchange of best practices.



SOME ACTIVITIES INCLUDE...

342,181 projects (268,515 promoting subsistence farming and 80,666 promoting income generation).

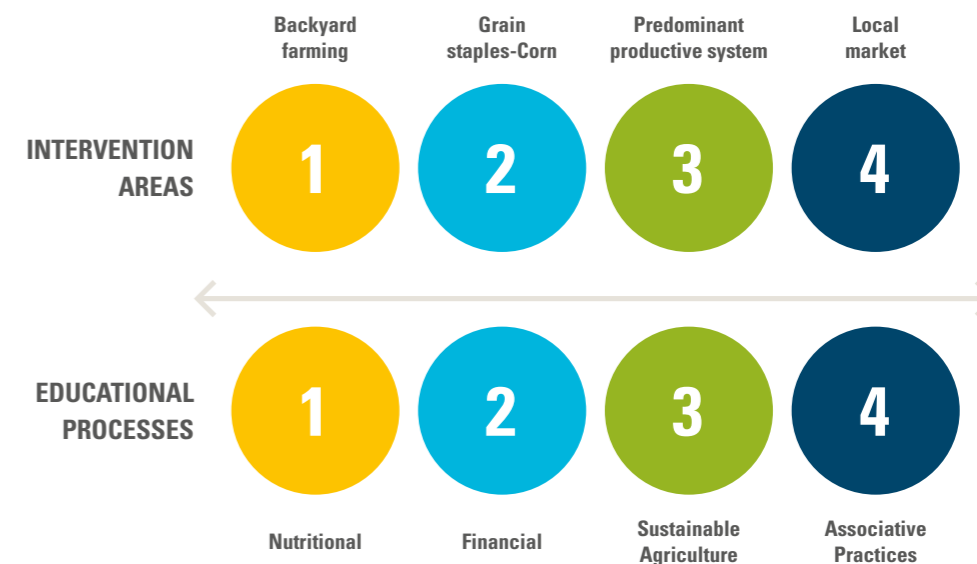
518 Food and Nutritional Security fairs, involving **61,000** people promoted sustainable food production, healthy diet and self-consumption.

RESULTED IN...

14 → 41kg increase in egg production per year
11 → 32kg increase in poultry production per year
7,400 community savings and loan funds formed as mechanisms for sustainability

1,935 → 2,075 increase in calorie intake for families as a result of the interaction between education processes and food production
14 → 16 increase in number of DBO fruits and vegetables consumed
52 → 60 grams increase in consumption of animal protein
52 → 39 grams decrease in sugar consumption

METHODOLOGICAL STRUCTURE FOR FOOD AND NUTRITIONAL SECURITY



MOUNTAINOUS COMMUNITIES DRIVING CHANGE

HEALTHY ECOSYSTEMS TO REDUCE VULNERABILITY TO CLIMATE CHANGE

Ecosystem-based Adaptation takes advantage of the conservation and sustainable use of natural resources to strengthen local resilience in a comprehensive way.

Location
Peru



Scale
Local.

Stakeholders
Government, community, international organizations.

Unique factor
Indigenous, model, multi-country.

The technical components of Ecosystem-based Adaptation (EbA) include integrated water management, ecosystem restoration to protect from disaster risk, and the diversification of agricultural production. However, the active participation of the communities themselves in identifying and implementing the adaptation measures is the most important factor for the success of this approach.

The high mountainous regions of Peru are particularly vulnerable to climate change, not only because of the topography that exacerbates climate variability but also because of the high poverty levels of their inhabitants. In the context of increased changes in precipitation patterns, the survival of Andean livestock farmers depends on the economic utilisation of grasslands and their water regulation capacity.

A "PACKAGE" OF ACTIVITIES

Between 2012 and 2016, the objective of the Mountain EbA project was to strengthen national, regional, and local adaptation capacities in the

Nor Yauyos Cochas Landscape Reserve, located more than 3,800 meters above sea level. This pilot initiative has sought to draw lessons that allow for replication in other regions and countries.

All Mountain EbA measures aim to mitigate the degradation of grassland which is being impacted not only by climate change but also by more local drivers such as overgrazing and lack of protective customary norms. While the coordination of the institutions involved was key (Ministry of Environment, IUCN, UNDP and UNEP, for example), the protagonists implementing EbA measures were the actual inhabitants of the communities. A participatory Vulnerability Impact Assessment prioritized the use of pilot actions to demonstrate the practical benefits of the approach. In fact, local knowledge was the point of departure (visualized as "knowledge dialogue"), as well as revaluing certain traditional practices (e.g. the management of wild vicuñas).

LONG RANGE

Even though the project has only lasted four years, the conclusion is that it has had a "resounding impact" at several levels. Improvements in hydrological regulation including enhanced water storage and groundwater recharges have been observed. Grassland conditions have improved and specific resources (such as vicuña fiber) have increased, that lead directly to more income. Impact is also seen in the knowledge acquired and the capacities of all involved, including greater organization of interest groups, researchers and community committees that now have Pasture and Water Manage-



© UNDP/UNEP.

ment Plans integrating EbA measures in community and municipal planning. The information generated was also of service to the Landscape Reserve, in order to prioritize areas of action and formulate its Master Plan, which is currently being implemented. And while difficult to measure, a general observation is that EbA is now recognized and valued by public and private institutions in Peru.

At the level of policy guidelines, cost-benefit analysis has shown the net benefits of EbA measures, and serves as a case study to argue that it is an economically sound alternative. EbA has also been incorporated in the National Climate Change Strategy and in general guidelines for formulating public investment projects. The result is that projects based on biodiversity conservation and promotion of ecosystem services can now be considered within the National System of Public Investment (SNIP), enabling district and provincial municipalities and regional governments to present their projects and be ensured of funding.

EBA action is being widely implemented across the region, from high mountains to tropical forests and coastal zones. One of the most popular uses of the EBA approach is at the coastal zone. For example, a project conducted in Uruguay recovered beach front implementing sand recharge and building foliage fences. A community of practice specialized in EbA is operative, gathering practitioners from all across the region.



THE ROLE OF MICROFINANCE

Adaptation to climate change not only requires better productive practices or restoring the health of ecosystems. Financing for the investments necessary is equally important, regardless of whether the resources are private, public or public-private partnerships. In rural areas, vulnerability is worsened by weak or non-existent attention from financial institutions. Operating costs are very high and perception of risk is greater, so producers have no access to financial products helping them to avoid or overcome risks.

In this frame, the initiative, "Microfinance for Ecosystem-based Adaptation" provides technical assistance to promote

credit for EbA solutions in Peru and Colombia. The project has developed specific tools for the microfinance sector and its institutions that include staff training, customer awareness, and greater management of climate risks in credit analysis.

During two years of implementation at pilot scale, more than five thousand loans have been financed (around USD 7 million). These results show the existence of a very good business opportunity, and that microfinancing can be a vehicle for fostering climate change adaptation in the rural sector. Climate finance is approaching, in practice, the everyday possibilities of even those who are most vulnerable, and supports their resilience to climate shocks.



THE GREEN MARKET AND THE FUTURE OF FARMING

FOOD AND CULTURE IN SANTA CRUZ

The Santa Cruz Green Market is an example of private sector and community based social entrepreneurship with an aim to promote healthier and more sustainable local consumption.

Location
Trinidad and Tobago



-  **Scale**
Local.
-  **Stakeholders**
Community, private sector.
-  **Unique factor**
Culture, gender.

The Santa Cruz valley, on the main island of Trinidad, is a lush area. Formerly important for cocoa plantations, these have given way to small scale farming and residential development. Nestled in this valley is the Santa Cruz Green Market that was conceived and launched in 2012 as a social enterprise to foster community-based sustainable development. The project attempts to generate income and revenue for its beneficiary farmers. Farmers who have participated in the project for a minimum of three months become eligible to participate in the Community Supported Agriculture programme (CSA), which pays for their produce in advance. Together with the promotion of a direct link to markets, without “middle men,” this guarantees market access and income certainty for farmers. Attention has also been paid to women’s empowerment, as 45% of the participating farmers are women, running their own farming businesses.

The initiative simultaneously contributes as a social good and to changing patterns of consumption and production. The methods used at

the farm are “green,” low impact, non-polluting, resource efficient, and protective of the terrestrial ecosystem. All the market’s produce is free of harmful chemicals, pesticides and fertilizers, offering the public healthier consumption choices.

The Green Market’s secondary social objectives are to stimulate land-based entrepreneurship by transforming the farm’s raw materials into artisanal products, secondary and tertiary goods for sale to the public. As well as its fresh produce, the market offers honey, chocolates, fudges, candy, chutney, jams, breads, soaps, lotions, jewellery, bags, woodwork and toys.

It seeks to promote a deep sense of community and cohesion amongst residents of Santa Cruz by creating an opportunity for them to gather together and a safe place to connect with people from across the island. Moreover, a children’s programme, the “Eco-kids School,” has been developed to foster interactive learning experiences and an interest in the importance of agriculture among the children of the Santa Cruz Community. On another trajectory, the production of a cookbook, which will feature Trinidad and Tobago’s indigenous foods, herbs and spices, will showcase the country’s culture through its cuisine.

CHALLENGES AND SUCCESSES

The greatest challenge faced by the initiators of the project was reorienting the thinking of both farmers and consumers. In the case of the farmers it was adopting more sustainable production



© Santa Cruz Green Market.

methods. For the consumer, it was creating the understanding that the produce at Santa Cruz was far healthier than the lower cost, chemical and pesticide covered produce they find elsewhere. Significant education and awareness building was needed to effect change and make the market successful.

The market is developing its own green index to inform a labelling standard that identifies farming methods, food soil conditions, pathogen levels, pesticide use, and the water and energy used in

growing them. It is essentially a sustainability standard for agriculture, an innovation that could be scaled up to the country and the Caribbean level.

The Green Market has excited the attention of the media and wider public, gaining credibility and garnering support from government agencies, the University of the West Indies and the FAO. Its success has required hard work and persistence but today what people see at Santa Cruz is not just a green market but the full potential of sustainable growth for the farmers and wider community.



RENEWING ENERGY

TRANSITION TO A CLEANER AND MORE EFFICIENT ENERGY MIX

Renewable energy that saves on public budgets, create employment, decrease prices for consumers and companies and ensure the competitiveness of the economy.

Location
Uruguay



Scale
National.

Stakeholders
Community, government, international organisation, private sector.

Unique factor
National impact.

At the onset of this century, petroleum comprised 27% of Uruguay's imports. Uruguay had high costs of electricity generation due to its dependence on imported energy and an increasingly restricted water supply which was its main energy-producing resource. In this context, the expanded demand for energy led to multiple environmental, economic and social uncertainties.

The market paradigm reigned over the energy sector until 2005 when energy became a strategic good that was subject to state planning. A national policy was created in 2008 and approved by Congress two years later. The objective of the Uruguay Energy Policy 2030 is to meet all national energy needs at an adequate cost for all social sectors and with clear contributions to country competitiveness. This is achieved while also promoting responsible consumption patterns and striving for energy independence in a framework of regional integration and strengthened resilience of the system.

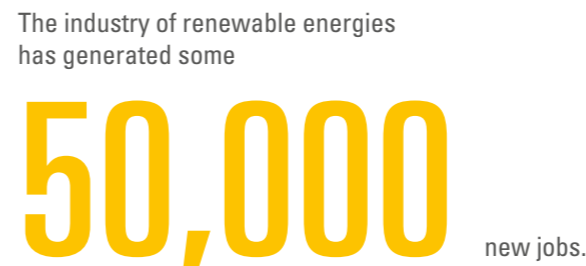
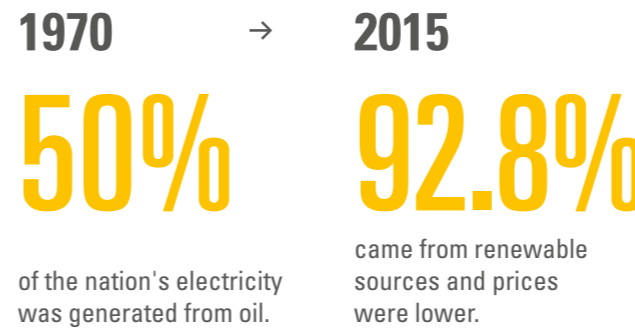
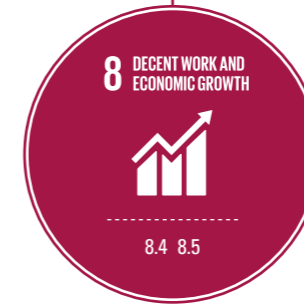
TANGIBLE RESULTS

Investment in infrastructure during this transition amounts to an estimated USD 7 billion. At the same time, the costs of generating power have been reduced 40% through the use of renewable energies, savings that the government has allocated to social investment. Vulnerability to climate change was also reduced by diversifying sources of electrical power. While 50% of the nation's electricity was generated from oil in 1970, by 2015 92.8% came from renewable sources and prices were lower than in the past, accounting for inflation. Energy imports from other countries halted and Uruguay began to export surpluses.

In addition, measures of climate change mitigation were incorporated to decrease the carbon footprint. Alongside the development of policies for expanding energy supply responsibly, efficient reduction of demand was also necessary. Combined measures included energy savings, on one hand, entailing a limitation on its use, and on the other, energy efficiency, resulting in its optimization. Today 99.7% of Uruguayan families are connected to the electrical grid (in 2005 coverage in rural zones was 85%), increasing service in areas of limited access with lower fees. Costs for businesses fell and competitiveness rose. At country level, this allowed some breathing room in the terms of important investments in energy generation.

SUCCESS FACTORS

Uruguay's energy transformation resulted from a series of conditions, ranging from general public policy and regulatory frameworks (such as Energy Policy 2030 and Law 18.597 of 2009 on efficient energy use); market instruments such as a program of energy-efficiency labeling and standards, including an efficiency seal on equipment for domestic use and housing materials; and elements of financial strategy that took the form of the Uruguayan Energy Savings and Efficiency Trust (Spanish acronym FUDAEE).



Source: Ministerio de Industria, Energía y Minería, Uruguay.

With tangible results in energy security, lowered consumption, reduced emissions and increased exports, energy transition in Uruguay is a clear example of the social, environmental and economic benefits that well-designed public policies can produce.

The existence of suitable natural conditions for other energy sources (adequate solar radiation year-round, biomass from agricultural activities, wind, and geothermal sources), com-

plemented by public policy committed to a diversified energy mix and which facilitates effective coordination between public institutions and private business, are success factors that would make it possible to replicate this experience in other parts of the region. These factors ensure progress towards an Inclusive Green Economy aligned with the objectives of achieving accessible and non-polluting energy, environmental sustainability and climate action.

"The changes in the electricity mix are irreversible, this is why we are travelling our own path, influenced of course by what is going on in the world, but adapting it to best practices in Uruguay..."

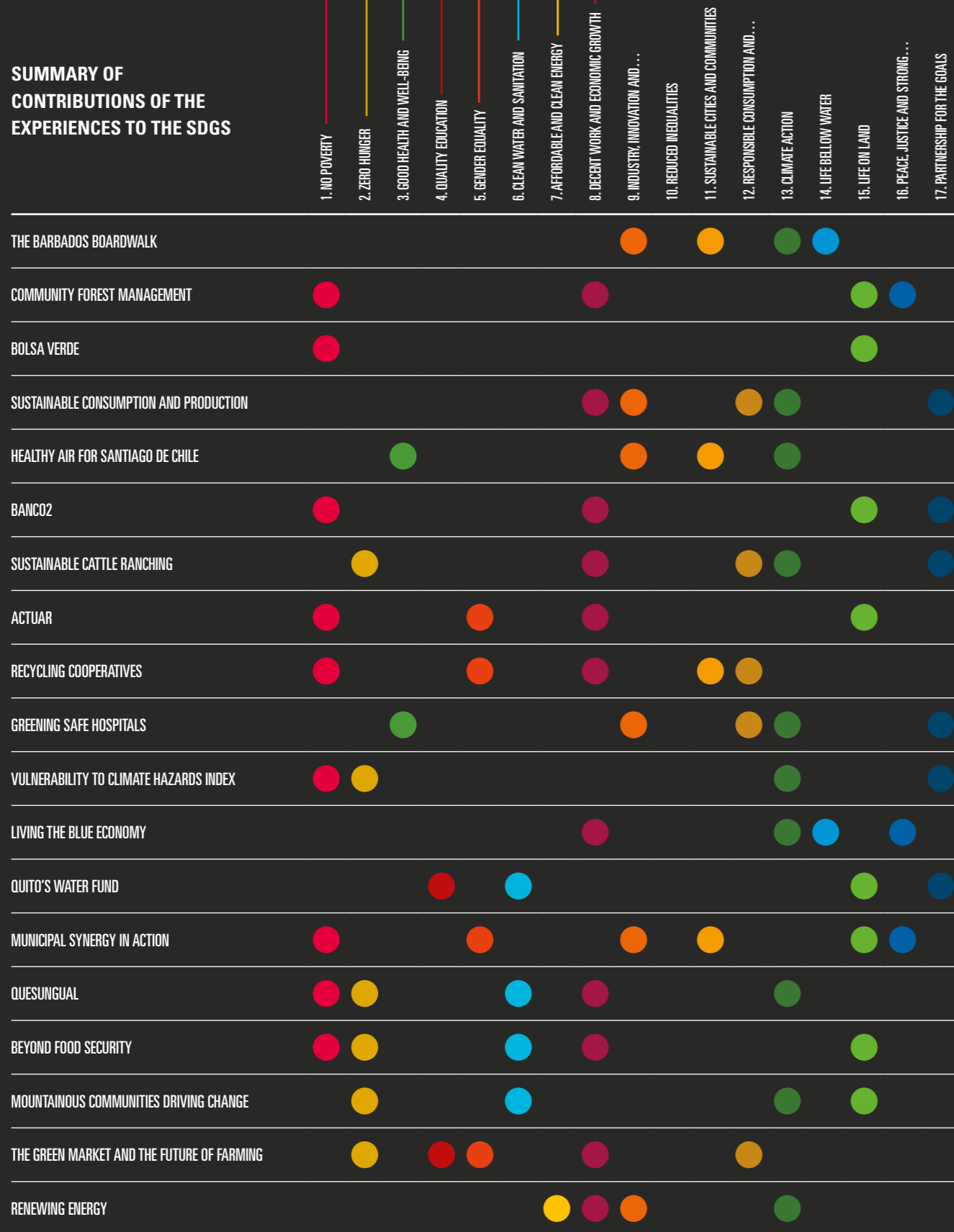
Gonzalo Casaravilla,
President, National Electric Power Plant and Transmission Administration.



© Ministerio de Industria, Energía y Minería, Uruguay.



SUMMARY OF CONTRIBUTIONS OF THE EXPERIENCES TO THE SDGS



SUMMARY OF ADDITIONAL EXPERIENCES INCLUDED IN THE DIGITAL COMPILATION



© Akapacha Chascomús.

Argentina

A SUSTAINABLE LIFESTYLE

THE AKAPACHA ECOVILLAGE EXPERIENCE

An ecovillage is a human settlement that integrates with its natural environment in a sustainable way and applies community methods for production, living, and consumption. This system supplies most of the inhabitants' needs and generates surpluses for sale or trade. A growing Global Ecovillage Network has existed since 1995 that includes sixty-five communities from Latin America and the Caribbean. Multiversidad Akapacha, located in the Argentine city of Chascomús, is one of these. It currently hosts fifteen families and acts as a local example of a global movement. It is structured as a community of practice and collaborative learning in areas such as permaculture, renewable energy, bioclimatic design, collaborative economy, art, health, organic cooking and communication. Multiversidad Akapacha has developed a complementary model to formal university schooling that focuses primarily on sharing knowledge for an alternative, healthy, and creative life — literally offering a new way of living.



Brazil

THE AGUA DOCE PROGRAMME

WATER FOR BRAZIL'S SEMI-ARID REGION

Over the years, several projects have sought to provide water to the Brazilian semi-arid region in the northeast of the country through the installation of desalination systems. Despite the investment of considerable resources, time, and effort by many people, most of these systems were abandoned. Since 2004, the Agua Doce Program has sought to empower communities as a basis for implementing and maintaining alternative water supply systems. Today, it ensures the access to quality water to 100,000 people in more than 150 locations in the semi-arid region. In addition, the effluent generated in the desalination process is being used as a resource in raising fish (tilapia) and for irrigating salt-tolerant forage crops. One of the initiative's biggest challenges has been to create permanent structures for the management of desalination systems, thus it has sought to ensure sustainability and avoid the problems seen in the past. With the active participation of the local population, municipalities, and sub-regional governments, sustainability has turned into one of the most striking results.



Costa Rica

NAMA COFFEE

A COMMUNITY OF PRODUCERS DRIVES NATIONAL CARBON NEUTRALITY

Coffee production is an integral part of Costa Rica's economy, history, and identity. Eight percent of the labor force works in the industry, which overwhelmingly consists of small producers (92% of them fall in this category) that support 50,000 families. However, coffee production also accounts for 9% of national greenhouse gas (GHG) emissions. To reach its goal of carbon neutrality by 2021, and contribute to international climate protection efforts, Costa Rica established a number of tools that support countries in tackling climate change and finding their own path toward low-carbon development (these are known as Nationally Appropriate Mitigation Action, or NAMAs). The result was NAMA Café Costa Rica, an innovative collaboration between the public, private, financial, and academic sectors that has resulted in the world's first agricultural NAMA. Not only will this endeavor create the first low-emission coffee, it also seeks to improve resource efficiency at plantations and coffee mills and give Costa Rican coffee producers access to new markets and increase economic competitiveness. It also has the potential to lay the groundwork for scaling the initiative nationally and internationally to different agricultural systems and sectors.



Chile

MODEL FOREST

ACTIVE PROCESSES FOR SUSTAINABLE TERRITORY MANAGEMENT

The model forest concept emerged in Canada in the 1990s in response to conflict between forest companies and communities, and has evolved into an effort promoted by the International Model Forest Network, which today includes more than 70 initiatives in 31 countries. These initiatives promote sustainable development of a territory, achieving a balance between social, environmental, and economic needs. There are 20 model forests in Latin America and the Caribbean that comprise more than 30 million hectares in 14 countries, among which is the Araucarias del Alto Malleco Model Forest. It began in 2002 as one of the four model forests in Chile, and is made up of a total area of 369,000 hectares in the province of Malleco. It has already created a number of notable achievements such as reduced conflicts between Mapuche-Pehuenche indigenous and farmer-settlers; achieving economic and sustainable use of araucaria pinion, morchella (an edible fungus), and rosehip; the recovery of 50 hectares of soil; local governance as the basis for more sustainable land use; and the approval of the Araucaria Biosphere Reserve as a protected area.



Grenada

MORE THAN A SCHOOL

GRENADA'S GREEN LESSONS FOR LIFELONG LEARNING

Grenada's prioritization of climate change adaptation has begun to manifest itself through a series of community-based projects. One such pilot project is located at the School for Special Education in the tourist area of Grand Anse. In order to respond to the challenge of water scarcity, which is a common occurrence in the region for most of the year, the school has started a program for rainwater harvesting, water storage, drip irrigation and solar power for use on a farm that is contributing to healthy lifestyles along with food security. Its emphasis on climate change adaptation also provides a valuable income generating activity for the students, who are "differently able", and fosters their sense of confidence and pride. Crops produced are sold in the surrounding communities and to the nearby Sandals Hotel, a large, Caribbean chain. This innovative community-based approach for addressing water scarcity, food security, and sustainability through private sector tourism linkages will be used as a template for future initiatives, and is an excellent example of "ground up" climate change adaptation.



Jamaica

A GENDER LENS FOR THE GREEN ECONOMY

EMPOWERING CARIBBEAN WOMEN FARMERS

Women farmers, who produce a significant part of agricultural goods in the Caribbean, face major challenges such as the right of ownership to land, equal market access, and unfair price discrimination. They also frequently lack bargaining power through organised groups. This project aims at placing a gender lens on policy formulation and implementation for the agricultural sector, creating initiatives to empower women farmers and improve their role in the national transition to an inclusive green economy. While an ongoing effort, it has already had a number of early outcomes, among them being the formation of a network of women farmers to communicate, collaborate, and share information and access markets. A community for women farming and practices is evolving by linking women and creating a network that has made them a more recognized, respected, and powerful voice at the national level. Since its start in 2014, the project has been an effective tool for knowledge sharing and the development and transfer of best practices.



Mexico

ENSURING WATER FOR PEOPLE AND THE ENVIRONMENT

189 RESERVES TO ENSURE FAIR AND SUSTAINABLE WATER USE

This national program developed in Mexico seeks to establish a public water reserves system that guarantees continued and stable water availability for economic activities and the well-being of the population. From technical studies that identified 189 potential national basins, pilot projects in six hydrologic regions have now become active and the entire programme has been approved by presidential decree. Its implementation has strengthened the application of the Mexican Standard of Ecological Flow in the basins of the country, which proposes the annual water volume to conserve. Further, decisions regarding water resources take into account public participation and consultation with basin stakeholders in addition to expert groups, and have introduced the concept of the economic value of water in development and growth.



Panama

ECOLOGICAL TRUST

A MECHANISM FOR LONG-TERM FINANCING

The Ecological Trust of Panama (FIDECO) was born in 1995 in the context of finding sustainable funding sources for environmental investments. As one of the first financial mechanisms for long-term conservation in the Americas, it became a permanent program and the foremost environmental fund of Panama. It has supported more than 200 projects over twenty years in critical environmental areas such as enterprises for water and soil conservation, agro-forestry, establishing demonstration plots, seedling production, and the development of area conservation and management plans for protected areas and individual farms. The Fund's expected impact on conservation and environmental protection through the operation of protected areas has been complemented with the formation of social capital and the modification of the population's attitude and behaviour towards conservation and the sustainable management of natural resources.



Paraguay

MODERNIZING FAMILY AGRICULTURE

NEW PRODUCTION TECHNOLOGIES TO COMBAT POVERTY AND FOSTER RESILIENCE

The Family Farming Modernization Project improves the incomes of families in poverty and extreme poverty in rural settlements that have been prioritized by the Seeding Opportunities Program (PSO) of Paraguay. To do this, it leverages technology that fosters productivity and reduces environmental pressure with the aim of uniting families so that they can develop market and value chain integration-oriented agricultural enterprises. The project has allowed more than 10,000 additional hectares to be used as farmland in addition to the cultivation of around 18,000 hectares between 2014 and 2015. Roughly 7,000 families in 50 rural communities in areas with the highest rates of rural poverty have benefited from USD 10 million of income growth.

For additional information on these and all experiences, visit: http://uneplive.unep.org/region/index/LA#integrated_approach_experiences

A LOOK FORWARD

There are many challenges to evolving the way we approach development. However, there are also many opportunities to harness the potential of localized approaches, utilize positive synergies, and capitalize on partnerships to the benefit of all actors.

01

REVITALIZATION OF LOCAL PLAYERS

There is room for improvement to assure greater coherence of planning instruments. Sector-by-sector planning must be replaced by a more programmatic approach, and the role of local players in the process of increasing coherence of development strategies in order to localize sustainable development is fundamental. Experiences such as *Agua Doce* in Brazil and the Municipalities Association in El Salvador prove the essential role of local and subnational authorities, civil society organizations, and communities in making substantive changes towards sustainability.

02

FROM COORDINATION TO COLLECTIVE IMPACT

Large-scale change requires collective problem solving and building coa-

litions for action. On the path forward towards sustainable development, this goes far beyond mere collaboration to define structured processes in which the mobilization of sufficient human and financial resources is ensured with a medium-to-long term perspective. There is also need for cross-sector integration around a common agenda with agreed goals, milestones, and indicators as well as well-defined co-responsibilities of all actors involved. Experiences show that embarking on such a process of systematic change takes several years and, in fact, can result over the years in a more sustainable alternative which becomes the new norm.

Although such high levels of coordination among an unprecedented number of stakeholders appears daunting, the true challenge remains meaningful integration. This demanding prospect is the only way to ensure the comprehensive large-scale change needed to transform our development path towards a more sustainable one.

The experiences contained in this document showcase the richness of views and approaches arising from the commitment of the people of the Latin America and Caribbean region. It is hoped that the diverse array of actors in-

involved in development may draw inspiration from the successes presented, and move beyond them to create their own sustainable solutions that shake the development paradigm.

03

REGIONAL COOPERATION

The daunting task of contributing to, and achieving, a global outcome makes initiatives that have already produced results in different contexts particularly relevant. The experiences presented show that the region has already embarked on the process of cooperation in which different actors (both governmental and non-governmental) support each other to replicate best practices.

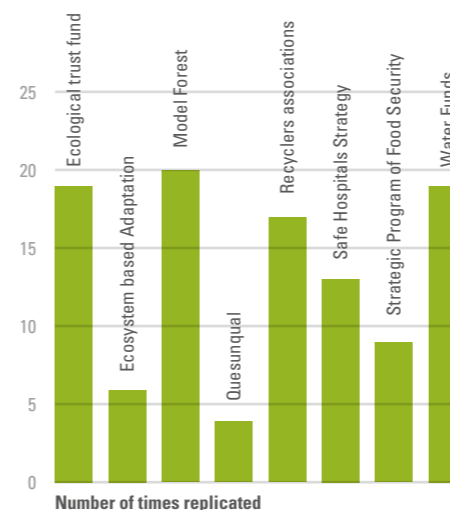
International partnerships via South-South and Triangular Cooperation will continue to play an important role. International technical institutes, development banks, and bilateral cooperation agencies have proved themselves needed to kick-start and ensure support to medium and long-term multi-sectoral and complex processes.

Some frameworks for integrated approaches already “on trial” in the region are:

- Ecosystem-based adaptation to climate change
- Sustainable livelihoods,
- The inclusive green economy
- Sustainable consumption and production
- Poverty and environment mainstreaming
- The water-food-energy nexus

Additional scaling is needed for them to become centerpieces in the definition of development strategies.

25% of the experiences have already been replicated in the region.



60% of the experiences have had the technical and/or financial support of international organizations.



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04

SEVERAL CURRENT GAPS

It has become crucial for the region’s sustainable development to advance the integrated approach in other areas where there are current strategic gaps. In the public sector, the integrated approach has not yet permeated other public powers apart from the executive branch. The

education sector is also fundamental to ensuring the long-term socio-economic transformations needed, which include embracing more sustainable lifestyles and training a new generation of professionals. In relation to the business sector, despite several advances in supporting the “greening” of enterprises, ample space remains to foster an integrated approach in extractive industries and technological and productive ventures (e.g. mining, inclusive green businesses, monocultures, shale gas exploitation).

05

INTEGRATED INITIATIVES EASE SDG IMPLEMENTATION BY MAXIMIZING SYNERGIES AMONG TARGETS

The 2030 Agenda identifies the need to ensure that the multitude of interconnections between economic, social and environmental changes is taken into consideration. Although developed prior to this agreement, these initiatives cover several of the SDGs and contribute to the implementation of a variety of their specific targets. In each of their respective fields, they provide evidence of the efficacy of such policies, and show a conceptual and practical basis that is readily available for scaling up in the region.

On average, the experiences contribute to

4-5 SDGs and range between 2 to 8. In these cases, the quality of the synergies among goals is key.

The provision of a reliable water supply for domestic and economic purposes contributes to inclusive and sustainable cities.

SYNERGIES LEVERAGING MULTIPLE SUSTAINABLE DEVELOPMENT GOALS: AN EXAMPLE FROM THE REGION

QUITO'S WATER FUND



The central focus of Water Funds is to contribute to the protection of watersheds and help ensure water supply in quantity and quality.

Integrated water management supports a more sustainable use of natural resources.



Contribute to decouple economic growth from environmental degradation.



Priority is given to conserve, restore and sustainably use inland freshwater ecosystems and forests.



Climate change mitigation: Natural carbon sinks are preserved and restored.

Climate change adaptation: Enhanced water security in a context of increasing water deficits.



Water Funds are a financial mechanism based on an effective public-private and civil society partnership.



By ensuring informed and participatory decision-making, this mechanism prevents potential conflicts over water distribution.



Comprehensive education programmes and awareness raising campaigns promote the sustainable use of water and natural resources.

JOINT ACTIONS, LINKED TARGETS, AND INTEGRATED POLICY MEASURES HAVE GREATLY IMPROVED IMPACT ON MULTIPLE LEVELS.

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ANNEX SUSTAINABLE DEVELOPMENT GOALS AND TARGETS



GOAL 1.

End poverty in all its forms everywhere

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day

1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions

1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions



GOAL 2.

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round

2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons

2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed

and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries

2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round

2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility



GOAL 3.

Ensure healthy lives and promote well-being for all at all ages

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and wellbeing

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate

3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all

3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States

3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks



GOAL 4.

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all

4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries

4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States



GOAL 5.

Achieve gender equality and empower all women and girls

5.1 End all forms of discrimination against all women and girls everywhere

5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation

5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate

5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences

5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels



GOAL 6.

Ensure availability and sustainable management of water and sanitation for all

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all

6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

6.b Support and strengthen the participation of local communities in improving water and sanitation management



GOAL 7.
Ensure access to affordable, reliable, sustainable and modern energy for all

- 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
- 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
- 7.3 By 2030, double the global rate of improvement in energy efficiency
- 7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
- 7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programmes of support



GOAL 8.
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

- 8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries
- 8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors
- 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services
- 8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead
- 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
- 8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training
- 8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms
- 8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment
- 8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products
- 8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all
- 8.a Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries
- 8.b By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization



GOAL 9.
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

- 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
- 9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries
- 9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets
- 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
- 9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending
- 9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States
- 9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities
- 9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020



GOAL 10.
Reduce inequality within and among countries

- 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average
- 10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status
- 10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard
- 10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality
- 10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations
- 10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions
- 10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies
- 10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements
- 10.b Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes
- 10.c By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent



GOAL 11.
Make cities and human settlements inclusive, safe, resilient and sustainable

- 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums
- 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
- 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries
- 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage
- 11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations
- 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
- 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities
- 11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning
- 11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels
- 11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials



GOAL 12.
Ensure sustainable consumption and production patterns

- 12.1 Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries
- 12.2 By 2030, achieve the sustainable management and efficient use of natural resources
- 12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
- 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
- 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
- 12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
- 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities
- 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature
- 12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production
- 12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products
- 12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities



GOAL 13.
Take urgent action to combat climate change and its impacts*

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
13.2 Integrate climate change measures into national policies, strategies and planning
13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
13.a Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible
13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized Communities



GOAL 14.
Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution
14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans
14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels
14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics
14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information
14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation
14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism
14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries
14.b Provide access for small-scale artisanal fishers to marine resources and markets
14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want"



GOAL 15.
Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally
15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world
15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development
15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species
15.6 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed
15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products
15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species
15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems
15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation
15.c Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities



GOAL 16.
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

16.1 Significantly reduce all forms of violence and related death rates everywhere
16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children
16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all
16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime
16.5 Substantially reduce corruption and bribery in all their forms
16.6 Develop effective, accountable and transparent institutions at all levels
16.7 Ensure responsive, inclusive, participatory and representative decisionmaking at all levels
16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance
16.9 By 2030, provide legal identity for all, including birth registration
16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements
16.a Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime
16.b Promote and enforce non-discriminatory laws and policies for sustainable development



GOAL 17.
Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Finance

17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection
17.2 Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of gross national income for official development assistance (ODA/GNI) to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries
17.3 Mobilize additional financial resources for developing countries from multiple sources
17.4 Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress
17.5 Adopt and implement investment promotion regimes for least developed countries

Technology

17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism
17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed
17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology

Capacity-building

17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation

Trade

17.10 Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda
17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020
17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access

Systemic issues Policy and institutional coherence

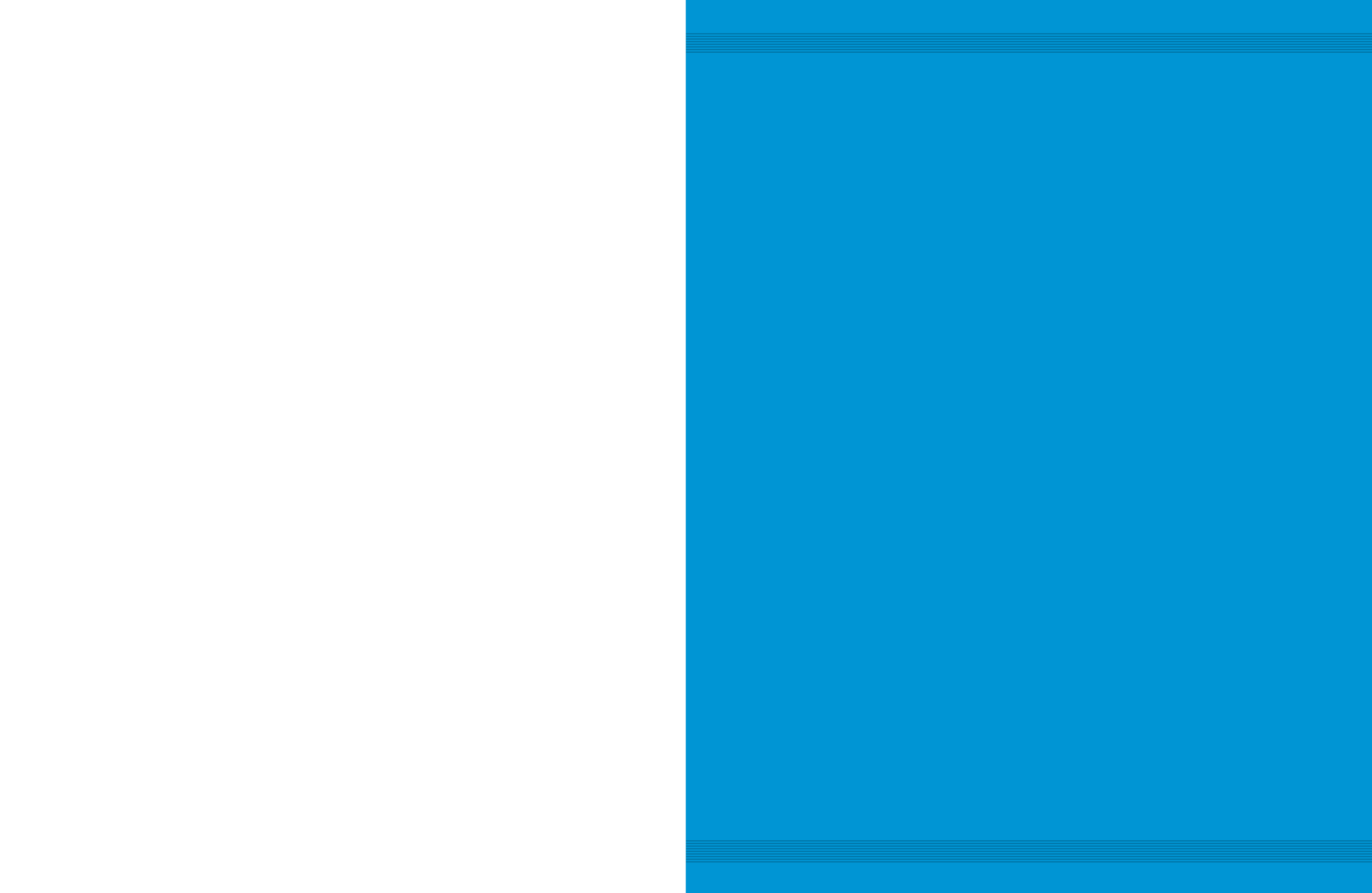
17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence
17.14 Enhance policy coherence for sustainable development
17.15 Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development

Multi-stakeholder partnerships

17.16 Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries
17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

Data, monitoring and accountability

17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts
17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries





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