# United Nations University

## Annual Report 2021

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It has been said before, but it bears repeating: Never has the need for science-based research and the clear communication of evidence-based findings been greater. As the world continues to change, today more rapidly than ever, we are faced with new needs and unforeseen problems that call for enhanced knowledge, innovative solutions, and effective policies — all of which are contingent on rigorous, high-quality research such as that undertaken by the United Nations University (UNU).

Recent years have seen an amplification of chronic inequality and a heightened sense of unfairness relative to many issues; a growing lack of trust in governments and institutions; and a rise in isolationism, populism, and inward-looking nationalist agendas. These divisive trends are being further compounded by a surge of conspiracy theories spread through broadcast and online social media services coupled with anti-science agendas that typically peddle simplistic fixes or facile solutions for complex challenges. We are now entering the third year of a global COVID-19 pandemic that has deepened the chasm of individual and collective opportunity separating most developing countries from the industrialised. Taken together, these trends are toxic and profoundly worrying.

When large numbers of people believe that their needs are being ignored or downplayed, or become doubtful that elected leaders are working in their best interests, responsible governance becomes ever more difficult. The result is an erosion of the social contract between individuals, communities, and national leaders that nurtures social cohesion.

In September, United Nations Secretary-General Guterres issued a report, *Our Common Agenda*, offering a roadmap for 12 urgent commitments that are needed to accelerate the implementation of existing international agreements, including the 2030 Agenda for Sustainable Development. These commitments are designed to (i) re-embrace global solidarity, (ii) renew the fraying social contract, (iii) combat the virulent “infodemic” of pseudo-science, (iv) rethink how we measure human prosperity and progress, (v) introduce a long-term mindset for response to global risks, and (vi) establish a stronger, more inclusive, multilateral global system.

But success in tackling the commitments advocated in *Our Common Agenda* requires our leaders and policymakers to anticipate and urgently address the major risks to come. This capability, in turn, hinges on science-based research, greater inclusion, and governing for the medium and long term rather than playing only to electoral cycles.

The United Nations is the nodal player of the multilateral system. It cannot itself undertake all tasks, nor will the causes it champions always capture the public’s imagination. But its work seeks to address the most complex and demanding challenges confronting humankind and the planet on which we all depend for survival. As a modestly scaled but well-positioned contributor within the United Nations system, and a trusted knowledge partner with a global footprint, UNU produces evidence-based research drawing on a wide range of resources within and beyond the United Nations system. UNU research aims to inform and influence decision-makers of the public, private, and non-profit sectors worldwide.

UNU is particularly well-positioned to contribute to the commitments of *Our Common Agenda*:

- By conducting science-based research and communicating the findings in practical, easily accessible forms, UNU can help combat the spread of bogus claims and malicious rumours.
- For more than three decades, UNU, and especially UNU-WIDER, has helped develop alternative methods of measuring economic development and human welfare, and offered policy recommendations flowing therefrom. While traditional indicators like GDP have their merits, these metrics typically ignore environmental and social factors that contribute to quality of life.
- UNU conducts targeted foresight studies and strategic policy analysis. For example, our policy think tank in New York, UNU-CPR, works closely with United Nations policy leaders to identify risks for the multilateral system and propose innovative solutions to address them. And UNU-INWEH, our institute
focusing on fresh water, seeks to anticipate and mitigate water-related challenges, particularly in the Global South.

- Our research institute focusing on global public health, UNU-IIGH, has been forging ahead with new approaches to analysing the gender dimension of health. And our research institute in Ghana, UNU-INRA, remains strongly committed to more rational, fair, and sustainable use of Africa’s natural resources.

Our teams, notably in Bonn, Dresden, and Tokyo, working on individual aspects of environmental protection aim to influence policy advice in this critical field. Six of our institutes address varying aspects of the global environment, and their research findings have never been more relevant within the United Nations system and beyond. And the examples of UNU research on the social, economic, and health aspects of the COVID-19 pandemic cited in this and in last year’s annual reports are clear evidence of the University’s capacity to quickly implement new projects and adjust or expand the parameters of ongoing research.

At a time when the world is facing a plethora of new and difficult challenges, UNU is delivering relevant, authoritative research and recommendations on pressing global issues. The work of UNU would not be possible without the generosity and assistance of our global community of partners, donors, and supporters, and the University’s dedicated researchers and broader team. Thank you all for your continuing support that has allowed us to grow again over the past year, at a time when financial resources for many have been so scarce.

David M. Malone
Rector of the United Nations University
Under-Secretary-General of the United Nations
Introduction

As a trusted knowledge partner within the United Nations system, United Nations University (UNU) connects diverse groups of international stakeholders to generate and share research with a broad spectrum of publics. UNU translates this research into evidence-based policy recommendations and delivers it to those who can drive positive change, thereby helping to ensure that policy works for people, locally and globally. The University further promotes knowledge creation and exchange through education and capacity building programmes.

The United Nations Secretary-General’s September report, *Our Common Agenda*, asserts that “one of the primary roles of the United Nations (UN) is as a source of reliable data and evidence”, and declares the need for an “acceleration of our efforts to produce and disseminate reliable and verified information”. This is precisely the role of UNU, which is mandated by its Charter (adopted by the United Nations General Assembly in 1973) to “devote its work to research into the pressing global problems of human survival, development and welfare that are the concern of the United Nations and its agencies”.

Thanks to the University’s “autonomy within the framework of the United Nations” and “academic freedom” (as stipulated by the UNU Charter), UNU has come to be recognised as an unbiased research institution and think tank that addresses important policy questions and is not afraid to challenge the status quo. Throughout its 46-year history, UNU has been a pioneer in developing knowledge and expertise that crosses traditional scientific boundaries, thereby reflecting the intertwined nature of global systems and issues, and has contributed to developing innovative research methodologies as well as better ways to assess human welfare and measure sustainable development.

It’s unique dual identity as both a research/training institution and a trusted knowledge partner within the United Nations system enables UNU to serve as a bridge that links global research communities and international policymaking communities. UNU experts conduct interdisciplinary research, translate findings into evidence-based policy recommendations, and deliver those to policymakers and others who can drive positive change. Conversely, the University is also able to provide academic and research communities worldwide with insight into United Nations research needs and an opportunity to help shape policymaking in the UN.

Because UNU operates as a global network of institutes, each of which focuses on a specific set of topics, the University’s work spans many geographies across the Global South and North, thereby intersecting with a multitude of international and regional policy spaces and platforms, and covers a wide range of scientific and academic disciplines. In 2021, UNU’s research programme comprised 205 projects encompassing three broad themes: peace and security; social change and economic development; and environment, climate, and energy.

This annual report offers a broad overview of the thematic and geographic scope of UNU’s work, and its contributions to achieving the Sustainable Development Goals (SDGs); summarises the University’s knowledge-sharing activities and efforts to engage with and support the Global South; outlines the University’s contributions to mitigating the COVID-19 pandemic; and introduces the global UNU network — its structure, resources, and leadership.

ONLINE RESOURCES

For additional information about the work of UNU, please consult the following online resources:
- the global UNU system website
- previous UNU Annual Reports
- the UNU Sustainable Development Explorer
- UNU INSIGHTS newsletter, Twitter, Facebook, and LinkedIn are also available
UNU Research: Generating Policy-relevant, Solution-focused Knowledge

An overarching goal of UNU is to incorporate evidence-based, scientific expertise in policymaking, decision-making, and the broader public debate, thereby shedding new light on important issues and helping policymakers and practitioners worldwide to view complex issues from fresh, critical perspectives. UNU research cuts across fields of inquiry and schools of thought, and employs levels of analysis that are integrated both horizontally (across disciplines) and vertically (incorporating local, national, regional, and global perspectives). The benchmark of success for UNU research is not abstract “knowledge for the sake of knowledge” but practical, replicable solutions that can help real people to solve real problems.

UNU works in partnership with such United Nations system entities as the UN Secretariat, agencies, programmes, commissions, funds, and convention secretariats. The University is thus able to contribute to United Nations policy processes by (i) providing evidence-driven input that helps to fill the chronic “research-policy gap”, (ii) collaborating one-to-one to generate new knowledge on specific issues and topics, and (iii) engaging directly with policy actors to undertake policy-related research and convening roles.
The University also maintains hundreds of active formal agreements and informal collaborations with universities, research institutes/think tanks, NGOs, professional organisations, governmental units, foundations, and private entities worldwide. As a United Nations system entity, UNU’s familiarity with and access to the policy needs of the United Nations allows it to share these evolving priorities and concerns with academic and research communities that otherwise would have limited awareness of the United Nations system’s needs.

At the core of the UN Secretary-General’s 2021 Our Common Agenda report, with its call to “produce and disseminate reliable and verified information”, is the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs). UNU’s research portfolio encompasses the full range of the SDGs through a holistic, interdisciplinary approach that integrates expertise and knowledge. Because the SDGs are deeply interlinked, UNU’s research helps policymakers understand the interdependencies of the various goals and highlights the potential for positive “knock-on” effects among alternative implementation options. In 2021, UNU institutes worked on more than 200 projects, most of them contributing to multiple SDGs.

This section introduces a selection of UNU’s research and other activities undertaken in 2021 under the “5P” categorisation that is commonly used to group the 17 SDGs: People, Prosperity, Planet, Peace, and Partnerships.
End poverty and hunger in all forms and dimensions, and ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment.
A key ambition of the 2030 Agenda for Sustainable Development is to ensure that “no one is left behind”. The first five, highly interlinked SDGs address this aspiration at the most basic level, with the aim of ensuring that all people — collectively and individually, everywhere, now and in the future — can live healthy, constructive lives free from want and deprivation.

These goals are closely aligned with the current UNU thematic work cluster on Social Change and Economic Development, and to issues that have been an important part of UNU’s work throughout its history.

SDG 1 — No Poverty: Working to end poverty has been part of the UNU agenda for nearly four decades. Ongoing research focuses on the socio-economic drivers and consequences for households on the move to find solutions to poverty, at both ends of the migration path. The UNU economic toolbox uses sustainable benefit models to guide developing countries as they create social protection systems.

SDG 2 — Zero Hunger: One of the first research initiatives undertaken by UNU at its establishment was the World Hunger Programme. Today, UNU research seeks to improve human food and livestock feed production, particularly in Africa, such as through improved soil productivity and the safe use of wastewater in agriculture.

SDG 3 — Good Health and Well-being: Human health has been a central component of UNU’s work since the establishment of the UNU International Institute for Global Health in 2005. UNU’s health-related research is helping to untangle the growing social, economic, and environmental complexity faced by governments and communities, as well as to stem the rise of non-communicable diseases, respond to the emergence of global pathogens, and reduce the adverse health tolls of natural disasters.

SDG 4 — Quality Education: Postgraduate training to enhance the capability of young scholars to contribute to the extension, application, and diffusion of knowledge is mentioned as a core purpose in the UNU Charter. For over four decades, UNU has organised specialised training opportunities and, since 2010, has offered postgraduate degree programmes. On the research side, global learning has been an area of focus since the late 1980s, and since 2005 the Education for Sustainable Development (ESD) project has been fostering learning networks among regional and local ESD initiatives.

SDG 5 — Gender Equality: The importance of mainstreaming a gender perspective through all UNU activities was first stressed in the UNU Strategic Directions 2007—2010. Today, UNU’s commitment to gender equality permeates the University’s operations and research, in support of development policies that eliminate barriers for women and girls in all aspects of life and empower them to be leaders in emerging fields such as science and technology.

This section highlights some of UNU’s projects, publications, and activities from the past year that operated within the scope of this “people-centric” set of SDGs.
**PROJECT**

**Monitoring and Evaluation of WFP’s Country Strategic Plan in Kenya from 2019 to 2023**

UNU-MERIT is collaborating with the World Food Programme to monitor and evaluate the success of WFP’s activities in three refugee settlements in Kenya. Annual outcome monitoring is an essential part of WFP’s/UNU-MERIT’s commitment to accountability for affected populations. The institute conducted a baseline evaluation in 2019, encompassing more than 2,000 households across the three refugee settlements, and has completed the 2020 outcome monitoring process. Findings show that, despite the impact of the COVID-19 pandemic, WFP was able to maintain stable levels of food security, although a sense of insecurity and more frequent recurrence to borrowing hindered the progress of self-reliance agricultural activities. The announced intention by the Government of Kenya to shut down its refugee camps poses new challenges for WFP and its partners, who will have to adapt and plan; UNU-MERIT will continue to play a key role in helping shape ongoing monitoring and evaluation.

**PROJECT**

**Gender & Health Hub**

Gender inequality continues to undermine health outcomes, and despite progress, health systems often fail to do their part to promote gender equity. This UNU-IIGH project led to the establishment of a Gender and Health Hub that seeks to bridge the gap between people, evidence, policy, and action, and thereby effectively increase uptake and investment in strategies to integrate gender in health policies and programmes. In 2021, this UNU-IIGH-coordinated Hub tapped into practice-based learning approaches to understand what has worked in gender mainstreaming — for whom, in what circumstances, in what respects, and why — in five United Nations agencies working on global health. The study, which identified five key ingredients necessary for gender equality among health-related United Nations agencies, has informed the development and operationalisation of those agencies’ new organisational strategies or gender action plans.

The Hub also partnered with the Gender Equality Working Group of the Global Action Plan for Healthy Lives and Well-Being to produce a guidance note and checklist of key actions for countries to prioritise as they deploy COVID-19 vaccines. Also, with the aim of developing and engaging a vibrant network of policymakers, academics, and implementers working in gender and global health for priority-setting, knowledge-sharing, and policy engagement, the Gender and Health Hub launched a dedicated website and an online knowledge-sharing platform for collaborative research agenda setting on gender and COVID-19. The Hub has successfully drawn more than 900 contributors from 60 countries, convened multiple webinars and events at high-impact global forums, and launched a monthly Gender and Digital Health webinar series.

**REPORT**

**COVID-19 and Humanitarian Access**

UNU-CPR was commissioned by the UK Mission to the United Nations to examine the COVID-19 pandemic’s impact on the global humanitarian system and operations. This analysis, published in April, is based on five country case studies; it offers recommendations for governments, donors, the UN, and local non-governmental organisations on prioritising and improving access to humanitarian aid during crises.
PROJECT

EQUALS-EU
UNU Macau is a member of EQUALS-EU, a consortium of 19 organisations from 15 EU Member States and two non-European members that supports the global exchange of knowledge and good practices on gender digital inclusion in technology and innovations, to close the gender digital divide by 2030. UNU Macau supports the global exchange of knowledge and good practices on gender digital inclusion in technology and innovations, as well as highlights the role of Macau in pursuing international digital equality efforts.

UNU Macau’s contribution is to generate evidence on the effectiveness of gender equality initiatives in the ICT sector, offer advice on measures to reduce inequalities in women’s access to and use of information and communications technologies, and enhance women’s basic digital literacy and STEM skills and their share of leadership in the technology industry. Project activities have included mapping gender-inclusive innovation ecosystems in more than 20 countries, hosting innovation camps and “hackathons” in more than 25 countries, running a six-month incubator programme for gender inclusive entrepreneurship, and holding a one-month boot camp for future leaders in gender-inclusive innovation. In addition to addressing digital gender inequality at the global level, the project seeks ways to reduce inequalities that are prevalent in developing countries.

PROJECT

Impact Evaluation of Emergency Cash Transfer Programme
The COVID-19 pandemic has forced many governments and other actors to support populations affected directly or indirectly by the pandemic. UNU-MERIT has been working with WFP to design and conduct an evaluation of an emergency cash transfer programme that WFP has implemented in conjunction with the Government of Kenya in Nairobi and Mombasa. As in most countries, pandemic restrictions in Kenya have resulted in the loss or disruption of livelihoods. To cushion the adverse effects of these disruptions on consumption, cash transfers were made to urban poor households that lost a source of income. Throughout the cash transfer period, as part of WFP’s efforts to monitor the outcomes, UNU-MERIT helped to design and execute a survey as well as to construct advocacy reports and develop a theory of change.

COLLABORATION

Collaborative partnerships and external funding are critical foundations for much of the UNU’s work, enabling the University to draw on the expertise and knowledge of top academics, specialists, researchers, and practitioners worldwide, and to expand the scope of UNU’s research and activities. Globally, UNU maintains hundreds of active collaborations with other United Nations system entities; universities; research institutes and think tanks; international, national, and non-governmental organisations; national government ministries and agencies; foundations; and private sector entities.

Throughout this report, in panels such as this, we highlight just a few of the partners and donors who contributed to UNU’s success in 2021.
PROJECT

Improving China’s Institutional Capacity Towards Universal Social Protection

Eradicating extreme poverty and ensuring universal social protection coverage are among China’s top socio-economic development goals. For many years, ILO and the Ministry of Human Resources and Social Security of China have been cooperating to help achieve universal and adequate social protection for all. In 2021, UNU-EGOV was asked to assist the ministry in strengthening China’s institutional capacity to improve its social protection system — not only by optimising the use of technology, but also in support of the nation’s realisation of international standards.

This project is helping build a national strategy and roadmap for the transformation of the production and delivery of social security in China. Enabled by technology, data, regulatory streamlining, new business and partnerships models, and innovative approaches, the objective is to provide cutting-edge social security services that are accessible, inclusive, and user-centric without putting unnecessary burdens on employers and social security partners in provincial and local governments.

POLICY BRIEF

Regional Collective Action to Address COVID-19 and Prepare for Future Pandemics

Regional cooperation around COVID-19 has varied, reflecting disparities in political support, resources, and health governance across regions as well as highlighting the urgency of strengthening efforts to address the current pandemic and future crises. This UNU-CRIS Think20 policy brief offers recommendations on how G20 countries can support regional organisations, promote regional needs, invest in improved data sharing and the production of supplies and medicines, and foster inter-regional cooperation.

BOOK

Systems Thinking Analyses for Health Policy and Systems Development

This open access book (published by Cambridge University Press) is the culmination of a multi-year effort by UNU-IIGH and partners. The study applied a systems-thinking lens to help understand the development of public health policies and systems, and developed a critical reflection on the intersections and interactions of different players in the health sector. Malaysia was used as a country case study to demonstrate the evolution of a health system from low-income developing status to one of the most resilient health systems today.

COLLABORATION

UNU-CPR was commissioned by the United Nations Development Coordination Office to develop future-oriented recommendations for helping United Nations Resident Coordinators to deal with the “triple planetary crisis” of environmental degradation, climate change, and pollution. The resulting UNU-CPR report, Beyond Opportunism: The UN Development System’s Response to the Triple Planetary Crisis, was distributed to all Resident Coordinators. This then led to additional research engagements for UNU-CPR, including a project that builds off that report to look at stress-testing the Resident Coordinator system’s regional reforms and their capacity to advance the UN’s prevention agenda.
Understanding Systemic and Cascading Risks: Learnings from COVID-19

The Sendai Framework for Disaster Risk Reduction promotes a holistic understanding and governance of the dynamic nature of systemic risks such as those surrounding the COVID-19 pandemic. However, many countries lack the means to assess and manage these complex and interconnected risks in a holistic and integrated manner. This UNU-EHS project was funded by the UN Office for Disaster Risk Reduction (UNDRR) to address this gap by developing a conceptual framework and model that supports the analysis of cascading and systemic risks.

The framework and model were complemented by five case studies (Bangladesh, Ecuador, India, Indonesia, and Togo) aimed at documenting how the pandemic exacerbated vulnerabilities and risks in different contexts, and what actions were taken to avert, reduce, or address the systemic risks and impacts associated with COVID-19. The project team developed policy recommendations to help countries better prepare for and manage such risks in the future.

COVID-19, Food, Farms and Energy Efficiency in Africa (COFFEE)

The COVID-19 pandemic exposed significant flaws in critical economic sectors in Africa — for example, an undue reliance by many countries on food imports and agricultural inputs from outside the continent. The obvious challenges notwithstanding, the pandemic offers a prime opportunity for African countries to reconsider their current growth trajectory and pursue a green and inclusive development agenda.

UNU-INRA received funding from the German Environment Agency to study the impact of COVID-19 on the food and energy sectors in Cote d’Ivoire and Senegal, the level and scale of adoption of green and sustainable technologies in these sectors, and the governments’ potential COVID-19 recovery plans. Among the findings from Senegal, for example, are that interventions to cushion businesses favoured the food sector over the energy sector and neglected to consider the needs of informal sector workers and players.

COLLABORATION

UNU-CRIS was commissioned by the United Nations Development Programme to carry out a study of post-COVID SDG Recovery Paths for Latin America and the Caribbean. The analysis focused on three health, economic, and social COVID-19 policies, and the potential role of development partners. The findings, which showed opportunities for structural change that could potentially overcome COVID-induced setbacks in tackling such issues as poverty, inequality, employment, and gender equality, are being used by UNDP to highlight how donors can best contribute to the recovery pathways in the region.
ARTICLE

“COVID-19: The Turning Point for Gender Equality”
The paper, co-authored by UNU-IIGH experts, was published in The Lancet. It underscores how COVID-19 has deepened social, economic, and gender inequalities, and gravely affected already marginalised populations (especially women) even though they represent most front-line health workers. Yet it also shows how the pandemic has provided an opportunity for conversations on the gendered impacts of power, intersectionality, and social, legal, and commercial determinants on health, and has pressured leaders from United Nations entities and the public and private sectors to make commitments and take action. The article includes concrete, evidence-based measures for helping to deliver on the gender equality agenda, drawn from UNU-IIGH research.

WORKING PAPER

The Mitigating Role of Tax and Benefit Rescue Packages for Poverty and Inequality in Africa Amid the COVID-19 Pandemic

In the first study of its kind on Africa, UNU-WIDER researchers found that tax and benefit policies provided limited income protection to the poorest households in the early stages of the COVID-19 pandemic, but failed to offset the increase in poverty. Key findings of the research on policies in five sub-Saharan African countries were: existing tax-benefit systems were ineffective in preventing an increase in poverty and inequality in the face of the pandemic; while discretionary social protection measures responding to COVID-19 were largely successful in targeting the poorest households, benefit amounts were too small to make a significant difference; and by building on an existing social protection initiative, the Zambia’s Emergency Social Cash Transfer programme was effective in reaching the poorest.

COLLABORATION

UNU-EGOV collaborated with the United Nations Department of Economic and Social Affairs (UN DESA) on production of the biennial UN e-Government Survey, providing research input regarding evolution of the national-level E-Government Development Index. UNU-EGOV and UN DESA also worked together to develop the 2022 Local Online Service Index (LOSI), which assesses e-Government development at the municipality level, and jointly established a framework to introduce national-level partners (research centres and universities) to LOSI development and application.
Ensure that all human beings can enjoy prosperous and fulfilling lives, and that economic, social, and technological progress occurs in harmony with nature.
Building on the above people-centric SDGs are five goals that focus on ensuring social stability, economic prosperity, and technological progress. These goals, which highlight the importance of reducing inequalities in all aspects of life, depend on smart and innovative approaches for a sound and reliable economic foundation.

Like the people-centric SDGs, the issues addressed by these five goals also are closely aligned with the UNU thematic work cluster on Social Change and Economic Development.

**SDG 7 — Affordable and Clean Energy:** UNU research focuses on enhancing the capacity of the renewable energy sector, and exploring how integrated resources-usage practices can improve energy efficiency and production.

**SDG 8 — Decent Work and Economic Growth:** UNU research provides guidance for navigating the changing geo-economic landscape while more effectively monitoring and evaluating economic progress and its social impacts, thereby helping planners to transform skewed development into opportunities for sustainable livelihoods.

**SDG 9 — Industry, Innovation and Infrastructure:** UNU focuses on strengthening development linkages that catalyse innovation, foster equal resource benefits, and build resilient urban systems. This includes charting policy options to help transform resource extraction sectors into engines of sustainable economic growth, and helping to ensure that expanding cities can provide basic services and livelihoods for all.

**SDG 10 — Reduced Inequalities:** UNU research is building comprehensive databases to inform policymakers and governments of where, why, and to what extent global income inequality exists. The goal is to expose the social and political dynamics that drive inequality, so that policy and social support systems can respond to chronic and emerging trends.

**SDG 11 — Sustainable Cities and Communities:** UNU work on sustainable urbanisation seeks to overcome the tendency to treat urban issues (whether governance, water, waste, health, economic development, or vulnerability to natural hazards) as discrete problems and instead find interdisciplinary solutions.

This section highlights some of UNU’s projects, publications, and activities from the past year that operated within the scope of this “prosperity-focused” set of SDGs.
PROJECT

Finance Against Slavery & Trafficking (FAST)

This UNU-CPR project has completed its third phase, following on the foundations laid by the Financial Sector Commission on Modern Slavery and Human Trafficking as well as an initial project phase that promoted awareness and drove implementation of the FAST project’s seminal report: *A Blueprint for Mobilizing Finance Against Slavery and Trafficking*.

FAST had a year of growth in 2021, and worked on a wide range of initiatives, including modern slavery guidance for companies listed on the Stock Exchange of Thailand; e-learning and investor engagement efforts; expansion of the Survivor Inclusion Initiative into Latin America; and engagement with African financial institutions on new tools and guidance. The FAST team organised or participated in several United Nations system meetings and events focusing on topics of corruption and human trafficking, and held the first FAST Implementation Review Conference. The project published six new papers on specific areas of the Blueprint, issued a guide on financial literacy for survivors, and organised multiple digests and podcast episodes. FAST findings were referenced in a diverse range of international forums, and fed into several policy and regulatory reviews.

REPORT

Simple Ways to Be Smart

There is a perception that smart cities are all large, well-resourced urban areas. This, however, excludes most cities and human settlements. This UNU-EGOV report stresses that smart technologies and innovative ideas have relevance for all cities and settlements, with the potential to enable better city management and operation and improve inhabitants’ quality of life. It identifies smart interventions that do not require excessive material or capacity inputs, yet can help cities and settlements to become more inclusive, safe, resilient, and sustainable. The report explains how, by developing smart cities based on needs, public services can be made more efficient, effective, and personalised, serving the needs of all and not just the elite. Additionally, it presents examples of effective smart interventions, offers a guide for cities that wish to embark on the journey to be “smarter”, and defines the criteria that make an intervention smart and simple.

PROJECT

The Developer’s Dilemma: Structural Transformation, Inequality Dynamics, and Inclusive Growth

This UNU-WIDER project addresses one of the core tensions present in the pursuit of development: how can countries manage the potential trade-off between sustaining high economic growth rates (which generally increases income inequality disparities) while at the same time ensuring that growth is inclusive (which requires falling inequality). It does so by taking a close look at (i) what we know about structural change in developing countries, and (ii) where, when, and why trade-offs have arisen. Publication of a flagship book on this project is planned to act as a road map for navigating the different paths to structural transformation and deepening understanding of how each one shapes development.
Towards a Triple Win: Transforming Circular Migration into Circular Skill Mobility Schemes

Policy initiatives to expand migration have not gained significant momentum, and available migration windows tend to prioritise highly skilled workers. This UNU-CRIS Think20 policy brief proposes expanding legal pathways for migrants of all skill levels by transforming circular migration into innovative schemes that combine vocational training in home countries with work-related migration opportunities.

Transforming Informal Work and Livelihoods

This ongoing UNU-WIDER project looks at what we know about the patterns and drivers of informality. Its first phase, completed in 2021, provided knowledge for better policymaking with respect to the informal sector by elucidating the causes and consequences of informality. Publications to date include several papers in the UNU-WIDER working paper series and a special issue of the Journal of Development Studies (on “What Sustains Informality”). An upcoming book, Climbing the Job Ladder? Informal and Formal Work in a Dynamic Context, will be published by Oxford University Press. The second phase of the project is assessing the effects of the COVID-19 pandemic and related policy measures (such as government lockdown policies) on the livelihoods of workers in different segments of informal work. The research will evaluate which public policies have been most effective in mitigating the adverse effects of the pandemic on informal workers.

European Innovation Scoreboard

UNU-MERIT researchers continued to provide major inputs to the European Commission’s European Innovation Scoreboard, which identifies the relative strengths and weaknesses of national innovation systems in EU countries, other European countries, and regional neighbours. The 2021 scoreboard was based on a revised framework that includes new indicators on digitalisation and environmental sustainability, bringing it more in line with EU political priorities. The 2021 scoreboard was accompanied by a Regional Innovation Scoreboard that provides further details on innovation for 240 regions in 22 EU countries. Results indicate that innovation performance has increased by 12.5 per cent across the EU since 2014, and that lower performing countries are growing faster than higher performing ones, thus helping to close the innovation gap among them.

COLLABORATION

The UNU-EHS Global Mountain Safeguard Research (GLOMOS) programme, and its alliance partner Eurac Research, have established a strong collaboration with the International Centre for Integrated Mountain Development (ICIMOD, an intergovernmental institution serving countries of the Hindu Kush Himalayas). Partnership activities include generating and sharing information and knowledge about innovative solutions to critical mountain problems. One collaborative project mapped the outcomes of livelihood innovations for climate adaptation and helped co-create climate-resilient development pathways for upscaling of these innovations.
**BOOK**

*New Perspectives on Structural Change*

This UNU-MERIT book (published by Oxford University Press) brings together contributions from leading academics and practitioners outlining both the historical roots and state-of-the-art debates on the causes and consequences of structural change in the process of global economic development. The edited volume presents the theoretical foundations of the structural change debate, offers an empirical overview of the major trends of structural change, and elucidates the connection between abstract concepts, research findings, and government policies and actions. It summarises the major drivers of structural change and the major impacts of structural change on inclusive growth, poverty reduction, productive employment, global income distribution, and environmental sustainability.

**PROJECT**

*Increasing Resilience to Water and Climate-related Risks and Operationalizing Water Security*

This UNU-INWEH project identified policy-oriented solutions to enhance society’s resilience to water and climate risks. By identifying, quantifying, and finding mitigating solutions, its findings will help to enhance developing countries’ preparedness and resilience for climate risk, water-related disasters, and other threats to water resources in sustainable and efficient ways.

In 2021, the project released a unique global analysis on Ageing Water Storage Infrastructure by region and primary function (water supply, irrigation, flood control, hydropower, or recreation). The findings point out that by 2050 much of humanity will live downstream from large dams that were built more than 50 years previously (the acknowledged “alert” threshold of dam maintenance and safety). The report showcases some examples of large dam decommissioning and removal. UNU-INWEH continues to work on various aspects of water storage, including socio-economic impacts of dam decommissioning, analysis of dam sedimentation, and global dam failures, with the aim of stimulating international efforts to deal with this emerging water risk.

The project also released a pan-African by-country assessment of water security.

**COLLABORATION**

UNU-IAS works closely with the United Nations Educational, Scientific and Cultural Organization on a variety of education for sustainable development (ESD) issues. UNU-IAS has helped develop policy inputs for the ESD for 2030 Global Framework, and in 2021 served as a member of the International Advisory Board for UNESCO’s flagship Futures of Education programme, providing inputs for the programme’s progress update. Other UNU-IAS and UNESCO collaborations included a joint study on how climate change creates barriers for displaced persons to access education and skills development, and a joint research project with UNESCO Bangkok on Frontier Technologies in Teaching and Learning.
TRAINING

**Industrial Policy and the Challenge for Africa**
In September, UNU-WIDER ran this popular massive open online course (MOOC) as a self-paced learning experience, with opportunities for interaction with other learners. This course outlines how industrial policy designed for the 21st century could support a broader set of economic activities and provide Africa with the growth, jobs, and industrialisation that it needs. In 2022, this MOOC will be available internationally on the edX online education platform.

TRAINING

**Design and Evaluation of Innovation Policies**
This UNU-MERIT intensive, one-week programme targets senior and mid-level officials of government ministries and other technology-supporting institutions, as well as representatives from the private sector involved in science and technology policy issues. Tailor-made courses are planned jointly with host organisations in developing countries. In November, an online version of the programme took place in Nicaragua.

TRAINING

**Migration Management**
The capacity-building diploma programme offered by UNU-MERIT is specifically designed for professionals and civil servants who are working in migration management. This annual three-month programme provides theoretical knowledge as well as practical skills, such as how to articulate, formulate, and present evidence-based policy, and how to work cooperatively and deal with conflicting interests.

REPORT

**COVID-19 and Progress on Subnational Localisation of the SDGs**
This report, by UNU-IAS in partnership with United Cities and Local Governments Asia-Pacific, explores how local and regional governments can overcome the deep impacts of the COVID-19 pandemic and offers recommendations to deliver a resilient and sustainable recovery. The findings are based on survey research that engaged 52 regional and local governments in three Asia-Pacific countries. The report offers insights into the challenges and opportunities for local governments during the global pandemic, examines how COVID-19 has affected subnational progress on the SDGs, and analyses the responses of subnational governments to the pandemic and their priorities for action in the short, medium, and long terms.

COLLABORATION

UNU-IIGH partnered with the University of the Western Cape (South Africa) to co-convene a collaborative, crowd-sourced gender and COVID-19 research agenda-setting exercise that engaged more than 900 participants worldwide, mainly in the Global South. UNU-IIGH also cooperated with University College London, as co-chairs of the Lancet Commission on Gender and Global Health, to launch a discussion and debate seminar series for stakeholders working on gender and health issues.
ARTICLE

“When We Were Children We Had Dreams, Then We Came to Dhaka to Survive”

This article by a UNU-EHS researcher, published in the journal Climate and Development, uses storytelling methods to investigate the connections between urban climate-induced loss of well-being and (im)mobility in Bhola Slum, an informal settlement in Dhaka, Bangladesh that houses internally displaced people from the southern coast. The article explores an empirical study designed to investigate “trapped” populations and the non-economic losses and damages they experience in urban environments. It reveals that the loss of belonging, identity, quality of life, and social value produces a desire to return “home”, even among children who were born in the settlement. It also notes some women said that while the move had resulted in more liberty for them, it had also increased their risk of social punishment and stigmatisation.

REPORT

The Future of Electric Vehicles and Material Resources

Electric vehicles (EVs) offer an opportunity to replace fossil fuels in the transport sector, bringing benefits in terms of increased energy efficiency and reducing local pollution. There are genuine concerns, however, about the ability to meet future energy demand for charging EV batteries with clean and renewable sources, as well as the environmental impacts and the social/ethical issues underlying the extraction of critical material resources used in EV batteries. This foresight brief, by the UNU-hosted SCYCLE Programme and UNEP-IETC, provides a snapshot of recent developments in the EV sector. It highlights major challenges and opportunities in the mainstreaming of EVs, and in ensuring a sustainable supply of material resources, with a focus on the end-of-life management of EV batteries.

EVENT

WIDER Development Conference

The topic of the 2021 WIDER Development Conference, held in September, was “COVID-19 and Development — Effects and New Realities for the Global South”. The pandemic, and measures taken to address it, have had far-reaching negative effects on poverty, inequality, and governance, making prospects for achieving the SDGs by 2030 look increasingly grim. This three-day virtual event brought together over 1,200 participants from 107 countries, including policy experts, development practitioners, and researchers from a range of fields. Conference participants took stock of the legacies of the past 18 months, what might be the “new normal”, and what might be done now to influence things for the better.

TRAINING

Cyber Resilience

UNU Macau organises cyber-resilience capacity building for civil society organisations (CSOs) in Macau. The aim is to help CSOs gain awareness of their cybersecurity landscape and posture, understand the relevant countermeasures that they can employ, and understand the potential impacts of unmitigated cyber risks. Workshops organised in 2021 included Introduction to Organisational Cyber Resilience Management (targeted at managers and directors), Introduction to Cybersecurity Support in Organisations (targeted at non-technical ICT-support staff) and Everyday Cybersecurity in Organisations (covering good cyber hygiene and safe and secure use of cyber resources by all staff).
EVENT

**Stanford BASES Global Summit**
In April, UNU Macau co-convened the Stanford BASES Global Summit. The topic of this summit was “Reimagining Entrepreneurship and Innovation for the Sustainable Development Goals”. The event, a cross-sectional, global dialogue and call to action, brought together students, academics, researchers, private sector representatives, and government officials from various backgrounds to discuss how we can better use innovative technologies to support the SDGs.

EVENT

**Chris Freeman Centenary Lecture Series**
To celebrate the centenary year of the birth of Chris Freeman (the founder of modern innovation studies), UNU-MERIT co-organised a series of virtual lectures on innovation studies. The series brought together leading academics from across the globe to discuss topical issues around innovation studies and the national system of innovation, including contributions from past and present UNU-MERIT researchers and UNU-MERIT Advisory Board members. The first series, Innovation Systems-101, was live-streamed between January and April, and the second, Innovation Systems-102, between October and January 2022.

TRAINING

**Principles of Sustainable Finance, ESG Investing, and SDG Business Management**
In 2021, UNU-IAS launched a new executive course focused on the challenges and opportunities that arise through integration of environmental, social, and governance (ESG) factors. Developed in collaboration with business communities in Japan and other countries, this intensive course for professionals stresses the central role that the finance and investment sectors can play in fostering sustainable development. In 2021, 24 professionals from global corporations and agencies and four postgraduate students completed the course.

REPORT

**Civil Society Organisations’ Cyber Resilience**
Despite the potential impacts of adverse cyber events on individuals and civil society organisations (CSOs), cyber resilience has traditionally been considered from the perspective of governments, private sector companies, and organisations. This UNU Macau report notes that most CSOs adopt ad-hoc and haphazard cybersecurity management practices, further perpetuating their precarity and vulnerability. It recommends that governments, CSOs, and private sector service providers coordinate capacity building, knowledge sharing, and cybersecurity resourcing, and undertake meaningful partnerships that enhance the cyber resilience of CSOs and of society overall.
EVENT

**Technology and Innovation for the Sustainable Development Goals Summit**

In May, UNU Macau organised this Summit in celebration of the World Telecommunication and Information Society Day. The event brought together more than 100 participants from various sectors, including government, academia, the private sector, and NGOs, to share their experiences in advancing the SDGs, examine the role of the SDGs in Macau’s strategic development plan, and explore collaborative opportunities in the areas of digital technologies.

TRAINING

**Fighting Modern Slavery and Human Trafficking**

As part of its efforts to help safeguard vulnerable individuals around the world, the UNU-CPR Finance Against Slavery and Trafficking initiative, in collaboration with ACAMS (a global anti-financial crime association), has launched two free training certificate programmes, one in 2020 and another in 2021. The first programme offers foundational training to aid compliance professionals seeking to identify and report financial activity tied to human traffickers, while the second focuses on sex trafficking and exploitation in the USA. More than 2,000 professionals have completed at least one of the two courses. FAST also worked with the Australian Department of Foreign Affairs and Trade to launch a new training programme in late 2021 targeted at public officials in the Asia-Pacific region.

WORKING PAPER

**Patent Landscaping Using “Green” Technological Trajectories**

This UNU-MERIT working paper uses detailed patent statistics to help understand the development of green technologies. The approach, which identifies the main technological trends in a large patent citation network, enables detailed mapping of green technologies such as batteries, wind power, and electric vehicles in broad areas such as ICT, medicine, and health. An important finding of the analysis is that sectoral and geographical progress in green technologies cannot be fully understood independently of developments in non-green technologies. This has obvious policy implications for identifying appropriate environments and incentives to promote innovation in green technologies.

REPORT

**A Manufacturing Renaissance? Industrialisation Trends in the Developing World**

De-industrialisation was widespread until the early 2000s, but that trend has now been reversed. Regressions that control for income and demographic trends suggest that significant employment industrialisation is occurring in developing countries of Asia and sub-Saharan Africa. This UNU-WIDER working paper analysed industrialisation trends for a large set of developing countries, examining the dynamics of manufacturing output and employment based on the new GGDC/UNU-WIDER Economic Transformation Database. This paper introduces the database, uses manufacturing data to document the expansion of manufacturing employment for several countries, and explores the nature of the manufacturing renaissance.
**BOOK**

**Social Mobility in Developing Countries: Concepts, Methods, and Determinants**

Social mobility — movement from a lower to a higher level of education or occupational status, or to a higher social class or income group — is the hope of economic development and a functioning society. This UNU-WIDER book (published by Oxford University Press) looks at what we know about social mobility in developing countries, and conceptualises and innovates on methodology for further research on this topic through three fundamental questions:

- How can the extent of social mobility in a given development context be assessed when the datasets are limited or unavailable?
- How can the drivers and inhibitors of social mobility be reliably identified in particular developing country contexts?
- How can the knowledge required to design interventions to increase upward mobility or lower downward mobility be acquired?

**ARTICLE**

**“A Framework of Blockchain Technology Adoption: An Investigation of Challenges and Expected Value”**

UNU-EGOV and the American University of Dubai investigated the challenges and implications related to blockchain adoption in the private and public sectors. This article, published in the journal *Information and Management*, proposes a data-driven conceptual framework that focuses on the environmental, organisational, and technological challenges of blockchain adoption. It highlights the differences between “permissioned” and “permissionless” blockchains; identifies new constructs in blockchain technology adoption; and considers the expected socio-economic value of blockchain adoption for organisations and industries, start-ups and entrepreneurs, and the public sector.

**CONCEPT PAPER**

**The V20-led Sustainable Insurance Facility at a Glance**

UNU-EHS contributed to this concept paper that highlights the climate-related impacts for micro-, small-, and medium-sized enterprises (MSMEs) in V20 economies, outlines five action areas for building climate-smart insurance solutions for MSMEs, and sets out the process and modalities of mobilising technical and financial assistance to implement those action areas. The paper further describes how the Sustainable Insurance Facility (SIF) will be operationalised and will closely collaborate with V20 finance ministries to scope MSMEs’ financial protection needs in the context of climate change, and develop concepts and proposals for submission to risk-financing vehicles.

**COLLABORATION**

**UNU Macau** partners with **Caritas Macau**, one of the region’s largest social services organisations, on research and programmes that advance sustainable development through digital technologies. One initiative undertaken through this partnership was the Smart Citizen Cyber Resilience project, which investigated the cyber resilience of civil society organisations (CSOs) in Macau. The project held a series of cyber-resilience capacity development workshops and developed recommendations for CSOs on how they can enhance their cyber resilience.
UNU Research: Planet

Protect the Earth’s biodiversity and ecosystems from degradation, sustainably manage its natural resources, and take urgent action on climate change to ensure that our planet can support the needs of the present and future generations.
Without resolute efforts to save our planet’s lifeforms, ecosystems, and resources, life for future generations will be bleak. Five of the SDGs are focused on protecting and managing the Earth’s finite resources and its irreplaceable plant and animal life, and minimising adverse human impact on the environment.

The SDGs focusing on these issues are closely aligned with the UNU thematic work cluster Environment, Climate, and Energy.

**SDG 6 — Clean Water and Sanitation:** UNU approaches water as a core component of sustainable development that inherently links livelihoods, ecosystems, populations, and infrastructure. UNU water-related research addresses the needs of low- and middle-income countries, with a particular focus on policy guidance, problem-solving, natural resource planning, wastewater management, and new technology development.

**SDG 12 — Responsible Consumption and Production:** Sustainable production and consumption is about doing more with less, and doing it better. UNU research focuses on the processes, practices, and governance of product cycles and value chains, and spotlights how traditional practices can be scaled alongside modern systems and management techniques.

**SDG 13 — Climate Action:** UNU focuses on the vulnerable populations most affected now by climate change, to ensure global resilience later. UNU research is contributing policies and measures for mitigating and recovering from future climate-related disasters, as well as to developing insurance safety nets for island communities threatened by sea level rise and extreme weather and to advancing strategies to reduce carbon emissions.

**SDG 14 — Life Below Water:** UNU research examines human-ocean and human-freshwater relationships to help ensure mutual welfare, blending fisheries knowledge with traditional management practices to support marine and coastal habitats as well as foster the sustainable use of marine resources.

**SDG 15 — Life on Land:** UNU research analyses the intersections of ecosystem change and resource use to find sustainable human-environment solutions that can preserve biological and biocultural diversity as well as safeguard traditional agricultural systems and rural livelihoods.

This section highlights some of UNU’s projects, publications, and activities from the past year that operated within the scope of this “planet-preservation” set of SDGs.
**PROJECT**

**Data and Technology for Strategic Water Planning and Management**

This UNU-INWEH project focused on developing web-enabled tools and applications to address data, information, and knowledge gaps in the global water sector (primarily in the Global South). It used open data repositories, artificial intelligence models, and cloud computing platforms to ensure technology transfer to the Global South without cost.

Over the past decade, floods have caused damages of nearly US$500 billion worldwide. In 2021, the project produced a free online tool for mapping historical floods anywhere in the world, for the period 1985 onwards. The World Flood Mapping Tool, released in October, enables users to generate instant, accurate maps of floods (at 30-metre resolution); users can adjust variables to help locate gaps in flood defences and responses, and plan for future development, such as where to build or upgrade infrastructure versus where to develop agriculture. By showing flood-safe locations for housing and industry, the tool can help improve overall urban planning.

To develop the tool, UNU-INWEH worked with more than 10 partners (including Google and MapBox) throughout the world, and validated the results (82% accuracy) by comparing the maps with documented flooding events tested in eight countries around the world for the period 2011—2018. The tool uses the Google Earth Engine combined with decades of Landsat data. Details of the methodology and results are available in an open-access peer-reviewed paper.

The magazine *Popular Science* gave the World Flood Mapping Tool a “Best of What’s New Award” (one of the 100 greatest innovations in 2021) in the “Security” category.

**PROJECT**

**Pacific Insurance and Climate Adaptation Programme**

The Pacific Small Island Developing States are highly vulnerable to natural hazards, but they generally have limited capacity to effectively manage the risks or overcome the significant economic losses caused by a disaster. Presently, only limited ex-ante financial instruments (government reserve funds and contingent credit) are available in most Pacific countries; the ex-post financial instruments deployed usually either are reallocated from government budgets, acquired through external and internal borrowing, or are the result of donor assistance and international humanitarian aid.

UNU-EHS, in collaboration with UNCDF, UNDP, key stakeholders from governments and from the public and private sectors, and other development partners, is addressing the challenge by developing disaster risk financing instruments (including climate risk insurance) through this programme. In 2021, the programme launched Fiji’s first parametric micro-insurance product, which is being rolled out to cover sugarcane, copra, and cash crop smallholder farmers. The product, with coverage for 12 months, will automatically trigger pay-outs if the insured-against events (such as a specific amount of high rainfall, high wind-speed, or cyclone) take place. The programme also successfully lobbied the Government of Fiji to exempt the climate insurance from VAT so that the product will be more affordable to all income groups.
REPORT


The 2021 edition of the annual World Water Development Report assesses the ways in which water is valued across different sectors and identifies how the process can be improved. UNU-FLORES experts contributed to drafting two chapters of this report: “Food and Agriculture” and “Enabling Multi-value Approaches in Water Governance”.

PROJECT

Framework for Organisational Decision-Making Process in Water Reuse for Smart Cities

While the use of wastewater on an agricultural and industrial scale can potentially alleviate growing water stresses, a complex set of factors often hinder its uptake. This international project, being undertaken by 11 partners from research institutes in Europe and Japan (including UNU-FLORES and UNU-IAS) is developing a systematic framework for the intelligent reuse of wastewater resources as well as an assessment mechanism for companies and industry. The project actively supports the interface between public and private stakeholders, with a focus on cross-sectoral synergies and water reuse in the context of environmental management.

In 2021, members of the project team from UNU-FLORES and TU Dresden conducted research to identify the barriers and drivers for municipal wastewater reuse in industrial applications under a private-public partnership. They also carried out a life cycle assessment of different wastewater treatment technologies in conjunction with core partners in Poland, based on data and processes obtained from five wastewater treatment plants. A sampling strategy and questionnaire have been developed for target participants (companies) across sectors of intense water consumption in the countries covered by the project.

PROJECT

E-Waste Quantification

This project by the UNU-hosted SCYCLE project is the only global effort by all key international stakeholders involved in e-waste statistics to help countries produce national e-waste data. The project’s flagship publications, the Global E-waste Monitor and Regional E-waste Monitors, serve as top references for governments, industry, academia, and NGOs. In 2021, SCYCLE worked with the European Commission to update UNU-KEYS, the central classification for e-waste (and the backbone of e-waste data gathering and calculations), which groups electronic products into homogeneous groups based on average weight, market behaviour, and environmental relevance.

COLLABORATION

UNU-MERIT has a long history of collaboration with the International Organization for Migration (IOM). In 2021, IOM asked UNU-MERIT to support development of a diaspora mapping toolkit that can strengthen capacities of national governments, research institutions, and IOM field missions to conduct high-quality, comparable diaspora mapping studies. IOM also commissioned UNU-MERIT to conduct studies on comparative reintegration outcomes in forced and voluntary returns, and on gender-sensitive sustainable reintegration.
PROJECT


This project was the year’s flagship effort for UNU-INRA. The research, conducted by a consortium of partners and funded by the German Federal Ministry of Economic Cooperation and Development (BMZ), explored Africa’s development priorities in the context of the new cycle of Africa-Europe partnership, and outlined ways in which the European Green Deal could be beneficial for both Europe and Africa. The resulting discussion paper and briefing note raise questions around political economy issues, such as what to do about stranded assets and whether natural gas is a strong contender for a bridging fuel to support Africa’s recovery and green development pathways. UNU-INRA also co-organised a related webinar series.

BOOK

Tackling Climate Action at the Local Level

This UNU-IAS publication showcases outstanding climate education projects implemented by the global network of 179 Regional Centres of Expertise on Education for Sustainable Development (RCEs). It highlights the contributions that RCEs have made to achieving the SDGs through education at local and regional levels, during the period of the Global Action Programme on ESD (2015—2019); presents examples of how global goals can be translated into local actions through education and training to respond to the climate crisis; and demonstrates the importance of localised approaches to creating education programmes.

PROJECT

Stranded Assets and Climate Change in the Context of Sustainable Development in Africa

Asset stranding in the fossil fuel sectors poses significant risk to development pathways for many African countries. Risks are uncertain, but potentially severe, and there is an urgent need to identify bespoke policy choices based upon deep contextual understanding of countries and sectors. UNU-INRA has generated an evidence-based assessment that evaluates the socio-economic risks African countries face as a result of fossil fuel asset stranding. Sustainable development policy actions for achieving the Paris Agreement targets have been identified, from a country case perspective, for eight sub-Saharan countries. In 2021, previous work was updated to account for the impacts of COVID-19 and new global geopolitical developments.

COLLABORATION

In 2021, UNU-CRIS and its partner, the Brussels School of Governance, received seed funding from Microsoft NV/SA to create a Chair in Digital Sovereignty. Microsoft will continue to contribute a fixed sum on an annual basis to maintain the Chair, whose objective is to reflect on the emergent and divergent meanings of sovereignty in the 21st century, with a specific focus on the role of technology in the evolution of political institutions. In 2021, the Chair made a presentation at the UN-sponsored Internet Governance Forum.
**Agrophotovoltaics for Mali and The Gambia**
The promotion of food security has been a top priority in Mali and Gambia, resulting in a push for more irrigated areas that requires the extraction of more water and more energy for pumping from groundwater and surface water resources. UNU-EHS is part of a consortium of partners conducting a project aimed at establishing agrophotovoltaics as a sustainable system that can provide food and water as well as solar energy to the local population while also increasing resilience of the agriculture sector to respond to climate change. Additionally, the project is proving the technical and economic viability of an integrated triple land use system to gain a deeper understanding of synergies and interactions within the Water-Energy-Food Nexus in the partner countries and West African context.

**Global Water and Climate Adaptation Centre – Aachen, Bangkok, Chennai, Dresden**
The German Academic Exchange Service (DAAD), with funds from the Federal Foreign Office, is supporting the establishment of several Global Centres aimed at achieving interdisciplinary networking of science, policy, economy, and civil society. The Global Water and Climate Adaptation Centre, a collaborative project by five universities (including UNU-FLORES) across two continents, was selected as one of four Global Climate Centres. The ABCD-Centre, which provides a platform for international research endeavours, was launched in June. UNU-FLORES contributes to the ABCD-Centre specifically through its unique application of the Resource Nexus perspective, as well as its niche strength of assessing the challenges of climate change adaptation and mitigation and their interconnections with other global issues, such as food security and biodiversity conservation.

**Climate and Disaster Risk Financing Instruments**
This UNU-EHS report provides a brief overview of the instruments that are available and may be considered as part of a governmental climate and disaster risk financing (CDRF) strategy. Developed as part of the Pacific Insurance and Climate Adaptation Programme — a joint initiative of UNU-EHS, UNCDF, and UNDP — this report intends to improve Pacific Islanders’ financial preparedness for and resilience to natural hazards and the risks of climate change. It provides a brief overview of the instruments that are available to be considered as part of climate and disaster risk financing strategy, and covers the development and implementation of customised market-based meso- and micro-insurance schemes in collaboration with governments and relevant stakeholders.

**An important [UNU-EGOV](https://www.unu-egov.net) donor in 2021 was the National Institute for Governance and Sustainable Development of Egypt, which requested UNU-EGOV to develop a tailor-made capacity-building programme for Egyptian executives and decision-makers with responsibilities in digital governance in public administration. The programme trained some 150 executives in such topics as digital transformation in public administration, smart governance, and smart cities.**
BOOK

**Organic Waste Composting through Nexus Thinking**

While the concept of composting is not new, it can be difficult to gather the necessary information to align project objectives with a Nexus Approach. This open access book, edited by three UNU-FLORES researchers (published by Springer, Cham) explains the tangible benefits of nexus thinking and fills the information gap by looking at nine case studies across four continents. Unlike most composting literature, which generally separates the soil/agricultural and waste sectors, this book presents a combined “nexus” perspective of composting: its practices, policies, and trends.

ARTICLE

**“Barriers in Implementation of Wastewater Reuse: Identifying the Way Forward in Closing the Loop”**

This UNU-FLORES co-authored article, published in the journal *Circular Economy and Sustainability*, systematically reviews previous studies in water management for the classification of the barriers obstructing the uptake of wastewater use in agriculture according to a political, economic, social, technological, environmental, and legal framework. It notes that for an economically and environmentally sustainable scheme to incentivise the deployment of feasible technologies, there also must be social acceptance of wastewater use to enhance the deployment of existing technological solutions. The article stresses the need to address the gap between the theoretical and actual applications of technologies, and to assess their applicability by utilities and companies through co-participatory approaches and development of a stakeholder engagement framework.

PROJECT

**Water for Sustainable Development**

Through this project, UNU-IAS is developing sustainable, decentralised approaches to overcome the water crisis, enhance resilience, and help build decarbonised, circular economies. In 2021, the project contributed to the UN-Water *World Water Development Report* (“Valuing Water”), drawing from its research on water and well-being in Nepal, and produced policy recommendations on transforming water conflicts into collaborative watershed management solutions. UNU-IAS also organised a series of policy-oriented events and six meetings of the UNU Water Network (while serving as its chair).

COLLABORATION

In 2020 and 2021, **UNU-IIGH** received grants from the **Bill & Melinda Gates Foundation**, the largest philanthropic funder in global development. The grant is for establishment and operation of the Gender and Health Hub, an online platform that aims to bridge the gap between people, evidence, policy, and action, and to contribute to more evidence-based and better-resourced integration of gender (and the achievement of gender equality) in health policies and programmes.
BOOK

Fostering Transformative Change for Sustainability in the Context of Socio-Ecological Production Landscapes and Seascapes

Both policy and scientific communities have been increasingly calling for “transformative change” toward sustainable societies. This open access UNU-IAS book (published by Springer Nature Singapore) presents 11 case studies of transformative change for sustainability from across the globe, derived through the International Partnership for the Satoyama Initiative (IPSI). It proposes methodologies to assess the progress of transformative change, lays out principles to capitalise on local knowledge and to guide collective action to facilitate sustainable transitions, and offers practical insights for understanding and analysing transformative change.

WORKING PAPER

Bridges of Opportunity: Partnering for Africa–Europe Green Development

This UNU-INRA paper presents a synthesis of expert views and research that recommend a green transition pathway for Africa’s development, thus providing content and context for the next European Union–African Union summit. It outlines the ability of the European Green Deal to catalyse a new partnership with Africa, underscores the need to leverage Africa’s renewable energy resources, and raises critical questions such as what role natural gas can play as a fuel of the energy transition.

The paper also analyses the “build back better” mantra, highlighting the need for green investments to support green recovery, and future impacts on fossil fuel-reliant African economies as the world continues to decarbonise. It stresses, however, that Africa must mitigate climate change without compromising its development priorities, such as electricity access, economic diversification, and industrialisation. Finally, the paper highlights the importance of the African Continental Free Trade Area as the foundation of the AU-EU partnership, and proposes that it can be leveraged towards greening value chains and raising green investments.

ARTICLE

“Weaning the World Off Fossil Fuels”

This article by the Director of UNU-INRA, published by SDG Action, discusses such issues as why “carbon neutrality” remains a contested term, the different responsibilities for climate change, and the unevenness of the pathway to a green recovery. It suggests that these factors, and the speed of travel along that pathway, are complicating a decarbonisation process that is weighed down before it sets off. The article warns that the road to carbon neutrality may turn out to be a cul-de-sac unless we find transitional tools that can enable us to make bold moves along two inseparable tracks: climate justice and green recovery.
ARTICLE
“Freshwater Availability Status Across Countries for Human and Ecosystem Needs”
Many parts of the world face an impending unprecedented and widespread drop in water availability per capita. This article by three UNU-INWEH experts, published in the journal Science of The Total Environment, takes stock of per capita water availability trends across countries and proposes a water scarcity indicator to quantify the amount of water available for agricultural, domestic, and industrial activities while maintaining viable freshwater ecosystems. The study predicts that by 2050, 87 countries will be “water scarce”, with some 45 countries facing “absolute water scarcity”. Unless the issue of water access is resolved, sub-Saharan Africa will join the Middle East and North Africa region as the next hotspot of water scarcity, along with several countries in Asia.

REPORT
The Greater Mekong Subregion 2030 and Beyond
The Deputy Director of UNU-MERIT was a team leader for the preparation of this report, which addresses the critical challenges that the Greater Mekong Subregion (GMS) Economic Cooperation Program faces as it moves forward in a changing world confronted with a cutting-edge agenda for development. One major challenge relates to ensuring convergence in the region, given that significant economic differences now exist between GMS countries. The report focuses on the role of regional and global integration and economic upgrading as a means for development, the future of cities, and how new technologies associated with the Fourth Industrial Revolution can enhance human connectivity.

EVENT
Strengthening Aquaculture in Africa through Fish Disease Monitoring and Surveillance
In July, UNU-INRA co-organised this second session of a webinar series on development of the blue economy and sustainable aquaculture in Africa. Aquaculture and fisheries experts from four African countries shared their experience of fish disease surveillance at the national level, providing participants with an insight into disease surveillance and monitoring as a fisheries and aquaculture management tool. The event highlighted the importance of national surveillance programmes and proposed measures to develop comprehensive fish disease surveillance efforts at varying levels.

TRAINING
Human Mobility in the Context of Climate Change
This interactive e-learning course, created by UNU-EHS at the request of the German Society for International Cooperation (GIZ), focuses on enhancing knowledge and strengthening the capacities of policymakers and practitioners for handling migration and displacement in the context of climate change. The self-paced course covers the relationship between climate change and different forms of human mobility (including gendered roles in the process) and the different options for addressing and managing climate change-induced human movement.
**TRAINING**

**Water Learning Center**
In 2021, UNU-INWEH relaunched this key online learning platform, which provides university students and practicing water professionals with an opportunity to strengthen their capacity in several focused and multidisciplinary learning areas. The platform offers free courses in several formats, including formal course content and short courses for self-paced learning. Courses currently available include SDG Policy Support System, Global Water Security, Big Data Analysis for Water-related Applications, Water and Migration, Water and Health, Mangroves and Biodiversity, Unconventional Water Resources, and Integrated Water Resource Management.

**TRAINING**

**Global Leadership Training Programme in Africa**
This UNU-IAS initiative facilitates knowledge exchange between Japan and Africa to contribute towards solving sustainable development challenges on the African continent. In the context of the ongoing pandemic, in 2021 UNU-IAS redesigned the programme as an online intensive course in collaboration with New York University and the University of Johannesburg. The course, which covered fields such as health, education, environmental studies, human rights, law, technology, government, and civil society, benefited from the expertise of African scholars and practitioners from across the continent. Participants received certificates issued by UNU-IAS.

**RESEARCH PAPER**

**Beyond Opportunism: The UN Development System’s Response to the Triple Planetary Crisis**
Humanity faces an existential threat: the interlinked effects of climate change, biodiversity loss, and pollution — a “triple planetary crisis”. In March, UNDCO gathered United Nations Resident Coordinators (RCs) for a deep dive to assess the multidimensional impact of the nature-climate-pollution crisis and identify tools and mechanisms that United Nations Country Teams can use to tackle associated challenges. UNU-INRA and UNU-CPR were commissioned to supply an analysis, engage with RCs and United Nations experts to solicit best practices, and document the constraints experienced by RCs on the ground specifically in relation to this crisis. This report draws on that deep dive and in-depth interviews to provide that analysis, and offers 10 recommendations to support United Nations Country Teams in achieving transformative change.

**COLLABORATION**

The International Development Research Centre (IDRC) is an important donor of UNU-INRA research. In 2021, IDRC funded UNU-INRA’s work on stranded assets, which has informed IDRC programming, as well as a project on just transitions in the informal sector.
Equitable human development is not sustainable without peace, inclusion, and cooperation. The final two SDGs seek to build and sustain peaceful, just, and inclusive societies and governance frameworks in which all people work together for the common good. Projects within the UNU thematic cluster Peace and Security share the same vision.

**SDG 16 — Peace, Justice and Strong Institutions:** UNU research covers peacekeeping, the rule of law, and the effectiveness of judicial systems in the context of reducing violence, human trafficking, and exploitation. UNU projects on the changing nature of global violence, for example, provide insights into how humanitarian, development, and security actors must adapt to reduce violence and its impact on society and vulnerable populations.

**SDG 17 — Partnerships for the Goals:** UNU is an active partner with academia, international agencies, government ministries, civil society, and the private sector. With expertise in every area of the SDGs, UNU acts as a convener of development stakeholders. UNU research on sustainable development governance contributes to near-term SDG implementation and long-term policy frameworks for sustainability.

This section highlights some of UNU’s projects, publications, and activities from the past year that operated within the scope of these “institutional- and partnership-focused” SDGs.
PROJECT

Domestic Revenue Mobilisation

This UNU-WIDER initiative, funded by the Norwegian Ministry of Foreign Affairs, has multiple workstreams. In 2021, UNU-WIDER entered into collaboration frameworks with four sub-Saharan revenue authorities (Rwanda, Tanzania, Uganda, and Zambia), laying the foundations for policy solutions to increase tax compliance and domestic revenues in these countries. UNU-WIDER experts are working with national researchers and the revenue authorities to utilise administrative tax data to provide important insights in building up efficient and fair tax systems.

A series of policy engagements were also organised as part of the programme’s SOUTHMOD (tax-benefit microsimulation models for a Global South countries) workstream. The team in Mozambique, for example, developed a series of policy briefs for the Minister of Finance regarding the role of tax-benefit policies during the pandemic, while the team in Zambia gathered a range of high-level policymakers to discuss an assessment of the impact of that country’s social protection programmes. UNU-WIDER also partnered with the Uganda Revenue Authority (URA) and Ugandan Ministry of Finance to assess the impacts of the 2020 presumptive tax reform in Uganda utilising a microsimulation model. Based on the research results, URA developed a proposal to amend the presumptive tax rates.

Another project workstream focused on disseminating research findings. This included providing key expert input into five regional roundtables convened by the UN Deputy Secretary-General and hosted by the Regional Economic Commissions on how the United Nations can ensure that extractives are used as an engine for sustainable development. A sixth roundtable convened by the UN Secretary-General drew on this testimony in the lead-up to COP26, ensuring that UNU-WIDER research played an important part in shaping both the debates and outcomes.

PROJECT

Managing Exits from Armed Conflict (MEAC) Initiative

How and why do individuals exit armed groups? How do they do so sustainably, without falling back into cycles of conflict? The UNU-CPR MEAC initiative is a large, multi-stakeholder project involving Member States, United Nations agencies, and local implementing partners in the Global South that seeks to answer these questions.

As well as considering how and why individuals exit armed groups, the research assesses the effectiveness of United Nations’ interventions aimed at supporting them back into civilian life, with the aim of informing better programming on the ground. The MEAC initiative has successfully established a common assessment framework across agencies working in this area, and has begun releasing a series of “Findings Reports” based on in-depth case studies. Ten such reports were released in 2021, with more reports as well as two larger policy papers planned.

The MEAC initiative exemplifies a “One UN” approach around data for monitoring and evaluation, and can serve as a model for effectual data integration across the United Nations system. MEAC researchers were invited to give several high-level briefings, including to Security Council members in October ahead of the Council’s deliberations on renewal of the Colombian verification mission. The team has produced an array of publications on such topics as community reintegration of ex-combatants and associates, sexual violence in conflict, and how climate change is fuelling recruitment into armed groups in Nigeria.
PROJECT

UNU SDG-Universities Platform
Established by UNU-IAS, the UNU SDG-Universities Platform (UNU SDG-UP) mobilises the efforts of more than 30 Japanese universities towards achieving the SDGs. By engaging Japanese universities to collaborate and exchange dialogue on opportunities and challenges in promoting the SDGs, UNU SDG-UP contributes to sustainable development in Japan and throughout the world. Project activities focus on transforming the behaviour of stakeholders involved in the higher education sector, thereby contributing towards achieving a more resilient society and supporting individuals to take actions.

Eleven SDG-UP workshops were organised in 2021, wherein member institutions and other partners exchanged good practices and expanded collaboration. The project has helped members to redefine the role of universities in the context of the 2030 Agenda for Sustainable Development, and produced a set of policy recommendations for promoting transformational change in universities to build a more sustainable society. One outgrowth of the SDG-UP project was the appointment of UNU-IAS (in its capacity as SDG–UP Chair) to the International Advisory Board of the Times Higher Education Impact Rankings.

EVENT

Nature Speaks
UNU-INRA co-convened (with the Brookings Institution) three sessions of its Nature Speaks webinar series. The first, in June, looked at the role of an African-European partnership in bolstering Africa’s green transitions, and launched a discussion paper and a briefing note. The second, in July, discussed the political economy of “just transitions” in the context of local realities, including such controversial issues such as the use of gas as a bridging fuel. The third, in September, considered opportunities for green trade in the context of the African Continental Free Trade Area and the role of AU-EU partnership.

TRAINING

Doctoral School on Latin American, European and Comparative Regionalism
This training opportunity for doctoral students and early-career researchers, comprising lectures and tutorials by leading global experts, explored the dynamic realm of regionalism, covering a range of topics including healthcare, trade, digitisation, and politics. The bilingual (English & Spanish), week-long online session was co-organised by UNU-CRIS and Universidad Andina Simón Bolívar Sede.

COLLABORATION

UNU-MERIT works closely with the European Commission and its Directorate Generals on various research activities, including the European Innovation Scoreboard, the Community Innovation Survey, and other more-focused studies. Other UNU-MERIT projects receive funding through the European Union’s Horizon Europe programme; recent examples include projects to encourage inclusive labour markets; develop policies to improve growth in the EU; promote alternative migration governance models; and examine regional research and innovation governance systems.
**PROJECT**

**Regional Integration Knowledge System (RIKS)**

In late 2020, UNU-CRIS reimagined, redesigned, and relaunched the online RIKS platform. RIKS 2.0 is a web-based information and learning platform that serves as a central node for information exchange on regional integration processes worldwide; it constitutes a “missing link” between other regional initiatives to provide information on regional integration and cooperation. RIKS 2.0 provides public access to detailed membership information regarding regional organisations around the world, tracks changes in the level of integration of these organisations, and visualises how membership of regional organisations has evolved over time. Users can access a variety of indicators that track the level of integration between the member countries as well as information on research and educational resources about regional integration processes around the world. In 2021, the RIKS platform was used by a range of international organisations in their research and policymaking activities. Demonstrations were also provided to diplomats via the School of Modern Diplomacy and bespoke arrangements.

**PROJECT**

**School of Modern Diplomacy**

In today’s turbulent and complex world, there is a great need for diplomats who are generalists at their core and are able to understand the many different areas in which they are expected to represent their governments. The UNU-CRIS School of Modern Diplomacy brings together diplomats from different trajectories and stages in their professional careers, including those with first-hand experience in the field, and experts in such fields as digital diplomacy, economic diplomacy, and public diplomacy. In 2021, 37 participants from six continents attended a two-week online interactive session, where they were able to learn from expert speakers and share their own experiences. Twice-yearly alumni sessions are held for previous participants for follow-up learning.

**REPORT**

**Rule of Law and Sustaining Peace**

How has the UN’s “rule of law” support contributed to lowering the risks of violent conflict? This UNU-CPR research report, published in October, explores this question. Commissioned by the Executive Office of the Secretary-General and the Global Focal Point for the Rule of Law co-chairs, the report explores evidence of impact across different United Nations rule of law interventions, and proposes a pragmatic framework of nine distinct steps for rule of law programming for use by policymakers and practitioners.

The report is based on eight in-depth country case studies conducted by UNU-CPR in close consultation with relevant United Nations peace operations, agencies, and field offices. The study considers the range of ways in which the UN’s rule of law work may have contributed to more impactful and effective conflict prevention, such as by supporting political processes, building inclusive national capacities, restoring the basic functioning of justice institutions in the aftermath of conflict, contributing to the fight against impunity for crimes that fuelled conflicts, and supporting humanitarian and development priorities.
PROJECT

**Development of National Strategies for Digital Governance in Africa**

Digital governance is emerging as a concrete instrument for more effective and rationalised public administration, more transparent and accountable public institutions, and for amplifying civil society voices. Through this project, UNU-EGOV was deeply involved in the development of National Strategies for Digital Governance for two Portuguese-speaking countries in Africa: Cabo Verde and São Tomé and Principe.

These digital governance strategies are intended (i) to foster long-term economic development in Cabo Verde by promoting the country as a digital hub in the region, and (ii) to ensure social inclusion in São Tomé and Principe through user-friendly governmental digital services and stronger institutions to protect citizens in various sectors of state activity. Follow-up projects, which will involve UNU-EGOV, range from (i) the design of a national action plan for implementing the strategy in Cabo Verde to (ii) digitisation of the justice system and development of an interoperability platform in São Tomé and Principe.

BOOK

**Taxation, International Cooperation, and the 2030 Sustainable Development Agenda**

This open access UNU-CRIS book addresses the link between international taxation, the 2030 Agenda for Sustainable Development, and the medium-term revenue strategy concept. It analyses how countries and governments can reinforce this link in current and future initiatives in international taxation. In particular, it discusses the SDGs that are relevant for taxation, and assesses the current work being done by international organisations, regional tax organisations, and countries to help achieve these Goals.

GUIDEBOOK

**Deals and Development in Fragile and Conflict-affected States**

When investing in countries where the state is weak, development finance institutions and aid agencies must navigate through a mine field of corruption, cronyism, and dubious monopolies. This UNU-WIDER policy guidebook is designed to help advisers working with development agencies analyse country context and design interventions with the goal of achieving inclusive economic growth in fragile and conflict-affected states. Along with each of the framework’s component variables, the guidebook offers tools for further contextualisation, key questions to ask, and examples from fragile contexts, and explores possible interventions and risks.

COLLABORATION

UNU-WIDER’s four-year project Southern Africa — Towards Inclusive Economic Development, whose first phase concluded in 2021, was largely funded by the National Treasury of the Republic of South Africa. Research undertaken in the project improved the research-policymaking interface, supported policy formulation to address key challenges (including the COVID-19 pandemic) and promote inclusive development in the southern Africa region, and provided tailored support to the policy environment. In 2022, the project will embark on a second phase.
POLICY BRIEF

Accelerating 2030 Agenda Integration: Aligning National Development Plans with the SDGs

This UNU-IAS policy brief presents findings and recommendations on aligning national development plans with the SDGs. It identifies how the SDGs can be harnessed in national planning to mainstream sustainable development principles and accelerate localisation of the 2030 Agenda by drawing on an analysis of national planning in six countries in Asia, the Pacific, East Africa, and the Middle East. The brief asserts that to accelerate localisation of the SDGs, national planning must be aligned with the goals through improving the policymaking process, removing systemic barriers, and engaging diverse stakeholders to innovate and sustain change. It concludes with several recommendations for policymakers and practitioners.

REPORT

Government Digital Services and Children

Digital services have the potential to improve service relevance and accessibility for children. However, there is little systematic understanding of what types of services are available or of the enabling factors that provide effective child rights support. This report presents the results of case study research in five countries by UNU-EGOV in cooperation with UNICEF. It highlights that while e-government practices and systems are progressing, much still needs to be done to ensure accessibility and integrity regarding children and their data. The report recommends a set of mechanisms to support the digital transformation of services that promote the needs and rights of children.

ARTICLE

“SDGs Mainstreaming at the Local Level: Case Studies from Japan”

This open access article, co-authored by UNU-IAS researchers and others, was published in the journal Sustainability Science. It identifies approaches for supporting local governments in successfully mainstreaming the 2030 Agenda and the SDGs, and provides an analytical framework that encompasses key components for local-level mainstreaming of the SDGs. The article highlights the key components required for such mainstreaming, introduces perspectives derived from case studies in Japan, and offers several suggestions that could facilitate local governments’ efforts.

POLICY BRIEF

Examining the NGO—Migrant Domestic Worker Relationship in Hong Kong to Map Opportunities for Technology Interventions

This UNU Macau policy brief explores how civil society organisations in Hong Kong use information and communication technologies to support migrant domestic workers (MDWs). It identifies critical patterns of access and technology use for MDWs in Hong Kong, and advocates for a preventative (rather than remediation-focused) approach to combatting forced labour in Hong Kong’s MDW sector. Through defining the relationship between Hong Kong’s NGOs and MDWs, the policy brief offers four concrete recommendations by which technology can intervene in combatting forced labour for MDWs.
ARTICLE
“A Step Forward for Palermo’s Trafficking Protocol, This Time Integrating Frontier Technology”
This article, co-authored by two UNU Macau researchers and published by the Yale Journal of International Affairs, looks at the Palermo Protocols, which were adopted two decades ago by the UN General Assembly to help stop transnational and organised crime, and the impact of new technologies for keeping people safe. The article examines how governments and companies can use frontier technologies (such as expert systems and blockchain transactions) as tools to combat the roots of human trafficking by identifying its hotspots, patterns, and factors that exacerbate vulnerabilities.

EVENT
LDC Future Forum
UNU-WIDER partnered with UN-OHRLLS to organise the first ever Least Developed Countries (LDC) Future Forum in October in Helsinki. To tackle the unprecedented confluence of the COVID-19, climate, and economic crises, innovative thinking and new research-based solutions are desperately needed. The LDC Future Forum brought together the academic community and practitioners, including many ambassadors of LDC countries to the United Nations and national policymakers, to solicit new thinking on the challenges and develop policy recommendations for LDCs for the next decade.

POLICY BRIEF
Building Forward Better Towards Africa’s Green Transformation
This UNU-INRA policy brief stresses that Africa must not be left exposed to the consequences of climate change and externalities that it did not create, and cannot solely bear the costs of a green recovery. The brief offers seven policy recommendations to ensure that a sustainable green transition for Africa can be built on five pillars — decarbonisation, diversification, decentralisation, democratisation, and digitalisation — and anchored in a just and equitable transition that is designed, managed, and owned by Africans.

REPORT
Governing Uncertainty
UNU-CPR was commissioned by the UK Ministry of Defence’s Development, Concepts and Doctrine Centre to survey major trends that will shape the future of global governance over the next three decades. This report not only maps trends in society, politics, technology, security, and the environment, but considers how the interplay across these sectors will impact traditional and new development actors in their efforts to deliver a transformative development agenda centred on social inclusion, shared prosperity, safety, and environmental sustainability. The study found that many chronic core societal risks — inequality, debt, mistrust, environmental deterioration, technological change, and the growing role of non-State actors — persist today, and have grown in importance since the outbreak of COVID-19. The report formulates ten assumptions about the future, and based on these explores three long-term pathways and extrapolates possible future scenarios based on three cross-cutting trends (technological change, environmental change, and demographic change/human mobility) and three megatrends (loss of trust in institutions, increasing judicialisation of governance, and growing stakeholder activism).
UNU Responds to an Emergent Global Crisis

“The coronavirus disease (COVID-19) pandemic has been a challenge like no other since the Second World War, revealing our shared vulnerability and interconnectedness. It has exposed human rights concerns and exacerbated deep fragilities and inequalities in our societies.”

Our Common Agenda — Report of the Secretary-General, p. 12

UNU’s ability to quickly pivot its research efforts to address emerging issues was clearly shown in the context of the global COVID-19 pandemic. Beyond the individual health risk posed by the virus, the pandemic and the measures mandated to mitigate its severity exacerbated or triggered a multitude of social, economic, and human rights challenges; laid bare many deep vulnerabilities and economic and political inequalities; exposed the limitations of our institutional frameworks and political processes; and emphasised the important roles that non-State actors can and must play in finding and applying solutions.

Governmental and public reaction to the pandemic underscored the importance of multi-stakeholder cooperation that is guided and supported by scientific research and evidence-based, pragmatic advice. This is where UNU, with its capacity to quickly refocus its work to respond to emergent crises, excels.

Nearly all UNU institutes quickly reorientated or supplemented their research to explore the multitude of inter-related issues raised by the COVID-19 pandemic. Some examples from 2021 include:

- In addition to completing a project on COVID-19 and Humanitarian Access, UNU-CPR organised a UN High-Level Political Forum side event on “The Role of Sustainable Finance to End Modern Slavery and Human Trafficking” in the context of recovering from the pandemic.
- UNU-CRIS was commissioned by UNDP to draft a research paper on the role of multilateral partnerships for building beyond post-COVID recovery in Latin America and the Caribbean. The institute also published policy briefs on such topics as re-launching Latin American integration after the pandemic; healthcare in Africa in the post-COVID world; and the role of regional collective action in addressing the current and future pandemics.
- UNU-EHS concluded a nine-month research project to analyse the systemic and cascading risks that put vulnerable communities, sectors, and systems more at risk, and develop policy recommendations to help governments better prepare for and manage such risks.
- UNU-FLORES launched a project in the Republic of Korea focusing on post-COVID-19 plastic waste management.
- UNU-IAS co-published (with United Cities and Local Governments Asia-Pacific) a report on SDG-related challenges and opportunities facing subnational governments during the global pandemic, and produced a policy brief with recommendations on aligning national development plans with the SDGs.
- UNU-IIGH participated in and reviewed the Independent Panel on Pandemic Preparedness and Response; contributed to background documents for the High-Level Independent Panel on Financing the Global Commons for Pandemic Preparedness and Response; and co-chaired the Think20 Taskforce on Global Health and COVID-19. The institute also published a report in The Lancet on whether the pandemic might be a turning point for gender equality.
- The Gender and Health Hub, coordinated by UNU-IIGH, supported the development of gendered pandemic and health emergency responses, including co-drafting a guidance note and checklist of key actions to help countries prioritise their deployment of COVID-19 vaccines.
• Much of the work of UNU-INRA was framed by the COVID-19 context. This included a multi-country analysis of the pandemic’s impact on the food and energy sectors; research on how the pandemic is affecting the challenge of stranded assets; and identification of regional differentiation issues in a range of sectors that are affecting COVID-19 recovery in Africa.
• UNU-INWEH researchers published several op-eds, on topics such as how wastewater collection could contribute to COVID-19 detection in the Global South, and the essential role of water for survival in the pandemic.
• UNU Macau researchers investigated data marginalisation in COVID-19 data monitoring systems.
• UNU-MERIT worked with the UN World Food Programme to design and evaluate an emergency cash transfer programme that was implemented by WFP to support vulnerable populations in Kenya whose livelihoods were disrupted by pandemic restrictions.
• The UNU-ViE-hosted SCYCLE Programme published a report on the impact of the pandemic on e-waste production and collection.
• The topic of the 2021 WIDER Development Conference was “COVID-19 and Development — Effects and New Realities for the Global South”. UNU-WIDER also published 19 working papers, 5 policy briefs, and 3 technical notes that focused on various aspects of the impact of COVID-19.

Further descriptions of these and other pandemic-related UNU projects and publications can be found elsewhere in this report. For additional information, see the COVID-19 Response page on the UNU website.
Knowledge-sharing & Engagement
Delivering Evidence-based Knowledge to Those Who Need It

UNU provides relevant, evidence-based knowledge to those who can utilise it — practitioners, policymakers, academics, affected populations, and the general public — in a timely manner and in a useful form. The University does this through five main channels: publications, events, training opportunities, briefings, and mass media/online outreach.

Publications
UNU disseminates its work through a wide variety of self-published document types, such as reports, policy briefs, and working/discussion papers. Additionally, UNU researchers edit or write books, contribute chapters to edited volumes, and publish articles in peer-reviewed journals, magazines, and newspapers. More than 7,300 publications deriving from UNU research are accessible online through Collections at UNU, including more than 270 that were published in 2021. Other UNU publications can be downloaded from the websites of the institutes that prepared them or from the external partners that published them.

In 2021, UNU researchers contributed to 25 books and wrote or co-wrote 126 articles in scientific journals, 298 working/discussion papers, 127 research/technical documents, and 94 policy papers (reports and briefs). Several of these UNU publications are highlighted elsewhere in this report.

Events
Events, whether organised as in-person gatherings or held online, help to extend the impact and the reach of UNU research. Many UNU events are open to the public while others target specialised audiences.

Despite the constraints posed by the continuing pandemic, in 2021 UNU successfully organised or co-organised more than 550 public events, including 84 conferences/symposiums, 285 seminars/workshops, and 64 lectures. Selected events are highlighted elsewhere in this report.

Postgraduate education & specialised training
UNU offers six postgraduate degree programmes. Three of these confer a Master of Science (MSc) degree and three award a PhD degree:

• MSc in Geography of Environmental Risks and Human Security (Bonn, UNU-EHS & University of Bonn)
• MSc in Public Policy and Human Development (Maastricht, UNU-MERIT & Maastricht University)
• MSc in Sustainability (Tokyo, UNU-IAS)
• PhD in Integrated Management of Water, Soil, and Waste (Dresden, UNU-FLORES & Technische Universität Dresden)
• PhD in Innovation, Economics and Governance for Development (Maastricht, UNU-MERIT)
• PhD in Sustainability Science (Tokyo, UNU-IAS)

In 2021, 315 students (225 master’s degree candidates and 90 doctoral degree candidates) were enrolled in these programmes; 38% were developing country nationals and 57% were female. During the year, 36 MSc degree candidates and 17 PhD degree candidates graduated.
UNU also organises dozens of specialised non-degree training opportunities each year; these range from single-day workshops to multi-week courses on topics covering the gamut of UNU’s thematic areas of focus. In 2021, UNU organised or co-organised 155 such training opportunities (125 of them held entirely online) that were attended by more than 12,300 students of whom more than 60% were from developing countries.

Complementing these formal study programmes and courses, many institutes provide research-based training opportunities wherein young scholars and researchers can enhance their skills and knowledge by collaborating with or working alongside UNU personnel.

**Briefings & presentations**
UNU experts are regularly asked to give briefings at high-level forums and for inter-agency bodies or to make presentations to policy- and decision-makers, government officials, and key stakeholders. In 2021, UNU-CPR briefed, inter alia, members of the United Nations Security Council, European Union officials, agency principals of the UN Sustainable Development Group, Special Envoys and Special Representatives of the Secretary-General, and US State Department and Treasury Department officials.

**Mass media coverage and online outreach**
To increase the University’s visibility, raise awareness about its work, and generate public engagement, UNU utilises traditional media outlets as well as outreach via the internet, social media platforms, and a monthly email newsletter.

**Mass media** — In 2021, more than 16,500 articles about UNU and its research were published worldwide, primarily in English (57%), Japanese (18%), Portuguese (5%), German (5%), Spanish (4%), and Chinese (3%). Coverage was mainly by online news sites (59%), blogs (28%), forums (5%), newspapers (4%), and magazines (2%), and mainly by outlets based in the USA (29%), Japan (18%), Germany (5%), India (4%), Brazil (4%), the UK (4%), China (3%), and Australia (3%).

**Internet** — During the year, UNU’s websites received more than 5.9 million pageviews. The most visited were the global UNU system website (unu.edu) with more than 1.85 million pageviews and UNU’s Our World research commentary website (ourworld.unu.edu) with some 1.17 million pageviews.

**Social media** — As of year-end, UNU had more than 141,000 Facebook followers and 168,000 Twitter followers. During the year, more than 65,700 tweets and 3,200 Facebook messages mentioned UNU — primarily in English (81%) and Japanese (15%).

**Email** — INSIGHTS, UNU’s email newsletter (monthly in English, quarterly in Japanese), was sent to more than 35,000 subscribers.
UNU is mandated by its Charter to support “the continuing growth of vigorous academic and scientific communities ... particularly in the developing countries”, and to help developing country researchers and academics gain access global knowledge circuits and policy processes.

Three UNU institutes are located in the Global South (in Ghana, Malaysia, and Venezuela), and the UNU institutes in the Global North specifically consider how their work can contribute to strengthening the academic and scientific capacities of developing countries. This includes undertaking research that focuses on the needs and concerns of the developing countries; collaborating with governments, research institutions, and individual researchers and scholars based in the Global South; employing developing country nationals; and giving students from the Global South opportunities to enrol in UNU postgraduate programmes or access specialised training.

Among the work by UNU institutes in 2021 that contributed to capacity development and supporting local researchers and academics in the Global South were the following:

- **UNU-BIOLAC** continued to collaborate with local universities and research institutes to develop targeted, high-level technical education programmes.

- **UNU-CRIS** held its annual Doctoral School on Latin American, European and Comparative Regionalism for early career researchers; co-organised an Online Summer School on Comparative Regionalism in a Changing World Order, which was attended primarily by students from developing countries; co-organised a School of Modern Diplomacy, with almost half of participants from developing countries; and hosted the International Thematic Network on Climate-Migration-Health.

- **UNU-EGOV** advised the Georgian Parliament on approaches to ensure internet-based universal access to government services by persons with disabilities, and worked with government partners to finalise the national Digital Transformation Strategy of Georgia (2021–2025). UNU-EGOV also works with Global South universities on research and advisory projects developed in national contexts; in 2021, this included:
  - a project partnership on Development of a Strategy to Enhance and Sustain the ICT Function in the Government of Uganda, aimed at strengthening the capacities of the central government and local authorities
  - a collaboration with three Portuguese partners to design a new master’s degree programme in digital transformation in public and private sectors (to be offered at the University of Santiago in Cape Verde)

- **UNU-EHS** projects and activities take place in and focus on the Global South, and are co-developed and implemented with local partners. Recent examples include:
  - the multi-partner Climate Risk Insurance Research Collaboration, set up to facilitate inter-regional, South-South learning and research on the socio-economic and regulatory needs and demands for disaster risk finance
  - the Adaptive Social Protection project, which is developing a strategy outlining how social protection, disaster risk management, and climate change adaptation can be integrated
  - the Implementing Climate-sensitive Adaptation Strategies to Reduce Flood Risk project, aimed at reducing flood risk in a transboundary river catchment in Togo and Benin

- **UNU-IAS** helped to strengthen capacities in the Global South through collaborative research and policy engagement, education, and training.
  - The Mayors Academy for Sustainable Urban Development is a network of Asia-Pacific mayors

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**Knowledge-sharing & Engagement**

**Engaging with the Global South**

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developed by UNU-IAS in collaboration with UN-ESCAP and UN-HABITAT.

— The Satoyama Development Mechanism, an initiative of the International Partnership for the Satoyama Initiative (for which UNU-IAS serves as the Secretariat) implemented six projects in developing countries in 2021.

— The Regional Centres of Expertise on Education for Sustainable Development network facilitates multi-stakeholder collaboration at the local level.

• **UNU-IIGH** launched the Regional Training Centre for implementation research in the Western Pacific. Funded by the WHO Special Programme for Research and Training in Tropical Diseases, and established through a consortium coordinated by UNU-IIGH, the Centre serves as a regional resource hub for leveraging Malaysia’s growing global health expertise and strengthening the pipeline of newly graduating public health professionals throughout the Western Pacific region. UNU-IIGH also expanded its engagement with four academic institutions and civil society organisations in the Global South.

• Engagement with the Global South (the African continent in particular) is the essence of **UNU-INRA**’s mandate. The institute was instrumental in identifying some of the regional differentiation issues of COVID-19 recovery that will enable or disable the transition to low-carbon development. UNU-INRA helps African governments address key risks and promote endogenous solutions to the continent’s natural resources-based challenges. The institute maintains operating units in five African countries and supports a pan-Africa College of Research Associates.

• **UNU-INWEH** works exclusively for the Global South. All UNU-INWEH outputs — replicable tools, concepts, datasets, syntheses, and analyses — are developed with a view of supporting the countries of the Global South in their journey to sustainable development. UNU-INWEH co-developed a series of tools to assist with flood mapping and African water security analysis, as well as a Policy Support System for SDG 6, with the partners from the Global South.

• **UNU Macau**, in cooperation with the University of Macau, provides training on digital technologies for SDGs to young people residing in China.

• **UNU-MERIT** is a member of the UN Interagency Task Team Workstream 6 on Capacity Building in Science, Technology and Innovation for the SDGs, which has responsibility for designing and delivering training courses and workshops, particularly for developing countries. UNU-MERIT has long been offering an intensive programme on the Design and Evaluation of Innovation Policies that targets government officials, persons from technology-supporting institutions, and the private sector actors; courses are planned jointly with host organisations in developing countries, thus allowing for tailor-made training opportunities. Many of the educational programmes of UNU-MERIT also are targeted at students from the Global South; more than two-thirds of the students in its PhD Programme on Innovation, Economics and Governance for Development, for example, are developing country nationals.

• The **UNU-ViE** project Global Cooperation for Climate Action: Southern Engagement with Climate Negotiations and Commitments (2020-2023) seeks to strengthen the skills, capacity, and engagement of young (particularly women) leaders in two countries in Latin America and four countries in Africa in alignment with the Paris Agreement “ambition cycle”.

• A core aim of **UNU-WIDER** is to support the broadening and diversification of voices and perspectives in development research. Efforts include training opportunities, visiting PhD fellowships, and institutional collaborations. A core component is prioritising and mainstreaming the involvement of researchers based in the Global South (in particular, early career and female researchers) in UNU-WIDER research projects. More than half of all researchers contracted by UNU-WIDER to provide academic input in 2021 were from the Global South. A strong institutional engagement with the academic and scientific communities in the Global South is also reflected in UNU-WIDER’s in-depth country work (Mozambique, Tanzania, and South Africa); in 2021, UNU-WIDER research staff based in these countries worked with local communities.

As of 31 December 2021, 41% of UNU personnel were developing country nationals, as were 38% of the students enrolled in UNU’s six postgraduate degree programmes during the year, (26% of students pursuing an MSc degree and 67% of PhD students). A significant number of these students received financial support through UNU fellowships and scholarships.
The UNU System: A Global Overview

Structure & Activities

UNU operates as a network of institutes located in 12 countries, each of which has a specific focus as mandated by its statute and host country agreement. The global UNU system is coordinated by UNU Centre, which comprises a headquarters unit in Japan (UNU-Centre – Tokyo), the UNU Vice-Rectorate in Europe in Germany (UNU-ViE, Bonn), and an administrative services unit in Malaysia (UNU-Centre — Putrajaya).

UNU-BIOLAC — The UNU Biotechnology Programme for Latin America and the Caribbean (Caracas, Venezuela) promotes the use of biotechnology for sustainable development, and supports the scientific growth of the region through capacity-building activities in partnership with academic institutions specialised in biotechnology.

UNU-CPR — The UNU Centre for Policy Research (New York, NY, USA) generates innovative solutions to global public policy challenges, contributes to policy debates at the United Nations, and serves as a hub for multilateral policy innovation. UNU-CPR represents the UNU system at United Nations headquarters.

UNU-CRIS — The UNU Institute on Comparative Regional Integration Studies (Bruges, Belgium) focuses on intra- and inter-regional integration; the management of global and regional public goods; and issues of multi-level (supra- and sub-national) governance.

UNU-EGOV — The UNU Operating Unit on Policy-Driven Electronic Governance (Guimarães, Portugal) works at the intersection of governance, digital technologies, and development to support the building of effective governance capabilities.

UNU-EHS — The UNU Institute for Environment and Human Security (Bonn, Germany) focuses on environmentally driven vulnerability and the interplay between ecological and societal risk factors, with the aim of shaping scientific and policy-oriented debates on transformations towards sustainability.

UNU-FLORES — The UNU Institute for Integrated Management of Material Fluxes and of Resources (Dresden, Germany) develops strategies to resolve pressing issues in the sustainable use and integrated management of environmental resources such as water, soil, waste, and energy.

UNU-IAS — The UNU Institute for the Advanced Study of Sustainability (Tokyo, Japan) advances efforts to achieve a more sustainable future, with a focus on governance for sustainable development, biodiversity and society, water and resources management, and education and innovation.

UNU-IIGH — The UNU International Institute for Global Health (Kuala Lumpur, Malaysia) builds global health knowledge and decision-making capacity and advances evidence-based policy on key health issues, with a focus on gender mainstreaming in health systems and supporting decision-makers in the Global South.

1 In this document, the term “institutes” encompasses the global UNU system’s 14 research and academic units, not just those that contain “institute” as part of their name.
UNU-INRA — The UNU Institute for Natural Resources in Africa (Accra, Ghana) provides cutting-edge knowledge about sustainable responses to Africa’s natural resources management challenges, with the aim of advancing the continent’s growth and transformational development agenda.

UNU-INWEH — The UNU Institute for Water, Environment and Health (Hamilton, ON, Canada) analyses and synthesizes existing knowledge on a range of water challenges, identifies emerging policy issues related to water security, and develops scalable solutions.

UNU Macau — The UNU Institute in Macau (Macau, SAR, China) conducts policy-relevant research at the intersection of information and communications technologies, and international development, with a focus on the challenges that developing societies face from high-impact ICT innovations.

UNU-MERIT — The UNU Maastricht Economic and Social Research Institute on Innovation and Technology (Maastricht, Netherlands) explores the social, political, and economic factors that drive technological innovation, with a particular focus on the creation and diffusion of, and access to, knowledge.

UNU-ViE SCYCLE — The focus of the Sustainable Cycles Programme (hosted by UNU-ViE; Bonn, Germany) is on the sustainable production, use, and disposal of electrical and electronic equipment (e-waste).

UNU-WIDER — The UNU World Institute for Development Economics Research (Helsinki, Finland) provides economic analysis and policy advice that promotes sustainable and equitable development for all. Its current focus is on the interlinked development challenges of transforming economies, states, and societies, with an emphasis on research-into-use processes.

2 The SCYCLE Programme and its predecessors, the zero emissions initiative and Zero Emission Forum, have been affiliated with UNU since 1994. Over the past two years, however, SCYCLE has been undergoing a transition and, from January 2022, will become part of the UN Institute for Training and Research (UNITAR).
A Brief History of the Sustainable Cycles Programme

For more than a decade, UNU hosted the Sustainable Cycles (SCYCLE) Programme. On 31 December, that highly successful affiliation came to an end when, based on an agreement signed in 2019 by UNU and the United Nations Institute for Training and Research (UNITAR), the SCYCLE Programme became a part of UNITAR. From 2022, the SCYCLE Programme will operate as a unit of the UNITAR Division for Planet, hosted by the UNITAR Bonn office.

This move marked the end of a 27-year journey that began in 1994, when UNU launched a Tokyo-based initiative to conduct research on value-added uses for waste materials that could contribute both to sustainable economic growth and to environment preservation. In 1999 that initiative was formally organised into the UNU Zero Emissions Forum (UNU-ZEF), with offices in Japan and Germany. In 2010, having achieved its primary goal of seeing the zero emissions concept adopted by industry and governments worldwide, the UNU-ZEF office in Bonn was rebranded as SCYCLE, which initially functioned as an operating unit and then, in 2016, transitioned to a full-fledged programme hosted by the UNU Vice-Rectorate in Europe.

The mission of SCYCLE is to conduct and share comprehensive and practical research aimed at helping societies to reduce the environmental damage caused by the production, use, and disposal of waste, and particularly of discarded electrical and electronic equipment (e-waste). The SCYCLE Programme has grown to become the global leader in e-waste monitoring and training. Because of the Programme’s heavy focus on data gathering, training, and technical assistance, it was decided that integration into UNITAR (which has a strong capacity-building focus) would offer more opportunity for the programme’s future growth.

The gradual transition of SCYCLE from UNU to UNITAR, therefore, was launched in September 2019 and completed at the end of December 2021. As part of UNITAR, the SCYCLE Programme will continue to focus on the development of sustainable production, consumption, and disposal patterns for electrical and electronic equipment as well as for related goods such as batteries and plastics. The goal is to help societies to reduce the environmental load of producing and disposing of e-waste and related goods to sustainable levels.

By fostering solutions-oriented dialogue, cooperation, and consensus, SCYCLE:

• conducts research on eco-structuring to create sustainable societies
• develops interdisciplinary, multi-stakeholder public-private partnerships
• assists governments in developing e-waste legislation and standards
• offers education and training opportunities, and assists with capacity development
• facilitates and disseminates practical, science-based recommendations to the United Nations system, governments, scholars, industries, and the public

From 2007 to 2018, UNU’s SCYCLE Programme led the Solving the E-waste Problem (StEP) Initiative — an independent, multi-stakeholder platform that strongly supports strategic approaches towards sustainability, such as circular economy and zero waste/emissions. Under this leadership, StEP became a global trailblazer in pushing governments, companies, researchers, and civil society to prioritise addressing the quickly growing e-waste challenge.

Today, SCYCLE is the recognised leader of global e-waste discussions and training, and of advancing sustainable e-waste management strategies based on lifecycle and circular thinking. SCYCLE’s E-waste Academies have become go-to training opportunities for representatives of governments, companies, and science, mobilising strengthened global cooperation. Worldwide writing, commenting, and campaigning around waste electrical and electronic equipment is rarely taken on without incorporating SCYCLE’s data and expertise. The work of the SCYCLE Programme also has contributed to multiple legislation and standards. And by looking into the why (not just the hows) of the issue, SCYCLE’s work on environmental and waste crime is assisting further research to sustainably solve transnational shipment issues.

Flagship SCYCLE publications over the years have included three Global E-waste Monitors (2014, 2017, and 2020) that explain how the e-waste challenge fits into international efforts to achieve the SDGs, a series of Regional E-waste Monitors that analyse in greater depth the e-waste situation in specific global regions, and a number of National E-waste Monitors that provide a high level of detail for the e-waste situation in selected countries. SCYCLE’s E-waste Statistics Guidelines on classification reporting and indicators, meanwhile, are helping to improving comparability of data between countries.

UNU would like to thank the SCYCLE team and its Director for the Programme’s achievements while part of UNU, and wishes the SCYCLE Programme further success at its new home at UNITAR.
Human & Financial Resources

Personnel
UNU is an inclusive employer, committed to ensuring that its workplace culture is tolerant of cultural, racial, sexual, and other differences; is gender balanced; supports the meaningful participation of persons with disabilities; and is free from all forms of discrimination, harassment, and abuse.

The global UNU system comprises a diverse group of personnel possessing broad and in-depth expertise. The University’s personnel include a combination of:
• Professional (P-1 level and higher) and General Service (GS) staff, who are appointed in accordance with United Nations Staff Regulations and Rules
• visiting scholars, research associates, postdoctoral fellows, and administrative and academic services personnel, who are employed on UNU Personnel Service Agreements (PSAs)
• external specialists, experts, and services personnel, who are employed on part-time or limited-term UNU Consultant Contracts (CTCs)

As of year-end 2021, the global UNU system had a personnel complement of 811, of whom 55% were women and 41% were developing country nationals. UNU personnel comprised 78 individuals in the Professional category, 60 staff in the General Service category, and 673 persons hired as contractors (PSA and CTC).

UNU Postgraduate Students

- 225 MSc
- 315 PhD
- 38% from Developing Countries
- 57% Women

Non-degree Training Programmes and Activities

- 14 Long-term (>2 months)
- 136 Short-term (<2 months)
- 74% from Developing Countries
- 83% conducted entirely online
- >12,300 Participants*

*Gender and nationality data for all students not available in 2021.

Research Fellows

- 123
- 78% from Developing Countries
- 60% Women

Interns

- 112
- 54% from Developing Countries
- 62% Women
Finances
UNU receives no funds from the regular United Nations budget. The operation and work of the University is funded entirely through voluntary contributions in the form of institutional funding (primarily recurring host country contributions and investment income derived from the UNU Endowment Fund) and contributions (from United Nations Member States, foundations, agencies, international organisations, and other sources) generally designated for specific research projects or activities. The contributions received by UNU in calendar year 2021 amounted to more than US$40.1 million: US$31.8 million from 18 governments and US$8.3 million from 94 other contributors.

The approved UNU budget for the 2020–2021 biennium was US$112.0 million: US$51.5 million allocated to academic programme and specific project costs, US$42.6 million for staffing and personnel costs, and US$17.8 million for general expenses.

Despite the challenges of the COVID-19 pandemic, UNU was able to build on its fundraising success and secure several large-scale projects, demonstrating ongoing demand for UNU’s research expertise. The projected budget for the 2022–2023 biennium is US$124.8 million (a 10.9% increase over the 2020–2021 biennium).
Contributions Received by UNU in 2021

1 January — 31 December 2021

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<tr>
<th>MEMBER STATES</th>
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<td>Canada</td>
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<td>Finland</td>
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<td>Germany</td>
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<td>Luxembour [g]</td>
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<table>
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<tr>
<th>OTHER CONTRIBUTORS</th>
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<tr>
<td>Bill &amp; Melinda Gates Foundation</td>
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<td>Centre de Recherche en Ressource en Eau du Bassin du Congo (CRREBaC), University of Kinshasa</td>
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<td>Deutsche Forschungsgemeinschaft</td>
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<td>Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH</td>
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<td>Deutsches Zentrum fuer Luft-und Raumfahrt e.V. (DLR)</td>
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<td>Euras Research</td>
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<td>Farmer’s Market Association</td>
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<td>International Organization for Migration (IOM)</td>
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<td>Ishikawa Prefecture</td>
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<td>Japan Foundation for the United Nation University (JFUNU)</td>
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<td>Kanazawa City</td>
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<td>LGT Group</td>
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<td>Maastricht City Council</td>
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<td>Resona Holdings, Inc.</td>
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<td>Technische Universität Dresden</td>
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<td>United Nations Development Programme Multi-Partner Trust Fund Office</td>
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<td>Universität Gent</td>
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<td>University of the Witwatersrand</td>
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<td>Vrije Universiteit Brussel (VUB)</td>
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<td>(56 other donors with individual contributions of less than US$20,000)</td>
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<td><strong>Subtotal</strong></td>
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**Total**                                    **40,170,401**

Contribution figures are converted to US dollar equivalents and rounded to the nearest dollar; subtotals may reflect rounding approximations.
Governance & Leadership

Oversight of UNU’s operations and academic activities is exercised by five governance and leadership structures, three of which (the UNU Council, UNU Rectorate, and UNU Administration) function systemwide while two (Directors and Advisory Boards/Committees) have institute-specific roles.

The **UNU Council** oversees the affairs of the global UNU system. The Council’s responsibilities include approval of the UNU Work Programme and Budget and adoption of University-wide statutes and policies. The UNU Council reports on the work of the University to the UN General Assembly, the UN Economic and Social Council, and the Executive Board of UNESCO.

The UNU Council comprises 12 appointed members who serve six-year terms (in an individual capacity, not as representatives of their countries), the UNU Rector, and three ex officio members from the United Nations system (the UN Secretary-General, UNESCO Director-General, and UNITAR Executive Director). The Council met twice in 2021. Due to the ongoing pandemic, its 75th Session (June) and 76th Session (November) were both organised as online meetings.

The **UNU Rectorate** provides management direction for the University and coordinates policy development activities within the UNU system. The Rector, who holds the rank of UN Under-Secretary-General, is the chief academic and administrative officer of UNU. He is assisted by a Management Group (comprising the Senior Vice Rector, Vice-Rector in Europe, Executive Officer, and Director of Administration) and supported by the Office of the Rector.

**UNU Administration** is responsible for development of unified standards, financial/treasury system management, and budget reporting to the UNU Council, as well as for providing HR, financial, and procurement services to the global UNU system. UNU Administration, headed by the Director of Administration, has offices in Tokyo and in Putrajaya.

Each individual UNU institute is headed by a **Director** who has oversight over the formulation of their institute’s budget, human resources, and research and programme development. The institute directors, who report to the Rector, collectively meet (along with senior Office of the Rector and Administration officers) in an annual Conference of Directors (CONDIR) as well as periodic “All Directors Virtual Call” sessions to discuss matters of systemwide policy and coordination.

Each UNU institute benefits from the guidance of an **Advisory Board/Committee**, typically comprising at least three appointed members plus the UNU Rector and the institute Director. These bodies play an active role in advising on thematic programming and management of their respective UNU institutes, including on quality assurance matters and fundraising efforts.
UNU COUNCIL 2021

APPOINTED MEMBERS
• Ms Angela Kane (Germany), UNU Council Chair — Vice President, International Institute for Peace; Senior Fellow at the Vienna Centre for Non-Proliferation and Disarmament; Professor, Sciences Po (Paris)
• Prof. Carlos Henrique de Brito Cruz (Brazil) — Senior Vice President, Elsevier Research Networks
• Dr Denisa Čiderová (Slovakia) — Associate Professor in the Department of International Trade and Liaison for Idea Puzzle at the University of Economics in Bratislava
• Dr Comfort Ero (United Kingdom) — President and CEO, International Crisis Group
• Dr Xin Fang (China) — Professor, University of Chinese Academy of Sciences
• Ms Isabel Guerrero Pulgar (Chile) — Executive Director IMAGO Global Grassroots; Lecturer at Harvard Kennedy School
• Prof. Adam Habib (South Africa) — Director, School of Oriental and African Studies (SOAS), University of London
• Dr Segenet Kelemu (Ethiopia) — Director General and CEO of the International Centre of Insect Physiology and Ecology (icipe)
• Dr Radha Kumar (India) — Policy Analyst
• Amb. Tsuneo Nishida (Japan) — Special Advisor to the President of Kanagawa University; Honorary Director of the Institute for Peace Science, Hiroshima University
• Prof. ‘Funmi Olonisakin (United Kingdom & Nigeria) — Vice-President & Vice-Principal International and Professor of Security, Leadership & Development, King’s College London
• Prof. Brenda Yeoh (Singapore) — Raffles Professor of Social Sciences, National University of Singapore

EX OFFICIO MEMBERS
• The Rector of UNU
• The Secretary-General of the United Nations
• The Director-General of UNESCO
• The Executive Director of UNITAR

UNU MANAGEMENT GROUP
• Rector David M. Malone
• Senior Vice-Rector Taikan Oki (through September)
• Senior Vice-Rector Sawako Shirahase (from October)
• Vice-Rector in Europe Shen Xiaomeng
• Director of Administration Joan Sawe
• Executive Officer Sabine Becker-Thierry

UNU INSTITUTE DIRECTORS
• UNU–BIOLAC Programme Coordinator Ivan Galindo–Castro
• UNU–CPR Executive Director David Passarelli
• UNU–CRIS Director ad interim Philippe De Lombaerde
• UNU–EGOV Head Delfina Soares
• UNU–EHS Director Shen Xiaomeng
• UNU–FLORES Director Edeltraud Günther
• UNU–IAS Director Shinobu Yamaguchi
• UNU–IIHG Director Pascale Allotey
• UNU–INRA Director Fatima Denton
• UNU–INWEH Director Vladimir Smakhtin
• UNU Macau Director Jingbo Huang
• UNU–MERIT Director Bartel Van De Walle
• UNU–ViE SCYCLE Programme Director Rüdiger Kühr
• UNU–WIDER Director Kunal Sen