UNITED NATIONS
UNIVERSITY

UNU-INWEH

Institute for Water,
Environment and Health

ANNUAL REPORT 2016

UNITED NATIONS
UNIVERSITY

UNU-INWEH

Institute for Water,
Environment and Health

Cover images: Pixabay.com and Robert Sandford

Download at: http://inweh.unu.edu

ISBN: 978-92-808-6083-2

UNU-INWEH is supported by the Government of Canada
through Global Affairs Canada.

Global Affairs Canada Affaires mondiales Canada

TABLE OF CONTENTS

ABOUT UNU-INWEH

UNU-INWEH acts as the "United Nations' Think Tank on Water". The Institute responds to the regional and global water issues and facilitates efforts to meet UN Sustainable Development Goals by providing water-related scientific analyses and advise. It engages in water initiatives that help developing countries reduce poverty and ensure environmental sustainability.

UNU-INWEH's vision is to create a world free of water problems where sustainable human development, environmental health and security are assured for all.

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 critical analysis and synthesis of existing bodies of scientific discovery; targeted research that identifies emerging policy issues; application of on-the-ground scalable science-based solutions to water issues; and global outreach.

UNU-INWEH is an integral part of the United Nations University (UNU) – an academic arm of the UN, which includes 13 research and training institutes and programmes located in 12 countries around the world, and dealing with various issues of development. UNU is not a traditional university that has a faculty, campus, or students. It carries out its work in cooperation with the network of other research institutions, international organisations and individual scholars throughout the world. UNU-INWEH operates within UNU's responsive administrative management, while maintaining the full range of UN rules and regulations.

Being part of the UN, 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 that UNU-INWEH represents the UNU in UN-Water – a group of over 30 UN Agencies working on water and sanitation issues globally. UN status also affords UNU-INWEH unparallel access to national governments and related policymaking processes.

UNU-INWEH was established, as a public service agency and a subsidiary body of the UNU in 1996. Its operations are secured through long-term host-country and core-funding agreements with the Government of Canada. The Institute is located in Hamilton, Canada, and its facilities are supported by McMaster University.

DIRECTOR'S SUMMARY

Two thousand and sixteen was the 20th anniversary year for UNU-INWEH and a year of transition. From my very start as a new Director of the Institute, I was fascinated by the unique nature of this organisation as the UN's "Think Tank on Water", the only entirely-water focused Institute in the UNU, and the only water-related UN entity in Canada. I was also impressed by the competence, creativity, commitment and diversity of UNU-INWEH colleagues and by the range of global and regional initiatives the group contributes to.

The world, and the "water world", changed a lot during 2016, with increasing geopolitical tension, changing funding environment for research, but strong and growing impetus towards a sustainable water future. This impetus was clearly demonstrated during the Budapest Water Summit in November 2016 – the most significant water event of the year, and one in which UNU-INWEH had the honour to participate. Water is and will remain the key factor of sustainable development and a medium through which to achieve it. UNU-INWEH has the name, solid research capital and financial stability that will help to positively influence this process.

It was a vibrant and productive year that saw the start of the UNU-INWEH initiated international consultations on how to accelerate the success of water-related Sustainable Development Goals (SDGs) at the national level: continuous inputs to UN-Water Task Forces (e.g., on water security) and flagship products (e.g., the forthcoming World Water Development Report on Wastewater); contributions to the development of the Canadian Federal Sustainable Development Policy; and a range of published outputs critically examining issues from sustainability of global seaweed industry and ecosystems services of drylands, to regional water security in Africa and Asia, to multidisciplinary analysis of developmental challenges in several major river basins.

Looking ahead, the overarching context for future UNU-INWEH work will be the 2030 Agenda for Sustainable Development, where water is explicit in several SDGs and SDG targets and is implicit in many others. UNU-INWEH's work will also be shaped by related global processes that influence the water agenda, including the Sendai Framework for Disaster Risk Reduction, and the Paris Agreement on climate change. In responding to these global agendas, UNU-INWEH will focus on innovative ways of managing water resources variability, on alleviating the adverse impacts of water-related disasters related to changing climate, and on increasing overall water security of UN member states, particularly in the developing world.

There is a lot to do, and we look confidently into the future.

Dr Vladimir Smakhtin, Director
United Nations University
Institute for Water, Environment and Health

HIGHLIGHTS

UNU-INWEH 20th Anniversary

In 2016, UNU-INWEH completed its 20 years of operation since its inception in 1996 in Canada, leaving a clear and strong mark in the water policy arena, globally and locally. The key element of the 20th anniversary celebrations was a public seminar in Ottawa in April 2016. The seminar brought together policymakers, experts, and young professionals to discuss what the new water development paradigm means and how the world, and Canada, should respond to the 2030 Agenda for Sustainable Development. UNU-INWEH highlights can be downloaded from http://inweh.unu.edu/.

Andrew Leslie, MP

David Malone, UNU Rector

Elizabeth Dowdeswell,
Lieutenant Governor of Ontario

Analysing Global Seaweed Aquaculture

UNU-INWEH, in partnership with the Scottish Association of Marine Sciences (SAMS), conducted the ground-breaking study on the state-of-the-art and prospects of the global seaweed aquaculture industry. The study, for the first time ever, highlighted the magnitude of the industry, which represents almost 50% (27.3 mill. tonnes) of global mariculture production with a total annual value of USD 6.4 billion; as well as its importance for livelihood, primarily in developing countries. It also voiced concerns about emerging environmental impacts and the need to ensure the sector's long-term sustainability. The study has been captured in English, Spanish, Dutch, Italian, Chinese and German in more than 100 news sites, in 40 countries, with TV / radio coverage in the UK, USA and Australia.

SELECTED PROJECT ACTIVITIES

Water-related Sustainable Development Goals (SDGs)

UNU-INWEH, in collaboration with the Korea Environment Corporation (K eco), the Ministry of Environment, Republic of Korea, and UN Office for Sustainable Development (UNOSD), developed a new initiative that aims to ensure more effective evidence-based policy- and decision-making on water-related SDGs at the national level, and to accelerate the SDG implementation in countries overall. In 2016, UNU-INWEH started to work with champions in several countries: Ghana (National Development Planning Commission), Costa Rica (Ministry of Planning and Economic Policy; Ministry of Environment and Energy), Tunisia (Ministry of Agriculture, Water Resources, and Fisheries), and Pakistan (Pakistan Planning Commission), to test and customise a newly developed tool, SDG Policy Support System (SDG-PSS), in various soci-political environments. A Consultative Meeting to launch the initiative with representatives from these five countries was held in Hamilton in September. This will be followed, in 2017, by a series of national workshops to bring the evidence-based water policy support system and other project concepts closer to national stakeholders.

Our work complements national and international SDG 6 processes, and enhances the science-policy interface for sustainable development.

Dr Lisa Guppy, Project Leader

Innovative Wastewater Management and Reuse

Water quality protection, water recycling and reuse, and safely managed sanitation are the keys to fast-track SDG 6 by UN Member States. This Project i) assesses global and regional potential of wastewater as water, a nutrient, and an energy resource; ii) develops an online environmental risk assessment tool for irrigation with untreated wastewater; and iii) enhances relevant human capacity in developing countries that is required for accelerated achievement of SDG targets 6.2, 6.3, and 6.a. In 2016, the project updated a map and datasets on wastewater treatment across the world at the national level; provided key contributions to the World Water Development Report, calling for priority action to eradicate untreated wastewater use in agriculture; evaluated health risks and pathways for exposure to wastewater use in agriculture; and contributed to global initiatives such as the Global Wastewater Initiative, and the definition working group for SDG 6.2.1 and 6.3.1. In 2016, the project also started to develop ideas beyond wastewater – looking at a group of unconventional sources of water and technologies that may help alleviate global and regional water scarcity – including groundwater and desalinated water.

To achieve SDG 6.3 target globally, actions and investments need to be focused on wastewater treatment in developing countries, rather than spending funds on addressing environmental and health challenges stemming from untreated wastewater.

Dr Manzoor Qadir, Project Leader

Integrated Ecosystem Management

In 2016, the project focused primarily on integrated management of freshwater and coastal ecosystems, including natural and constructed wetlands, and mangroves. A study was undertaken to set up guidelines for the sustainable use of coastal resources in Mozambique, underpinned by ecosystems-based adaptation and integrated coastal zone management frameworks, in partnership with IUCN and regional partners in East Africa. In collaboration with McMaster University, a synthesis of global scale failure and success narratives in managing transboundary waters has been completed. A review of knowledge, capacity and best practices of ecosystem-based adaptation in coastal management in the Southeast Asian region has been undertaken in partnership with AIT and APN.

Amongst others, UNU-INWEH's research helps analyse socio-political dynamics in transboundary water governance, and conceptualize Water Security through an ecosystem lens.

Dr Nidhi Nagabhatla, Project Leader

Economics of Water and Land Challenges

A long-term partnership with global Economics of Land Degradation (ELD) Initiative, this Project was successfully completed in 2016, with a number of published outputs. The study pointed out, amongst others, that i) reduced productivity of degraded land and increased demand for land, threaten the security of the global water-food-energy nexus; ii) globally, annual ecosystem service value losses of US$ 6.3 to 10.6 trillion occur from land degradation, representing 10-17% of the world's GDP, iii) annually, over US$ 75 trillion can be gained from transforming global policies that enable sustainable land management. The Project culminated in a Policy Brief that summarised most recent findings and recommendations, and that also opened a new, regular, UNU-INWEH corporate publication Series.

Protection of soils and restoration of degraded land – the essence of SDG 15 - needs to be promoted as the key objective towards the achievement of many other SGDs, particularly #1, 2, 5, 6, 7, 10, 14 and 16. It can help, significantly, in alleviating poverty and fostering economic prosperity.

Dr Nicola Favretto, Project Leader

Water Without Borders

Water Without Borders (WWB) is a collaborative graduate programme, initiated by UNU-INWEH and McMaster University in 2010. It addresses water issues across geopolitical and disciplinary borders. The programme is designed to enhance professional and academic development and is undertaken alongside a graduate degree programme from any faculty at McMaster University. The Programme spreads across two semesters. UNU-INWEH organises an international field trip each year. Ten new students joined the Programme in 2016.

Water Without Borders students in Ghana, 2016

KEY STAKEHOLDERS / AUDIENCE

UNU-INWEH's research has a diverse range of stakeholders broadly grouped into:

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

UN agencies (and networks, such as UN-Water), other UNU Institutes and programmes, and international and regional organizations and networks;

Experts and science community in water-related research institutions, research for development organisations and universities;

Water-related industries and private entrepreneurs; and

General public and civil society

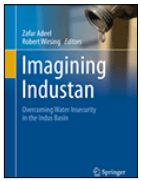
UN AND OTHER POLICY LINKS

In 2016, UNU-INWEH developed or strengthened existing partnerships with UN institutions such as UNEP, WHO, FAO, IUCN, UNESCO, UNOSD, UNESCAP, UNECLAC, and international and regional institutions and networks such as GWP, IPBES, Future Earth, Mangrove for Future-Asia, Scottish Association for Marine Sciences (SAMS), Resilient Coasts Initiative Consortium, K eco, and others. UNU-INWEH continued collaboration with the Economics of Land Degradation Initiative (ELD), which included a range of UN and non-UN partners (i.e. UNCCD, ICARDA, GIZ, the Global Mechanism, UNEP) and policy stakeholders in developing countries. UNU-INWEH initiated the development of the UNU-wide water community of practice, that involves several other Institutes (UNU-FLORES (Dresden), UNU-EHS (Bonn), UNU-INRA (Accra), and UNU-IAS (Tokyo)). UNU-INWEH joined the all-UNU Migration Network that is coordinated by the sister organisation, UNU-MERIT.

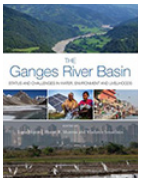
UNU-INWEH strengthened partnerships with the International Water Management Institute (IWMI), present in many countries in Africa and Asia, with Allef Group (UK) - for scaling up innovative waste management solutions, and with a range of partners listed in the "Water-related SDGs" Project above in this Report. UNU–INWEH joined the Informal Preparatory Working Group 2 (IPWG-2) on sustainable management and protection of marine and coastal ecosystems, that aims to support SDG 14 (Healthy Oceans) implementation. UNU-INWEH became a member of the global Climate Technology Center and Network (CTCN) of UNEP, that helps promote implementation of climate change adaptation information, business models and technologies in developing countries. UNU-INWEH contributed to the development of the Canadian Federal Sustainable Development Strategy, suggesting that it may benefit from connecting to a larger number of Sustainable Development Goals of the 2030 Agenda and that the strategy should aspire to a higher coverage of First Nations' communities with low risk water and sanitation systems.

PUBLICATIONS

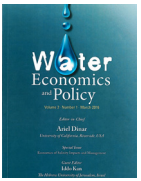
Featured Publications



Imagining Industan - Overcoming Water Insecurity in the Indus Basin



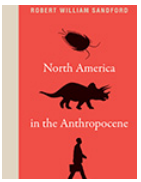
The Ganges Basin: Status and Challenges in Water, Environment and Livelihoods



Reversing salt-induced land degradation requires integrated measures

Safeguarding the future of the global seaweed aquaculture industry

Hot and Bothered: Water and Women in a Warming World



North America in the Anthropocene

List of Publications

Adeel, Z. and Wirsing, R. (Eds.), 2016. Imagining Industan - Overcoming Water Insecurity in the Indus Basin, Springer Publisher, Dordrecht, The Netherlands.

Adeel, Z., 2016. Placing Canada's Water Policies in an International Context. In: Water Policy and Governance in Canada, S. Renzetti and D.P. Dupont (Eds.), Springer, The Netherlands.

Adeel, Z., and Newberg P., 2016. The Role of International Development in Reimagining the Indus Basin,. In: Imagining Industan - Overcoming Water Insecurity in the Indus Basin, Adeel, Z. and R. Wirsing (Eds.), Springer, Dordrecht, The Netherlands.

Adeel, Z., 2016. Managing Water, Energy, and Food for Long-Term Regional Security. In: Water-Energy-Food Security Nexus in the Arab Region, K.M., Amer, Adeel, Z., Böer, B. and Saleh, W. (Eds.), Springer Publisher, Dordrecht, The Netherlands.

Adeel, Z., 2016. Water Security as the Centerpiece of the Sustainable Development Agenda. In: Individuals and Communities: The Human Face of Water Security, Devlaeminck, D., Adeel, Z. and Sandford, R. (Eds.), Springer Publisher, Dordrecht, The Netherlands.

Afionis, S., Stringer, L.C., Favretto, N., Tomei, J., and Buckeridge, M., 2016. Unpacking Brazil's leadership in the global biofuels arena: Brazilian ethanol diplomacy in Africa. Global Environmental Politics, 16: 127-150.

Amarasinghe, U. A., Muthuwatta, L., Smakhtin, V., Surinaidu, L., Natarajan, R., Chinnasamy, P., Kakumanu, K. R., Prathapar, S. A., Jain, S. K., Ghosh, N. C., Singh, S., Sharma, A., Jain, S. K., Kumar, S. and Goel, M. K., 2016. Reviving the Ganges water machine: potential and challenges to meet increasing water demand in the Ganges River Basin. Colombo, Sri Lanka: International Water Management Institute (IWMI) 42 pp. (IWMI Research Report 167).

Amarnath, G., Yoshimoto, S., Goto, K., Fujihara, M., Smakhtin, V., Aggarwal, P. and Ravan, S., 2016. Global Trends in Water-Related Disasters Using Publicly Available Database for Hazard and Risk Assessment. In: Proceedings of the 24-th Annual Congress of Japan Rainwater Catchment Systems Association (JRWCSA), Kyoto, October 2016, pp. 79-82.

Amarnath, G., Alahacoon, N., Gismalla, Y., Mohammed, Y., Sharma, B.R., Smakhtin, V., 2016. Increasing Early Warning Lead Time Through Improved Transboundary Flood Forecasting in the Gash River Basin, Horn of Africa. In: "Flood Forecasting: A Global Perspective", Elsevier Inc., pp. 183-200.

Amer, K.M., AdeelZ., BöerB., and Saleh, W. (Eds.), Water-Energy-Food Security Nexus in the Arab Region, Springer Publisher, Dordrecht, The Netherlands.

Arslan, A., Majid G.A., Abdallah, K., Rameshwaran, P., Ragab, R., Singh, M. and Qadir, M., 2016. Evaluating the productivity potential of chickpea, lentil, and faba bean under saline water irrigation systems. Irrigation and Drainage 65: 19-28.

Bharati, L., Sharma B.R. and Smakhtin V. (Eds.), 2016. The Ganges Basin: Status and Challenges in Water, Environment and Livelihoods. Earthscan Series on Major River Basins of the World, 328 p.

Bharati, L., Sharma, B.R., and Smakhtin, V., 2016. Introduction; In: Bharati, L. Sharma B.R. And Smakhtin V. (Eds.) The Ganges Basin: Status and Challenges in Water, Environment and Livelihoods. Earthscan Series on Major River Basins of the World, pp 3-7.

Chisholm, C., Garrick, D. and Nagabhatla N., 2016. Cities and Climate Adaptation in Comparative Context: Canada, the US and Mexico. McMaster Spring Water Forum: Low Carbon, Climate Resilient Cities Symposium, Hamilton, Canada.

Cornell, A., Weier, J., Stewart, N., Spurgeon, J., Etter, H., Thomas, R., Favretto, N, Chilombo, A., van Duivenbooden, N., van Beek, C., and de Ponti, T., 2016. Economics of Land Degradation Initiative: Report for the private sector. Sustainable land management – A business opportunity. GIZ: Bonn, Germany.

Cottier-Cook, E.J., Nagabhatla, N., Badis, Y., Campbell, M., Chopin, T, Dai, W, Fang, J., He, P, Hewitt, C., Kim, G. H., Huo, Y, Jiang, Z, Kema, G., Li, X, Liu, F, Liu, H, Liu, Y, Lu, Q, Luo, Q, Mao, Y, Msuya, F. E, Rebours, C, Shen, H., Stentiford, G. D., Yarish, C, Wu, H, Yang, X, Zhang, J, Zhou, Y, Gachon, C. M. M. (2016). Safeguarding the future of the global seaweed aquaculture industry. United Nations University and Scottish Association for Marine Science, p. 12.

Dickin, S.K., Schuster-Wallace, C.J., Qadir, M. and Pizzacalla, K., 2016. A review of health risks and pathways for exposure to wastewater use in agriculture. Environmental Health Perspectives 124: 900-909.

Dougill, A.J., Akanyang, L., Perkins, J.S., Eckardt, F., Stringer, L.C., Favretto, N., Atlhopheng, J. and Mulale, K., 2016. Land use, rangeland degradation and ecological changes in the southern Kalahari, Botswana. African Journal of Ecology 54: 59-67.

Favretto, N., Stringer, L.C., Dougill, A.J., Dallimer, M., Perkins, J.S., Reed, M.S., Atlhopheng, J.R. and Mulale, K., 2016. Multi-Criteria Decision Analysis to identify dryland ecosystem service trade-offs under different rangeland land uses. Ecosystem Services 17: 142-151.

Nagabhatla, N., Sahu, S.K., Arain M. A, Mahfuzul Haque A.B.M and Mitra A. 2016. Explaining climate variability vis-à-vis spatio-temporal interactions in Bangladeshi Exclusive Economic Zone (BEEZ). Journal of Earth Science & Climatic Change. 7(364) pp. 1-11.

Nagabhatla, N and Kühle P. 2016. Tropical Agrarian Landscape Classification using high-resolution GeoEYE data and segmentation based approach. European Journal of Remote Sensing. 49: 623-642.

Qadir, M. 2016. Reversing salt-induced land degradation requires integrated measures. Water Economics and Policy 2: 1-8.

Qadir, M., and Drechsel, P., 2016. Contaminant management in water reuse systems. In: S. Eslamian (Ed) Urban Water Reuse Handbook. CRC Press, Taylor & Francis Group, Boca Raton, FL, USA. pp. 525-532.

Qadir, M., and Sato, T., 2016. Water reuse in arid zones. In: S. Eslamian (Editor) Urban Water Reuse Handbook. CRC Press, Taylor & Francis Group, Boca Raton, FL, USA, pp. 867-874.

Sandford, R. Schuster-Wallace, C., 2016. Hot and Bothered: Water and Women in a Warming World. Solutions J. (Special Edition: Securing Water and Women in a Changing World), 7(6) pp. 18-23.

Sandford, R.W., 2016. North America in the Anthropocene. Rocky Mountain Books. Calgary, Canada, 168 pp.

Sandford, R.W., 2016. The Columbia Icefield–3rd Edition. Rocky Mountain Books. Calgary, Canada, 144 pp.

Smakhtin, V., Bharati, L., 2016. Environmental Flows: Keeping the Basin Rivers Alive. In: Bharati, L. Sharma B.R. and Smakhtin, V. (Eds.) The Ganges Basin: Status and Challenges in Water, Environment and Livelihoods. Earthscan Series on Major River Basins of the World, pp. 175-187.

Walter, J., Belinda, R., Sheila, V., Eugenie…Nagabhatla, N.,+ 20 more authors. 2016. Guide to Assessments- Section Section IV: Identifying and Addressing Data, Information and Knowledge Resources and Gaps. IPBES, Bonn Germany.

Williams, T.O., Mul, M. L., Biney, C.A. and Smakhtin, V., (Eds.), 2016. The Volta River Basin: Water for Food, Economic Growth and Environment. Earthscan Series on Major River Basins of the World, 282 pp.

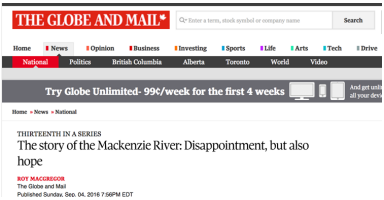
Williams, T.O., Mul, L.M., Biney, C.A. and Smakhtin V., 2016. Introduction. In Williams, T.O., Mul, L.M., Biney, C.A. and Smakhtin V (Eds.) The Volta River Basin: Water for Food, Economic Growth and Environment. Earthscan Series on Major River Basins of the World, pp. 3-10.

OUTREACH

Media

~230 earned media hits
(plus ~270 references at paid media sites)

One or more earned media stories appeared in **8** languages across **43** countries


THE GLOBE AND MAIL

Home | News | Opinion | Business | Investing | Sports | Life | Arts | Tech | Drive

National | Politics | British Columbia | Alberta | Toronto | World | Video

Try Globe Unlimited- 99¢/week for the first 4 weeks

Home » News » National

THIRTEENTH IN A SERIES

The story of the Mackenzie River: Disappointment, but also hope

ROY MACGREGOR
The Globe and Mail
Published Sunday, Sep. 04, 2016 7:56PM EDT


"Superbugs" evolving from poorly or untreated wastewater

by Manzoor Qadir | UN University
Friday, 18 November 2016 11:15 GMT

ABOUT OUR HUMANITARIAN COVERAGE

From major disaster, conflicts and under-reported stories, we

* Any views expressed in this article are those of the author and not of Thomson Reuters Foundation.

World Toilet Day underlines a deadly serious problem too often shrouded in taboos - the global sanitation crisis


Living in a water insecure world

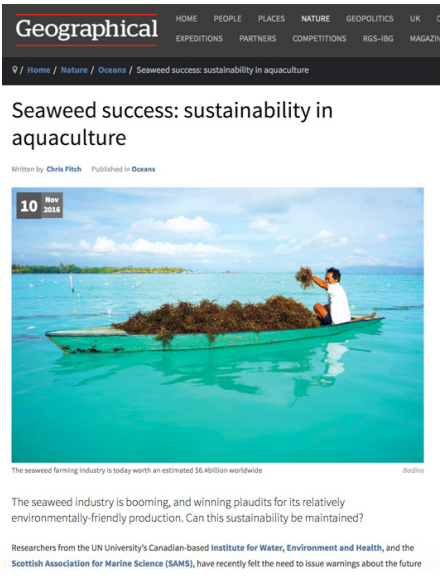
by Zafar Adeel and Robert Sandford, UN University's Institute for Water, Environment and Health
Thursday, 21 April 2016 10:47 GMT

ABOUT OUR HUMANITARIAN COVERAGE

We focus on the human and development impacts of climate change

* Any views expressed in this article are those of the author and not of Thomson Reuters Foundation.

The familiar stability of the world's water cycle won't return in the lifetime of anyone alive today


Geographical

HOME | PEOPLE | PLACES | NATURE | GEOPOLITICS | UK
EXPEDITIONS | PARTNERS | COMPETITIONS | RGS-IBG | MAGAZIN

9 / Home / Nature / Oceans / Seaweed success: sustainability in aquaculture

Seaweed success: sustainability in aquaculture

Written by Chris Fitch Published in Oceans

10 Nov 2016

The seaweed farming industry is today worth an estimated $6.4billion worldwide Badiss

The seaweed industry is booming, and winning plaudits for its relatively environmentally-friendly production. Can this sustainability be maintained?

Researchers from the UN University's Canadian-based Institute for Water, Environment and Health, and the Scottish Association for Marine Science (SAMS), have recently felt the need to issue warnings about the future


SCIENMAG
Science Magazine

Business

Water conflicts between Asian nuclear powers pose global threat; UNU book charts path to cooperation

October 28, 2016

Share on Facebook | Tweet on Twitter | G+ | P

Legend
City
River
Indus Basin
Traditionally claimed boundaries of the princely states of Jammu & Kashmir

AFGHANISTAN
CHINA
PAKISTAN
INDIA
NEPAL

Credit: UNU-INWEH

The current political rhetoric between India and Pakistan underlines the risk of failing to manage correctly and cooperatively vital water resources shared between nations.

Major Events - organised by UNU-INWEH or participated in

FEBRUARY

- 24th UN-Water Meeting, 1-3 February, Geneva, Switzerland

MARCH

- 4th World Congress of Biosphere Reserves, 14-17 March, Lima, Peru
- Conference of the Association of American Geographers, 29 March-2 April, San Francisco, USA

APRIL

- UNU-INWEH's 20th Anniversary Public Seminar 'Water: the Nexus of Sustainable Development and Climate Change', 5 April, Ottawa, Canada
- Water-Tech 2016, 6-8 April, Banff, Calgary
- Global Health and Innovation Conference, 16-17 April, New Haven, USA
- McMaster Spring Water Forum, 18-22 April, Hamilton, Canada

MAY

- Global Seaweed Workshop, 17-18 May, Oban, Scotland
- 2nd International Training Course on Mangrove Ecosystems in the Western Indian Ocean, 17-28 May, Diani, Kenya

JUNE

- 3rd Meeting of the Task Force on Data and Knowledge of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), 11-17 June, Bonn, Germany

JULY

- 39th International WEDC Conference: Ensuring Availability and Sustainable Management of Water and Sanitation for All, 11-15 July, Kumasi, Ghana
- Singapore International Water Week, 11-15 July, Singapore

AUGUST

- Authors Meeting Global Assessment on Biodiversity and Ecosystem Services of IPBES, 13-20 August, Bonn, Germany
- 25th UN-Water Meeting, 26-27 August, Stockholm, Sweden

SEPTEMBER

- World Water Week, 30 August – 2 September, Stockholm, Sweden
- Inception Workshop of the World Water Development Report 2018 (WWDR 2018), 12-15 September, Perugia, Italy
- Floodnet Annual Meeting (Canadian Flood Research Network), 19-20 September, Toronto, Canada
- International Consultative Meeting on the SDG Evidence Framework, 20-24 September, Hamilton, Canada

OCTOBER

- Korea International Water Week, 19-21 October, Daegu, Republic of Korea
- McMaster Water Week, 24-28 October, Hamilton, Canada

NOVEMBER

- Regional Training Course and Workshop (South East Asian Region), ENGAGE programme, 20-25 November, CanTho city, Vietnam
- Budapest Water Summit, 28-30 November, Budapest, Hungary

Another Drop Lecture Series

November: #SwimDrinkFish @HamiltonHarbour
Speaker: Dr Chris McLaughlin (Bay Area Restoration Council)

October: Payments for Watershed Services
Speaker: Dr Roy Brouwer (Waterloo University)

September: Another Drop…From Your Tap
Speakers: Dr Sarah Dickson (McMaster University), Dr Lisa Guppy (UNU-INWEH), Dr Nidhi Nagabhatla (UNU-INWEH)

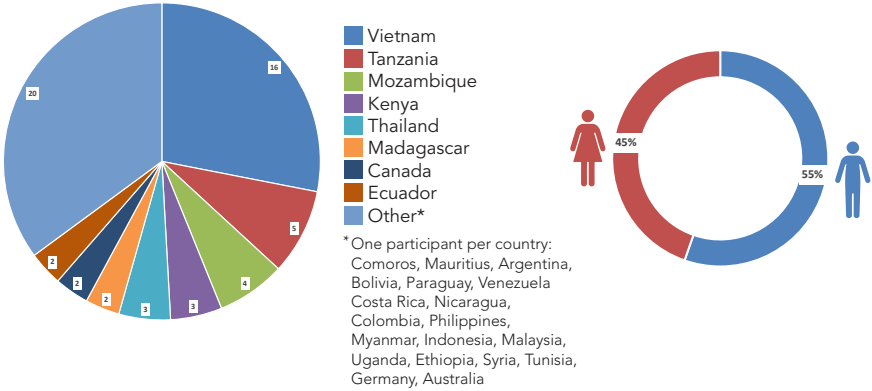
March: Locking Up Randle Reef
Speaker: Dr Chris McLaughlin (Bay Area Restoration Council)

January: The State Of Science In The Mackenzie Basin
Speaker: Mr Bob Sandford (UNU-INWEH)

Dr Chris McLaughlin

Dr Roy Brouwer

CAPACITY DEVELOPMENT



*One participant per country: Comoros, Mauritius, Argentina, Bolivia, Paraguay, Venezuela Costa Rica, Nicaragua, Colombia, Philippines, Myanmar, Indonesia, Malaysia, Uganda, Ethiopia, Syria, Tunisia, Germany, Australia

Number of Trainees and Interns by country and gender

UNITED NATIONS
UNIVERSITY

UNU-INWEH

Institute for Water,
Environment and Health

204-175 Longwood Road South
Hamilton, ON Canada L8P 0A1

1-905-667-5511
www.inweh.unu.edu