

UNESCO CHAIR/UNITWIN NETWORK PROGRESS REPORT FORM

Title of the Chair/Network:	Natural Disasters Management in the Islamic Republic of Iran and Countries in the Region
Host Institution:	Natural Disasters Research Institute
Date of establishment of Chair/Network: <i>(mm, yyyy)</i>	06, 2014
Period of activity under report: <i>(mm, yyyy - mm, yyyy)</i>	06, 2018 - 06, 2022
Report established by: <i>(name, position)</i>	Seyed Amir Hossein Garakani, Head of Natural Disasters Research Institute (NDRI)

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Or by mail to UNESCO, Division for Teacher Development and Higher Education,

Section for Higher Education

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1. Executive Summary:

Major outcomes, results and impact of the Chair, including on national policies, in relation to its objectives as stated in Article 2 of the Chair Agreement (between the Institution and UNESCO)
(Not exceeding 300 words)

The Chair was established at Natural Disasters Research Institute (Tehran, Iran) in June 2014 to follow an integrated system of research, training, information and documentation on natural disaster management and is about to conclude its eighth year of activity. In order to create a connection between science and practice in disaster management, the UNESCO Chair on Natural Disasters Management has developed four main strands of activities:

- Research at national and local level
- Public and specialized education
- Enhancing partnerships with academic and administrative institutions and organizations
- Publishing Books

The Chair has succeeded in establishing **effective partnerships** with a number of academic institutions and executive/administrative organizations through MoUs and participation in research and practical projects. MoUs have been established in the fields of education, research and implementation, the results of which include holding joint training courses, joint research projects such as recording Iran's crisis management experiences and practical projects such as country wide identification of villages at risk of flooding and possible risk reduction solutions for the Housing Foundation of the Islamic Revolution (**Objective 1, 2 & 3**).

Regarding **research at national and local level**, we can mention the participation in enactment of the national strategy, national plans and regulations stipulated by the new crisis management law of the country with the cooperation of related executive organizations for the Ministry of Interior. The chair has also carried a needs assessment to determine research priorities in National Disaster Management Organization (Iran, Islamic Rep of) and Housing Foundation of Islamic Revolution, as the main actors in disaster management in the country, and is about to participate in the defined research projects actively (**Objective 2**).

Due to affordability and accessibility, especially during the pandemic, e-learning and online platforms are being used for **public and specialized courses** held by the chair. The target groups of the training courses and specialized webinars include specialists, officials and executive experts as well as the general public (**Objective 1, 3 & 4**).

Publishing the results of researches as books to help with further sharing the information is one of the important activities of the chair as well (**Objective 4**).

2) Activities:

Overview of activities undertaken by the Chair during the reporting period

a) Education/Training/Research

(key education programmes and training delivered and research undertaken by the Chair during the reporting period, target group and geographical coverage)

<p>ii) Training (short term)</p>	<p>The audience of the training courses held with the participation of the chair included specialists and executive bodies of organizations in the field of disaster management or other related fields, as well as the general public.</p> <ul style="list-style-type: none"> • Seismic building codes with a focus on Annex 6 of the National Building Codes of Iran and Geotechnical Hazards, February 2022 • Flood management, January to February 2022 • Urban rehabilitation and renovation in distressed areas, January to February 2022 • Soil stabilization methods, August to September 2021 • Damage assessment and estimation, , January to February 2022 • Landslide (zoning, monitoring and stabilization), June to July 2021 • MAXQDA software, 2019
<p>iii) Research</p>	<p>Within 2018–2022, the Chair played a significant role in research projects, reports and publications in connection with executive organizations of the country. A number of key research grants were secured during this period as a demonstration of sustained efforts and commitments to carry out research related to various aspects of disasters, risks and their management</p> <p><u>National strategies, plans and guideline:</u></p> <ul style="list-style-type: none"> • Within 2019–2021, the UNESCO Chair was actively involved in drafting bills, approvals and executive regulations of the Crisis Management Law of the country (23 documents in total). • Post-disaster transitional housing plan and development of the design criteria and standards for temporary housing

	<ul style="list-style-type: none"> • Practical solutions for legal issues in the process of reconstruction of disaster-affected areas in the country • Guideline for demolition debris management of damaged buildings in disasters <p><u>Disaster risk reduction researches:</u></p> <ul style="list-style-type: none"> • Identifying, determining and prioritizing how to intervene in rural areas at risk of natural disasters • Safety studies of villages at risk of landslides, rockslides and floods • Safety studies of areas and residential units damaged by 2017 floods in Sistan and Baluchestan province • Organizing villages in the river area and exposed to floods in Khuzestan <p><u>Post-disaster research reports for decision making by executive body:</u></p> <ul style="list-style-type: none"> • Rapid assessment of social status in 31 flooded villages of Khuzestan province in 2019 • Preparation of rapid assessment reports for settlements damaged after disasters in order to identify rural areas in need of displacement studies in 2017 Kermanshah earthquake <p><u>Recording and assessment post-disaster reconstruction experiences in the country:</u></p> <ul style="list-style-type: none"> • Oral history of disaster management in 1990 Manjil–Rudbar earthquake • Oral history of disaster management in 2003 Bam earthquake • Documenting the post-disaster reconstruction after 2017 Sarpol-e Zahab earthquake • Documenting the post-disaster reconstruction after in 2019 Khuzestan, Lorestan and Golestan Flood • Documenting reconstruction in earthquake-stricken areas of Lorestan in 2006 Borujerd earthquake • Documenting the post-disaster reconstruction after 2003 Bam earthquake • Participatory assessment of social issues and problems of temporary housing after 2017 Kermanshah province earthquake • Socio-economic rehabilitation of earthquake-stricken areas of Kermanshah province: Socio-economic studies, monitoring and assessment and facilitating public participation in reconstruction <p><u>Prepared proposals:</u></p> <ul style="list-style-type: none"> • "Promoting peace and resilience of the local community to environmental pressures by combining the male and female systems of customary governance of qanats and Tamarix trees heritage in Takab county, Kerman province, Iran" for NOTO, ICCROM, 2022 • "Disaster Risk Reduction Plan for the metropolis of Tehran" for Tehran Disaster Mitigation and Management Organization, 2021 • "Post-Disaster Reconstruction and Rehabilitation Plan for the metropolis of Tehran " for Tehran Disaster Mitigation and Management Organization, 2021
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b) Conferences/Meetings

(key conferences and meetings organized by the Chair or to which its Chairholder contributed)

i) Key conferences and workshops hosted by the Chair

In line with the missions of the Chair, several lectures and presentations have been organized, aiming at empowering the executive bodies and experts in the field of risk and disaster management. In addition to the executive bodies and experts, the audience also included NGOs, university students and the public.

- Scientific-specialized meeting "Reviewing the largest explosion of hazardous chemicals in the country: Nishapur train disaster", February 2022
- Scientific-specialized meeting "Reviewing the Plasco building fire and collapse", January 2022
- Scientific-specialized meeting "Disaster risk management of cultural heritage" on the 18th anniversary of 2003 Bam earthquake, December 2021
- Scientific-specialized meeting "Landslide risk management", December 2021
- Scientific-specialized meeting "Forest fire management", November 2021
- Scientific-specialized meeting "Presenting the executive bylaw of devoted service of the country", August 2021
- Scientific-specialized meeting "Dust analysis and dust storm", July 2021
- Scientific-specialized meeting "Presenting the National Crisis Management Strategy", July 2021
- Scientific-specialized meeting "Integrated disaster risk management", June 2021
- Scientific-specialized meeting "Reviewing damages and the process of infrastructures reconstruction in 2017 Sarpol-e Zahab earthquake", May 2021
- Scientific-specialized meeting "Avalanche risk management; challenges and experiences"
- Scientific-specialized meeting "Challenges of Temporary Housing with a focus on 2017 Sarpol-e Zahab earthquake experience", January 2020
- Scientific-specialized meeting "Reviewing crisis management in 2003 Bam Earthquake", December 2020
- Scientific-specialized meeting "The Role of Spatial Data and Information in Disaster Management", December 2020
- Scientific-specialized meeting "Reviewing 2017 Kermanshah Province earthquake", November 2020
- Scientific-specialized meeting "Disaster risk governance", October 2020
- Scientific-specialized meeting "Flood Economics and Housing Reconstruction in 2019 Khuzestan Flood Management", August 2020
- Scientific-specialized meeting "Urban and rural settlements reconstruction after 2019 Khuzestan Flood Management", August 2020
- Scientific-specialized meeting "Psycho-social consequences of 2019 Khuzestan Flood Management", July 2020
- Scientific-specialized meeting "Flood Crisis Management in 2019 Khuzestan Flood Management", June 2020
- Scientific-specialized meeting "Fifteenth Anniversary of 2003 Bam Earthquake", January 2020

- Focus Groups "Identifying the challenges of crisis management in the country with the representatives of the Crisis Management Organization and other governmental and non-governmental institutions along with experts, November 2019
- Scientific-specialized meeting "Risk management and reduction of damages caused by natural disasters", October 2018
- Scientific-specialized meeting "New technologies in seismic reinforcement of structures", April 2018

ii) A selection of conference presentations by the Chairholder and other colleagues

Conference presentations by the Chairholder:

- 3rd National Conference on Knowledge-based urban development and architecture, Islamic Azad University (Science and Research Branch), December 2021: Disaster risk management
- Specialized seminar on the fourth anniversary of 2017 Sarpol-e Zahab earthquake, International Institute of Earthquake Engineering and Seismology, November 2021: Temporary housing after 2017 Sarpol-e Zahab earthquake
- Specialized seminar on a decade of displacement in the Middle East and North Africa, Internal Displacement Monitoring Centre (IDMC), February 2021: The trends and challenges of internal displacement in Iran-experiences
- Conference on the role of non-governmental organizations in natural and man-made disaster risk management, Iran NGO network, December 2020

Conference presentations by other colleagues:

- Conference on earthquake engineering in lifelines , Khuzestan Province Gas Company, August 2021
- Specialized seminar on introducing the documents of the country's crisis management law, The Capacity for Disaster Reduction Initiative (CADRI), February 2020
- Flood meeting, Shahid Beheshti University, January 2020
- Conference on Surveying Engineering and Spatial Information, Iran National Cartographic Center, February 2020
- Conference on reducing seismic risk of structures, Tehran Municipality, September 2018
- Crisis Management Meeting, Tehran Housing Foundation, September 2018

c) Interuniversity Exchanges/Partnerships

(principal exchanges/partnerships between the Chair and other institutions, including UNESCO Chairs/UNITWIN Networks)

In the last four years the Chair has consolidated partnerships with other universities, Research Institutes, national and local organizations, NGOs and international centers. The Chair has strengthened the cooperation through education, research and practical projects.

International MoUs and partnerships:

- Earthquakes and Megacities Initiative (EMI), Philippines
- Global Risk Forum GRF Davos
- United Nations Office for the Coordination of Humanitarian Affairs
- The ECO Regional Center for Risk Management of Natural Disasters

National and local organisation MoUs and partnerships:

- Housing Foundation of Islamic Revolution (HFIR)

- National Disaster Management Organization (Iran, Islamic Rep of)
- Iran's Municipalities and Villages Administrations Organization
- Armed Forces Geographical Organization
- Road, Housing & Urban Development Research Center
- Geological Survey and Mineral Exploration of Iran
- Tehran Disaster Mitigation and Management Organization
- Association of Manufacturers and Industrial Technologists of Buildings

Universities MoUs and partnerships:

- Sharif University of Technology
- Shahid Beheshti University
- Kharazmi University

National research centers and Institutes:

- Atmospheric Science & Meteorological Research Center
- Institute of Humanities and Social Studies, University Jihad
- Tarbiat Modares University, Science & Technology Park

National NGOs:

- Bavar association (NGO for the visually impaired)

d) Publications/Multimedia Materials

(major publications and teaching/learning materials)

Please tick relevant fields of output and indicate volume of output:

	[tick]	[no.]
Books	<input checked="" type="checkbox"/>	13
Books (edited)	<input type="checkbox"/>	
Books (chapters)	<input type="checkbox"/>	
Monographs	<input type="checkbox"/>	
Research Reports	<input checked="" type="checkbox"/>	4
Journal Articles (refereed)	<input checked="" type="checkbox"/>	3
Conference Proceedings	<input type="checkbox"/>	
Occasional Papers	<input type="checkbox"/>	
Teaching/Learning Materials	<input type="checkbox"/>	
Multimedia Materials (CD-Rom)	<input type="checkbox"/>	
Multimedia Materials (Video)	<input type="checkbox"/>	
Multimedia Materials (Other)	<input checked="" type="checkbox"/>	2

Give details of major publications and materials including full citations.

Publications

Research reports:

- Rapid assessment of social situation in 31 flooded villages of Khuzestan province in 2019
- Preparation of rapid assessment reports for settlements damaged after disasters in order to identify rural areas in need of displacement studies in the 2017 Kermanshah earthquake

- Participatory assessment of social issues and problems of temporary housing after 2017 Kermanshah province earthquake
- Socio-economic rehabilitation of earthquake-stricken areas of Kermanshah province: Socio-economic studies, monitoring and assessment and facilitating people participation in reconstruction

Books:

- NDRI. (2022). *Supporting Document of the National Strategy for Crisis Management*. Tehran: Royan Pajoooh.
- NDRI & HFIR (Housing Foundation of Islamic Revolution). (2022). *Oral history of disaster management in 1990 Manjil–Rudbar earthquake*.
- NDRI & HFIR (Housing Foundation of Islamic Revolution). (2022). *Documenting post-disaster reconstruction after 2017 Sarpol-e Zahab earthquake*. Tehran: HFIR.
- NDRI & HFIR (Housing Foundation of Islamic Revolution). (2022). *Documenting post-disaster reconstruction after in 2019 Khuzestan, Lorestan and Golestan Flood*. Tehran: HFIR.
- NDRI. (2022). *National Disaster Risk Reduction Plan*. Tehran: Royan Pajoooh.
- NDRI. (2022). *National Preparedness and Response Plan*. Tehran: Royan Pajoooh.
- NDRI. (2022). *National Post-disaster Reconstruction and Rehabilitation Plan*. Tehran: Royan Pajoooh.
- NDRI & HFIR (Housing Foundation of Islamic Revolution). (2021). *Documenting technical control and supervision in reconstruction after 2003 Bam earthquake*. Tehran: HFIR.
- NDRI & HFIR (Housing Foundation of Islamic Revolution). (2021). *Reveiwing of housing reconstruction in earthquake-stricken areas of Lorestan in 2006 Borujerd earthquake*. Tehran: HFIR.
- NDRI & HFIR (Housing Foundation of Islamic Revolution). (2020). *Documenting resource management in reconstruction after 2003 Bam earthquake*. Tehran: HFIR.
- NDRI & HFIR (Housing Foundation of Islamic Revolution). (2019). *Documenting the design process after 2003 Bam earthquake (a focus on the housing)*. Tehran: HFIR.

Translated books:

- UNOCHA–United Nations Office for the Coordination of Humanitarian Affairs. (2007). *Guidelines on the Use of Foreign Military and Civil Defence Assets in Disaster Relief–‘Oslo Guidelines’* (Trans: OCHA Iran & NDRI) (2021).
- UNOCHA–United Nations Office for the Coordination of Humanitarian Affairs. *UN-CMCoord United Nations Humanitarian Civil-Military Coordination Book* (Trans: OCHA Iran & NDRI) (2021).

Journal Articles:

- Tafti, M. T., & Bashiri, M. (2021). Navigating transition: post-disaster housing pathways of households. *Journal of Housing and the Built Environment*, 1-23.
- Falahati, F., Alijani, B., & Saligheh, M. (2018). The impact of climate change on the amount and temporal distribution of snow melt run off in the Amir Kabir dam watershed. *Journal of Spatial Analysis Environmental hazards*.
- Daneshpour, S.A., & Soleimani Roudi, A. (2021). An Emergent Urban Planning Theoretical Framework; A Complexity Approach Case Study: New Town of Pardis. *Journal of Architecture and Urban Planning*, 23-41.

Multimedia Materials:

- **Living with Hazards Application** has been designed and implemented by Natural Disasters Startup Incubator affiliated to the Natural Disasters Research Institute in collaboration with the UNESCO Chair in order to fulfill the social responsibility of NDRI and to promot the public knowledge. The

software has a variety of components that try to provide the audience with a wide range of risk information to facilitate life with a variety of risks.

Spatial information system for monitoring and evaluation of at-risk rural and urban settlements developed in collaboration with UNESCO chair, including user management features with dynamic access, country divisions, forms, risk map database and risk zoning in the form of MIS infrastructure, risk assessment, risk zone overlap analysis and management dashboards, spatial assessment toolkits, functioning as a DSS in crisis management.

e) Cooperation with UNESCO Headquarters, Field Offices

International Center on Qanats & Historic Hydraulic Structures (UNESCO Category II Center):

- Holding joint specialized meetings and webinars
- Definition of joint research projects in the field of reducing the risk of cultural heritage

f) Other

(any other activities to report)

- The UNESCO Chair in Linking Knowledge and Innovation to the Executive Body, plays an active role in Natural Disasters Startup Incubator affiliated to the Natural Disasters Research Institute. Playing the role of mentor in disaster-related events aimed at attracting ideas in the field of crisis management and advising the units located in the Incubator are the main activities of the Chair.
- Due to the relative neglect of the psycho-social dimensions in the field of disasters, especially in the country, the UNESCO chair has participated in a project called "Gender dimension in disaster management", which addresses the issue of women and gender in disasters. The results of this project will be published as a book.
- In 2020, with the aim of documenting the damages and settlements reconstruction after 2019 floods, which affected villages and cities in the northwest to southwest and center of the country, a photography contest was held with the cooperation of the UNESCO Chair in Natural Disasters Management.
- In order to share Iran's national documents in the field of crisis management, the UNESCO chair has cooperated in translating the document of the *National Strategy for Disaster Management* and its international publishing.

3. Future Plans and Development Prospects:

Outline of action plan for the next biennium and short/medium and long-term development prospects. Please do not hesitate to refer to difficulties that the Chair has experienced
(Not exceeding 300 words)

- UNESCO Chair on Natural Disaster Management intends to increase its international relations in the next two years to transfer the country's experiences in the field of disasters and to use the capacity of knowledge and experience of other countries to promote disaster resilience in Iran.
- The Chair continues its activities in the field of public and specialized education in an organized manner, and in this regard will continue to hold specialized meetings and short-term training courses using new teaching methods and with cooperation with international research centers.
- In order to compile a 30-year oral history of the country's crisis management, the UNESCO chair will continue to participate in the documentation of the oral history of country's major disasters.
- In the next two years, the Chair will participate in preparation of a comprehensive crisis management plan for Tehran metropolis consisting of disaster risk reduction, preparedness and response, reconstruction and rehabilitation measures under the Crisis Management Law. Implementation of this plan will begin in 2022 with the aim of promoting resilience in Tehran metropolis against natural and man-made disasters.
- Another area of focus for the chair is the field of knowledge-based systems in disasters. In this regard, the chair seeks to participate in the establishment of a disaster Innovation Center, a disaster Acceleration Center and a Material Innovation Factory with the cooperation of executive bodies in order to develop novel ideas, growth and creativity.
- The UNESCO Chair also seeks to address the country's significant challenges in assessing damages, using existing capacities to address the problem. In this regard, it will participate in two main actions: 1- Launching a building damage assessment application. 2- Designing a system for rapid damage assessment after disasters using remote sensing systems.
- Translation of the executive summary of documents related to the country's crisis management law in order to share information at the international level.

Appendix:

1) Human Resources
<p>Chairholder: Dr Seyed Amir Hossein Garakani</p> <p>Fully dedicated to the activities of the UNESCO Chair: - Dr Mahsa Bashiri, Secretary of UNESCO chair - Fetemeh Ebrahimnia, Senior Researcher - Atefeh Soleimani, Senior Researcher - Ameneh Karimian, Senior Researcher</p> <p>Researchers and scholars who collaborate on specific activities and projects: - Experts from various governmental or academic organizations - Two research staffs in Hydrological Hazards Research Group - Three research staffs in Structural Retrofitting and Reconstruction Research Group - Three research staffs in Post-disaster Reconstruction and Rehabilitation Research Group - Two research staffs in International Center for Urban Resilience Research (ICURR) - Two research staffs in Environmental Hazards and Meteorological Disasters Research Group - Two research staffs in Crisis Management Research Group</p>

2) Financial Resources		
<i>Please tick sources of financial contribution and specify the amount in U.S. dollars</i>	[tick]	Amount (\$)
Host Institution	<input checked="" type="checkbox"/>	_____ 100,000 _____
Partner Institution	<input checked="" type="checkbox"/>	_____ 100,000 _____
Government Body	<input checked="" type="checkbox"/>	_____ 50,000 _____
Other Public Institution/Body (incl. Research Councils)	<input type="checkbox"/>	_____
UNESCO	<input type="checkbox"/>	_____
Other UN Agency	<input type="checkbox"/>	_____
IGO	<input type="checkbox"/>	_____
NGO	<input type="checkbox"/>	_____
Industry	<input type="checkbox"/>	_____
Other Private	<input checked="" type="checkbox"/>	_____ 100,000 _____
<p><i>Give details of financial contributions, material resources and space.</i></p> <ul style="list-style-type: none"> • The host institution contributed with human resources, physical space, technological platforms and accommodation, as well as travel logistics for participation in representations, conferences, workshops and courses. • The partner institutions contributed with physical space and travel logistics for participation in conferences and workshops. • Government Body contributed with technological platforms and publications. • Other Private sources contributed with human resources and travel logistics for participation in representations, conferences, workshops and courses. 		

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