



PERÚ

Ministerio  
del Ambiente

# PERU

**Connected to  
nature**



**Peru. Connected to nature** is a publication of Peru’s Ministry of the Environment.

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**Cover:** In 2014, Paraíso Natural Iwirati was inaugurated as a Private Conservation Area, the first to be managed by a native community. Puerto Prado, in the district of Nauta, Loreto region.  
**Photograph:** Enrique Cúneo.



**Our relationship  
with nature is crucial  
for the planet's future.**

**¿HOW CONSCIOUS  
OF THIS ARE WE?**





# CUSTODIANS of the ENVIRONMENT

¿WHY SHOULD WE ALL BE INVOLVED IN ACHIEVING SUSTAINABLE HUMAN DEVELOPMENT?

**T**aking care of Peru helps us take care of the planet. This is not a mere metaphor. Peru has 84 of the world's 104 life zones, 28 of the 32 existing climate types and 19 mountain ranges with 2679 glaciers. This includes the Cordillera Blanca, which at 180 kilometers in length, is the world's longest tropical mountain range. Peru hosts the principal headwaters of the Amazon River, whose basin represents one fifth of the fresh water that flows through the planet's rivers. The country also has five biosphere reserves: Huascarán, Manu, Noroeste Amotape-Manglares, Oxapampa-Ashaninka-Yanesha, and Gran Pajatén. It is home to more than 20 000 species of flora, 1858 species of birds, 551 species of mammals, 1070 species of marine fish and 1064 continental aquatic species.

Our biodiversity is so vast —and generous— that it has many positive impacts on numerous aspects of our well-being; our economy, culture, health, food security and traditions. Our well-being and quality of life depend on our biodiversity and the health of our ecosystems. To protect ourselves, we must protect



them. However, this is never an easy task, especially in a country like Peru, with such diverse ecosystems and cultures. We have rural and urban populations established in areas with features ranging from the coastal desert, to the Andean mountains and the Amazon jungle. Peru is one of the few countries in the world with non-contacted, autonomous populations who maintain their traditional ways of life and who are almost completely isolated from the rest of humanity. This segment of our population is

**“The climate is a common good, belonging to all and meant for all,” states Pope Francis’s encyclical *Laudato si*. In this sense, mankind’s actions are key for tackling the environmental challenges that our planet is experiencing. This is particularly true in Peru, one of the world’s most megadiverse countries.**

much more vulnerable than anyone else; for example, they have no resistance to common diseases such as the flu, which could cause high mortality rates. Furthermore, these communities are threatened by the reduction of their territories, changing weather patterns and the consequences of climate change for the species on which they depend. Given Peru’s biological and cultural diversity and the need to keep natural processes functioning in order to ensure human well-being, it is crucial to distinguish between the different characteristics of each territory in order to adapt to climate change.

This warning is loud and clear. Mankind’s relationship with nature is crucial for ensuring our future. Peru is particularly vulnerable to the adverse effects of climate change, registering seven out of the nine vulnerability characteristics recognized by the United Nations Convention on Climate Change.

At a time when climate change represents both a concern and a threat that affects us all, it is essential to care for and ensure the sustainable use of ecosystems and biodiversity at the local level, in order to protect the environment on a global scale and thus improve the global population’s quality of life. We must defend and protect Peru’s biodiversity in order to conserve the biodiversity of the entire world. Therefore, a series of actions are being implemented across our country that seek to take care of our common home —our planet. ♦





# Biodiversity that generates well-being

**84 of the 104**

life zones in the world are found in Peru, a determining factor for one of the planet's highest levels of biological diversity.

**182**

plant species were domesticated in Peru, including potatoes, tomatoes, peanuts, beans, quinoa, butter beans, pumpkins, chili peppers, tobacco, coca leaves and cotton.

**2679**

glaciers can be found in 19 mountain ranges in Peru, which means that 71 % of the world's tropical glaciers can be found in our country.

**Peru is 4<sup>th</sup>**

place worldwide for tropical forests coverage (62 million hectares, which represents more than 60 % of the country).

**1070**

marine hydrobiological species are found in Peru. There are also 1064 hydrobiological continental water species.

**20 000**

Species of flora exist in Peru.

Nearly

**4000**

Species of tree are found in Peru.

**Peru  
is n.º 1**

in the world for potato varieties, with around 3000 species existing in Peru

**Peru  
comes 1<sup>st</sup>**

place for the highest number of butterfly species (more than 4200).



# Paradise under threat

**57 %**

of our glacial  
surface has been  
lost over the last  
54 years.

**777**

plant species may  
disappear because  
of the effects of  
climate change.

**301**

animal species may  
disappear because  
of the effects of  
climate change.

**Nearly 20 %**

of the gold that is produced  
in Peru is obtained through  
informal mining, which is  
harming the Amazon. Gold  
continues to be our main export.

**164 662**

hectares of the  
Amazon forest  
were deforested  
in Peru in 2016.

**89 %**

of our country's road  
infrastructure is  
highly vulnerable to  
weather events.



# TEN

## PRINCIPLES

for a better  
environmental future

Peru's natural heritage has great potential for contributing to people's welfare and quality of life. Connecting ourselves with it in a sustainable way –by taking care of the environment, generating value and promoting inclusion– provides us with a great opportunity. These are the principles that guide us to ensure we conserve and take advantage of our natural resources and biodiversity, for the benefit of everyone.







# 01

## PROTECTING OUR COMMON HOME

**Peru is a megadiverse paradise with a precious natural and cultural wealth to contribute to the whole planet.** This increases our responsibility for protecting our environment and means that the actions we undertake as a country play a key role for combating the threats posed by climate change at the global level. Because greater biodiversity leads to improved quality of life, we not only care for our national natural capital, but also must commit to preserving the thousands of species of flora and fauna, as well as the different ecosystems that are fundamental for the planet's ecological and climatic balance. This means we also protect and share the common home.



# 02

## A FUTURE SOWN THOUSANDS OF YEARS AGO

**Peruvians have domesticated plants and animals for consumption for more than five thousand years.** To conserve our biodiversity, we respect and preserve the ancestral knowledge of the rural communities along the coast, in the Andes, and throughout the Amazon. A notable difference between Peru and many other countries is that its system of protected natural areas is often home to inhabitants forced to draw on their own resources to face climate change. Their adaptation strategies take into account the particular conditions of each territory and population, identifying opportunities and potentialities. For example, there are creative and innovative adaptation strategies from the Andes and the Amazon that could become benchmarks to be replicated elsewhere.





# 03

## MANY PERSPECTIVES BUT ONE SINGLE OBJECTIVE

**Our biodiversity has sustained and formed the basis of the country's development throughout its history.** The resources provided by our ecosystems, along with the state of our environment, directly affect our economy, agriculture, health, tourism, production and culture. Although the Ministry of the Environment is responsible, it is just one actor within a larger institutional framework that integrates the Government (other ministries, regional and local governments), civil society organizations, indigenous peoples and the private sector.



# 04

## TRANSCENDENTAL CITIZENSHIP

It is essential to constantly motivate and encourage the efforts of the populations, institutions and social organizations that contribute to generating knowledge about our biodiversity and its conservation. Their initiatives are important because they integrate biodiversity and respect for the environment into the main productive sectors' policies, plans, and programs. Citizen participation is one of our most valuable assets for the development and protection of the environment.





# 05

## SUSTAINABLE BUSINESSES IN THE 21<sup>st</sup> CENTURY

**Peru promotes green growth, which brings enormous opportunities for sustainable business.** We have created mechanisms for interaction and the exchange of information, knowledge and experiences with the business sector, in order to contribute to the conservation of biodiversity and a clean environment. Addressing the effects of climate change is a necessary task, which also provides great opportunities for new green businesses. The Ministry of the Environment has been working with private businesses to increase their environmental awareness and encourage their participation.



# 06

## THE PLANET'S MANDATE

All of our actions are framed within the **Sustainable Development Goals**, which are part of the 2030 Agenda, signed in 2015 by more than 193 countries, as well as within the environmental recommendations provided by the Organization for Cooperation and Economic Development. Peru has proposed two strategies: *Perú Limpio* (Clean Peru) and *Perú Natural* (Natural Peru). These seek to promote the development and sustainable use of Peru's biodiversity, encourage environmental conservation, and raise environmental awareness amongst the population in order to promote green growth, foster sustainable business models and establish a strong environmental culture.







# 07

## A GREAT RECYCLING CULTURE

**The sustainable development of Peru requires strategies to prevent environmental pollution** that include adequate management of the solid waste generated by cities. The Ministry of the Environment works to ensure that local governments and solid waste producers reduce the amount of waste produced and use organic and inorganic waste as primary material for new products. They promote recycling value chains and help ensure all final waste is disposed of safely in landfills.



# 08

## THE VOICE OF THE YOUTH

The population's responsible involvement with the environment is essential for improving environmental management, along with the conservation and sustainable use of natural resources, in order to achieve the Clean Peru and Natural Peru initiatives. The Peruvian Government, led by the Ministry of the Environment, is developing environmental education activities aimed at improving the environmental culture and citizenship of all Peruvians; especially young people, who are particularly interested in the prevention and solution of existing environmental problems.







# 09

## ECO-EFFICIENT AND HEALTHY CITIES

**Approximately 75 % of the Peruvian population lives in urban areas.** This means that our cities are increasingly exposed to the effects of industrial and vehicular emissions, inadequate waste and liquid discharge management and other human activity. Pollution damages the environment (flora, fauna and urban ecosystems), puts people's health at risk, and hinders economic growth. Achieving sustainable cities guarantees future generation's rights to the resources they require to satisfy their needs.



# 10

## A SUSTAINABLE PERU BY 2021

By its bicentenary anniversary, Peru aims to be a world class example for good environmental practices and to have inter-sectorial and crosscutting national policies that work towards green growth. It aspires to be a country that incorporates the environmental dimension into its planning and development, that has sustainable cities with eco-efficient industrial processes and that is on track to becoming a circular economy with clean technologies. By recognizing the value of its ecosystems and biodiversity, Peru seeks not only to put a stop to deforestation and the degradation of its terrestrial and marine ecosystems, but also to ensure sustainable livelihoods for the communities that live in them and for all Peruvians in general.





# The path to a **GREEN PERU**

A series of projects, plans, programs, and legal instruments are being implemented in Peru to promote environmental protection and sustainable development through the preservation of our natural heritage and biodiversity that are already achieving great results.

Here we present some of the most outstanding to date:





# 01

## PROTECTING OUR COMMON HOME

### ● **National Program for the Conservation of Forests to Mitigate Climate Change.**

More than 170 native communities in the Amazon have benefited from the implementation of plans for investment in sustainable economic activities and actions aimed at capacity building to improve their basic services. These aim to guarantee the conservation of approximately two million hectares of Amazon forests, which provide the livelihoods for communities from nine regions (Loreto, Amazonas, San Martín, Ucayali, Huánuco, Pasco, Junín, Cusco and Madre de Dios) and contribute directly to climate change mitigation.

### ● **Sustainable Productive Landscapes Project.**

The implementation of this project in Ucayali and Huánuco is expected to generate multiple environmental benefits at the global level, thanks to a comprehensive approach to managing the Amazon region. For example, 1.8 million hectares will

include criteria for their conservation and the sustainable use of their biodiversity; 10 500 hectares will have sustainable agricultural and livestock systems that benefit Peru's biodiversity; 48 398 hectares will be saved from being converted into pasture or land for crops such as cocoa, palms or grasslands; and 6 700 small producers and members of indigenous communities will have improved their livelihoods.

### ● **Peru's Forestry Investment Plan.**

This project intervenes in San Martín, Ucayali, Loreto, and Madre de Dios to reduce greenhouse gas emissions through the sustainable use of 1 156 750 hectares of forests, the implementation of 145 sustainable business plans, the provision of valid land titles to 62 native communities and the monitoring of their forests.

● **Recovering spaces.** To date, the Peruvian government has recovered 97 % of the land invaded by illegal mining in the Tambopata National Reserve. This multi-sectorial effort, carried out by the Ministry of the Environment, the National Service for

Protected Natural Areas (SERNANP), the Public Ministry, the armed forces, and the National Police, has also enabled the eradication of illegal mining from the El Sira and Amarakaeri Community Reserves.

# 02

## A FUTURE SOWN THOUSANDS OF YEARS AGO

### ● **Public Investment Program and the Strategic Natural Resources Development Program.**

Through these programs, 111 producers' associations have benefited from the implementation of bio-business plans in eight regions of the country (Apurímac, Ayacucho, Cusco, Huancavelica, Junín, Madre de Dios, Pasco and Puno). 2 507 families' incomes and quality of life have improved thanks to the links made between biodiversity and the market.

● **CBD Secretariat's Internationally Recognized Certificate of Compliance.** Within the framework of the Nagoya Protocol on access

to genetic resources and the fair and equitable sharing of benefits derived from their use, the Ministry of the Environment implemented this certificate, recognized by the Convention on Biological Diversity, which accredits access to the genetic resources from the molle (*Schinus molle*) –a native species present throughout Peru– to a Peruvian cosmetic company. This certificate will allow research to identify the

natural biochemical compounds of this species and contribute to the development of a national cosmetic industry based on natural products.

● **Project for sustainable agrobiodiversity management and the recovery of vulnerable ecosystems in the Andean regions of Peru, through the Globally Important Agricultural Heritage Systems approach.**

The implementation of this national project (Cusco, Puno, Apurímac, Huancavelica and Arequipa) seeks to conserve in situ and ensure the sustainable use of globally important agrobiodiversity through the preservation of traditional agricultural systems, the integral management of resources such as forests, water and land and the maintenance of ecosystem services in Andean regions.



Giulianna Camarena / UNDP Peru



# 03

## MANY PERSPECTIVES BUT ONE SINGLE OBJECTIVE

### ● **Multisectoral Working Group**

This group was formed in February 2017 and is in charge of planning the implementation of Nationally Determined Contributions (NDCs), within the framework of the Paris Agreement. 13 ministries and the National Strategic Planning Center are working on the evaluation and quantification of the direct and indirect costs, social and environmental benefits and other economic effects associated with the implementation of the NDCs. By December 2017, 56 mitigation options had been reviewed and validated by the agriculture, solid waste, housing, land use, production, energy and transport sectors.

● **Promotion of tourism in protected natural areas.** The state, through the Ministries of the Environment and Tourism, has invested more than USD 5.2 million to improve tourism infrastructure and renew the Paracas

National Reserve's image to attract national and foreign visitors.

### ● **Formalization of tourism activity**

**in emblematic areas.** In the Machu Picchu Historic Sanctuary, 100 contracts have been signed for the provision of tourism services along the Inca Trail as part of work coordinated between the state; SERNANP and the Ministries of the environment, culture, and tourism.



Enrique Castro-Mendivil / PACC Peru / MINAM

# 04

## TRANSCENDENTAL CITIZENSHIP

### ● **The National Information Service**

### **for Environmental Complaints**

**(SINADA).** This communications system is run by the Agency for Environmental Assessment and Control and is available for the population to report environmental damage.

● **Conservation Enthusiasts.** This innovative volunteer program has been successfully implemented by SERNANP for over three consecutive years. It gives young people from the cities of Lima, Rioja and Huaraz the opportunity to be leaders in the promotion of protected natural areas in urban areas.

# 05

## SUSTAINABLE BUSINESSES IN THE 21<sup>ST</sup> CENTURY

### ● **Biodiversity and Businesses.**

This is a public-private partnership, led by the Ministry of the Environment, using the Convention on Biological Diversity as a guideline. It incorporates the private sector into national and global processes for conservation management and the sustainable use of biodiversity and ecosystem services. Nineteen companies are currently participating.

### ● **Biomatch Biobusiness National**

**Meeting.** The first meeting was organized in 2017, to promote the development of businesses based on

the sustainable use of biodiversity. This event was a multi-sectoral effort that included the participation of the Ministry of Production, the Mountain and Jungle Exportation Program, and the National Council for Science, Technology and Technological Innovation (CONCYTEC). These meetings aim to connect research, financing and support programs with entrepreneurs and bio-businesses demands.

### ● **Private businesses investment**

**in Protected Natural Areas.** The alliances between SERNANP and private enterprises have been strengthened. In Paracas alone, more than 200 million dollars has been invested in hotel infrastructure thanks to the presence of two protected natural areas (Paracas and Ballestas).

# 06

## THE PLANET'S MANDATE

### ● **National Voluntary Report on the implementation of the 2030 Agenda for Sustainable Development.**

Presented by the National Strategic

Planning Center, with the support of the United Nations, this report illustrates that Peru has so far made progress on 30 of the Sustainable Development Goal's indicators.

### ● **Action Plan for the implementation of the recommendations from Peru's Environmental Performance**

**Evaluation.** This plan contains three strategic lines of work that complement and mutually reinforce each other to ensure excellence in environmental governance and quality. These are, progress towards sustainable development, environmental quality of life, and the use of natural resources. This plan was signed by the President of the Republic and 12 ministers, which reflects that it is a priority of the current government.

### ● **Nationally Determined Contributions.**

These contributions form part of the Paris Agreement on climate change. They represent the international community's commitment to reducing greenhouse gas emissions and avoiding the



planet's average temperature rising by 2 degrees Celsius.

The contributions include five priority areas for preparing for the effects of climate change, lowering costs and reducing current and future vulnerability; water; agriculture; fishing and aquaculture, forests and health. A 20 % reduction in greenhouse gas emissions by 2030 is proposed, to be achieved through initiatives implemented using public and private resources. An additional 10 % is conditional, depending on the support procured from international cooperation.

## 07 A GREAT RECYCLING CULTURE

● **The Solid Waste Comprehensive Management Law and its regulations.** This law, published in December 2017, complements the new Ministry of the Environment's organizational structure that created the General Directorate for Solid Waste Management, the national

level solid waste governing body.

This will significantly increase the transition to a circular economy if it assumes that solid waste can be avoided, minimized and reused.

This legislation strengthens the supervision and control of solid waste, establishes conditions for municipalities to improve their provision of public sanitation services and generates mechanisms to involve the private sector in the recovery of containers and products used or discarded by consumers.

● **Comprehensive solid waste projects.** The Ministry of the Environment has been supporting municipalities across the country to improve their solid waste management (storage, sweeping, collection and transportation, use, final disposal, public sanitation services and awareness raising among the population) through the implementation of 31 public investment projects in a total of 84 cities, located in 16 regions and benefiting more than 2 million inhabitants.

## 08 THE VOICE OF THE YOUTH

● **I am an Environmental Promoter.**

This is a Ministry of the Environment run program, with more than 2 800 promoters from 11 departments (Arequipa, Ayacucho, Cusco, Callao, Ica, La Libertad, Lima, Loreto, Piura, Madre de Dios and Puno) who have participated in environmental and educational and informative activities, as part of the Clean Peru and Natural Peru strategic campaigns run by the Ministry and local governments.

● **Environmental educational, informative and citizenship building campaigns.** The Ministry of the Environment is implementing the national Clean Peru campaign composed of four communications focuses to promote the active participation of the whole of society. These are responsible consumption, cleaning, recycling and the payment of council rates. Between January

and December 2017, 21 Clean Peru campaigns were implemented in five regions (Lima, Ancash, La Libertad, Piura and Ayacucho) reaching more than 1 850 000 people.

## 09 ECO-EFFICIENT AND HEALTHY CITIES

● **National Platform for Sustainable Cities and Climate Change in Peru.**

This will be implemented within the framework of the Global Environment Facility's Sustainable Cities Integrated Approach, which involves 23 cities in 11 developing countries. It will improve cities' capacities for facing the challenges posed by climate change by preparing policy reform proposals to guide the sustainable development and management of resilient and low-carbon cities, with a focus on territorial planning and local governance.

● **Air quality management.** Peru is working on the implementation of action plans

and capacity building programs to improve air quality in different cities, as well as coordinating environmental technical groups and volunteer networks for the development of information and awareness campaigns. The aim is to generate technical, legal, and financial instruments for monitoring air quality and the reduction of polluting emissions. Research and scientific knowledge for technical evidence-based decision-making that has a positive impact on air quality is also being promoted.

● **Coordination for the reduction of vehicle emissions.**

An example of the work coordinated at an intersectoral level is the Multisectorial Working Group, formed by the Ministries of the environment, energy and mines, transport and communications, and economy and finance. It coordinates and formulates proposals to improve the quality of fuels and reduce the level of vehicle emissions and provides recommendations for actions to be taken. As a result, in 2017, legislation

was passed that allows for the use of low sulfur diesel for 90 % of the country by 2018 and the introduction of vehicles with modern Euro IV technology that use low sulfur fuels. High-octane gasoline that contains from 1 500 – 2 000 ppm sulfur will be eliminated and reduced to 50 ppm. The impact on cities' air quality will be significant.

## 10 A SUSTAINABLE PERU BY 2021

● **National Green Growth Strategy.** The Ministry of Economy and Finance and the Ministry of the Environment are formulating this strategy to guide Peru towards an economic and social development that is based on reduced levels of informality, the generation of quality employment and the sustainable use of natural resources. These, in turn, will contribute to improving the country's competitiveness, low carbon growth and ensuring resilience to climate change, in a way that benefits the whole population. ◇





**The world is watching what happens  
in Peru because of  
the wealth of our natural heritage.**

**It is up to us all  
to conserve and protect it**

**BE PART OF THE CHANGE.  
IT IS TIME  
TO ACT TOGETHER.**





With the  
support of:



Al servicio  
de las personas  
y las naciones



Trabajando para  
todos los peruanos

