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NEWS FROM ACADEMY OF SCIENCES OF THE ISLAMIC REPUBLIC OF IRAN

FIRST VICE PRESIDENT: THE ACADEMIES SHOULD DEVELOP STRATEGIES FOR DEALING WITH COVID-19

The 30th meeting of the Board of Trustees of the Academies was held on Wednesday, 24th February, 2021. Dr. Eshaq Jahangiri, First Vice President of IR Iran and the Chairman of the Board of Trustees, presided at the meeting.

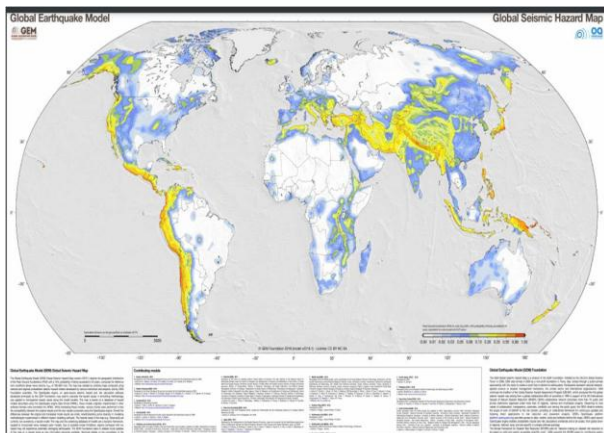


The attendees comprised Minister of Health and Medical Education, Minister of Science, Research and Technology, Minister of Culture and Islamic Guidance and the presidents of the four Iranian academies. In this meeting, Dr. Jahangiri stated that the COVID-19 pandemic has had health, economic, cultural, political and social consequences. As a result, the Academies should study the dimensions of

and develop strategies for dealing with this disease. Referring to the report of the Academy of Medical Sciences on COVID-19, Dr. Jahangiri stressed the support of all sectors of the measures taken by the above ministry for confronting the spread of the disease. Then, the presidents of the four Academies reported on their activities and the five-year plans of their own academies.

GLOBAL EARTHQUAKE RISK MAP IS PUBLISHED

The Global Earthquake Risk Map has been published. Specialists from seventy countries around the world have participated in the preparation of the map. From Iran, Prof. Mehdi Zare, chairman of the Geology Division, Department of Basic Sciences of the Academy and Professor, International Institute of Earthquake Engineering and Seismology, was the main member of the team that prepared the model for this map in 2018.



The Global Earthquake Risk Map, recently published as a result of the Global Earthquake Model (GEM) international project, shows well the status of our region and country in terms of earthquake risk in the world. Dr. Mehdi Zare was one of the main authors and the head of the Earthquake Catalog Working Group. Our country is not located in the most seismic prone region of the world. However, the Middle East in general and Iran in particular is

estimated to be one of the most dangerous regions in the world in the second decade of the 21st century in terms of vulnerability and earthquake risk.

FUTURE DAY CEREMONY AT THE ACADEMY

World Future Day is on March 1st. The Academy has been honoring the Future Day in a ceremony for several years. Topics related to the future of the country and the worlds are selected and experts and scientists in various fields of science are invited to deliver lectures.



The Science and Technology Foresight Commission of the Academy held the Sixth Future Day Ceremony with the focus on Science and Technology: As a Means for Confronting Pandemics and Covid-19. Prof. Reza Davari Ardakani's lecture was also presented at the ceremony. He thanked the lecturers for their contributions and for focusing on the Covid-19 pandemic, a problem which is of prime significance now and in the future.

NEWS FROM ACADEMY OF SCIENCES MALAYSIA (ASM)

STDI WEBINAR SERIES! THE SPACE INDUSTRY: ARE THE STARS WITHIN OUR REACH?

The Academy of Sciences Malaysia (ASM) Science & Technology Development and Industry (STDI) Discipline Group organised a webinar titled "The

Space Industry: Are the Stars Within Reach?” on 13 January 2021 via Zoom. This webinar was a platform of discussion among the experts, key stakeholders and publics on the development of space industry in Malaysia. Utilising space contributes positively to many important areas such as climate and weather monitoring, efficiency in transportation and agriculture, security, and humanitarian assistance. The global space industry is currently experiencing significant growth as space-related technologies are rapidly adopted by other industries to enhance their output and the revenue generated by the global space industry is forecasted to reach over than USD 1 trillion by 2040. In Malaysia, space technologies have contributed to many important areas such as communication network, internet and broadcasting, map and navigation, weather monitoring and forecasting, and even for the security of the country. Therefore, it is vital for the space industry in Malaysia to be further strengthened for it to support our country’s socio-economic development and boost competitiveness. Space exploration has given birth to space technology and applications that cover various aspects of today’s society. However, many Malaysians are still unaware of the contributions and benefits derived from space technology. Malaysia is a developing economy that does not currently have the capability nor the domestic market size to support a high-tech space industry. The needs for national space capabilities at this time can be met through smart partnerships with international parties. However, for the long term, Malaysia needs to have planning for master strategic and appropriate space.

The speakers featured in this webinar are:

- Dr Nafizah Goriman Khan from Nottingham University
- Mr Zainuddin Abdul from MEASAT
- Professor Mazlan Hashim FASc from Universiti Teknologi Malaysia

- Professor Emerita Mazlan Othman FASc from ASM
- Dr Tunku Intan Mainura from UiTM

STDI WEBINAR! THE AVIATION INDUSTRY: TAKING US TO THE SKIES AGAIN?

The COVID-19 pandemic has brought the aviation industry to its knees as national borders have been closed to contain the spread of the corona virus, which has resulted in the grounding of thousands of aircraft globally. Airlines not already bankrupt are tottering on the brink.



In relation to this, the ASM Science & Technology Development Industry Discipline Group (ASM STDI) in collaboration with Malaysian Industry-Government Group for High Technology (MIGHT) organised a webinar to highlight the issue of the aviation industry in Malaysia. Emerita Professor Dato’ Seri Dr Mazlan Othman FASc (chair of the ASM STDI Discipline Group) said it is evident that the global airline industry has been disproportionately affected by the COVID-19 pandemic. The strain on the previously fundamental industry has affected a significant portion of the world economy. Air travel is the key facilitator of the tourism industry which contributes 10% to the global GDP and affects millions of jobs. Travel restrictions and closing off borders were measures taken to prevent the spread of the pandemic but with vaccines introduced, the question arises, when can we start travelling again? Dr Raslan Ahmad FASc (Vice

President of MIGHT) who moderated the session emphasised that the aviation sector is one of the industries hit hardest by the pandemic. This is deemed the largest shock the industry ever saw since the Second World War. Previously, the adverse impact of the 9/11 attacks and the 2007-2008 global financial crisis were thought to be dramatic; neither compare to the estimated scale of the current situation facing the global aviation industry. Most experts in the aviation industry agree that the prospective recovery may take more than three years to reach the pre-crisis traffic levels, though we may not see pre-COVID-19 traffic volumes again before the end of 2021. In his keynote address, Dr Bicky Bhangu (President of South East Asia, Pacific and South Korea at Rolls-Royce Asia) highlighted that in Asia, air travel is affected by the increasing number of cases pushing back on when air travel may commence again. In response, governments have provided support to local carriers to avoid bankruptcy. Mr Mohsin Aziz mentioned that safety and the perception of safety are crucial for the aviation industry to flourish again. People are eager to travel but the responsibility is on the government to facilitate this process to ensure it is safe to travel again. Quarantining is one method of containing the spread of the virus. Universal standards of testing would be the first step in the push for the airline industry's recovery. A shared standard could increase the perception of safety and serve as the catalyst for recovery. Air Asia CEO, Mr Riad Asmat, mentioned that the pandemic provided airlines with opportunities to re-evaluate and reinvent. With changes to air travel, Air Asia has adapted swiftly to ensure protocols were met and employees were retained. One such method is by going contactless through digitisation of the system and procedures from beginning to the end. These include processes

such as registration and boarding to comply with physical distancing measures. Mr Salahuddin (General Manager of Aviation Marketing and Development, Malaysia Airports Holdings Berhad) echoed the same view. He shares that Malaysia Airport Holdings are preparing for the recovery phase with plans to intensify its collaboration with local and foreign carriers. This effort is to resuscitate domestic and international air travel. In addition, Malaysia Airport Holdings would also cooperate with Federal and State tourism bodies. Although passenger aircrafts were impacted, Mr Salahuddin saw the presence of a silver lining; air cargo has benefited from the capacity crunch, seeing an increase in yield and revenue. Moving forward, collaboration from all parties is crucial for recovery. Without preparation and the right programmes applicable for all countries, recovery would be difficult to achieve. Dato' Sri Azharuddin Abdul Rahman (chairman of Layang-Layang Flying Academy Sdn Bhd) emphasised the need for the right management programmes to prevent the spread of airborne diseases. Accomplishing this feat necessitates a collective effort from all stakeholders as well as strong political will in the implementation and execution stages.

An interesting point highlighted by the panelist is the digital passport introduced by the Government. This had previously been utilised when yellow fever and typhoid were rampant. By expanding it to include an individual's entire medical history, it may allow for integration with World Health Organisation (WHO) as well as the International Air Transport Association (IATA) and the International Civil Aviation Organization (ICAO) by utilising data to ensure public safety. However, this then requires measures to ensure the data is protected.

NEWS FROM PAKISTAN ACADEMY OF SCIENCES (PAS)

SPECIAL LECTURE ON EQUALITY IN EDUCATION



Pakistan Academy of Sciences (PAS) organized a special lecture on Equality in Education in the PAS Auditorium. Dr. Hazir Ullah, Associate Professor Sociology & Director ORIC, Quaid-i-Azam University Islamabad was invited as a Guest Speaker. He spotlighted the existing education inequities in Pakistan. He stressed that education is a basic human right and must be equally accessible to all citizens, irrespective of social class, gender, ethnicity, race, or rural and urban divide as a public good. He argued that the government of Pakistan should focus on the equity of education in society.

Dr. Hazir Ullah stressed Fair and Inclusive education for the welfare of our society. A fair and inclusive educational system ensures access to high-quality education and provides opportunities for personalized learning, personal and social development. He emphasized that the government should respond to the needs of disadvantaged categories (girls, students from lower socio-economic and rural backgrounds). He demanded a single School System of high quality in addition to a single national curriculum. In the end, Prof. Dr. Tasawar Hayat, Secretary General PAS, thanked the invited speaker for his impressive presentation.

AASSA-PAS WEBINAR-I PANDEMIC PREPAREDNESS: SCIENCE AND COUNTERMEASURES

Sub-theme: SDGs and Pandemics

Pakistan Academy of Sciences (PAS) and the Association of Academies and Societies of Sciences in Asia (AASSA) with the support of InterAcademy Partnership (IAP) organized an AASSA-PAS Webinar-I on SDGs and Pandemics on April 27, 2021, in the Pakistan Academy of Sciences. **His Excellency Senator Shibli Faraz**, Federal Minister for Science and Technology inaugurated the Webinar-I.



Prof. Khalid Mahmood Khan, President, Pakistan Academy of Sciences presented the welcome address. He emphasized the importance of media and sharing of data to counter the emerging pandemic potential. He mentioned that many lives were lost as a result of this pandemic. He highlighted the importance of follow-up of SOPs and the adoption of measures dictated by the local government and health regulatory bodies to cope with the issue of the spread of the pandemic. In his online address, the Minister of Science & Technology, H.E. Senator Shibli Faraz appreciated the efforts of PAS and AASSA for timely taking up the important issue of Pandemics. He inaugurated the webinar and mentioned that among the most pressing issues in preparing for the global response to a pandemic situation are the design, development, manufacture,

and dissemination of vaccines. The response to this pandemic has shown that when leading vaccine manufacturers are fully engaged in a global response, it might be possible for them to manufacture substantial doses of vaccine on timelines faster than envisioned previously. **Prof. Dr. Tasawar Hayat**, Secretary General, PAS Islamabad paid gratitude to the Federal Minister, Senator Shibli Faraz on behalf of the organizing committee, AASSA, and the PAS. He thanked Senator Shibli Faraz for his virtual (online) participation in the webinar. He appreciated the efforts of Prof. Khalid Mahmood (President, PAS), Prof. Yoo Hang Kim (President, AASSA) Prof. Zabta Khan Shinwari (Chief Organizer of the Webinar Series 2021), resource persons, speakers, and the whole organizing committee. He thanked all the speakers and participants for their inputs & contributions and announced that PAS will soon publish a special issue on the proceedings of the current webinar series and a policy document as to how to respond to pandemics. Under the sub-theme SDGs and Pandemics, a total of 10 lectures were presented by the leading experts, of which three (03) lectures were presented by international speakers from three countries namely Turkey, Dubai, and Nepal, and seven (07) lectures by Pakistan speakers. Prof. Dr. Masoom Yasinzai (Rector IIUI), Islamabad served as the moderator for this webinar. In his online address, Prof. Muzaffer Seker, President, TUBA, Turkey discussed the efforts of TUBA to prevent COVID-19 and the assessment report of the COVID-19 survey conducted by TUBA in collaboration with researchers and scientific experts. He emphasized that the recommendations should be reliable and applicable to work and fight together against this epidemic. Prof. Anjana Singh, Nepal, discussed the origin of COVID-19 and the impact of the COVID-19 Pandemic on Women in Nepal. She

proposed recommendations to prevent the downfall of productivity due to the increased risk of epidemic. Ms. Maryam Sayab, Project Development Manager, Asian Council of Science Editors (ACSE) convoluted the role of ACSE in facilitating the publishing and engaging scholarly community. Prof. Syed Ghulam Musharraf discussed various types of viruses to comparatively discuss COVID-19. He elaborated that people with diseases have more exposure to COVID-19 due to a weak immune system. Dr. Muhammad Ali discussed symptoms, patterns, and consequences of COVID-19 and proposed recommendations to mitigate this epidemic. Dr. Ali Talha Khalil shared current updates on COVID-19 and discussed other breakthrough infections. Prof. Mushtaq Ahmad discussed various herbs and alternative therapies for pandemic diseases by consuming Herbal Drinks to boost the immune system. Dr. Farhan Khan elaborated the collection and analysis of various samples to overall estimate the risk of this epidemic on the lives of people. Dr. Saima Sharif gave a presentation on behalf of Prof. Farkhanda Manzoor Dugal to determine the impact of atmosphere and climate change to further increase the growth of epidemics and elaborated on various models that can be utilized to determine the impact. All the speakers stressed Building the Global Vaccine Manufacturing Capacity to respond to Pandemics. Prof. Zabta Khan Shinwari spoke about the way forward to combat COVID-19. He remarked that what emerges next will partly depend on the ongoing evolution of SARS-CoV-2, on the behavior of citizens, on the government's decisions about how to respond to the pandemic, on progress in vaccine development and treatments, and also in a broader range of disciplines in the sciences and humanities that focus both on bringing this pandemic to an end and learning how to

reduce the impacts of future zoonosis, and on the extent to which the international community can stand together in its efforts to control COVID-19. Many factors will determine the overall outcome of the pandemic. A nationalistic rather than global approach to vaccine delivery is not only morally wrong but will also delay any return to a level of “normality” (including relaxed border controls) because no country can be safe until all countries are safe

NEWS FROM THE GLOBAL NETWORK OF SCIENCE ACADEMIES (IAP)

The InterAcademy Partnership (IAP) at the United Nations Food Systems Summit (UN FSS)

IAP will deliver policy briefs based on the Food and Nutrition Security and Agriculture project reports and identify experts to engage in dialogue events

The UN Food Systems Summit

In 2021, UN Secretary-General António Guterres will convene a Food Systems Summit (UN FSS) to raise global awareness and land global commitments and actions that transform food systems to resolve not only hunger, but to reduce diet-related disease and heal the planet. The Secretary-General is calling for collective action of all citizens to radically change the way we produce, process, and consume food. He has put in place several structures to support the Summit process. The culminating Summit gathering will take place in New York in September 2021 in conjunction with the UN General Assembly. This will be preceded by a pre-Summit gathering in Italy in July 2021. The preparatory process is now already underway and builds on the many existing global events, processes and platforms that support the transformation of the world's food systems through agreements,

commitments or other collaborative actions. The Summit process is also building synergies among multiple regional and national initiatives and alliances that are working to support the transformation of food systems. The Summit and preparatory process draw on evidence and knowledge from all sources to inform the global ideas and recommendations that will be shared with stakeholders around the world.

The Scientific Group:

- Is an independent and diverse group of leading researchers and scientists from around the world;
- Is responsible for ensuring the robustness, breadth and independence of the science that underpins the Summit and its outcomes;
- Will inform the Summit's content, recommended outcomes, clarify the level of ambition and commitments that will emerge from the Summit;
- Works closely with the other structures for the Food Systems Summit, especially the Special Envoy for the Food Systems Summit and her Secretariat, the Action Tracks and Dialogue initiatives.

The group includes Mohamed Hassan, former IAP President, and is chaired by Joachim von Braun, who led the IAP Food and Nutrition Security and Agriculture (FNSA) study. The IAP Food and Nutrition Security and Agriculture reports will be updated. At the request of the chairs of the Scientific Group, the InterAcademy Partnership (IAP) will deliver 4 regional policy briefs based on the previous reports from its regional networks in Asia (AASSA), Europe (EASAC), the Americas (IANAS) and Africa (NASAC) for the FNSA project, updated with recent scientific evidence, policy development and assessment. The policy briefs will cover issues for transformation of food systems for improved health, nutrition, sustainable agriculture, and the environment. In addition, there will be a fifth, global, policy brief drawing on the 4 regional ones together with the global report from the FNSA project, also appropriately updated. An

outline scope has been agreed with the Scientific Group and it is anticipated that the 5 policy briefs will be completed by April. IAP will then consider further opportunities for discussing these publications worldwide. In addition, during the course of 2021, the UN FSS will be organising dialogue events with stakeholders, including the scientific community, in preparation for the Summit. IAP academies (and regional academy networks) are encouraged to identify scientific experts to engage in these dialogues and IAP will contact relevant academies (and networks) in due course when more information about national events is available.

For detail please visit UN Food Systems Summit website.

LATEST NEWS ON SCIENCE AND TECHNOLOGY

NASA SPACEX CREW-2 “GO” FOR APRIL 22 LAUNCH TO THE INTERNATIONAL SPACE STATION



The crew for the second long-duration SpaceX Crew Dragon mission to the International Space Station, NASA's SpaceX Crew-2, are pictured during a training session at the SpaceX training facility in Hawthorne, California. From left are, Mission Specialist Thomas Pesquet of the ESA (European Space Agency); Pilot Megan McArthur of NASA; Commander Shane Kimbrough of NASA; and Mission Specialist Akihiko Hoshide of the Japan Aerospace Exploration Agency. Credit: SpaceX

The Flight Readiness Review (FRR) for NASA's SpaceX Crew-2 mission to the International Space Station has concluded, and teams are proceeding toward a planned liftoff at 6:11 a.m. EDT Thursday, April 22, 2021, from Launch Complex 39A at the

agency's Kennedy Space Center in Florida. NASA will provide coverage of the upcoming prelaunch and launch activities for the agency's SpaceX Crew-2 mission with astronauts to the International Space Station. This is the second crew rotation flight of the SpaceX Crew Dragon and the first with two international partners. The flight follows certification by NASA for regular flights to the space station as part of the agency's Commercial Crew Program. The launch, on a Falcon 9 rocket, is targeted for 6:11 a.m. EDT Thursday, April 22, from Launch Complex 39A at NASA's Kennedy Space Center in Florida. The Crew Dragon is scheduled to dock to the space station about 5:30 a.m. Friday, April. 23. Prelaunch activities launch, and docking will air live on NASA Television, the NASA app, and the agency's website. The Crew-2 flight will carry NASA astronauts Shane Kimbrough and Megan McArthur – who will serve as the mission's spacecraft commander and pilot, respectively – along with JAXA (Japan Aerospace Exploration Agency) astronaut Akihiko Hoshide and ESA (European Space Agency) astronaut Thomas Pesquet, who will serve as mission specialists to the space station for a six-month science mission and only a limited number of media will be accommodated at Kennedy due to the ongoing corona virus (COVID-19) pandemic.