

Annual Report 2022



Contents

Director's Message	3
Across the Globe	5
Features	7
Strengthening Climate & SDG Synergies	7
Halting Biodiversity Loss by 2030	10
Transforming Education for a Better Future	13
Research & Policy Development	17
Governance for Sustainable Development	18
Biodiversity & Society	20
Water & Resource Management	22
Innovation & Education	24
Capacity Development & Training	26
Postgraduate Education	28
Knowledge Transfer & Communications	30
Publications	31
In the News	32
On Screen	34
About UNU-IAS	36

Photography & Images

Front cover: Tran Le Tuan / Pexels	Pg. 19: UNU-IAS
Pg. 4: UNU-IAS	Pg. 20: Tom Fisk / Pexels
Pg. 7: IMF Photo / Lisa Marie David	Pg. 22: Ivan Bandura / Unsplash
Pg. 8: Nicholas Turner / UNU-IAS	Pg. 23: Muhammad Usman Ghani / IWMI
Pg. 9: Christian Brauneck / UNU-IAS	Pg. 24, top: Axel Fassio / CIFOR
Pg. 10: richcarey / iStock	Pg. 24, bottom: RCE Greater Gombak
Pg. 11: UN Biodiversity / Flickr	Pg. 25: Khamchanh Panyalak
Pg. 12: Yusuke Yasuda / UNU-IAS	Pg. 26: Curtis Christophersen / UNU
Pg. 13: Dominic Chavez / World Bank	Pg. 28-29: Christian Brauneck / UNU-IAS
Pg. 14: Nicholas Turner / UNU-IAS	Pg. 30: UN Photo / Cia Pak
Pg. 15: Yusuke Yasuda / UNU-IAS	Pg. 32: Courtesy of Diplomatic Courier
Pg. 16: UN Photo / Cia Pak	Pg. 33: Courtesy of The Japan Times
Pg. 17: Pedro Henrique Santos / Unsplash	Pg. 33: Alis Daniela Torres
Pg. 18: Kevin Baird / Flickr	Pg. 34-35: UNU-IAS

Director's Message

As we approach the mid-point of the 2030 Agenda for Sustainable Development, interlinked global crises have disrupted progress on the Sustainable Development Goals (SDGs). Greenhouse gas emissions are still rising, biodiversity is declining at unprecedented rates, and many countries and communities are struggling to recover from the COVID-19 pandemic. Overcoming these challenges will require the international community to redouble our efforts and accelerate the transformation towards a more sustainable world.

2022 brought significant progress, including groundbreaking agreements to reverse biodiversity loss, and to provide “loss and damage” funding for countries vulnerable to climate change impacts. The global education crisis received long overdue attention, with more than 130 Member States committing to transform their education systems for a rapidly changing world.

UNU-IAS was deeply involved in these international policy processes, mobilising knowledge from our global networks to provide evidence-based contributions and advance innovative solutions. Through side events at the UN High-Level Political Forum on Sustainable Development (HLPF) in July we advanced policy dialogue on synergies between climate action and the SDGs, as well as ecosystem restoration. Building on the outcomes, UNU-IAS worked closely with UN partners to organise the Global Climate & SDGs Synergy Conference at UNU in Tokyo, which brought together over 2,000 leaders and experts. We led one of the parallel sessions, as well as side events and a workshop engaging high-school students to scale up youth-led action.

Our institute played a key role in planning the Transforming Education Summit, convened in New York during the UN General Assembly — and we organised its only session focused on higher education. UNU-IAS collaborated with UNESCO in promoting a landmark report on the future of education, through a session

at the World Higher Education Conference 2022 in Barcelona.

Drawing on knowledge generated through our International Partnership for the Satoyama Initiative, UNU-IAS provided expertise and inputs to develop the new Kunming–Montreal Global Biodiversity Framework. In December we presented policy recommendations and organised a series of side events at the UN Biodiversity Conference in Montreal (CBD COP15), which adopted the new framework. UNU-IAS also contributed to the UN Decade on Ecosystem Restoration through technical inputs and two symposiums on seascape restoration.

UNU-IAS continued to strengthen local leadership for the SDGs in Asia and the Pacific through the Mayors Academy for Sustainable Urban Development. In Japan, we collaborated with Kanazawa City to develop local SDG indicators and engaged the local community through our ongoing SDGs Café event series. The SDG–Universities Platform mobilised efforts by 32 Japanese universities towards achieving the SDGs, through a series of workshops that exchanged good practices and fostered collaboration.

Our four-year research project on Water for Sustainable Development was completed with the publication of a final report, which provides insights, tools, and approaches for better management of water resources in growing economies with high water demand. We launched a new project in April focused on circular economies, which will support integrated solutions for water and sustainable development challenges in Asia.

Working with UNESCO, UNU-IAS conducted research on climate change displacement and the right to education through analysis in Bangladesh, India, Indonesia, Tuvalu, and Viet Nam. We disseminated the resulting policy recommendations through publications

and events including the UNESCO Asia-Pacific Regional Education Ministers Conference in June.

The institute's postgraduate degree programmes resumed in-person learning in Spring, after two years of online delivery. After a highly competitive selection process we welcomed a new cohort of students in September. A new course was added to the curriculum, focusing on Socio-Ecological Production Landscapes and Seascapes (SELPS). UNU-IAS further developed an initiative to train future leaders for implementing the Paris Agreement on climate change — a new MSc specialisation that will launch in September 2023.

Our policy briefs offered valuable guidance on pressing challenges such as inclusive transition to net zero, the impact of COVID-19 on city finances, monitoring infectious diseases in wastewater, and budgeting for the SDGs. UNU-IAS outreach and communications activities included live webcasts from UN conferences, high-quality original video content, a new email newsletter, and media commentary in prominent outlets in Japan and other countries.

These achievements — and the many others that are presented in this report — were enabled and enhanced by the support of our partners and donors. We deeply appreciate your vital contributions to the institute's research, policy engagement, and teaching activities.

In this critical period for sustainable development, the need for knowledge, expertise, and technical capacity is greater than ever. UNU-IAS is focused on rising to the challenge. Working together we must put our efforts firmly behind the global action needed to rescue the SDGs and build a better and more sustainable future.

Shinobu (Yume) Yamaguchi

Director, UNU-IAS



Across the Globe

Japan

Events

Kanazawa
Noto
Tokyo

Presentations & Lectures

Hiratsuka
Kanazawa
Komatsu
Kumamoto
Noto
Suzu
Shibushi
Tokyo
Yokohama

Research Fieldwork

Kanazawa
Nanao
Toyama

Europe

Events

Paris, FRANCE
Bonn, GERMANY
Leeuwarden, NETHERLANDS
Barcelona, SPAIN
Geneva, SWITZERLAND

Presentations & Lectures

Montpelier, FRANCE
Paris, FRANCE
Berlin, GERMANY
Lisbon, PORTUGAL
Barcelona, SPAIN
Stockholm, SWEDEN
Geneva, SWITZERLAND
Istanbul, TÜRKIYE
Cirencester, UK
Manchester, UK

Asia (other) & Oceania

Events

Luang Prabang, LAO PEOPLE'S
DEMOCRATIC REPUBLIC
Kuala Lumpur, MALAYSIA
Bangkok, THAILAND

Presentations & Lectures

Phnom Penh, CAMBODIA
Bali, INDONESIA
Luang Prabang, LAO PEOPLE'S
DEMOCRATIC REPUBLIC
Kuala Lumpur, MALAYSIA
Colombo, SRI LANKA
Bangkok, THAILAND

Research Fieldwork

Melbourne, AUSTRALIA
Sydney, AUSTRALIA
Tianjin, CHINA
Delhi, INDIA
Gurugram, INDIA
Uttrakhand, INDIA
Nusa Pedina, INDONESIA
Yogyakarta, INDONESIA
Naryn, KYRGYZSTAN
Luang Prabang, LAO PEOPLE'S
DEMOCRATIC REPUBLIC
Galle, SRI LANKA
Kandy, SRI LANKA
Maha Kiriula, SRI LANKA
Sai Yok, THAILAND
Map Ta Phut, THAILAND
Hue, VIET NAM

Africa

Events

Sharm El-Sheikh, EGYPT
Nairobi, KENYA
Dakar, SENEGAL
Tunis, TUNISIA

Presentations & Lectures

Gaborone, BOTSWANA
Sharm El-Sheikh, EGYPT
Dakar, SENEGAL

225
Activities

29
Countries

11,123
Event Participants

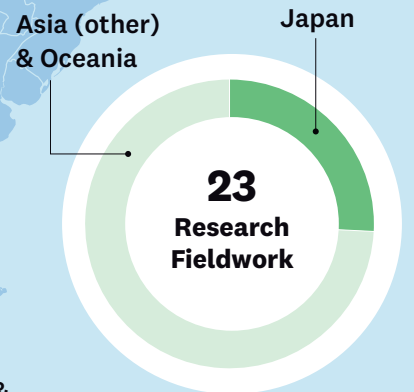
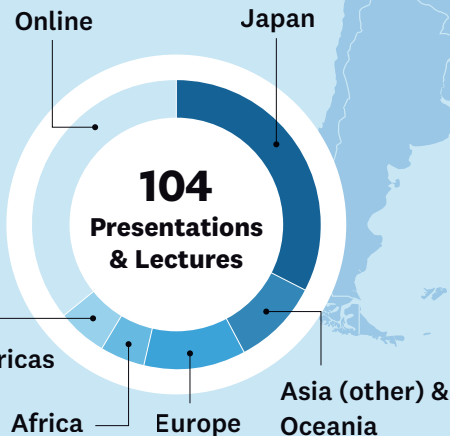
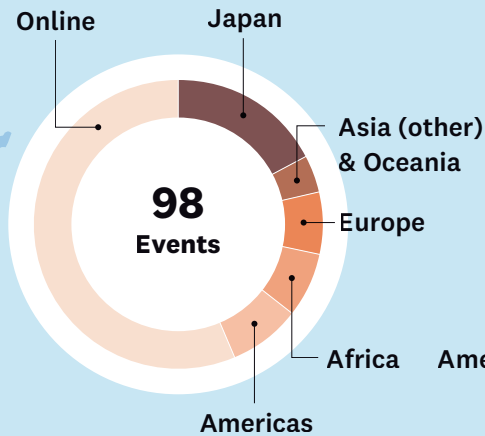
Americas

Events

- Montreal, CANADA
- New York, USA
- Salisbury, Maryland, USA

Presentations & Lectures

- Montreal, CANADA
- New York, USA



Features

Strengthening Climate & SDG Synergies

The climate change and sustainable development agendas are deeply interconnected. Climate change negatively affects all of the SDGs, while sustainable development influences both emissions and how vulnerable or resilient societies are to climate impacts. Action taken on one agenda may undermine or support success on the other. To maximise the positive co-benefits and limit the negative trade-offs, policymakers need to pursue integrated solutions that can harness synergies.

There is increasing recognition that an integrated approach is critical to achieve the SDGs and keep alive the goal of limiting global warming to 1.5°C. Yet in many policies and programmes these synergies are absent or remain only partially realised. In particular, the social dimensions of the SDGs are key enablers for climate action, but they remain neglected in national climate plans. The greatest knowledge gaps for identifying and realising synergies are also linked to social issues.



During 2022 UNU-IAS advanced climate–SDG synergies through research and policy engagement that mobilised knowledge, expertise, and partnerships. The institute made prominent contributions to global policy dialogue, including the **2022 UN High-Level Political Forum on Sustainable Development** – the main United Nations platform on the SDGs (HLPF; 5–15 July). Our online event *Climate Action and the SDGs – Closing Gaps and Strengthening Synergies* (7 July) explored ways to close critical gaps between the two agendas, in collaboration with other UNU institutes, UN partners, the Ministry of the Environment of Japan (MOEJ), and the Institute for Global Environmental Strategies (IGES).

Building on the outcomes of the side event, UNU-IAS played a pivotal role in organising the **Climate & SDGs Synergy Conference** at UNU in Tokyo (20–21 July) – the third in a series of major UN conferences. It engaged over 2,000 leaders and experts to share insights, best practices, and win-win solutions from across the globe, identifying approaches to align and coordinate action.

UNU-IAS led a session focused on just transition, empowerment, knowledge and skills, underlining the need for solutions that leave no one behind. UNU-IAS side events focused on the role of multi-stakeholder partnerships to accelerate local action (21 July) and ecosystem restoration as a nature-based solution (20 July; see pg. 20). We also convened a workshop that engaged high-school students in the conference and helped to scale up youth-led sustainability action.

At the **UN Climate Change Conference** in Sharm el-Sheikh, Egypt (COP27; 6–20 November), UNU-IAS contributed to discussions on synergies through events, policy engagement, and expert commentary. Our event at the Japan Pavilion engaged a diverse group of experts from governments, the UN system, research institutes, and civil society organisations, who shared experiences and lessons learned on approaches to strengthen climate–SDG synergies. The discussion highlighted issues such as job creation for just transition, education and inter-generational empowerment, and a whole-of-society approach.

Events & Engagement at COP27

SIDE EVENT

- *Transformative Pathways for Climate Action through Open and Citizen Science and Youth Empowerment*
- *Multifaceted Impacts of Climate Change on Mental Health – Towards Integrated Climate Services* (panel presentation)

JAPAN PAVILION EVENT

- *Actions to Strengthen Synergies between the Paris Agreement on Climate Change and the 2030 Agenda for Sustainable Development*
- *Role of the Private Sector in Realising the Global Goal on Adaptation* (presentation & panel moderator)

CLIMATE ACTION HUB EVENT

- *Beyond Classrooms: Education as a Mechanism for Community Climate Action*

PRESS CONFERENCE

- *UNU-IAS Initiatives on Youth Empowerment for Implementing the Paris Agreement and the 2030 Agenda*

SDG PAVILION EVENT

- *Delivering in Synergy on Climate Action and the SDGs: A Pathway to Untapped Potential* (panel presentation)



Supporting Vulnerable Populations in the Transition to Net Zero Emissions: Priorities for Developed Countries

Focusing on access to clean energy, this policy brief presents recommendations for governments to ensure an inclusive transition to a net zero society. It provides guidance for policymakers on strengthening incentives and support measures for people at high risk of energy poverty to ensure equal access to decarbonised technologies and practices.



UNU-IAS Policy Brief
No. 35, 2022



“We must work together to transform the energy, food, urban, and other key systems to simultaneously achieve net zero emissions and Sustainable Development Goals by producing multiple benefits from the social, economic, and environmental contexts.”

Akio Takemoto
Programme Head

MSc Degree Specialisation on Climate Action for the Paris Agreement

This new initiative aims to develop future leaders who will be at the forefront of efforts to implement the Paris Agreement on climate change and harness synergies with the SDGs. It is first of its kind to be offered by

a UN organisation. Building on the existing master’s and doctoral programmes of UNU-IAS, the course will develop knowledge and skills to enhance institutional and technical capacity, helping to address knowledge gaps on synergies. Applications were invited from January 2023 and the first master’s students will begin their studies at UNU-IAS in September 2023.

KEY MESSAGES

- A systemic transformation is needed to close the gaps and advance integrated solutions through research and policymaking that transcends silos.
- Social equity and justice must be at the core of synergistic action on climate and sustainable development. This means empowering people by ensuring gender equality, enhancing win-win outcomes in health and education, and prioritising the needs of vulnerable populations — including new jobs and employment opportunities.
- Harnessing synergies requires effective governance and policy tools for finance, science and technology, and partnerships. Enhanced capacity building and education are needed to foster vital skills for bridging science and policy to deliver on the Paris Agreement and the SDGs.
- Transformative action can only be effective and equitable if all stakeholders are involved, including academia, civil society organisations, businesses, youth, and local communities. Youth remain underrepresented in decision-making processes despite being one of the groups most affected by climate change and sustainable development policies.

Read more: *Governance for Sustainable Development* ► pg. 18–19 | *In the News* ► pg. 32

Features

Halting Biodiversity Loss by 2030

The biodiversity on which our lives depend is declining at an unprecedented rate, with one million plant and animal species at risk of extinction. This biodiversity crisis threatens humanity's food and water supply, damaging our health, economies, societies, and culture, and disproportionately impacts the most vulnerable communities. It also increases the spread of zoonotic diseases like COVID-19 and mpox. At the same time, the failure to tackle the biodiversity crisis is holding back progress on the SDGs and climate change.

Reversing this decline in biodiversity requires transformational change toward living in harmony with nature. Intergovernmental assessments have identified the drivers of ecosystem degradation and pathways to recovery; the challenge now is to accelerate action on the ground. This requires mobilising local and traditional knowledge, as well as nature-based solutions that bring co-benefits for climate action and sustainable development.



2022 was a pivotal year for biodiversity, with the conclusion of an ambitious new global agreement, the **Kunming-Montreal Global Biodiversity Framework** in December. UNU-IAS provided expertise and inputs for the drafting and negotiation process through events, publications, and policy dialogue. This resulted in the framework incorporating our evidence-based positions promoting landscape perspectives, which bring valuable benefits by embedding human-nature relationships, cultural diversity, and participatory processes.

In March UNU-IAS contributed to **Geneva meetings of the Convention on Biological Diversity** (CBD), which produced the first negotiated text of the new framework. Our three side events explored options for incorporating landscape approaches into CBD targets, promoted the role of socio-ecological production landscapes and seascapes (SEPLS) for area-based conservation, and discussed approaches for updating National Biodiversity Strategies and Action Plans (NBSAPs).

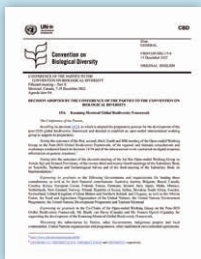
Our research provided insights on **links between biodiversity, health, and sustainability**, based on case studies from members of the International Partnership for the Satoyama Initiative (IPSI), a global network for which UNU-IAS serves as the secretariat. Key publications included the seventh Satoyama Initiative Thematic Review (Springer, June 2022; see pg. 21) and a UNU-IAS Policy Brief (No. 34, 2022).

UNU-IAS held a side event at the **Climate & SDGs Synergy Conference** in July (see pg. 8) which advanced discussion on ecosystem restoration — one of the key targets of the new global framework. Working with FAO and the CBD Secretariat, we discussed the potential of this nature-based solution to address challenges of biodiversity, climate change, and sustainable development.

In December these activities culminated with a prominent UNU-IAS contribution to the UN Biodiversity Conference in Montreal (CBD COP15) that adopted the new global framework. Through policy engagement and a series of five side events, we showcased research and policy recommendations on other effective area-based conservation measures (OECMs); mangrove restoration and conservation; and biodiversity governance; and celebrated the achievements of IPSI in its first decade.



The Kunming-Montreal Global Biodiversity Framework



The UN Biodiversity Conference in Montreal, Canada (December 2022) concluded with a historic agreement to halt and reverse biodiversity loss by 2030. Its key targets include:

- Effectively conserve and manage 30% of the world's land and waters by 2030 ("30x30")
- Reduce loss of biodiverse areas to "close to zero" by 2030
- At least 30% of terrestrial and marine ecosystems are under restoration by 2030
- Increase biodiversity-related financial flows from developed to developing countries to at least USD 30bn annually
- Halve global food waste
- Require transnational companies to monitor and assess risks and impacts on biodiversity

Protecting Biodiversity Starts in the Community

This opinion article by UNU-IAS expert Philip Vaughter highlighted the potential of local community initiatives for meeting the 30x30 goal. It was published on 29 June by SWI swissinfo.ch, an online service of the Swiss Broadcasting Corporation (SBC), in Arabic, English, Japanese, and Portuguese.

“...we should remember that the actual work of implementation takes place in local communities. There are already a great deal of successful practices and initiatives for biodiversity under way in diverse settings around the world.”

“Biodiversity makes life diverse and full of possibilities, but humans have been degrading it. We can change this through carefully choosing goods and services we buy and produce, and by reflecting on what really makes us happy.”

Makiko Yanagiya

Programme Coordinator



RCE Youth Biodiversity Art Challenge

UNU-IAS and UNESCO held this worldwide challenge to spotlight species, habitats, and ecosystems in need of protection. There were 39 entries from 15 countries in a range of mediums, including drawings, paintings, craft work, digital art, and photographs. Twelve winning entries were selected based on creativity, originality, and relevance.

KEY MESSAGES

- Integrated management of production activities and resources in landscapes and seascapes can improve the quality of both environments and human lives. Such approaches help to clarify trade-offs and maximise synergies between policy options.
- Landscape approaches — frameworks for inclusive, adaptive co-management of a given area — have a vital role to play in biodiversity action. Incorporating them into national biodiversity strategies and action plans (NBSAPs) helps to create policies that address the spatial, socio-economic, and cultural dimensions of conservation in an integrated way.
- To meet the target of conserving 30% of the world’s planet by 2030, it will be essential to conserve biodiversity outside of protected areas through other effective area-based conservation measures (OECMs). Policies related to OECMs should recognise and support the vital role of culture in fostering interlinked human–nature relationships.

Read more:

Biodiversity & Society ► pg. 20

Features

Transforming Education for a Better Future

Building more sustainable societies relies on empowering individuals and fostering creative, innovative solutions through education. It is critical to achieving all 17 SDGs, and will continue to play a fundamental role in responding to global challenges and shaping our common future.

But education is facing deep and compounding crises of relevance, quality, and equity, which

have been exacerbated by the disruption of COVID-19. Inequalities in education — both between and within countries — are impacting the futures of children and learners of all ages. In a rapidly changing world, we need to reconsider the purpose, content, and delivery of education. It must adapt to the skills and competencies needed for a sustainability transformation, and strengthen the capacity for action by citizens across society.





Throughout 2022 UNU-IAS advanced global policy dialogue on education, in close collaboration with UNESCO and other partners. At the **World Higher Education Conference 2022** in Barcelona (18–22 May) we provided expertise as part of a roundtable discussion on the UNESCO report *Reimagining Our Futures Together: A New Social Contract for Education*, to which UNU-IAS had contributed as a member of the report’s Advisory Board. A further UNU-IAS session at the conference explored how to empower young leaders and build capacity for climate action (20 May).

The global conversation on the future of education built up to the **Transforming Education Summit** in New York (16–19 September), which was convened by the UN Secretary-General during the UN General Assembly. It resulted in a commitment by more than 130 Member States to overcome the global crisis in education, calling for innovation to prepare learners for a rapidly changing world. UNU-IAS organised a session as part of Solutions Day (17 September), which was the only event during the summit to focus specifically on higher education. With a diverse panel of speakers — including two UNU-IAS Board members, representatives of governments, universities, and research institutes, and youth — it discussed how a whole-of-society approach could mainstream climate education to achieve net zero emissions by 2050. The session was organised in collaboration with the Ministry of Universities of Spain, the Ministry of Education of Bhutan, UNESCO, and UN Climate Change (UNFCCC Secretariat). UNU-IAS was also a key member of the inter-agency UN team that planned the summit, providing expert inputs for an official discussion paper delivered to Member States

and other stakeholders. Focused on the topic Learning and Skills for Life, Work, and Sustainable Development, this team also engaged the International Labour Organization (ILO), UNICEF, UNFCCC Secretariat, the UN Environment Programme (UNEP), and the UN Economic Commission for Europe (UNECE).

Following the summit, UNU-IAS collaborated with UNESCO to organise an official side event at the **UN Climate Change Conference** (UNFCCC COP27) in Sharm el-Sheikh, Egypt, focused on youth empowerment and citizen science. Bringing together experts from UN agencies and universities in the developed and developing worlds, it shared insights on how citizens could apply knowledge in actioning climate solutions (9 November).

ProSPER.Net: Enabling Higher Education for the Sustainable Development Goals 2015-2021



This report highlights innovative education for sustainable development (ESD) activities by higher education institutions in the Asia-Pacific region, as part of an alliance led by UNU-IAS — the Promotion of Sustainability in Postgraduate Education and Research Network (ProSPER.Net). The examples illustrate

how higher education institutions can collaboratively contribute to interdisciplinary research, nurture young leaders, and stimulate policy discussion.

SDG-Universities Platform

Through this initiative UNU-IAS mobilised efforts by 32 Japanese universities towards achieving the SDGs, advancing local and international collaboration and exchange of good practices. Seven SDG-UP Workshops and one open symposium were organised during 2022, focusing on topics such as the role of universities in achieving the SDGs, university management, evaluation and accountability, SDGs curriculums, and trends in higher education. They engaged international guest speakers from universities in China and New Zealand, among others. The platform advanced discussion on impact evaluation in the context of the SDGs, in

collaboration with the Times Higher Education (THE) Impact Rankings, for which UNU-IAS serves as a member of the International Advisory Board. SDG-UP developed an undergraduate curriculum, “Introduction to the UN SDGs: Learning Sustainability for the Decade of Action”, which was delivered by member universities for the first time during October and November. A total of 42 students from 14 universities took the course during 2022. UNU-IAS also promoted an SDG-UP report at the 2022 UN High-Level Political Forum on Sustainable Development (HLPF; see pg. 7) titled *Recommendations for Transformational Changes in Universities for Building a Better Sustainable Society*.



“Education is not only a human right but a fundamental means to achieve a sustainable society in which human rights are guaranteed. It is vital to provide inclusive opportunities for lifelong learning for all, regardless of any personal, social, economic, or environmental challenges a learner may face.”

Jonghwi Park

Academic Programme Officer

KEY MESSAGES

- Integrated solutions to sustainability challenges require education that transcends silos. Education should be redesigned to promote such synergies, and focus on fostering the interdisciplinary mindset and competencies needed to realise them across all sectors of society. This should advance ESD as a key element of quality, inclusive education to build a more just and sustainable world.
- A whole-of-society approach is needed to transform education and live up to the principle of “leaving no one behind”. This forward-looking vision must include lifelong learning and non-conventional education such as intergenerational, informal, and community-based learning. The UNU-IAS initiative Regional Centres of Expertise on ESD (RCEs) provides an effective model for such inclusive, collaborative education at the local level.
- Rapidly advancing technologies such as big data, machine learning, and AI are a “game changer” in higher education, but they have the potential to exacerbate digital divides. UNU-IAS focuses on inclusive innovation and promotes the design of learning technology for the most marginalised. Digital citizenship should be a basic competency for learners to explore, use, evaluate, and create digital knowledge in a safe, effective, and responsible way.

Read more:

Innovation & Education ► pg. 24



Research & Policy Development

UNU-IAS generates interdisciplinary scientific knowledge to inform policymaking, advancing the global effort to achieve the SDGs by 2030. Our research and policy development activities address specific goals as well as the interconnections between them, helping to translate the global agenda into action at the regional, national, and local levels. Combining in-house expertise with a diverse network of partner institutions, UNU-IAS bridges the developing and developed worlds, and strengthens the links between science and policy that will be critical for achieving the SDGs.

- Governance for Sustainable Development ▶ pg. 18
- Biodiversity & Society ▶ pg. 20
- Water & Resource Management ▶ pg. 22
- Innovation & Education ▶ pg. 24



Governance for Sustainable Development

POLICY ENGAGEMENT

UN Committee of Experts on Public Administration

UNU-IAS contributed to the 21st Session of CEPA, which was held at UN headquarters in New York on the theme Transforming Institutions and Governance to Build Forward Better towards 2030 (4–8 April). The institute provided expert inputs through a detailed written statement and interventions during the session. They focused on the need for coherent policy and governance to build back better at the sub-national level, approaches for integrating the SDGs into budgetary processes, and accelerating the digitalisation of public services. These inputs were reflected in the official report on the session, which was recognised by the UN Economic and Social Council (ECOSOC; resolution E/2022/44).

POLICY BRIEF

Budgeting for the SDGs

This brief offers guidance for policymakers and financial administrators to strengthen the integration of the SDGs into national and local budgets. Based on analysis of 2021 Voluntary National Reviews (VNRs) presented by 35 countries, the brief draws lessons on strategies such as budget tagging, integration in budget monitoring systems, and SDG costing. (*Budgeting for the SDGs: Lessons from the 2021 Voluntary National Reviews*; UNU-IAS Policy Brief No. 32, 2022)

POLICY BRIEF

Managing the Impact of COVID-19 on City Finances

The COVID-19 pandemic has underlined the importance of strengthening cities' financial resilience to socioeconomic adversity. This brief (UNU-IAS Policy Brief No. 37, 2022) provides recommendations for managing the impacts of the COVID-19 crisis on city finances, detailing how municipalities can improve fiscal policy and financial management systems to accelerate recovery and build resilience. It identifies strategies such as fiscal optimisation, participatory budgeting, and public-private partnerships to avoid financial collapse and deliver sustainable development actions.

POLICY ENGAGEMENT

Mayors Academy for Sustainable Urban Development

Since 2019 UNU-IAS has been building a network of mayors in Asia and the Pacific to strengthen leadership for the SDGs. Implemented with the UN Economic and Social Commission for Asia and the Pacific (ESCAP), UN-Habitat, and other partners, this initiative has provided a framework for short to medium-term planning and action towards more sustainable development pathways. During 2022 nine online training modules, two feedback sessions, and one commitment session were delivered, with eight mayors completing the academy's 2021–2022 class on 17 June. The mayors developed practical projects on a range of issues, including climate change resilience, medical facility development, smart cities, service digitalisation, and sustainable infrastructure.

PUBLICATION

Solar Energy & Urban Planning

Co-authored by a third-year UNU-IAS doctoral student, this article in the journal *Urban Governance* (volume 2, issue 1) examines the factors constraining integration of solar energy considerations into urban planning and design. It calls for research to explore solar urban planning from a socio-technical transition theoretical perspective (full title: *Integrating Solar Energy Considerations into Urban Planning for Low Carbon Cities: A Systematic Review of the State-of-the-Art*).

PUBLICATION

Carbon Neutrality & Digitalisation

The report *Summary of Case Studies: Global and EU Trends on Carbon Neutrality and Digitalisation* presents case studies and best practices for achieving a carbon-neutral sustainable society. It aims to contribute to policy discussions and advance the transformation of social and economic systems to enable net zero emissions at the local level. The report was featured in a handbook released by the Ministry of the Environment, Japan, on the topic SDGs Localisation and Digital Transformation.

POLICY ENGAGEMENT

2030 Agenda Implementation in Japan

UNU-IAS advanced an innovative model for localisation of the SDGs through collaboration with local partners. The institute's Operating Unit Ishikawa/Kanazawa (OUIK) worked closely with Kanazawa City to develop local SDG indicators. This initiative was shared with a broader global audience through a UNU-IAS side event at the Third Global Climate & SDGs Synergy Conference in June (see pg. 8). The unit's SDGs Café series continued to engage the local community in efforts to achieve the SDGs, with events focusing on partnerships for the SDGs and inclusive disaster risk management. An OUIK seminar series on tourism and the SDGs highlighted good practices and underlined the need for tourists and the local community to co-create sustainable destinations (29 July; 26 October). Research on sustainable urban nature (see pg. 21) contributed to Kanazawa's efforts to achieve SDG 11 (sustainable cities & communities), SDG 15 (life on land), and SDG 17 (partnerships for the goals).

To support youth engagement for the SDGs, UNU-IAS co-organised the Seventh National Youth Environment Activity Contest with MOEJ and the Environmental Restoration and Conservation Agency, Japan (ERCA). The event brought together 90 high school students from 16 high schools across Japan who were actively addressing local SDGs challenges. Building on the contest, UNU-IAS produced a video showcasing a project by students at Ehime University Senior High School as a strong example for successful youth empowerment (see pg. 35).

EVENT

Implementing the Paris Agreement in Developing Countries

This event featured the Green Climate Fund (GCF) Executive Director, Dr Yannick Glemarec and other experts from the Ministry of Foreign Affairs (MOFA) of Japan and UNDP (8 July). It discussed supporting climate action through financing, capacity building, and education, and the role of capacity building and education to empower practitioners and youth. The event was organised with GCF, MOFA, and UNDP.

PROJECT

Advancing Collaboration & Exchange of Knowledge Between the EU and Japan for AI-Driven Innovation in Manufacturing (EU-Japan.AI)

Completed in October, this project developed partnerships between Japan and the EU for harnessing artificial intelligence in the manufacturing sector. In 2022 UNU-IAS engaged with key stakeholders in Japan including the Japan Science and Technology Agency (JST), the New Energy and Industrial Technology Development Organization (NEDO), City of Kitakyushu, Kitakyushu Foundation for the Advancement of Industry, Science and Technology (FAIS), and the EU-Japan Centre for Industrial Cooperation. The institute produced two knowledge articles, focusing on how AI can unlock sustainable development potential in Southeast Asia, and on trends in AI policies in the manufacturing sector in Japan.

PARTNERSHIP

Paris Agreement Article 6 Partnership

UNU-IAS joined this new initiative, which aims to support global emissions reductions through implementation of markets for trading carbon credits. Established by Japan at COP27 (16 November), at launch the partnership included 40 countries, five other UN organisations, and three multilateral development banks, as well as non-governmental organisations and academic institutions. UNU-IAS is advancing the goals of the partnership through education and training activities, including its MSc degree specialisation on climate action for the Paris Agreement (see pg. 9).





Biodiversity & Society

PARTNERSHIP

International Partnership for the Satoyama Initiative (IPSI)

As the secretariat of this partnership, UNU-IAS mobilises efforts by over 290 member organisations across the globe towards realising societies in harmony with nature. UNU-IAS draws on this diverse evidence base for research and policy engagement to advance human–environment solutions, including sustainable management of production landscapes and seascapes.

Throughout 2022 these activities contributed to the development of the new global framework on biodiversity, including close collaboration with the Secretariat of the Convention on Biological Diversity (CBD) and a series of side events at the UN Biodiversity Conference in Montreal (see pg. 11). UNU-IAS shared insights from IPSI through a side event at the 2022 UN High-Level Political Forum on Sustainable Development (HLPF), which discussed how the partnership could contribute to achieving the SDGs and recovering from COVID-19 (13 July). The event was organised in collaboration with Conservation International, UNDP, the CBD Secretariat, and the Ministry of the Environment, Japan (MOEJ). UNU-IAS produced several knowledge products based on IPSI experience that provide valuable insights for research and policy processes within and beyond the field of biodiversity (see below).

An IPSI funding initiative, the Satoyama Development Mechanism, supported six projects implemented by members of the partnership during 2022 in Bhutan, Ghana, Kenya, Kyrgyzstan, the Philippines, and Viet Nam. Five new projects were selected, to be implemented in Bangladesh; Ethiopia; Mexico; Taiwan, China; and Viet Nam. A session of the 14th International Forum for Sustainable Asia and the Pacific 2022 highlighted transformative actions for a nature-positive society towards 2030 (2 December).

POLICY ENGAGEMENT

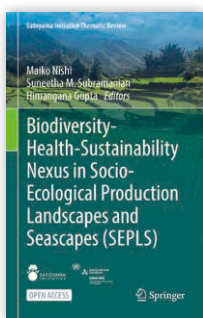
UN Decade on Ecosystem Restoration

UNU-IAS is leading UNU's contribution to this global effort spanning the period 2021–2030, which aims to protect and revive ecosystems for the benefit of people and nature. During 2022 the institute supported the decade through a range of activities, including technical inputs that developed its Capacity, Knowledge and Learning Action Plan, which was launched at the UN Biodiversity Conference in Montreal. UNU-IAS organised a side event of the Climate and SDGs Synergy Conference (see pg. 8) which considered the potential of ecosystem restoration as a nature-based solution. Organised with FAO and the CBD Secretariat, it discussed how restoration could help to address global challenges of biodiversity, climate change, and sustainable development. Other UNU-IAS contributions to the decade included two symposiums on seascape restoration, organised in partnership with the Ocean Policy Research Institute and MOEJ (9 February; 20 September).



PUBLICATION

Biodiversity–Health–Sustainability Nexus



This open-access book explores how sustainably managing landscapes and seascapes can enhance both human and ecosystem health, drawing on knowledge from members of IPSI (Springer, June 2022). It compiles 11 case studies encompassing different types of ecosystems around the world, focusing on

how local and traditional knowledge can contribute to the sustainable management of natural resources, biodiversity conservation and restoration, and good health for all. The book provides valuable insights for the three-year thematic assessment by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) on the interlinkages between biodiversity, water, food, and health — known as the nexus assessment. Titled *Biodiversity-Health-Sustainability Nexus in Socio-Ecological Production Landscapes and Seascapes (SEPLS)*, the book is the seventh volume of the series Satoyama Initiative Thematic Review. A policy brief on the same topic provided recommendations for improving policy coherence across multiple sectors (*The Biodiversity–Health–Sustainability Nexus: Integrated Solutions from Landscapes & Seascapes*; UNU-IAS Policy Brief No. 34, 2022).

PUBLICATION

Agricultural Heritage Systems

UNU-IAS produced a technical manual to support conservation of agricultural heritage systems, in partnership with the Rural Development Administration (RDA) of the Republic of Korea. It provides local stakeholders with indicators for monitoring and evaluation of sites that have received (or aspire to receive) designation as Globally Important Agricultural Heritage Systems (GIAHS) — a programme of FAO. The manual, titled *GIAHS Monitoring and Evaluation Manual: A Technical Reference*, was launched in a webinar jointly organised with RDA and FAO (11 March). UNU-IAS also supported the Noto GIAHS in Ishikawa, Japan through its Operating Unit Ishikawa/Kanazawa (OUIK), which leads a biodiversity conservation working group engaging local universities and other stakeholders.

EVENT

International Day for Biological Diversity

A symposium organised by UNU-IAS and MOEJ for International Day for Biological Diversity 2022 (20 May) promoted the global campaign led by the CBD Secretariat on the theme “Building a Shared Future for All Life”. Speakers included the CBD Executive Secretary, Elizabeth Maruma Mrema, and the State Minister of the Environment, Japan, Toshitaka Ooka. The event focused on topics including ecosystem restoration, youth empowerment, and citizen science, to accelerate efforts to conserve and restore biodiversity.

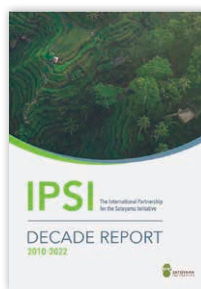
RESEARCH

Sustainable Urban Nature

This project conducts research in Kanazawa, Japan to develop a sustainable model for urban nature through conservation that reflects links between biological and cultural diversity. Implemented by UNU-IAS OUIK, during 2022 it focused on wildlife surveys in 10 Japanese gardens in the city, which provided data on their contributions to biodiversity. Participatory research through citizen science, volunteer cleaning, and ecotourism activities gathered data on gardens as a source of wellbeing (27 March, 30 June, 11 October, and 25 November). UNU-IAS also produced a new video series on urban gardens, which raised awareness of their multiple benefits such as biodiversity conservation, preservation of cultural values, and climate change mitigation.

PUBLICATION

A Decade of IPSI



This report showcases the activities and achievements of IPSI since its launch in 2010, including flagship activities, policy and scientific impacts, and contributions towards achieving the Aichi Biodiversity Targets and the SDGs. The report, *The International Partnership for the Satoyama Initiative (IPSI) Decade Report 2010–2022* was launched at the UN Biodiversity Conference in Montreal as part of a UNU-IAS side event (7 December). It outlines 251 case studies and 58 collaborative activities implemented by IPSI members, which have provided rich and diverse research findings on food and water security, climate change mitigation and adaptation, disaster risk reduction, health, and socio-economic development of local communities.

Water & Resource Management

RESEARCH

Water for Sustainable Development

Completed in March, the four-year WSD project explored the complex links between water and the economy, to inform and support policymaking for SDG 6 (clean water & sanitation) and other goals in developing countries in Asia. Through case studies in India, Indonesia, Nepal, and Thailand, it developed and piloted an analytical framework to assess these interlinkages. This tool — a water sector input-output table — helps policymakers to model how changes in one sector will impact production, water consumption, and pollution loads in other sectors. The outcomes of the project were presented through a casebook report and video targeting policymakers, practitioners, and researchers (see below).

PUBLICATION

Recognising the Value of Water for Sustainable Development



Presenting the outcomes of the WSD project, this report investigates the impact of water use and water quality on the economy and society in the Asian region, offering policy guidance for controlling water pollution. It provides a comprehensive picture of intersectoral dependence between economy, water consumption, and pollution loads, to support better management of water resources in growing economies with high water demand. The report, *Water for Sustainable Development Summary Casebook: Recognising the Value of Water for Sustainable Development*, was published by UNU-IAS in August, accompanied by a video showcasing the policy tool and underlying research (see pg. 35).



RESEARCH

Water for Circular Societies

Launched in April, this project aims to advance circular economies and decentralised natural resource management. It focuses on collecting and investigating scientific evidence for the development of water environment policies in Asia, to provide comprehensive solutions for water and sustainable development challenges.

The project is developing indicators for socio-economic, environmental, and governance factors affecting water environments in Asia. By applying the indicators to selected cities in the region, it will evaluate their current situation and their potential for improvement in the course of socio-economic growth. The outcomes of the research will assist cities in Asia in managing their transitions towards sustainability and achieving SDG 6, as well as other related goals. The project is funded by the Ministry of the Environment, Japan (MOEJ) from 2022 to 2026.

EVENT

World Water Forum

This global event takes place every three years to generate action on water issues. At the 9th World Water Forum in Dakar, Senegal, UNU-IAS organised a thematic session discussing the impact of water deficits and extreme weather events on migration and displacement (24 March). The session explored the latest data and evidence on the linkages between water and migration to identify knowledge gaps and inform policy. It was organised with the UNU Institute for Comparative Regional Integration Studies (UNU-CRIS), FAO, the International Organization for Migration, and the African Climate Migration Initiative. A UNU-IAS poster presentation at the forum provided an overview of the status of water reuse in Japan, identifying challenges for further promotion of water reuse.

EVENT

World Water Week

UNU-IAS organised an online session of World Water Week 2022 focused on practical methods for economic valuation of water (23 August). It discussed the impact of water deficits and extreme weather events on migration and displacement, using the latest data and evidence on these linkages to identify knowledge gaps and inform policy. The session was organised with the Asian Development Bank (ADB), the University of Tokyo, and the UNU Institute for Integrated Management of Material Fluxes and of Resources (UNU-FLORES).

POLICY BRIEF

Scaling Up Microirrigation Technology



This brief highlights microirrigation as an innovative solution to improve water management and increase agricultural production in South Asia. It examines current barriers to large-scale adoption of the technology and provides recommendations to facilitate implementation. The brief, *Scaling up Microirrigation Technology to Address Water Challenges in Semi-arid South Asia* (No. 30, 2022), promotes spatial mapping, cooperative farming, incentives for adoption of microirrigation, and coherent irrigation policies.

PUBLICATION

Pollution Control in Bali Province, Indonesia

This open-access article in the journal *Sustainable Environment Research* (volume 32) was the first study to analyse the relationship between economic activity and the potential for water pollution in Bali. By applying the research methodology of the WSD project, it proposes effective measures to control water pollution that could assist policy decisions in developing countries. The article goes beyond conventional methods to identify potential water-polluting sectors based on their direct and indirect roles, guiding policymakers and practitioners to target initiatives that reduce water pollution (full title: *Analyzing the Relationship between Water Pollution and Economic Activity for a More Effective Pollution Control Policy in Bali Province, Indonesia*).





Innovation & Education

PARTNERSHIP

Regional Centres of Expertise on Education for Sustainable Development (RCEs)

As the secretariat of this global network UNU-IAS continued supporting and coordinating over 180 RCEs conducting multi-stakeholder community-based ESD. The institute mobilised knowledge from RCEs to provide evidence-based inputs for the global policy dialogue on ESD for 2030 and the Transforming Education Summit (see pg. 14). The annual RCE Awards recognised 26 ESD initiatives that had made outstanding contributions to addressing local sustainability challenges — on themes such as disaster risk reduction, biodiversity conservation, ecotourism, waste management, and sustainable agriculture. Regional RCE Meetings were organised for Africa (Nairobi, November), the Americas (Salisbury, USA; October), the Asia-Pacific (Kuala Lumpur, July), and Europe (online; February and Leeuwarden, the Netherlands; October) to promote regional exchange of ESD practices.

Youth engagement is a priority for the network. UNU-IAS held the 2nd RCE Youth Webinar, which brought together participants from 23 countries to highlight youth-led biodiversity conservation activities and celebrate International Youth Day (12 August). It launched the 2022 RCE Youth Biodiversity Art Challenge in partnership

with UNESCO (see pg. 12). A Japanese RCE Youth Meeting engaged 30 youths from eight RCEs to present successful collaboration (15 February).

UNU-IAS disseminated knowledge from the global RCEs network at international events including the UN Climate Change Conference (see pg. 8), the Sustainability Research & Innovation Congress 2022 (21 June), and the Central Asian Symposium on ICT in Education (Almaty, Kazakhstan; 6–7 October). Publications included an open-access article in the journal *Frontiers in Sustainability* (volume 3) that identifies trends in the topics and modalities of ESD activities implemented by RCEs (full title: *Minding the GAP: An Overview of Five Years of ESD Projects under the Global Action Programme within the Regional Centres of Expertise on ESD*).

RESEARCH

Climate Change Displacement and the Right to Education

Joint research with UNESCO examined this urgent issue in Bangladesh, India, Indonesia, Tuvalu, and Viet Nam. It explored different scenarios for climate change displacement and policy interventions that would be needed to facilitate education. UNU-IAS produced a set of concrete and evidence-based policy recommendations for protecting the right to education in five emerging scenarios: sudden onset disasters, seasonal and permanent migrations, government planned relocations, cross-border migration, and trapped populations. The findings were disseminated through the Comparative & International Education Society 2022 Annual Conference (21 April), a UNESCO Global Webinar on climate displacement (26 April), and the 2nd UNESCO Asia-Pacific Regional Education Ministers Conference (Bangkok, 5 June).



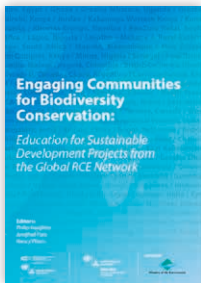
PROJECT

Intangible Cultural Heritage in Lao People's Democratic Republic

This 3-year project applies information and communications technology to engage youth in safeguarding intangible cultural heritage (ICH). UNU-IAS organised the Youth Ambassadors' Forum, a series of workshops in Luang Prabang (20–21 August and 15 October). They provided training for 25 youth ambassadors, who worked with local artisans to understand threats to ICH and create solutions. Focusing on living heritage practised in the region — pottery making, basket weaving, traditional recitation, and the lanad musical instrument — participants applied a design thinking approach to develop prototype projects aimed at solving the economic, social, and environmental challenges faced by practitioners. The project was implemented in collaboration with UNESCO Bangkok, Tokyo Institute of Technology, the International Training Centre for Intangible Cultural Heritage in the Asia-Pacific Region, the Traditional Arts and Ethnology Centre, the Luang Prabang World Heritage Office, and the Luang Prabang Department of Information, Culture and Tourism.

PUBLICATION

Engaging Communities for Biodiversity Conservation



This book highlights innovative biodiversity education projects developed by RCEs during the Global Action Programme (GAP) on ESD from 2015 to 2019. Published in April, it features 12 case studies focused on SDG 14 (life below water) or SDG 15 (life on land), which educated, engaged, and spurred

action in local communities for protecting and restoring ecosystems, species, and habitats. The publication (full title: *Engaging Communities for Biodiversity Conservation: Education for Sustainable Development Projects from the Global RCE Network*) contributes to implementing Priority Action Area 5 of the ESD for 2030 framework (accelerating local level actions), as well as the Convention on Biological Diversity.



PARTNERSHIP

Promotion of Sustainability in Postgraduate Education & Research Network (ProSPER.Net)

UNU-IAS leads this alliance of 55 higher education institutions in the Asia-Pacific region as its secretariat. The members collaborate to integrate sustainable development into postgraduate curriculums and implement joint research projects. By changing the way universities teach about sustainability, ProSPER.Net improves the ways in which future professionals manage sustainability issues across disciplines.

In the network's annual General Assembly meeting (19 October) three new member universities were acknowledged: Mariano Marcos State University (the Philippines), Tokyo University of Agriculture and Technology (Japan), and the University of Toyama (Japan). Joint research projects addressed the "One Health" approach in Indonesia (led by Universitas Gadjah Mada, Yogyakarta) and pollution impacts in forests of South Asia (led by TERI School of Advanced Studies, New Delhi, India). A new project was launched in March, focused on circular economy and education for sustainable built environment (led by RMIT University, Melbourne, Australia). The online ProSPER.Net Leadership Programme in December (see pg. 27) engaged 21 young professionals and emerging leaders to build climate leadership skills for a net zero transition.

Capacity Development & Training

Grant for Global Sustainability

This initiative, supported by the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT), builds collaboration with research and educational institutions in Japan to contribute to the 2030 Agenda. In the current phase GGS projects are focused on collaborative, policy-oriented research with diverse stakeholders including Japanese universities and the private sector, as well as UNU-IAS. In 2022 two projects were initiated. One is focusing on application of information and communications technology (ICT) to safeguard intangible cultural heritage in the Lao People's Democratic Republic (see pg. 25) in collaboration with Tokyo Institute of Technology. A new joint project with Sophia University is focusing on analysis of challenges and solutions for inclusive carbon-neutral societies, nature-based solutions, and curriculum development on climate action for the Paris Agreement.

K-Eco Global Net Zero Partnership

This project advances implementation of the Paris Agreement on climate change at the national level through designing and delivering capacity building modules. Country case studies were conducted for Costa Rica, Japan, and the Republic of Korea to identify success factors and challenges for achieving net zero emissions. Based on the results UNU-IAS developed a framework for assessing national readiness and designed modules that were piloted during the ProSPER.Net Leadership Programme (see below). The modules were then delivered through a net zero capacity development programme for government officials in Thailand (Bangkok, 1-3 March 2023). The project is funded by the Korea Environment Corporation of the Ministry of Environment of the Republic of Korea.



JSPS-UNU Postdoctoral Fellowship

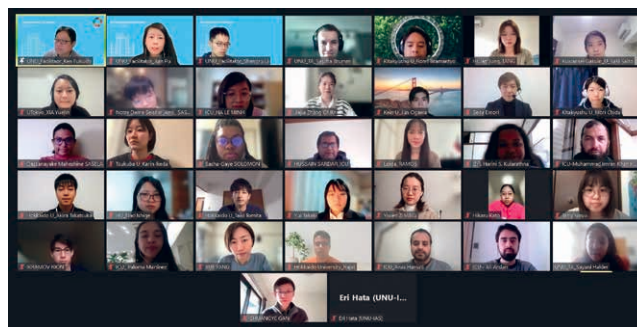
This initiative provides young scholars and policymakers, especially those from the developing world, with opportunities to pursue advanced research and training aligned with the thematic areas of UNU-IAS. The 24-month fellowships are jointly organised by UNU-IAS and the Japan Society for the Promotion of Science (JSPS). Fellows participate in UNU-IAS lectures, seminars, workshops, and conferences, and benefit from the institute's close institutional links with key universities and think tanks in Japan and around the world. During 2022, fellows conducted research on a wide range of topics including sustainable water use and management, localisation of the SDGs, and education for sustainable development.

ProSPER.Net Leadership Programme

Focused on building the climate leadership skills needed for the net zero transition, this programme trained 21 young professionals and emerging leaders from academia, the public sector, the business community, and civil society (5–8 and 16 December). Organised as part of ProSPER.Net (see pg. 25), the online sessions included lectures, leadership activities, and group presentations on net zero transition strategies for cities and communities. The programme was hosted by UNU-IAS with support from the Ministry of the Environment, Japan, and Korea Environment Corporation.

International Seminar Series on Sustainability

Engaging 29 high school students from across Ibaraki Prefecture, Japan, this seminar developed global perspectives and fostered interest in contributing to international society (7-8 February). It featured lectures by UNU-IAS researchers, presentations by fellows and students, and interactive discussion. The seminar was organised in collaboration with the Ibaraki Prefectural Board of Education.



UNU Global Seminars

This seminar series has been organised by UNU since 1985, with the aim of enhancing awareness among students about contemporary global issues and the role of the United Nations in addressing them. Two UNU Global Seminars were organised online during 2022, with the support of MEXT and the Japan Foundation for the United Nations University (jfUNU):

- *37th UNU Global Seminar: Advancing Efforts on the SDGs in the Anthropocene* (8–11 March). This seminar brought together 60 participants from 20 universities and the private sector in Japan to discuss the impacts of climate change, focusing on biodiversity, water, and education, and the action needed to achieve the SDGs.
- *38th UNU Global Seminar: Energy Sustainability in the Anthropocene — Transforming Lifestyles for Carbon Neutrality* (3, 4, 7, and 10 December). Engaging 30 participants from 13 universities and other institutions in Japan, this seminar explored actions needed to accelerate decarbonisation, focusing on how lifestyle changes can contribute to achieving net zero emissions.

Postgraduate Education

UNU-IAS educates the policymakers and researchers of tomorrow through postgraduate degrees and courses that develop the knowledge and adaptive capabilities needed for a more sustainable global future. The institute offers a two-year Master's degree and a three-year PhD degree, as well as short intensive courses conducted in collaboration with leading universities in Japan and other countries.

Students and fellows benefit from the unique learning environment of a global university within the UN system, with access to leading scholars and practitioners, as well as international events. Active engagement in UNU-IAS research projects develops applied skills, while networks and partner institutions provide opportunities for field experience in developing

countries. The institute's location in central Tokyo, at the heart of the city's international community, brings a wide variety of enriching educational opportunities and cultural experiences.

Exchange agreements allow the transfer of credits with the University of Tokyo (UTokyo), International Christian University (ICU), and Sophia University. Through these schemes UNU-IAS students have access to 132 relevant courses at partner universities. UNU-IAS has also been implementing joint diploma programmes with Sophia University and UTokyo. A range of scholarships are provided to support outstanding students, from the Japan Foundation for the UNU (jfUNU), the UNU Rector's Office, UNU-IAS, Asian Development Bank (ADB), and Resona Bank.

35 students from **18** countries

51% female, **49%** male

83% from developing countries

69% supported by scholarships



Learning Journeys

The diverse student body of UNU-IAS reflects the institute's global focus, and its aim of making a strong and lasting impact in local communities and around the world. In this section, three students describe in their own words how studying at UNU-IAS is advancing their learning journeys towards careers as sustainability leaders.



Rafiatu Umarayi Alhassan

MSc student, Ghana

"I have a BA in Development Education, and I have worked with cocoa farmers to help them cope with the impacts of climate change. My research dissertation is looking at the climate change content in agricultural, technical, and vocational training in Ghana. In the future, I see myself working as a climate change analyst, specialising in education."

The courses at UNU-IAS are designed to emphasise the policy aspect, which you always need to consider whenever thinking about a project or a framework: policy and people need to coexist.

We need policy — but if we don't educate people, they won't know how to integrate policy into their lives and local environment. Education and policy need to come together to move the agricultural sector forward."



Miles Lambert-Peck

PhD student, United States of America

"I'm really interested in studying the interplay between social and ecological systems. I started to learn more about the links between biodiversity and society and realised that UNU-IAS was the perfect place to be for my research. There were also specific projects like the Satoyama/Satoumi initiatives that were huge draws."

I think the added value of the programme is the diversity of perspectives it brings together, especially from students representing so many different countries. We're always learning something from each other. It also offers a real operational understanding of the UN.

Being in Japan gave me a different perspective on sustainability. I think that there is a kind of pluralism here that we could learn from — combining decarbonisation efforts with urban and rural biodiversity conservation to affect change without leaving anything out."



Wenjie Liu

PhD student, China

"I had worked in China for more than 7 years in the environmental field. I also studied public policy in the United States. I was looking for a programme that could provide an interdisciplinary approach to not only environmental studies or policymaking, but to how these issues overlap."

While pursuing a PhD, the hardest part is not to find a solution or reach a conclusion, but to ask the right question. I feel that the courses I am taking at UNU-IAS and in the joint diploma programme with the University of Tokyo help me ask the right research questions.

There are many ways to address environmental issues, but it is important to have a systematic approach to climate mitigation and adaptation to build a comprehensive understanding of sustainability."

Knowledge Transfer & Communications

- Publications ▶ pg. 31
- In the News ▶ pg. 32
- On Screen ▶ pg. 34



Publications

UNU-IAS researchers produced 83 publications during 2022, including 51 articles in peer-reviewed scientific journals, as well as policy briefs, working papers, books, book chapters, online articles, and conference papers.

UNU-IAS Policy Briefs

This series presents analysis and policy recommendations for addressing sustainability challenges, in an accessible format. Each brief informs high-level debates, enhances research uptake, and provides actionable recommendations for decision makers at the global, national, and local levels. Nine were published during 2022:

- Scaling up Microirrigation Technology to Address Water Challenges in Semi-arid South Asia (No. 30)
- Strengthening Wastewater Monitoring and Surveillance for COVID-19 and Other Infectious Diseases (No. 31)
- Information & Communications Technology Solutions for Environmental Issues in the Greater Mekong Subregion (No. 32)
- The Biodiversity–Health–Sustainability Nexus: Integrated Solutions from Landscapes & Seascapes (No. 33)
- Budgeting for the SDGs: Lessons from the 2021 Voluntary National Reviews (No. 34)
- Supporting Vulnerable Populations in the Transition to Net Zero Emissions: Priorities for Developed Countries (No. 35)
- Advancing Follow-up and Review for the SDGs: Lessons from the 2021 Voluntary National Reviews (No. 36)
- Managing the Impact of COVID-19 on City Finances (No. 37)
- Recognising and Supporting the Role of Culture in Effective Area-based Conservation (No. 38)

Books

Recent books produced by UNU-IAS researchers include:

- *Globally Important Agricultural Heritage Systems (GIAHS) Monitoring and Evaluation Manual: A Technical Reference* (UNU-IAS, 2022)
- *Engaging Communities for Biodiversity Conservation: Education for Sustainable Development Projects from the Global RCE Network* (UNU-IAS, 2022)
- *Biodiversity-Health-Sustainability Nexus in Socio-Ecological Production Landscapes and Seascapes (SEPLS)* (Springer Nature Singapore, 2022)

Sustainability Science Journal

The scientific journal *Sustainability Science* is a collaborative initiative of UNU-IAS and the UTokyo Institute for Future Initiatives (IFI), published by Springer. It has developed a profile as one of the leading journals in the field, with an impact factor of 7.196 (2020 data) and a global ranking of 16th in the Sustainable Development category (Google Scholar). A total of 181 articles were published in 2022, with special features on topics including managing climate risks, valuation of nature, agri-food systems, and indigenous cultural and environmental management.

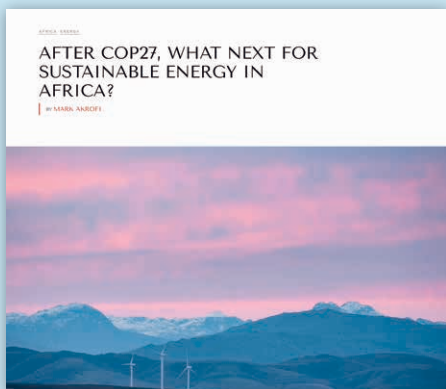
In the News

UNU-IAS advances global debate on sustainability through expert commentary in the media, providing insights on current events and emerging sustainability issues. Our interviews, op-eds, and original articles inform public understanding and influence policy discourse by explaining the latest research and policy recommendations.

After COP27, What Next for Sustainable Energy in Africa?

Diplomatic Courier, 12 December

An op-ed by UNU-IAS doctoral student Mark Akrofi on the outcomes of COP27 and their implications for sustainable energy transition in Africa.



Stop! The Earth is Screaming for Help: Earth is Facing Global Warming

Fujingaho Magazine, 21 April

Published for Earth Day 2022, this article by Akio Takemoto (Programme Head) explained the climate crisis and the action needed to limit global temperature rise to 1.5°C. The article was published in Japanese on the *Fujingaho* website.

Judging India's Climate Ambitions

Policy Forum, 19 September

Examining India's updated climate targets, this article by Ahmad Khalid (JSPS-UNU Postdoctoral Fellow) argued that achieving them requires more than ambition – the country will need greater international support.

How to Fight Pandemics through Wastewater Surveillance

Diplomatic Courier, 19 April

An article by Sadhana Shrestha (JSPS-UNU Postdoctoral Fellow) promoted wastewater surveillance as a cost-effective solution to strengthen global resilience against future health crises.

What Can We Expect at COP27? From Glasgow to Sharm el-Sheikh

Policy Forum, 10 November

Ahead of COP27, this opinion piece by Himangana Gupta (Research Fellow and Academic Associate) outlined its expected outcomes with a focus on adaptation, loss and damage, and finance.

Inclusive Sustainability in Business

Forbes Japan, December 2022 Issue

An interview with Akio Takemoto (Programme Head) explored synergies and trade-offs between climate action and sustainable development from a business perspective.

What Can We Do for the Environment? UNU Researchers Answer!

Elle Japon, Cosmopolitan, and Women's Health, 14–16 June

This article, published in Japanese, outlined eight everyday actions that we can take for a more sustainable lifestyle — on issues ranging from microplastic pollution and biodiversity loss to food security and urban green space restoration. The sustainable lifestyle tips were provided by Upalat Korwatanasakul (Research Fellow), Bruno Leles (Partnerships Associate), Juan Pastor-Ivars (Research Associate), and Jian Pu (Research Fellow and Academic Associate).

Sustainability Needs Not Uniformity but Coherence

The Japan Times, 26 September

An interview with Mahesti Okitasari (Consultant) discussed her motivation for working in sustainability and how to promote more coherent policymaking.



On Screen

UNU-IAS videos showcase innovative solutions to sustainability challenges, presenting stories of research in action and interviews with local practitioners. They include original documentaries, research outputs, in-depth interviews, and promotional shorts. This page presents a selection of the 27 videos produced by UNU-IAS during 2022.

View & subscribe ► youtube.com/@unu-ias

Passing Down Traditional Knowledge — Noto's Satoyama & Satoumi

This documentary series explores the traditional knowledge of the Noto Peninsula in Ishikawa Prefecture, Japan. It introduces traditional techniques for cultivating, harvesting, and preserving local foodstuffs that leave very little to waste. The videos promote

using resources sustainably and provide inspiring lessons for the future of food. They were produced by the UNU-IAS Operating Unit Ishikawa/Kanazawa (OUIK) as part of its initiative on localising the SDGs.



Edible Seaweed, Kajime



Ohama Soybeans



Sea Cucumber



Wild Edible Plants



Research & Tools for Better Water Policies

Analysing the links between water and the economy can help achieve water-related SDGs in rapidly developing regions. This video shows how UNU-IAS researchers developed a framework to better assess the value of water through their fieldwork in four Asian countries.



Empowering Youth through Partnerships

The story of Pla-girls, a group of Japanese high school students advancing solutions to microplastics pollution with support from teachers, academics, and private companies. Their outstanding research contributions won the UNU-IAS Director's Award at the Seventh Youth National Environment Activity Contest (see pg. 19).



Landscape Approaches for National Biodiversity Strategies & Action Plans

Landscape and seascape approaches are innovative strategies for sustainability that combine development with conservation. This video shows how adopting them in national strategies and plans helps to build societies in harmony with nature.



Biodiversity Education – Innovative Projects by the Global RCE Network

An overview of innovative education projects across 30 countries, focused on biodiversity conservation and ecosystem restoration. The projects were implemented as part of the Global Action Programme on Education for Sustainable Development.

About UNU-IAS

The United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS) is a research and teaching institute dedicated to realising a sustainable future for people and our planet. Based in Tokyo, Japan, UNU-IAS serves the international community by producing evidence-based knowledge and solutions to inform policymaking and address priority issues for the UN system.

Through policy-oriented research and capacity development the institute drives progress in four thematic areas: governance for sustainable development, biodiversity & society, water & resource management, and innovation & education. UNU-IAS creates new value by integrating expertise across these areas, in both academia and policymaking, to mobilise knowledge for sustainability and advance the global effort to achieve the SDGs by 2030. It applies innovative approaches and research methods to challenge conventional thinking and develop creative

solutions to emerging issues of global concern. The institute's research, education, and training engage a global network of scholars and partner institutions, driving interconnectedness between policymakers and the science and academic communities to realise sustainable solutions. Through field-based research, including an operating unit in Kanazawa City (Ishikawa Prefecture, Japan), UNU-IAS is developing models for localising the SDGs and other global agendas by building multi-stakeholder partnerships.

UNU-IAS postgraduate education advances the broader transformation towards sustainability in society — producing the policymakers and researchers of tomorrow, who will be at the forefront of global efforts for sustainability. The institute offers master's and doctoral degrees, postdoctoral fellowships, and innovative short courses, in close collaboration with leading universities in Japan and other countries.

Thematic Areas

Governance for Sustainable Development

Advancing sustainable development depends on translating the global vision of the SDGs and related agendas into practice and ensuring their effective implementation. UNU-IAS mobilises knowledge, expertise, and partnerships to strengthen governance and policymaking processes for sustainable development and localise these urgent global agendas.

Water & Resource Management

Water is at the core of sustainable development, linking livelihoods, health, ecosystems, and infrastructure. Ensuring access to clean water and sanitation for all requires a transformation in the way we manage water resources. UNU-IAS is developing sustainable, decentralised approaches to overcome the water crisis, enhance resilience, and help build decarbonised, circular economies.

Biodiversity & Society

Action on biodiversity is urgently needed to sustain a healthy planet and the lives that it supports. UNU-IAS advances human-environment solutions to accelerate transformational change toward living in harmony with nature. The institute's research provides evidence-based inputs for the Kunming-Montreal Global Biodiversity Framework, with a focus on sustainable management of production landscapes and seascapes.

Innovation & Education

Building more sustainable societies relies fundamentally on fostering creative, innovative solutions and empowering individuals through education. UNU-IAS accelerates knowledge generation and lifelong learning for a sustainability transformation, through policy-oriented research, capacity development, and partnerships.

An Institute of the United Nations University

UNU-IAS is an institute of the United Nations University (UNU) with a specific mandate to address sustainability issues. UNU is a global think tank and postgraduate teaching organisation comprising 13 institutes, located in 12 different countries.

Organisation

UNU-IAS was inaugurated on 1 January 2014. The institute is based at the global headquarters of UNU in Tokyo, and it has an operating unit located in Kanazawa City in Ishikawa Prefecture, Japan (UNU-IAS OUIK).

Global Environment Outreach Centre (GEOC)

This joint initiative of UNU-IAS and the Ministry of the Environment of Japan (MOEJ) supports on-the-ground activities and multi-stakeholder partnerships in various social sectors towards sustainable societies within and beyond Japan. It plays an important role in UNU-IAS communications, outreach, and knowledge management.

During 2022 GEOC engaged public audiences on issues such as climate change, green recovery, decarbonisation, and localisation of the SDGs. The centre conducted 14 outreach activities involving more than 3,700 people online and in-person across the world. These activities helped to increase the impact of UNU-IAS research, raise awareness of priority issues for the UN system, and bring public voices to decision-makers. GEOC organised dialogue sessions on the outcomes of COP26 and a social media campaign for COP27 on the next steps for climate action, featuring experts from Maui County, Hawaii, USA; and the Ministry of the Environment of Cambodia. The centre also held events marking the international observances World Wetlands Day (2 February), World Water Day (22 March), and International Day for Biological Diversity (20 May).

Staffing

As of December 2022, UNU-IAS had a staff of 91, comprising nationals of 25 different countries. Women constituted 57% of UNU-IAS staff. UNU-IAS is committed to achieving gender balance and ensuring gender equality. UNU employment practices also strive to ensure equality of opportunity and treatment for persons with disabilities and to prevent any form of disability-based exclusion or discrimination.

Board

The role of the UNU-IAS Board is to provide guidance on the strategic orientation of the institute and its academic and policy work, and ensure scientific excellence. The Board advises on management issues such as budgeting and staffing, and reviews the institute's activity reports, strategic plans, and work programmes. The 2022 meeting of the Board was held on 8–9 December.

UNU-IAS Board Members

As of December 2022

- **Dr Melissa Brown Goodall** (USA)
Senior Director, Environmental Innovations Initiative, University of Pennsylvania
- **Mr Mitsuo Kojima** (Japan)
Representative Director, MetLife Asset Management Corp. (Japan)
- **Dr Philip Osano** (Kenya) CHAIR
Centre Director, Stockholm Environment Institute Africa
- **Prof. Yukari Takamura** (Japan)
Professor, Institute for Future Initiatives, University of Tokyo

Members of the UNU-IAS Board serve in their individual capacity, and are appointed by the Rector of UNU, in consultation with the UNU Council. The Rector of UNU and the Director of UNU-IAS are ex-officio members of the Board.

Financing

UNU-IAS is financed entirely by voluntary contributions from governments, agencies, international organisations, and other sources.

Financial Support

Contributions during 2022 over USD 20,000

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- Government of Japan — Ministry of Education, Culture, Sports, Science and Technology (MEXT)
- Government of Japan — Ministry of the Environment (MOE)
- Japan Science and Technology Agency (JST)
- Japan Society for the Promotion of Science (JSPS)
- Kanazawa City
- Korea Environment Corporation
- Resona Holdings, Inc
- The Japan Foundation for the United Nations University (JfUNU)
- United Nations Educational, Scientific and Cultural Organization (UNESCO)

End of Report

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UNU is committed to the ideals and practices of environmental sustainability,
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THE GLOBAL GOALS
For Sustainable Development