

**Reporting format for UNESCO's Water-related Chairs on activities for the period
June 2018 – April 2020**

1. Basic information

Full Name of the Chair		UNESCO Chair on Water-related Disaster Risk Reduction (WRDRR)
Name of Chair holder		Professor Matjaž Mikoš
any other contacts (other focal points/co-chair, etc.)		Ms. Klaudija Sapač, PhD student
E-mail		secretariat@unesco-floods.eu
Telephone number		+ 386 1 4768 500
Website		www.unesco-floods.eu
Mailing Address		c/o UL FGG, Jamova c. 2, SI-1000 Ljubljana
Geographic scope *		<input checked="" type="checkbox"/> global <input type="checkbox"/> regional
Specify which Region(s) (if applicable)		-
Year of establishment		2016
Year of renewal		2020
Themes Of activities during reporting period	Focal Areas ♦	<input checked="" type="checkbox"/> groundwater <input checked="" type="checkbox"/> urban water management <input checked="" type="checkbox"/> rural water management <input type="checkbox"/> arid / semi-arid zones <input type="checkbox"/> humid tropics <input type="checkbox"/> cryosphere (snow, ice, glaciers) <input checked="" type="checkbox"/> water related disasters (drought/floods) <input checked="" type="checkbox"/> Erosion/sedimentation, and landslides <input checked="" type="checkbox"/> ecohydrology/ecosystems <input type="checkbox"/> water law and policy <input type="checkbox"/> social/cultural/gender dimension of water/youth <input checked="" type="checkbox"/> transboundary river basins/ aquifers <input checked="" type="checkbox"/> mathematical modelling <input checked="" type="checkbox"/> hydroinformatics <input checked="" type="checkbox"/> remote sensing/GIS <input type="checkbox"/> IWRM <input checked="" type="checkbox"/> Watershed processes/management <input type="checkbox"/> global and change and impact assessment <input checked="" type="checkbox"/> mathematical modelling <input checked="" type="checkbox"/> water education <input type="checkbox"/> water quality <input type="checkbox"/> nano-technology <input type="checkbox"/> waste water management/re-use <input checked="" type="checkbox"/> water/energy/food nexus <input checked="" type="checkbox"/> water systems and infrastructure <input type="checkbox"/> Water Diplomacy <input checked="" type="checkbox"/> Climate Change <input type="checkbox"/> other: (please specify) _____
	Scope of Activities ♦	<input type="checkbox"/> vocational training <input checked="" type="checkbox"/> postgraduate education <input checked="" type="checkbox"/> continuing education <input checked="" type="checkbox"/> public outreach <input checked="" type="checkbox"/> research <input type="checkbox"/> institutional capacity-building <input checked="" type="checkbox"/> advising/ consulting

* check on appropriate box

♦ check all that apply

	<input checked="" type="checkbox"/> software development <input checked="" type="checkbox"/> data-sets/data-bases development <input checked="" type="checkbox"/> Knowledge/sharing <input checked="" type="checkbox"/> Policy Advice/Support <input checked="" type="checkbox"/> Publication and documentation <input type="checkbox"/> other: (please specify) _____
Existing networks /cooperation/partnerships ¹	i) UNESCO Chair on Open Technologies for Open Educational Resources and Open Learning, Institute Jožef Stefan, Slovenia. ii) International Consortium on Landslides (ICL), Kyoto, Japan. iii) The Adriatic-Balkan Network of the ICL iv) World Centre of Excellence in Landslide Risk Reduction of the ICL, Faculty of Civil and Geodetic Engineering, University of Ljubljana, Slovenia. v) UNITWIN/UNESCO/KU/ICL Landslide Risk Mitigation for Society and Environment Cooperation Programme, Kyoto University, Japan. vi) UNESCO Chair on prevention and sustainable management of geo-hydrological hazards, University of Florence, Italy. vii) UNESCO Chair on Integrated River Research and Management, University of Natural Resources and Life Sciences, Vienna, Austria. viii) UNESCO Chair/International Network of Water-Environment Centres for the Balkans on 'Sustainable Management on Water and Conflict Resolution', Greece. ix) UNESCO Chair on Water for Ecological Sustainable Development (W4ESD), University of Belgrade, Serbia. x) UNESCO Chair on Intersectoral Safety for Disaster Risk Reduction and Resilience SPRINT-Lab, University of Udine, Italy. xi) UNESCO Chair on Geoenvironmental Disaster Reduction, Shimane University, Matsue, Japan. xii) UNESCO category II center IHE Delft Institute for Water Education, the Netherlands. xiii) UNESCO category II center International Research and Training Centre on Urban Drainage (IRTCUD), Belgrade, Serbia.
Please state any other Institutional affiliations of the chairholder	Chairholder is Full Professor employed by the University of Ljubljana and serves as the Dean of Faculty of Civil and Geodetic Engineering.
Number of staff and types of staff	total number of staff (full-time, or equivalent): 10 who are water experts: 10 number of visiting scientists and postgraduate students: 6
Annual budget in USD	We do not have our own annual budget, but can within other budgets support activities to up to 20.000 USD.
Sources of financial support ²	i) Slovenian Research Agency - research core

¹ please indicate international networks, consortiums or projects that the chair/ network of Chairs is part of, or any other close links that the chair has with international organizations or programmes, which are not already mentioned above

² please specify sources of main budgetary and extra budgetary funds to implement projects

	funding P2-0180 & research projects. ii) Slovenian National Commission for UNESCO within the framework of the National Committee for IHP UNESCO.
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2. Activities undertaken in the framework of IHP in the period June 2018 – April 2020 (e.g. of activities Training, Publications, outreach, knowledge sharing, conference organized, papers presented, policy advice). Please, provide gender specific data.

Field measurements and applied research in experimental river basins in Slovenia, supported by diverse technologies and measuring equipment.

Participation in the multidisciplinary ERASMUS+ master study program in Flood Risk Management (together with IHE, TU Dresden, Tech Barcelona).

World Construction Forum (April 8 – 11, 2019, Ljubljana) co-organized by the Slovenian Chamber of Engineers and the World Federation of Engineering Organizations (WFEO) with over 600 participants from 50 countries and 5 continents, ca. 25% female beneficiaries over 24.

4th Adriatic-Balkan Regional Symposium on Landslides (October 23 – 25, 2019, Sarajevo, Bosnia and Hercegovina) with close to 100 participants, ca. one third female over 24.

2nd Meeting of UNESCO VISUS experts (October 29 – 30, 2019) in Ljubljana on “School safety upgrading strategies in multi-hazard prone areas”, where the Ljubljana Declaration was accepted.

Active participation to the Venice Climate Meeting (November 6 – 8, 2019) on the future of South-East Europe and the Mediterranean in the context of Climate Change: a UNESCO perspective.

Active participation to numerous international conferences, such as EGU Annual General Assembly meetings in Vienna, Austria & 27th IHP UNESCO Danube River basin conference in Golden Sands, Bulgaria, September 2017 & 28th IHP UNESCO Danube River basin Conference in Kyiv, Ukraine in November 2019.

Active participation to the 2020 Field School on Geoenvironmental Disaster Reduction from February 10 to 16, 2020, organized by the UNESCO Chair on Geoenvironmental Disaster Reduction at Shimane University, Matsue, Japan by a male assistant professor and a female PhD student.

Active participation in Joint Masters Programme in Flood Risk Management, supported by EU Erasmus Mundus funds and leading by IHE Delft.

Preparation of Programme of InterFloodCourse leading by National University of Public Service, Baja Hungary in cooperation with University of Belgrade, Faculty of Civil Engineering and supported by EU Strategy for the Danube Region.

These activities contributed to the following IHP themes:

Focal area 1.2 - Understanding coupled human and natural processes

Focal area 1.3 - Benefiting from global and local Earth observation systems

Focal area 1.5 - Improve scientific basis for hydrology and water sciences for preparation and response to extreme hydrological events

Focal area 6.1 - Enhancing tertiary water education and professional capabilities in the water sector

3. Collaboration and linkages (Please specify also collaborations with other chairs or members of the water family - existence of MoUs, etc.)

Link and cooperation in the UNITWIN/UNESCO/KU/ICL Landslide Risk Mitigation for Society and Environment Cooperation Programme, Kyoto University, Japan.

Activities in the International Consortium on Landslides (ICL) – cooperation with other 19 World Centres of Excellence in Landslide Risk Reduction being an active ICL member, supporting the ICL journal Landslides published by Springer Nature, contributing scientific and technical papers to triennial World Landslide Forums, regional cooperation within the ICL regional Adriatic-Balkan Network (Croatia, Bosnia & Hercegovina, Serbia, Albania).

University of Brescia, Italy – cooperation in PhD “Civil and Environmental Engineering, International cooperation and Mathematics”.

University of Udine, Italy – cooperation within the framework UNESCO VISUS technical-triage methodology (Visual Inspections for the definition of Safety Upgrading Strategies).

IHE Delft – cooperation together with TU Dresden and TU Barcelona within the framework of the international & multidisciplinary 2-year ERASMUS+ Master in Flood Risk Management that is partially executed in Ljubljana at University of Ljubljana with the direct involvement of UNESCO Chair in WRDRR.

Bilateral cooperation with Chongqing Technology and Business University, China under the framework of a bilateral research project “Evaluation of intelligent learning techniques for prediction of hydrological data: useful case studies in China and Slovenia» (2018-2020).

Bilateral cooperation with Leibniz University, Hannover, Germany, under the framework of a bilateral research project “Stochastic precipitation models for the assessment of rainfall erosivity” (2018-2019).

Collaboration by UNESCO Chairs:

- i. UNESCO Chair on Open Technologies for Open Educational Resources and Open Learning, Institute Jožef Stefan, Slovenia.
- ii. International Consortium on Landslides (ICL), Kyoto, Japan.
- iii. The Adriatic-Balkan Network of the ICL.
- iv. World Centre of Excellence in Landslide Risk Reduction of the ICL, Faculty of Civil and Geodetic Engineering, University of Ljubljana, Slovenia.
- v. UNITWIN/UNESCO/KU/ICL Landslide Risk Mitigation for Society and Environment Cooperation Programme, Kyoto University, Japan.
- vi. UNESCO Chair on prevention and sustainable management of geo-hydrological hazards, University of Florence, Italy.
- vii. UNESCO Chair on Integrated River Research and Management, University of Natural Resources and Life Sciences Vienna, Austria.
- viii. UNESCO Chair/International Network of Water-Environment Centres for the Balkans on ‘Sustainable Management on Water and Conflict Resolution’, Greece.
- ix. W4ESD – UNESCO Chair on Water for Ecological Sustainable Development, University of Belgrade, Serbia.
- x. UNESCO Chair on Intersectoral Safety for Disaster Risk Reduction and Resilience SPRINT-Lab, University of Udine, Italy.
- xi. UNESCO Chair on Geoenvironmental Disaster Reduction, Shimane University, Matsue, Japan.
- xii. UNESCO Chair on Geoenvironmental Disaster Reduction, Shimane University, Matsue, Japan. UNESCO category II center IHE Delft Institute for Water Education, the Netherlands.
- xiii. UNESCO category II center International Research and Training Centre on Urban Drainage (IRTCUD), Belgrade, Serbia.

4. Communication/Knowledge Sharing (*e.g. website/ platforms created or newsletters*)

Issuing journal Acta hydrotechnica (ISSN: 0352-3551, eISSN: 1581-0267, <http://ksh.fgg.uni-lj.si/KSH/acta/index.htm>) that is indexed in several databases: SCOPUS, ICONDA, Crossref, dLib, Google Scholar, Ulrich’s Web, COBISS.

Scientific and technical contributions (papers) to international periodicals (journals) and scientific and professional conferences.

Chair web pages: www.unesco-floods.eu.

Slovenian National Commission on UNESCO published in November 2019 new information material on UNESCO in Slovenia: a) information folder in [English](https://www.unesco-floods.eu/wp-content/uploads/2019/11/zlozenka_ang_.pdf) (https://www.unesco-floods.eu/wp-content/uploads/2019/11/zlozenka_ang_.pdf) and in Slovenian, and b) information leaflet in [English](https://www.unesco-floods.eu/wp-content/uploads/2019/11/zgibanka1-v-celoti-ang.pdf) (<https://www.unesco-floods.eu/wp-content/uploads/2019/11/zgibanka1-v-celoti-ang.pdf>) and in Slovenian.

Scanning of available official scientific and technical reports, books and conference proceedings of the regional hydrological co-operation of the Danube Countries in the framework of the International Hydrological Program of UNESCO.

5. Institutional changes/updates

No changes/updates yet.

6. Please provide examples of the Chair's Main achievement(s)/success stories/best practices

In the period June 2018 – April 2020, the main outcome in this second phase after the chair's establishment in December 2016, was to further strengthen its network and achieved position in the existing international networks (UNESCO, IHP, ICL, Interpraevent) by co-organizing the World Construction Forum in Ljubljana (April 2019; <https://www.wcf2019.org/>), the 4th Regional Symposium on Landslides in the Adriatic-Balkan Region in Sarajevo (October 2019; http://www.geotehnika.ba/ReSyLAB_2019.html), and by continuous contributions to organizational efforts for the forthcoming events: 5th World Landslide Forum in 2020 in Kyoto, Japan (November 2020), 14th INTERPRAEVENT Congress in Bergen, Norway (postponed from May 2020 to June 2021), and 5th Regional Symposium on Landslides in the Adriatic-Balkan Region in Rijeka, Croatia (October 2021).

Video lectures from the World Construction Forum (April 2019) in the field of "Disaster Risk Management & Governance for Resilient Communities" that are freely available: <https://www.wcf2019.org/forum-lectures/index.html>.

Unique Erasmus+ 2-year Flood risk management interdisciplinary master program (<https://www.floodriskmaster.org/>) produced several video lectures: http://videlectures.net/floodriskmaster2018_ljubljana/. Our UNESCO Chair contributes to this 2-year Master Programme.

Scientific reports on applied studies.

Active participation in scientific conferences and publishing scientific papers in international peer-reviewed journals.

Hydrological and hydraulic field experimentation and measurements in the experimental basins around Slovenia using advanced technologies and diverse equipment.

Establishing of a Laboratory for aggregates under the umbrella of the Research Institute for Geo and Hydro Threats (RIGHT), Faculty of Civil and Geodetic Engineering, University of Ljubljana that could research not only aggregates as building materials but also mineral aggregates (natural fluvial sediments) being part of the erosion and sedimentation cycle.

7. Future activities that will contribute directly to IHP and/or to WWAP

UNESCO Chair in WRDDR at University of Ljubljana will continue to support IHP in years to come by the following activities:

- Supporting the activities of the Slovenian National Committee for IHP UNESCO (UNESCO Chairholder is also chairing the NC IHP UNESCO in Slovenia and is a member of the Slovenian National Commission for UNESCO, and two more members of the UNESCO Chair are members of the Slovenian NC IHP UNESCO).
- Slovenia is coordinating national committees for IHP UNESCO in the Danube River Basin and their research efforts, and a workshop is planned to be held in November 2020 in Ljubljana to host national committees of the II. region.
- We will support the work of IHP Bureau and IHP Council in Paris. We will support the IHP project World's Large Rivers Initiative (WLRI).
- We will further on develop and intensify our research activities in experimental basins and cooperation in the Euro-Mediterranean Network of Experimental and Representative Basins (ERB, <https://erb-network.simdif.com/>). We plan to attend the next ERB Conference in Elba, Italy in September 2020.
- UNESCO Chair in WRDDR will contribute to the draft of IXth Programme of IHP UNESCO, and continue to support activities of other UNESCO chairs within the existing network, especially through the ICL community in the field of landslide risk reduction, and through already established cooperation within the international hydrology community.

- We will support the forthcoming 4th Congress on Waters in Slovenia to be held in 2021.
- We will support water diplomacy efforts of the Slovenian Government and will support the organization of the Slovenian Presidency of EU in 2021.
- We will proceed with digitalization of existing materials (e.g. reports and proceedings from the Danubian countries) and with production of new materials in electronic form, freely available for the hydrology scientific community. Also supporting publishing of the SCOPUS journal Acta hydrotechnica is a part of these efforts.
- We will further support all kind of national and international University of Ljubljana educational efforts and activities in the field of hydrological sciences and integrated water management, as well as in flood risk management and community (society) capacity building and development through risk dialogue with diverse stakeholders.
- Cooperation on development and maintenance the Glossary of hydrology.
- Maintenance and development of the existing Experimental river basins.

8. Activities implemented within the framework of the United Nations 2030 Agenda for Sustainable development and the SDGs (please specify which SDG(s) and its/their targets)

Our activities are mainly related to the following two SDGs:

13. Climate action

(target: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries & Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning).

17. Partnerships for the goals

(target Technology: Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism).

Our activities are also related to the following two SDGs:

6. Clean water and sanitation

(target: By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate. By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate).

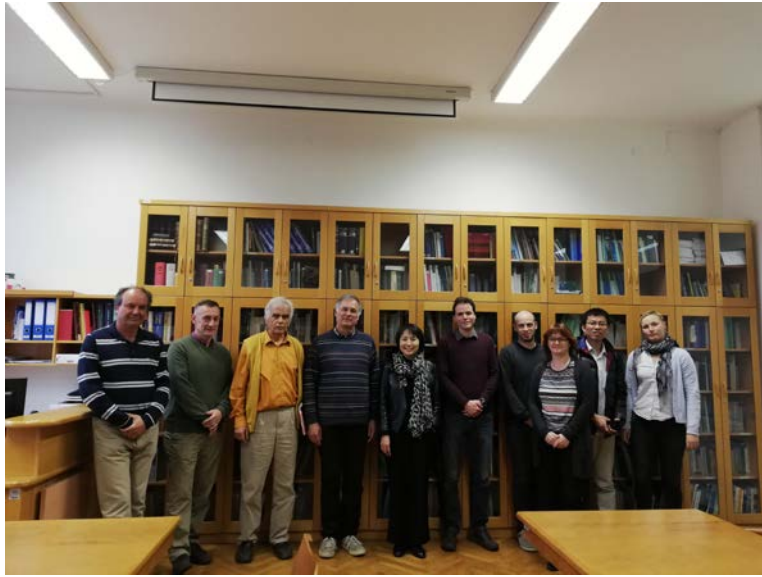
9. Industry, innovation and infrastructure.

(target: Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all).

9. Annexes (please include if possible the detailed list of activities and/or publications, or any other supporting documentation)

A comprehensive list of WRDRR activities is published on the Chair's web page under *Activities*: <https://www.unesco-floods.eu/activities/> and under *News*: <https://www.unesco-floods.eu/category/news/>.

A comprehensive list of publications related to activities WRDRR is published on the Chair's web page under *Publications*: <https://www.unesco-floods.eu/category/publications/>.



International visit to WRDRR Chair by Professor Jing PENG from China Institute of Water Resources and Hydropower Research, Beijing, China in April 2019.



Visit of WRDRR Chair researchers to the Chongqing University, China in January 2019 within the frame work of a bilateral project.

Appendix 1

Overview of the Core Programme Themes of the Eighth Phase of the IHP (2014-2021) WATER SECURITY: ADDRESSING LOCAL, REGIONAL, AND GLOBAL CHALLENGES

THEME 1: WATER-RELATED DISASTERS AND HYDROLOGICAL CHANGE

- Focal area 1.1 - Risk management as adaptation to global changes
- Focal area 1.2 - Understanding coupled human and natural processes
- Focal area 1.3 - Benefiting from global and local Earth observation systems
- Focal area 1.4 - Addressing uncertainty and improving its communication
- Focal area 1.5 - Improve scientific basis for hydrology and water sciences for preparation and response to extreme hydrological events

THEME 2: GROUNDWATER IN A CHANGING ENVIRONMENT

- Focal area 2.1 - Enhancing sustainable groundwater resources management
- Focal area 2.2 - Addressing strategies for management of aquifers recharge
- Focal area 2.3 - Adapting to the impacts of climate change on aquifer systems
- Focal area 2.4 - Promoting groundwater quality protection
- Focal area 2.5 - Promoting management of transboundary aquifers

THEME 3: ADDRESSING WATER SCARCITY AND QUALITY

- Focal area 3.1 - Improving governance, planning, management, allocation, and efficient use of water resources
- Focal area 3.2 - Dealing with present water scarcity and developing foresight to prevent undesirable trends
- Focal area 3.3 - Promoting tools for stakeholders involvement and awareness and conflict resolution
- Focal area 3.4 - Addressing water quality and pollution issues within an IWRM framework - improving legal, policy, institutional, and human capacity
- Focal area 3.5 - Promoting innovative tools for safety of water supplies and controlling pollution

THEME 4: WATER AND HUMAN SETTLEMENTS OF THE FUTURE

- Focal area 4.1 - Game changing approaches and technologies
- Focal area 4.2 - System wide changes for integrated management approaches
- Focal area 4.3 - Institution and leadership for beneficitation and integration
- Focal area 4.4 - Opportunities in emerging cities in developing countries
- Focal area 4.5 - Integrated development in rural human settlement

THEME 5: ECOHYDROLOGY, ENGINEERING HARMONY FOR A SUSTAINABLE WORLD

- Focal area 5.1 - Hydrological dimension of a catchment– identification of potential threats and opportunities for a sustainable development
- Focal area 5.2 - Shaping of the catchment ecological structure for ecosystem potential enhancement – biological productivity and biodiversity
- Focal area 5.3 - Ecohydrology system solution and ecological engineering for the enhancement of water and ecosystem resilience and ecosystem services
- Focal area 5.4 - Urban Ecohydrology – storm water purification and retention in the city landscape, potential for improvement of health and quality of life
- Focal area 5.5 - Ecohydrological regulation for sustaining and restoring continental to coastal connectivity and ecosystem functioning

THEME 6: WATER EDUCATION, KEY FOR WATER SECURITY

- Focal area 6.1 - Enhancing tertiary water education and professional capabilities in the water sector
- Focal area 6.2 - Addressing vocational education and training of water technicians
- Focal area 6.3 - Water education for children and youth
- Focal area 6.4 - Promoting awareness of water issues through informal water education
- Focal area 6.5 - Education for transboundary water cooperation and governance