

Presentation at 16th SC meeting of IRDR
November 29-30, 2016

Updates from IRDR ICoE-Taipei

(May - November 2016)

Shih-Chun Candice Lung, Sc.D

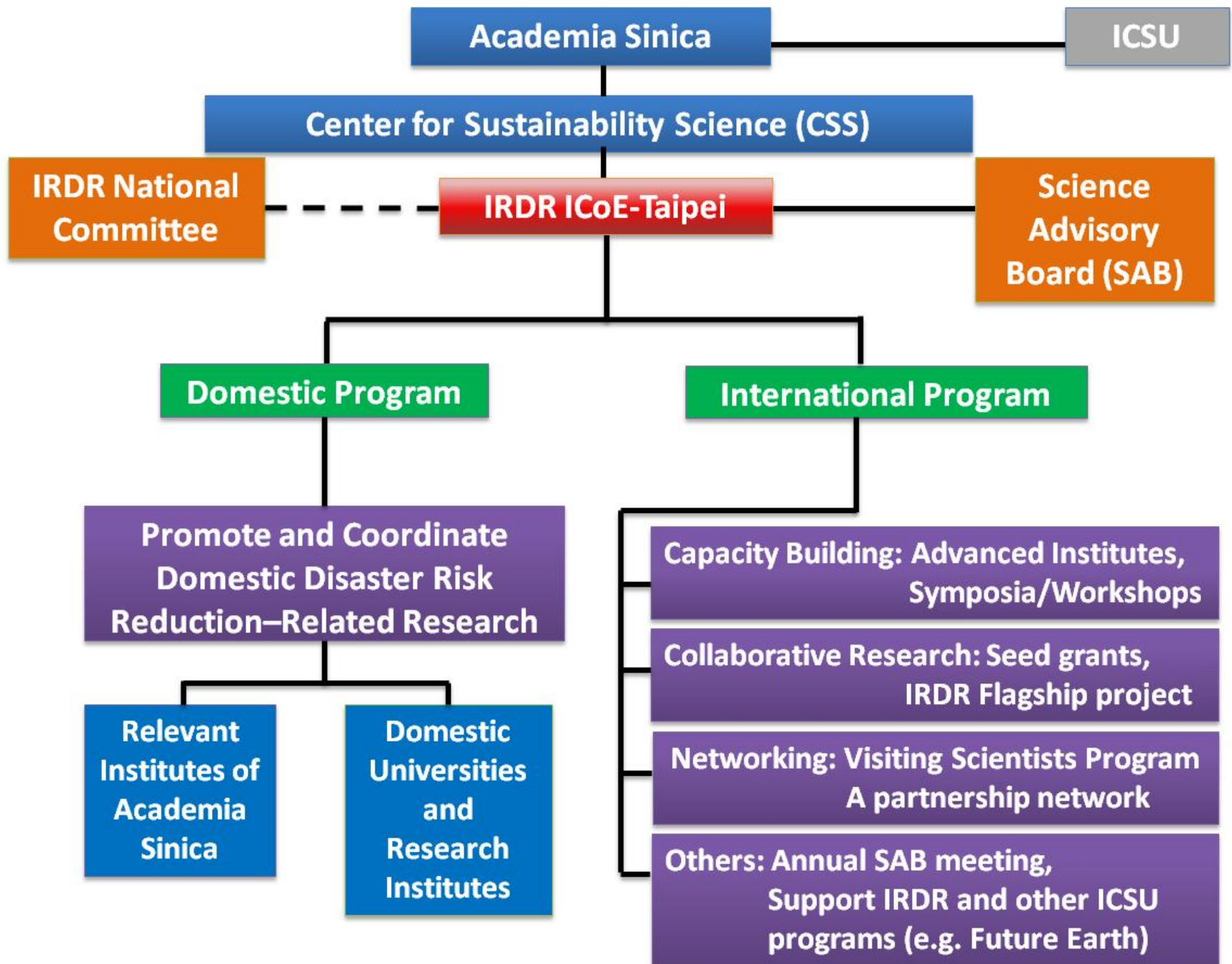
Executive Director, IRDR ICOE-Taipei

Research Fellow, Chinese Academy of Science Located in Taipei

Mission Statement of ICoE-Taipei

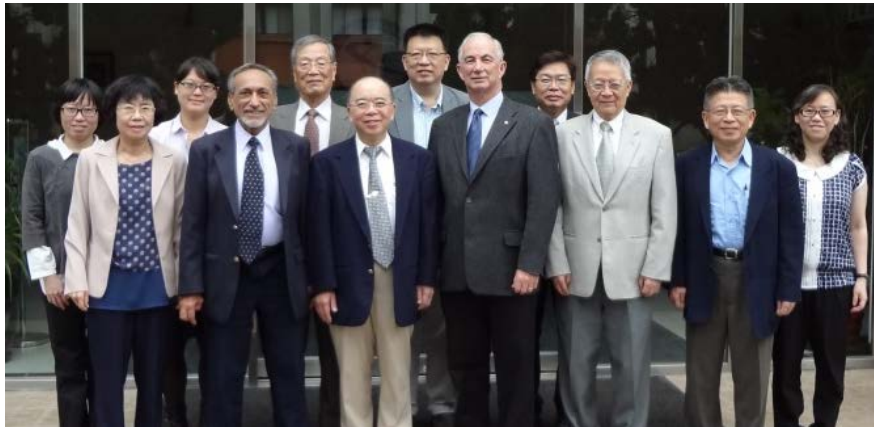
(under the Agreement of Chinese Academy of Science located in Taipei and ICSU which was extended to November 19, 2020)

- The center shall serve as an **international platform** for conducting disaster risk reduction (DRR) research, using an **integrated multi-disciplinary approach** from the perspectives of both natural and social sciences
- Tasks:
 - Exchange of scholars between research institutes
 - Exchange of ideas and information
 - Collaborative research
 - Education and training
 - Establish a partnership network of disaster reduction research
 - Have both international and domestic components



Scientific Advisory Board (SAB) of IRDR ICoE-Taipei

- 2015 SAB Annual Meeting was held on November 21, 2015.
- **Strategic directions and longer-term activities** were presented
 - Planned **capacity building** programs and follow-up seed grants for the next 5 years (2016-2020)
 - Collaborative IRDR research and **flagship project**
 - **Visiting scientist** program and **networking** with international research organizations



SAB members

Dr. Gordon McBean (Chairman)

Dr. Hassan Virji

Dr. Kuniyoshi Takeuchi (IRDR SC), (Dr. Haruo Hayashi, starting this year)

Dr. Mohd Nordin Hasan

Dr. Chao-Han Liu

Dr. Ching-Hua Lo

Dr. Hongey Chen

Dr. Liang-Chun Chen

Sendai Framework for Disaster Risk Reduction (SFDRR) (1)

- SFDRR aims to achieve the following outcome over the next 15 years:
 - 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
- Goal must be pursued:
 - Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive measures that **prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience**
- A broader and a more **people-centered preventive** approach to disaster risk; a more explicit focus on **people and their health and livelihoods**
- International, regional, subregional and transboundary **cooperation** remains pivotal in supporting the efforts of States, their national and local authorities as well as communities and businesses to reduce disaster risk.
- An **action-oriented** framework

Sendai Framework for Disaster Risk Reduction (SFDRR) (2)

- A need for focused action within and across sectors by States at local, national, regional and global levels in the following four priority areas in SFDRR:
 - 1. Understanding disaster risk
 - 2. Strengthening disaster risk governance to manage disaster risk
 - 3. Investing in disaster risk reduction for resilience
 - 4. Enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction
- Framework will apply to the risk of **small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters**, caused by natural or man-made hazards as well as related environmental, technological and biological hazards and risks
- Ensure adequate, sustainable, and timely means of implementation in **capacity-building, financial and technical assistance and technology transfer**, in accordance with international commitments

Mapping IRDR ICoE-Taipei's tasks to SFDRR

SFDRR 2015-2030

Priorities for Action

Priority 1: Understanding disaster risk

Priority 2: Strengthening disaster risk governance to manage disaster risk

Priority 3: Investing in disaster risk reduction for resilience

Priority 4: Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction

IRDR ICoE-Taipei

Tasks

Capacity Building: Advanced Institutes, Symposia/Workshops

Collaborative Research: Seed grants, IRDR Flagship project

Networking: Visiting Scientists Program
A partnership network

Others: Annual SAB meeting and other ICSU programs

IRDR ICoE-Taipei Activities

Capacity Building:

The First Workshop to Strengthen Scientific Advisory Capacities for Disaster Risk

- Held on **August 25-26, 2016 in Bangkok, Thailand**
- Co-organized by IRDR IPO, National Research Council of Thailand (NRCT), and ICSU ROAP
- Prof. Shih-Chun Candice LUNG, and Dr. Chia-Hsing Jeffery LEE attended this workshop with more than **40 experts** and government officers from a total of **16 countries**
- The organizing team of the workshop decided that the **next workshop** will be held in Taipei **in early 2017**



Capacity Building:

The International Training Workshop on Natural Disaster Reduction – Natural Disaster Risk Modeling and Applications

Organized by National Science and Technology Center for Disaster Reduction (NCDR)

- Held on September 26-30, 2016 in Taipei
- Co-organized by IRDR ICoE-Taipei
- The workshop focused on the **natural disaster risk modeling** and provided a platform for sharing geological, hydrological and climate disaster evaluation models and related experiences among the invited countries
- Dr. Shih-Chun Candice LUNG was invited to give a lecture



Capacity Building:

The Fifth Workshop on Psychological Intervention after Disasters (PIAD)

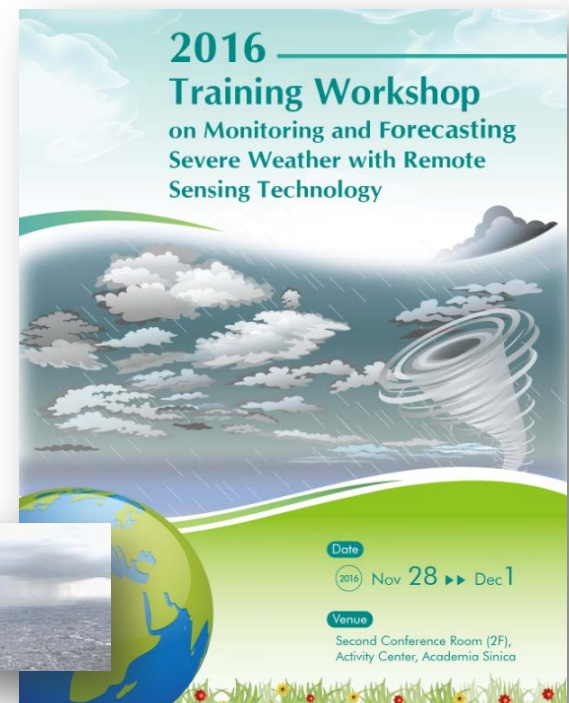
- Held on **November 14-17, 2016, in Manila, the Philippines**
- Co-sponsored by International Union of Psychological Science (IUPsyS), Chinese Psychological Society (CPS), the Jacobs Foundation, the ICSU Regional Office for Asia and the Pacific (ICSU-ROAP), United Nations University International Institute for Global Health (UNU/IIGH), and the Center for Applied Developmental Science (CADS), Friedrich Schiller University, Jena, Germany
- **25 participants from 8 Asian countries**
- Topics:
 - Psychological and social impact of disasters
 - Psychological resilience
 - Post-traumatic psychological studies
 - Social science research methodology
- The **sixth PIAD workshop** will be held **in late 2017**



Capacity Building:

Training Workshop on “Monitoring and Forecasting Severe Weather with Remote Sensing Technology”

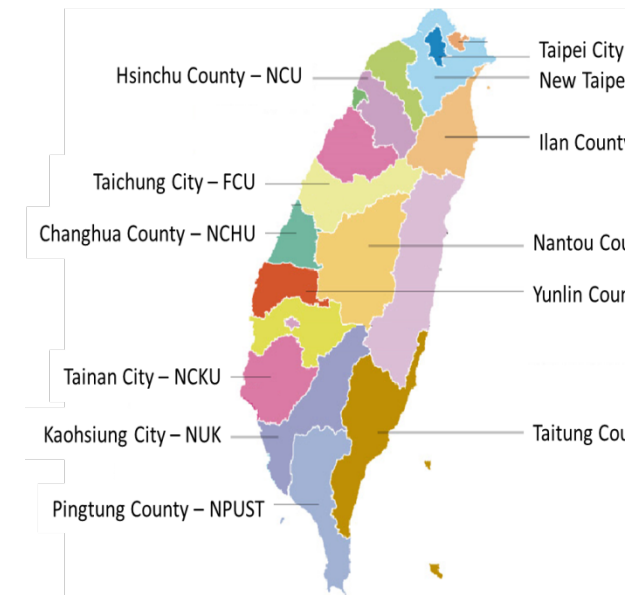
- Held on **November 28 - December 1, 2016 in Taipei**
- Co-organized by NCDR and Research Center for Environmental Changes (RCEC) in Chinese Academy of Science located in Taipei
- Experts from Taiwan (Pao K. Wang, Gin-Rong Liu, and Chian-Yi Liu), Czech (Martin Setvak), USA (Dan Lindsey), and Hungary (Mária Putsay) are invited
- **25 Participants from China, Thailand, Indonesia, Philippines and Vietnam**
- Topics:
 - Fundamental theory of severe weather
 - Implementation of remote sensing technology (RST)
 - Collection, analysis and interpretation of weather information and data
 - Vulnerability and risk assessment and pre-warning application using RST



Collaborative Research:

ICoE-Taipei-NCDR Flagship Project: Disaster Risk and Loss Reduction– Integrated Research, Policy, and Practice (led by NCDR)

- Core spirits of the project
 - Co-design , Co-work and Co-implement DRR plans with local governments
- based on outcomes of all scientific research achievements and four IRDR groups
- Collaboration extended from **two local governments in 2016 to 12 local governments in 2017**
- Identify gaps and demands on **science-based disaster management**
- Expected outcomes:
 - 1) To build up an **information sharing mechanism** to understand disaster risks better;
 - 2) To **enhance DRR planning** focusing on local characteristics;
 - 3) To **strengthen efficiency of emergency response**
- **International experience transfer** through PARR fellowship program



Networking:

Pan-Asia Risk Reduction (PARR) Fellowships, led by START

- Offering unique research, training, and educational opportunities to Asian scientists, practitioners, and policy-makers to enhance their capabilities for advancing and applying knowledge on the critical issues of vulnerability and disaster risks in the Asia-Pacific regions
- Partial funding supported by ICoE-Taipei
- Prof. Candice Shih-Chun LUNG and Dr. Ying-Chen LIN participated in the 2016 PARR Fellowship Program Inception Meeting in Manila, the Philippines on September 7, 2016
- 9 fellow from 4 countries with other participants
- 2 fellows in NCDR



Networking:

The 23rd Pacific Science Congress - “Science, Technology, and Innovation: Building a Sustainable Future in Asia and the Pacific”

Organized by Chinese Academy of Science located in Taipei

- Held on **June 13-17, 2016**, in Taipei
- IRDR ICoE-Taipei co-organized **2 disaster-related sessions** with NCDR
- ICSU President, **Prof. Gordon McBean** was invited to give a plenary speech on “Integrated Research for Reducing Disaster Impacts for a Sustainable Future Earth”
- More than **500** participants attend the Congress



Networking:

CWB-APCC Workshop on Climate Service for Health, led by CWB

- Co-sponsored “CWB-APCC Workshop on Climate Service for Health” with Central Weather Bureau on October 11-14, 2016 in Taipei
- Prof. Indira NATH (All India Institute of Medical Sciences, National Academy of Sciences, India) was invited for giving a seminar on “Climate Service for Health” on October 14, 2016 in Chinese Academy of Science located in Taipei

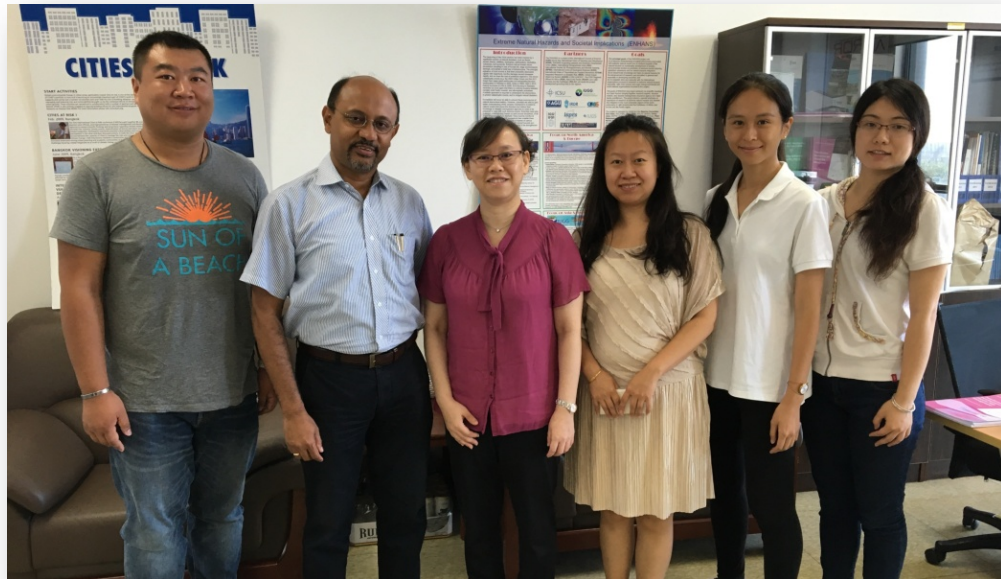


Networking: Visiting Scientist Program

- Dr. Michelle Yung-Feng Huang
 - University of Washington
 - January 2016-December 2016
 - Working with Director PK Wang in the Research Center for Environmental Changes, Chinese Academy of Science located in Taipei
 - Project: “Hillslope erosion tendency in the storm event series”

Networking: Visit to IRDR IPO

- Executive Director of IRDR ICoE-Taipei, Prof. Shih-Chun Candice Lung visited IRDR IPO at Chinese Academy of Science in Beijing on **August 19, 2016**
- Prof. Lung discussed IRDR related issues with IRDR IPO Director, Prof. Rajib Shaw, and other IRDR IPO officers and consulted with them regarding future IRDR ICoE-Taipei's activities, especially for future planning on Advanced Institutes
- Both Dr. Shaw and Dr. Lung agreed that future planning of IRDR IPO and IRDR ICoE-Taipei complement to each other



Domestic Research Projects

- Promote and coordinate **domestic IRDR-related research projects**:
 - Integrated Multi-source and High-resolution **Heat Wave Vulnerability Assessment** of Taiwan (2015-2017)
 - Taiwan **Drought Study**: Change, Water Resource Impacts, and Risk Perception and Communication (2016-2018)
 - Disaster **Resiliency through Big Open Data** and Smart Things (DRBoaST) (2016-2018)
 - **Facing "Risk Society"** in Taiwan: Issues and Strategies (2016-2018)
- Up to September 2016, the IRDR-related research projects have at least ten publications and presentations
- For more information, please visit:
<http://www.cfss.sinica.edu.tw/#/projects>

IRDR ICoE-Taipei

Future Plans

Scoping meeting of organizing activities with ICSU ROAP

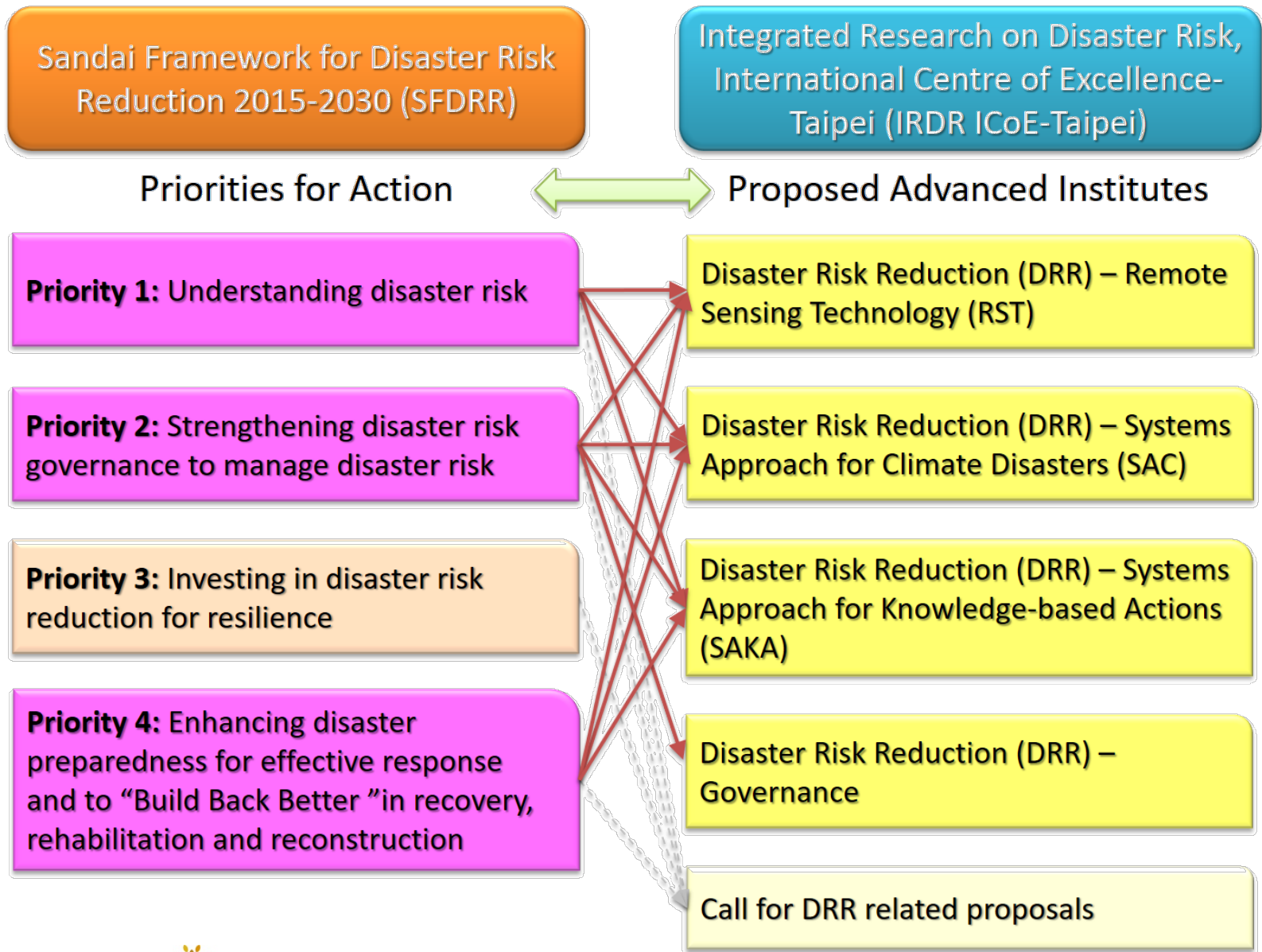
- Director of ICSU ROAP, Prof. Mohd. Nordin HASAN was invited to attend the Scoping meeting in Chinese Academy of Science located in Taipei on **October 3-5, 2016**
- ICSU ROAP and NCAR are partners of IRDR ICoE-Taipei for future capacity building programs
- Detailed items of organizing activities of IRDR ICoE-Taipei have been discussed



Planned Activities in 2017 – International Program

- Capacity building: Advanced Institutes for DRR (AI DRR), and workshops
 - 2nd Strengthen Scientific Advisory Capacities for DRR Workshop (co-organized with IRDR IPO) (January)
 - AI DRR – Knowledge Based Actions (KBA) (co-organized with NCDR) (April)
 - AI DRR – System Approach for Slow-Onset Climate Disasters (SODC) (July)
 - AI DRR – Remote Sensing Technology (RST) (October)
 - 6th PIAD Workshop (co-organized with ICSU ROAP) (late 2017)
- Collaborative research
 - Research Seed Grants for AIs
 - ICoE-Taipei-NCDR Flagship project
 - Affiliated Scientist Program
- Networking
 - Visiting Scientist Program
 - A partnership network with NCDR, IRDR IPO, START, ICSU-ROAP, Pan-Asia Risk Reduction (PARR), other ICSU programs, etc.
- Other activities

Mapping ICoE-Taipei's tasks to SFDRR





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The Center was founded in 2012 and its mission is conducting boundary-crossing sustainability-related research projects and international programs.

The Sustainability of Human Society is one of the most challenging issues facing humanity today. Because of its complexity, it is recognized that only through cross-disciplinary research integrating the relevant natural sciences and humanity and social sciences can we hope to develop practical solutions for sustainable development problems.

News and Events

- 2016-10-20 [Announcement] 2016 Training Workshop on Monitoring and Forecasting Severe Weather with Remote Sensing Technology
- 2016-10-18 Call for application for 2017 Gro Brundtland Award
- 2016-10-04 12 Oct. 2016 [CWB-APCC Workshop on Climate Service for Health]