



ASIA-PACIFIC GROUP
ICOLD

MINUTES OF MEETING (MOM) APG 2021 ONLINE VIRTUAL MEETING

Tuesday, October 19th, 2021
09:00-12:30 A.M. (Tehran Time)



• ATTENDEES

ICOLD President: Mr. Michael Rogers (Video-conference Speech)

ICOLD Secretary General: Mr. Michel de Vivo

ANCOLD: Mr. Andrew Reynolds (President)

CHINCOLD: Dr. Yunhua Chen (Vice-president), Jia Jinsheng (Secretary General), Ms. Amy Chen (Secretary), Ms. Cuiying Zheng (Member)

INCOLD: Dr. Sunil Sharma (President), Dr. R. K. Gupta (Vice President)

INACOLD: Dr. Aries Word (Vice Chairman)

IRCOLD: Prof. Ali Noorzad (President), Dr. Babak Ebrahimian (Secretary General), Prof. Mohsen Ghaemian (Member), Mr. Eisa Bozorgzadeh (Member), Mr. Amir Farid Mojtahedi (Member), Ms. Fatemeh Farahani (Member), Ms. Shirin Masoudian (Member)

JCOLD: Mr. Hiroyasu Sugiyama (President), Mr. Hideki Hirai (Vice-President), Mr. Takashi Tada (Vice-President), Mr. Masayuki Kashiwayanagi (Managing Director), Mr. Akira Koganezawa (Secretary General), Mr. Tatsuo Hamaguchi, (Chairman of Committee on International Affairs), Mr. Hiroki Yamamoto (Member of Committee on International Affairs), Mr. Goro Yasuda (Member)

KNCOLD: Prof. Boosik Kang (Vice President)

LADCOLD: Mr. Sychath Boutsakitirath (Director of LADCOLD)

MNCOLD: Mr. Kyaw Thein (Secretary General)

MYCOLD: Prof. Lariyah Mohd Sidek (President), Mr. Azmi Ibrahim (Vice President), Ms. Hidayah Basri (Secretary), Zulkarnain Jeffry Bin Omar (Executive Assistant), Sheikh Ahmad Farhan (Member), Jason Kh. Lim (Member)

NZSOLD: Mr. Dan Forster (President)

PANCOLD: Mr. Ahmad Kamal (Chief Engineering Advisor), Zafar Iqbal (Representative)

PNCOLD: Mr. Raymund Mariano (Secretary General), Pablito Argamosa (Member)

SLNCOLD: Dr. Kamal Laksiri (Vice President), Ms. Sudarshani Widanapathirana (Secretary General)

• ABSENTEES

Afghanistan, Bhutan, Cambodia, Georgia, Iraq, Kyrgyzstan, Lebanon, Mongolia, Nepal, Syria, Tajikistan, Thailand Uzbekistan, Vietnam



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MEETING AGENDA & SCHEDULE (09:00-12:30)

Item No.	Time	Duration (Min.)	Subject	Speaker
(1)	09:00-09:10	10:00	Opening Remarks & Keynote Speech	Prof. Ali Noorzad Chairman of APG
(2)	09:10-09:30	05:00	Congratulatory Remarks	Mr. Michael Rogers President of ICOLD
(3)	09:30-09:45	10:00	Reporting of Annual Activities & Speech on Theme	Australia – ANCOLD Rep.
(4)	09:45-10:00	10:00	Reporting of Annual Activities & Speech on Theme	China – CHINCOLD Rep.
(5)	10:00-10:15	10:00	Reporting of Annual Activities & Speech on Theme	India – INCOLD Rep.
(6)	10:15-10:30	10:00	Reporting of Annual Activities & Speech on Theme	Indonesia – INACOLD Rep.
(7)	10:30-10:45	10:00	Reporting of Annual Activities & Speech on Theme	Iran – IRCOLD Rep.
(8)	10:45-11:00	10:00	Reporting of Annual Activities & Speech on Theme	Japan – JCOLD Rep.
(9)	11:00-11:15	10:00	Reporting of Annual Activities & Speech on Theme	Malaysia – MYCOLD Rep.
(10)	11:15-11:30	10:00	Reporting of Annual Activities & Speech on Theme	New Zealand – NZSOLD Rep.
(11)	11:30-11:45	10:00	Reporting of Annual Activities & Speech on Theme	South Korea – KNCOLD Rep.
(12)	11:45-12:00	10:00	Reporting of Annual Activities & Speech on Theme	Sri Lanka – SLNCOLD Rep.
(13)	12:00-12:15	20:00	Discussions and Suggestions	All Attendees
(14)	12:15-12:30	10:00	Concluding Remarks	Prof. Ali Noorzad Chairman of APG

Link to the Online Virtual Meeting:

[https://webinaronline.ir/Default.aspx?PageName=JoinMeeting
&Action=Autologon&&Gid=08daf272-4e82-450e-9606-c4617ba17b9a](https://webinaronline.ir/Default.aspx?PageName=JoinMeeting&Action=Autologon&&Gid=08daf272-4e82-450e-9606-c4617ba17b9a)



Shahid Beheshti
University



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• **REMARKS**

The first invitation of APG 2021 online virtual meeting was sent to the APG member countries by the IRCOLD on August 24th, 2021. Subsequently, reminder letters were sent on September 11th, September 18th, and September 26th, 2021. Furthermore, tentative agenda of ICOLD-APG Regional Club online virtual meeting was emailed on October 6th, 2021 and the APG member countries were asked to submit their annual activities reports and presentations on theme.

• **MEETING SUMMARY**

The meeting was held on Tuesday, October 19th, 2021 at 09:00-12:30 A.M. (Tehran time). The time zone of each member country with respect to the local Tehran time was previously announced to all members.

At the beginning, Prof. Ali Noorzad, APG Chairman, delivered his opening remarks and keynote speech. Prof. Noorzad welcomed the chairmen of the national committees and fellow colleagues for taking a keen part in this important meeting. Then, the speech of honorable ICOLD President, Mr. Michael Rogers, was presented. Mr. Rogers talked about the updated situation of International Commission on Large Dams, the status of the office and some of the actions of ICOLD Board. He also emphasized the ICOLD upcoming events.

Afterwards, Prof. Noorzad followed the agenda and asked Dr. Babak Ebrahimian, IRCOLD Secretary General, to manage the meeting. At the beginning, Dr. Ebrahimian welcome all attendees and gave a brief introduction about the meeting. Then, he clarified some points about the online webinar system as the communication platform of the meeting. According to the alphabetic order, Dr. Ebrahimian, asked each member country to present his/her speech within the defined time interval.

• **Australia**

Mr. Andrew Reynolds, the ANCOLD president, stated their activities which were virtually organized during the last year. ANCOLD key focus was on providing technical guidelines on good practices of dam safety management. Guidelines for “Geotechnical Investigations of Dams, their Foundations and Appurtenant Structures” were prepared in 2020. ANCOLD also had a special look at tailing dams guidelines concerning “Global Industry Standard on Tailings Management” and “Operator training and experiences”. Moreover, ANCOLD activities was aimed for risk assessment of infrastructures.



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China

Dr. Yunhua Chen, Vice President of CHINCOLD, initially gave his speech on theme focusing on “Key Technologies of Jinping-I Hydropower Project Construction”. In this regard, an overview plan of the Yalong River and Jinping-I Project was presented. Arch dam of Jinping-I Hydropower Station with 305 m height, crest thickness of 16 m and total concrete volume of 5.58 million m³ was faced by complex geological environment which was deep cracks. Dr. Chen also mentioned faults occurred during slope excavation (3.34 million m³ sliding block on the left bank abutment). Moreover, he clarified the asymmetric geological conditions of dam foundation with comprehensive deformation modulus of Left bank: 1.3~5.4 GPa and Right bank: >20 GPa, then reinforced structure system for multi-direction load transmission of the load-bearing mass was discussed. Eventually, the treatment was successfully applied and the dam is under operation now. Dr. Chen presented the graph of “curves of radial displacements at each elevation of the dam arch crest over 9 years” with the result of maximum radial displacement: 43 mm, maximum compressive stress: 7 MPa, maximum tensile stress: 1 MPa, accumulative power generation: 142 TWh.

India

INCOLD Vice President, Dr. R. K. Gupta, began his speech by announcing that INCOLD Young Engineers Forum was officially launched on July 2nd, 2021 with attendance of the members from ICOLD, INCOLD, ICOLD YEF and Indian PSUs and State governments. It was aimed to bring together young engineers & students from pan India on a common platform and promote understanding & awareness of roles of Dams in beneficial and sustainable development. He continued with outlines of INCOLD forthcoming activities including various workshops and international event of 92nd Annual Meeting of ICOLD organized in October 2024, at New Delhi, India. Then, Dr. Gupta provided the audience with lots of examples of old dams still in use and largest dams in India. He concluded that the construction of reservoir dams in India has played an important role in the development of economy and society as well as water, energy and ecological securities. Eventually, as future dam projects in India, features large-scale project in challenging conditions, the use of technological developments and interventions becomes inevitable.

Indonesia

Dr. Aries Word, Vice President of INACOLD proposed his speech by reporting their annual activities. He provided some information of “recent development of Dams in Indonesia about 61 new dams (2014-2024) and 140 old dams needing remedial works. Dr.



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Word declared INACOLD innovation in dam materials and technologies by mentioning 3 different dam types. He referred the Indonesian national seminar in which almost 1000 members of INACOLD were participated and around 100 papers were received and presented. It also included virtual site visit and Young Engineers Forum meeting.

Iran

Dr. Babak Ebrahimian, IRCOLD Secretary General, reported on the IRCOLD activities in the year of 2020-2021. At first, he introduced IRCOLD establishment history and its local and international scientific level and reputation. Dr. Ebrahimian gave a statistical information on the number of papers which were presented in ICOLD events by IRCOLD members since 1976. Afterwards, he explained the IRCOLD activities during the last year. In particular, 13 IRCOLD Executive Board meetings, 59 technical committee meetings, 51 technical speeches and 2 workshops were held. IRCOLD members contributed to the 4 new ICOLD bulletins. He said that IRCOLD publishes electronic newsletter regularly. IRCOLD members have attended the 88th ICOLD Annual Meeting with 19 scientific papers. Furthermore, IRCOLD has been selected as the host of the 94th General Assembly of ICOLD (ICOLD 2026) which will be held in Shiraz. Then, Dr. Ghaemian, as an IRCOLD Executive Board Member, delivered a speech on the “Approach to Seismic Design of Cemented Material Dams (CMD)”. He asked different national committees to get together and share subject design of dams with deep foundation. Dr. Ghaemian also commented that site with competent rock for construction of new concrete dams are very scarce and smart approach is required to locate RCC concrete dams on weak foundations.

Japan

Mr. Tatsuo Hamaguchi the President of JCOLD, presented the recent developments and innovations in Japanese dam technologies. JCOLD has already sent the file of JCOLD activity report. First, Mr. Hamaguchi pointed out the “Refined RCD Construction Method of Gokayama Dam”. Refinement in concrete placing and compacting procedure provided faster execution of the concrete placing work, securing the required performance of the dam body. Then, Mr. Hamaguchi discussed the “CSG Construction Method” which is applicable to higher dams. Eventually, the JCOLD president ended his speech by referring to “new technologies which enable dam upgrading projects”. Major purposes of these upgrading projects include enhancement of flood control capability and countermeasures against sediment problems. The big constraint condition for these upgrading projects is that the running functions of the dam for flood control and water use must be maintained even during the upgrading work.



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Malaysia

Prof. Lariyah Mohd Sidek, MYCOLD President, began her speech by introducing MYCOLD and dams background in Malaysia. Prof. Sidek mentioned MYCOLD strategic planning and objectives. With respect to its activities in 2019, she added that various webinars, training courses, publications, international conferences, MoUs, international program involvements and certified programs were held. The most important one was “International Conferences of Dam Safety Management and Engineering”. Furthermore, MYCOLD is going to discuss the collaboration with “ASIA 2022” which will take place from March 15th-17th, 2022. Prof. Lariyah Mohd Sidek mentioned that one of the MYCOLD important issues is capacity building. MYCOLD President announced that they are going to organize Dam Safety Virtual Symposium on November 16th, 2021. Eventually, she also clarified the recent developments and innovations in dam materials and construction technologies in Malaysia.

New Zealand

Mr. Dan Foster, the NZSOLD President, initially emphasized on Dam Safety Guidelines in New Zealand as their key focus and he carried on his speech by pointing out “Regulatory Environment”. The regulations will enforce a sub-set of the activities already recommended by dam safety guidelines as potential impact classifications, dam safety assurance programs and the annual audit of dam safety assurance program compliance. Mr. Foster reviewed technical symposia, workshops and conferences organized by NZSOLD. He honored the Young Professionals Group who are very active and they benefit from their perspectives and involvement, as well as encouraging knowledge transfer and succession planning in the industry.

South Korea

Prof. Boosik Kang, KNCOLD Vice President, presented activities of KNCOLD and the engineering topic of dam safety management using digital transformation technology in Korea. Firstly, he mentioned that the 11th EADC (East Asian Area Dam Conference) has been postponed to September 2022. However, KNCOLD-KCID Meeting was held on June 18th, 2020, sharing dam technologies and knowledge on integrated water management, dam safety technology and so on. In the second stage, Prof. Kang introduced 4th industrial revolution technology to infrastructures which has been started since 2016. Prof. Kang gave some points about launching the smart dam safety management project as one of the new



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deal project. Prof. Kang mentioned that much better safety management system for dams is required because of dam ageing, impacts of climate change, worsening of difficulty in securing the budget for maintaining SOC facilities. Through the established smart dam safety management platform, it is expected to enhance the residual value of infrastructures, extend lifespan of dam facilities, and save maintenance costs as well.

Sri Lanka

Dr. Kamal Laksiri, the Vice President of SLNCOLD, gave a speech on theme by mentioning recent development and rehabilitations in dams by providing some detailed information and examples. He emphasized that Sri Lanka has 103 river basins and 113 large dams owning by governments and semi-government organizations. The construction of Moragahakanda, Kaluganga, Yan Oya, Morana, Broadland has recently been completed. Also, there are many dams at planning and design stages and under construction stage. Dr. Laksiri stated recent rehabilitations for repairing of cracks in Senanayaka Samudraya headworks and rehabilitation of Nalanda dam. Eventually, he mentioned that dam safety regulations was not available in Sri Lanka; therefore, draft proposal of dam safety regulation mechanism was recently submitted to the Sri Lanka parliament for approval.

• Concluding Remarks

At the end of virtual meeting, Prof. Noorzad thanked all member countries and their representatives for their active participation in the meeting. He appreciated the effective involvement and patience of all members in the meeting with around 4 hour's duration. Finally, Prof. Noorzad hoped that the world can return to some degree of normality due to the deployment of vaccination and all members can meet in presence in the next APG meeting and congress in Marseille. He wished all members safety, good health and success. The meeting was closed at 12:30, Tuesday, October 19th, 2021.