Director’s Message

In January 2014 I was honoured to take up the position of Director of the newly created UNU Institute for the Advanced Study of Sustainability (UNU-IAS). Leading this new institute has been, and continues to be, an exciting challenge and a unique opportunity.

While 2014 was a year of transition for our new institute, it also saw significant engagement by UNU-IAS in a number of critical international processes. In particular, our research on Governance for Sustainable Development contributed to debates and policy processes related to the post-2015 development agenda, through an ongoing series of policy briefs — several of which were launched in May with a forum at UN Headquarters in New York.

Our institute contributed to the development of the new global Sendai Framework for Disaster Risk Reduction (DRR) that was adopted at the Third UN World Conference on DRR in Sendai, Japan in March 2015. Policy recommendations produced by UNU-IAS research were included in the Sendai Framework, and UNU-IAS organized side events at the conference on ecosystem-based DRR, water cycle management, the role of education in DRR, and socio-economic challenges in the recovery process.

UNU-IAS played an active role in numerous international events, including the IUCN World Parks Congress, the UNESCO World Conference on Education for Sustainable Development (ESD) and the 12th Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD). We also continued our prominent engagement in shaping the development of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), and launched a valuable new toolkit for evaluating the resilience of agricultural landscapes.

In September, we welcomed the first seven students for our newly restructured UNU-IAS Master of Science in Sustainability degree programme, and three new students for our PhD in Sustainability Science programme.

We were also honoured to welcome four distinguished international experts who have been appointed as the first UNU-IAS Board members. I would like to express my sincere appreciation to these Board members, who provided invaluable guidance at and beyond the first Board meeting in November 2014.
Priorities for 2015

During 2015, my colleagues and I will be focusing our efforts towards three policy processes which are essential to building a sustainable global future, and which will be high on the international agenda throughout the year.

The first of these is the process to forge the post-2015 agenda, culminating in the September UN summit in New York. Our research so far has mainly addressed governance structures for the Sustainable Development Goals (SDGs), and now we are expanding its scope by adding a research stream on SDG implementation mechanisms, as well as monitoring and evaluation processes.

The second key policy area is biodiversity and ecosystem services, including both CBD and IPBES. We will be engaging our research, policy development and capacity building efforts in this context by making full use of our global networks and partnerships.

Our third targeted international process is climate change and DRR. A new project will analyse and promote international cooperation on low carbon technology as a means for mitigating climate change. We will also contribute to implementation of the new Sendai Framework on DRR through research on technological disasters and risk communication.

In all of our activities we will be aiming to make the most of our geographic location in Asia while maintaining a global outlook, and drawing upon our unique status as part of an academic organization within the UN system.

Another important priority for 2015 will be to further develop our postgraduate programmes by strengthening collaboration with leading universities in Japan and other countries. We are also building better links between our research and teaching programmes, to provide opportunities for students to gain practical experience while expanding our research capacity.

These priorities will guide UNU-IAS research, capacity development and teaching during 2015, as we redouble our efforts to make important contributions towards addressing the difficult and pressing challenges of global sustainability. I am very much looking forward to leading the further development of the institute in this direction during 2015.

Finally, I would like to take this opportunity to extend our sincere gratitude to all of the friends, partners and donors of UNU-IAS. With your support I am confident that 2015 will be a year of action, further growth and success for UNU-IAS.

Kazuhiko Takemoto
Director, UNU-IAS
June 2015
About UNU-IAS

The United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS) is a leading research and teaching institute based in Tokyo, Japan. Its mission is to advance efforts towards a more sustainable future, through policy-oriented research and capacity development focused on sustainability and its social, economic and environmental dimensions. UNU-IAS serves the international community, making valuable and innovative contributions to high-level policymaking and debates within the UN system.

The activities of the institute are in three thematic areas: sustainable societies, natural capital and biodiversity, and global change and resilience. UNU-IAS applies advanced research methodologies and innovative approaches to challenge conventional thinking and develop creative solutions to emerging issues of global concern in these areas. The institute’s research, education and training combine expertise from a wide range of areas related to sustainability, and engage a global network of scholars and partner institutions.

Through postgraduate teaching UNU-IAS develops international leaders with the interdisciplinary understanding and technical skills needed to advance creative solutions to problems of 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.

Our Approach
UNU-IAS research, education and training are directed towards issues of high policy relevance for the United Nations and its member states. Our work is interdisciplinary, forward thinking and strategic, aiming to identify future sustainability challenges for policymakers. Collaborative partnerships are a critical foundation and distinguishing feature of all UNU-IAS work, combining in-house expertise with a global network of partner institutions.

An Institute of the United Nations University
UNU-IAS is one of 13 institutes and programmes, located in 12 different countries, which together comprise the United Nations University (UNU) — a global think tank and postgraduate teaching organization, headquartered in Tokyo.

Organization
UNU-IAS is based at the global headquarters of UNU. It also has units in three other locations, each of which has a specialized focus but operates as an integral part of the institute.

Traditional Knowledge Initiative (Darwin, Australia)
The UNU-IAS Traditional Knowledge Initiative (TKI) seeks to build greater understanding and facilitate awareness of traditional knowledge to inform action by indigenous peoples, local communities and domestic and international policymakers. The initiative was established in 2007 with support from the Christensen Fund and the Northern Territory Government of Australia.
**Sustainable Cycles (Bonn, Germany)**
The UNU-IAS operating unit in Germany, Sustainable Cycles (SCYCLE) focuses on the development of sustainable production, consumption and disposal patterns for electrical and electronic equipment, as well as other ubiquitous goods. SCYCLE leads the global e-waste discussion and advances sustainable e-waste management strategies based on life-cycle thinking.

**Operating Unit Ishikawa/Kanazawa (Ishikawa, Kanazawa, Japan)**
The UNU-IAS Operating Unit Ishikawa/Kanazawa (OUIK) implements research on the sustainable utilization of biodiversity and ecosystem services. It was established in April 2008 with support from the governments of Ishikawa prefecture and Kanazawa city in Japan. The research activities of OUIK are focused in three areas: Satoyama and Satoumi, Sustainable Primary Industries, and Cities and Biodiversity.

**Origins**
UNU-IAS was inaugurated on 1 January 2014. It was formed through the consolidation of two previous UNU institutes: the UNU Institute of Advanced Studies based in Yokohama, and the UNU Institute for Sustainability and Peace (UNU-ISP) based in Tokyo. UNU-IAS builds on the strong foundations of these two previous institutes, and of more than 35 years of UNU academic activities in Tokyo.

The first of these two institutes, the UNU Institute of Advanced Studies, was established in 1996. It focused on biodiversity, sustainable development governance, urban ecosystems, science and technology policy options for developing and least developed countries, and education for sustainable development.

The UNU Institute for Sustainability and Peace was established in 2009, integrating two previous UNU academic programmes based at UNU headquarters. UNU-ISP focused on global change, peace and human rights, and development — with a mandate to address the interconnections between pressing global issues in these areas. UNU-ISP introduced UNU’s first postgraduate degree in September 2010, the Master of Science in Sustainability, Development and Peace.

**Staffing**
As of December 2014, UNU-IAS had a staff of 91. Of these, 24 were developing country nationals, and by gender the staff comprised 49 men and 42 women.

**Financing**
UNU-IAS is financed entirely by voluntary contributions from governments, agencies, international organizations and other sources. For a list of major financial contributors, please refer to page 25.

**Board**
UNU-IAS has a board that meets once a year, and is entrusted by UNU’s Council with the responsibility to ensure that the purposes of the institute are attained in accordance with the principles, policies and criteria formulated by the Council. The first meeting of the UNU-IAS Board was held on 14–15 November.
Contribution to the Sustainable Development Goals (SDGs) Process

During 2014 the UNU-IAS project Governance for Sustainable Development (GSD) contributed to international discussions regarding the establishment of the SDGs. The project produced a series of six policy briefs, three of which were launched at a policy forum in May at UN Headquarters in New York, with the aim of informing discussions of the SDG Open Working Group (OWG). Policy proposals from one of these briefs were included in the OWG outcome document. Based on the result of a stakeholder workshop held back to back with the OWG negotiations in February in New York, the proposal argues that targets of the SDGs must include regional, national or local aspirations while remaining linked to global systemic challenges through the global goals.

The GSD article “An Integrated Framework for Sustainable Development Goals”, published in the scientific journal Ecology and Society established a framework for new goals and targets in the post-2015 development agenda. Public events organized as part of the GSD project included the symposium Science and the Sustainable Development Goals (15 November), which explored challenges and opportunities for incorporating scientific inputs into the SDGs process, and Integrating Sustainability into the Post-2015 Development Agenda (2 October), which presented a range of different perspectives on issues of sustainability and governance related to the post-2015 agenda. Invited speakers at these events included Prof. Jeffrey Sachs (Director, The Earth Institute) and Ambassador Csaba Kőrösi (Co-Chair, OWG).
Examining goalsetting and implementation processes for the SDGs, the GSD project aims to propose policies and frameworks to support a long-term transformation in human behaviour towards a more sustainable society. It is supported by the Ministry of the Environment, Japan (MOEJ) and implemented in collaboration with the Earth System Governance project, a global network of leading environmental governance experts.

Developing the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)

Since 2011, UNU-IAS has led development of the assessment process for IPBES through a series of international scientific expert workshops, in collaboration with UNESCO, UNEP and the governments of Japan, the Republic of Korea, and South Africa. The project’s official working document on the IPBES conceptual framework, supplemented by information documents on indigenous and local knowledge systems and Asia-Pacific regional assessment, contributed significantly to development of the IPBES conceptual framework and its Work Programme 2014–2018.

In September–October, UNU-IAS conducted a postgraduate intensive training course specifically designed to contribute to the capacity-building function of IPBES. UNU-IAS researchers have been actively participating in several IPBES task forces and expert groups to provide scientific inputs on issues such as local and indigenous knowledge for the sustainable use of ecosystem services, and ecosystem-based disaster risk reduction (eco-DRR).

Prof. Jeffrey Sachs, Director of The Earth Institute at Columbia University, speaks at a UNU-IAS symposium on the post-2015 development agenda.
**International Satoyama Initiative**

This project promotes the maintenance and rebuilding of socio-ecological production landscapes and seascapes (SEPLS) for the benefit of biodiversity and human well-being. A toolkit on the indicators of resilience, developed by ISI in collaboration with Bioversity International, the UN Development Programme (UNDP) and the Institute for Global Environmental Strategies (IGES), was launched at the IUCN World Parks Congress in November. It includes 20 indicators designed to capture various dimensions of resilience relevant to SEPLS — ecological, agricultural, socio-economic and cultural. It also provides practical guidance for organizing resilience assessment workshops in local communities.

The ISI project also serves as the secretariat of the International Partnership for the Satoyama Initiative (IPSI), which grew to 164 members during 2014. UNU-IAS is analysing case studies submitted by IPSI members to extract lessons on sustainable management of production landscapes and seascapes, and produce a publication on tools and approaches to enhance related knowledge. A joint workshop with IGES in July discussed selected case studies and developed the analysis process.

The ISI project has also been involved in reconstruction efforts after the Great East Japan Earthquake and tsunami of 2011, especially in the Urato Islands. This work has focused on restoring and revitalizing communities in a sustainable manner while respecting their rich ecosystems and biodiversity.
Research & Policy Development

1. **Sustainable Societies**
   Exploring transformations through which societies can become more environmentally, socially and economically sustainable

2. **Natural Capital and Biodiversity**
   Promoting the sustainable use of biodiversity and ecosystems to secure their benefits for current and future generations

3. **Global Change and Resilience**
   Developing approaches to address climate change, build community resilience and reduce disaster risks
Education for Sustainable Development

UNU-IAS has been promoting and advancing the Education for Sustainable Development (ESD) agenda since 2003 through its ESD project. This includes working closely with UNESCO in the Inter-Agency Committee for the UN Decade of ESD (2005–2014) and in developing its successor framework, the Global Action Programme (GAP) on ESD. The ESD project played a prominent role in the UNESCO World Conference on ESD (WCESD) in Aichi-Nagoya, Japan (10–12 November), which marked the end of the decade and launched the GAP. UNU-IAS organized the 9th Global Regional Centres of Expertise (RCE) on ESD Conference in Okayama, Japan (4–7 November), whose outcomes fed into the Aichi–Nagoya Declaration of the WCESD. UNU-IAS also led the organization of the International Conference on Higher Education for Sustainable Development, in which over 700 participants reaffirmed their commitments to this agenda.

The global multi-stakeholder RCE on ESD network, coordinated by UNU-IAS, expanded to 135 members during 2014, each serving as an innovative platform for multi-sectoral and interdisciplinary collaboration. UNU-IAS also leads a network of 33 higher education institutions known as ProSPER.Net — the Promotion of Sustainability in Postgraduate Education and Research Network — which implemented joint research and organized capacity development activities including the ProSPER.Net–Scopus Young Scientist Award in Sustainable Development Symposium in Tokyo (July), the ProSPER.Net Leadership Programme in Putrajaya, Malaysia (August), and the Young Researchers’ School in Shanghai (September).

Education for Sustainable Development in Africa (ESDA)

The ESDA project promotes capacity building for sustainability in Africa, by supporting development of three collaborative master’s degree programmes established by eight leading African universities. The programmes were initiated at four of these universities during 2014, after the first had been launched in 2013 — bringing the total enrolment to 57 students. In addition to serving as the secretariat for ESDA, UNU-IAS has been promoting joint research by the partner universities, which produced a special issue of the African Journal of Sustainable Development. The ESDA project also developed a Next-Generation Researcher (NGR) initiative to support collaboration on sustainable development by young scholars in Africa and Asia, which was launched in a session (20 January) organized as part of a University of Tokyo symposium.

Water and Urban Initiative (WUI)

Launched in 2014, this project aims to contribute to sustainable urban development in developing countries in Asia by producing policy tools and an information platform. Focusing on human health, ecosystem conservation and environmental disasters, it considers how policies can address population growth, urbanization, water treatment and low-carbon technology. Case studies are being conducted in four pilot cities in Asia: Hanoi, Jakarta, Kathmandu and Manila, with a series of stakeholder workshops held since November 2014. The project contributed to the 7th World Water Forum in the Republic of Korea (16 April 2015), organizing a side event to discuss conditions, challenges and solutions for improving the urban water environment and showcase five new WUI Working Papers.
Solving the E-Waste Problem

Waste electrical and electronic equipment (e-waste) is a growing environmental and social problem. Led by UNU-IAS SCYCLE, the Solving the E-waste Problem (Step) Initiative is a global network developing practical, science-based solutions to e-waste. Step facilitates research, analysis and dialogue among more than 65 member organizations and advises governments in developing e-waste policies, legislation and management systems. During 2014 two White Papers and two Green Papers were published, with other activities including the launch of the first online global e-waste world map, a project on cathode ray tube recycling and several training events.

Development of National E-Waste Management Systems

With growing mountains of e-waste around the world, including in developing and transition countries, there is a growing need to develop national systems to manage e-waste. This project, led by the Ethiopian Government in cooperation with UNIDO, aims to develop an e-waste strategy for Ethiopia, upgrade existing facilities and promote cooperation with other East African countries. UNU-IAS SCYCLE is contracted as the International Project Coordinator (IPC) and chairs the International Advisory Group of the project, representing governmental, research, private and international entities.

E-Waste Academies

These academies, organized by UNU-IAS SCYCLE, include lectures, workshops, group projects and site visits, through which participants interact, share knowledge and develop partnerships to advance solutions to e-waste problems. The E-Waste Academy – Managers Edition was held in El Salvador (April), bringing together 21 participants from 10 different countries in Latin America, and 3 participants from Africa to share insights on “urban mining”. The E-Waste Academy – Scientists Edition, organized annually since 2009, was in Shanghai (November) with 17 participants from developing and developed countries.

E-Waste Quantification

UNU-IAS is a member of the international Partnership on Measuring ICT for Development, together with numerous UN agencies and other organizations. UNU-IAS SCYCLE chairs the partnership’s task group on measuring e-waste, and developed guidelines for measuring e-waste that were published in June. The unit is also assisting various countries in quantifying e-waste generation, with work completed for Belgium, France, Italy and the Netherlands, and close to completion for Ireland, Portugal and Romania.

Countering Waste Electrical and Electronic Equipment Illegal Trade

UNU-IAS serves as the scientific coordinator for this project, which develops recommendations to support the European Commission (EC), and law enforcement and customs efforts to counter illegal trade in waste electrical and electronic equipment (WEEE) in and from Europe. The project, launched in 2013, is financed by the EC and implemented with INTERPOL, the UN Interregional Crime and Justice Research Institute (UNICRI) and other partners. Progress during 2014 included mapping of e-waste actors, components and recycling processors, and classification of WEEE and related organized crime.
Tradeoff Analysis and Local Governance Model of Satoyama Ecosystem Services
Focusing on Japan’s Noto peninsula, this project develops new methods for knowledge generation and local governance of ecosystem services. Initiated in 2013 in collaboration with Kyoto University and Kanazawa University, the project has developed an ecosystem services inventory for Noto peninsula, reflecting the interrelations between ecosystem services and the spatial distribution of their producers and beneficiaries. The project has provided information documents to the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), developed through workshops hosted by UNU-IAS on traditional socio-ecological landscapes.

Agrodiversity and Sustainability
Agrodiversity refers to the ways in which farmers use environmental diversity, integrating biological, technological and institutional components that offer flexibility and resilience in adapting to climate and ecosystem changes. This project focuses on the potential of agrodiversity in forest management to address climate change and biodiversity loss in the mountainous regions of mainland Southeast Asia. A workshop in Myanmar (7–9 January) identified and adapted best practices for forest rehabilitation in China, Lao People’s Democratic Republic and Myanmar, and developed capacity for sustainable forest rehabilitation. With support from the Asia Pacific Network for Global Change Research (APN), UNU-IAS and partners also launched a joint research initiative at a workshop in Okinawa, Japan (15–17 September) to examine community-based coastal forest management and strengthen community resilience to climate change impacts.

Developing a Comprehensive Assessment Method for Ingenious “Agri-Cultural” Systems in Japan
This project supports research to identify and conserve ingenious traditional agricultural systems, in collaboration with the Globally Important Agricultural Heritage Systems (GIAHS) initiative of the Food and Agriculture Organization of the United Nations (FAO). It also provides technical advice and research assistance for GIAHS applications, contributing to the successful designations of two GIAHS sites in China, three in Japan and two in the Republic of Korea since 2012. The project has also provided expert advice to seven additional candidate sites in Japan. With partners, the project established the East Asia Research Association for Agricultural Heritage Systems, which promotes GIAHS exchanges and builds networks in Asian countries. The project is coordinated by UNU-IAS in collaboration with The University of Tokyo, and funded by the Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF).
Operating Unit Ishikawa/Kanazawa
Since its establishment in 2008, OUIK has been supporting policy developments in the field of environmental management, working closely with the governments of Ishikawa prefecture and Kanazawa city in Japan, as well as UNU’s global partners. OUIK organized an international workshop (11 February) to discuss sustainable management of socio-ecological production landscapes and seascapes (SEPLS) in Ishikawa’s Noto peninsula. The team also began working on the Mt. Hakusan region (the southern part of Ishikawa prefecture), which is registered as a Biosphere Reserve site by UNESCO. As an advisory member of the Biosphere Reserve council, OUIK is developing collaboration with the international research community. The findings of OUIK research on utilization and implementation of GIAHS were presented at an official side event at the 12th Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD) on 7 October. Outcomes from this conference were then shared with local stakeholders through an open seminar (11 December). For its research on biological and cultural diversity, OUIK explored the linkages between Kanazawa’s natural and cultural richness, which can be seen in crafts such as Kaga yuzen silk-dyeing designs inspired by local fauna and flora (see photos). The team also organized workshops that culminated in a symposium (1 March) on the relationship between Kanazawa’s local food culture and biodiversity in the context of globalization.

Biodiplomacy Initiative
This project provides technical inputs to CBD processes and advice for member countries on developing effective policies for access and benefit sharing. It also coordinates the Biodiversity and Community Health Initiative (BaCH), a partnership working at the nexus of biodiversity and health to advance poverty reduction and sustainable development. The work of BaCH was acknowledged by the CBD Subsidiary Body on Scientific, Technical and Technological Advice at its 18th meeting (23–28 June). UNU-IAS also led the production of a chapter in the State of Knowledge Review on Health and Biodiversity, published by the CBD Secretariat and the World Health Organization.
University Network for Climate and Ecosystems Change Adaptation Research in Asia
UNU-IAS serves as the secretariat of UN-CECAR, a platform for collaborative research, education and capacity development by over 20 leading Asian universities. The network aims to enhance education and research on adaptation to climate change and ecosystems change, and to contribute to the development of the emerging field of sustainability science. In 2014, UN-CECAR completed a three-year study in Indonesia, Sri Lanka and Viet Nam on Building Resilience to Climate Change in Rural Agricultural Production Systems, which showed that mosaics of traditional and modern food production systems enhance productivity and resilience. Findings from the project were shared with the public at a UNU-IAS symposium (14 February) and with the government of Sri Lanka at a workshop in Colombo (26 February).

Two new UN-CECAR studies were initiated with funding from the Asia-Pacific Network for Global Change Research (APN): one on urban water cycle management in Japan, Thailand and Viet Nam; and the other on flood loss estimation. A UN-CECAR conference at the National University of Malaysia on University Led Development (30 May) discussed the role of universities, especially in promoting development driven by sustainability principles. A follow-up conference at UNU-IAS (24 October) developed the International Network for Advancing Transdisciplinary Education (INATE), which was launched at the World Conference on Disaster Risk Reduction in Sendai, Japan (14 March 2015).

Fukushima Global Communication (FGC) Programme
This project applies a human security approach to examine impacts of the 2011 disasters in Japan on people and society, and explore other relevant international cases (including Chernobyl and Three Mile Island). It produces policy recommendations related to nuclear accidents and disaster risks, including contributions to the new global Sendai Framework for Disaster Risk Reduction (DRR) that was adopted at the Third UN World Conference on DRR in Sendai, Japan (March 2015). The FGC project produced a series of publications in the lead-up to the conference, including a UNU-IAS Policy Brief (March 2015) and five FGC Working Papers.

Events during 2014 included a symposium on Information Sharing and Communication for Recovery in Fukushima (Fukushima City, 3 February) and a session at the International Forum for Sustainable Asia and the Pacific (23 July) on stakeholder communication for informed decision making, co-organized with the Institute for Global Environmental Strategies (IGES). Public seminars coorganized with the British Embassy in Tokyo (15 October) and the UN Scientific Committee on the Effects of Atomic Radiation (11 November) explored challenges in monitoring and communicating health risks related to radiation. The project conducted field research in Fukushima and expert consultations with international organizations in New York and Vienna (May) and Geneva (October).
Rice Terrace Farming Systems
This research project aims to provide ecosystem-based adaptation measures to strengthen the resilience of rice terrace farming systems in Hani (China) and Ifugao (the Philippines) to climate change, reduce the risk of flood and drought, and enhance existing systems to cope with climate change. UNU-IAS postgraduate students joined faculty and students from Yunnan Normal University (China) to conduct a field survey on water security of the Hani rice terrace system. Following the survey, UNU-IAS organized a workshop with participants from UNESCO, The University of Tokyo and Tsukuba University (Japan) in Tokyo (9 June). The project’s research was published in the Asia-Pacific Network Science Bulletin.

Enhancing Resilience to Climate and Ecosystem Changes in Semi-Arid Africa (CECAR-Africa)
Working with the UNU Institute for Natural Resources in Africa (UNU-INRA) and other leading research institutes in Ghana and Japan, CECAR-Africa aims to combine climate change and ecosystem change research to build an integrated resilience enhancement strategy, or the “Ghana model”. The project’s findings were published in a special issue of the Journal of Disaster Research, and an international conference was organized in Tamale, Ghana to present and share research (6–7 August). The project also developed and implemented capacity building programmes in communities in northern Ghana, in collaboration with local counterpart institutions.

Integrated Flood Modeling and Pre-Disaster Loss Estimation in Asian Countries
This new research project, funded by APN, aims to develop a methodology for pre-disaster estimation of flood losses in Asia, based on approaches used in China and Japan, and augmented with flood damage data from other Asian countries. A planning workshop was organized at UNU-IAS (26 August) and an inception workshop held in Myanmar (4 November). Preliminary loss functions were derived for Sri Lanka based on fieldwork carried out in March in the Kelani River Basin.

Traditional Knowledge Initiative
TKI plays a leading role in promoting the role of traditional knowledge in addressing challenges such as climate change, biodiversity and water management. TKI participates in relevant UN processes including the UN Permanent Forum on Indigenous Issues (UNPFII), and has contributed to the 5th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

The TKI Savanna Fire Management Initiative is built upon the fire management practices of Aboriginal peoples, infused with their traditional and local knowledge. This initiative supports expansion of fire carbon farming across Northern Australia, and promotes awareness of the potential of indigenous fire management technologies to contribute to carbon abatement for indigenous peoples in other parts of the world, particularly in Brazil, Indonesia, Mexico, Papua New Guinea, Peru, South Africa and Venezuela. In November TKI managed a series of sessions on Respecting Indigenous and Traditional Knowledge and Culture (Stream 7) at the IUCN World Parks Congress, Sydney. The unit also convened a satellite meeting on the Savanna Fire Management Initiative during the 20th session of the Conference of the Parties to the UN Framework Convention on Climate Change (COP 20) in Lima, Peru (December).
Global Marine Governance
This project focuses on effective management of human activities in marine areas, supporting the achievement of international conservation and sustainable use targets related to oceans and coasts. The project is developing a training manual for CBD on the use of traditional knowledge in identifying ecologically and biologically significant areas in the oceans, and partnering with Simon Fraser University's Centre for Coastal Studies (Canada) to apply global models in community-led marine conservation in British Columbia.

Development of Vulnerability and Adaptation Indices for the Asia-Pacific Region
This project has been promoting climate change adaptation education and networking in Asia over the past five years, as part of the S-8 research initiative implemented by several leading Japan-based universities and research institutes. In 2014, UNU-IAS held two project meetings (30 July and 11 November) to share the research outcomes with partner organizations. Research on the climate change impacts on floods in Sri Lanka was incorporated in the book *Designing Climate Change Adaptation*.

Climate Change Adaptation through Optimal Stormwater Capture Measures: Towards a New Paradigm for Urban Water Security
This project investigates water capture measures such as infiltration trenches, storage systems, rainfall harvesting and urban drainage systems for coping with climate change, increased urban floods and depleting ground water tables. The project was launched with a workshop at the Asian Institute of Technology in Bangkok (21 November), where discussions were held on project implementation and support for students involved in its research activities.

Monitoring and Management of Persistent Organic Pollutants in Asia
This capacity building project provides 10 developing countries in Asia with scientific knowledge and technology to monitor persistent organic pollutants (POPs) in the environment, and develops monitoring networks. The project has been implemented since 1996, receiving technical assistance from the Shimadzu Corporation. During 2014 UNU-IAS conducted monitoring of perfluorinated compounds (PFCs) in Asia, with the resulting data included in the Second POPs Monitoring Report of the Stockholm Convention for the Asia-Pacific Region. The project’s results were presented at the International Conference of Asian Environmental Chemistry in Thailand (November).
Postgraduate Education & Capacity Development

UNU-IAS education and capacity development aim to produce international leaders with the interdisciplinary understanding and technical skills needed to advance creative solutions to problems of sustainability. The institute offers master’s and PhD degree programmes, as well as a range of short courses, in close collaboration with leading universities in Japan and other countries. UNU-IAS postdoctoral fellowships provide recent PhD graduates with opportunities to engage in further research and contribute to the institute’s projects.

UNU-IAS 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. Engagement in UNU-IAS research projects develops applied skills, while networks and partner institutions provide opportunities for field experience in developing countries.
During 2014 the UNU-IAS postgraduate degree programmes were evaluated by the National Institution for Academic Degrees and University Evaluation (NIAD-UE) of Japan, resulting in the institute being awarded accreditation on 26 March 2015, for a period of 7 years.

MSc in Sustainability (2015)
The UNU-IAS Master of Science in Sustainability equips students with the knowledge and skills necessary to contribute to solving challenges of sustainability. Designed for recent graduates, professionals and practitioners, the two-year programme addresses sustainability through an interdisciplinary approach, engaging the global network of UNU-IAS partner institutions. Offered since September, the programme builds on the previous master’s degree programmes of the two institutes that merged to form UNU-IAS in January (see Origins, page 5), which together have produced 60 graduates since September 2010.

Students can study courses from UNU-IAS and partner universities in Japan, and are eligible for a joint diploma offered by UNU-IAS and The University of Tokyo Graduate School of Frontier Sciences (UT-GSFS). Successful completion of the programme requires students to earn at least 30 credits, including compulsory courses, specialized elective courses, research seminars and a master’s thesis.

In September, seven new students were enrolled in the Master of Science in Sustainability, with two receiving scholarships provided by the Japan Foundation for UNU (JFUNU), and two receiving Asian Development Bank scholarships. These scholarships are provided for outstanding students from developing countries with a need for financial assistance.
PhD in Sustainability Science
The UNU-IAS PhD in Sustainability Science aims to develop leading researchers in the interdisciplinary field of sustainability science. The three-year programme seeks to promote a better understanding of sustainability challenges by incorporating global change perspectives, specifically those related to climate change and biodiversity.

Through coursework and problem-oriented research, students develop their critical thinking and problem-solving skills, as well as the technical literacy required to address sustainability problems. Students are required to earn 14 credits and complete a PhD dissertation in one of several UNU-IAS research themes, focusing on global change and sustainability. A joint PhD diploma in sustainability, developed by UNU-IAS and The University of Tokyo Graduate School of Frontier Sciences (UT-GSFS), is also available to students of the programme.

In September, three new students were enrolled in the PhD in Sustainability Science, two of whom receiving scholarships from JFUNU. The first students of the programme, which was originally developed by the UNU Institute for Sustainability and Peace in 2012, are due to graduate in July 2015.

Short-term Courses

These short courses provide innovative standalone study opportunities for professionals, while serving as core components of the UNU-IAS postgraduate degree programmes and providing credits towards degrees at partner universities.

UNU Intensive Core Courses
A total of 31 students participated in these six-week courses at UNU-IAS in Tokyo (8 September – 16 October). As well as standalone opportunities for professionals and postgraduate students from other institutions, they also serve as core components of the UNU-IAS master’s and doctoral degree programmes. The courses have been organized annually by UNU since 2000.

Though advanced in nature, the courses are designed to be accessible to students and professionals who are not necessarily specialists in the relevant fields. The courses are unique in their extensive engagement of invited scholars and practitioners as guest lecturers, many of whom are experienced UN professionals, to provide students with insights into relevant policy issues and practical challenges.

### Intensive Core Courses Students, 2014

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<th>Region</th>
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<tr>
<td>Europe</td>
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<td>Americas</td>
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<td>Africa</td>
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21 from developing countries
Building Resilience to Climate Change
These two courses were organized as part of the University Network for Climate and Ecosystems Change Adaptation Research (UN-CECAR), a framework for collaborative research, education and capacity development. Sixty-one students participated in the courses (14–31 October), which were conducted through video-conferencing between UNU-IAS, Indian Institute of Technology, the National University of Malaysia and Gadjamada University of Indonesia.

Postgraduate Course on Leadership for Sustainability
This course aims to foster future leaders with a deep understanding and awareness of sustainability challenges. The 2014 course was held on 14–25 October at UNU-IAS in Tokyo, with 16 students participating.

Postgraduate Course on Renewable Energy
This course introduces students in the Asia-Pacific region to renewable energy solutions for development needs with sound environmental management practices. The 2014 course was held on 2–25 April at UNU-IAS in Tokyo, with 13 participants from research institutes, governments and companies.

Climate, Energy and Food Security
This annual course considers the optimal future direction of the Asia-Pacific region in order to deal with the interconnected concerns for climate, energy and food security. Held over 15 weekly sessions, the course brings together teaching faculty from a network of universities in the Asia-Pacific region using video conference technology. In 2014, there were 105 students who participated in the course, which was hosted by the UNU Office of Communications in Tokyo (26 September 2014 – 23 January 2015).

UNU Global Seminar — Shonan Session
The UNU Global Seminar — Shonan Session has been held annually since 1985 in Shonan, Japan, aiming to enhance awareness about global issues and the role of the United Nations in addressing them. The 30th session was held on 1–4 September, on the topic The United Nations: New Challenges to Global Security. Eighty-seven students from Japanese universities participated, with keynote lectures delivered by Dr. David Malone (Rector, UNU) and Prof. Susumu Yamakage (Professor, Aoyama Gakuin University). The session is organized by UNU-IAS and the Kanagawa International Foundation (KIF), in cooperation with 10 cooperating universities within Japan and with the support of JFUNU.

UNU–Kirin Fellowship Programme
Each year the UNU–Kirin Fellowship Programme provides fellows from countries in Asia with training at the National Food Research Institute (NFRl) in Tsukuba, Japan over 12 months. In April five students from Bangladesh, Cambodia, Indonesia, Thailand and Viet Nam commenced their training. The programme has been organized by UNU and the Kirin Holdings Company Limited since 1993.
Fellowships

UNU-IAS offers postdoctoral fellowships to provide young scholars and policymakers, especially those from the developing world, with opportunities to pursue advanced research and training that is of direct relevance to the institute’s research agenda. 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.

**JSPS-UNU Postdoctoral Fellowships**

Jointly organized by UNU and the Japan Society for the Promotion of Science (JSPS), the JSPS–UNU Postdoctoral Fellowship programme provides promising, highly qualified, young researchers with the opportunity to conduct advanced research relevant to the main thematic focus areas of UNU-IAS, in cooperation with host researchers at Japanese universities and research institutions. This fellowship is aimed at candidates who have completed their PhD degrees in the past six years and also have professional or research experience.

JSPS-UNU Postdoctoral Fellows in 2014 conducted research on diverse policy-relevant topics, such as sustainable development governance, climate change governance, agricultural management and global social policy.

**UNU-IAS Postdoctoral Fellowships**

Through UNU-IAS Postdoctoral Fellowships recent PhD graduates can put the knowledge and expertise acquired during their doctoral research to practical, policy-relevant use. Postdoctoral Fellowships are awarded each year for a period of 12 months, starting in September. The fellows are resident at UNU-IAS in Japan for the full term of the fellowship.

UNU-IAS hosted 7 fellows from 6 different countries in 2014. Their research contributed to several UNU-IAS projects, on topics including urban development and climate co-benefits, urban water environments in Asia and governance for sustainable development.
Project-based Capacity Development

Global Leadership Training Programme in Africa (GLTP)
This programme aims to train global leaders who can contribute to solving challenges in Africa, by providing Japanese postgraduate students with internship opportunities at partner institutions in Africa. During the 2013–2014 session, 6 selected applicants carried out research in Ghana, Kenya, Senegal, South Africa and Zambia. A reporting workshop was organized in Tokyo (19 June) to share the research and experiences of the students. Nine new students selected in June 2014 have begun their studies in Africa.

On-the-Job Research Capacity Building for Food Security and Environmental Conservation in Developing Countries (OJCB)
This initiative supports capacity building projects by leading scientists in developing countries, providing on-the-job training for young researchers. It aims to increase agricultural productivity through innovation, strengthen research capacity and build networks for cooperation between researchers, ultimately contributing towards food security and environmental conservation in developing countries. It is funded by the Ministry of Agriculture, Forestry and Fisheries of Japan, and coordinated by UNU-IAS. Twelve projects supported by the OJCB initiative were completed by May, having provided training for a total of 31 young researchers. In August 10 new projects were initiated, involving 29 researchers.
UNU CAFÉ Event Series
Launched by UNU-IAS in 2014, the UNU CAFÉ is a discussion series in Japanese for students and recent graduates interested in working at international organizations or in a global context. These events, held at UNU Headquarters in Tokyo, feature active members of the international community who share their experiences and engage in discussions with the audience.

UNU CAFÉ speakers in 2014 included:
• Mr. Kiyotaka Akasaka (former UN Under-Secretary-General for Communications and Public Information), 15 April
• Prof. Yuto Kitamura (The University of Tokyo), 6 June
• Ms. Kaoru Nemoto (UN Information Centre, Tokyo), 29 September
• Prof. Yasushi Katsuma (Waseda University), 3 December

“Mandela & I” Lecture Series
Organized in cooperation with the South African Embassy in Tokyo, this monthly lecture series aims to share the lessons and legacies of Nelson Mandela. The series was initiated in September, with a lecture by Dr. Mohau Pheko (Ambassador of the Republic of South Africa to Japan).

Publications
Publications by UNU-IAS researchers published in 2014 included books, chapters in edited volumes, articles in peer-reviewed scientific journals, special issues of journals, policy briefs, working papers, articles in magazines and newspapers, website articles, conference papers and proceedings, and videos and podcasts. A selection of these is listed below.

Books
In 2014 UNU-IAS researchers published 8 books, including:
• Human Security and Japan’s Triple Disaster: Responding to the 2011 Earthquake, Tsunami and Fukushima Nuclear Crisis (Routledge)
• Human Security and Natural Disasters (Routledge)
• Stewarding the Earth: Rethinking Property and the Emergence of Biocultural Rights (Oxford University Press)
Policy & Research Briefs
UNU-IAS policy/research briefs published during 2014 included:
• “Coherent Governance, the UN and the SDGs”
• “Earth System Challenges and a Multi-layered Approach for the Sustainable Development Goals”
• “Ending the Double Burden of Malnutrition: Addressing the Food and Health Nexus in the Sustainable Development Goals”
• “Integrating Biodiversity with Local and City Planning: The Experience of the Studios in the Development of Local Biodiversity Strategies and Action Plans”
• “Integrating Governance into the Sustainable Development Goals”
• “Linking Education and Water in the Sustainable Development Goals”
• “Sustainable Development Goals and Inclusive Development”

Online Outreach
Launched in April, the UNU-IAS website (ias.unu.edu) was developed by the UNU Office of Communications and the UNU-IAS Communications Team. During the year it received 0.69 million pageviews, with the top countries for visitors including Japan, the United States, India, the United Kingdom, Germany, Pakistan and Nigeria. During 2014 UNU-IAS also developed a Facebook account that was inherited from one of its previous institutes (with 3,800 “likes”) and launched a Twitter account.

Videos
During 2014 the UNU YouTube channel included 19 videos based on UNU-IAS work. These videos were in English and Japanese, and included interviews with UNU-IAS researchers and other leading experts, field documentaries and event recordings.

Media Coverage
UNU-IAS work in 2014 was featured by a number of major global media outlets, including the BBC, Bloomberg, the Economist and the Guardian. The institute also received coverage in the Japanese media, with interviews by Dr. Takemoto (Director, UNU-IAS) in the Nikkan Kogyo and Yomiuri Shimbun newspapers.

Global Environment Outreach Centre (GEOC)
This joint initiative of UNU-IAS and the Ministry of the Environment of Japan (MOEJ) aims to engage with civil society organizations and foster multi-stakeholder partnerships for the realization of a sustainable society. It plays an important role in facilitating the communications and outreach efforts of UNU-IAS.

GEOC highlights global issues by coordinating and organizing thematic symposiums and seminars, such as the World Water Day events by UNU and UNIDO (20–21 March) held at UNU Headquarters, a symposium on islands and biodiversity (22 May) co-organized by MOEJ to mark the International Day for Biological Diversity, and the International Symposium on Gender and Sustainability (1 November) co-organized by Ochanomizu University (Japan), exploring women’s empowerment and gender-responsive transformative approaches to building a sustainable and equitable future. GEOC also hosted the ESD Global Citizen’s Forum (20–22 August) in Tokyo in advance of the UNESCO World Conference on Education for Sustainable Development (ESD), and organized a side event at the conference on Connecting Local Stakeholders through ESD (12 November) to promote ESD partnerships in the Tohoku region of Japan.
Financial Support

- Aoyama Gakuin University
- Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet)
- Asia-Pacific Network for Global Change Research (APN)
- Arrow
- AXA Group Ltd.
- Basel Convention Regional Centre for Asia and the Pacific
- BIO Intelligence Service S.A.S.
- Blueprint ERE Pte. Ltd.
- Braunschweig University of Technology
- Chih-o-Tiande Group Ltd.
- Chuo University
- Cisco Systems, Inc.
- City of Kanazawa
- City of Yokohama
- Compliance & Risks Ltd.
- Dataserv - Ces Ltd.
- Datac Technologies Ltd.
- Dell Inc.
- Department of the Environment, Government of Australia
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
- Dismantling & Recycling Centre Vienna
- DURABILIT B.V.
- Ericsson AB
- European Commission
- FFact Strategy and Implementation
- Global e-Sustainability Initiative
- Hewlett-Packard GmbH
- Ibaraki University
- IDEA Consultants, Inc.
- Ink Cartridge “Satogaeri” Project
- Institute for Global Environmental Strategies (IGES)
- International Christian University
- International University of Japan
- Ishikawa Prefectural Government
- Japan Foundation for UNU
- Japan Science and Technology Agency
- KERP Research Electronics
- Kirin Holdings Company, Ltd.
- MacArthur Foundation
- MicroPro Computers Ltd.
- Ministry of Agriculture, Forestry and Fisheries, Government of Japan
- Ministry of Education, Culture, Sports, Science & Technology, Government of Japan
- Ministry of the Environment, Government of Japan
- Nokia OYJ
- Nomura Foundation
- Nuclear Regulation Authority, Government of Japan
- Oak Foundation
- Oeko-Institut
- Osaka University
- Philips Electronics N.V.
- Recupel V.Z.W.
- Remote Sensing Technology Center of Japan
- Swiss Federal Laboratories for Materials Science and Technology (EMPA)
- The Sustainability Consortium
- Technische Universität Berlin
- The University of Tokyo
- Tokai University
- Tokushima University
- Tokyo Institute of Technology
- Tsuda College
- UMPR
- United Nations Environment Programme (UNEP)
- United Nations Industrial Development Organization (UNIDO)
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- University of Southern Denmark
- United States Environmental Protection Agency
- Vereniging NVMP
- WorldLoop
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