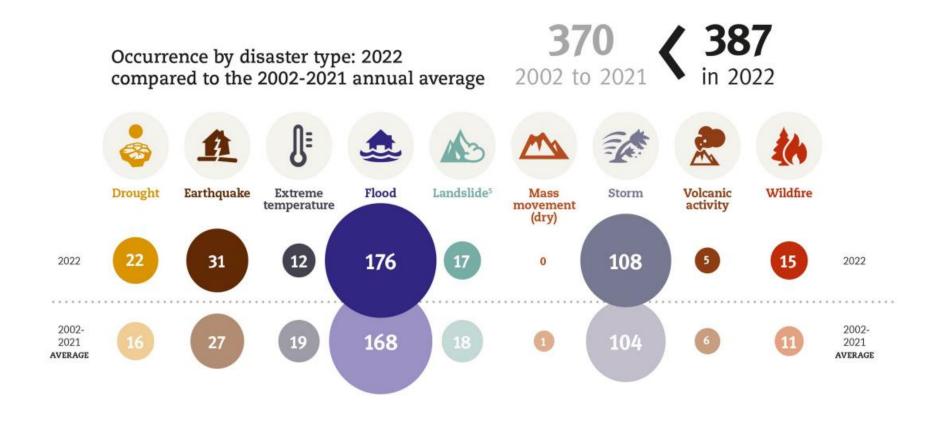


# Integrating Disaster Risk Reduction into National Development programs





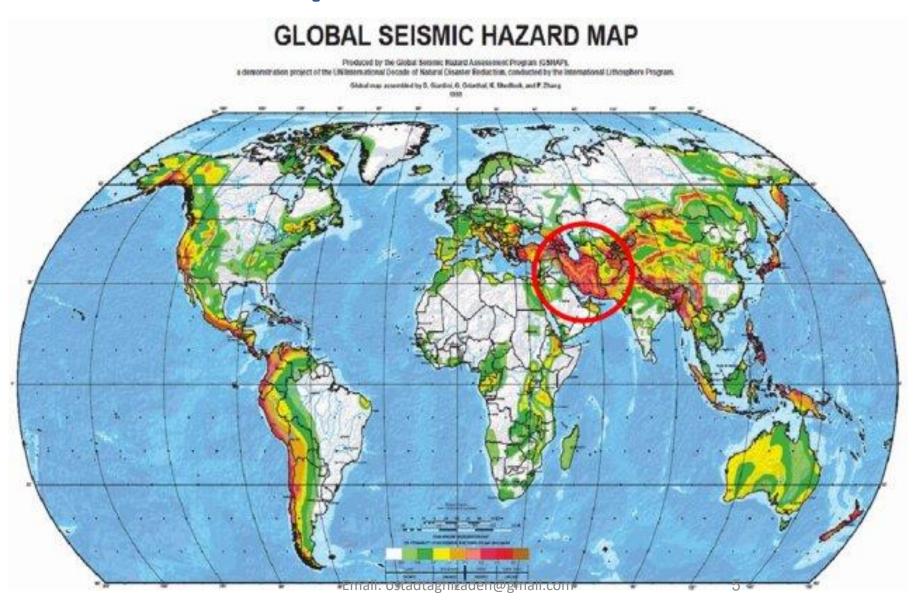
### **Increasing Disasters**



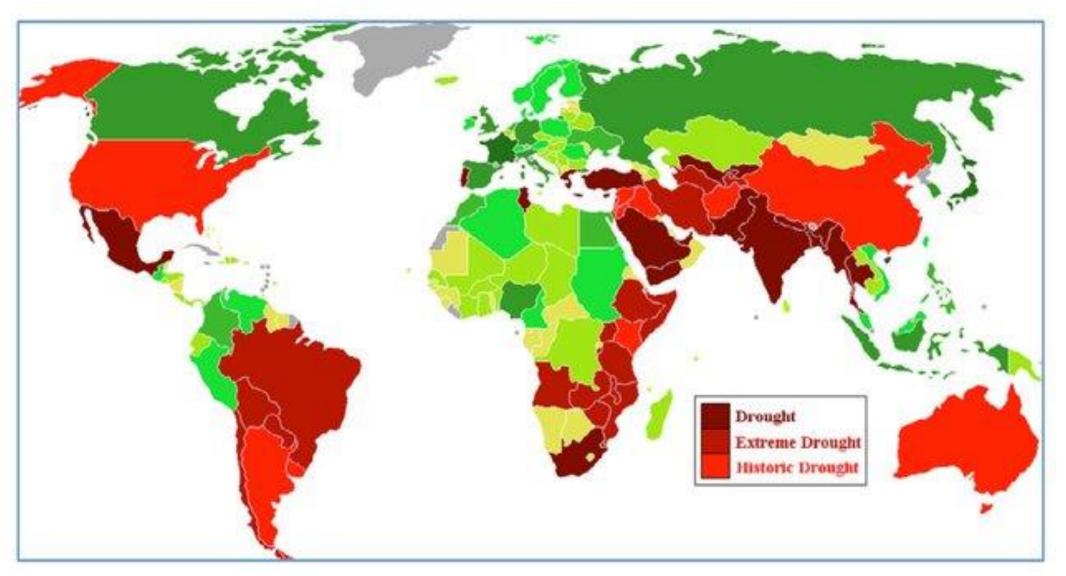
#### **Disasters Impacts in 2022**



## **World Seismic Map**



## **World Drought Map**

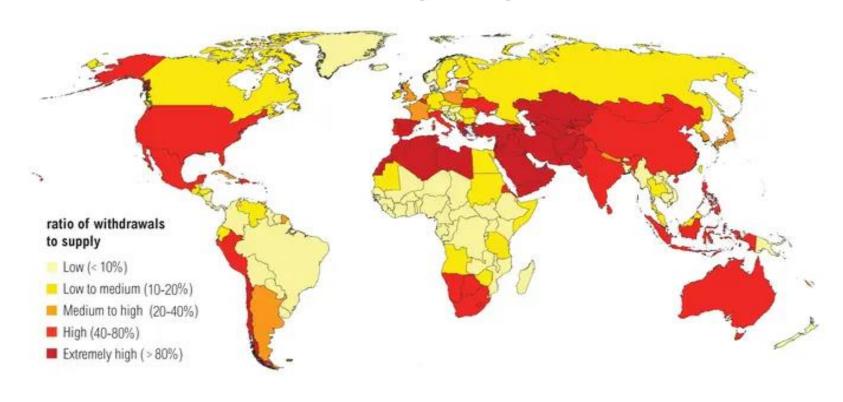


## World Flood Map (1985 – 2010)



#### Water Scarcity projection Map for 2040

#### Water Stress by Country: 2040

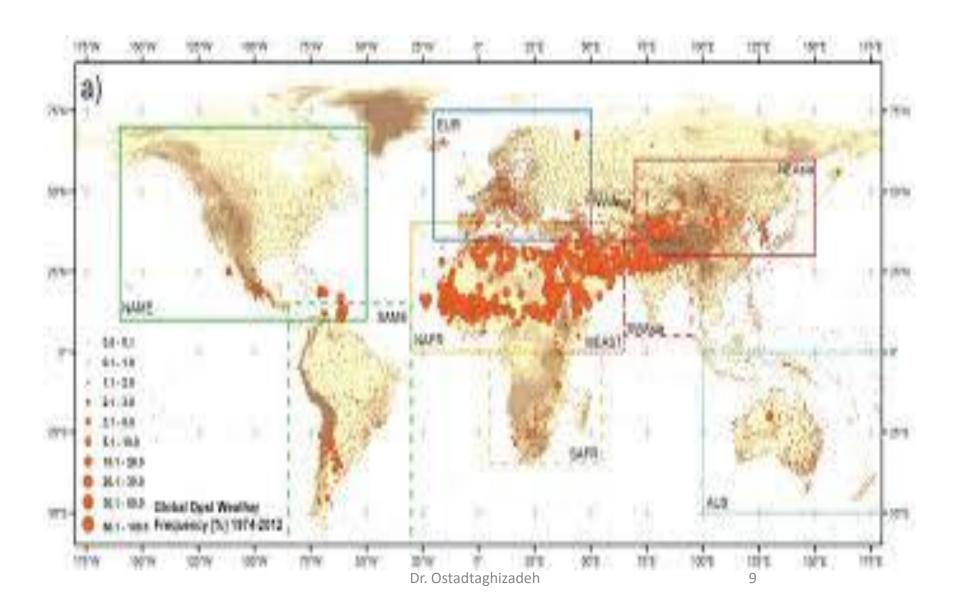


NOTE: Projections are based on a business-as-usual scenario using SSP2 and RCP8.5.

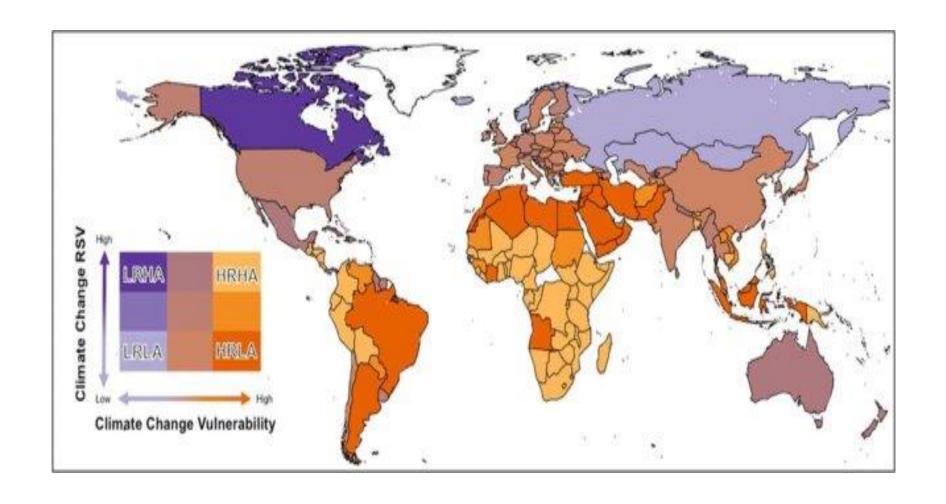
For more: ow.ly/RiWop



#### World S&D storms Map (1974 – 2012)



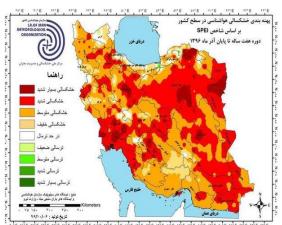
## **Climate Change Vulnerability**

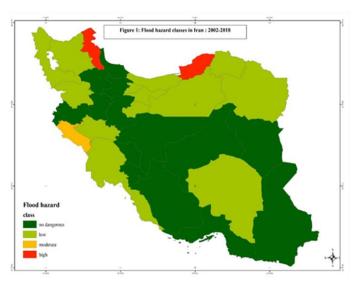


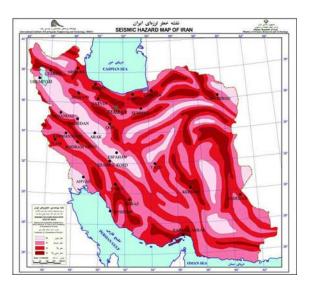
#### Islamic Republic of Iran

- The level of Risk: 8 out of 10
- The most common natural hazards:
  - Earthquake

Flood







• Drought



#### Question

• What has a country at high risk of disasters done and what should it do?





#### **Iran's Disaster Risk Policies**

#### Issued in 2005

1. Improvement of education, awareness and safety culture among citizens and authorities to prepare for, and response to disasters especially earthquake, meteorological, and climatic disasters.

- 2. Development of disaster risk investigations and research centers.
- 3. Unified commanding for effective response to disasters focusing on Disaster Information Management Systems (DIMS)



#### **Iran's Disaster Risk Policies**

#### Issued in 2005

- 4. Development of comprehensive and evidence-based plans for recovery (reconstruction and rehabilitation).
- 5. Development of disaster risk transfer mechanism (National Disasters Found).

- 6. Prevention and mitigation of earthquake
  - Land use
  - Building codes



#### Iran's Disaster Risk Policies

#### Issued in 2005

- 7. Identification of climatic and meteorological phenomena via:
  - Providing of national natural hazards atlas
  - Implementing of national integrated monitoring and early warning systems by using advanced technologies
- 8. Development of national development plans based on climate adaptation approach in all levels



#### The 7th Socio-economic development plan

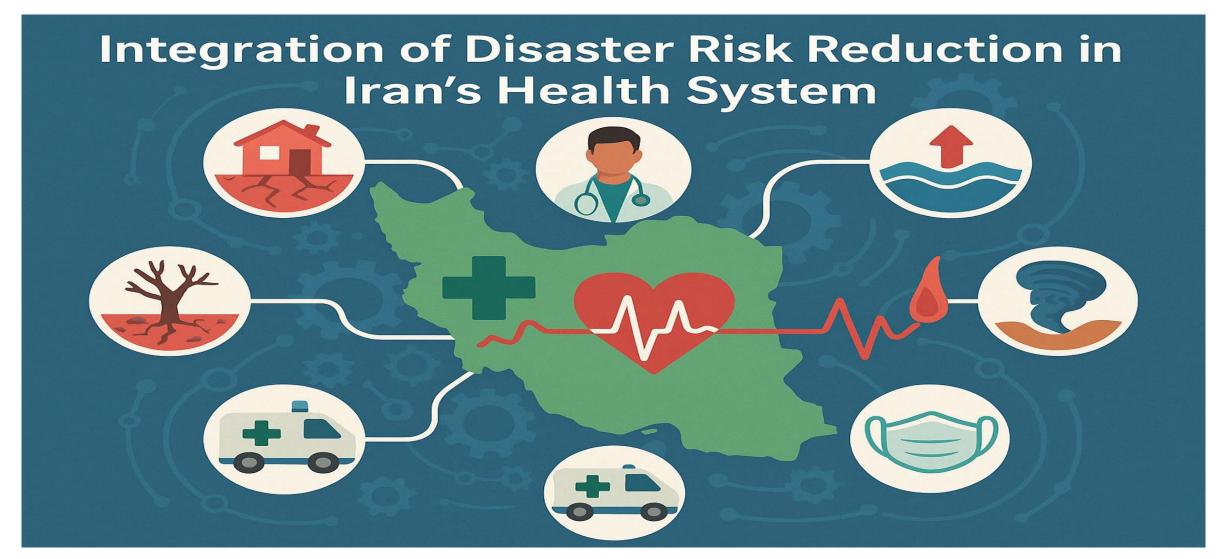
- Act 33: Agriculture Insurance Fund
- Act 71: Humanitarian aids the acceptable tax
- Act 38: Development of National flood prevention and monitoring plan
- Act 51; Identifying unsafe buildings

#### **Not Enough Actions**

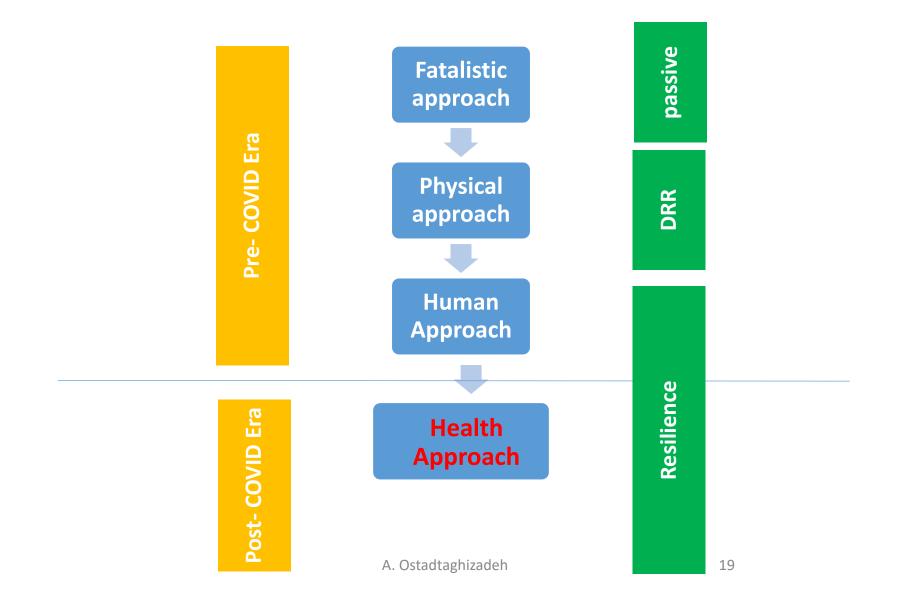


Too many words, not enough actions.

### Integration of DRR in Iran's health system



#### 1-Evolution in Disaster Management Approaches

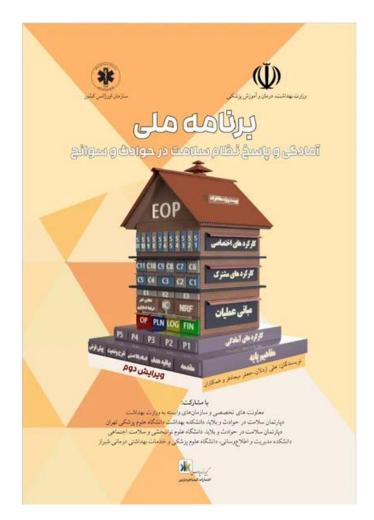


### 2- Importance of institutional resilience for DRR

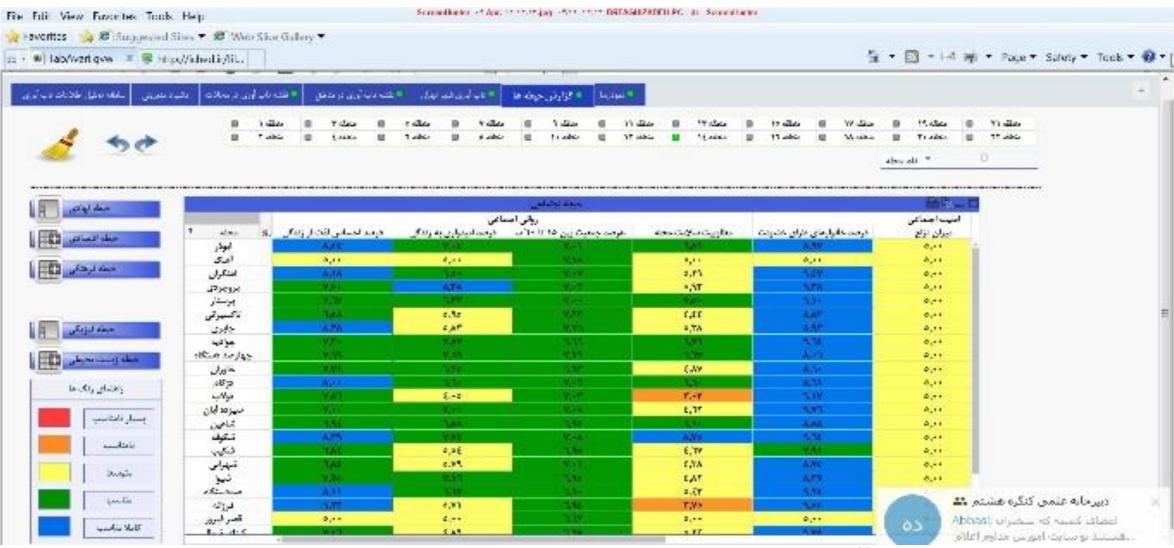
Domain	Domain weight	subdomain	Subdomain weight
Institutional	0.292	Management Competency	0.63
		Disaster management resources	0.151
		Disaster management plans	0.218
Economic	0.211	Income	0.547
		Employment	0.345
		Insurance	0.109
Cultural	0.194	Literacy	0.614
		Disaster awareness	0.117
		Worldview	0.268
Social	0.133	Social capital	0.682
		Social security	0.236
		Psychosocial preparedness	0.082
physical	0.088	Location	0.058
		Structure	0.645
		Space	0.297
Environmental	0.082	Ecossystem	1

#### 3- Health System road Map fro DRR

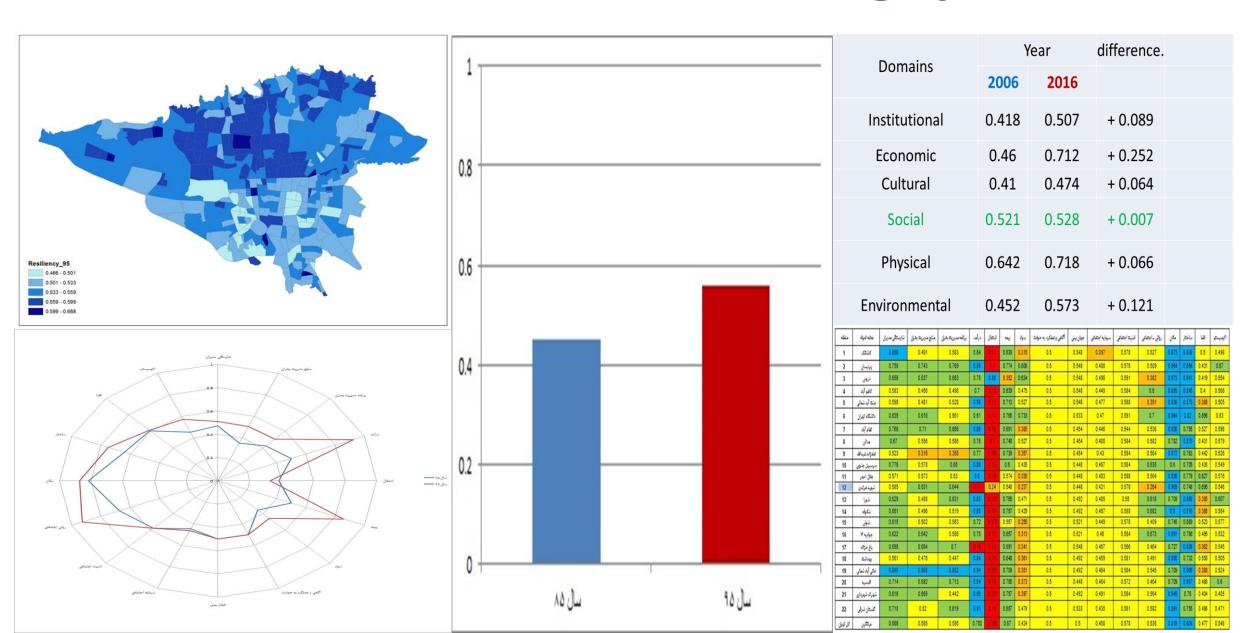




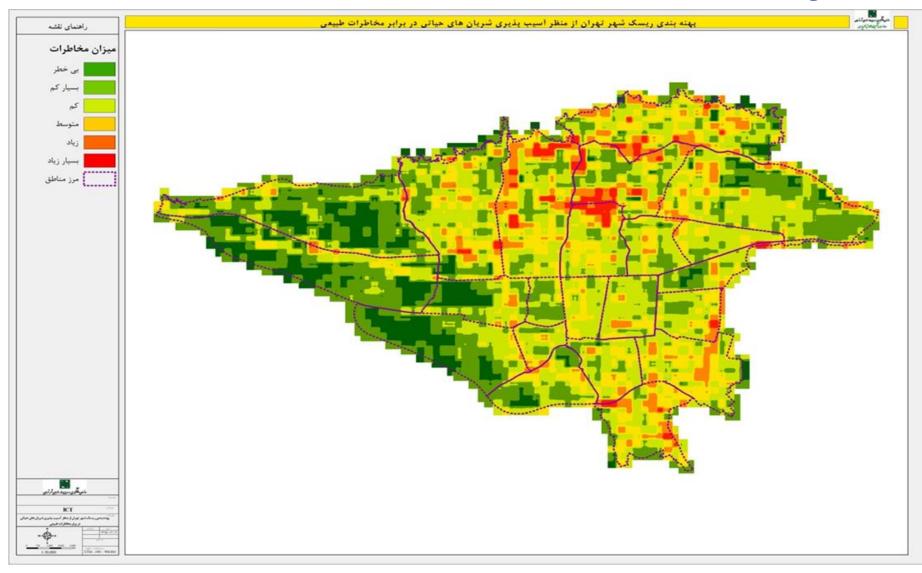
## 4- Disaster risk-oriented planning and Budgeting



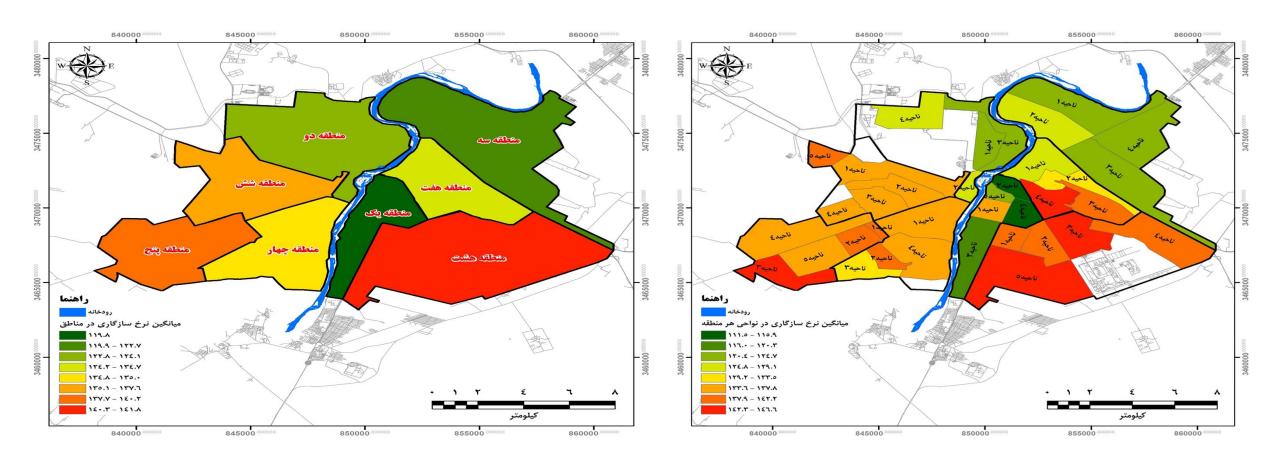
#### Disaster resilience monitoring system



#### Multi Hazard disaster risk assessment system



#### Climate change adaptation assessment





# 5- Challenges for integrating DRR in development plans

Journal of Environmental Health Science and Engineering https://doi.org/10.1007/s40201-021-00715-9

#### RESEARCH ARTICLE



## Implementation of the Sendai framework in the health system in Iran: identification of facilitators and obstacles

Homa Yousefi Khoshsabegheh<sup>1</sup> • Amirhossein Takian<sup>2,3,4</sup> • Ali Ardalan<sup>1</sup> • Abbas Ostadtaghizadeh<sup>1</sup> • Behnam Saeedi<sup>5</sup>

Received: 29 December 2020 / Accepted: 19 July 2021

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## 6- Challenges for integrating DRR in development plans

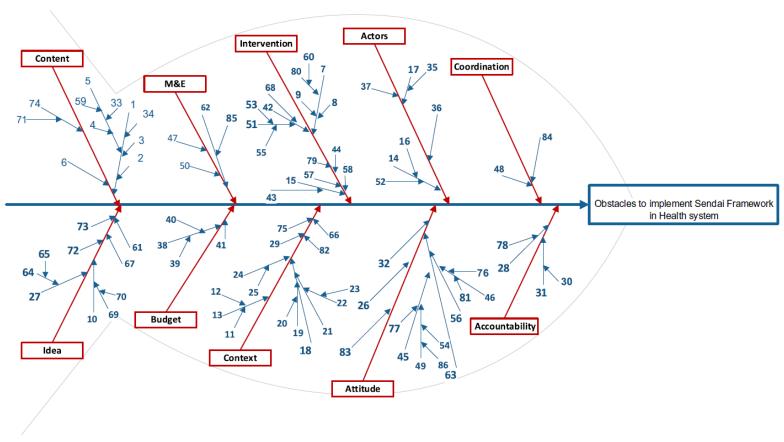
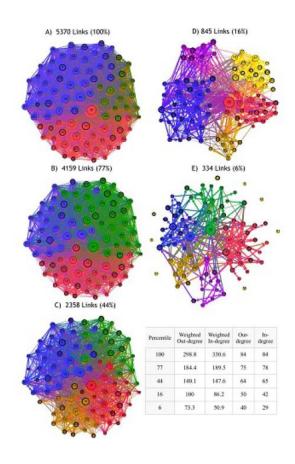
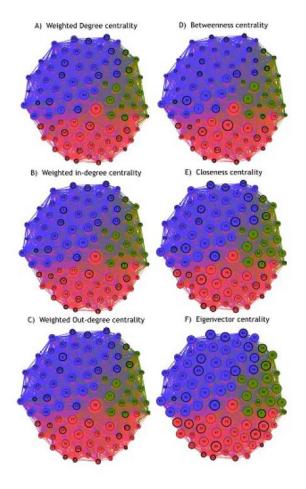


Fig. 4 Obstacles to the Sendai framework Implementation in Iran's Health system based on the Fishbone Model

### 7- DRR Network Analysis





#### 8- Climate Change Adaptation Strategies in IRAN



Salehi S, Ardalan A, Ostadtaghizadeh A, Zareiyan A, Garmaroudi G, Rahimiforoushani A. Strategies and experiences for sand and dust storm adaptation: A qualitative study in Iran. Journal of Environmental Health Science and Engineering. 2021 Sep 1/4:1-1.

#### 8. Healthcare mitigation and adaptation strategies and actions

#### Mitigation Strategies

- 1. Water consumption management
- 2. Wastewater management
- 3. Waste management
- 4. Energy management
- 5. Chemical materials management
- 6. Transportation
- 7. Nutrition
- 8. Green purchasing policy
- 9. Sustainable care models

#### Adaptation Strategies

- 1. Technology
- 2. Financial affairs
- 3. Monitoring, assessment, evaluation
- 4. Leadership & management
- 5. Hospital building



## Thank you for your kind attention

