



**Progress Report**  
**2018-2022**  
**UNESCO Chair**  
**Sustainable Water Security**

*The purpose of this Progress Report is to update the UNESCO Secretariat about activities of the UNESCO Chair on Sustainable Water Security, hosted at the Institute of Environment in Florida International University, since its establishment relative to the objectives in the signed Agreement (Article 2).*

Title of the UNESCO Chair or UNITWIN Network as mentioned in the Agreement	UNESCO Chair on Sustainable Water Security
Chair/Network ID (if known)	ID 1307
Reporting period: YYYY-YYYY	2018 - 2022
Chair-hoder	Dr. Maria Concepcion Donoso

## I. PROGRESS REPORT

### a. Summary of Main Achievements

This section describes the overall progress of the Chair as a member of the UNITWIN/UNESCO Chairs Programme and its main achievements relating to its Objectives over the last four years.

The following text illustrates how the Chair and its activities have contributed to UNESCO's mission, mandate and priorities, programme, and its impacts on intended beneficiaries. For this reporting period, examples are provided highlighting publications, conferences, community engagement, collaborative research partnerships, international cooperation, and student/staff exchanges or a combination of these.

The overall progress of the Chair during the first four years of its existence was attained by the Chairholder and Theme Coordinators in collaboration with its partners at the Institute of the Environment, the UNESCO Family and other external partners. The following table depicts the minimum results targeted (MRT) and the most important reached target (MIRT) during the first operational period (July 2018 - July 2022). Note that all MRTs were met or exceeded despite the difficulties experienced during the COVID pandemic.

#### Summary Table of Main Achievements

Development objective: The long term development objective of the UNESCO Chair "Sustainable Water Security" is to contribute to the overall sustainable development by supporting and ensuring equitable availability and sustainable management of water, as well as the safety of the resources and water related systems, natural and human-made.	
Specific Objective (SO) <b>SO1</b> - coordinate and contribute to research, science and technology development, innovation, and policies related to sustainable water security	
Expected Result (ER) ER1 - research, science and technology development, innovation and policies related to sustainable water security enhanced	
Minimum Result Target (MTR) – MTR1-1: At least one research, science/technology development coordinated and application promoted.	MIRT1-1: <ul style="list-style-type: none"> <li>- Research on the impact of cyberattacks on the water sector around was carried out. The findings point to the importance of cybersecurity for water security. Results presented in peer reviewed journal.</li> <li>- A study on the participation of women in water resources management for water security in rural areas was conducted in Colombia in coordination with the UNESCO-IHP Colombia National Committee Chair and her team and the Corporation of Rural Aqueducts (CAR). The report will be published by the end of 2022.</li> </ul>
MTR1-2: At least one knowledge sharing platform supported and enhanced	MIRT1-22: The website of the UNESCO Chair was established as a knowledge sharing platform.

	<a href="https://environment.fiu.edu/where-we-work/freshwater/unesco-chair/index.html">https://environment.fiu.edu/where-we-work/freshwater/unesco-chair/index.html</a>
<b>SO2</b> - promote and foster national and international scientific cooperation and integrated scientific approaches to effectively manage and conserve water resources	
ER2 - international scientific cooperation expanded	
MTR2-1 At least four Memorandum of Understanding (MoU) or other type of agreements signed and operational	MIRT2-1: Four Memorandums of Understanding (MOUs) related to water and environmental issues were entered into by and among The Florida International University Board of Trustees, on behalf of the Institute of Environment at FIU and the following entities: IHE-Delft Institute for Water Education (The Netherlands), the City of North Bay Village (USA), Pontificia Universidad Catolica Madre y Maestra (Dominican Republic), and the Department of Civil and Environmental Engineering at the Università degli Studi di Firenze (Italy). The Chairholder oversaw negotiations and the development and signature process of the MoUs.
ER 3 - approaches to effectively manage and conserve water resources promoted	
MTR3-1: At least one special publication or book related to sustainable water security	MIRT3-1: Two articles were published in peer-reviewed journals presenting results of research related to the Chair, namely:  GUTIERREZ-LOPEZ, A.M., M.C. DONOSO, Z. MAY, G. BRAVO-ORDUNA, 2019. "A meteo-epidemiological vulnerability index as a resilience factor for the principal regions in Haiti. Journal of Hydrology 569, 135-141  DONOSO, M. C., .2022. ¿Cuán importante es la seguridad cibernética para lograr la seguridad hídrica? (How important is Cybersecurity to Water Security ?) Revista de Ciencias Ambientales (Trop J Environ Sci). Vol 56(1): 284-297. <a href="https://www.revistas.una.ac.cr/index.php/ambientales/article/view/16512">https://www.revistas.una.ac.cr/index.php/ambientales/article/view/16512</a>

<b>SO3</b> - build human and institutional capacity at all levels to support sustainable water security	
ER 4 - human and institutional capacity on sustainable water security extended	
MTR4-1: At least four capacity building activities implemented	MIRT4-1: The Chairholder participated as invited lecturer in four capacity building activities organized by Chair partners: 2 activities in the Dominican Republic organized by the Pontificia Universidad Catolica Madre y Maestra, 1 activity in Panama at the Univesidaad Tecnologica de Panama, and 1 activity in Mexico organized by the UNESCO Centre on Water Security.
MTR4-2: At least 100 persons benefited from capacity building activities:	MIRT4-2: An estimate of over 200 persons benefitted, based on information provided by the organizers.
<b>SO4</b> - advocate for, strengthen, and participate in global partnerships to bridge the science-policy interface	
ER 5 - global partnerships to bridge the science-policy interface strengthen	
MTR5-1: At least four partnerships among policy-makers and scientist/academics strengthen	MIRT5-1: It is difficult to quantify the number of partnerships among policy-makers and scientist/academics strengthen as the result of the implementation of activities carried out by the Chair. However, it can be stated that the three conferences (2018, 2020, 2021), side events in major water-related events (at UNESCO Water Conference and Stockholm Water Week) and fora (17 events) were attended by policy-makers and scientist/academics and thus these events provided a platform to forge new and strengthen ongoing partnerships among participants.

**b. Cooperation with UNESCO**

The UNESCO Chair has engaged with UNESCO’s mission and mandate, priorities and programme, UNESCO entities and networks, other UNESCO Chairs and/or UNITWIN Networks, Category II Centres and National Commissions for UNESCO. In this section the plan to continue and deepen such engagement in the future is provided

The establishment of the Chair in 2018 was in line with UNESCO's 2014-2021 Medium-Term Strategy as an action to attain the Overarching Objective of Equitable and Sustainable Development as a means to attain Peace (37-C/4). Starting in 2022, the Chair will also contribute to UNESCO's overall Medium-Term Strategy 41-C/4 (2022-2029) serving its Strategic Objective 2 aiming to "work towards sustainable societies and protecting the environment through the promotion of science, technology, innovation and the natural heritage". To accomplish this, the Chair collaborated with the Secretariat of the Intergovernmental Hydrological Programme (IHP) in various ways. In particular, the Chairholder, Dr. Donoso, worked in the development of the new IHP water strategy and served as facilitator during the meetings of the International Group of Experts responsible for the production of the Strategic Plan 2022-2029 "Science for a Water Secure World in a changing environment". Furthermore, the Chair will co-host the IHP International Initiative on Water Quality (IIWQ) Secretariat, in partnership with the UNESCO Water Chair WENDI (Japan) and UNESCO Water Centre ICWRGC (Germany). The Chair also collaborates with other UNESCO Water Centres and Chairs worldwide. The Chair will continue to strengthen and expand its collaboration with the UNESCO Water Family through joint research, capacity building and outreach activities.

### **c. Collaborations with higher education institutions and other partners**

The UNESCO Chair collaborated with research and higher education institutions, and other partners in different world regions, including South-South and South-South-North cooperation. Considerations are provided indicating how could existing collaborations be strengthened and expanded

The Chair works with an ample network of universities and research institutions worldwide. The Chairholder was instrumental in the negotiation of an Agreement between Florida International University and the University of Florence (Italy) for establishing a dual Ph.D. program related to water resources. Furthermore, the Chairholder has taught courses or served as invited lecturer in various higher education entities, namely Pontificia Universidad Católica (Dominican Republic), Universidad Tecnológica (Panama), UNESCO Centre on Water Security (Mexico), IHE-Delft (Netherlands), other. Also, represented by its Chairholder (Dr. Donoso) and Gender Theme Coordinator (Dr. Rose), the Chair collaborates with the World Water Assessment Program (WWAP) in activities aiming to expand the participation of women in water management. Similarly, co-hosting fifteen on-line Nile Talk Fora over the past years serves as an excellent example of North-South intercontinental collaboration to facilitate the discussion of important international water issues. Additionally, the Chairholder serves as a member of the US Committee for IIASA at the US Academies of Science, Medicine, and Engineering which facilitates North-North collaboration among research-oriented entities. To strengthen and expand collaboration, the Chair is tackling new areas of research related to present issues impacting water security, such as cybersecurity, emergent pollutants and microplastics, compound events analysis and modeling.

### **d. Challenges and remedial actions**

This section describes what were the main challenges and how were these addressed.

A challenge addressed by the Chair was to bring together a group of academicians and researchers that work in areas of expertise important today for attaining water security, beyond addressing water quantity and quality. Such thematic areas include, but are not limited to, cybersecurity, social inclusion and equity, microplastics, compound events analysis, environmental economics, among other. This challenge was addressed by creating a Theme Coordination Committee constituted of researchers-academicians from FIU (Theme Coordinators) in each of the required areas of expertise. To facilitate

collaboration with partners beyond FIU, an External Co-Coordinator has been identified for many of the thematic areas. The process of consolidation of the Theme Coordination Committee is still ongoing, but much progress has taken place already. Another challenge was maintaining the continuation of the Chair's activities and funding under COVID. Notwithstanding, the chair was capable of implementing a considerable part of its portfolio, with the support of FIU-IoE personnel and other partners. As we fade-out of the COVID scenario, the Chair is shifting into a "new" operational *modus operandi*. The contract of the Chairholder, Dr. Donoso, was newly signed this past May and a new extrabudgetary project funded by one of the Chair's partners is being processed.

## II. PROGRAMING FOR THE NEXT REPORTING PERIOD

### a. Objectives

The text that follows summarizes the proposed program of work and its objectives for the next reporting period, referring to the Objectives in Article II of the Agreement. Are you proposing any revisions to Article II? [200 words max]

The main purpose for which the Chair was established at the Institute of the Environment of Florida International University (IoE-FIU) remains valid. Consequently, there is no reason to revise Article II of the Agreement signed in July 2018.

Therefore, Article II remains as follows:

“The purpose of the Chair shall be to promote an integrated of research, training, information and documentation on sustainable water security. It will facilitate collaboration between high-level, internationally- recognized researchers and teaching staff of the University and other institutions in the United States of America, as well as elsewhere in Europe and North America, in Latina America and the Caribbean and in other regions of the world.

The specific objectives of this Chair are to:

- contribute jointly with partners to research, science and technology development, innovation, and policies related to Sustainable Water Security;
- promote and foster national and international scientific cooperation and integrated scientific approaches to effectively manage and conserve water resources;
- build human and institutional capacity at all levels to support sustainable water security;
- advocate for, strengthen, and participate in global partnerships to bridge the science-policy interface; and,
- collaborate closely with UNESCO and existing UNESCO Chairs on relevant programs and activities”

### b. Workplan activities and expected outputs

This section describes the expected outputs for the next reporting period, and the associated activities or tasks. The timeline and geographical scope of the activities are specified, with particular attention to strengthening inter-university cooperation and international partnerships. Interdisciplinary and future-oriented approaches to be used are highlighted. Detail on the communication and outreach activities that are planned is also provided. The outputs and activities are to be organized by type: (a) research and knowledge production; (b) publications; (c) websites and social media; (d) teaching and lecturing; (e) training and institutional capacity development; (f) student mobility and exchanges; (g) visiting professorships/fellowships; (h) conferences and events; (i) seminars and webinars; (j) networking and partnerships; (k) inter-university cooperation; (l) other.

The UNESCO Chair on “Sustainable Water Security” (the Chair) at the Institute of the Environment (IoE) in Florida International University (FIU) was established through an Agreement between the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Board of Trustees of FIU signed on June 26, 2018. The official launch of the Chair was on September 17, 2018.

The Chair Program is consistent with the UNITWIN/UNESCO Chairs Programme. This program covers training, research, and exchange of academics and offers a platform for information sharing in all fields within the competence of UNESCO, as per the guidelines and procedures for the UNITWIN/UNESCO Chairs Programme.

The implementation of the UNESCO–FIU Chair Medium Term Plan for the period 2023-2036 (MTP 23-26) does not only constitute a supportive means to advance UNESCO’s Medium Term Strategy in the water

sector, but it also loE-FIU and its associates to make a difference as it relates to building capacity, sharing knowledge and strengthening links between universities/other higher education institutions and development bodies within the US and in partner countries. Consequently, the MTP 23-26 will contribute to “expand the human potential, scientific base and knowledge at all levels to understand the impacts of global changes on water systems and to link scientific conclusions to policies for promoting sustainable management of water resources”, as called upon in the IX Phase of the UNESCO-IHP Strategic Plan “Science for a Water Secure World in a Changing Environment”. Also, through the activities programmed by the Chair, the Institute of Environment at FIU aims to contribute scientific and practical development expertise to support partners in the developing UNESCO Member States attain the related SDGs.

The long-term development objective of the UNESCO Chair “Sustainable Water Security” is to contribute to the overall sustainable development by supporting and ensuring equitable availability and sustainable management of water, as well as the safety of the resources and water related systems, natural and human-made.

The short term specific objectives for the period 2023-2026 are:

- To coordinate and contribute to research, science and technology development, innovation and policies related to Sustainable Water Security.
- To promote and foster national and international scientific cooperation and integrated science-based approaches to effectively manage water and safeguard the resource and water-related systems.
- To build human and institutional capacity at all levels to support sustainable water security.
- To advocate for, participate in, support, and strengthen, partnerships to bridge the science-policy interface.

The Chair will undertake, coordinate, collaborate, and promote activities of the following nature within the loE, FIU, and in partner organizations, both in the US and abroad.

- Training and capacity building
- Applied research
- Visiting scholars and professionals
- Scholarships
- Institutional development
- Special events: Workshops and conferences
- Targeted postgraduate academic program(s)
- Publications and on-line knowledge transfer

For the period 2019-2022, the following Themes have been identified:

- Education and Capacity Building
- Policy
- Water Quality
- Cybersecurity
- Compound events: Analysis and Modeling
- Environmental Finance
- Sustainable Communities
- Gender and Equity
- Water Culture
- Energy-Water-Food Nexus



As the program advances, these themes can merge to consolidate initiatives, optimize available resources, and maximize results. Similarly, new thematic areas could arise. Annex A presents the names of the FIU and external Theme Coordinators that are participating today in the development and implementation of activities for the various Themes.

The following table presents a summary of the main activities identified for the major theme areas of the MTP 23-26.

<b>Theme</b>	<b>Program/Activity</b>
Education and Capacity Building	- Development of Joint Academic and/or Capacity Building Programs with universities and institutes.
Policy	- Publication(s) on Water Security Policy - Further Development of the Water Security Forum on Policy
Water Quality	- Further development of joint activities with the UNESCO-IHP Secretariat related on Water Quality - Co-hosting the Secretariat of the IHP International Initiative on Water Quality (in partnership with the UNESCO Water Chair WENDI, Japan, and UNESCO Water Centre ICWRGC, Germany)
Cybersecurity	- Special Event on “Cybersecurity for Water Security” (In partnership with the WaterWeb Consortium and others)
Compound events: Analysis and Modeling	- Book Publication on Hydrological Regionalization - Contribution to the development of on-line Master of Science Degree Program at the University of Queretaro, Mexico (in partnership with the IHP-LAC International Flood Initiative - IFI/LAC)
Environmental Finance	- Contribution to the development of a Certificate Program at FIU on Climate Finance (contribution on water-related topics)
Sustainable Communities	- Contribution to the development of citizen science models and participatory approaches - Research on Water Security as a cultural landscape value (in Partnership with WADERROC - Università per Stranieri di Perugia, Italy)
Gender and Equity	- Publication related to women’s role in Water Management. - Workshops on the incorporation of the gender and intercultural approach in national and regional actions at the river basin level (in partnership with the Organization of American States, OAS)
Water Culture	- Support study on the role of native communities in water security
Energy -Water-Food Nexus	- Contribution to studies on the energy-water-food nexus for water security
Crosscutting	- Further development of the Nile Talk Forum - Publication(s) on Sustainable Water Security

In addition to the activities and programs presented above by Theme, the four following activities have been planned to take place under the MTP 23-26:

- Fourth International Water Security Conference “Water security for a sustainable future: Human and environmental health and socio-economic challenges, Guayaquil, Ecuador 2023. Hosted by

the Escuela Superior Politecnica del Litoral in Partnership with UNESCO-IHP and the Organization of American States.

- Fifth International Water Security Conference (Title to be presented at the IV International Water Security Conference), Mexico, 2024 (request received from the UNESCO Centre on Water Security in Mexico).
- Sixth Fourth International Water Security Conference (title to be defined), FIU campus, Miami, USA, 2025.
- Seventh Water Security Conference (venue and title to be defined), 2026.

The following table depicts the minimum results targeted during the second operational period since the inception of the Chair.

Development objective: contribute to the overall sustainable development by supporting and ensuring equitable availability and sustainable management of water, as well as the safety of the resources and water related systems, natural and human-made.

Specific Objectives	Expected Results	Minimum Result Target
SO1 - coordinate and contribute to research, science and technology development, innovation and policies related to sustainable water security	ER1 - research, science and technology development, innovation and policies related to sustainable water security enhanced	- At least one research, science/technology development coordinated and application promoted. - At least one knowledge sharing platform supported and enhanced.
SO2 - promote and foster national and international scientific cooperation and integrated science-based approaches to effectively manage water, and safeguard the resource and water-related systems.	ER2 - international scientific cooperation expanded	- At least four new Memorandum of Understanding (MoU) or other type of agreements signed and operational
	ER 3 - approaches to effectively manage and safeguard water resources promoted	- At least two special publications/articles or book(s) related to sustainable water security
SO3 - build human and institutional capacity at all levels to support sustainable water security	ER 4 - human and institutional capacity on sustainable water security extended	- At least five capacity building activities implemented -At least one capacity building program established with partner entities. - At least 100 persons benefited from capacity building activities
SO4 - advocate for, participate in, support, and strengthen, partnerships to bridge the science-policy interface	ER 5 - global partnerships to bridge the science-policy interface strengthen	- At least five activities implemented to facilitate, establish, and/or strengthen partnerships among policy-makers and scientist/academics

Activities planned to be executed under the Chair aimed to achieve the overall and four specific objectives defined above. The schedule of main type of activities is presented in the table below.

Activity	Year 1 - 2023				Year 2- 2024				Year 3-2025				Year 4- 2026			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
International Conference “Water Security Sustainability”	X					X					X					X
Development of next Medium Term Plan (MTP) 2027- 2030																X
Development of Capacity Building Materials	X					X	X					X	X			
Capacity Building Event		X	X					X	X					X		
Research on Water Security Sustainability (various thematic areas)				X	X	X	X	X	X	X	X	X	X	X		
Publication (s)					X							X				
Student Exchange		X	X	X	X	X	X	X	X	X	X	X	X	X		
Visiting Researcher/Professional			X	X					X	X				X	X	
Support Action to Policy/Decision Makers		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Knowledge Sharing/Dissemination	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Participation in IHP and UNESCO Water Family related events		X		X		X		X		X		X		X		X
Participation in IHP Gov. Council					X								X			
Midterm Reporting								X								
Final Period Report																X

The activities of the Chair are coordinated by Chair-holder, Dr. Maria Donoso, and implemented by a selective group of faculty, researches and professionals within FIU and in partner organizations. Efforts are also aimed to involve graduate students and post-docs in the implementation of specific tasks and in capacity building initiatives. Administrative and logistic

support is provided by IoE. The Chair has an Advisory Board which includes a selected group of international water experts, and decision-makers. In addition, the Chair activities are co-ordinated by a transdisciplinary Theme Coordination Committee formed by water-related professionals, and researchers.

*Note:* The information presented in this section was extracted from the “Medium Term Plan: January 2023 to December 2026” document to be presented for discussion at the upcoming Meeting of the Advisory Board and Theme Coordination Committee scheduled to occur via ZOOM on October 11, 2022.

### c. Human and financial resources

A breakdown of overall budget (in USD) for the next reporting period is presented in this section, including detail on budget secured, contributions from the institution(s) and plans to raise additional funds (e.g.: donors, public/private sectors, and other UN agencies). The budget can be prepared by outputs/activity or by type of expenditure such as staffing, events, contracted services, external training and events, grants, equipment and maintenance, communications and other expenses.

The following table presents the estimated budget for the operation of the UNESCO Chair “Sustainable Water Security” during the next four year period

Budget Line Items	Total Cost Cash	Total Cost In-Kind	Extrabudgetary (Non-FIU)
Professional Fees –			
Salaries & Benefits	\$47,116	\$96,623	
Travel Expenses	\$20,000		
Equipment		\$14,550	
Telephone costs		\$800	
Materials and Supplies		\$6,000	
Office Facilities		\$7,200	
Conference and Event Facilities		\$7,200	
Printing and Reproduction		\$4,050	
Other Direct Costs	\$400	\$12,388	
<b>Total Cash and In-Kind Cost</b>	<b>\$67,416</b>	<b>\$148,811</b>	
Total Estimated Extrabudgetary			<b>\$500,000</b>
<b>GRAND TOTAL</b>	<b>US\$ 716,227</b>		

Based on the above table, the estimated funding contribution of the Institute of Environment (IoE) at FIU is as follows:

- Budgetary provision (in US \$): **\$67,416**
- In-kind services (in US \$): **\$\$148,811**

It is important to note that the budget provisions and in-kind services indicated in the above table correspond only to the estimated funding contributed by the IoE. The depicted quantities do not include the funding or in-kind contributions provided by other academic or research units of FIU, since these are difficult to identify and quantify. The contribution of FIU units can be made in support of events, time dedicated by Theme Coordinators to plan and/or advance specific activities of the Chair, participation in activities, or provision of services to the Chair (e.g. for printing, use of facilities or laboratories), among other.

A total of US\$500,000 is proposed to be mobilized in coordination with the Institute of the Environment at FIU and partners (internal partners in other units of FIU and partner entities outside of FIU) to complement the costs of activities to be implemented during the second period of operation of the Chair. The following table refers to the estimated cost of specific budget lines or activity types to be funded with non-FIU extrabudgetary funds. The potential donors referenced in the last column are organizations from which IoE/FIU and/or our partners have received funding contributions in the past and/or the Chair or partners are in the process of presenting or discussing proposals to funds the type of activities indicated in the first column. All numbers presented in the table are cost estimates rounded to the closest one thousand dollars based on the average funding history of the organization/institutions referred in the first column.

Budget Line (Activity Type)	Estimated Cost Extrabudgetary	Potential Donor(s)
Course Development	45,000	NSF, SouthCom, AfriCom, OAS
Training/Capacity Building	100,000	regional development banks, OAS, EU
Research	100,000	NSF, NPS, partner Universities
Policy Advisory	50,000	USAID, regional development banks
Workshops/Conference(s)	80,000	NSF, Foundations (various)
Travel (Meetings/Tech. Visits)	48,000	USAID, partner universities,
Publications	24,000	Springer, UNESCO, Private Sector
Visiting Scholars/Professionals/Students	30,000	Other UNESCO Chairs, UNESCO Category II Centres, Partner Universities, EU
Miscellaneous	23,000	Various (NGOs, national/bilateral donors, in-country government agencies, private sector, foundations, regional development banks)
<b>ESTIMATED TOTAL (US\$)</b>	<b>500,000</b>	

**Note:** At the time of writing this report, a number of partner universities and organizations have expressed their intent to make budgetary and/or in-kind contributions to Chair-related activities taking place in the next programmatic period (2023-2026). Some of these entities are: Escuela Superior Tecnica del Litoral (Ecuador), Universidad de Queretaro, Organization of American States, Interamerican Development Bank.

#### **d. Reflections**

This section provides additional reflections on how the Chair might be further strengthened and how its activities and ways of working could be improved.

Since its creation, the Chair has contributed to raising awareness on the need to attain water security in the path towards a sustainable future. However, addressing water security today goes beyond having access to adequate quantities of water of acceptable quality since new challenges emerge worldwide. Consequently, in developing a water security strategy or action plan, there is a need to recognize the importance of cybersecurity in a world where computerized systems dominate the day-to-day management of water resources. Similarly, new microscopic emergent pollutants call for upgraded regulations and revision of water quality standards. Similarly, the effects of extreme hydrological events in today's world need to be viewed from a compound perspective. The recent COVID pandemic demonstrates the need to review and update our water-related modeling scenarios to include social and economic variables. The UNESCO Chair brings these new subjects to the attention of stakeholders for consideration in advancing the UN 2030 Agenda and meeting the SDGs in general. Therefore, the UNESCO Chair must continue in partnership with the UNESCO Network to guarantee that the outcome of its work reaches Member States, other higher education and research entities of the UNESCO Water Family, and ultimately benefits the general public.

## UNESCO Chair at FIU on Sustainable Water Security

### Theme Coordination Committee

Thematic Area	FIU Theme Coordinator	External Theme Coordinator
<b>Education an Capacity Building</b>	Dr. Rita Teutonico, (Associate Dean, CASE)	Dr. Evens Emmanuel, Vice Rector for Research, University of Quisqueya, (Haiti)
<b>Policy</b>	Dr. Shlomi Dinar, (Associate Professor SIPA)	Mr. Victor Pochat – Member of the Academy of Environment Sciences and former Deputy Secretary for Water Resources (Argentina)
<b>Water Quality</b>	Dr, Henry Briceno (IoE-CASE)	TBD
<b>Cybersecurity</b>	Dr. Kemal Akkaya (Director of Research, Cybersecurity Emerging Preeminent Program)	Dr. Alex Crowther (Research Professor at JGI and SIPA, coordinator of JGI-OAS Cybersecurity Certificate Program) - invited
<b>Compound Events Analysis and Modelling</b>	Dr. Reinaldo Garcia (IoE-CASE) -	Dr. Alfonso Gutierrez, U. Queretaro – LAC Regional Coordinator of the International Flood Initiative (Mexico)
<b>Environmental Finance</b>	Dr. Mario Loyola and Dr. Enrique Villamor, IoE Environmental Finance & Risk Management Program	Dr. Ray King (Hawaii) - invited
<b>Sustainable Communities</b>	Dr. Shahin Vassigh (Associate Dean CARTA)	Dr. Fernando Nardi - U. Perugia – Professor and UNESCO Co-Chair on Water and Culture (Italy)
<b>Gender and Equity</b>	Dr. Suzanna Rose (Founding Associate Provost, Office to Advance Women, Equity & Diversity)	TBD
<b>Water Culture</b>	Dr. Jennifer Veilleux (SIPA)	Dr. Rafael Val Segura, UNESCO Chair on Water Culture (Mexico)
<b>Energy-Water-Food Nexus</b>	Dr. Leo Lagos( Associate Director ARC, Director of Research)	TBD