

Progress and Updates of IRDR CHINA

Report on Activities: June – November 2017

IRDR CHINA Established October, 2010



A group photo of the 3rd IRDR CHINA

- Established on October 8, 2010;
- To coordinate disaster scientists/organizations nationwide to address disasters in an integrated approach and support the IRDR Plan.

- Chair: Prof. Guo Huadong
- 40** members from research institutions, universities, media, state agencies...
- 15** nation-wide scientific associations
- Top experts** in main areas of disaster risk reduction research, atmospheric sciences, economists, public health, psychologists, and policy.
- Work plan** for 2015-2017

Main activities of IRDR CHINA (June - November 2017)

1

**Strategic Support on DRR
for the “Belt and Road”**

2

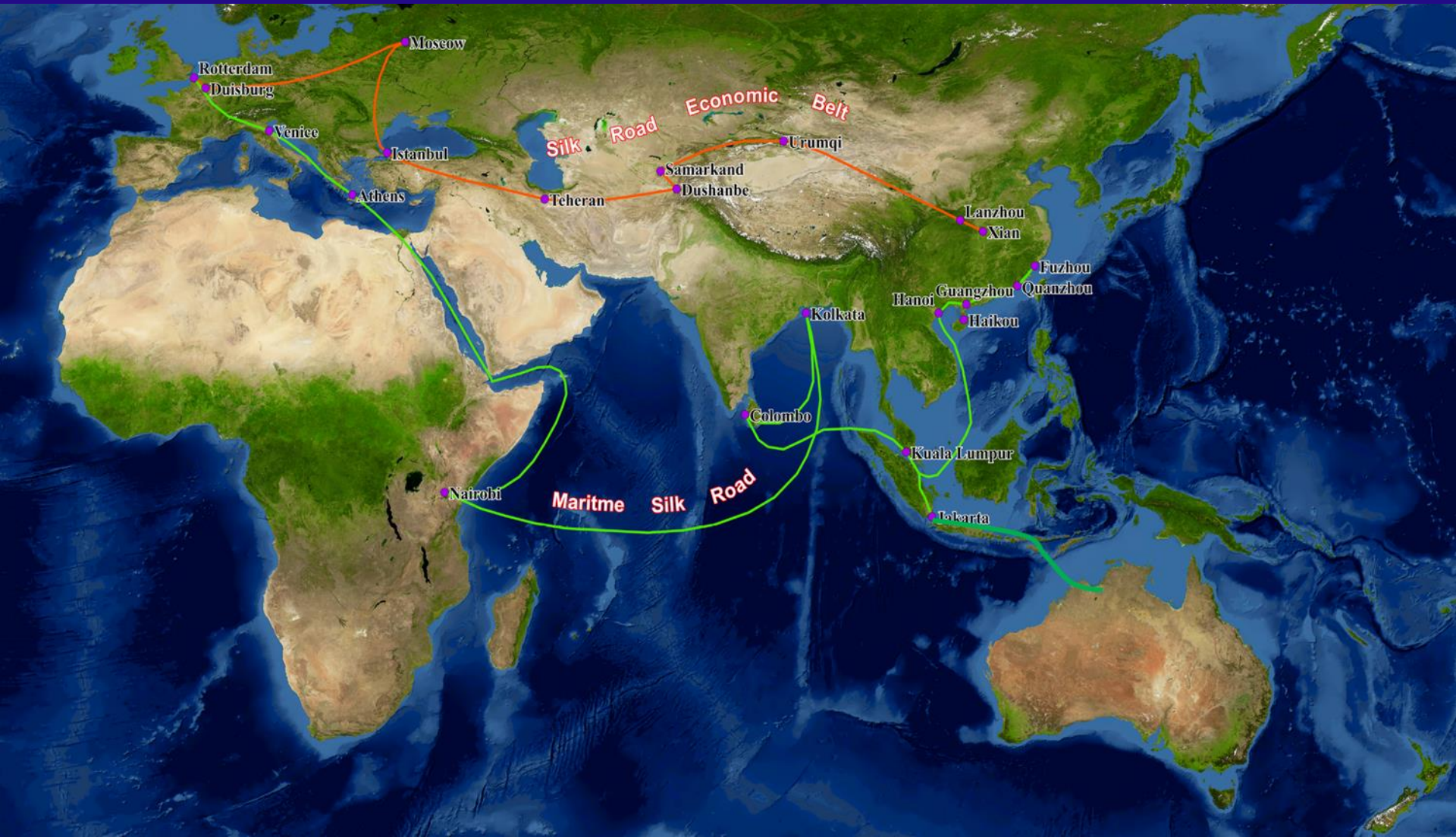
**Linking Science & Technology
and Policy in China**

3

Capacity Building for DRR

Satellite View of the Belt and Road

The B&R covers *a vast area* and involves over 60 *countries* and a *population of 4.3 billion*, facing numerous challenges related to *sustainable development*





Belt and Road Forum for International Cooperation

The Belt and Road Forum (BRF) for International Cooperation opens in Beijing, China, **May 14, 2017**. A total of **29** heads of state and government leaders are attending the forum. Other delegates include officials, entrepreneurs, financiers and journalists from over **130** countries, and representatives of key international organizations.



Strategic Support: Belt and Road Initiative

"Silk Road Economic Belt"



'Neue Seidenstrasse' - die Eisenbahnlinie zwischen China und Europa
丝绸之路 - 中欧铁路大通道



Nepal Earthquake-2015



Pakistan Floods-2010



Tajikistan Mudslides-2015



Mongolia Wildfire-2010



"Maritime Silk Road"



Disaster risk remains high and is a big challenge for the sustainable development of the "Belt and Road" countries

“Digital Belt And Road (DBAR)” Initiative



一带一路空间认知国际会议

International Conference on Earth Observation for Belt and Road Initiative

2016年5月16日至17日 北京 16-17 May 2016, Beijing

Initiated in EOBAR, be given the fullest support by more than 20 countries

Beijing Declaration on Earth Observation for Belt and Road

May 17, 2016

We, scientists, researchers, academics, engineers, educators and administrators from more than 20 countries, and representatives of international organizations, met in Beijing, China, at the International Symposium on Earth Observation (EO) for Belt and Road (EOBAR), co-hosted by the Division of Earth Sciences of the Chinese Academy of Sciences (CAS) and related ministries, commissions, and international organizations, on 16 and 17 May 2016.

Background

Conceptual Framework of DBAR Initiative

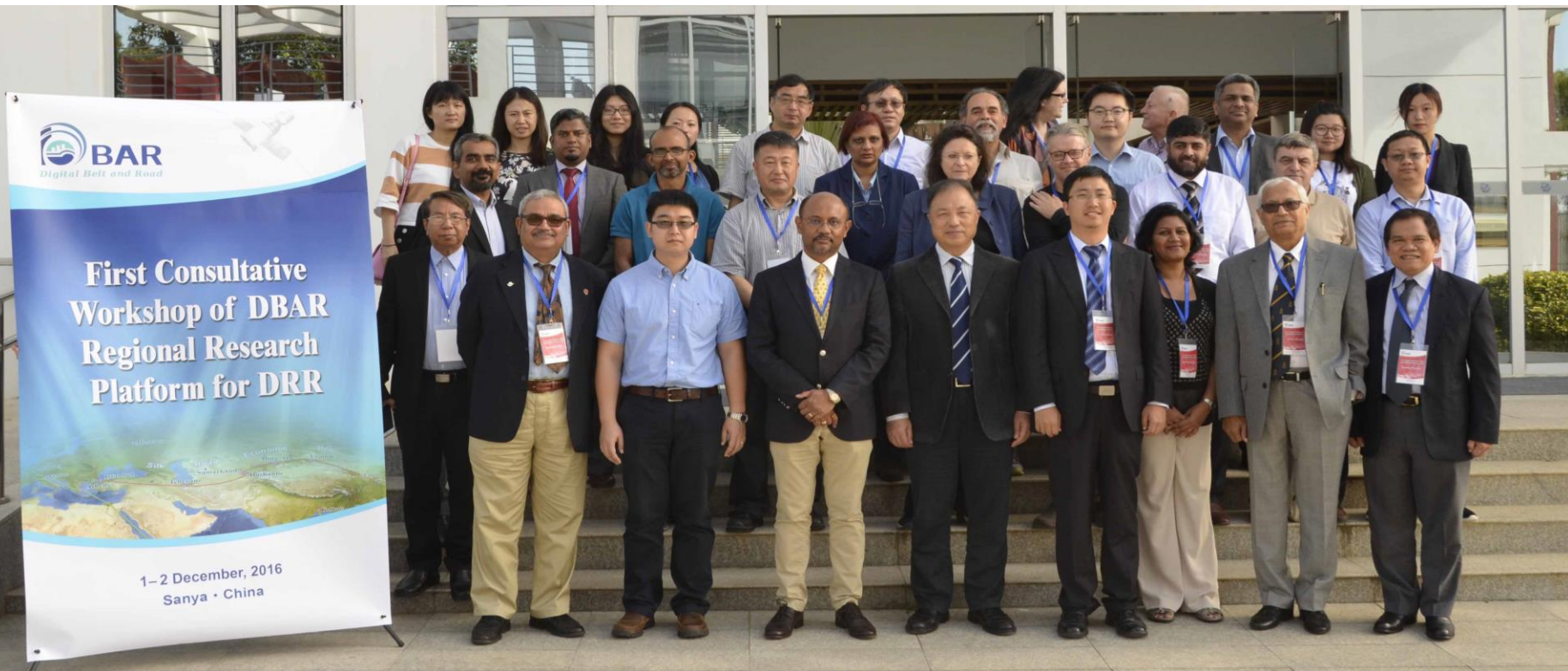


Consultative Workshop Held in Dec 1 2016

DBAR DRR Working Group Formed

50 participants from 18 countries

17 WG members from 13 countries



Specific Objectives

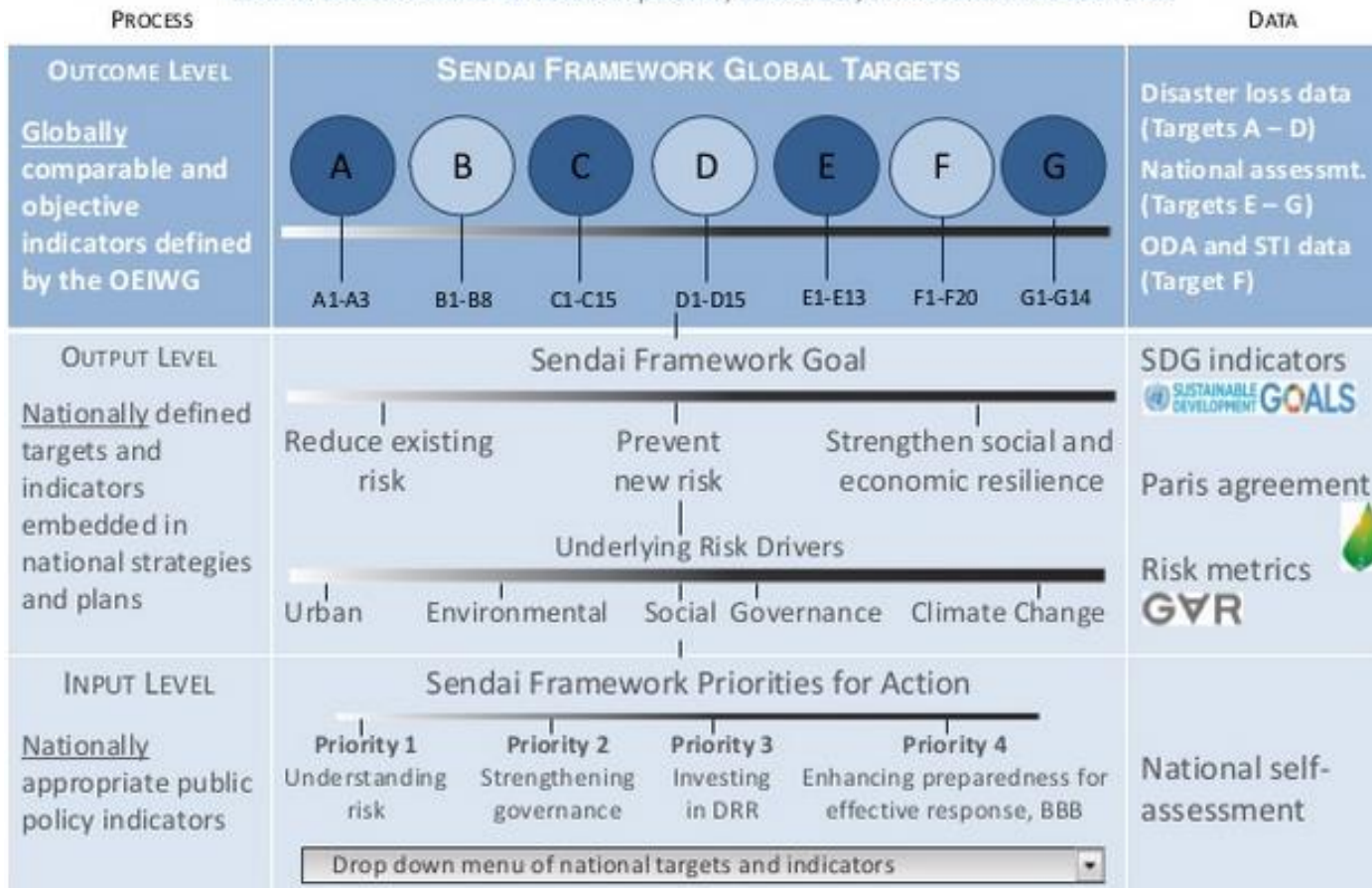
1. To undertake **innovative, implementation oriented research** in the field of DRR through collaboration and partnership
2. To **strengthen national research capacities** to enable informed decision-making in different aspects of disaster risk reduction
3. To foster the **development of young professionals** and researchers through training and capacity building programs

Sendai Framework Indicators in the B&R

Architecture of the Sendai Framework Monitoring System at National Level

Sendai Framework Outcome

The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.



United Nations A/RES/71/276
General Assembly Dist.: General
13 February 2017

Seventy-first session
 Agenda item 19 (c)
Resolution adopted by the General Assembly on 2 February 2017
[without reference to a Main Committee (A/71/L.54 and Add.3)]
71/276. Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction
The General Assembly,
Recalling the outcome of the Third United Nations World Conference on Disaster Risk Reduction, entitled "Sendai Framework for Disaster Risk Reduction 2015–2030", contained in annex II to its resolution 69/283 of 3 June 2015, and the

Compound indicator	Methodology Available	Data Available	Indicator Category
	Category I (Global application) indicators for which a methodology exists, or has been proposed, and for which data are already widely available in a significant number of countries	Y	Y
Category II (National application, potential migration to global level): indicators for which a methodology exists, or has been proposed, but for which data are not easily available	Y	N	2
Category III (Require long term development) : Indicators for which a methodology has not yet been developed nor is data easily available	N	N	3

Understanding Digital, Data and Integration

Principles of Integration

- Data integration (Physical and Social)
- Disciplinary integration (Engineering, Social Science, Natural Science and others)
- Regional Integration
- Stakeholder Integration

(All cases under the programme to follow these principles)

DRR for CPEC at Islamabad, Pakistan



July 17-18, 2017

DBAR 2017 in Hong Kong



Topic 6: Big Earth Data for Disaster Risk Reduction
Innovative technologies for disaster reduction
Distribution, sharing, and integration of disaster information and product
Collaboration mechanisms for disaster risk reduction in the belt and road

Dec. 6-8, 2017

DBAR DRR at PEEEX, Moscow, Russia



Sept. 19-21, 2017

Workshop on Big Earth Data for Disaster Risk Reduction in Asia

CAS-AASSA Joint Workshop on Big Earth Data for Disaster Risk Reduction in Asia
Sanya, China
14th December, 2017

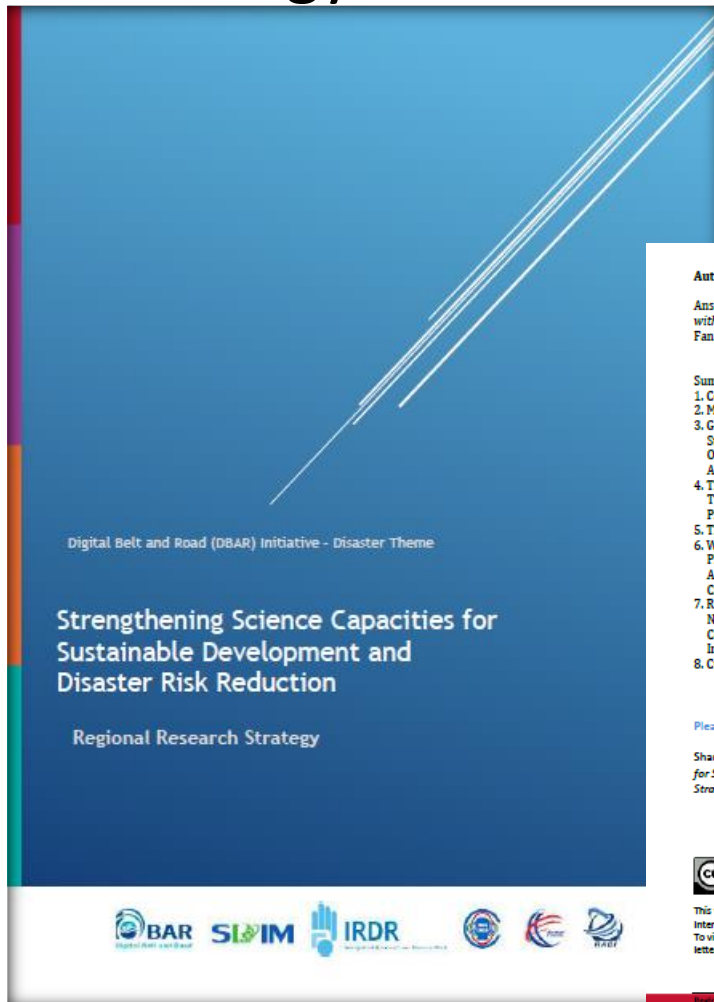
Concept Note	
Schedule	Thursday, 14 th December, 2017
Venue	RADI Sanya Campus
Hosts	Chinese Academy of Sciences (CAS) Association of Academies and Societies of Sciences in Asia (AASSA)
Organizers	CAS-TWAS Centre of Excellence on Space Technology for Disaster Mitigation (SDIM) Digital Belt and Road Program (DBAR)
Focal Point	Fang Chen, RADI/CAS, chenfang@radi.ac.cn Lyunhae Kim, AASSA, aassa@kast.or.kr
	A data explosion is occurring, caused by a mix of social

Dec. 14, 2017



Regional Research Strategy

Comprehensive strategy document



Authors:

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with support from
Fang Lian and Lucy Lu (IRDR)

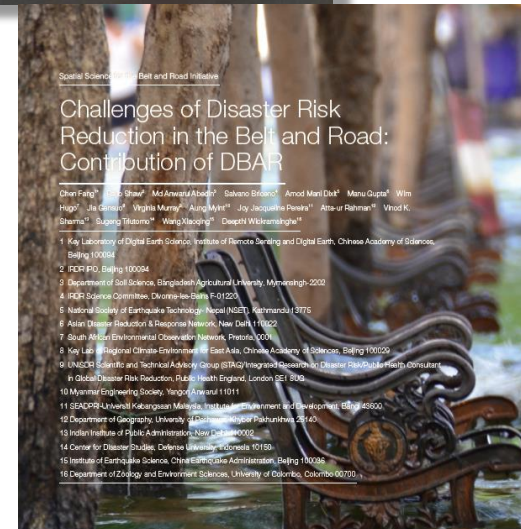
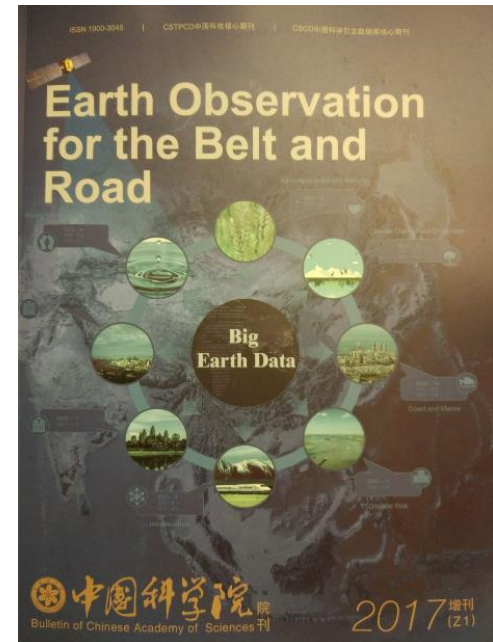
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Please refer this publication as follow:

Sharma A., Shaw R., Chen F., Lian F., Lu L. (2017): Strengthening Science Capacities for Sustainable Development and Disaster Risk Reduction: Regional Research Strategy, published by DBAR, IRDR and SDIM, Beijing China, 22 pages.



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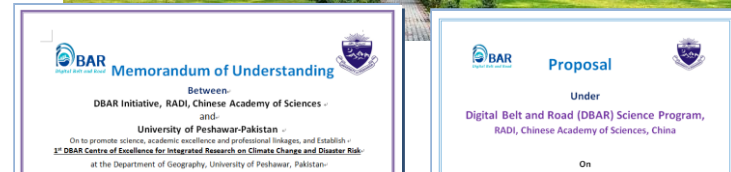
Regional Research Initiative

Showcasing the link between Earth Observation and Social Vulnerability

- Integrated Digital and Social Vulnerability Research Programme
- *Bangladesh, Nepal, Pakistan, Sri Lanka*
- Based on Common Principles of Integration



International Workshop on “CPEC Natural Hazards Risk Assessment and Mitigation”



DBAR ICoEs on DRR
University of Peshawar, Pakistan

Activity Calendar and Outputs

Year 1 (2016-17)	Year 2 (2017-18)	Year 3 (2018-19)
<ul style="list-style-type: none"> ▪ Development of Regional Research Platform ▪ Inception Consultative Workshop ▪ Regional Research Strategy Development ▪ Enhancing Capacities of young researchers 	<ul style="list-style-type: none"> ▪ National Research Strategy Development ▪ Second Consultative Workshop ▪ Enhancing Capacities of young researchers ▪ Specific country based research projects 	<ul style="list-style-type: none"> ▪ Third Consultative Workshop ▪ Enhancing Capacities of young researchers ▪ Specific country based research projects ▪ National Research Platform
<p>Outputs:</p> <ul style="list-style-type: none"> ▪ DBAR Regional Research Platform for DRR ▪ First Consultative Workshop of Regional Research Platform ▪ Regional Research Strategy ▪ Enhanced capacities of young scientists 	<p>Outputs:</p> <ul style="list-style-type: none"> ▪ Second Consultative Workshop of Regional Research Platform ▪ National Research Strategy ▪ Enhanced capacities of young scientists ▪ Country based research project 	<p>Outputs:</p> <ul style="list-style-type: none"> ▪ Third Consultative Workshop of Regional Research Platform ▪ Enhanced capacities of young scientists ▪ Country based research project ▪ National research platform

Action plan of DBAR Disaster Risk Reduction Working Group in 2017



Action plan of DBAR Disaster Risk Reduction Working Group in 2017

Overall

1. Every year, in DBAR DRR WG we will have a common research theme. Based on that, the working group member will contribute to a paper (500-1000 words), and that would be the Research Theme Paper of that year for the DBAR DRR WG.
2. There would be a specific project site in form of a mini-project, where that theme would be applied, and specific research outputs would be developed based on the key findings, which will be compiled in another paper, called Research Application Paper.
3. Essentially, these two sets of research papers would be the key outputs to showcase in the annual DBAR conference and DRR WG meeting.
4. The mini-project mentioned above would be the seed for the future proposal development based on multilateral collaboration.
5. From 2017 to 2018, two DBAR DRR training workshops would be organized for young scientists and researchers.

1. Research Theme Paper:

Spatial data and social vulnerability data

2. Research Application Paper:

Geo-hazards in Pakistan

3. Mini-project:

DRR in Peshawar, Pakistan

4. DRR training workshops:

Sanya, China, 11-15 December 2017

5. 2nd DBAR DRR WG annual meeting

Sanya, China in 11-13 December 2017

Establish a Number of Interdisciplinary Working Groups

WG on Earthquake and Geo-hazard Risk

Co-chairs: CUI Peng and WANG Xiaoqing

WG on Drought and Floods Risk

Co-chairs: CHENG Xiaotao and XIA Jun

WG on Severe Storm Risk

Co-chairs: DUAN Yihong and LI Jianping

WG on Climate Change Driven Disaster Risk

Co-chairs: JIA Gensuo and FENG Qiang

WG on Disaster Risk in Urban Areas

Co-chairs: PAN Jiahua

WG on Assessment of Integrated Research on Disaster Risk in China

Co-chairs: CHEN Fang and XUE Lan

从灾害管理到灾害风险管理

——中国灾害风险综合研究（草稿）

1. 报告的背景和目标
说明灾害风险管理是保障可持续发展目标等目标和公约的关键手段，如全球 60 亿美元的灾害风险管理投资，带来减少灾害风险的收益达到 3600 亿美元（1：60）-GAR 2015 报告
2. 灾害风险综合研究的意义
灾害风险管理涉及到科学、经济、政策、法律等多方面事宜，灾害风险综合研究是科学实施灾害风险管理的保障
3. 从灾害管理到灾害风险管理-以中国新型城镇化建设为例
-地震与地质灾害风险管理
四点主要内容：新型城镇化建设为何需关注地震与地质灾害风险、中国新型城镇化建设中的地震与地质灾害风险管理涉及到

综合研究

约 1
增强
委员
质结

一、“风暴灾害风险综合研究”重点领域工作组概况

IRDR CHINA 重点领域工作组设计框架

——中国灾害风险综合研究的评估

组长：陈方、薛澜

IRDR CHINA 重点领域工作组设计框架

——城镇灾害风险综合研究

三、 报告大纲

——一带一路灾害风险综合研究战略报告（草稿）

- (1) 报告的背景和目标
- (2) 一带一路灾害风险的宏观情况（包括灾害情况、各国现有主要减灾体制机制、减灾合作情况、减灾对其区域经济发展的影响等）
- (3) “一带一路”地震与地质灾害风险综合研究关注的重点方向与发展分析
- (4) “一带一路”水旱灾害风险综合研究关注的重点方向与发展分析
- (5) “一带一路”风暴灾害风险综合研究关注的重点方向与发展分析
- (6) “一带一路”气候变化灾害风险综合研究关注的重点方向与发

人口
先，
杂，
地区
难以

Linking Science & Technology and Policy

GLOBAL PLATFORM FOR DISASTER RISK REDUCTION - FIFTH SESSION

22-26 May, 2017 | Cancun, Mexico | #MEXICOGP2017 | #SWITCH2SENDAI

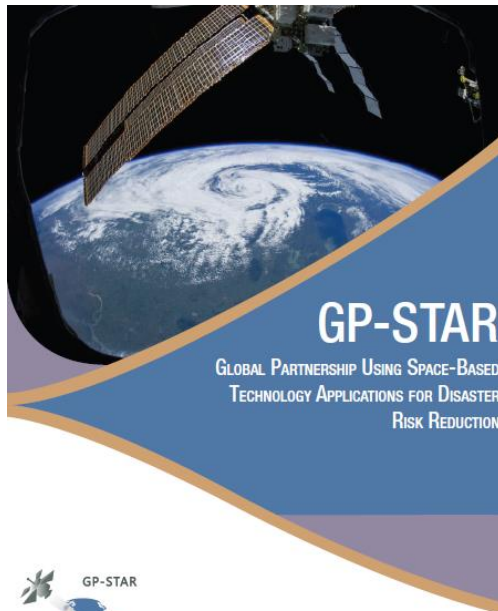


UNISDR

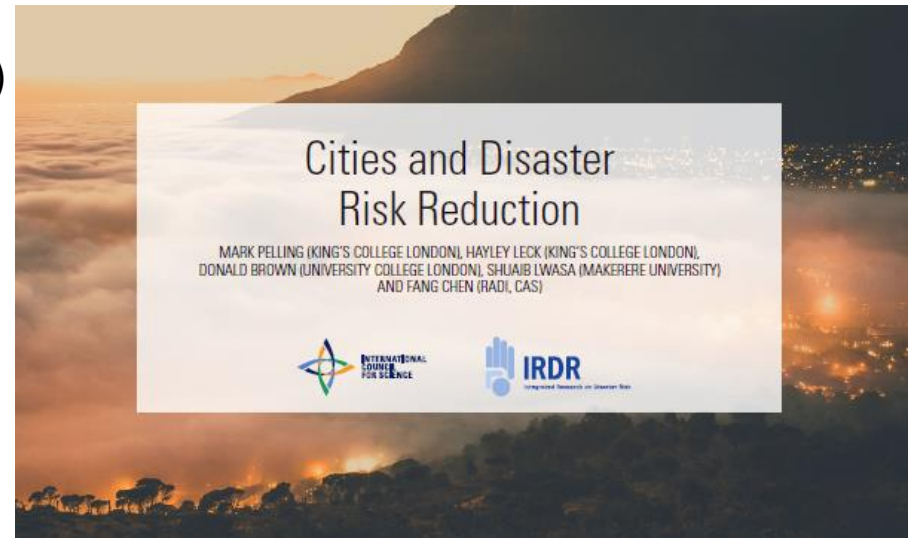
The United Nations Office for Disaster Risk Reduction

Title of the side event

Global Partnership on Space Technology
Applications for Disaster Risk Reduction (GP-STAR)



Policy Brief



POLICY RECOMMENDATIONS

- Urbanization means that the implementation of the Sendai Framework for Disaster Risk Reduction (SFDRR) will depend increasingly on what is done to reduce risk in urban areas, but better data and more action at the local level are required.
- The future challenges facing urban disaster management will be increasingly concentrated in low- and middle-income countries, where most future urban growth is set to occur, but where the capacity to plan and manage rapid urban growth and adapt to emerging hazards (including climate change) is often lacking. Investment here is a priority.
- Smaller cities are increasingly important priorities given their demographic importance and especially weak capacity. Investing in capacity to monitor and manage risk in cities of one million or less inhabitants will likely have the greatest aggregate impact on disaster reduction.

Launch a project for serial strategic and science reports on DRR for “the Belt and Road”

DRR strategies in China's new urbanization process



| 02



| 03 |



Capacity Building for DRR



International Training Facilities



Training workshop, Sanya(2013)



Training workshop, Beijing(2014)

Training workshop,
Sanya (2015)

Training workshop,
Kashi(2014)



Training workshop, Qingdao(2015)



International Training Workshop on Strengthening Science Capacities for Sustainable Development and Disaster Risk Reduction

27 November- 3 December, 2016
Sanya, China

Digital Belt and Road Program (DBAR) – Disaster Theme

Overall Objective: to make the participants aware of the potential of science and technology for various phases of disaster risk management, and to enhance the capacity building for developing countries to tackle disaster issues using advanced technologies.

Participants: Young academicians and researchers in the field of disaster risk reduction; Young practitioners from national/ local governments and civil society organizations.

Financial Assistance: round-trip international airfares, lodging, field tour, local transportation, etc.

More information: SDIM@radi.ac.cn





Thank you !