



PRESS KIT



CONTENTS

**A Message from Valérie Verdier
Chairman of the Board and CEO**

5

**Engaged research partnerships
for sustainable development**

6

Sustainability science

6

Key figures

7

**Multidisciplinary research
into major global issues**

8

Examples of projects

12

Biographies

14







Valérie Verdier

Chairman of the Board and CEO

A Message from Valérie Verdier

The French National Research Institute for Sustainable Development (IRD) is the only research institute of its kind in the French, European and international scientific landscape. France is the only country worldwide to have a multidisciplinary public research organisation like IRD which focuses solely on scientific cooperation with partners in the intertropical and Mediterranean area.

Concentrating on sustainability science, the Institute contributes to the development of new knowledge systems driven by real-world issues as opposed to themes of specific scientific disciplines. IRD works with society actors to harness interdisciplinary and transdisciplinary knowledge for the development of scientific knowledge that provides solutions.

The science we produce contributes to our future, creating innovations to meet global challenges.



ENGAGED RESEARCH PARTNERSHIPS FOR SUSTAINABLE DEVELOPMENT

IRD is a French public research institute under the joint authority of the French Ministry of Higher Education, Research and Innovation and the French Ministry for Europe and Foreign Affairs.

Based in Marseille, the Institute has 4 sites in France, 35 representations worldwide, and operates in over 50 countries in Africa, the Indian Ocean, the Mediterranean, Latin America and the Caribbean, Southeast Asia and the Pacific.

The Institute forges equitable partnerships with Global South countries and in France's overseas territories, particularly through our scientists in partner research laboratories. It's a win-win for research, expertise, training and knowledge sharing, ensuring key leverage for development via science and innovation.

IRD has a proactive policy of investment in research and training. Measures include International Joint Laboratories, young teams associated with IRD, and cross-mobility, reflecting the importance of codevelopment as a catalyst for solidarity.

Given the Institute's role on centre stage in international development, meeting the Sustainable Development Goals (SDGs) is a top priority for IRD. The Institute's scientists and partners propose concrete solutions to meet the challenges facing the entire world. The research conducted by IRD scientists from different disciplines and members of civil society meets science challenges to serve society, the environment and the planet.

Sustainability science: understanding, codevelopment, transformation

IRD model is based on the three pillars of sustainability science – economic viability, environmental protection, and social equity. Science for sustainable solutions differs from other scientific fields in its use of multidisciplinary methodologies to tackle the major issues challenging our societies.

A committed and participative approach underpins the codevelopment of knowledge and expertise which is based on collaboration between scientists from different disciplines and people outside the academic field.



IRD around the world

4 SITES IN MAINLAND FRANCE AND 35 REPRESENTATIONS WORLDWIDE



KEY FIGURES IN 2022



2,260

employees including **915** researchers



26%

of employees assigned outside mainland France



80

research units



108

South-North transfers



252

North-South transfers



129

Global South actions



63%

joint publications with a partner from the Global South



€M 265

budget

MULTIDISCIPLINARY RESEARCH INTO MAJOR GLOBAL ISSUES

Nine societal challenges - all strategic issues for the achievement of the Sustainable Development Goals (SDGs) - drive IRD's partnership research, training and scientific mediation actions.

1. Biodiversity

Understanding the interdependence between human societies and biodiversity is crucial for humanity's global community, especially for vulnerable populations. Managing global change must include a combined effort towards the sustainable management of biodiversity and better living conditions on earth.

Research themes include Biodiversity taxonomy, ecological interactions between organisms, ecosystem functions, and the ecosystems of the world's three major forest basins...



2. Climate change

The consequences of global warming are already being felt, with far-reaching effect around the world threatening many species and human activity. Interdisciplinary and cross-sectoral approaches are vital for understanding and anticipating climate hazards and analysing new risks and vulnerabilities to fuel cooperative efforts towards sustainable solutions that limit impact.

Research themes include Extreme weather phenomena such as El Niño and heat waves, melting glaciers, and adaptation strategies to climate change for populations...



3. Georesources and sustainability

Georesources, including water and other resources, represent a quarter of the gross world product and play a crucial role in the Global South economy. Countries with economies heavily reliant on such resources need to recognise the unsustainable nature of these revenue sources and begin to switch to a circular economy model for their use. It is vital to identify and codevelop sustainable solutions for using georesources with all the actors concerned while inciting a greater sense of responsibility in industry and governments for managing these complex and interconnected issues. The negative impacts of extracting these resources also exacerbate the effects of climate change, degrading living conditions, the health of local populations and ecosystems.

Research themes include Atmospheric pollution, metal contaminants, use of georesources...



4. Coastline and ocean

Knowledge about oceans and coastal areas and their interdependence with societies are now a priority. The socio-ecological systems of oceans and coastal areas are rife with complex components, functions, interactions, dynamics and scales. Issues abound, including access to resources, heritage and identity, sovereignty, security, energy, climate, biodiversity conservation, regulation and protection against hazards. Research into such complex interactions takes into account the many different stakeholders and uses to codevelop strategies for resilience and sustainability.

Research themes include Coastal erosion, rising sea levels, overfishing, marine heat waves, loss of marine animal biomass, spatial oceanography and the deep seabed...



5. Migration

In 2021, there were 281 million international migrants in the world. The increase in migrant numbers is being overshadowed by increasing focus on the diversity of forms of mobility in current migrations researches. The main contemporary challenge is understanding the causes and consequences of mobility and migration by country of origin, transit, and destination. Among all the reasons for migration, climate change and the resulting environmental degradation are widely considered to have an important impact that is expected to deteriorate in the future. Yet climate migration - and more broadly, environmental migration - raises many questions. More statistics are required and the link between migration and climate change is generally indirect and difficult to prove.

Research themes include Causes and consequences of migration on an international and intra-national scale and connections between migration and environmental or health issues...



6. One Health

Infectious diseases kill 14 million people every year. Current global changes, climate change, loss of biodiversity and changes in land use increase risks of zoonotic and other diseases. More knowledge about the different modes of transmission to humans, animals and plants and controlling disease is increasingly urgent. IRD is developing a cross-disciplinary approach combining the health of humans, animals, plants and ecosystems called One Health to fight - and ideally prevent - the perils of disease.

Research themes include The increasing number of crises due to zoonotic diseases like Covid, disease prevention and vector control...



7. Sustainable food systems

A vital overarching vision of food issues has emerged in recent years, combining issues about food security, nutrition, and environmental impact of agriculture and fisheries. IRD's priorities include studying and transforming food systems to make them more sustainable and resilient. Cooperative efforts are targeting solution-oriented research to address sustainability challenges for food systems in the Global South.

Research themes include Food security, alternatives to traditional cereal crops, selection and conservation of soil fertilisation seeds and soil degradation...



8. Land and soil

Land and soil are fundamental to sustaining life on Earth and are at the root of the relationship between societies and the environment. Global and societal changes provoke modifications in their physico-chemical environment and how they are used. This weakens the biological functions of land and soil, undermining their resilience and how they serve human societies. Land use causes degradation and triggers major social pressures including migration, land grabbing and privatisation. IRD considers this to be a strong societal issue that requires knowledge pooling and sharing.

Research themes include Desertification, carbon sequestration, agroecology, soil microbiology, the Great Green Wall...



9. Sustainable cities

Extremely rapid population and spatial growth are turning cities into melting pots of far-reaching social, economic, technological, and biological change. Urban life is highly resource dependent and carbon-based, making it a hot seat for transition issues. Many issues and complex interactions between physico-chemical, biological and social dynamics underlie this particularly artificial system. Cities are a source of resilience, innovation and demonstration but they are also where vulnerability peaks.

Research themes include Urban growth, interactions and circulations between urban and rural systems...



EXAMPLES OF PROJECTS

Sterilising male mosquitoes

The Sterile Insect Technique (SIT) is a research project and pilot experiment conducted in Reunion Island by IRD and its partners which began in 2009. Male mosquitoes are sterilised using radiation then released into the environment in large numbers. Females that mate with these males lay unfertilised eggs that never hatch. Used in addition to classic vector controls, this preventive and non-polluting method reduces mosquito populations, potentially also reducing the risk of spreading dengue and chikungunya.

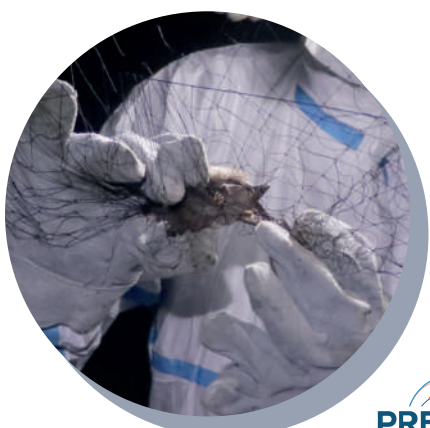


Collecting climate data about the Global South

IRD and its partners, bringing together over 35 scientists, developed ClimatSuds digital platform at the end of 2022. The portal centralises climate data on Africa, South America and Southeast Asia for the analysis of impacts due to climate change. The wide range of data in ClimatSuds makes it a powerful tool for decision-making. The platform offers different types of data, climate models, impact indicators in different sectors and climate indexes useful for research into climate, hydrology, ecosystems and agriculture.

Sustainably managing ocean ecosystems

The Warmalis project aims to understand how the pelagic ocean ecosystem works and determine its influence on tuna resources in the Western and Central Pacific region. Scientists collect physico-chemical indicators of seawater and data about zooplankton and micronekton to learn more about these vast ecosystems and how to manage them sustainably.



Preventing zoonotic disease emergence

The international PREZODE (Preventing ZOonotic Disease Emergence) initiative, led by CIRAD (The French Agricultural Research Centre for International Development), IRD and INRAE (National Institute of Agricultural Research), aims to develop and implement innovative methods to improve the prevention and early detection of zoonotic diseases. This is a project between 25 member countries, which is working to provide a rapid response to the risks of emerging diseases that are spread between people and animals.



Assessing the impact of pathogens

The AFROSCREEN project, launched in 2021 by AFD (French Development Agency) and ANRS (ANRS | Emerging Infectious Diseases), in partnership with Institut Pasteur, IRD and African partners, aims to detect and assess the clinical impact of SARS-CoV-2 variants and other emerging pathogens in 13 African countries. The project also aims to strengthen laboratory sequencing and virological surveillance capacities and to monitor vectors for diffusion in Africa.



Studying the memory of ice

Global warming is accelerating the evaporation and melting of glaciers. This results in the loss of scientific data contained in ice, essential for understanding past and current climate phenomena. Ice Memory aims to extract ice cores for preservation in a sanctuary dedicated to the memory of ice in Antarctica for analysis for future generations. IRD is a founding member of the Ice Memory project. With other partners, the project is also investigating tropical glaciers.



Recognising the Mediterranean as a legal entity

The MerMéd project aims to give rights to the Mediterranean Sea and recognises it as a legal entity. The project was launched in 2023 by IRD. The research and work in progress will culminate in a feasibility study to be presented at the third United Nations Ocean Conference in 2025. One of the aims of the new legal status is to improve the protection of marine biodiversity.



Preventing mother-to-child transmission

The TRI-MOM project aims to strengthen the prevention of mother-to-child transmission of three infections - HIV, syphilis and HBV - in pregnant women in the Gambia. Supported by Expertise France, it is the first project to assess a triple elimination strategy in sub-Saharan Africa. The aim is to screen about 12,100 women over a period of one and a half years. Nearly 1,800 are expected to test positive for at least one of the three infections.



BIOGRAPHIES

Valérie Verdier **Chairman of the Board and CEO**

With a PhD in plant sciences from the University of Paris-Sud, Valérie Verdier has contributed to food security issues. Co-author of over 130 scientific publications, she has earned international recognition for her fundamental contributions to understanding the infection mechanisms of pathogens in plants, as well as approaches and solutions for their control.

At the head of IRD since 2020, she promotes the codevelopment of a «science for solutions», where cross-disciplinary and local knowledge, developed in cooperation with scientific communities and societies in the Global South, advance knowledge for sustainable development.

Valérie Verdier received the Marie Curie Fellowship from the European Commission in 2010, the International Service Award of the American Phytopathology Society (APS) in 2014, APS Fellow in 2020, and International Society of Plant Pathology (ISPP) Fellow in 2023. She was promoted to the rank of *Chevalier de la Légion d'Honneur* in 2016 and of *Officier de l'Ordre National du Mérite* in 2021.

Gilles Pecassou **Deputy Executive Director**

A graduate of the Toulouse Institute of Political Studies and holder of a master's degree in political science from the University Paris 1 Panthéon-Sorbonne, Gilles Pecassou is also a laureate of the Executive Program of the Harvard Negotiation Strategies Institute (NSI). With 20 years' experience in diplomacy (Tel-Aviv, New York, Brasilia...), he is a specialist in strategic and security issues. He was appointed to the position of Deputy CEO in May 2023.

Philippe Charvis **Deputy Director of Science**

Philippe Charvis is a geophysicist with experience as research director on seismic risks in Ecuador, Algeria and the Lesser Antilles arc, and hotspot volcanism. His previous posts include Director of the Géoazur Joint Research Unit, Vice President of the scientific council of Côte d'Azur Observatory in Nice, and President of the Earth and Telluric Planets section of the national committee for scientific research. He headed IRD's Internal Dynamics and Continental Surfaces department from 2015 to 2020, before being appointed Deputy Director of Science.



Gilles Pecassou

Valérie Verdier

Philippe Charvis

CONTACT US

IRD's press service is on hand to help you at every stage of your project (articles, interviews, reports, surveys) including identifying subjects and/or experts, contacting our researchers, media partnerships and providing visuals.

Stéphanie Gaudreault Press Service Manager **+(33) 7 86 81 83 08**

Oriane Deschamps Press Officer **+(33) 6 40 37 28 05**

Charlotte Gabet Press Officer **+(33) 6 07 36 84 06**

presse@ird.fr

IRD Multimedia



Illustrate your work with no limits using IRD Multimedia. Find all our audio, video, sound and photo resources on a single platform. Delve into our iconographic and audio capital for visuals, videos and sound to embellish your draft article, interview, report or investigation.

multimedia.ird.fr

Create an ICI account



IRD Editions



IRD's publishing arm's editorial strategy focuses on development and the environment in the Global South countries including environmental change, biodiversity, living resources, health, social, economic and cultural issues. Check out the historical catalogue including over 1,500 titles.

The works, in both paper and digital format (pdf, epub), are published with other editors or in IRD's own collections.

Sending books to press services.

editions.ird.fr

IRD is a multidisciplinary French public research organization committed to equitable partnerships with countries in the Global South and in the French overseas territories for nearly 80 years.

As a contributor to the achievement of the international development agenda, the IRD aligns its priorities with the implementation of the Sustainable Development Goals (SDGs).

Together, scientists and the Institute's partners propose concrete solutions to the global challenges facing societies and the planet. This win-win relationship makes science and innovation major levers for development.

Press Service presse@ird.fr

Direction de la communication et du partage de l'information

IRD - Institut de recherche pour le développement

44 boulevard de Dunkerque - CS 90009 13572 Marseille cedex 02 – France



www.ird.fr

