A Toolkit on
Youth and Young Professionals in Science, Engineering, Technology, and Innovation for Disaster Risk Reduction
A Toolkit on Youth and Young Professionals in Science, Engineering, Technology, and Innovation for Disaster Risk Reduction
UNESCO applies a comprehensive and future-oriented vision recognizing youth as agents of change, social transformations, peace, and sustainable development. UNESCO works with youth as beneficiaries of services and activities; as independent actors; as partners through their organizations. The work on youth will allow to: (i) capitalize on their creativity, knowledge, innovation and potential to drive change; (ii) address challenges affecting their development; and (iii) reach the unreached and those who have lost sense of community and hope in the future.

UNESCO Operational Strategy on Youth 2014-2021
<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Abbreviations</th>
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<tbody>
<tr>
<td>AIM</td>
<td>Asian Institute of Management</td>
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<tr>
<td>ANCST</td>
<td>Asian Network for Climate Science and Technology</td>
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<tr>
<td>ANDMA</td>
<td>Afghanistan National Disaster Management Authority</td>
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<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
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<tr>
<td>BMKG</td>
<td>Badan Meteorologi, Klimatologi, dan Geofisika (Agency for Meteorology, Climatology, and Geophysics)</td>
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<tr>
<td>BNPB</td>
<td>Badan Nasional Penanggulangan Bencana (National Agency for Disaster Management)</td>
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<tr>
<td>BPPT</td>
<td>Badan Pengkajian dan Penerapan Teknologi (Agency for the Assessment and Application of Technology)</td>
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<tr>
<td>CC</td>
<td>Climate Change</td>
</tr>
<tr>
<td>CCA</td>
<td>Climate Change Adaptation</td>
</tr>
<tr>
<td>CRRP</td>
<td>Confederation of Risk Resilient Professionals</td>
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<tr>
<td>DRRMO</td>
<td>Disaster Risk Reduction and Management Office</td>
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<td>DRR</td>
<td>Disaster Risk Reduction</td>
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<td>GADRI</td>
<td>Global Alliance of Disaster Research Institutes</td>
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<td>GPDRR</td>
<td>Global Platform of Disaster Risk Reduction</td>
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<td>GSTAG</td>
<td>Global Science and Technology Advisory Group for UNDRR</td>
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<td>HEIs</td>
<td>Higher Education Institutions</td>
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<tr>
<td>HRI</td>
<td>Himalayan Risk Research Institute</td>
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<tr>
<td>ICIAR</td>
<td>International Centre for Interdisciplinary and Advanced Research</td>
</tr>
<tr>
<td>LIPI</td>
<td>Lembaga Ilmu Pengetahuan Indonesian (Indonesian Institute of Sciences)</td>
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<tr>
<td>IDMR</td>
<td>Institute for Disaster Management and Reconstruction</td>
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<tr>
<td>ITB</td>
<td>Institut Teknologi Bandung</td>
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<tr>
<td>IYDRR</td>
<td>Indonesia Youth for Disaster Risk Reduction</td>
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<tr>
<td>NDRMF</td>
<td>National Disaster Risk Management Fund</td>
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<td>NSET</td>
<td>National Society of Earthquake Technology</td>
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<td>SACEE</td>
<td>South Asia Conference on Earthquake Engineering</td>
</tr>
<tr>
<td>SEADPRI-UKM</td>
<td>SEADPRI-UKM - Southeast Asia Disaster Prevention Research Initiative of UKM</td>
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<tr>
<td>SETI</td>
<td>Science, Engineering, Technology and Innovation</td>
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<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>SFDRR</td>
<td>Sendai Framework for Disaster Risk Reduction 2015</td>
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<td>U-INPIRE</td>
<td>Youth &amp; Young Professionals on Innovation, Science and Technology Platform for Resiliency</td>
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<td>UI</td>
<td>University of Indonesia</td>
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<td>UKM</td>
<td>National University of Malaysia</td>
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<td>UNDRR</td>
<td>United Nations Office for Disaster Risk Reduction</td>
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<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organisation</td>
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<td>UNICEF</td>
<td>The United Nations International Children’s Fund</td>
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<td>UNMGCY</td>
<td>United Nations Major Group on Children and Youth</td>
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<td>UPLB</td>
<td>University of the Philippines Los Baños</td>
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<tr>
<td>PuSGen</td>
<td>National Center for Earthquake Studies</td>
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<td>Yi-Lab</td>
<td>Youth Innovation Lab</td>
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<td>YYP</td>
<td>Youth and Young Professionals</td>
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UNESCO advocates and supports youth, young scientists, and young professionals in Asia and the Pacific to strengthen their science, engineering, technology, and innovation (SETI) as well as to use their capacities, capabilities, and initiatives to support Disaster Risk Reduction (DRR) and climate change, and build resilience in achieving the targets of the Sendai Framework for Disaster Risk Reduction (SFDRR) at national, regional, and global levels.

YYP in SETI for DRR workshop report 2018

**Foreword**

The Sendai Framework for Disaster Risk Reduction (SFDRR) and Sustainable Development Goals (SDGs) placed importance on enhanced investments in youth engagement in science and technology as enablers for implementing and monitoring resilient societies. It has been recognised that young scientists from various disciplines within the crosscutting field of Disaster Risk Reduction and Management (DRRM) have the potential to enable an effective and sustainable implementation of the SFDRR.

However, limited opportunities and platforms exist for young independent researchers and innovators in DRR to develop and contribute to science, engineering, technology and innovation (SETI) for DRR. Within government agencies, universities, and research agencies, early career scientists as well as other professionals and young people specifically working in DRR related fields have very limited opportunity to develop, grow, and perform nationally, regionally, and internationally.

The current SETI environment in the Asia Pacific region does not easily allow youth, young scientists, and young professionals from other related disciplines to voluntarily and easily contribute their SETI ideas, thoughts, and aspirations to various DRR conversations and activities. There are minimal platforms for youth, young scientists, and young professionals to work together in an interdisciplinary effort and have formal or informal interactions and communications on SETI for DRR.

Youth and Young Professionals (YYP) live in a technologically advanced world with the advantage to communicate fluidly, openly, and in their own style with their own peers. There exists a thirst for networking among this information-centered or informed generation. The missing gap is an avenue for these young professionals to easily interact, share, learn, communicate, and implement SETI to positively contribute to DRR and the SDGs. Ten countries in Asia have established their national platform of YYP in SETI for DRR namely U-INSPIREs and also collaborate among this national chapters through U-INSPIRE Alliance.

This toolkit is to inspire and guide Youth and Young Professionals in establishing and working on similar platform as the U-INSPIRE with the expectation that they will open up discussions and exchange of knowledge as well as motivate and inspire YYP to continue to work on their SETI, and contribute their knowledge, capacity, and capability to build resilience towards disaster risk reduction in their own countries. This toolkit is developed based on the experience, lessons learned, and good practices of the 10 U-INSPIREs in Asia.

**Shahbaz Khan**

Director UNESCO Regional Science Bureau for Asia and the Pacific and UNESCO Representative for Brunei Darussalam, Indonesia, Malaysia, the Philippines, and Timor-Leste.
Youth and Young Professionals (YYPs) are leading the way in disaster risk reduction and climate actions (GPDRR 2019 Co-Chair’s Summary: Resilience Dividend: Towards Sustainable and Inclusive Societies). We are pleased to be recognized, acknowledged, and supported by UNESCO Regional Science Bureau for Asia and the Pacific on leveraging the role and engagement of Youth and Young Professionals (YYP) in Science, Technology, Engineering and Innovation (SETI) for Disaster Risk Reduction (DRR) and Climate Change (CC).

This toolkit is a guide for YYPs to get inspiration from their fellow young professionals and explore opportunities for further enhancement with new ideas and innovations. The stories of twelve U-INSPIRE chapters in the toolkit and their contribution, opportunities and challenges, will further contribute to replicate the U-INSPIRE model beyond the present member countries and create opportunities for the young generation in SETI for DRR. Furthermore, the toolkit will help YYPs to remain committed; to the objectives, coherent; in mainstreaming youth engagement in SETI for DRR, consistent; in creating meaningful impacts and communicating: opportunities for new members to be inspired and get inspired. The U-INSPIRE Alliance, a platform for YYPs in SETI for DRR has brought us together, and laid the foundation for a robust and powerful alliance for fostering DRR by generating innovations in SETI for disaster resilience at the local, national and global level. The Alliance’s network has a range of multidisciplinary skilled professionals from the social scientists to the engineers that can use the most advanced cutting edge technological tools.

The U-INSPIRE Alliance is committed to making 'A Toolkit on Youth and Young Professionals in Science, Engineering, Technology, and Innovation for Disaster Risk Reduction' effective in use, together with its national chapters and other partners at both regional and global level. The Alliance believes that the toolkit will add value to co-create solutions for a better understanding of disaster risks and enhance engagement in reducing disaster risks with the appropriate technology, innovation, and actions.

We are not alone. Together we are stronger and inspired.

Pradip Khatiwada
Chair, UINSPIRE Alliance

UNESCO Operational Strategy on Youth 2014-2021
INTRODUCTION
How it all started

Following UNESCO Operational Strategy on Youth 2014-2021, UNESCO applies comprehensive and future-oriented vision in working with youth by recognizing youth as agents of change, beneficiaries, and partners in social transformations, peace and sustainable development in their countries and communities.

On the 29th of March 2018, the UNESCO Office Jakarta initiated a consolidation meeting on Youth and Young Scientists in Science, Engineering, Technology and Innovation (SETI) for Disaster Risk Reduction (DRR). This meeting organized a core group of youth and young professionals interested in initiating and leading activities to strengthen Indonesia’s SETI for DRR. From this, and a series of follow up meetings with relevant Indonesian disaster management agencies, the core group of youth and young professionals agreed to formalize the initiative by establishing U-INSPIRE. The group defined U-INSPIRE as a platform for Youth and Young Professionals in SETI for Resiliency, to accelerate the implementation of DRR in line with the SFDRR and to support DRR policy and action at the local, national and international levels. Their vision is to make “Indonesian youth and young professionals as the generators of innovation in science, engineering and technology for disaster resilience at the national and global levels.”

In November 2018, UNESCO Office Jakarta, with the International Centre for Interdisciplinary and Advanced Research (ICIAR) of LIPI, and the GSTAG Working Group on capacity building and higher education of UNDRR jointly hosted the Asia Pacific Regional Workshop on Youth and Young Professionals in SETI for DRR in Serpong, Indonesia. The workshop aimed to stimulate and INSPIRE youth and young professionals in the Asia Pacific region to use their SETI capacity to contribute to DRR in their own country. This workshop initiated discussions around the expansion of the U-INSPIRE initiative to other countries in the Asia Pacific region.

In 2019, the U-INSPIRE initiative has gained momentum with the establishment and launching of U-INSPIREs in Afghanistan, Central Asia (covering Kazakhstan Kyrgyzstan, Tajikistan, and Uzbekistan), India, Malaysia, Nepal, Pakistan, and the Philippines. In 2020 China, Japan, Maldives, and Thailand established their U-INSPIREs.

In September 2019, representatives of these U-INSPIRE chapters gathered in UNESCO Office Jakarta and declared and signed the formation of U-INSPIRE Alliance, an Asia Pacific Youth and Young Professionals Alliance in Science, Engineering, Technology, and Innovation for Disaster Risk Reduction (The Jakarta Declaration).

2 https://unesdoc.unesco.org/ark:/48223/pf0000227150
UNESCO-wide vision on youth is operationalized through three complementary and transversal axes of work: 1). Policy formulation and review with the participation of youth; 2). Capacity development for the transition to adulthood; and 3). Civic engagement, democratic participation and social innovation.

As a concrete action, youth and young professionals in various countries established U-INSPIREs as their national platforms to voice and take action in DRR. Through these national platforms, youth and young professionals start to contribute to DRR and CC based on their SETI capacities and capabilities. These actions operationalized youth and young professionals in civic engagement, democratic participation and social innovation.

Within the policy formulation and review with the participation of youth, this initiative has also led to policy statements at national and global levels.

The Indonesian report to the Global Platform for Disaster Risk Reduction in Geneva (May 2019) stated:

“To foster the inclusiveness of stakeholder engagement and active leadership of Indonesian Youth, Indonesia recognizing U-INSPIRE (Youth and Young Professionals Innovation in Science and Technology Platform for Resiliency) as an official platform for Youth and Young Professionals in Science, Engineering, Technology, and Innovation for Disaster Risk Reduction. At the global level its establishment is supported and acknowledged by UNESCO, UNDRR, and UNMGCY. There is a growing interest from other countries to replicate the model of U-INSPIRE to engage youth in SETI for DRR.”

The role of the youth and young professionals in DRR was also acknowledged at the highest level in the Report of the Chair of the Global Platform for Disaster Risk Reduction as a high level statement:

“20. Children, youth and young professionals are leading the way in disaster risk reduction and climate action. Greater efforts are required to institutionalize their engagement and appropriately draw on their capacity.”

Why this toolkit

The developments of U-INSPIRE Chapters in Asia and the Pacific identified the need for a published resource (a toolkit) to support the establishment of platforms for Youth, Young Scientists and Young Professionals in SETI for DRR in more countries in the region.

This toolkit was developed by consolidating the best practices and lessons that have been learned along the journeys of the established U-INSPIREs. It identified the success factors and challenges in establishing these national platforms, as well as documented innovative local actions where youth and young professionals have successfully used their SETI to support disaster risk reduction activities in their countries.

The toolkit aims to provide guidelines, to share the best practices and lessons learned, and present examples of the various roles of youth, young scientists, and young professionals in SETI for DRR based on global frameworks, directives, and roadmaps.

The Policy Outcomes of UNESCO Youth and Young Professionals in SETI for DRR aims to:

1. Narrow the gap and strengthen the connection between youth and young professionals having scientific knowledge and background with those working directly with the community;
2. Increase the number of youth and young professionals with SETI background working on DRR;
3. Create a wider and more dispersed link between the multidisciplinary backgrounds of youth and young professionals’ expertise in addressing DRR issues;
4. Enable easier, faster, and better access in working on science-based DRR activities among youth and young professionals;
5. Share evidence of youth and young professionals’ knowledge, capacity, and capability in SETI applied in reducing disaster risks and building resiliency toward natural hazards;
6. Encourage and facilitate the establishment of national platforms for YYP in SETI for DRR; and
7. Engage with policy makers to convey the voice of youth, science and community.

Things You Need to Know

**Sendai Framework for Action**

The Sendai Framework for Action 2015-2030 (SFDRR) was adopted at the UN Third World Conference on Disaster Risk Reduction at Sendai, Japan in March 2015. The Children and Youth Forum in Disaster Risk Reduction at the conference marked the starting point to enhance the participation of youth in setting the global priorities in DRR.

### TARGETS

- **Disaster Mortality by 2030**
- **Number of affected people by 2030**
- **Economic loss by 2030**
- **Infrastructure damage by 2030**
- **DRR National/Local Strategies by 2030**
- **International Cooperation by 2030**
- **EWS and DR Information by 2030**

### OUTCOME

The final framework iterated that children and youth are agents of change and should be given the space and modalities to contribute to disaster risk reduction, in accordance with legislations, national practices, and educational curricula. Additionally, guiding principle D of the SFDRR iterated that DRR requires an all-of-society engagement and partnership involving empowerment and inclusive, accessible, and non-discriminatory participation and that youth leadership should be promoted.

The SFDRR is a 15-year, voluntary, non-binding agreement which recognizes that the State has the primary role to reduce disaster risks but that responsibility should be shared with other sectors including local governments, the private sector and other sectors. It aims for the following outcomes: the substantial reduction of disaster risks and losses of lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.

The framework sets out seven global targets and four priorities for action. The YYP in SETI for DRR relates closely to targets F and G of the SFDRR.

### PRIORITIES

1. **Understanding disaster risk**
2. **Investing in disaster risk reduction for resilience**
3. **Enhancing disaster preparedness for effective response, and to ‘Build Back Better’ in recovery, rehabilitation and reconstruction**
4. **Strengthening disaster risk governance to manage disaster risk**

### GOAL

Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce disaster risks and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.

### Climate Change

The United Nations System recognizes the key role that youth play in tackling climate change and works closely with youth-led and youth-focussed organizations around the world. The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body that assesses the science related to climate change, in conjunction with other scientific, technical, and socio-economic information. Youth are eager to engage in dialogue and want to take action. One of the most important avenues where young people create change is the implementation Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change (UNFCCC) that ratified an Agreement to combat climate change and accelerate and intensify the actions and investments needed for a sustainable low carbon future and the Paris Agreement, also known as “the Paris Climate Agreement”, which came into force in 2016.

Under the motto “Changing Minds, Not the Climate”, UNESCO tries to contribute through rethinking sustainability globally to include a wide range of actions under the UNESCO mandate reflecting the multifaceted nature of climate challenges and associated mitigation and adaptation solutions. The purpose is to work with youth and young professionals on climate-related knowledge, data and information services and policy advice to enable a shift in mindsets towards enhanced sustainability.

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**Sendai Framework for Action 2015-2030 (SFDRR)**

- **PREVENTION**
  - Target (e) Substantially contributing to the implementation of international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030.
  - Target (g): Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030.

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**Sendai Framework for Action 2015-2030 (SFDRR)**

- **INCREASE**
  - Countries with national and local DRR strategies
  - International cooperation to developing countries
  - Availability and access to multi-hazard early warning systems & disaster risk information and assessments

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**Sendai Framework for Action 2015-2030 (SFDRR)**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Target (f)</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention and reduction of disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce disaster risks and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.</td>
<td>Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030.</td>
<td>Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030.</td>
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<thead>
<tr>
<th>Linked to SFDRR</th>
<th>Outcome</th>
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<tbody>
<tr>
<td>Economic loss</td>
<td>2030 Ratio &lt;&lt; 2015 Ratio</td>
</tr>
<tr>
<td>Affected people</td>
<td>2030 Average &lt;&lt; 2005-2015 Average</td>
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<tr>
<td>Mortality</td>
<td>2030 Average &lt;&lt; 2005-2015 Average</td>
</tr>
<tr>
<td>International cooperation</td>
<td>2030 Values &gt;&gt; 2015 Values</td>
</tr>
<tr>
<td>Availability and access to multi-hazard early warning systems &amp; disaster risk information and assessments</td>
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<td>Damage to critical infrastructure &amp; disruption of basic services</td>
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<td>Economic loss</td>
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</table>
The Sustainable Development Goals
As youth and young professionals, it is important to be informed and engaged with the global vision for the future. Starting 2015, youth will not only directly experience the outcome of the Sustainable Development Goals (SDGs) and plans, but will also be an important player for the successful implementation of SDG. It is necessary to raise awareness about the 17 SDGs and the 2030 Agenda for Sustainable Development among youth, use this platform for discussion, and create the conditions for active engagement.

The young scientists’ platform established the young scientists roadmap, which aims to provide guidelines for young scientists to contribute to the UNISDR S&T roadmap. It consists of two objectives: 1) to establish and maintain a Young Scientists in DRR Platform, and 2) to establish an interprofessional and intergenerational partnership between UNMGCY and science-technology-innovation actors focusing on implementation, monitoring and review of the Sendai Framework.

In 2017, the Global Science and Technology Roadmap on Disaster Risk Reduction was launched at the UNISDR First Science and Technology Conference on DRR in Geneva, Switzerland. This roadmap consists of a set of priorities and deliverables based on each Priority for Actions mentioned in the SFDRR (understanding risk, strengthening disaster risk governance to manage disaster risk, investing in disaster risk reduction for resilience, enhancing Disaster Preparedness for Effective Response, and to “Build Back Better” in Recovery, Rehabilitation and Reconstruction).

The Young Scientists Platform on DRR + UNMGCY
In 2019, APSTAAG mandated that a representative of the Youth, Young Scientists and Young Professionals be part of its members. APSTAAG during its meeting on October 2019 in Kuala Lumpur agreed to design a “network of networks” for capacity building. It was highlighted that the establishment of the youth and young professional network (U-INSPIRE) in multiple countries has shown the importance of youth engagement for DRR acceleration. The platform ensures the optimization of resources by harnessing the knowledge and energy of the youth for capacity development and innovation (APSTAAG UNDRR meeting report, 2019).

Global Science and Technology Advisory Group for UNDRR (GSTAG)
In announcing its second term of mandates from 2017-2019, the Global Science and Technology Advisory Group (GSTAG) ensured that representatives of young scientists were included as members. The mandate of GSTAG is to provide evidence-based advice to inform global policy on disaster risk reduction. The GSTAG 2017-2019 established four working groups on data, insurance/ economy, natech, and education. The young scientists representatives are mainly involved in the fourth working group on education, focusing on the issue of capacity building in higher education institutions (HEIs). This working group included capacity strengthening for young scientists in DRR and resilience. The newly contextualized S&T roadmap launched by the GSTAG also highlighted the importance of supporting initiatives of youth and young scientist platforms at national and regional levels.

Asia Pacific Science, Technology, and Academia Advisory Group for UNDRR (APSTAAG)

Young Scientists Platform on DRR + UNMGCY
The Young Scientists Platform on DRR was launched at the UNISDR Science & Technology Conference in Geneva in January 2016, during a side event on the role of young scientists in the implementation of the Sendai Framework for DRR. The Platform came about as a follow up action from the Children and Youth Forum at the Third World Conference on DRR and youth’s participation in the design of the Sendai Framework, facilitated by the UN Major Group of Children and Youth (UNMGCY) and supported by the UNISDR Secretariat and Science and Technology Advisory Group of UNISDR. The young scientists roadmap on DRR has been created to complement the UNISDR Science and Technology Roadmap to Support the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030.

The Young Scientist Platform on DRR is one of the thematic platforms under the UNMGCY Youth Science-Policy Interface (SPI), which hosted different, but interrelated processes with DRR, including Habitat III, SDGs, Word Humanitarian Summit, among other processes. This platform was established to provide a space for young experts from different scientific fields and regions to connect with their colleagues, to widen their knowledge and to share expertise. Since then, youth and young scientists have begun to be engaged in some global events, including the Global Platform on DRR in 2017 and 2019.

Science and Technology Roadmap
The Science and Technology Roadmap on Disaster Risk Reduction was launched in January 2016 at the UNISDR First Science and Technology Conference on DRR in Geneva, Switzerland. This roadmap consists of a set of priorities and deliverables based on each Priority for Actions mentioned in the SFDRR (understanding risk, strengthening disaster risk governance to manage disaster risk, investing in disaster risk reduction for resilience, enhancing Disaster Preparedness for Effective Response, and to “Build Back Better” in Recovery, Rehabilitation and Reconstruction).

The GSTAG 2017-2019 established four working groups on data, insurance/economy, natech, and education. It was highlighted that the establishment of the youth and young professional network (U-INSPIRE) in multiple countries has shown the importance of youth engagement for DRR acceleration. The platform ensures the optimization of resources by harnessing the knowledge and energy of the youth for capacity development and innovation (APSTAAG UNDRR meeting report, 2019).

Science and Technology Advisory Group (GSTAG) ensured that representatives of young scientists were included as members. The mandate of GSTAG is to provide evidence-based advice to inform global policy on disaster risk reduction. The GSTAG 2017-2019 established four working groups on data, insurance/ economy, natech, and education. The young scientists representatives are mainly involved in the fourth working group on education, focusing on the issue of capacity building in higher education institutions (HEIs). This working group included capacity strengthening for young scientists in DRR and resilience. The newly contextualized S&T roadmap launched by the GSTAG also highlighted the importance of supporting initiatives of youth and young scientist platforms at national and regional levels.

Asia Pacific Science, Technology, and Academia Advisory Group for UNDRR (APSTAAG)
In 2019, APSTAAG mandated that a representative of the Youth, Young Scientists and Young Professionals be part of its members. APSTAAG during its meeting on October 2019 in Kuala Lumpur agreed to design a “network of networks” for capacity building. It was highlighted that the establishment of the youth and young professional network (U-INSPIRE) in multiple countries has shown the importance of youth engagement for DRR acceleration. The platform ensures the optimization of resources by harnessing the knowledge and energy of the youth for capacity development and innovation (APSTAAG UNDRR meeting report, 2019).

Young Scientists Platform on DRR + UNMGCY
The Young Scientists Platform on DRR was launched at the UNISDR Science & Technology Conference in Geneva in January 2016, during a side event on the role of young scientists in the implementation of the Sendai Framework for DRR. The Platform came about as a follow up action from the Children and Youth Forum at the Third World Conference on DRR and youth’s participation in the design of the Sendai Framework, facilitated by the UN Major Group of Children and Youth (UNMGCY) and supported by the UNISDR Secretariat and Science and Technology Advisory Group of UNISDR. The young scientists roadmap on DRR has been created to complement the UNISDR Science and Technology Roadmap to Support the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030.

The Young Scientist Platform on DRR is one of the thematic platforms under the UNMGCY Youth Science-Policy Interface (SPI), which hosted different, but interrelated processes with DRR, including Habitat III, SDGs, Word Humanitarian Summit, among other processes. This platform was established to provide a space for young experts from different scientific fields and regions to connect with their colleagues, to widen their knowledge and to share expertise. Since then, youth and young scientists have begun to be engaged in some global events, including the Global Platform on DRR in 2017 and 2019.
Youth and Young Professionals in SETI for DRR
When we talk about youth and young professionals in science, engineering, technology, and innovation for disaster risk reduction, it sounds like a mouthful of words! That's because we are talking about an inclusive and broad range of young people, and bringing their diverse skills from a variety of multidisciplinary backgrounds to contribute to the common area: DRR.

Let's break that down!

**YYP?**

The United Nations defines ‘youth’ as persons aged between 15 and 24, however, organizations, institutions, governments, and societies often have different opinion on what defines a person as a youth or young professional. This can vary between countries and regions, and ‘youth’ is therefore often a fluid and changing category.

Generally speaking, we are talking about a group of people often defined as the Generation Y or Millennials and the Generation Z. Usually, these are the people born between the 1980s to the early 2000s who grew up in the Information Age, so they are comfortable in using things like digital technology and social media.

A Young Professionals could be defined as someone who in addition to fitting the above description is also either young scientist or researcher or someone currently studying towards or graduated with a degree. Part of the criteria for young scientists, many set the limit to be below 40 years old.

**SETI?**

When we talk about SETI, we are not just talking about the people working on the hard sciences, engineering or technological innovations. We know that solving complex issues often requires a multidisciplinary approach. The science covers all field of sciences from hard science to any field in social sciences. To create social changes that are effective and sustainable, we need to rely on support from meaningful social research through a social, cultural, or political science lens.

It could also need expertise in public communication, graphic design, media or journalism and art to be implemented effectively.

Particularly when solving DRR problems at the community level, it can be just as important to involve people with backgrounds in education, health science and psychology or those with experience in arts, culture or macroeconomics and medicine.

We will talk more about the importance of a multidisciplinary membership in Part 4 of this Toolkit.

**DRR?**

The UNDRR describes disaster risk reduction as the concept and practice of reducing disaster risks through systematic efforts to analyse and reduce the causal factors of disasters. For example, reducing exposure to hazards, lessening vulnerability of people and property, wise management of land and the environment, and improving preparedness and early warnings are all part of disaster risk reduction.

DRR can include disciplines like disaster management and response, disaster mitigation and disaster preparedness. DRR is also part of sustainable development because in order to be sustainable, development activities must also identify and reduce associated disaster risk.

**YYP in SETI for DRR!**

By combining YYP + SETI + DRR, a distinct niche becomes possible. We are not just talking about youth volunteers assisting in disaster response. We are also not just talking about young scientists conducting research. This group of people probably also aren’t the ones going to the field to set up tents in disaster response, but they may be supporting the technology and design processes with young architects or engineers. They could also be providing mapping and spatial analysis expertise to better record risk and hazards before a disaster, or to identify needs and impacts after a disaster. The activities we are focusing on are science based, but we are collectively solving factual problems by using a range of different skills to develop, socialize, and share DRR initiatives.
**Why is it needed?**

There are already global platforms for young scientists in DRR, focused on research and studies. The UNMGCY is focusing youth engagement in global policy, dialogues and advocacy more broadly, and there are also other platforms, forums and groups of youth working or volunteering in development and disaster relief.

There are however limited opportunities for transdisciplinary interaction and communication where ideas, thoughts and aspirations of this niche group can be voiced and be part of the SETI solutions to DRR. There are few platforms that are specifically established to enable YYP in SETI for DRR to contribute through both practical and policy initiatives, at the local, national or regional levels.

The idea bringing YYP in SETI for DRR is not only caused by the gap between hard and soft sciences, but also rendered by the gaps of: (i) (S&T) communication, and (ii) the level of adaptation capacity in dealing with the possibility of increase in disaster intensity.

**Turning challenges into opportunities**

Many of the challenges faced by SETI in DRR could also be viewed as opportunities when it comes to engaging YYP in this space. Establishing a platform can be the first important step in addressing these challenges.

- How can we give a voice to youth, empower and develop the capacity of future leaders?
- How can we implement global agendas and keep inspiring the next generations to learn about DRR and climate change action, or further, to choose this as a career?
- How can we ensure that the dissemination of knowledge and information can be shared right to the community level in a language and method that is effective and understandable?

- Creating a space for networking and sharing ideas
- Partnerships between universities, UN agencies, government and NGOs
- Private sector, social-enterprises, and communities
- Tapping into global networks through UNESCO and UNDRR offices
- Bridging the generational gap between scientists, practitioners and communities

Practical Engagement of Youth and Young Professionals in applying Science, Engineering Technology, and Innovation to support Disaster Risk Reduction
What is this Platform?

According to the UNDRR, a National Platform for DRR can be defined as a nationally owned and led forum or committee of multistakeholders. It serves as an advocate of DRR at different levels and provides coordination, analysis and advice on areas of priority requiring concerted action through a coordinated and participatory process.

This toolkit was developed by pooling some of the tips on practices and lessons that have been learned along the journeys of the established U-INSPIREs. This include success factors and challenges in establishing the platforms as well as innovative examples where youth and young professionals have successfully used their SETI to support disaster risk reduction activities in their countries.

The toolkit aims to provide guidelines, lessons learned, practices, and examples on the role of youth, young scientists, and young professionals in SETI for DRR based on global frameworks, directives, and roadmaps.

So what is YYP in SETI for DRR Platform?

It is a space
YYP in SETI for DRR platform is a space where there is opportunity for the knowledgeable YYP with SETI education, capacities, knowledge, and knowhow to discuss and execute their views on DRR. This could be in the form of a physical or digital space.

It is Multidisciplinary
For SETI to create social changes that are effective and sustainable, it will rely on a multidisciplinary and interdisciplinary approach and meaningful support from a range of educational and professional backgrounds.

At the individual level, coming from various backgrounds, YYP can be perceived as limited in terms of skills and ideas that can contribute to DRR efforts. They join the platform because they are looking for ways to contribute, drawing from their own professional background as well as being able to collaborate with others from different professional and study backgrounds.

It is about Science, Engineering, Technology, and Innovation
The platform focuses on the added value of SETI included in the YYP DRR activities. The SETI component is the niche and uniqueness of this platform compared to other youth DRR platforms, programs and activities.

It is about Disaster Risk Reduction
The YYP programs and activities focuses on strengthening disaster risk reduction in accordance to SFDRR as well as building climate change resiliency.

It is Volunteerism
The YYP platform is based on volunteerism with a participatory structure which may engage relevant disaster management and science based agencies, based on mutually agreed terms of reference.

It is about communication & collaboration
With members dispersed over vast geographical areas, the platform maximizes the functionality of online communication and collaboration with all members, nationally, regionally, and internationally.
What are the key factors?

Key success factors
A number of key factors contributed to the successful implementation of the established U-INSPIRE platforms. The most common factors are:

• Collaboration with other UN agencies;
• Recognition from government: Disaster management office or Research Agencies;
• Structure with separate working groups/teams;
• General interest from young people in DRR;
• Multidisciplinary and broad geographical membership;
• Support from experienced scientists to guide efficient focus on real problems;
• National and international partnerships with government agencies, universities and research centres;
• Supported or hosted by credible organization: University, Research Institution, Government agency;
• Low cost events to sustain member engagement: link with existing activities;
• International collaboration with other U-INSPIRE Chapters;
• Political support;
• Geographical distribution; and
• Many cases to handle as the Asia Pacific countries face many disasters and disaster risks.

Key challenges
The established platforms faced various challenges in establishing, launching and sustaining their respective national platforms. These key challenges should be considered in establishing and maintaining the YYP in SETI for DRR platform in the country. The key challenges include:

• Identification of longer term funding sources;
• Lack of DRR modules in university courses;
• Maintaining engagement with members;
• Perceived usefulness of the YYP contribution;
• Availability of members;
• Varied laws and regulations governing registration of chapters in different countries;
• Identification of clear expectations of members; and
• Geographical balance for inclusivity of membership.

Checklist for Establishment of YYP in SETI for DRR Platforms

Below is the list of steps to consider in establishing YYP in SETI for DRR platform based on good practices and lessons learned of U-INSPIRE national chapters in different countries.

Initiating
✔ Undertake scoping, planning and stakeholder mapping
✔ Have a clear and agreed mission statement
✔ Seek support and endorsement from leading institutions
✔ Identify an appropriate patron organization
✔ Use a consistent, simple promotional pitch

Building
✔ Use consistent branding and online presence
✔ Allow for a diversified membership with multidisciplinary backgrounds
✔ Use a working group/team structure to share the workload and to maximize the use of members’ skill sets
✔ Include members who are YYP working for government disaster management agencies
✔ Partner with experienced institutions and professionals to guide direction

Branding
Branding is an important thing to consider, particularly in establishing new relationships and contacts with people including members and partners, as well as other organizations and networks. Having a distinctive brand will help create a more memorable and lasting impression. A distinctive, recognizable brand will also help promote the involvement of U-INSPIRE members in events, activities and conferences.

From a regional perspective, and with multiple U-INSPIRE platforms being established, consistency with branding is also important.

Managing/Operating
✔ Use collaborative online communication solutions
✔ Partner with other agencies with similar activities and piggy back platform activities on those activities
✔ Use a flexible approach to organizing events around the time availability of members
Sustaining
✓ Go for “low hanging fruit” by holding low budget activities to maintain member engagement
✓ Consider ways to build public and political support
✓ Partner with other U-INSPIRE platforms to work on regional projects
✓ Share the administrative responsibilities on a rotating basis

Communication and collaboration
Free solutions such as creating distribution groups in WhatsApp, skype, Telegram, WebEx, and other tools can be useful for communicating with members, and open settings which allow others to add members can also avoid creating an administrative burden on one person.

Collaboration and storage solutions such as Google Docs or Trello could also be useful when working with multiple contributors to develop documents, presentations, or public communication materials.

Case study: Communication in U-INSPIRE Indonesia
Since members are spread in different cities in Indonesia and abroad, the daily means of communication is through WhatsApp. For a more focused and well-organized discussion on certain projects, the members use Slack chat or a scheduled RapWap (Rapat WhatsApp, meaning meeting through WhatsApp). Slack has been used mostly for working on FAQ Factsheets and proposals. The first RapWap was conducted during the determination of U-INSPIRE name, definition, and vision. WhatsApp has also been used for online sharing sessions which are open for public, called KulWap (Kuliah WhatsApp, meaning lecture through WhatsApp), in collaboration with the founder of KulWap, IYDRR (Indonesia Youth for Disaster Risk Reduction).

When an audio/video call is needed, a virtual meeting would be conducted using Skype, Google Meet, Teams, or Zoom. During most of the Skype meetings, 2-3 members use Google Docs for collaborative note-taking. All files are stored in U-INSPIRE Google Drive and arranged in Trello. Communication with the public is done through U-INSPIRE Instagram account.

Role of UNESCO
As a specialized agency of the United Nations, UNESCO contributes to the construction of peace, human development, and intercultural dialogue in an era of globalization through education, the sciences, culture, communication and information.

As a global organization UNESCO delivers its work through a vast network of Field Offices, Cluster Offices and Regional Offices. All of these offices are supported by UNESCO’s global headquarters in Paris, France. Implementation for the UNESCO program is also supported by a network of Category 2 Centres, National Commissions and the UNITWIN/UNESCO Chairs Programme.

<table>
<thead>
<tr>
<th>Category</th>
<th>Function</th>
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<tbody>
<tr>
<td>National Office</td>
<td>Supports activities within a country. Also referred to as a Field Office.</td>
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<tr>
<td>Cluster Office</td>
<td>Supports activities in multiple countries in a close geographical area but from an office in 1 location.</td>
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<tr>
<td>Regional Bureaus</td>
<td>Regional focal point for one of three specific disciplines: science, education, or culture</td>
</tr>
<tr>
<td>National Commissions</td>
<td>National Commissions are established by governments usually within an existing government agency, to act as a permanent focal point to coordinate their governmental and non-governmental bodies in education, sciences, culture and communication with the work of UNESCO. National Commissions can support through consultation, liaison and information, and mobilizing and coordinating with national partners, including the civil society.</td>
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<tr>
<td>Category 2 Centres</td>
<td>Institutes and category 2 centres are under the auspices of UNESCO but are established and funded by Member States to contribute to the achievement of UNESCO’s objectives in a particular discipline. Through capacity-building, knowledge sharing and research, they contribute to the execution of UNESCO’s strategic programme objectives for the benefits of Member States.</td>
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<tr>
<td>UNITWIN/UNESCO Chairs Programme</td>
<td>The UNITWIN/UNESCO Chairs Programme promotes international inter-university cooperation and networking to enhance institutional capacities through knowledge sharing and collaborative work. The programme supports the establishment of networks in key priority areas related to UNESCO’s fields of competence: education, the natural and social sciences, culture and communication. The program involves over 700 institutions in 116 countries serving as think-tanks and bridge builders between academia, civil society, local communities, research and policy-making.</td>
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</tbody>
</table>
UNESCO contributes through functions in terms of (i) providing advice for policy development and implementation, and developing institutional and human capacities; (ii) serving as a laboratory of ideas and generating innovative proposals and policy advice in its fields of competence; and (iii) setting norms and standards in its fields of competence and supporting and monitoring their implementation.

Support of UNESCO may come in the following:

- Acting as a patron for the YYP in SETI for DRR platform
- Training & awareness raising in global standards
- Recognition and promoting the platform
- Linking with other UNESCO offices
- Bringing youth to the discussion table
- Acknowledgment and promotion of youth and young professionals using SETI for DRR and C
c- Link the platform to category 2 centres, UNESCO Chairs, other UNESCO programs, networks and platforms
- Links to UNESCO partners and UN sister agencies
- Inclusion of the platform in UNESCO’s events and activities, events, projects – nationally, regionally and globally

- Professionally support the establishment of YYP in SETI Platforms
- Facilitate connection to national, regional, and global networks
- Facilitate exchange and lessons learnt through activities at regional and global level
- Supporting participation in the regional activities (subject to funding availability)

- Develop best practice guides and tools such as this toolkit!
- Assist in developing operational strategy customised at national level
- Assist with evaluations
- Act as advisor and mentors
- Define accreditation and key performance indicator for YYP in SETI
U-INSPIRE as YYP in SETI for DRR Platforms

In 2018, UNESCO Office Jakarta initiated a programme namely Youth and Young Professionals in SETI for DRR. The objectives are to: a) Facilitate, advocate, and support cooperation and collaboration among youth and young professionals in the country as well as in the region; and b) Empower and mobilize youth, young scientists, and young professionals at national and regional levels to strengthen their SETI and to use their SETI capacity, capabilities, and knowhow to support DRR.

Jointly with the Indonesian Institute of Sciences (LIPI), UNESCO organized the first youth meeting on Youth and Young scientists in Science, Engineering, Technology, and Innovation for Disaster Risk Reduction. Attended by 32 Indonesian youth, young scientists, and young professionals, experts from Agency for the Assessment and Application of Technology and connecting online with UNMGCY, the meeting discussed the issues, challenges, and opportunities of youth in disaster risk reduction with a special niche in science, technology and innovation. The meeting motivated and inspired the participants to form a national platform for Youth and Young Professionals in SETI for DRR to strengthen their role, connection, and collaboration.

In May 2018, Indonesian youth and young professionals established U-INSPIRE (Youth and Young Professionals on Innovation, Science, and Technology Platform for Disaster and Climate Change Resiliency). U-INSPIRE is a platform of youth, young scientists, and young professional to discuss, network, collaborate, coordinate and mobilize themselves to use their SETI knowhow and experience to work on disaster risk reduction and building resiliency to supports the achievement the targets of the Sendai Framework for Disaster Risk Reduction (SFDRR).

Following the Asia and the Pacific Regional Workshop on Strengthening, Empowering, and Mobilizing Youth and Young Professionals in SETI for DRR in Indonesia on November 2018, organized by UNESCO office Jakarta, the International Center for Interdisciplinary and Advanced Research of the Indonesian Institute of Sciences (ICIAR LIPI), U-INSPIRE, with the support of UNDRR and UNMGCY, the U-INSPIRE started to emerge and proliferate in Asia.

Facilitated by UNESCO office Islamabad, youth and young professionals Pakistan established the U-INSPIRE Pakistan. UNESCO office Almaty facilitated the establishment of U-INSPIRE Central Asia called Dacryn, covering Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. Youth and young professionals in the Philippines launched U-INSPIRE Philippines. Youth and young professionals in Nepal established the U-INSPIRE Nepal. India established the Confederation of Risk Reduction Professionals (CRRP) also known as U-INSPIRE India. In October 2019, youth and young professionals in Malaysia officially launched their U-INSPIRE Malaysia hosted by SEADPRI UKM.

At the Global Platform for DRR (GPDRR) in Geneva May 2019, U-INSPIRE organized Ignite Stage that created a high-profile platform for the acknowledgement of this youth and young professionals’ initiatives.

UNESCO Regional Sciences Bureau for Asia and the Pacific organized a coordination meeting among these U-INSPIREs in September 2019. Attended by 24 participants representing U-INSPIRE India, U-INSPIRE Indonesia, U-INSPIRE Central Asia, U-INSPIRE Malaysia, U-INSPIRE Nepal, U-INSPIRE Pakistan, and U-INSPIRE Philippines, they agree to position themselves for a stronger cooperation through the Asia Pacific Youth and Young Professionals Alliance in Science, Engineering, Technology, and Innovation for Disaster Risk Reduction and Climate Change (U-INSPIRE Alliance) as the Jakarta Declaration. At the same time, Afghanistan youth and young professionals also established U-INSPIRE Afghanistan.

In December 2019, the Institute for Disaster Management and Reconstruction (IDMR) of Sichuan University in Chengdu, China organized National and Regional Youth and Young Professionals Collaboration in SETI for DRR and CC inviting the 8 U-INSPIREs. This workshop provided an opportunity for the U-INSPIREs to discuss the organization and structure of the U-INSPIRE Alliance as well as inspired Thailand, Japan, Maldives, and China to establish U-INSPIRE in these countries. The workshop also links U-INSPIRE with other regional platforms especially with the African Youth Advisory Board on Disaster Risk Reduction (AYAB-DRR).

There are eleven U-INSPIREs established in Asia (Afghanistan, China, India, Indonesia, Japan, Malaysia, Maldives, Nepal, Pakistan, Thailand, and the Philippines) and one sub-regional U-INSPIRE in Central Asia, covering four countries Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. There is no one model of the U-INSPIRE. Each U-INSPIREs has its own characteristics, programme and activities. U-INSPIRE will be different country to country. Potential candidate U INSPIRE can create their own plans for the respective networks, taking the established U-INSPIREs as references.
The timeline below shows just how much activities have happened in a short space of time.

The remaining pages of this part of the toolkit will go into detail about the journey of establishing these U-INSPIRE National platforms as well as the U-INSPIRE Alliance.
THE U-INSPIRE Logo

The design of the U-INSPIRE logo represents the platform. The word U-INSPIRE is the abbreviation of Youth and Young Professionals on Innovation, Science, and Technology Platform for Disaster and Climate Change Resiliency. The logo should be read as “U” “INSPIRE” pronounced “You Inspire”.

There are two logo styles: square and landscape. Each part of the logo has its own meaning.

While the U-INSPIRE logo was originally developed by U-INSPIRE Indonesia, it was agreed that the same logo should be used by all countries to show consistency with the country name added at the bottom of the logo as shown below:

There are also instances where a platform may already have another logo or name because of how it was established. For example U-INSPIRE Central Asia is also known as the Disaster and Climate Resilience Youth Network (DACRYN) and U-INSPIRE India is also known as the Confederation of Risk Resilient Professionals (CRRP). In these examples, both networks use the U-INSPIRE logo as well as their other logos to show that these entities are part of the U-INSPIRE network.
U-INSPIRE Indonesia

Established: 20 May 2018
Launched: 3 November 2018

Who we are
U-INSPIRE Indonesia, registered as a Not-for-Profit Association, is managed by one Lead, an Internal Affairs Coordinator, five Co-leads, four working group coordinators, and Internal Management Team and Advisors. All members are working on a voluntary basis. Our platform has four Working Groups: (1) Knowledge Management, (2) Innovation Room, (3) Science Communication, (4) Advocacy and Networking. Members may join any working groups or projects based on their own interest/expertise.

Our members are youth and young professionals between 16-40 years who are working on SETI for DRR. As of October 27, 2019, our members have reached 188 persons (43% female) with various fields of expertise and professions spread in 22 provinces of Indonesia and abroad.

Our Vision:
"Indonesian youth and young professionals as the generator of innovation in science, engineering, and technology for disaster resilience at national and global levels."

Our mission

- The focus of U-INSPIRE Indonesia is to trigger collaboration and bridge the gaps between the world of researchers with government, practitioners, and the public/communities as well as across different disciplines and institutions.
- U-INSPIRE Indonesia aims to support DRR policy and action with SETI through advocacy, knowledge management, as well as risk and science communication.

U-INSPIRE Indonesia’s flagship activities:
1. FAQ Factsheets infographics following significant disaster events.
2. Series of knowledge management and science communication activities.
3. Hackathon series.
4. U-INSPIRE Xperience
5. Global YYP SETI for DRR Champion Camp

Our recent activities
- Science and risk communication and sharing in workshops, lectures, festivals, such as those held during the 6th Annual Disaster Scientific Research Meeting 2019 and The Power of Women’s Leadership in DRR 2019
- Data Acquisition and Risk Information, e.g. designing contents and installing Lembang Fault information board and drone video, emergency data acquisition by UAV in Lombok and Ambon
- Advocacy and Networking, e.g. providing SETI inputs for Resilient West Java Provincial Master Plan, presenting at the Global Platform of Disaster Risk Reduction (GPDRR) in May 2019
- Supporting YYP for establishment of platforms similar to the U-INSPIRE platforms in different countries
- Monthly Member’s Spotlight, where the profiles of two selected members who have been active in U-INSPIRE as well as external SETI for DRR activities are shared in the U-INSPIRE WhatsApp Group and Instagram
- Knowledge Management through WhatsApp Lecture Series (KulWap), Reporting and Newsletter.

What led to our achievements
- Same vision, passion and friendship built amongst the members
- Skills in networking
- No seniority or any hierarchical relationship
- Flexibility
- Living in a disaster prone country with different types of disaster motivates us to utilize our SETI to find innovations for DRR. These real disaster events give the members valuable experiences to apply in their SETI initiatives.

The challenges we have
- Managerial challenge, with limited resources, strict schedule, resource management and priorities with professional or family life
- Maintaining knowledge management system
- Combining ideas from different expertise, background and perspectives
- Geographical challenge – members are spread in different cities, some with different time zones.
- The need of a dedicated professional and passionate core team, and better business management for sustainability.
U-INSPIRE Pakistan

Established: 22 February 2019
Launched: 22 February 2019

Who we are
U-INSPIRE Pakistan is centrally-housed at NED University of Engineering & Technology, Karachi (U-INSPIRE.neduet.edu.pk). We encourage youth and young professionals from around Pakistan to get involved and showcase their DRR related works. The members collaborate with each other and seek opportunities to get involved and plan activities to be conducted in the country that promotes youth towards SETI for DRR. Pakistan Youth and Young Professionals can participate in their areas of interest which includes research, advocacy and science communications.

Our recent activities
• Expanding the platform to bring more opportunities.
• Conducting awareness activities such as Earth Day 2019 and Shakeout 2019.
• Attracting youth and get them involved in DRR.
• Working with partners such as WWF and National Disaster Management Authority to initiate projects which support the SDGs involving the youth and young professionals.

What led to our achievements
• Recognition from National Disaster Management Agency and the National Disaster Risk Management Fund (NDRMF) of Pakistan enable opportunities for active participation in policy making.
• Existing under the umbrella of NED University, U-INSPIRE Pakistan receives lifetime support from the university.
• Some of the U-INSPIRE members are also a members of the Youth Parliament.
• Collaboration with other universities at national level.
• The platform has also proved to assist researches to remove hurdles in their research and having opportunities to collaborate with piers

The challenges we have
• Involving more youth to join with the aim of generating a wide range of ideas on activities to promote SETI in DRR.
• Developing partnerships with other organizations for long term sustainability (i.e. UNDP)

U-INSPIRE Central Asia

(Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan)

Established: 14 March 2019
Launched: 14 March 2019

Who we are
U-INSPIRE Central Asia started with a workshop hosted by UNESCO Almaty that gathered youth from Central Asian countries (including Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan). The workshop agreed on strengthening the capacities and involving youth and young professionals in science for DRR and recommended to establish the U-INSPIRE Central Asia.

U-INSPIRE Central Asia covers 4 countries: Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. This is unique compared to other U-INSPIREs as the platform members are from different countries. This structure was set up to foster regional cooperation between countries in disaster management because of relevance and issue of transboundary natural disasters.

U-INSPIRE Central Asia has three focus areas: Capacity building of youth; DRR advocacy in higher education; and increasing communities’ awareness. The platform has one lead with four national focal points and an advisory board. The advisory board serve as mentors and experts in guiding the tasks of the platform. The lead is responsible for platform development and coordination; strengthen the coordination at the regional and global levels; as well as communication between national focal points and stakeholders at the regional level. The National Focal Points work on implementation of activities within focus areas of the network at the national level.
Our recent activities

• Capacity building of youth aimed at building and developing the scientific and practical potential of youth, students and young researchers in the areas of DRR and CCA.

• DRR advocacy in higher education involves young scientists and students to research the natural hazards and proposes policies in DRR in Central Asian region. This component aim to mainstream DRR in higher education and the development of DRR as an interdisciplinary course or module in universities of the region.

• Increasing communities’ awareness aimed at enhancing interaction and development of the capacities of the media in the field of communication in DRR, as a tool to improving the preparedness of communities living in disaster-prone regions.

What lead to our achievements

• The young members who contribute their individual experiences and foster regional cooperation in tackling transboundary natural disasters.

• Our advisory board consisting of national, regional and international scientists and specialists supporting U-INSPIRE Central Asia work more efficiently and focus on real problems.

The challenges we have

• Lack of science for DRR, while DRR concept is not popular nor science applied in disaster management.

• Mainstreaming of DRR in higher education as universities still lack DRR specialists and training modules.

U-INSPIRE Nepal

Established: 11 May 2019
Launched: To be confirmed

Who we are

U-INSPIRE Nepal is hosted collectively by the Himalayan Risk Research Institute (HRI), the National Society of Earthquake Technology (NSET), Youth Innovation Lab (YI-Lab), Institute of Himalayan Risk Reduction (IHRR), Youth Alliance for Environment (YAE), and Centre for Disaster Studies(CDS), IoE, and Tribhuvan University.

We are managed by one lead and six co-leads and two senior advisors. The lead is responsible for conducting meetings, facilitating / monitoring / reporting all activities and channeling ideas, opportunities and networking. The co-leads have a similar role with specific impact working groups to implement the activities at grassroots level. The initiative now has 53 members which is increasing. Individual members are mobilized for activities by the leads to engage more participants and reach a wider impact. U-INSPIRE Nepal functions in the spirit of volunteerism.

Our Activities

• Facilitating young students/scientists in DRR for data collection, research design and scientific publications.

• Organize online meetings for cross institutional collaborations and idea pitching.
U-INSPIRE Malaysia

Established: 11 July 2019
Launched: 15 October 2019

Who we are
U-INSPIRE Malaysia is hosted by Universiti Kebangsaan Malaysia's Southeast Asia Disaster Prevention Research Initiative (SEADPRI-UKM), under the auspices of the Asian Network for Climate Science and Technology (ANCST), in collaboration with NADMA Malaysia and the Malaysian National Commission for UNESCO. The platform and all its activities are open to all youth and young professionals in Malaysia, not limited to scientists who involved in science-based, but also includes scientists in social sciences and other humanities and art fields. U-INSPIRE Malaysia defines youth and young professionals as persons aged between 18 - 40 years old who graduated, have an independent profession with interest in the DRR and climate change. The person should also grow their personal and professional networks, build skills and be involved in the community.

What led to our achievements
The first inception meeting of U-INSPIRE Nepal in May, 2019 was successful in bringing together youth and young professionals from multiple organizations working in SETI for DRR in Nepal, under a single platform. It connected young participants from government and non-government organizations. Synergy with research institutes and universities working specifically in the niche of SETI for DRR was crucial in pushing forward the establishment and growth of the organization. The spirit of volunteerism and extensive support from multiple organizations- HRI, NSET, YI-Lab, IHRR, CDS and YAE have strengthened our efforts and the outreach initiative.

The challenges we have
• Cross-institutional collaboration is challenging, especially when finding the niche for each organization or individual expertise for projects
• Long term funding for U-INSPIRE secretariat, the functioning structure and activities.
• Formalizing U-INSPIRE Nepal as DRR practitioners’ consortium of YYP in multiple organizations working in DRR sector in Nepal.

Collection and documentation of stories of re-construction after the 2015 Gorkha earthquake.
• National YPP in SETI for DRR Hackathon.
• Inspiring DRR Photography Award.
• Mapathon- digitally mapping flood prone communities of Southern Nepal.
• A joint research on the simulation of a large landslide in Northern Pakistan is ongoing with U-INSPIRE Pakistan.
• Other planned potential activities: Disaster Factsheets; Disaster rapid response data collection; and International conference on youth and young professionals in SETI for DRR.
Our Vision
To empower the role of Malaysian youth and young professionals in science, engineering, technology and innovation, to build towards disaster resilience at the national, regional, and global levels.

Our Objective
To support national DRR and Climate Change (CC) initiatives by strengthening the partnerships, interaction, networking, communication, discussions, and the sharing of best practices and lessons learnt among the YYP on SETI.

Specific Objectives:
1. Mobilise and increase awareness among youth and young professionals in SETI for DRR and CC at the national level through existing and ongoing scientific research for evidence-based implementation, and encourage engagement of youth and young professionals from diverse regional and global representation;

2. Facilitate collaboration between youth and young professionals with other groups, such as community actors and policy makers at national level in promoting science-policy interfacing, especially on identification of knowledge gaps in DRR and CC, and recommendations of good practices at the national level, in collaboration with universities, research organisations, NGOs and the private sectors; and

3. Provide a repository for highlighting of youth and young professionals contribution on DRR and CC knowledge development at the national level.

What led to our achievements
Among the key success factors is to leverage the linkages with the existing national, regional, and global youth and young professionals’ network with the senior renowned scientists.

The challenges we have
Our main challenge is securing resources to support our long term activities.

U-INSPIRE Philippines
Established: 20 August 2019
Launched: 2 October 2019

Who we are
U-INSPIRE Philippines was launched on October 2019. U-INSPIRE Philippines is composed of five sub-chapters: U-INSPIRE Luzon based in the University of the Philippines Los Baños (UPLB); U-INSPIRE Metro Manila in the Makati City Disaster Risk Reduction and Management Office (DRRMO); U-INSPIRE Visayas in Leyte Normal University; U-INSPIRE Mindanao in the Mindanao State University – Iligan Institute of Technology; and U-INSPIRE Offshore based in Nagasaki University in Japan. Having five sub-chapters enhanced the participation of the Filipino youth in different parts of the archipelago, as well as of members currently studying or working outside the country. Having sub-chapters also allow customized activities to address the various DRR issues confronting the Filipino youth in different parts of the Philippine archipelago.

U-INSPIRE Philippines is composed of a President, five Vice Presidents, a Secretary, a Treasurer, and an Auditor. The five Vice Presidents are incharge of organizing sub-national activities. All coordination processes are done through the Facebook groups. There is one Facebook group for the officers and another Facebook group for all the members. At the moment we already have more than 150 members.
Our recent activities
Recent activities of U-INSPIRE Philippines include youth strike for climate, coastal clean-up, and mangrove planting in Mindanao.
Conference on DRR and CCA and sending representative to international events.

What led to our achievements
• Having active volunteers based in the top national and regional universities was instrumental in establishing and running U-INSPIRE Philippines.
• Having supportive mentors is also a huge factor in getting U-INSPIRE Philippines to expand rapidly.
• The acceptance in integrating U-INSPIRE Philippines aspirations to supporting the implementation of the Sendai Framework for DRR into existing DRR programs, projects, and plans.
• To piggyback on existing activities that can accommodate the participation of or collaboration with U-INSPIRE Philippines.
• Encouraging our members to go for low-hanging fruit and hold activities that do not need a big budget.

The challenges we have
• The main challenge is to secure resources to the planned national and subnational activities.
• To sustain the interest of the members to regularly organize different activities.
• To recruit more members once the organization is officially recognized as an NGO and to build networks to secure support from donors and other stakeholders.

U-INSPIRE India
Established: 29 August 2019
Launched: To be confirmed

Who we are
The Confederation of Risk Resilient Professionals (CRRP) is the U-INSPIRE India. CRRP registered as a section -8 company equivalent to a not for profit organization. We were established based on a multicity consultation meeting of youth and young professionals. The CRRP / U-INSPIRE India was formed to create a platform for the youth and young professionals to promote practical application of science, engineering, technology and innovation (SETI) for disaster risk reduction to make India disaster resilient. India being a multi-hazard-prone country, the role of youth and young professionals needs to come in the forefront to further science and technology integration into risk reduction and climate change initiatives leading to local solutions. We are establishing chapters in different states of India like Gandhinagar (West), Delhi (North), Kolkata (East), and Bengaluru (South) in the first phase.

CRRP / U-INSPIRE India is a membership - based organization with a three-tiered hierarchy: a working committee; group of mentors; and thematic heads. All working committee members were elected. Two students’ representatives is part of the working committee each year. The working committees are involved in running the daily activities, networking, exploring various pathways to outreach and engage youth and young professionals in DRR. The Mentors handhold with the working group and thematic groups and provide necessary directions for various activities. The thematic group works on specific topics for conducting training, research and outreach programs.

Our recent activities
Holding sessions with young disaster management professional across India. Our potential activities covers but are not limited to: Webinar/podcasts; University outreach; Evidence-based research projects; and Hackathons

What led to our achievements
• A large group of motivated disaster professionals working at various levels and capacities who want to contribute to this forum.
• Support from international disaster community and professionals.
• The work done in establishing India university network

The challenges we have
• Recognition by the government agencies and involving the members actively to support policy advocacy, response and other related works.
• A source of funding for taking up various activities
• An interest among young professionals to contribute to the field of disaster management
U-INSPIRE Afghanistan

Established: 13 October 2019
Launched: 13 October 2019

Who we are
U-INSPIRE Afghanistan was established in October 2019 after participating in several UNESCO Youth and Young Professionals activities in Jakarta. The Afghanistan National Disaster Management Agency provided the initial support and coordination for the establishment of U-INSPIRE Afghanistan.

While it’s still being established, we anticipate it will have an executive panel and the leading of the executive panel will be periodic.

What led to our achievements
• Our key success factor is the support of a high official, Minister for Disaster Management
• The presence of U-INSPIRE Afghanistan leverages institutional coordination and collaboration.

The challenges we have
• Continuous support from Afghanistan National Disaster Management Agency
• Positioning within the DRR society of Afghanistan
• Getting support from international organization and institutions.

U-INSPIRE Japan

Established: 3 December 2019
Launched: To be confirmed

Who we are
U-INSPIRE Japan was established to strengthen linkages and collaboration among young DRR volunteers, young professionals, and young researchers. There are already a large number of DRR initiatives implemented by various stakeholders in Japan, however, we had limited opportunities of sharing our knowledge and experiences. Taking this situation into account, we put emphasis on bridging members from different communities, disciplines, and skills to enhance mutual learning, rather than starting new initiatives from scratch which potentially overlap with existing initiatives. Expected change includes student volunteers will enhance their activities by applying science-based assistance and young professionals and researchers to be exposed to broader DRR communities aside from their expertise. Currently, we have around 20 active members from bachelor/graduate students, research institution officers, DRR consultants, as well as assistant professors, etc. In the future, we would like to extend our activities to connect motivated high school students to young professionals, organize annual assembly, and create local DRR youth community in Japan.

Our recent activities
• Day-to-day information exchange through online platforms (slack, skype, and LINE)
• Develop story-book of the members which introduces motivation, interest, and experience of U-INSPIRE Japan members.
• Organize webinar to share members’ current activities and studies.

What lead to our achievements
• Involvement from different fields of expertise allows members to have stimulating discussions.

The challenges we have
• Providing clear incentives to the members of U-INSPIRE Japan, especially for those who are working as full-time professionals.
• Distant location of members makes face-to-face meeting among members difficult.
Who we are

On December 6, 2019, the 2nd Regional Workshop, entitled “International Workshop for Youth and Young Professionals in Disaster Risk Reduction Research: Mobilizing Youth Through International Collaboration”, was held at the Institute for Disaster Management and Reconstruction (IDMR), Sichuan University. As a fruit of the successful workshop, the Huaxia Network of Youth and Young Professionals for Disaster Risk Reduction was established at IDMR with the support of Professor Gretchen Kalonji, Dean of IDMR. Activities of U-INSPIRE in China will be coordinated through the Huaxia Network.

Huaxia (华夏), an ancient name for China, is culturally inclusive and connotes deep links with the Chinese nation and civilization. In its initial stages, the Huaxia Network focuses on promoting collaboration among young professionals in China on efforts in disaster research, disaster education, disaster social service, and policy. The Huaxia Network aims to actively participate in the activities of the U-INSPIRE alliance, as well as with other national and global bodies relevant to youth in disaster risk reduction response. For convenience, we refer to our working collaborations with the greater U-INSPIRE family as U-INSPIRE Huaxia. In Chinese, it is referred to as 有思派华夏 (yǒu sī pài huá xià). 有思派 (yǒu sī pài) is a homophone of U-INSPIRE and roughly translates as “collective participation of youth with thoughts”.

Our Recent Activities

The Huaxia Network has been engaged in DRR innovations and solutions since its establishment in December 2019. In response to the current COVID-19 pandemic, and in collaboration with the Sichuan University medical school, the Huaxia Network contributed to sending successive teams of doctors and nurses, including IDMR alumni, to the COVID-19 frontlines in China and Ethiopia. On February 2, it founded the U-INSPIRE COVID-19 Study Group online, for sharing the latest interdisciplinary research and information on the new deadly coronavirus and for supporting further research on the topic by youth and young professionals. As a result, the study group has submitted four journal articles and two patent applications for a non-contact thermometer and a smart wristband for online education.

What Led to our Achievements

• The Huaxia Network enjoys the benefit of being embedded in a highly interdisciplinary and international disaster research institute, which is itself part of a major comprehensive research university, with multiple strengths and experience in disaster.

• In particular, our collaborations with Sichuan University’s outstanding medical school, which has been designated by the WHO as a Type 3 (highest level) International Emergency Management Team, has offered extraordinary opportunities for our youth, both in China and abroad.

• IDMR has been recognized nationally by China’s Ministry of Education, as the host of the “National Education and Training Base for Youth in Disaster Risk Reduction”, providing a platform for short-term training for thousands of youth from throughout China.

• IDMR also now hosts, in collaboration with the Sichuan Province Department of Emergency Management, a provincial key laboratory entitled the “Research Center for Integrated Disaster Risk Reduction and Emergency Management”. This key lab provides a platform for disaster research for youth and young professionals at the provincial, national, and global levels.

• Lastly, the Huaxia Network benefits from many existing global collaboration and leadership roles with other universities, research institutes, and international organizations, which share with us strong interests in youth and disaster research.

The Challenges We Have

• A critical challenge is how to best coordinate the efforts of the Huaxia Network with other U-INSPIRE bodies, with the U-INSPIRE alliance, and with other international partner initiatives.

• We need to further refine our organization structure and leadership responsibilities of the Huaxia Network and to strengthen coordination with other initiatives and institutions in China.

• We need to strengthen our publicity and fund-raising activities.
U-INSPIRE Thailand

Established: 20 February 2020
Launched: To be confirmed

Who we are
U-INSPIRE Thailand was established with the aim to strengthen the disaster risk reduction capacity and capabilities for youth and young professionals in Thailand. It started with a group of like-minded youth who share a similar vision of the critical role of young generations in Disaster Management (DM), Disaster Risk Reduction (DRR), and Climate Change Adaptation (CCA). It aims to ensure engagements and encourage practical actions to promote DRR and CCA in the long run, building capacity to YYP in SETI for DRR and CCA, mainstreaming DRR and CCA in higher education, and raising YYP community awareness on DRR and CCA policies and programs. Our current programs work on conducting DRR and CCA training programs, advocating DRR theme into existing youth platforms, and supporting DRR research programs.

Our Vision
Our vision is to inspire youth and young professionals in Thailand to lead and promote science, engineering, innovation, and technology in disaster risk reduction and climate change adaptation at the national, regional, and global levels.

Our Objectives
• Increase the number of youth and young professionals with SETI background on DRR.
• To promote DRR in the Higher Education Sector.
• Narrow the gap between youth and young professionals having scientific knowledge and background with the local communities.

What led to our achievements
We have support from National Disaster Management Authority, Thailand National University and massive support from U-Inspire Alliance team.

The challenges we have.
• Mainstreaming of DRR in Higher Education as universities still lack DRR courses and training modules.
• Increasing interest of youth with a science background to take part in DRR activities.

U-INSPIRE Maldives

Established: 1 February 2020
Launched: To be confirmed

Who we are
The discussion on the establishment of the U-INSPIRE Maldives chapter discussion started between two young professionals from the Maldives, who took part in the International Workshop for Youth and Young Professionals in Disaster Risk Reduction held by the Institute for Disaster Management and Reconstruction (IDMR), Sichuan University in December 2019. From the discussions held between the two young professionals, it became clear that the Maldives, being a small island nation with limited resources, is very much in need of assistance from international collaborators to enable young scientists and professionals with scientific knowledge to become actively involved in DRR activities. Hence, a platform such as U-INSPIRE will provide a great opportunity for young Maldivians to establish links between young scientists, policymakers around the globe, and will provide a great avenue for knowledge exchange and participation in interdisciplinary, transboundary and international discussions held by U-INSPIRE platforms.

Our Vision
To empower Maldivian youth and young professionals in Science, Engineering, Technology and Innovation (SETI) in DRR field for a resilient Maldives.

Our Objectives
• Increase the number of youth and young professionals with SETI background on DRR.
• To promote DRR in the Higher Education Sector.
• Narrow the gap between youth and young professionals having scientific knowledge and background with the local communities.

What led to our achievements
We have support from National Disaster Management Authority, Maldives National University and massive support from U-Inspire Alliance team.

The challenges we have.
• Mainstreaming of DRR in Higher Education as universities still lack DRR courses and training modules.
• Increasing interest of youth with a science background to take part in DRR activities.
With the growing establishment of National platforms for YYP in SETI for DRR, it has become important to consider the mechanisms needed at a regional level to effectively support collaboration, sharing of ideas and lessons learned between national platforms, addressing transboundary DRR issues as well as implementing transnational programme, project, or activities. A useful way of strengthening, empowering and mobilizing YYP in SETI for DRR is to establish regional alliances between national platforms.

On the 21st of September 2019, Youth and Young Professionals representing eight U-INSPIREs (Afghanistan, India, Indonesia, Central Asia, Malaysia, Nepal, Pakistan and the Philippines) agreed to formally launch the Asia Pacific U-INSPIRE Alliance signed as the Jakarta Declaration at the UNESCO Jakarta Office. The Regional workshop on National and Regional Youth and Young Professionals Collaboration in SETI for DRR organized by the Institute for Disaster Management and Reconstruction (IDMR) of Sichuan University in Chengdu in December 2019 facilitated the youth and young professionals in outlining the organization and structure of U-INSPIRE Alliance. At present eleven National Chapters and one sub regional chapter representing four countries as member of the U-INSPIRE Alliance.

**What is U-INSPIRE Alliance.**

U-INSPIRE Alliance is an Alliance of youth and young professionals’ platform in Science, Engineering, Technology and Innovation (SETI) to accelerate the implementation of Disaster Risk Reduction (DRR) and Climate Change in line with SDGs and the Sendai Framework to support DRR policy and action at local, national and international levels.
U-INSPIRE Alliance Vision.
A strong coordination and collaboration for empowering Youth and Young Professionals in Science, Engineering, Technology and Innovation in Disaster Risk Reduction at the Global Level.

U-INSPIRE Alliance Missions.
• Bringing the Voice of Youth & Young Professionals in SETI for DRR.
• Creating and Endorsing Space for Youth & Young Professionals to empower their role in SETI for DRR.
• Bridging science for practical implementation: Leveraging Disaster Data Literacy and development of Open Innovation and Creative Problem Solving.
• Science Policy Interface with Youth and Young Professionals as the Medium.

U-INSPIRE Alliance Aims.
• Connect Asia and the Pacific Youth in SETI for DRR.
• Get regional and global recognition as a youth platform contributing to SFDRR.
• Address transboundary DRR issues.
• Become a catalyst in providing fuel and engine to U-INSPIREs.
• Ensure strong collaboration between each U-INSPIREs / YYP SETI DRRM Platforms regionally and globally.

Membership.
• Members of the U-INSPIRE alliance are the representatives from U-INSPIRE national platforms. Representatives of the National platforms become the member of the U-INSPIRE Alliance Assembly. There is no individual membership to the U-INSPIRE Alliance.
• Members’ participation in the U-INSPIRE Alliance is voluntary in nature, and upon endorsement / approval / recommendation of the U-INSPIRE Chapter (national or regional). Assignment to U-INSPIRE Alliance is in accordance to each chapter’s internal regulations, mechanism, and legal standing / presence in each respective country.

Governance.
• U-INSPIRE Alliance is a form of network founded by U-INSPIRE National Chapters (national / regional) in the spirit of mutual trust and global partnership for the application of SETI for DRR.
• U-INSPIRE Alliance is governed by an Assembly and a Secretariat for the daily operations of the U-INSPIRE Alliance. U-INSPIRE Alliance Assembly is led by a Chair and two Co-Chairs, and U-INSPIRE Secretary General that are deliberated through a consensus building process by the U-INSPIRE Assembly members.
• A Core Team, Task Team, or Working Groups for daily operations and implementation of activities of the U-INSPIRE Alliance can be formed, on a need basis, by the Secretary General upon approval from the U-INSPIRE Alliance Assembly.

• Working Groups are thematic grouping based on the vision, mission, and core businesses of U-INSPIRE Alliance, and to be operational in a longer duration, ideally within the same cycle of the Secretary General. A Working Group is coordinated by individuals from the U-INSPIRE Chapter.
• A Task Team may be formed by the Secretary General for delivering a specific product or services, in a short amount of time.
• U-INSPIRE Alliance has an Advisory Board composed of mentors. Each U-Inspire National Chapter may propose an individual, either acting independently or as a representative of an entity/organization, to become a Mentor as part of U-INSPIRE Alliance Advisory Board.

Structure of U-INSPIRE Alliance.
As of 18 March 2020, U-Insipre Alliance comprises of the following Working Groups and Task Teams:
1. Working Group on Transboundary issue of DRR.
2. Working Group on Social-entrepreneurship in SETI for DRR.
3. Working Group on Knowledge management on science and technology of DRR.
4. Working Group on Science Communication and evidence-based advocacy for DRR.
6. UA Task Team for Covid19.
U-INSPIRE Alliance Program.
• Connect Youth & Young Professionals in SETI for DRR in Asia Pacific Framework.
  1. Promote sustainability of YYP in SETI for DRR Regional network (eg. U-INSPIRE Alliance).
  2. Encourage participation of YYYP in SETI for DRR at the Regional and National Levels
  3. Promote Development of partnership between Youth and Young Professionals and DRR related organizations / agencies / institutions in Asia Pacific.

• Promote dialogue, capacity building and networking on DRR
  1. Mobilize and empower Youth and Young Professionals.
  2. Engagement in Regional and Global Events.
  3. Support Regional Joint-activities on capacity building and networking for YYP in SETI for DRR.
  4. Promote Engagement of Higher Education institutions in Building DRR related capacity of Youth and Young Professionals.
  5. Promote the career development of youth and young professionals in Asia and the Pacific that work in Science, Engineering, Technology, and Innovation for Disaster Risk Reduction.

• Promote Innovation in
  1. Risk and Science Communication.
  2. Citizen Science.
  3. Low-Cost and emerging Technology.
  4. Integrate traditional, indigenous and local knowledge and practices.
  5. Transboundary, small island and remote area issues.
  7. DRR related Public Health and Medical Emergency.

• Promote access to DRR information, data and technology
  1. Promote accessibility to data, information and technology in DRR for all.
  2. Optimization of the use of data, information and technology for DRR.

• Monitoring and Evaluation
  1. Collect information on Youth and Young Professionals implementation of SETI in DRR.
  2. Contribute to the Science Technology APSTAAG UNDRR report.

U-INSPIRE Information and Contacts.
U-INSPIRE Alliance
Website: www.uinspirealliance.org (under development)
Email / Contact: uinspire.alliance@gmail.com
Social Media:
  • https://www.instagram.com/uinspire.alliance/
  • https://www.facebook.com/uinspire.alliance/
  • https://twitter.com/UInspireA

U-INSPIRE Afghanistan
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DACRYN (U-INSPIRE Central Asia)
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U-INSPIRE HUAXIA (China)
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  • https://twitter.com/uinspire_id
  • https://www.facebook.com/uinspire.indonesia

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U-INSPIRE The Philippines
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Email / Contact: uinspire.the philippines@gmail.com
Social Media:
  • https://www.facebook.com/groups/330207821264905/

U-INSPIRE Thailand
Website: https://sites.google.com/view/u-inspirethailand/ (under development)
Email / Contact: uinspire.thailand@gmail.com
Leveraging global, regional, or national events as a platform

Alliance is not the only way for YYP in SETI for DRR to be part of global initiatives or contribute to global policy discussions. National platforms can also make connections directly with global platforms for DRR or international organizations such as UNESCO or UNDRR.

Participation or attendance in global or regional events can provide useful opportunities to showcase successful activities and initiatives being led by Youth and Young professionals in this space. These events can also provide the space for YYP to network and consult with a range of peers and experts from different regions of the globe and in some cases, contribute their voice to global policy agendas. However, participating and attending all events will require resources. Therefore, as platform as well as members, we must select and decide what events to participate in to be able to take advantage the best opportunities.

GPDRR 2019

In May 2019 several U-INSPIRE members from India, Indonesia, Malaysia, Nepal and Pakistan attended the Global Platform for Disaster Risk Reduction (GPDRR) forum organized by UNDRR in Geneva. As part of the event, there were 8 official sessions which were specifically targeted at children and youth including:

- Children & Youth Forum
- Words Into Action Consultation
- Youth Meeting the Special Representative of the UN Secretary General for DRR and the head of UNDRR
- Building Resilience in Fragile Settings (side event)
- Town Hall on Youth in DRR -CCA
- Resilience Lab
- Young Scientist Strategy Meeting
- Mapathon & Participatory EWS puzzle for Mozambique
- Hack the Risk! Smart solution on water issues and flood
- The Resilience hack: being your problem and find a solution
- UNDRR Youth Action Plan
- Presentation by youth and young professionals in several sessions

U-INSPIRE also hosted the Ignite Stage session on "Humanizing SETI FOR DRR. The untold story from Indonesia, Pakistan and beyond" (https://www.youtube.com/watch?v=cS6wTOvndWM)

Sendai Framework Voluntary Commitments

The Voluntary Commitments initiative, was developed in response to the General Assembly resolution 68/211 (2013) and launched in the lead-up to the World Conference for Disaster Risk Reduction (WCDRR) in March 2015 to support the development of partnerships at all levels to implement the Sendai framework (https://sendaicommitments.undrr.org/). Online platform launched in 2018 is operated by UNDRR.

Four voluntary commitments have been pledged by three U-INSPIRE National Chapters:

The Confederation of Risk Resilient Professionals (CRRP):
Commitment: Shaping Disaster Resilient India - An initiative to build the capacities of YYPs in DRM and CCA through University Networks (https://sendaicommitments.undrr.org/commitments/20191226_002)

U-INSPIRE Nepal
Commitment: Building Resilience Through Capacity Development of DRR Young Scientist in Nepal (https://sendaicommitments.undrr.org/commitments/20190209_001)

U-INSPIRE Nepal
Commitment: Paving the way for building Resilience in Nepal: An initiative to understand and assess risk through the use of frontier technology (https://sendaicommitments.undrr.org/commitments/20200613_001)

U-INSPIRE Indonesia
Commitment: Fostering Indonesian Youth and Young Professionals as the Generator of Innovation in Science, Engineering, and Technology for Disaster Resilience at National and Global Levels (https://sendaicommitments.undrr.org/commitments/20190830_001)
LOCAL ACTIONS OF YYP IN SETI FOR DRR
Shape for Better Community (SBC) is a Geospatial themed Hackathon contributing to Disaster Risk Reduction month in October 2019 that brings together a group of the most active individuals and communities who are developing, and using geospatial data in all its forms.

SBC is divided into two stages, Pre event and Main Event. In the pre-event, SBC participants met for a period of three days for discussions, workshops and field trips around the geospatial theme with the goal of giving creative solutions to urban flooding and earthquake in West Java. While in the main event, they will be given the last 24 hours to make their prototype ready.

Who were involved.
A diverse group of over 56 scientists, engineers, entrepreneurs, artists, educators and not-for-profit organisations from cities in Java Island.

How did we do this.
As a follow up from meeting with UN agencies that was hosted by UNESCO Office Jakarta in April 2019, UNICEF Indonesia and U-INSPIRE agreed to collaborate on a geospatial Hackathon in line with the UNICEF-UNITAR GIS Training. We are looking for practical solutions that may take on different forms such as the software/apps solutions, data visualization solutions and Integrating established open disaster platforms

Key success factors.
Beside creative thinking and highly focused organization, fund is one of the success factors. Without generous donors it is difficult to succeed; a lot of small details need to be taken care of and it all came with a price.

Challenges.
• Small time frame from ideation to execution
• Limited number of persons to organize the event
• Lack of sponsors and donors who have similar mission
• Creative thinking solution for Disaster Risk Reduction

Opportunities.
• A lot of new network is open for U-INSPIRE to collaborate with.
• Triggered all participants to think about pre disaster and discussions are still being continued in our Whatsapp Group. Hopefully it will be sustained.
• U-INSPIRE got a lot of new members from the hackathon.
World Earth Day Celebration Creating Awareness with Fun

Submission by: Shoaib Ahmed, U-INSPIRE-Pakistan

Activity.
Earth accommodates water, air, crop, and all necessities which are vital for life here on. These resources are no doubt limited to some extent and needs to be preserved and used with care. With increased frequency of disasters, both natural and man-made, it is important to preserve these resources. The celebration of Earth Day was an awareness campaign for a week during which three main conservation activities were undergone and youth was made to understand and realize how they can contribute.

Who was involved.
Young students of university level (age group 18-24) were involved in activities physically and the message was disseminated through their own video testimonials via Facebook and university website in the city.

How did we do this.
The following were the impactful activities organized throughout that week in the university.
• No-Money Water: youth need to earn water by physical efforts not by money.
• Re-Cycle, members of U-INSPIRE within 4km radius of the University pledged to commute through bicycles in for a week and measure the impact of conserving the resource by emitting carbon through various means. The impact was saving our planet from deterioration with 2839 kilograms of carbon emissions in only one week.
• Car-Washing Competition, to have an impactful realization of 5 liters of water in a bucket, a cloth and dirty cars.

Key success factors.
• The factors that lead to the success were the out of the box thinking and youth involving activities. No-Money water for example was a great idea and a thought-provoking participation.
• Registrations online and promotion via Facebook.
• The activities allowed the youth to get involved and perform the activity hands on.
• Presented in very informal manner and stall.

Challenges.
The biggest challenge was funding.

Opportunities.
Earth Day 2019 was an opportunity to expand further the U-INSPIRE membership and give confidence to the existing members.
Youth Community-based Enterprise Development (Youth C-BED)
Educators - Philippines
Submission by: Ginbert Permejo Cuaton, U-INSPIRE Philippines and Leyte Normal University, Tacloban City, Philippines

Activity.
The Central Philippines was heavily devastated by super typhoon Haiyan, locally known as Yolanda in November 2013. As a post-disaster response selected out-of-school youth (OSY) leaders were trained and commissioned as Community-based Enterprise Development (C-BED) educators who conducted capacity development trainings and seminars geared towards livelihood and economic recovery and rehabilitation in coastal, inland and upland communities affected by Haiyan.

Who were involved.
Twenty-five (25) OSYs were mobilized and trained as C-BED development educators for post-disaster livelihoods recovery and rehabilitation.

How did we do this.
After Haiyan, humanitarian and development organizations implemented livelihood recovery and rehabilitation projects aimed to foster entrepreneurship and create earning and resilient community-based enterprises providing stable income and continuous recovery of disaster survivors. In this light, entrepreneurship specifically in post-disaster context is regarded to be a pillar of local, rural livelihood and community recovery and rehabilitation. It is strategic to utilize the energy, creativity, hard work and perseverance of these youth by training and capacitating them to be C-BED educators.

Key success factors.
• A total of 783 rice farmers and tikog weavers from 14 community association that are legally registered with the Department of Labor and Employment (DOLE) of the Philippine government were reached.

Opportunities.
• Selecting OSY leaders as C-BED educators proved useful because their works on the field provided strategic inputs that improved the delivery of livelihood projects that are industry-focused and relevant, context-dependent and culture-sensitive.
• The mobilization and development of the youth helped in the timely delivery of seminars and trainings about enterprise management, computer and financial literacy, simple bookkeeping, gender sensitivity, and disaster preparedness and mitigation practices.
• Interestingly, being a C-BED educator helped the OSYs earn reasonable income while at the same time contribute in livelihood recovery and rehabilitation in their disaster-stricken communities. Being an OSY provided advantage to these youths because they are free to conduct seminars and trainings in far-flung communities any day of the week even on the weekends.

Lessons learned.
• The initiative and perseverance along with the support of humanitarian organizations enabled OSYs to earn and proactively contribute in post-disaster livelihood recovery and rehabilitation projects.
• Rising above the stigma attached to OSYs, development and humanitarian agencies should put high regard and train these youths to participate in disaster recovery activities.
• Adequate funding, and proactive and collaborative engagements of government agencies, non-government organizations, and private groups and individuals are needed to maximize the involvement of youths in DRR activities and projects.
Bringing Knowledge for Youth and Community to Reduce Hoax in Lombok

Submission by: Meliza Rafdiana, U-INSPIRE-Indonesia

Activity
The series of earthquakes on July 29th, August 5th, and August 19 2018 caused significant casualties and damages. The knowledge gaps and absence of scientific explanations on what happened generated distress, trauma and spread of hoax information. Communities were left confused on how to respond.

Accessing reliable information is in fact one of the basic needs in the recovery phase. People need to know the basic knowledge about the causes of natural disasters. Further, people need to access information on how to be prepared for the disaster, what things they should do and prepare, where and how they can get the right information and how to reduce anxiousness which can cause trauma. The most important thing is to use methods that are consistent with the local culture.

Who were involved
The youth and young generation of the survivors are not only able to support evacuation processes during earthquake. Youth and young people have a strategic position and capabilities to access and filter information, and serve as agents to distribute reliable information to the neighborhood.

How did we do this.
Disaster recovery includes not only physical infrastructure but also human well-being. This includes dissemination of user-friendly and child-friendly risk information and disaster preparedness messages and how to fill gaps of information from hoax to accurate and reliable information. This is a science-based communication action that translates science into public education that are needed in times of recovery after a disaster. This includes the information of mechanism of disasters that disrupts livelihood, and how to deal with the threat. Therefore it can reduce distress and trauma of people because they have the knowledge on what they need to do. Through knowledge-sharing approach with local youth and organization of young individuals. U-INSPIRE members with various backgrounds and institutions (BNPB, PUSGEN ITB, LIPI, BMKG, and others) were involved in science communication. This was done through dialogues with the community using local approaches and methods, i.e. local languages. Through this strong network, U-INSPIRE acquired necessary data to do recovery interventions through post-disaster education

Key success factors
1. The activity influenced our local partners to be a science communication agent to bridge the gap of information and help their neighborhood
2. The community get the right information from the right sources
3. Sustainable initiatives that are led by local youth groups and young generations that can be replicated in other community groups in shelters, through science communication
4. The collaboration and unity as well as self-help mechanism from local organization
5. Use of social media to broadcast key messages such as the "LOMBOK BANGKIT" (RISE UP LOMBOK) that went viral which drummed up support from various sectors. This resulted in a shift in paradigm and enlivened the spirit of the people of Lombok to be strong and build back during the recovery phase
6. U-INSPIRE continuously engage and maintain communication with its local partners to always update information
7. U-INSPIRE activity was registered in the national cluster (education cluster and shelter cluster) for Lombok post disaster management.

Challenge/Opportunities
The lack of confidence on the youth because of the perceived lack of capacity remains an issue. Skills to connect, engage and build network with different organizations. Youth and young professionals had a lots of energy, ideas, access and networking for moving independent in the positive ways, so it is possible for them to contribute something to DRR efforts, however small which can create a ripple effect.
Fact sheets - info graphics
Submission by: Nurul Sri Rahatiningtyas & Risye Dwiyani, U-INSPIRE Indonesia (Knowledge Management Working Group)

Activity.
The Facts-Sheet consists of a popular question that frequently asked by people in Indonesia related to disaster. The Fact Sheet team will try to find the answer and illustrated the answer with graph, so the answer will be easy to understand by common people. The answers were also validated by experts from national/international institution and the academe. U-INSPIRE Indonesia already published two Fact Sheets, i.e Lombok Earthquake fact Sheet and 2018 Tsunami and Eruption of Anak Krakatau fact sheet (https://uinspire.id/factsheets/). And We are still working on two other fact sheets, i.e Flash Flood fact sheet; and Earthquake, tsunami, and liquefaction in Central Sulawesi 2018.

Who were involved.
People/Community in disaster prone areas in Indonesia; experts from BNPB, BMKG, BPPT, LIPI, Ministry of Education and Culture, Ministry of Marine Affair and Fishery, ITB, UI, UNESCO, UNICEF; and U-INSPIRE Indonesia members.

How did we do this.
The development process for the Fact Sheets consists of the following steps:
• Collect FAQs from the public through interview or social media.
• Narrow down the list to 10-12 questions.
• U-INSPIRE team will find the answer by literature or through in-depth interview of experts.
• U-INSPIRE team will collect the answers.
• U-INSPIRE design team will illustrate the answer.
• The experts will review the answer.
• U-INSPIRE design team will edit the answer based on the experts’ review.
• Publish.

Key success factors.
• Commitments from U-INSPIRE team
• Support from the experts from National/International Institutions and the academe.

Challenges.
• Team’s time management. U-INSPIRE members have regular jobs. So, we only have limited time to work together on the Fact Sheets.
• Combining ideas. It will be a long discussion to narrow down the list until 10-12 questions. We want to have a very short list of questions.
• In communicating Science to the Public, it is not easy to use a popular word or graph to illustrate a complex idea.
• Literature and Experts/Resource Persons. Unpopular literature to answer the question and time management from the resource persons are the other challenges.

Opportunities.
• U-INSPIRE members can learn from various experts.
• Exercising how to communicate science to the public (through visual and verbal presentation)
• Experts to disseminate their research results
• Interdisciplinary collaboration
Respond to Disasters (Sky Volunteers)
Submission by: Septian Firmansyah, U-INSPIRE-Indonesia

Activity.
Sky Volunteer is a group of volunteers that dedicated their work for humanity by gathering spatial data with Unmanned Aerial Vehicle (UAV) or drone then process and analyze those data. This initiative is a cool combination of volunteerism, business, and innovation.

Sky Volunteer was initiated because of the lack of spatial data that can be used for disaster management in Indonesia. The solution we offer are:
• Aerial Risk Assessment on Disaster Risk Reduction (DRR) phase
• Aerial Damage Assessment on Emergency Response (ER) phase
• Aerial Mapping for Rehabilitation
• Aerial Mapping Training

Who were involved.
Sky Volunteer is a collaboration between NGOs, universities, government, private companies, and individual UAV Pilot.

How did we do this.
At first, it was just an idea on how to optimize the use of Drone for humanity. As Sky Volunteer does not own any drone, the team started to make connection with UAV manufacturer and UAV service provider in Bandung, Indonesia. The first mission was Aerial Damage Assessment at Lombok Emergency Response in 2018. The team collected their own resource and funding to make sure it will work. The team succeeded in mapping 5000 ha affected area. The team failed to get funding to cover the Palu Earthquake and tsunami in September 2018. Through the network and intensive communication with the National Disaster Management Office (Badan Nasional Penanggulangan Bencana - BNPB). The team managed to participate in the 30 days southern Java Island Tsunami Expedition. In July and September 2019, the Team was entrusted by BNPB to do Rapid Aerial Assessment after the Halmahera and Ambon Earthquake. This time, all operational costs were covered by BNPB.

Key success factors
• Determination to realize the ideas.
• Team members providing adequate support to each other.
• Creating Pentahelix Network between Government, Universities, NGOs, industry sector and media.
• Build Friendship, not just network.
**Activity.**

The key activity of Tsunami Resilient Village Expedition was to:

- Deploy experts and volunteers to measure resilience of each village
- Deliver and disseminate information to increase readiness for earthquake and tsunami risk
- Explore local knowledge/folklore from living witnesses of previous tsunami.

Java is the most populated island in Indonesia and is facing threat of an unexpected large near future megathrust along the Southern Coast of Java. The expedition aimed to increase awareness and preparedness of coastal villages and communities along the south coast of Java Island. There have been several deadly Tsunamis in Java southern sea in the last three decades which were triggered by subduction zone Java Megathrust. This included meeting with people who survived the Banyuwangi tsunami in 1994 and Pangandaran tsunami in 2006.

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**Who were involved.**

Thousands of volunteers, hundreds of academics and experts, and delegations of the National Disaster Management Authority BNPB.

Fifteen people involved in this expedition from U-INSPIRE performing their roles of writer, camera person, UAV pilot, facilitator of local government to measuring resilient village index.

A U-INSPIRE member also acted as a facilitator for the earthquake & tsunami simulation drill at Labuhan, Pandeglang, Banten Province.

**How did we do this.**

U-INSPIRE as a YYP platform succeeded to bring the right experts and the volunteers who would be directly involved and prepare what were needed in the shortest time possible. The activity started with a briefing on how to conduct field research in the right, simple way, yet generating impactful result. The research was locally named Tutur Tersisa di Selatan Jawa (last oral/talk legacy of Java southern sea). This bold idea made us prominent as an up and coming DRR related organisation in Indonesia.

**Key success factors?**

The spirit of the volunteers to learn, combined with the right balance of humor and endurance to explore every inch of the dangerously beautiful beaches.

**Challenges**

- time constraints
- Limited time for preparation

**Opportunities**

- Areas for further research and other interesting activities related to DRR
- The expedition allowed volunteers to meet other U-INSPIRE members for the first time, having only met previously though social media/chat apps)
- Members were able to interact and discuss DRR issues from various perspectives
- Networking and collaborating opportunities were identified with other volunteers and organizations
Disaster Mitigation Education to Local People in Lembang Fault through Field Experience

Capturing innovative approach for earthquake preparedness for people living above active fault: disaster education through impact travel experience and engagement of village youth.

Submission by: Giovanni Cynthia Pradipta, Reza Permadi, N. Rahma Hanifa, U-INSPIRE Indonesia

Activity.
The Lembang Fault (in West Java, Indonesia) along 29 km has been successfully mapped by the researchers, as well as the magnitude potential and disaster risk that could happen in the future. The last major earthquake happened 500 years ago and in the last 10 years there were several small earthquakes that happened in this area, Lembang is famously known as a tourism area because of its uniqueness and natural beauty. Not only the tourists, but also the local community and government are not well educated enough about this issue so they are not sufficient knowledge about disaster mitigation on Lembang Fault. Thus, U-INSPIRE Indonesia in collaboration with Wanderlust Indonesia and Geotour Indonesia developed Lembang Fault module, organized Lembang Fault Trip, and some socialization to local community, schools, and tourism manager near Lembang Fault, specific in Pagerwangi village and Karyawangi village. The materials contained in this module start from the Introduction on Lembang Fault, Geotourism, Photo Voice, and Local Community Participative Map. Particularly we trained local youth organization community to become Lembang Fault geotourism guide, to increase their capacity as well as increasing their economic potential in terms of disaster-education geotourism.

After three months of training, the local youth are able to manage and organize their own Earthquake Preparedness and Geotourism activities on Lembang Fault, gaining participation from many other youth groups from Lembang and Bandung Metropolitan. (News, https://sekiaskbb.com/2020/03/karang-taruna-desa-pagerwangi-gelar-diskusi-publik-sesar-lembang/amp/)

Who was involved.
Two Local youth organization, two high schools, local communities and government from two villages sitting above Lembang Fault (Pagerwangi and Karyawangi village), tourism manager near Lembang Fault, Community Service Program from college students, local media partner.

Key success factor.
Beside the sponsors (grant) for this project, the commitment and spirit to collaborate between U-INSPIRE Indonesia, Wanderlust, Geotour and local youth organizations have important contribution to this success.

Challenges.
Matching the agenda according to the timeline

Opportunities.
• The local community, some schools, and some tourism managers awareness increase about Lembang Fault
• Generate potential candidate local geotourism guide in two villages near Lembang Fault
• U-INSPIRE members and participants can learn the linkage between understanding science using geotourism approach for disaster risk reduction and community-based tourism and drr concept
Many youth and young professionals engage, contribute and implement activities in response to the COVID-19 crisis. Youth and young professional members of the U-INSPIREs, using their SETI capacity, also have implemented various activities at the national level through their U-INSPIRE chapters as well as work collaboratively between countries through the U-INSPIRE Alliance.

UNESCO Regional Science Bureau for Asia and the Pacific, UNESCO Office Jakarta jointly with U-INSPIRE alliance brought together 186 youth and young professionals on a webinar to share Practical Experience of Asia and the Pacific Youth and Young Professionals activities on COVID-19.

UNESCO recognizes and appreciates the engagements of YYP in the effort to fight COVID-19 through their activities at different levels and encouraged the YYO to 1) continue to use their creativity, knowledge, innovation, technology, and potential to find solutions and drive changes caused by this COVID-19 situation; and 2) continue their work in COVID-19, with active engagement of all stakeholders, and to pioneer active sharing of information, data and outputs to be more widely accessible among the youth networks as well as the society. the Youth and Young Professionals’ platforms to actively participate in UNESCO Youth Programs such as UNESCO Youth Forum, Youth UNESCO Climate Action Network (YoU-CAN) as well as other United Nations youth programs.

This chapter will illustrate some of the U-INSPIREs’ activities on COVID-19 both as Alliance as well as National Chapters.
COVID-19 Regional Monitoring
Submission by Dr Ranit Chatterjee, U-INSPIRE Alliance – India

Amidst the pandemic outbreak of COVID-19, people around the world are being widely affected. The increasing rate of transmission of this virus has not only created a state of global emergency but also has created extreme levels of fear, desperation and hopelessness among the people. Meanwhile, various forms of unverified information in different platforms, especially social media have further fueled this fear and desperation. During this hard time, lack of authentic sources of digital and spatial information from reliable institutions is missing making it even more complicated for the general public to identify and avoid major hotspots. Realizing this urgency, a https://covid19-monitor.net/ platform is developed and the member countries from India, Nepal, Malaysia, and Indonesia are engaged for COVID19 data partnership from their respective countries. The web application brings authentic data from verified sources like the government institutions, major media houses, health institutions, UN agencies and other related stakeholders. Furthermore, this system also tracks the locations/routes travelled by the corona patients and make it available in public domain so that the public can avoid the locations as well as related stakeholders can prioritize their response mechanism accordingly. The platform was co-designed by Youth Innovation Lab and RIKAI India in partnership with U-INSPIRE Alliance and its country chapters.

Key Activities:
1. Dealing with the transboundary issues through collective action from all U-INSPIRE member countries.
2. An open source database of COVID-19 infected patients: data mining from government sources; crowdsourced data (media coverage, hospital data); and fake news tracing and weeding
3. Training key leaders to use the country database and verify information locally
4. Infected person route tracing and identification of hotspots at the city level
5. Location-based advisories
6. Resource mapping: Location of testing centres, identified hospitals, local resources available (in process of development)

Leveraging local resources and capacity in solidarity for COVID-19 frontliners
Submission by Dr. Vivien How & Mr. Khairuddin bin Othman, U-INSPIRE Malaysia

On-going initiatives in collaboration with social enterprise, NGOs and national youth council Malaysia to leverage local resources and support COVID-19 frontliners in Malaysia. Activities include, support Malaysia Red Crescent Society in making DIY (Do It Yourself) Face shields and apron to cater the shortage of PPE for frontliners, mobilize youth from NGOs and National Youth Council to distribute daily necessities for low-income families and communities. Besides, we also initiate community first aider/paramedics network to provide culturally appropriate and responsive services to low-income communities as the pivot towards closing the gap in health comes amidst Covid-19 crisis.

The Challenges and Gaps
The challenges lie in the difficulties of mobilization of finance and material, as well as the technical competence and organizational commitment in humanitarian operation. Since youth is the most valuable asset, we leverage local resources via multi-organizational collaboration and mobilize youth from National Youth Council Malaysia and Malaysia Red Crescent Society to maximize its capacity. In order to support government in combating Covid crisis, in providing health and at the margins and create and sustain public-private partnerships in the provision of local healthcare services.
Negating misinformation & promoting scientific research
Submission by Mr. Moide Mujeeb Jilani, U-INSPIRE Pakistan

With a mission to negate misinformation, promotion of the application of science and technology among the youth and young professionals relating to novel Coronavirus, various impactful activities were carried out by the Youth and Young Professionals of U-INSPIRE Pakistan. The following activities were undertaken:
• Myth-busting series to negate the misinformation among the youth;
• Mobilizing young researchers to conduct scientific studies to better understand COVID-19; and
• Webinars focusing on young professionals journey in Coronavirus.

The activities targeted the youth through social media platforms penetrating maximum number of youth possible.

MYTH BUSTING SERIES:
A survey was carried to determine the extent of proliferation of myths related to COVID-19 among the youth. Results revealed that the majority of “Youth believed in false information like the Virus was created in a laboratory in China,” etc. A myth-busting series focused on negating such misinformation was conducted. Misinformation was refuted with backing from Scientific Literature and the information provided by WHO. For maximum dissemination of the right information to the youth, the activity was posted in the national and regional languages, including Urdu, Pushto, Gujarati, and Sindhi. It ensured that the message reaches the maximum number of people including the local people who are not well-educated and are quick to believe in superstition and misinformation. The series received a positive response and was able to create a lasting impact among the youth, addressing the problem of misinformation about COVID-19 among them. Moreover, it instilled the sense of vigilance among them to not easily believe any information without verifying its veracity.

SCIENTIFIC RESEARCH BY THE YOUNG PROFESSIONALS:
U-INSPIRE Pakistan came into existence to mobilize youth and young professionals in SETI for DRR. Committing to the cause of U-INSPIRE Pakistan its youth members performed two researches on the current pandemic of Covid-19.

Predicting the infection peak of Coronavirus in Karachi
There was uncertainty in the country relating to when the peak infection of the coronavirus occurred. The youth members of the U-INSPIRE team led by the Science Working group lead Ibtihaj presented the idea to predict the infection peak for Karachi city using a mathematic model. The research is the publishing phase of a peer-review journal.

The research focused on using the SIR model to model the infection for Karachi city and predict its peak infection rate. The modeled data was validated by modeling the infection data for Lahore city.
The Confederation of Risk Reduction Professionals (CRRP India / U-INSPIRE India) worked with professionals, academicians and students in addressing the challenges posed by the COVID-19 crisis.

**COVID-19 Monitor**

The COVID-19 Monitor database was created as an online portal to track COVID-19 cases in India, Indonesia, Malaysia and Japan which was designed and launched by YIL and RIKA and CRRP India. CRRP India managed to track and trace the first 8355 cases which was reported in India whereby 16 enthusiastic volunteers worked tirelessly and painstakingly risking their lives for tracking each and every case that was reported. The case reports were cross-checked with multiple sources and verified against the data issued by the Ministry to avoid confusion. An absolute sense of data privacy and other ethical considerations have been maintained in terms of anonymity of cases.

**Awareness Videos and Blog**

Submission by Mr. Tanmay Uttam Gound, U-INSPIRE India / CRRP

The Confederation of Risk Reduction Professionals (CRRP India / U-INSPIRE India) encouraged volunteers to pen down their feelings and the responses have been absolutely thrilling! The blogs are multi-faceted like issues regarding the concerns of an ensuing ‘infodemic’ to a gender-sensitive perspective were highlighted and scaled from analysing lockdown through the lens of a DRR researcher to the heartfelt thoughts of DRM professional. The blogs are true representations of how the youth perceive this pandemic and their eagerness to be a part of the solution!

**Exploring ways of spreading awareness**

A group of DRR researchers came together and scripted a video covering these crucial issues and explaining them in as simple manner as possible. The video was widely circulated and comments were received to date from international organisations, reputed practitioners and experts and based on their comments the second video was designed addressing other, relatively newer, pressing issues and this time around it was made in two regional languages and two more are on its way!

Links: English: https://www.youtube.com/watch?v=jSQ76cM-vnk
Hindi: https://www.youtube.com/watch?v=bNT6HBuuXAk
Assamese: https://www.youtube.com/watch?v=z3Em_gFUftI&t=6s

In addition to this, some researchers, out of their own volition, have started conducting a ‘playful’ survey (that’s what they are calling it) to gauge the psycho-social status of respondents and the responses received till date are very interesting and soon we intend to come out with a document on it!

**Individual Contributions**

In addition to all these concerted and collective efforts, our members and volunteers in their individual capacities have been contributing in all possible ways.

Our members have been actively involved in pushing forward the idea of BCP as well as have been strong proponents of this pandemic, through the lens of DRM and not just a PHE and hence they have conducted many webinars on this agenda.

Our members have also been actively involved and vehemently participating in relief distribution in different parts of the country to support those people whose lives are at stake.

**CRRP India in Data Visualization**

CRRP India has always believed in Science Communication, Risk Communication! CRRP India published visualisations, using the data being collected by our volunteers:

- Cumulative cases were conducted on daily basis for India to establish the intensity of how rapidly the cases are increasing
- Race chart to show how different states of India are, individually, faring in terms of the number of cases. The race chart gave a feeling of competition among the states, therefore, there are other visualisation, representing the number of cases of each state as an inverse function of its rank.
- Daily charts to impose and showcase the fact that the “rate of recovery” is far better than the “case fatality rate”
- Charts showing how states by reporting cases on a daily basis to implore viewers to think, whether it is wise to conclude or not.

**Voices of Youth and CRRP**

CRRP / U-INSPIRE India encouraged volunteers to pen down their feelings and the responses have been absolutely thrilling! The blogs are multi-faceted like issues regarding the concerns of an ensuing ‘infodemic’ to a gender-sensitive perspective were highlighted and scaled from analysing lockdown through the lens of a DRR researcher to the heartfelt thoughts of DRM professional. The blogs are true representations of how the youth perceive this pandemic and their eagerness to be a part of the solution!

Link: https://www.crrpindia.org/covid-19-blogs
Risk and Science Communication for COVID-19

Submission by Ms. Risye Dwiyani and N. Rahma Hanifa, U-INSPIRE Indonesia

U-INSPIRE Indonesia’s engagements in risk and science communication among others consist of (1) factsheet infographics formulation and sharing in social media, (2) conducting webinar with issues addressed by the platform’s works, such as on data & information transparency, (3) creating video featuring recovered patients from COVID-19, (4) conducting social research, and (5) developing a guide for tsunami evacuation in times of COVID-19 crisis.

Develop COVID-19 literacy materials and social awareness through infographic and video, shared in social media.

Social research

U-INSPIRE Indonesia became a member of the Social Panel Team for Disasters which consists of researchers from different institutions, including the National Disaster Management Agency (BNPB). With the urgency to provide evidence-based policy on COVID-19, the team conducted rapid assessment through online questionnaires and phone interviews on four themes which represent the major issues that need to be addressed immediately, i.e. (1) information transparency, (2) Area quarantine, (3) Mobility, and (3) Impact of Large Scale Social Distancing on Resilience. Since supporting policy was the team’s main objective, a summary of results and analyses were presented as soon as possible to the government and to the general public. To illustrate, the Ministry of Transportation used the results of one of the studies as basis for the policy regarding mobility during the Eid Holiday season which had been a major national concern as the mobility could spread the virus nationwide.

Guide on tsunami evacuation during the COVID-19 crisis

Realizing the multiple risks of disaster and COVID-19, including earthquake and tsunami, U-INSPIRE Indonesia in collaboration with National Disaster Management Agency, Indonesian Tsunami Early Warning Center of BMKG, UNESCO-IOC Indian Ocean Tsunami Information Center, Institute of Technology Bandung, and Indonesian Tsunami Experts Association developed a guide for Tsunami evacuation during COVID 19. The guide helps avoid confusion as COVID-19 requires people to stay at home, while tsunami requires people to immediately evacuate. It describes measures to be taken before any tsunami occur, during the evacuation based on classification of COVID-19 affected people, and at the tsunami evacuation shelter – to avoid the shelter to become infectious center. The guide is featured in official government websites as one of the COVID-19 protocols. It became an example and reference within UNESCO for disaster response during the COVID-19 crisis. U-INSPIRE Indonesia also jointly organized socialization webinar of this guide attended by more than 900 participants of Provincials, Districts, cities Disaster Management Agencies and disaster practitioners.

COVID-19 Risk Assessment Tool
Delivered by Ms. Shukhreet Bajwa U-INSPIRE India / CRRP

CRRP/U-INSPIRE India jointly developed the COVID-19 Risk Assessment Tool with the Resilience Innovation Knowledge Academy (RIKA) India Pvt Ltd and supported by amazon web service, India-Japan Laboratory-Keio University and Profecia Links.

This tool assesses the risk based on a small set of questions. There are four basic parameters: Health, Behaviour, Exposure and Social Policy. Within health, factors of age: since elderly population is more at risk, co-morbidities, smoker and smoking are included. The behaviour focuses on use of mask, hand-washing practice, sanitisation before touching the face and social distancing. It also includes level of stress or anxiety and trust in the current government measures. The exposure feature includes residential type because sharing an accommodation or being in a clustered building increases the risk. It also includes type of occupation i.e. whether one is on the frontline working in healthcare or law order or an essential services provider. And thirdly the history of travel or being in a mass contact.

The Social Policy factor assesses the effectiveness of lockdown as well as community compliance of social distancing and mask use. This tool factors in behavioural symptoms as well as social policy measures. Such features determine the preventive measures being taken at individual level as well as community level. Until there is a cure, the only effective way is prevention through awareness. This tool re-iterates the awareness message by prompting the question on compliance of risk-preventive behaviour. Hence, this tool goes beyond the contact tracing and assessment based on medical symptoms and focuses on behavioural assessment. Further, it is simple to use, with minimal data entry. This increases its reach to older people or people who have difficulty in using mobile based apps. It is multilingual, currently available in seven different languages. The tool includes maps generated through crowd-sourced data entry. It is cost effective and allows faster decision making for government as well as NGOs or other stakeholders in planning for response. It can be used by anyone to check on the risk of our family members and loved ones. The tool collects no personal information related to mobile phone number or email ID, hence it aims to balance the privacy concerns as well. At the end of the survey, the results are depicted in three categories of risk: Low, Moderate and High, based on the values of the input variables.

The final output is also combined with general advisory measures. Hence, this tool works for awareness generation, risk communication and aids in decision-making. This tool has been featured at global platforms like GFDRR weekly and International Science Council weekly. Now it is further being taken up by UNDRR to be customised for risk assessment of MSMEs.

Impact of COVID-19 on Tourism

As a result of the international travel bans imposed by many countries, the global tourism industry was very much affected. It is worthy to note that in the past, global tourism has been exposed to outbreaks such as Sever Acute Respiratory Syndrome (SARS), Swine flu and Middle East Respiratory Syndrome (MERS). However, unlike SARS, Swine flu or MERS, the Covid-19 outbreak was far more destructive to the global tourism industry (Gössling, Scott, & Hall, 2020). Tourism is about mobility. The decisions on limiting the movement of people due to Covid-19 has affected air transportation, sea transportation, catering services, accommodation and entertainment which are all commercial activities linked to the tourism industry. In the Maldives being a small island nation deeply invested in the tourism industry, the impact of Covid-19 was heavily felt.

The Maldives generates approximately 30% of direct revenue and 60% of indirect revenue from the tourism industry. Due to the travel ban, the Asian Development Bank (ADB) speculated that the Maldives’ economic growth will fall to a negative 3%. As a consequence of this economic recession, unemployment and income losses are expected to be very significant, specially to the employees working in the tourism sector. Employees working in the tourist resorts and other tourism support industries are expected to experience pay cuts, no-pay leaves and layoffs. (United Nations Maldives, 2020).

The Maldives confirmed its first Covid-19 positive cases on 7th March 2020 at Kuredu island resort. As the Covid-19 worsened globally, there was a decline of 22.8% of tourist’s arrivals by mid-March. Due to this decline in tourist visits, about 90% of resorts decided to send their workers on “no-pay leave”, while 10 % of the employees experienced salary cuts up to 15-20% (Ministry of Economic Development, 2020). As most of the employees who work in the tourism sector were the sole breadwinners in their family, this sudden loss of employment or reduction in salary has put many families in a financially vulnerable position.

Furthermore, owing to the sudden job termination, many employers who lost their jobs are not sure if they will get their job back any time soon, as a result, these employers are very much worried about their current condition.

From one assessment conducted on “youth volunteerism”, U-INSPIRE Maldives has identified among others two factors that deters youth from volunteerism especially during COVID-19:

1. Lack of technical knowledge of youth who volunteer to work in emergency operation centers; and
2. Hesitancy by the youth to work as volunteers because of living conditions. Many youths in the capital city live with their extended families, as a result they fear, if they go outside, they might expose elderly in their families to Covid-19.

U-INSPIRE Maldives will concentrate to conduct in-depth needs assessment to prepare educational materials to educate the public about the “New Normal” that the government is planning start once the lock down is over.
The New Normal: Crowdsourcing Reporting Unspoken Conditions Related with COVID-19 by Citizen using Chatting Platform with API and Geolocated Based

Submission by Mr. Said Fariz Hibban, U-INSPIRE Indonesia

U-INSPIRE Indonesia, in collaboration a coalition of citizens called LaporCOVID-19 (ReportCOVID-19) implemented intervention movement against COVID-19. LaporCOVID-19 is a citizen reporting to share information about COVID-19-related events that was not covered in Government monitoring and reporting. LaporCOVID-19 uses the crowdsource method approach which involves citizen participation with the help of ChatBot based on the most commonly used chat platforms in Indonesia, namely WhatsApp and Telegram. This is expected to help the government and other residents to understand the actual status of the COVID-19 pandemic. Data collected in LaporCOVID-19 is analyzed as basis for recommendations to the government to determine policies and steps to handle COVID-19 on the ground. In addition, LaporCOVID-19 also provides education to the public through publication in social media and mass media. U-INSPIRE Indonesia is responsible in developing and creating the platform for the data collection technology and processing.

The reporting platform is based on common chat platforms namely WhatsApp and Telegram

This platform allows the public to send report to LaporCOVID-19 as the community does not need to install new applications or open any sites. The community just needs to say hello to the ChatBot on WhatsApp and Telegram. The ChatBot provides 7 choices to report, such as reports of death related to COVID-19; reports of crowd locations, self-reported with good health, reports of self-condition and others who have symptoms similar to COVID-19; and reports on public complaints about health and non-health services provided by the government in a COVID-19 pandemic situation.

LaporData by Volunteers of LaporCOVID-19

The LaporData (Data Report) is the data collection platform from 514 local government sites that were obtained manually by LaporCOVID-19 Volunteers. The platform use the Google spreadsheets. The volunteers updated the data report daily on the laporCOVID-19 reporting sheet and the local government website. The following figure shows a sample on the LaporData report which can be accessed at http://bit.ly/updatedatalaporcovid19

More than 100 volunteers have joined in completing the data using the LaporCOVID-19 standards. The data is stored in a database, and visualized and presented to the public through infographic presentation and map in the website: laporcovid19.org as well as in collaboration with the media.

The challenges and gaps

The challenge is verifying reports from the public as crowdsource methods are quite vulnerable to biased information. In addition, to channel the information to the relevant government agencies for immediate follow up as well as to develop more specific targeted policies. Another challenge is to link this platform to the map of the National Institute of Environmental Health Sciences – NIEHS (https://covid19pvi.niehs.nih.gov/) showing the region’s vulnerability to COVID-19.
Covid-19 information Portal and Mobile Application, Drone Survey, Swab Collection Booth

Submission by Mr. Suraj Gautam, U-INSPIRE Nepal

U-INSPIRE Nepal explored the scenarios and co-create ideas to adapt and fight against the COVID-19. The volunteers from U-INSPIRE Nepal starts to collaborate with the multiple organizations to assess the situation and works closely with Nepal Engineers’ Association Bagmati Province, one of the largest provincial executive committees of Nepal Engineers’ Associations. Some of the initiatives of Youth and Young Professionals of Nepal in response to the COVID-19 situation are:

Social Awareness Campaign
As a problem-solving approach, U-INSPIRE Nepal volunteer prepared number of Informatory videos such as the Hand-Washing Measures, COVID-19 Transmission Measures, Dos’ and Don’t, Available Health facilities like Quarantine Centres, Isolation Centres, Swab Collection and Testing Centres, National and Provincial Data Visualization. This campaign helped in providing the factual and official information to the public through Social Media and U-INSPIRE Nepal community, as well as in solving and reducing the unwanted rumors of COVID-19.

CDC-19 Information Portal and Mobile Application
U-INSPIRE Nepal volunteers along with other organizations including Institute of Himalayan Risk Reduction (IHRR), NAXA, CodeForCoreInnovation and Soch Nepal developed a dedicated official COVID-19 platform which is capable of giving realtime information of cases, medical facilities and information. The team worked closely with the Ministry of Health and Population of Nepal and inaugurated the web-portal (https://covid19.mohp.gov.np). A Mobile Application named “Hamro Swasthya” on Android and Apple Stores has a special feature of Self-Assessment Form and Suspect Reporting Form, where the user can update their signs and symptoms from their place and get an idea about their vulnerability. This platform capable of sharing the latest situation reports, interactive maps of medical facilities and COVID-19 Cases, Corona Symptoms and Safety Guidelines.

Drone Survey of Hetauda, Capital of Bagmati Province
With the significant drop in air and road vehicular traffic, good visibility, and almost minimal physical movement of citizens outside their houses, U-INSPIRE Nepal with IHRR, NAXA, Nepal Flying Labs, DroNepal have started UAV survey for capturing high-resolution images, thereby exploring opportunities in this lockdown period. Through the SETI approach, U-INSPIRE Nepal turns the COVID-19 situation into an opportunity. The captured image processed by U-INSPIRE Nepal volunteers and the obtained image will be an asset for the City for further urban development planning, preparedness, disaster response planning, evacuation planning and so on. The team has also conducted UAV surveys collaborating with the local government of Changu Narayan municipality in Kathmandu Valley.

COVID-19 SWAB Collection Booths
U-INSPIRE Nepal volunteers aided with the technical support to develop a kiosk which creates a layer between the medical professionals and the suspected patients. Altogether, 17 number of Swab Collection Kiosk has been developed and deployed to the number of Government Hospitals and Health Centres within the Bagmati Province of Kathmandu. This has been a great R&D innovation against the existing swab collection methods and has also been termed as a KIOSK PPE (Personal Protective Equipment).

Sister Robot V 1.0
Together with Nepal Engineers’ Association Bagmati Province and Robotics Community (Oztech, Kantibir, THE ROBONAUTS, RAN) U-INSPIRE Nepal volunteers have been working hard on the potential R&D products. Out of which, a medicine and food material carrying robot has been developed which is capable of carrying up to 25 kg of materials. Any medical professional can operate the robot by just sitting in the control room of the Hospital or Health Centre and operate the Robot to each bed of the ward within a range of 1-kilometre. This has been deployed to the Isolation Centre of Hetauda Hospital thus reducing the direct contact or contamination chances of the aerosols of the COVID-19 patient to the medical professional.
The Priority Action 2 of the Sendai Framework for Disaster Risk Reduction 2015-2030 is about the risk governance. The idea of this is to include all stakeholders for the DRR planning and its implementation. There are many stakeholders for DRR, policy makers, academic, private sector, civil society, community, and individual and so on. Young professionals could be a good catalyst to connect various stakeholders on DRR to connect them to collaborate. Experiences of U-INSPIRE is a good example of young professionals are playing to connect between the community, policy makers and others. This toolkit will be a good guidance for young professionals to pick up an important role to be a connector of various actors. This toolkit includes several cases and I hope young professionals will find their own opportunity in their context to develop the network and activities.

This toolkit, with the inspiring UINSPIRE stories it tells, can be a valuable reference in engaging and inspiring the youth to contribute to our efforts in addressing disasters and climate change. The UINSPIRE stories told in the toolkit, provide valuable insights into how the youth can be an instrument in effecting transformational change in society.

UNESCO’s steps in encouraging the establishment of U-INSPIRE has successfully laid down the fruit as the platform for the development of Youth and Young Professionals (YYP) in Science, Engineering, Technology and Innovation (SETI) for Disaster Risk Reduction (DRR). U-INSPIRE has proven to be able to bridge the constraints and successfully uniting the millennial crowds. As describe in this Toolkits, the framework that U-INSPIRE implements is through networking, knowledge sharing, flexibility, and non-hierarchical which seems to be able to respond that millennial’s constraints. Documenting activities of YYP in SETI for DRR through networking, knowledge sharing, flexibility, and non-hierarchical which seems to be able to respond that millennial’s constraints. Documenting activities of YYP in SETI for DRR through U-INSPIRE in other regions.

I started to join Indonesian U-inspire members starting in 2018. As a member of U-INSPIRE Indonesia, I gain a lot of knowledge and new friend relationships. With bringing the framework of it, U-INSPIRE Indonesia is my place to learn to be better, especially in SETI and DRR, a place to apply the ideas that I made to reduce the risk of disaster.

ARIA KUSUMA AJI
U-INSPIRE Indonesia
Ngawi district,
East Java Province

U-INSPIRE Philippines helped open a lot of opportunities for me to grow not just professionally, but also personally. I gained new friends and found like-minded people across the globe. I saw first-hand how young people can help further the advocacy for DRR and we are the catalyst for change in this field. It also helped me discover parts of myself which I didn’t know existed and I am happy to grow together with this organization.

JUSTINE MICHAELLA C. ARELA
Secretary
U-INSPIRE Philippines
Project Development Officer
DRRM Makati City

Such a great experience becoming part of U-INSPIRE Indonesia since the beginning and never imagine that I will reach many achievements and fantastic journey from local, national, to international level through this platform such as being part in international collaboration (both research and projects) and got chance to introduce U-INSPIRE on international forum and conference. Many ups and downs for every process but that’s what makes me feel that this platform is definitely suit for everyone who has spirit to work together in Disaster Risk Reduction.

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