



WORLD FEDERATION OF ENGINEERING ORGANIZATIONS STANDING TECHNICAL COMMITTEE ON DISASTER RISK MANAGEMENT

MINUTES OF THE ANNUAL MEETING

When: October, 13 (Tuesday), 2020, 14:00 – 16:00 (CET time)

Venue: Zoom platform

Agenda

1. Welcome and agenda approval
2. Presentation of the members
3. Summary report of activities in 2020
4. Presentation and discussion on CDRM plans to 2021
5. Discussion on how to make use and contribute to WFEO website and social media
6. Concluding remarks & group photo

Participants

CDRM members		
Fang Chen	CAS	China
Marcial Rivera Rodríguez	CFIA	Costa Rica
Karel Vancura	CSVTS	Czech Republic
Carlien Bou-Chedid	FAEO	
Eric Ma	HKIE	Hong Kong
Ashok Basa	IEI	India
Kenichi Tsukahara	SCJ	Japan
Robert López	IIE	Spain
José Macharé	CDRM chair	Peru
Lizett López	CDRM secretariat	Peru
Vivens Karamaga Nshimirimana	IER	Rwanda
Vilas Mujumdar	Expert member	USA
Observers		
Gong Ke	WFEO	
Marlene Kanga	WFEO	
Myles Lind	IPWEA NZ	New Zealand
Carlos Herrera	CIP	Peru

CAS	Chinese Academy of Sciences
CIP	Peruvian Engineers Association / Colegio de Ingenieros del Perú
CFIA	Colegio Federado de Ingenieros y Arquitectos de Costa Rica
CSVTS	Czech Association of Scientific and Technical Societies
FAEO	Federation of African Engineering Organizations
HKIE	The Hong Kong Institution of Engineers
IEI	Institution of Engineers
IER	Institution of Engineers Rwanda
IIE	Instituto de la Ingeniería de España
IPWEA NZ	Institute of Public Works Engineering Australasia
SCJ	Science Council of Japan



I. DEVELOPMENT OF THE AGENDA

1. Welcome and opening of session

Dr. Macharé provided welcome greetings and presented the meeting agenda. *Dr. Kanga* asked for a discussion about the celebration of the World Engineering Day 2021 and what the CDRM will do. After that, the agenda was approved.

2. Introductions of members

The committee is composed of 17 members representing WFEO National Members, and one from an international member. Additionally, there are three alternate members and one expert. Dr. Vilas Mujumdar was invited to participate as an expert (see Table 1).

The secretariat introduced the members, only those participating for the first time introduced themselves. Seven committee members were not able to attend the meeting. The secretariat asked the members to send their CV, because this is part of the designation process.

Table 1 – List of the committee members

	MEMBER	COUNTRY	WFEO NATIONAL MEMBER	EMAIL
1	Eduardo Velásquez	Bolivia	Sociedad de Ingenieros de Bolivia	lalovelasquez@gmail.com
2	Jing Peng	China	China Association for Science and Technology	pengthanks@163.com
3	Fang Chen*			chenfang@radi.ac.cn
4	Marcial Rivera Rodríguez	Costa Rica	Colegio Federado de Ingenieros y de Arquitectos de Costa Rica	mriviera@cfia.cr
5	Karel Vancura	Czech Republic	The Czech Association of Scientific and Technical Societies	karel.vancura@chmi.cz
6	Tihitna Laeke Hailu	Ethiopia	Ethiopian Association of Civil Engineers	titinaLaeke@yahoo.com
7	Carlien Bou Chedid	Ghana	Ghana Institution of Engineers	carlienbc@gmail.com
8	Eric Ma	Hong Kong	The Hong Kong Institution of Engineers	ericma@nws.com.hk
9	Edwin Chung*			cre.edwinchung@tolo3.com
10	Ashok Basa	India	The Institution of Engineers, India	akb.beb@gmail.com
11	Giovanni Cardinale	Italy	Consiglio Nazionale degli Ingegneri	giovanni.cardinale@cni-online.it
12	Kenichi Tsukahara	Japan	Science Council of Japan	tsukahara@doc.kyushu-u.ac.jp
13	Fanuel Mwashigadi	Kenya	Institution of Engineers of Kenya	treasurer@iekenya.org
14	Ahmad H. Bahman	Kuwait	Kuwait Society of Engineers	qadisla@yahoo.com
15	Dave Brunson	New Zealand	Engineering New Zealand	db@kestrel.co.nz
16	José Macharé	Peru	Peruvian Engineers Association	jmachare@hotmail.com
17	Lizett López	Peru	Peruvian Engineers Association	llopezs@gmail.com
18	José Miguel Brazao Andrade da Silva Branco	Portugal	Ordem dos Engenheiros	josemiguelbranco@gmail.com
19	Vivens Karamaga Nshimiyimana	Rwanda	The Institution of Engineers Rwanda	karamaga.vivens@gmail.com
20	Roberto López Casasola	Spain	Instituto de la Ingeniería de España	casasolanaaval@yahoo.com
21	Arturo Muiña Domínguez*			amuinad@hotmail.com
22	Vilas Mujumdar*	USA	Expert member	v_mujumdar41@yahoo.com

3. Summary report of activities in 2020

During this year, the CDRM has organized two virtual meetings, has called for new members, has sponsored Peruvian and international events, and mainly has organized three virtual courses through the Moodle Platform. The courses have been well accepted and this encourages us to continue proposing more topics.

Dr. Macharé informed about his participation in the Expert Review Group of the Scientific Agenda for Disaster Risk Reduction organized by the International Science Council (ISC) partnered with the United Nations Office for Disaster Risk Reduction (UNDRR).



Eng. Basa informed that The Institution of Engineers, India organized an International Conference on “Disaster Risk Management: Strategies and Goals” to commemorate the centenary of the institution.

Dr. Tsukahara will participate on the virtual Conference organized by the International Consortium on Landslides (ICL), in November 5 of this year. The face-to-face event will be in October 2021, in Kyoto, Japan.

Dr. Macharé urged CDRM members to participate in relevant and DRM-related events. When this happens, the members should inform to the secretariat for inclusion in the annual report.

4. Presentation and discussion on CDRM plans to 2021

- a) Virtual workshop on management of pandemics risk.
In the remains of the year 2020, Dr. Macharé will coordinate the organization of this event. It will be focused on the role of engineers in improving and contributing to the management of potential future pandemics. It is proposed that discussions at the event be oriented towards:
- ✓ Use of big data for worldwide early warning - the COVID-19 has shown us gaps in data management. How can engineering contribute to this?
 - ✓ Logistics during lockdowns - the New Zealand experience about the important role of engineers in ensuring logistical supply of different goods.
 - ✓ Emergency sites quick building - the example of the Chinese experience in building a hospital in a short time.

For the next year, it is proposed to develop:

- b) Short online courses
- ✓ Remote sensing and census data in the assessment of building vulnerability.
 - ✓ Management of landslide disaster risk.
 - ✓ Mixed and cascade disaster risk reduction.
 - ✓ Early warning systems: theory and experiences
- c) Webinars
- ✓ Articulating SDGs – Paris agreements on CC – Sendai framework. There are several coincidences and interfaces about these global frameworks.
 - ✓ Communicating disaster risk and its management.
 - ✓ Smart cities and green cities concepts for urban growth. How these two concepts could go together.
- d) International Symposium
The Peruvian headquarters of the committee has been organizing international symposiums in DRM, this year it was not possible due to the context of the COVID-19. In 2021, it is proposed to organize the 14th International Symposium on Disaster Risk Management on the theme of Sustainability in Growing Cities. The central topic still has to be discussed among the members of the committee, at forthcoming meetings. The event will be virtual.
- e) Publication: Edition of a booklet
The central topic will be resilience framework for engineering actions. Initially, it was thought to analyze large regions of the world, but after some discussions, this idea was abandoned, arising the proposal of a thematic structure. Discussions with members, chiefly with Drs. Brunsdon and Mujumdar lead us to propose some key elements of a resilience framework that are related to engineering, can be customized and implemented at country level. They are in table 2.



Table 2 – Key elements of resilience frameworks related to DRM and engineering

#	Key elements	Role within DRM processes
1	Land use planning.	Avoid exposure by preventing settlements and works in unsuitable areas
2	Building codes	Avoid unwanted fragility by building with safe parameters
3	Infrastructure systems	As key component of a resilient territorial system
4	Information management	Give support to the other processes through open access to databases, artificial intelligence, machine learning
5	Capacity building	Both at professional and a user levels facilitates the necessary communication
6	Institutionality	Clarify the specific responsibilities of institutions and mutual interactions on given DRM processes

- f) World Engineering Day
The CDRM will organize a special meeting that day, we will still decide what type of event or topic will be addressed. Logically, it will be aligned with the main ceremony of WFEO, based in Paris.

5. Discussion on how to make full use and contribute to WFEO website and social media

WFEO has allocated space on its website for STCs and other committees. CDRM publishes relevant information, which should be updated periodically. To help spread the WFEO's social media and web, the secretariat invited all the members to follow the federation through these channels and share these with your networks. CDRM has used these channels to disseminate mainly the online course on Tsunami and intends to continue making use of these to advertise its activities.

II. COMMENTS AND QUESTIONS

Dr. Gong Ke commented about World Engineering Day in 2021, WFEO would like to see some outcomes, some publications to show results of the year, during the COVID-19. Ideally, CDRM should present a booklet or organize a high-level webinar around that day to attract attentions of government people, industrial people, and academy among others. A webinar on next pandemic is a good and challenging topic. It is important to push the theme toward the Sustainable Development Goals (SDG).

Dr. Macharé said that the booklet would not be ready by March next year; work will start on it from next month.

Dr. Gong Ke suggested organizing a workshop to discuss about the initial works of this book as well as to invite authors to accelerate the elaboration of the publication.

Dr. Vilas Mujumdar, about the celebration of the World Engineering Day, suggested to present the framework of the booklet or its progress. About the organization of the workshop, he suggested concentrating in a disaster related to pandemic, compare with another disaster. The questions would be- How do we prepare, what are the challenges as compared to other disasters, what did we learn throughout the world



and how do we want to prepare the next time?. It may be very helpful, but the committee still can think about it.

Eng. Basa recommended organizing an event focused on the COVID experience of one representative country in the world.

Dr. Kanga congratulated the committee for its work and the structure established. To celebrate the World Engineering Day, she suggested aligning with the SDGs trying to cover one or two topics about them. She considered that the committee has excellent members who can actively contribute to write a chapter of the booklet. It was highlighted that WFEO has good relations with the director of Capacity Building of UNESCO and the federation can try to get its support for publication. Collaboration with UNESCO's hydrology group could also be useful. In the same way that Dr. Gong Ke proposed, Dr. Kanga suggested organizing a workshop to decide about the chapters of the booklet, structures, the team, etc. and develop a concept note on what will be covered. She also proposed to organize an exhibition of photos of disasters from different countries with the aim to show the work of engineers in natural disasters. These pictures could be published in the booklet. Dr. Kanga shared the link of the posters that UNESCO published:

<https://worldengineeringday.net/unesco-exhibition-on-world-engineering-day/>

Eng. Rivera recommended for the CDRM website that each member should have a password to access the committee's information or to make the information more open.

Dr. Kanga commented that the password is to access internal information of the committees; the rest of the information is open. She recommended the committee to engage with the UNDRR and to align with them in the World Engineering Day. It was recommended the importance to attend meetings of this organization and to report the committee and WFEO about that.

Dr. Macharé informed that he is participating in the review of an agenda proposed by the Integrated Research on Disaster Risk (IRDR). This organization wants to publish an agenda on science and the DRM's processes to link the international frameworks as SDG, Sendai and Paris Agreement.

Dr. Fang Chen commented that IRDR and IPO (International Program Office) are very close to CAS, he also knows about the progress of IRDR and UNDRR. He considers important to engage the engineering community. IRDR and UNDRR are trying to improve the connection with WFEO. He offered to establish a connection with IRDR.

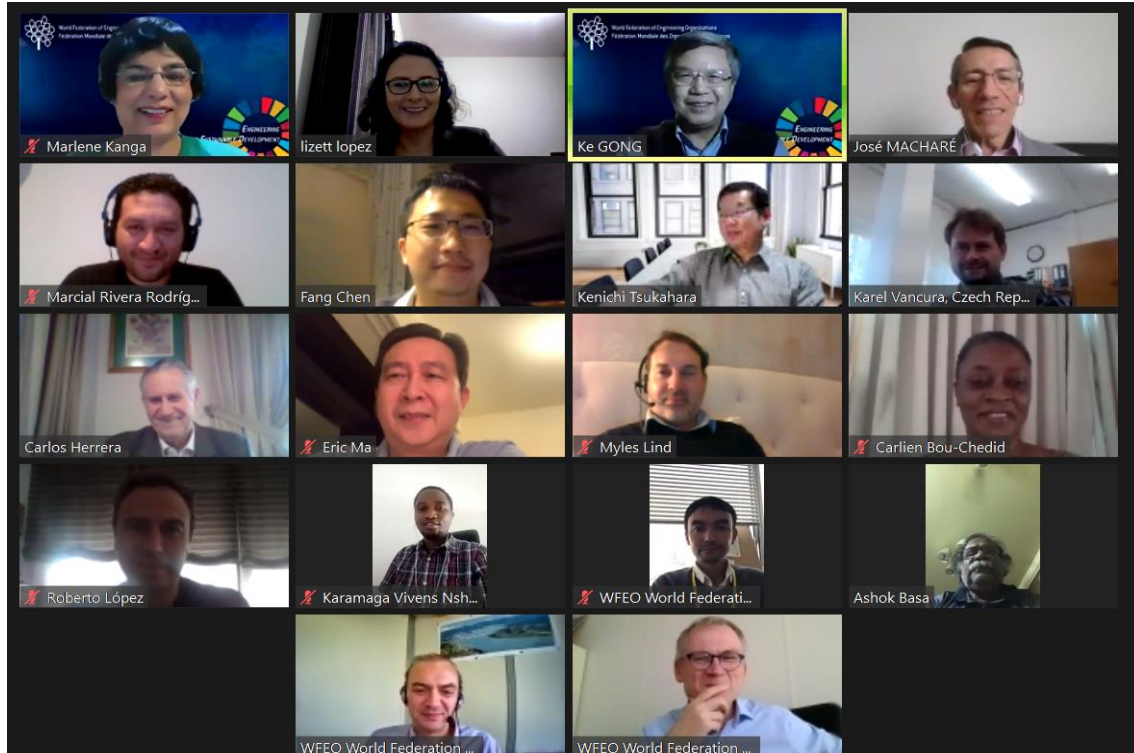
Dr. Gong Ke commented that IRDR, IPO and UNDRR was agreed to include the engineering in this important project for the next term. He suggested that CDRM could have a workshop together the IRDR IPO to discuss how the engineering community can be involved in this project. Regarding the online courses, Dr. Gong Ke suggested to make these an ordinary training course with certain kind of certificates. These courses should be recognized by the WFEO as a continuous education. Finally, he invited all participants to visit the WFEO's website more frequently and to use the information available as well as share with their social circle.

7. Closing remarks

Dr. Macharé mentioned that regarding WFEO's official documents, *"the members of the committee are conceived to be not only consultative but also to provide a quote of work in order to achieve our commitments"*. According to the WFEO Rules of Procedure, the committee should be composed of four vice chairs, who lead in this occasion the project on the booklet. The main lines of this project are: 1. Land use planning, 2. Infrastructure systems, 3. Information management and 4. Capacity building. Dr. Macharé encouraged the members to choose in which line could participate. The secretariat will send a call about your participation in the areas of interest, the chair would be very grateful if all the members confirm their choice.

Dr. José Macharé expressed his gratitude to all the participants, because the meeting has been very rich in ideas and proposals, certainly these will help the committee to achieve their commitments.

Photo of the CDRM meeting participants



*Dr. Vilas Mujumdar had to leave the meeting some minutes earlier, because he had to participate in another engagement.