

# ANNUAL REPORT



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### **ABOUT UNU-INWEH**

### **ABOUT US**

UNU-INWEH acts as the "United Nations' Think Tank on Water". We respond directly to the regional and global water crisis and facilitate efforts to meet UN Development goals by providing a scientific evidence base. The United Nations University is not a traditional university in the sense of having a faculty, campus, or students. It carries out its work in cooperation with other research institutions, international organizations, and individual scholars and scientists throughout the world.

UNU-INWEH was established as a public service agency and as an institute of the UNU in 1996. Its operations are secured through long-term host-country and core-funding agreements with the Government of Canada. Located in the McMaster Innovation Park in Hamilton, Ontario, its facilities are provided in partnership with McMaster University.

### **OUR VISION**

UNU-INWEH strives to ensure a world free of water problems where sustainable human development and environmental health and security are assured for all.

### **OUR MISSION**

UNU-INWEH's mission is to help resolve pressing water challenges that are of concern to the United Nations, its Member States, and their people, through knowledge based synthesis of existing bodies of scientific discovery; through cutting-edge targeted research that identifies emerging policy issues; through application of on-theground scalable solutions based on credible research; and, through relevant and targeted public outreach.





# COMPARATIVE ADVANTAGE

# The Whole Spectrum of Water Issues

As a think tank on water that covers the whole spectrum of water issues, UNU-INWEH offers services on a worldwide scale, occupies a unique niche in the UN system, and has a number of comparative advantages over similar institutes operating at regional and international scales.

As part of a UN organization, UNU-INWEH is linked to various processes within the UN system, which allows it to provide policy guidance on matters of international importance. A key example is the UNU-INWEH Director elected to serve as the Chair from 2010-2012 for UN-Water — a group of 31 UN organizations working on water and sanitation issues globally.

UN status affords UNU-INWEH unparalleled access to national governments and related policymaking processes. At the same time it receives preferential and often exclusive access to financial and human resources available within the UN system.

UNU-INWEH's activities also cut across a broad range of geographical scales. UNU-INWEH is one of the very few institutions that can run pilot studies with small communities, and then synthesise findings to impact policy formulation at national and international scales.

It is important to point out that UNU-INWEH operates within UNU's responsive administrative management— one which provides efficient and timely services —while maintaining the full range of rules and regulations promulgated by the UN system. With an administrative support group that works closely with the project implementation teams, it offers flexible and efficient implementation of projects and initiatives.



UNU-INWEH staff members on World's Ocean Day 2015

# **DIRECTOR'S SUMMARY**

UNU-INWEH underwent some remarkable changes in 2015, which included securing major funding, recruitment of key professional staff, and successful media engagement on a number of fronts.

UNU-INWEH was successful in obtaining a C\$ 10 million grant from the Canadian Government to support its core operations. A grant agreement between UNU-INWEH and the Department for Foreign Affairs, Trade, and Development (now: Global Affairs Canada) was signed in April 2015. This grant offers a state of sustainability and stability for the years to come.

With water security gaining increasing attention in recent years, UNU-INWEH entered into a strategic partnership with EPCOR Utilities Inc. to establish "EPCOR Water Security Research Chair" at the institute since March 2015. This four-year engagement will provide C\$ 0.4 million. Mr. Robert Sandford was appointed as this Chair, and has been actively canvassing for UNU-INWEH with a wide range of audiences in Canada and abroad.

The world leaders gathered in New York in September 2015 to approve the 2030 Agenda for Sustainable Development. The UN member states clearly expressed the need for scientific evidence to help achieve the Sustainable Development Goals (SDGs) as well as that for building institutional and human capacity for success. These notions link directly to the work UNU-INWEH has undertaken since 2011 to provide an evidence-based analysis of the SDGs and the approaches for their implementation. In partnership with UNOSD, GWP and McMaster University, UNU-INWEH led the process of analyzing the current status of the water sector, aspirations and goals related to water, and potential roadblocks and challenges to implementation of SDGs in ten UN Member States: Bangladesh, Bolivia, Canada, Indonesia, Pakistan, Republic of Korea, Singapore, Uganda, Vietnam, and Zambia. The resulting report was presented and discussed in a workshop organized by UNDESA in February 2015 (New York): "Water in the World We Want: Catalyzing National Water-Related Sustainable Development." A third study on national level SDG implementation is now under development; a partners' workshop was held in Hamilton (6 October).



Dr. Zafar Adeel, Director

UNU-INWEH served as the Scientific Coordinator for the Economics of Land Degradation (ELD), an initiative for a global study on the economic benefits of land-based ecosystems. In 2015, three primary ELD reports were developed for the scientific communities, the private sector, and policy-/decision-makers respectively. These reports were presented for the EU and the UN policy audiences through major public events in Brussels (15 September) and New York (24 September), respectively. Four case study reports focused on Mali, Jordan, Sudan and Ethiopia were also published. UNU-INWEH continues support for ELD capacity-building activities, including developing the concept and content for a Massive Open Online Course (MOOC). Following the completion of Phase I of the ELD Initiative in December 2015, UNU-INWEH is seeking resources to allow the implementation of follow-up activities, including: pilot testing the ELD 6+1 approach to assess the economics of land management in 6-8 case study countries; developing an ELD economic module for the WOCAT database; and developing an ELD land valuation tool for a land banking project in Turkey.

UNU-INWEH initiated implementation of its 2015-2019 Strategic Plan. This Strategic Plan inter alia foresees an enhanced relationship with McMaster University. The President of McMaster University agreed to establish a joint committee that will advise on creating stronger institutional arrangements. UNU-INWEH also actively participated in the Second McMaster Water Week, through jointly organized public events and active dissemination through social media.

Dr. Zafar Adeel, Director United Nations University Institute of Water, Environment and Health



# **HIGHLIGHTS**

Biogas made from human waste worldwide could provide annually up to US\$ 9.5 billion worth of natural gas as well as producing electricity for as many as 138 million homes



Credit: Dr. Corinne Schuster-Wallace

UNU-INWEH developed a business case for the 'Waste to Wealth' initiative in Uganda by providing insight into the potential value of human waste in a global context. This was done in consultation with the Uganda government and a number of other stakeholders from public sector, civil society, and business community. Financial resources for the project were provided by the Grand Challenges Canada (GCC) through a competitive process. The results of the project revealed that biogas made from human waste worldwide could provide annually up to US \$9.5 billion worth of natural gas as well as producing electricity for as many as 138 million homes. The results of the study have attracted a massive uptake by media, such as Global News in Canada, key US outlets (The Washington Post, CNN, Time Magazine, Huffington Post, and Chicago Sun-Times) and international outlets (BBC, Daily Mail, Al Jazeera, and France TV), among others.

### The Water Catalyst Award 2015 was awarded to His Excellency Mr. Sirodjidin Aslov, Minister of Foreign Affairs of the Republic of Tajikistan

The Water Catalyst award serves to recognize individuals around the world who are working to catalyze change and make water safe and accessible for all; the award is jointly presented by UNU-INWEH and Suez Water. Recognizing the work of key individuals at the forefront of the global call to action is paramount to inspire others to join the ongoing efforts to ensure safe and sustainable water for all. H.E. Minister Aslov has served as a global leader on water issues, and has been instrumental in mobilizing governments around the world to act on water challenges and in catalyzing action by the United Nations community. He has championed dialogue on water sharing and water cooperation, leading to a series of major conferences attended by a large number of government representatives, experts, global institutions, and thought leaders. During his professional career, the minister has demonstrated exceptional advocacy to improve the lives of others through improving access to drinking water and heightening the prominence of water issues in the political sphere and on the international development agenda. This biennial award gives the opportunity to share the experiences of the laureates through a public lecture, which was organized on 2 October 2015. The Honorable Minister discussed the global water challenges facing us, and how the international community can collectively respond.



Mr. Sirodjidin Aslov, Minister of Foreign Affairs of the Republic of Tajikistan. Credit: Dave Gruggen



From left to right: Mr. Shah Jahan, Dr. Manzoor Qadir (Assistant Director), Ms. Astrid Sithavaja (Suez Water), Mr. Sirodijan Aslov (Minister of Foreign Affairs of the Republic of Tajikistan), Dr. Allison Sekuler (McMaster University), Dr. Zafar Adeel (Director). Credit: Dave Gruggen

# PROGRAMMES OF UNU-INWEH

### **Human Development and Ecosystems**

### Water & Human Development Programme

Leading in the development of a global community of best practice that identifies, synthesizes, evaluates, generalizes, and disseminates practical methods and innovative approaches to accelerate solutions to global and regional challenges at the interface of water and human development. This programme tackles three interconnected and closely linked challenges: ensuring water and health security; safeguarding and sustaining water availability; and, securing food supply for all.

### **Projects**

# Water-related Sustainable Development Goals (SDGs)

Independent, scientifically-based evidence is provided for evaluating SDGs involving water and better understanding their implementation. This project also includes analysis of the future outlook beyond 2015 and assessment of progress towards specific targets.

# Innovative Wastewater Management & Reuse

Focusing on multiple uses of wastewater, including business models for improving sanitation access and wastewater management that operate on profits made from water, energy, fertilizer, and nutrient recovery.

# Water, Sanitation & Hygiene for Women & Children

Achieving better outcomes for maternal and child health through improved access to safe drinking water and adequate sanitation and hygiene, particularly in the community and health care facilities.

### Water Security & Food Security

Moderating an evidence-based dialogue on water security and assisting with capacity development where needed. A particular focus is better use of water to achieve food security, relating to the concepts of 'more nutrition and economic return per drop' and improving water use efficiencies from 'field to fork' (reducing wastage).



Credit: UN Photo, Albert González Farran



Credit: UN Photo, Evan Schneider

### Water & Ecosystems Programme

Focusing on enhanced capacity and research to improve scientific understanding of critical dryland, freshwater, and coastal ecosystem functions and management approaches adapted to a changing environment. This programme also explores integrated holistic management approaches to foster sound policies for water and its important role in protection of ecosystems and conservation of ecosystem services.

### **Projects**

### **Economics of Water & Land Challenges**

Investigating the economic dimensions of a broad range of water- and land-related challenges. Business and private sector engagement is sought for both understanding and responding to broad economic challenges.

### **Integrated Ecosystem Management**

Improving the resilience of societies to the threats posed to coastal habitats, marine fisheries resources, and freshwater ecosystems by rapid population growth, human activity, and climate change, through integrated solutions that apply from 'ridge to reef.'

### **Building Ecosystem Capacities**

Focusing on institutional and human capacity gaps, a number of activities focus on integrated water resources management, sustainable management of mangroves, and integrated management of dryland ecosystems.



Credit: Robin Hanson, Nature Seychelles



The United Nations Convention to Combat Desertification - Twelfth Session of the Conference of the Parties (COP12) in Ankara, Turkey on October 16, 2015. From left to right: Dr. Wang Tao (CAREERI, China), Dr. Hafdís Hanna Ægisdóttir (UNU-LRT), Dr. Richard Thomas (ICARDA), Dr. Nidhi Nagabhatla (UNU-INWEH), Prof. Houcine Khatteli (Institut des Régions Arides (IRA)- Tunisia), Prof. Atsushi Tsunekawa (Tottori University, Japan)

# SELECT PROJECT ACTIVITIES



# Water Security and Food Security

UNU-INWEH is working with lead researchers, practitioners, and policy makers through global and regional dialogues. Two regional expert consultations were organized for the Asia Pacific region (Bangkok, Thailand, 9-10 November) and the Latin America and Caribbean region (Fortaleza, Brazil 26 November). UNU-INWEH is also pursuing a series of books with Springer under the title of "Water Security in a New World." An authors' workshop was held in Hamilton (16-18 September) to discuss and finalize the volume on water security in the Indus Basin, Pakistan.

Credit: UN Photo, Evan Schneider

### Water-related Sustainable Development Goals (SDGs)

UNU-INWEH continued engagement with a range of partners around the 2030 Agenda for Sustainable Development, particularly pertaining to water. In partnership with UNOSD, GWP and McMaster University, UNU-INWEH led the process of analyzing the current status of the water sector, aspirations and goals related to water, and potential roadblocks and challenges to implementation of SDGs in ten UN Member States: Bangladesh, Bolivia, Canada, Indonesia, Pakistan, Republic of Korea, Singapore, Uganda, Vietnam, and Zambia. The resulting report was presented and discussed in a workshop organized by UNDESA in February 2015 (New York): "Water in the World We Want: Catalyzing National Water-Related Sustainable Development." A third study on national level SDG implementation is now under development; a partners' workshop was held in Hamilton (6 October).



### Water Without Borders (WWB)



As a collaborative graduate diploma programme between UNU-INWEH and McMaster University, WWB addresses water, environment and health issues across geopolitical and disciplinary borders. UNU-INWEH created a research fund to cover part of WWB students' research and international conference costs on a competitive basis. The annual intake of the WWB students continued with eight new students joining the programme in 2015.

### WWB Students Trip to Uganda 2015



Credit: Dr. Corinne Schuster-Wallace



Credit: Dr. Corinne Schuster-Wallace



Credit: Dr. Corinne Schuster-Wallace



Credit: Dr. Corinne Schuster-Wallace



### **Economics of Land Degradation (ELD)**

UNU-INWEH served as the Scientific Coordinator for the Economics of Land Degradation (ELD), an initiative for a global study on the economic benefits of land-based ecosystems. In 2015, two primary ELD reports were developed for the scientific communities and policy-/decision-makers. These reports were presented for the EU and the UN policy audiences through major public events in Brussels (15 September) and New York (24 September), respectively. An ELD User Guide and four case study reports focused on Mali, Jordan, Sudan and Ethiopia were also published. UNU-INWEH continues support for ELD capacity-building activities, including developing the concept and content for a MOOC.

# **KEY STAKEHOLDERS/AUDIENCE**

Undertaken with the involvement of a range of stakeholders, UNU-INWEH's research has diverse audience broadly grouped into:

1 politicians and policymakers, including members of parliament, ministers, policy advisors, and key government officials at the national and local levels



2 experts and scientific community in water-related research institutions and academia



**3** UN bodies, including other UNU institutes, and international and regional organizations



4 water-related industries and private entrepreneurs



**5** general public and civil society



# UN AND OTHER POLICY LINKS **DEVELOPED/CONTINUED IN 2015**

UNU-INWEH developed and strengthened existing linkages with UN institutions such as UNEP, WHO, FAO, UNESCO, UNOSD, UNESCAP, IPBES, UNCCD, the Global Mechanism, Ramsar, UNCCD, UNEP-IEMP and UNECLAC; and international and regional institutions such as GWP, Future Earth, ICARDA, GIZ, WOCAT, IWMI, UAE-MoEW, Mangrove for Future-Asia, IUCN, CORDIO, SAMS, Neotrópica Foundation, Resilient Coasts Initiative Consortium and KEco. UNU-INWEH actively participated in the following UN events:

22-25

Capacity Building Workshop for SDG implementation, New York

**UN-Water Meeting** of Senior Programme Managers, Nairobi

**FEBRUARY** 

MARCH

World Water Day, New Delhi and New York



UNU-INWEH Director Dr. Zafar Adeel, Dr. Corrine Schuster-Wallace, Mr. Robert Sandford.

From left to right:

8-10

High Level UN International Conference on Water Decade. Dushanbe

JUNE

**AUGUST** 

21-23 **UN-Water** Meeting, Stockholm 19-22

First IPBES Capacity-building Forum, India

12-23

**UNCCD** Conference of Parties, Ankara

**OCTOBER** 

**NOVEMBER** 

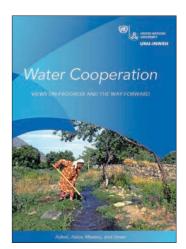
World Toilet Day, New York



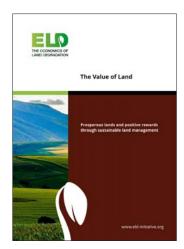
Concluding events of the UNSGAB, New York

# **MAJOR PUBLICATIONS AND**

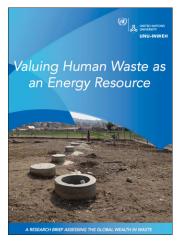
# **RESEARCH OUTPUTS IN 2015**



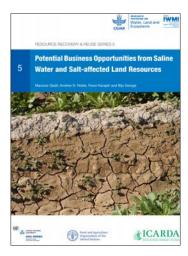
Adeel, Z., S. Aslov, J. Maestu, and O. Unver, 2015. Water Cooperation – Views on Progress and the Way Forward. UNU-INWEH, Hamilton, Canada.



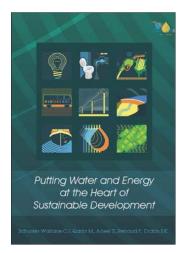
ELD Initiative, 2015. The value of land: Prosperous lands and positive rewards through sustainable land management. Available from www.eld-initiative. org.



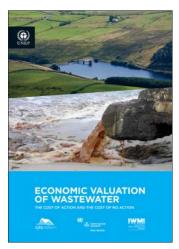
Schuster-Wallace C.J., C. Wild, and C. Metcalfe, 2015. Valuing Human Waste as an Energy Resource A Research Brief Assessing the Global Wealth in Waste. UNU-INWEH, Hamilton, Canada.



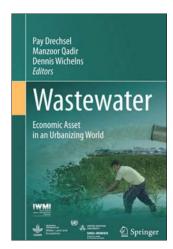
Qadir, M., A.D. Noble, F. Karajeh, and B. George, 2015. Potential business opportunities from saline water and salt-affected land resources. Resource Recovery and Reuse Series 5, International Water Management Institute (IWMI), Colombo, Sri Lanka.



Schuster-Wallace C.J., M. Qadir, Z. Adeel, F. Renaud and S.K. Dickin, 2015. Putting Water and Energy at the Heart of Sustainable Development. UNU-INWEH, Hamilton, Canada.



Hernández-Sancho, F., B. Lamizana-Diallo, J. Mateo-Sagasta and M. Qadir, 2015. Economic Valuation of Wastewater: The Cost of Action and the Cost of No Action. 68 pp. Division of Environmental Policy Implementation, United Nations Environment Programme, Nairobi, Kenya.

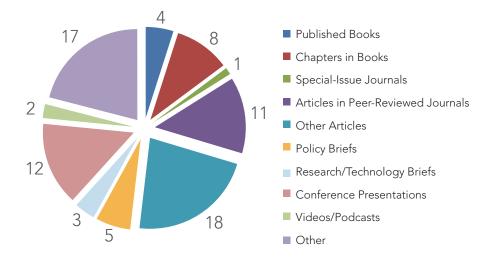


Drechsel, P., M. Qadir and D. Wichelns, 2015. Wastewater: **Economic Asset in an Urbanizing** World. Springer Science+Business Media Dordrecht, the Netherlands. 282 pp.

# VOLUME 3 Walter Leal Filho Editor Handbook of Climate Change Adaptation Springer Reference

Nagabhatla, N., S.K. Sahu, A. Gaetaniello, L. Wen and W. Lee, 2015. Understanding impacts of climate variation in varied socio-ecological domains: A pre-requisite for climate change adaptation and management. In: Handbook of Climate Change Adaptation. Springer Publications. ISBN: 978-3-642-40455-9. pp 1-25.

### **PUBLICATIONS IN 2015**





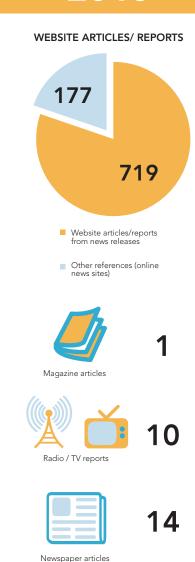
# **KEY EVENTS IN 2015**

### Global Outreach at UNU-INWEH

Media outreach efforts in 2015 resulted in reference to UNU-INWEH in 65 countries, captured from almost 900 online news sites.



# MEDIA COVERAGE **2015**





theguardian

How Poop Can Be Worth \$9.5 Billion When will the world wake up to the potential of poo power?

# The Washington Post

### These are today's best ideas

Let's get two nasty numbers out of th lbs. (290 billion kg) of feces per year, billion gal. (1.98 billion liters) of urin billion f you'd like to get your own annuas: contribution to this heaping helping of yuck.

From the moment human beings shambled out of the state of nature, the problem has always been just what to do about all that biological refuse. In the developed world, the answer is familiar: Flush it away as fast as possible and try not to think about it. In the developing world—especially in the parts where up to 2.4 billion people have no access to advanced sanitation and 1 billion have no facilities of any kindthings are a lot more difficult. Worse than difficult, the problem is dangerous, since human waste fouls water supplies, spreads infection and wrecks overall quality of life.

Now, according to a smart study by a Un think tank on water, environment and health, there may be a simple—and profitable—solution: turn human waste from a disposal problem to an energy r

don't say you haven't wondered about Burning humanity's poop could yield up to \$9.5

### **HUFFINGTON POST**

### **Human Waste Could Light Up More Than** 138 Million Homes: Study



Human feces from the developing world could power millions of homes



How human poop could generate power for up to 138 million homes

UNU-INWEH's release, "Vast energy value in human waste" resulted in coverage in 14 languages at 450 news sites in 65 countries

"EPCOR Endows UNU Water Security Chair" - March 10, 2015



Canadians must take water security more seriously: scientist

HAMILTON SPECTATOR Global water expert to lead UN team based in Hamilton



Looking for leadership on water

JOHN POMEROY, BOB SANDFORD AND JAMES BRUCE

"World loses trillions of dollars worth of nature's benefits each year due to land degredation"

- September 15, 2015

The Washington Jost Damaging the land we live on is costing humans trillions every year



Land degradation costs the world up to \$10.6tn a year, report says

REUTERS Spread of deserts costs trillions, spurs migrants: study

Newsweek

Climate Change Will Cause the World's Next Migration Crisis

# **KEY EVENTS IN 2015**

### Local Outreach at UNU-INWEH

# PUBLIC EVENTS - 2015





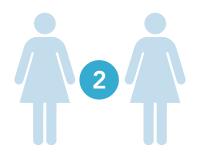








INTERNS - **2015** 



<sup>🛨</sup> Lectures/Conversations delivered by UNU-INWEH team members; 9 were organized or co-organized by UNU-INWEH





Speaker: Mr. Marq de Villiers

# ANOTHER DROP LECTURES OF 2015

**JANUARY 2015:** The China-Canada Three Gorges Water Science Centre's Role In Addressing Sustainable Water Management Of The Three Gorges Reservoir

Speaker: Dr. Ken G. Drouillard (University of Windsor)

MARCH 2015: Water & Energy for Societies, Equality & Sustainable Development

Speakers: Dr. Corinne Schuster-Wallace (UNU-INWEH), Mr. Robert Sandford (EPCOR Chair of the Canadian Partnership Initiative in support of United Nations "Water for Life" Decade)



Speaker: Dr. Lindsay Stringer (Professor in Environment and Development at the Sustainability Research Institute, University of Leeds, UK.)

**OCTOBER 2015:** Quantifying The Consequence Of Risk And Uncertainty

Speaker: Dr. Altaf Arain (Director McMaster Climate Centre, Geography and Earth Sciences)

Panelists: Dr. Paulin Coulibaly (FloodNet Canada, McMaster School of Geography and Earth Sciences), Dr. Dustin Garrick (McMaster Water Network, McMaster Department of Political Science), Dr. Zafar Adeel (UNU-INWEH)

**NOVEMBER 2015:** Back To The Well: Rethinking The Future Of Water

Speaker: Mr. Marg de Villiers (award-winning writer and journalist)



Speaker: Dr. Ken G. Drouillard



Speaker: Dr. Lindsay Stringer

# PROGRESS IN FUNDRAISING AND

# **FUNDRAISING TRENDS**

UNU-INWEH was successful in obtaining a **C\$ 10 million** grant from the Canadian Government to support its core operations. A grant agreement between UNU-INWEH and the Department for Foreign Affairs, Trade, and Development (now: Global Affairs Canada) was signed in April 2015.

With water security gaining increasing attention in recent years, UNU-INWEH entered into a strategic partnership with EPCOR Utilities Inc. to establish "EPCOR Water Security Research Chair" at the institute since March 2015. This four-year engagement will provide **C\$ 0.4 million**.

### The following notable project-based fundraising activities are ongoing:

UNU-INWEH is in the process of finalizing a proposal for the project 'Water Policy Formulation and Capacity Development for National SDG Implementation' in partnership with UNOSD, UNESCAP, UNECLAC, and KEco.

(Expected SPC funding: US\$ 0.3 million)

UNU-INWEH is finalizing implementation planning for the project entitled, Integrating Water, Land and Ecosystems Management in Caribbean Small Island Developing States (IWEco). This project was approved by GEF for funding in March 2015, with UNEP and UNDP sharing the implementation tasks. The goal of the project is to enhance ecosystem services and their contribution to sustainable socioeconomic development in the Caribbean region through integrated management of water, land and biological resources. Starting in 2016, UNU-INWEH will participate in research and capacity building programs in the Caribbean countries engaged in this project.

(Expected SPC funding: US\$ 0.2 million)

In partnership with Arab Fertilizer Association and institutions from MENA region, UNU-INWEH is developing a project proposal on establishing pilot sites for phospho-gypsum application. These sites will demonstrate crop water

productivity improvements, in the face of water scarcity, water pollution, and land degradation. (Expected SPC funding: US\$ 0.4 million)

UNU-INWEH is developing a US\$ 1.5 million grant proposal on bioenergy in Mozambique under a joint call by FAPESP/RCUK. The project will investigate the use of Brazil's expertise in bioenergy to address Africa's energy access needs in the context of the SDGs agenda. UNU-INWEH will lead the Work Package on "Stakeholder engagement and knowledge exchange to advance sustainable bioenergy and the SDGs" and co-lead WP "Project management". (Expected SPC funding: US\$ 0.4 million)

Following the completion of Phase I of the ELD Initiative in December 2015, UNU-INWEH is seeking resources to allow the implementation of follow-up activities, including: pilot testing the ELD 6+1 approach to assess the economics of land management in 6-8 case study countries; developing an ELD economic module for the WOCAT database; and developing an ELD land valuation tool for a land banking project in Turkey. (Expected SPC funding: US\$ 0.2 million)

UNU-INWEH initiated a dialogue for joint proposal submission with the Asian Institute of Technology Center and Can Tho University in Vietnam for a capacity development programme for coastal ecosystem management. Partners could include UNEP-IEMP in Beijing, China. (Expected SPC Funding: US\$ 50,000)

UNU-INWEH joined the Resilient Coasts Initiative Consortium in the Western Indian Ocean (WIO) region, aiming to strengthen the resilience of coastal socio-ecological systems. Funding is being sought by Resilient Coasts for pilot projects in Kenya, Mozambique and Tanzania. Discussions are ongoing for the first technical meeting to be organized in early 2016 to finalize the objectives for program implementation.

































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### **ACRONYMS:**

UNOSD: United Nations Office for Sustainable Development

UNECLAC: United Nations Economic Commission for Latin America and the Caribbean UNESCAP: United Nations Economic and Social Commission for Asia and the Pacific

KEco: Korea Environment Corporation

UNEP: United Nations Environment Programme

GEF: Global Environment Facility

UNDP: United Nations Development Programme

MENA: Middle East North Africa

FAPESP: Fundação de Amparo à Pesquisa do Estado de São Paulo

RCUK: Research Councils UK

ELD: Economics of Land Degradation

WOCAT: World Overview of Conservation Approaches and Technologies

UNEP-IEMP: International Ecosystem Management Partnership

# **IAC MEMBERS**

# **International Advisory Committee**



Chris Metcalfe, Senior Research Fellow (top left); Peter George, UNU Senior Advisor; David Malone, UNU Rector; Nick Markettos, McMaster University; Manzoor Qadir, Assistant Director; Johann Bell, IAC Member (middle left); Margaret Biggs, IAC Member; Ania Grobicki, IAC Member; Zafar Adeel, Director (bottom left); Melita Samoilys, IAC Member.

### Dr. Zafar Adeel, (ex officio)

Director, UNU-INWEH, Ontario, Canada Expertise: Water Security, Water Management

### Dr. Johann Bell

Senior/Principal Fisheries Scientist, Strategic Engagement, Policy and Planning Facility, Secretariat of the Pacific Community (SPC), New Caledonia

Expertise: Fisheries

### Ms. Margaret Biggs

Skelton-Clark Fellow, School of Policy Studies and Department of Political Studies, Queens University, Ontario, Canada

Expertise: Maternal & Child Health, Democratic

Governance

### Prof. Fatma Abdel Rahman Attia

Professor Emeritus, National Water Research Center Egypt

Expertise: Groundwater Issues

### Dr. Ania Grobicki

Acting Secretary General, Ramsar Convention Secretariat

Expertise: Water goals in relation to the needs of cities, industry, agriculture, energy, and the environment

### Dr. Roberto L. Lenton

Founding Executive Director, Robert B. Daugherty Water for Food Institute, University of Nebraska, USA

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