# 2023 International Training Workshop on Open Science and SDGs

28th August - 8th September 2023 Beijing, China

# TRAINING HANDBOOK



# 2023 International Training Workshop on Open Science and SDGs

# **Sponsors**

Chinese Academy of Sciences (CAS)

Committee on Data of the International Science Council (CODATA)

International Research Center of Big Data for Sustainable Development Goals (CBAS)

# **Organizers**

Computer Network Information Center (CNIC), CAS

CAS-TWAS Centre of Excellence on Space Technology for Disaster Mitigation (SDIM)

Integrated Research on Disaster Risk (IRDR)

Committee on Disaster Risk Management of World Federation of Engineering Organizations

(WFEO CDRM)

CAS-TWAS Network for Sustainable Development

Chinese National Committee for CODATA

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# <Background and Objective>

Facing the grand challenges in the 21st century, open collaboration and open science among global stakeholders are vital to ensure a healthier and more sustainable planet for generations to come. In line with the <u>UNESCO Recommendation on Open Science</u> and the <u>Sustainable Development Goals (SDGs)</u> of the United Nations, the idea to co-design and co-build the Global Open Science Cloud (GOSC) was proposed during the <u>CODATA 2019 Beijing conference</u>. Officially inaugurated in 2021, <u>GOSC</u> aims to encourage cooperation, alignment, and ultimately interoperability among worldwide open-science research clouds/platforms/initiatives, so as to tackle the major global scientific and human challenges. As a global initiative, GOSC highlights the importance of capacity building for open science and SDGs, with yearly international training programs launched to fulfil its obligations for international collaboration and alignment.

This year, <u>CAS</u> is cooperating with <u>CODATA</u> (and in particular its GOSC Initiative) and <u>CBAS</u> to support the 2023 International Training Workshop on Open Science and SDGs. The upcoming event will be facilitated by <u>CNIC</u>, <u>CAS</u> (convened by the <u>GOSC IPO</u>), <u>CAS-TWAS SDIM</u>, <u>IRDR</u>, <u>CAS-TWAS Network</u> for <u>Sustainable Development</u>, <u>WFEO CDRM</u>, and <u>Chinese National Committee for CODATA</u>, Uniting the joint efforts of these organisations, the 2023 International Training Workshop will focus on generic knowledge and skills for open science as well as best practices across domains for SDGs. Qualified trainees will receive funding support to attend the onsite training (28 August - 8 September 2023, Beijing, China).

# <Contact>

## **General Contact:**

Ms. Xueting Li, Computer Network Information Center, CAS/GOSC IPO

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## **Travel and Accommodation:**

Ms. Ting Wang, Computer Network Information Center, CAS,

Email: <<u>wangting@cnic.cn</u>>
Tel: <u>86+15210687107</u>

# WhatsApp Community:

https://chat.whatsapp.com/HsyMJUIGMpDJgeOqASKlMy



## <Venue>

Training Venue: 501 Room, CAS Informatization Plaza No.2 Dong Sheng Nan Lu, Haidian

District, Beijing 100083, China



# <Archive>

## <Course Materials>

Extract password: gosc

**Expiration time:** 2023-10-31 14:30:09

**Operation permission:** Preview/Download/Upload **Link address:** <a href="https://pan.cstcloud.cn/s/L9ZogNEIT9U">https://pan.cstcloud.cn/s/L9ZogNEIT9U</a>

# <Online Meeting>

Zoom Link: <a href="https://zoom.us/my/gosc.meeting">https://zoom.us/my/gosc.meeting</a>

**Meeting ID:** 674 204 3003

Passcode: 877420

# < Notes for Participation>

- (1) Please take note that you must have your workshop badge all the time during the workshop.
- (2) Please pay prompt attention to workshop notice through your email address and WhatsApp.
- (3) Please keep your hotel-room key with you until you check out.
- (4) Please take note that the organizers of the workshop will cover only the accommodation and meals during the workshop. Any additional expenses, e.g. phone calls, laundry, drinks, etc. need to be covered by your own.
- (5) Please always keep the classroom clean and tidy, and do not forget to take your belongings with you.
- (6) Please contact the secretariat stuff immediately when you have any concerns or problems.

# < House-keeping Guidelines>

#### **Before the Course:**

a) Arrival and Punctuality: Please arrange your schedule to ensure timely attendance at Room 501 for the training. During our training workshop, your attendance will be recorded, which is important for evaluating your overall performance.

## **During the Course:**

- a) Active Participation: We encourage you to actively engage in discussions, raising questions, and sharing your experiences during the training sessions.
- b) Respectful Communication: Please respect the opinions of others and maintain a courteous and respectful manner during all interactions.

## **After the Course:**

- a) Content Usage: Please be aware that all lectures and presentation materials will be recorded, shared, and used for knowledge-sharing purposes only, rather than for commercial use.
- b) Feedback Survey: A survey will be provided to all participants after all courses. This questionnaire aims to gather feedback from attendees, assessing the quality of our courses and measuring the impact of the event.

# <Agenda>

## Day 1 Tuesday, 28 Aug. 2023, CAS Informationization Plaza, Room 501

**09:00-09:30** Registration

**09:30-12:00** Brief self-introduction and training workshop arrangement (3-5' each)

12:00-14:00 Lunch and break

14:00-14:45 Welcome remarks (Co-chairs: Prof. Jianhui Li, CNIC CAS, Prof. Fang Chen, CBAS)

14:45-15:00 Group photo and break

15:00-17:00 Introductory reports (Co-chairs: Dr. Lili Zhang, CNIC CAS/GOSC IPO, Dr. Lei Wang, CBAS)

Introduction to CBAS and SDG Big Data Platform (Prof. Fang Chen, CBAS)

Introduction to CNIC and CSTCloud (Prof. Jianhui Li, CNIC CAS)

Introduction to GOSC IPO and its Capacity Building Programs (Dr. Lili Zhang, CNIC CAS/GOSC IPO)

## Session 1: Towards Inclusive Open Science and SDGs: Policies and Governance

## Day 2 Tuesday, 29 Aug. 2023, CAS Informationization Plaza, Room 501

09:00-10:00 UN SDG Platform and Interoperability of Indicators (Dr. Luis Gerardo Gonzalez Morales, UN, Online)

10:00-11:00 Open Science for Disaster Mitigation in IRDR (Prof. Qunli Han, IRDR)

11:00-12:00 Measuring Openness of Data Resources (Dr. Paul Uhlir, consultant, online and Dr. Lili Zhang, CNIC CAS)

12:00-13:30 Lunch and break

13:30-14:30 Responsible Open Science and Open Data (Mr. Francis P. Crawley, GCPA/ CODATA IDPC)

14:30-15:00 UNESCO Open Science Implementation (Dr. Ana Persic, UNESCO, Online)

**15:00-15:30** The Sendai Framework Disaster Risk Reduction and the SDGs - the UNDRR/ISC Hazard Information Profiles (Prof. Virginia Murray, UK Health Security Agency, Online)

**15:30-16:30** Legal Frameworks for Open Data (Mr. Alexander Bernier, McGill University's Centre of Genomics and Policy, Online)

**16:30-18:00** Group Discussion: Open Science and SDGs in your country/region/domain/institution (Coordinated by Mr. Francis P. Crawley, CODATA IDPC and Dr. Lili Zhang, CNIC CAS/GOSC IPO)

## Session 2: Data Resources & Tools for Promoting Open Science and SDGs

## Day 3 Wednesday, 30 Aug. 2023, CAS Informationization Plaza, Room 501

**09:00-12:00** Data Visualization (Prof. Xiaoru Yuan, Peking University)

12:00-13:30 Lunch and break

13:30-14:30 Review of Common Research Identifiers for Open Science (Ms. Jia Liu, CNIC CAS)

14:30-16:30 Introduction of Data Mining (Pro. Ying Liu, UCAS)

16:30-18:00 Open Data Services in FairStack and OpenCSDB (Ms. Fang Han, CNIC CAS)

## Day 4 Thursday, 31 Aug. 2023, CAS Informationization Plaza, Room 501

**09:00-10:30** Data analysis in R - Lecture (Prof. Jiangshan Lai, Nanjing Forestry University)

10:30-11:00 Break

11:00-12:00 Data analysis in R - Hands-on session (Prof. Jiangshan Lai, Nanjing Forestry University)

12:00-13:30 Lunch and break

13:30-17:00 IaaS in CSTCloud Federation & Hands-on session (Dr. Haiming Zhang, Mr. Zuliang Guo, Dr. Yuepeng Li, CNIC CAS)

## Day 5 Friday, 1 Sep. 2023, CAS Informationization Plaza, Room 501

**09:00-10:00** Basics to Python and Application in CASEarth SDG Work Bench & Hands-on (Dr. Yingchao Piao, CNIC CAS)

10:00-12:00 SDGs Data Resources (Prof. Dongmei Yan and Prof. Guojin He, AIR CAS)

12:00-13:30 Lunch and break

13:30-14:30 Earth System Numerical Simulator and its Application for Climate Studies (Prof. Zhaohui Lin, IAP CAS)

14:30-15:30 Climate Change in Africa and Possible Solutions (Dr. Victor Dike, IAP CAS)

15:30-15:45 Break

**15:45-16:45** Open Science Cloud Showcase of Semantic Climate (Prof. Gitanjali Yadav, Prof. Peter Murray-Rust and Dr. Shweata N. Hegde, University of Cambridge, Online)

16:45-18:00 Co-building Future-led Open Science Infrastructures

Introduction to the Global Open Science Cloud Initiative (Dr. Simon Hodson, CODATA, online)

#### **Panel Discussion**

Co-chairs: Mr. Francis P. Crawley and Dr. Lili Zhang

Panelist: Prof. Perihan Elif Ekmekci, Ms. Mercury Fox, Dr. Simon Hodson (remotely), Mr. Christopher Zhu, and all trainees

Potential topics: Current Challenges and Future Directions

## Day 6 Saturday, 2 Sep. 2023

**09:30-11:30** Visit to the International Research Center of Big Data for Sustainable Development Goals (CBAS)

11:30-13:00 Lunch and Break

13:00-16:00 Visit to the Earth System Numerical Simulation Facility (EarthLab)

## Day 7 Sunday, 3 Sep. 2023 Break

09:30-11:30 Visit to Hua Wei Cloud Center

11:30-13:00 Lunch and Break

18:30-19:30 ISOSC 2023 Reception, CAS Informationization Plaza, Room 601

## Day 8 Monday, 4 Sep. 2023, CAS Informationization Plaza, Room 501/601

9:00-18:00 2023 International Symposium on Global Open Science Cloud (ISOSC) 2023

## Day 9 Tuesday, 5 Sept. 2023, CAS Informationization Plaza, Room 501/601

9:00-12:30 ISOSC 2023

Parallel Session 3a Policy and Governance

Parallel Session 3b Technical Infrastructure

12:30-13:30 Lunch and break

13:30-16:30 ISOSC 2023

Parallel Session 4a: Open Science Cloud Stories to Tackle Humanity Challenges

Parallel Session 4b: Open Science Cloud Stories for Exploratory Discovery

16:30-16:45 Break

16:45-17:30 ISOSC Panel Discussion

## Day 10 Wednesday, 6 Sep. 2023, FBAS 2023 Conference, Beijing International Convention

#### Center

**09:00-12:00** The 3rd International Forum on Big Data for Sustainable Development Goals (FBAS2023): Opening Ceremony and Keynote Speech

12:00-13:30 Lunch and break

13:30-17:00 The 3rd International Forum on Big Data for Sustainable Development Goals (FBAS2023): Global Youth Session for SDGs Research and the Global Alignment

## **Session 3: Best Practices to Achieve the UN SDGs**

## Day 11 Thursday, 7 Sep. 2023, CAS Informationization Plaza, Room 501

**09:00-10:00** Big Earth Data in Support of Land Degradation Neutrality (Prof. Xiaosong Li, AIR CAS)

10:00-11:00 Data-driven Carbon Management for SDGs: Standards, Software Development and Practices (Dr. Yuchu Qin, AIR CAS)

11:00-11:15 Break

11:15-12:15 CGI/OGC Geoscience Standards Supporting Data Open and FAIR (Prof. Minghua Zhang, CGI)

12:15-13:30 Lunch and break

13:30-14:30 DDE Open-science Knowledge Platforms (Prof. Shu Wang, IGS NRR, Prof. Linshu Hu, Zhejiang University)

**14:30-15:30** Southeast Asia Regional Climate Change Information System, SARCCIS (Dr. Jerasorn Santisirisomboon, Ramkhamhaeng University, online)

15:30-16:00 Break

16:00-17:00 SDGs Research supported by AOSP (Dr. Tshiamo Motshegwa, AOSP)

## Day 12 Friday, 8 Sep. 2023, CAS Informationization Plaza, Room 501/Beijing International

#### **Convention Center**

9:00-11:30 Group Discussions & Preparation of the Collective Report on Promoting Open Science and SDGs

11:30-13:30 Lunch and break

13:30-15:00 Closing Ceremony

- Closing Remarks (20')
- Reports from Trainees (40')
- Certificate Award (30')

### 15:00 Adjourn

# <Speaker >



Dr. Luis Gerardo Gonzalez Morales

**Course Title: UN SDG Platform and Interoperability of Indicators** 

Luis Gonzalez Morales is Chief of the Web Development and Data Visualization Unit and focal point on Data Revolution for Sustainable Development at the UN Statistics Division. He is part of the Secretariat's team organizing the UN World Data Forum and supporting the High-level Group for Partnership, Coordination and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development, and co-leads initiatives in data interoperability and integration of geospatial information and statistics for the SDGs. Since he joined the Statistics Division in 2005, Luis has worked with national statistical offices and international partners on methodology and capacity development projects, particularly in the fields of economic statistics, data quality, development indicators, and the coordination of national statistical activities for the SDGs. He has a PhD in Economics from the University of Bochum in Germany and an MSc in Statistics from the Monterrey Institute of Technology and Higher Studies in Mexico.



Prof. Qunli Han

Course Title: Open Science for Disaster Mitigation in IRDR

During 1990-2017, Qunli was staff member of UNESCO. His served as Programme specialist at the Division of Ecological Sciences in the Headquarters, Senior programme specialist on environment in Asia-Pacific Science Bureau in Jakarta, Director of Tehran Cluster Office for Afghanistan, Iran, Pakistan and Turkmenistan and Director of the Executive Office UNESCO's Natural Science Sector. From June 2013 to September 2017, Qunli was the Director of the Division of Ecological and Earth Sciences and the Secretary of the Man and the Biosphere (MAB) Programme of UNESCO, and was responsible for the development of MAB Strategy 2015-2025 and the establishment of the Lima Action for the World Network of Biosphere Reserves (WNBR) 2016-2025. In IRDR, he has been active in mobilizing science for disaster risk reduction, and contributed to the establishment of "A Global Framework of Sciences in Support of Risk-informed Sustainable Development and Planetary Health" for 2030 and beyond. He has been also active in the International Consortium of Landslide (ICL).



Dr. Paul F. Uhlir

**Course Title: Measuring Openness of Data Resources** 

Paul is a consultant on public information policy and management. He spent most of his career at the National Academy of Sciences (NAS), now called the National Academies of Science, Engineering, and Medicine (NASEM), in Washington, DC. Paul's main professional area of emphasis has been on issues at the interface of science, technology, and law, with primary focus on research data and information. Before joining the National Academy of Sciences, he was employed for a year at the Office of the General Counsel and as a foreign affairs officer at the National Oceanic and Atmospheric Administration, where he worked on remote sensing law and policy and on intergovernmental agreements for cooperation in meteorological satellite programs. Paul is the co-author or editor of 44 books or official reports and over 70 technical articles. He has been involved in various consulting and pro bono activities, and speaks worldwide on a broad range of information policy and management issues. He has served as private-sector adviser to the US Department of State for the U.N. World Summit on the Information Society and for the Organization for Economic Co-operation and Development, and advised several other national governments and international organizations. He also has chaired or been a member of numerous international nongovernmental committees on data policy and legal issues.



Dr. Lili Zhang

**Course Title: Measuring Openness of Data Resources** 

Lili Zhang is a senior research scientist at the Computer Network Information Center of the Chinese Academy of Sciences and a CODATA International Data Policy Committee member, Executive Director of the GOSC IPO (International Program Office of the Global Open Science Cloud Initiative). Zhang received her M.A. and Ph.D. in information management from Peking University, China, with a Dural Bachelor's degree in management science and economics from Nankai University, China. She was a visiting scholar at CIESIN, Columbia University, during 2017-2018. She is the PI of an NSFC Young Scientist Fund and collaborator for a CAS PIFI program and actively engages in a series of CAS and MOST-funded programs. Currently, as the CAS Global Open Science Cloud Project manager, her research mainly focuses on open science and open data technologies, policies, and information economy.



Mr. Francis P. Crawley

**Course Title: Responsible Open Science and Open Data** 

Francis P. Crawley is the Executive Director of Good Clinical Practice Alliance – Europe and the (GCPA). As a philosopher, he is specialized in research ethics, integrity & methodology as well as in data/AI ethics & law. Expertise in EU, US, international and country-specific ethics, law, and patient and community interests in health-related research. Strong experience working closely with patients, communities, researchers, and policy-makers across disciplines. domains, and geographic regions in establishing consortia, developing patient registries, contributing to the development of biobanks, drafting data management and data protection plans, and contributing to building data repositories. A strong background in the methodologies for designing and reviewing health-related research supported by effective communication and leadership skills as well as diplomacy with the ability to influence changes in bioethics and law.



Dr. Ana Persic

**Course Title: UNESCO Open Science Implementation** 

Ana Persic is the acting Chief of section for Science Policy and Partnerships at the Division of Science Policy and Capacity Building at the UNESCO headquarters in Paris. Ecologist by training with a PhD in Ecotoxicology, Dr Ana Persic joined UNESCO in April 2006 in the framework of the UNESCO's Man and the Biosphere program within the Division of Ecological and Earth Sciences in Paris. She has then served as a Science Specialist at the UNESCO Liaison Office in New York from 2011-2018. Her work relates to strengthening the science-policy interface and promoting science, technology, and innovation in implementing the United Nations 2030 agenda for sustainable development and sustainable development goals (SDGs). Currently, she is coordinating the development of the UNESCO Recommendation on Open Science.



# Prof. Virginia Murray

Course Title: Global Collaboration for Disaster Mitigation and SDGs

Virginia Murray is a public health doctor committed to improving health emergency and disaster risk management. She was appointed as Head of Global Disaster Risk Reduction for UK Health Security Agency (formerly Public Health England) in April 2014. She is a member of the Integrated Research on Disaster Risk (IRDR) scientific committee and Co-Chair of IRDR's Disaster Loss Data (DATA) and is currently the Chair of the UNDRR/ISC Hazard Classification and Review Technical Working Group, with the report published in 2020 and the UNDRR-ISC Hazard Information Profiles: Supplement in 2021. She is currently a member of CODATA Executive Committee. She is currently co-chair of the WHO Thematic Platform Health and Disaster Risk Management Research Network, and by working in collaboration with this network, she is one of the editors of the WHO Guidance on Research Methods for Health and Disaster Risk Management, published in October 2021. She is a a member of the UNSDSN TReNDS network and is a visiting/honorary Professor and fellow at several universities.



Mr. Alexander Bernier

**Course Title: Legal Frameworks for Open Data** 

Alexander Bernier, J.D., LL.M., is an Academic Associate at the Centre of Genomics and Policy, situated at McGill University. In this capacity, he coordinates the ethico-legal workpackages of select international health research consortia, including the Human Cell Atlas, EUCANCan and Canada's national COVID-19 Immunity Task Force. Alexander is a doctoral candidate at the University of Toronto Faculty of Law, where he performs research on the intersection of law, open science, and infrastructure for data-driven health research.



Prof. Xiaoru Yuan

**Course Title: Data Visualization** 

Xiaoru Yuan is a professor in the School of AI at Peking University. He currently serves as the deputy vice director of National Engineering Laboratory on Big Data Analysis and Applications and vice director of Key Laboratory of Machine Perception (MOE), at Peking University. He received a Ph.D. degree in computer science in 2006, from the University of Minnesota at Twin Cities. His primary research interests are in the field of visualization and visual analytics. His co-authored paper on high dynamic range volume visualization received Best Application Paper Award at the IEEE Visualization 2005 conference. He and his student team won awards multiple times in IEEE VAST Challenges. He received the Okawa Research Fund Award in 2018. He served on the program and conference committees of IEEE VIS, ACM CHI, EuroVis, and IEEE PacificVis. He was organization co-chair of IEEE PacificVis 2009, poster chair of IEEE VIS 2015/2016, paper chair of IEEE VIS 2017 and PacificVis 2015, and IEEE VIS 2021 area paper chair. He is on the editor board of IEEE TVCG, Journal of Visualization and several other international journals. He initiated and co-founded ChinaVis conference in 2014. He is the director of the visualization and visual analytics technical committee at China Society of Image and Graphics.



Ms. Jia Liu

**Course Title: Review of Common Research Identifiers for Open Science** 

Liu Jia is member of the Youth Innovation Promotion Association CAS. She has worked on data management, data identification policy and practice since 2009, and currently serves as the director of the Identification Technology and Application Service Lab, which is responsible for the operation of Common Science and Technology Identification. She has long been engaged in research on data identification policy standards and practices, distributed data analysis technologies and systems, and big data management and analysis technologies. She is the Principal Investigator of the project "Development of common technical standards for the construction of scientific and technological resources identification system" and responsible for the project "Identification resolution technology of scientific data" from the Ministry of Science and Technology in China. She has engaged as the core engineer in a variety of essential projects from CAS, NSF and Ministry of Industry and Information Technology in China, delivered 16 standards, including 5 national standards and 2 international proposals, and 3 authorized patents. She is the Management Board Member of the Persistent Identifiers for eResearch (ePIC), APAC expert member of DataCite, and very active in the international cooperative research. The achievement of her team is award as the

"Ten Advances in Scientific Data Work of China Academy of Sciences in 2022", "The 13th Five-Year Information Achievement Exhibition of China Academy of Sciences" and she has got the "CAS 2018 Scientific and Technological Achievements Transformation Award"



**Prof. Ying Liu** 

**Course Title: Introduction of Data Mining** 

Ying Liu received her B.S. degree from Peking University, China, in 1999, the M.S. degree and the Ph.D. degree from Northwestern University, Evanston, IL, USA, in computer engineering in 2001 and 2005, respectively. She is professor in School of Computer Science and Technology, University of Chinese Academy of Sciences. She also holds an adjunct appointment with the Key Lab of Big Data Mining and Knowledge Management of Chinese Academy of Sciences. Her research interests include data mining, machine learning, high-performance computing, and big data. She has published more than 100 research papers in international journals or conferences. She is the receipient of ZhuLiYueHua Best Faculty Award of Chinese Academy of Sciences. She served as the Workshop chairs at ITQM 2014-2019, and the editorial board member of Data Science Journal. She is the receipient of NVidia Global Professor Partnership in 2009.



Ms. Fang Han

Course Title: Open Data Services in FairStack and OpenCSDB

Han Fang, M.S., serves as an engineer at the Computer Network Information Center of the Chinese Academy of Sciences (CAS), specializing in scientific data management, convergence, sharing, linking, and publication. She has contributed significantly to various projects, such as the development of the Scientific Big Data Public Service Platform, CAS's 13th Five-Year Informationization Special Project, and the establishment of the Earth System Science Numerical Simulator Facility. Additionally, she has been involved in projects like Army Data Engineering. Han Fang's expertise extends to evaluating the impact of CAS's scientific data center system and leading the construction of national data center services. Her academic contributions include the publication of 6 papers in respected domestic and international journals and conferences, including 'Research and Applications of Semantic Association for Scientific Data.' She has also obtained 3 patents and holds over 10 software copyrights.



Prof. Jiangshan Lai

**Course Title: Data analysis in R / Hands-on session** 

LAI Jiangshan, Research associate professor in State Key Laboratory of Vegetation and Environmental Change, IBCAS. Prof. Lai teaches numerical ecology with R, both theoretical and practical, to a wide array of audiences, in regular courses in universities and in short courses given around the country.

## **Education Background:**

Bachelor. 2002. Biology Sciences. Beijing Forestry University, Beijing.

Ph.D. 2008. Ecology. Institute of Botany, Chinese Academy of Sciences, Beijing.

From December 2009 to May 2010, a visiting scholar in James Brown's laboratory on University of New Mexico in USA.

From November 2014 to November 2015, a visiting scholar in Pierre Legendre's laboratory on University of Montreal in Canada.



Dr. Haiming Zhang

Course Title: IaaS in CSTCloud Federation & Hands-on session

Ph.D. Haiming ZHANG is currently master instructor, the director of Cloud Federation Lab in Computer Network Information Center, Chinese Academy of Sciences. His research focus on cloud computing and cloud storage. He has more than 10 years' management experience in large-scale distributed storage cluster with tens of petabytes data. His team is responsible for the development and operation of the IAAS platform in China Science and Technology Cloud, including cloud hosting, object storage, unified authentication, monitoring, metering and billing.



Mr. Zuliang Guo

Course Title: IaaS in CSTCloud Federation & Hands-on session

Zuliang Guo is a senior software engineer at the Cloud Federation Lab in Computer Network Information Center, Chinese Academy of Sciences. He is a major web developer and the UI/UX designer of CSTCloud's cloud federation platform. His goal is to provide users with better cloud computing products and better user experience using cutting-edge web development technologies. He has a strong passion for trending development technologies, as well as years of design

experience. He holds a master of science in computer science degree from Georgia Institute of Technology.



Dr. Yuepeng Li

Course Title: IaaS in CSTCloud Federation & Hands-on session

During 2016 - 2022, Yuepeng Li studied for a doctorate in computer application technology at the University of Chinese Academy of Sciences. His main research directions are unified management of heterogeneous data, scientific data workflow, and unified management of heterogeneous cloud platforms. In 2019, he participated in the Global Open Science Cloud Cultivation Program and the China-Europe Intercontinental Open Science Cloud Federation Technology and Demonstration Project, enabling China Science and Technology Cloud to access EGI FedCloud as a service provider, and building a cross-platform cloud computing resource sharing prototype system. Since 2022, he has been working in the Computer Network Information Center of the Chinese Academy of Sciences, and continues to conduct scientific research in the direction of open science and cloud computing.

Dr. Yingchao Piao

Course Title: Basics to Python and application in CASEarth SDG Work

Bench & Hands-on

Yingchao Piao received the B.S. degree in network engineering from Beijing University of Posts and Telecommunications, China, in 2005, and the Ph.D. degree in computer science and theory from the University of Chinese Academy of Sciences, Beijing, China, in 2015. She is currently a Senior Engineer with Computer Network Information Center, Chinese Academy of Sciences, Beijing. She has been working for the Big Earth Data Science Engineering Program (CASEarth) and Global Open Science Cloud (GOSC) in recent years. Her research interests include remote sensing, image processing, data mining and geoinformatics.



Prof. Dongmei Yan

**Course Title: SDGs Data Resources** 

Prof. Yan Dongmei received her Ph. D. degree in Cartography and Geographic Information System from the Institute of Remote Sensing Applications, CAS, in 2004. She has been working as a Professor, Assistant of the Aerospace Information Research Institute, CAS, and Director of the Administrative Office for Big Earth Data Science Engineering (CASEarth) since 2018. She served as Assistant of the Institute of Remote Sensing and Digital Earth Research and Director of the Division of Information Technology Sciences, CAS, from 2013 to 2018. She was also the Deputy Director and Director of the Technical Division of Centre for Earth Observation and Digital Earth from 2009 to 2012. Prior to that, she worked as Associate Professor of China Remote Sensing Satellite Ground Station, CAS, from 2005 to 2009. With her extensive experience in digital earth, sustainable development, and scientific innovation, she has led the Data Sharing Working Group of the Strategic Priority Research Program - Big Earth Data Science Engineering (CASEarth) since its establishment in 2018. In addition, Prof. Yan has been involved in a variety of projects. She was responsible for the key R&D project for Hainan Province from 2018 to 2019. She was also in charge of the project "High-Precision Extraction and Verification of City Clusters Using Big Data for Medium and High-resolution Remote Sensing Satellites." She won the Third Prize of the Ministerial Science and Technology Progress Award in 2005 and ranked first personally. Then, she won the First Prize of the Ministerial Science and Technology Progress Award in 2015. Her current research focuses on remote sensing and image processing, information extraction and application of optical remote sensing images, image understanding, and computer vision.



Prof. Guojin He

**Course Title: SDGs Data Resources** 

From 1992 to 2007, Prof. HE Guojin worked at the Information Processing Department of China Remote Sensing Satellite Ground Station (RSGS), CAS. In 2001, He became the deputy director of Information Processing Department of RSGS, CAS. From 2004, he was the Professor and director of Information Processing Department of RSGS, and also headed the research group of "Remote Sensing Information Mining and Intelligent Processing". From 2008-2012, he was the professor and director of the Value-added Product Department, and the deputy director of the Spatial Data Center, Center for Earth Observation and Digital Earth, CAS. From 2013-2018, he was the professor and director of the Satellite Data Based Value-added Product Department, and the deputy director of RSGS, Institute of Remote Sensing and Digital Earth, CAS. Since 2019,he has been the professor and director of the Satellite Data Based Value-added Product Department, and the deputy director of RSGS, Aerospace Information Research Institute, CAS. A large part of his earlier research dealt with information processing and applications of satellite remote sensing data. His current research interests are focusing on optical high resolution remote sensing image understanding as well as

using information retrieved from satellite remote sensing images, in combination with other sources of data to support better understanding of the earth.



Prof. Zhaohui Lin

Course Title: Earth System Numerical Simulator and its Application for Climate Studies

Professor LIN Zhaohui is the director of CAS-TWAS center of excellence for climate and environment sciences, member of the coordinating council of the Commission on Science and Technology for Sustainable Development in the South (COMSATS), coordinator for CAS-CSIRO collaborative research on climate change impacts. He ever worked in the Bureau of Meteorology of Australia, the University of Nevada at Las Vegas, and City University of Hong Kong as visiting scholar. His research interests include the development of the CAS Earth system model and applications, subseasonal-to-seasonal forecasts for climate and environmental disasters, dust aerosol and its interaction with climate. He has been the Principal Investigator for more 20 national projects funded by the MOST, NSFC, CAS, etc. Prof. Lin has published more than 170 peer-reviewed papers in both international and domestic journals, and received the second grade of national natural science award in 2005, the first grade of the Award for Progress of Science and Technology by the Ministry of Education in 2006, and the outstanding Science and Technology Achievement Prize of the CAS in 2011.



Dr. Victor Dike

**Course Title: Climate Change in Africa and Possible Solutions** 

Victor doubles as an atmospheric physicist and meteorologist, with a specialty in weather and climate extremes. His research involves understanding the complex interactions in the climate system associated with weather and climate extremes. It also involves climate risk assessment for national planning and disaster preparedness to reduce the impact of potential climate risks in the future. He earned a Ph.D. (Atmospheric Physics) from Imo State University, Owerri Nigeria in 2015, and obtained another Ph.D. degree in Meteorology from the Chinese Academy of Sciences, China in 2018. His MSc (Atmospheric Physics) and BSc (Physics) degrees are both from the Imo State University in Owerri, Nigeria, which he obtained in 2011 and 2006, respectively. After completing his post-doctoral research at the Institute of Atmospheric Physics, Chinese Academy of Sciences, he works at the same institute as an associate research scientist. Victor joined academia as a lecturer at Imo State Polytechnic, Nigeria. His career objective is to contribute to the scientific understanding of climate change and to use that understanding to inform and guide efforts to mitigate its impacts and build a more sustainable future. He has taken part in several collaborative research activities, through which he has published widely in his area of expertise.



**Prof. Peter Murray-Rust** 

**Course Title: Open Science Cloud Showcase of Semantic Climate** 

Peter is a chemist currently working at the University of Cambridge. As well as his work in chemistry, Murray-Rust is also known for his support of open access and open data. Peter is a pioneer in text mining through The Content Mine, an advocacy and implementation project consisting of a community, framework and toolset that facilitate the freeing of scientific data and the building of further tools for improved open Science, Technology and Medicine communication. Peter and Gita have been collaborating for several years to liberate and unlock science, in the spirit of making scientific facts accessible to all across the board, an effort that is vital for our continued progress as a species and society.



Prof. Gitanjali Yadav

Course Title: Open Science Cloud Showcase of SemanticClimate

Gita is a scientist at NIPGR, New Delhi as well as a Professor of Data Science at IISER Bhopal. She is also a Trustee at St Edmunds' College, University of Cambridge. Her work is on genomics and structural informatics with applications in Climate, Conservation and Food Security. She promotes science as a way of life to students in schools and colleges and has been a mentor for Women in Science (WIS) at various national and international forums. During the Coronavirus Pandemic, she began a series of free online training programs in Data Science and Complex Networks, under the name "Protocols From Home", in order to help students pick up vital skills in Computational Biology and make the best use of their time under global lockdown.



Shweata N. Hegde

Renu Kumari



Waheb Mehdi



Mahvish Fatma



Shubham Love



Shiwani Yadav



Yasin JK



# **Dr.Simon Hodson**

**Course Title:** Co-building future-led Open Science Infrastructures Introduction to the Global Open Science Cloud Initiative

Simon Hodson has been Executive Director of CODATA since August 2013. He is an expert on data policy issues and research data management. Most recently, he chaired the European Commission's Expert Group on FAIR Data which produced the report Turning FAIR into Reality (https://doi.org/10.2777/1524). He was also vice-chair of the UNESCO Open Science Advisory Committee, with an influential role in drafting the UNESCO Recommendation on Open Science, which was adopted in November 2021. Previously he contributed to influential reports on Current Best Practice for Research Data Management Policies, to the Science International Accord on Open Data in a Big Data World, and to the OECD Global Science Forum and CODATA Report on Sustainable Business Models for Research Data Repositories.



Prof. Xiaosong Li

Course Title: Big Earth Data in Support of Land Degradation Neutrality

Li Xiaosong, Ph.D., researcher of the International Research Center of Big Data for Sustainable Development Goals, deputy director of the Key Laboratory of Digital Earth, Aerospace Information Research Institute, Chinese Academy of Sciences, member of Expert Group on UNEP Sustainable Development Goals progress measuring report, SDG 15 coordinator of "Big Earth Data Supporting the Sustainable Development Goals", member of the Working Group of the International Earth Observation Organization-Land Degradation Neutrality Initiative, and member of the Expert Group on China's voluntary LDN targets setting. He has been mainly engaged in research work in the direction of big earth data to promote the realization of sustainable development goals, remote sensing big data analysis and land degradation monitoring, and hosted over more than 20 major national science and technology projects. As an associate editor, he has published 4 books, published more than 70 research articles, and won 3 National and Ministerial and Provincial-Level Science and Technology Award.



Prof. Yuchu Qin

Course Title: Data-driven Carbon Management for SDGs: Standards, Software Development and Practices

Yuchu Qin is research scientist at the International Research Center of Big Data for SDGs (CBAS), Aerospace Information Research Institute, CAS. He received the B.S. degree in environment and urban planning from Shenyang Jianzhu University, Shenyang, China, in 2004, and the dual Ph.D. degrees in geodesy and geoinformatics from the Chinese Academy of Sciences, Beijing, China, in 2010 and the Royal Institute of Technology (KTH), Stockholm, Sweden, in 2014. He was a Postdoctoral Researcher with South Dakota State University, Brookings, SD, USA, and MATIS, IGN, Paris, France. His current research works cover topics of photogrammetric computer vision and machine learning, applications of big data analytical technologies for sustainability science in urban, and forest areas.



**Prof. Minghua Zhang** 

Course Title: CGI/OGC Geoscience Standards Supporting Data Open and FAIR

Zhang has been working in geoinformatics and geophysical exploration for more than 20 years. He chaired and completed more than 20 projects in China national geoscience databases development and release, in geophysical data interpretation for mineral and oil & gas exploration, and in geophysical software RGIS coding and national and international application, as well as international cooperation with CCOP and ASEAN. He's publication includes 4 national, 2 international standards and some 50 papers and 8 books in both Chinese and English. Zhang received 15 awards from the ministry of natural resources, geophysical society and association of mapping and survey of China.



**Prof. Shu Wang** 

**Course Title: DDE Open-science Knowledge Platforms** 

Dr. Shu Wang serves as an assistant professor at the Institute of Geographic Sciences and Natural Resources Research, CAS, where he is affiliated with the state key laboratory of resources and environmental information system. He earned his Bachelor's degree in Geographical Information Systems from Jimei University. He pursued further education and achieved a Master's degree in Geographical Information Systems from the University of Leeds. In 2019, he successfully completed his Ph.D. in Cartography and Geographical Information Systems from Nanjing Normal

University. His doctoral research centered on the development of a "Geographical Knowledge Graph (GeoKG)" by utilizing natural language processing techniques. This GeoKG aimed to comprehensively represent geographical knowledge. His current research focuses prominently on GeoKG, geoscience knowledge representation, spatiotemporal data mining, and bias analysis in web text. His contribution to these fields includes the publication of approximately 20 articles in leading journals. Moreover, he leads several projects funded by the National Natural Science Foundation of China and the National Key Research and Development Program of China. Presently, he holds a core position within the knowledge group of the Deep-time Digital Earth (DDE) big science program. In this capacity, he actively participates in facilitating the sharing and utilization of open geoscience knowledge.



Prof. Linshu Hu

**Course Title: DDE Open-science Knowledge Platforms** 

Dr. Linshu Hu is a postdoctoral researcher at the School of Earth Sciences of Zhejiang University. Her research focuses on the theories and methods of spatial-temporal big data computation and cloud-native Geographic Information Systems (GIS). Dr. Hu has actively contributed to key national research and development projects, such as the Global Integrated Observation Achievement Management and Sharing Service System and the Geospatial Big Data Mining. Currently, she is primarily engaged in the Deep-time Digital Earth (DDE) Big Science Program. Her efforts are dedicated to building a One-Stop Online Research Platform for Geoscientists.



Dr. Jerasorn Santisirisomboon

**Course Title:** Southeast Asia Regional Climate Change Information System, SARCCI

Dr. Jerasorn Santisirisomboon received his B.Sc. in Mathematics and M.Sc. in Energy Technology from King Mongkut's Institute of Technology Thonburi (KMITT), Thailand, and a PhD in Mechanical Engineering from Sirindhorn International Institute of Technology, Thammasat University, Thailand. He has started his research career in energy demand and supply modelling and greenhouse gases mitigation in the energy sector. After 10 years in the research mentioned above fields, he has devoted his interest to climate science for more than 15 years. He has been working on both statistical & dynamical downscaling of General Circulation Models, future climate change and extreme events projections projects funded by local funding agencies, including the Thailand Research Fund (TRF) and the National Research Council of Thailand (NRCT) as well as international funding agency such as Asia Pacific Network for Global Change Research (APN). He has been involved in the Coordinated Regional Climate Downscaling Experiment (CORDEX) and

is the leading researcher in the Southeast Asia region. He has broadened his research area to cover the Impacts, Adaptation and Vulnerability of climate change. Recently, he developed the risk maps under future climate change in Thailand for the Office of Natural Resources and Environmental Policy and Planning (ONEP), Ministry of Natural Resources and Environment, Royal Thai Government. He is the principal investigator of the project entitled "Increasing resilience to climate change impacts in marine and coastal areas along the Gulf of Thailand", funded by the United Nations Development Programme (UNDP).



Dr.Tshiamo Motshegwa

Course Title: SDGs research supported by AOSP

Tshiamo Motshegwa is a computer scientist and an academic in high-performance computing and data science research. He has interest in science, policy, industry and public interfaces, and multilateral engagements for advancing open science collaboration. For the past seven years he has served on various Ministerial Committees of the Government of Botswana, Southern African Development Community (SADC) Expert Working Groups, and in the Botswana Open Data Open Science (ODOS) Forum. In addition, he has worked on numerous initiatives that promote regional, continental and global cooperation. He has led national and institutional projects that entrench university-industry-government relations including through co-creation to strengthen university and national research and innovation ecosystems. He has experience in corporate governance and serves on various boards, with oversight of company human resource strategies, including in human capital development pertaining to technology development and utilisation.

# <Trainee >

name	Nationality	Affiliation / Organisation	Position	Research/Working Field
Alireza Kamal	Iran	Institute of Atmospheric Physics, Chinese Academy of Sciences	Postdoctoral	Meteorology- Impacts of climate and environmental changes on dust activities
Atapattu Arachilage Anjana Jayasanka Atapattu	Sri Lanka	Coconut Research Institute of Sri Lanka	Head of Division	Agriculture, Soil Management, Climate Smart Agriculture, Net Zero Emmision (Agriculture)
Aziza MENOUNI	Morocco	Moulay Ismail University of Meknes	Program Manager / Researcher	Environmental sciences and Public health / Project management
Babar Abbas	Pakistan	University of Engineering and Technology, Taxila	Sr. Lecturer at the Department of Environmental Engineering	Circular economy, climate change, water and wastewater treatment
Bolortuya Ulziibat	Mongolia	Mongolian academy of sciences	scientific secretary	plant genetics
Boon How Chew	Malaysia	Universiti Putra Malaysia	Head of Clinical Research Unit, Hospital Sultan Abdul Aziz Shah, UPM	Clinical Research / Primary Care Diabetology
Chifundo Kanjala	Malawi	UNICEF	Monitoring Specialist (Data and Analytics)	-
Felix Emeka Anyiam	Nigeria	Centre for Health and Development, University of Port Harcourt, Nigeria	Senior Research and Data Scientist	Public Health
Lauren Maxwell	United States	Universitatsklinikum Heidelberg	Junior Group Leader	FAIR biomedical data, ethical data reuse, ethical sample reuse, maternal and child health, sexual

				and reproductive health, violence against women and children
Maha Nasr Sayed	Egypt	Ain Shams University, Faculty of Pharmacy, Egypt	Professor of Pharmaceutics and Industrial Pharmacy, and Executive Director of the International Relations and Academic cooperation sector	Pharmacy, Drug Delivery, Nanotechnology
Md. Mizanur Rahman Sarker	Bangladesh	Sher-e-Bangla Agricultural University	Professor	Development Economics
Mohamed Mahmoud Ali Mohamed	Egypt	National Research Centre	Associate Professor	Environmental Sciences
Mohamed Majeed Mashroofa	Sri Lanka	South Eastern University of Sri Lanka	Senior Assistant Librarian	Open Access Scholarly Publishing/ Contribution of Libraries in attaining SDGs/
Muhammad Bilal AKBAR	Pakistan	New Energy Institute Ningbo Institute of Materials Technology & Engineering, Chinese Academy of Sciences (CAS)	PhD student	New energy materials for Energy and Environment
Nguyen Tri Quang Hung	Vietnam	Faculty of Environment and Natural Resources, Nong Lam Univ at HCMC, VN	Head of Dept	Environmental Science/ Air pollution/ Climate change
Nidhi Singh	India	Indian Institute of Science, Bangalore, India	Senior Policy Fellow	Health and Biomedical Policy
Pan LI	China	CAST	-	-
Ram Devi	Nepal	Kathmandu University	Assistant Professor	Freshwater Ecosystems

Tachamo				
Temitope Deborah Agboola	Nigeria	Olusegun Agagu University of Science and Technology, Okitipupa. Nigeria	Lecturer II	Environmental and Applied Microbiology
Vinit Kumar	India	Babasaheb Bhimrao Ambedkar University, Lucknow	Assistant Professor	Library and Information Science
Zoljargal Batbuyan	Mongolia	Department for Research and Monitoring, Mongolian Academy of Sciences	Specialist in Scientific Publicity	Scientific advertising and dissemination
Gomaa Abdelgawad Mohammed Ali	Egypt	Al-Azhar University	Associate Professor	Materials Science - Energy (Supercapacitors) - Environment (Water Treatment)
Kangbéni Dimobe	Burkina Faso	University of Dédougou (Burkina Faso)	Lecturer and Researcher	Conservation Biology
Meran Keshawa Ediriweera Patabendige	Sri Lanka	University of Colombo	Lecturer	Biochemistry and Molecular Biology
Rabia Saleem	Pakistan	COMSATS University Islamabad, Lahore Campus	Assistant Professor	Applied Mathematics
Syed Sikander Azam Azam	Pakistan	National Center for Bioinformatics, Quaid-i-Azam University, Islamabad	Professor and Director/Chairperson	Course on Pharmaceutical Biotechnology, Molecular Dynamics, Modeling and Simulation, Bioinformatic Computing
Til Prasad Pangali Sharma	Nepal	Nepal Open University	Faculty Member	Disaster Risk Analyst

Tonni Agustiono Kurniawan	Indonesia	Polytechnic of Health, Ministry of Health, Indonesia	Research Fellow	Water treatment
Marcial Rivera Rodríguez	Costa Rica	Colegio Federado de Ingenieros y de Arquitectos de Costa Rica	Chief	Disaster Evaluation / Economic / Construction / Economic Indicador /

# <Training Expectation>

## **♦ Open Science & SDGs**

### • Felix Emeka Anyiam

"Being a Research Data Scientist with vast proficiency in data-driven research, I am assured that this workshop will provide me with valuable perspectives on how Open Science can be utilized to advance sustainable development goals."

## Mohamed Majeed Mashroofa

"This training workshop would be very much useful to develop the open access policy at my university, march forward in advocating open access, and strategizing SDGs. I am so keen to learn about how these two concepts link together in promoting Open Science and attaining SDGs."

## Nguyen Tri Quang Hung

"I would gain much more knowledge from the workshop then I apply those to my developing country in the East Asian that need much more expertise on open science and sustainable development. Therefore, I do hope to join and get new ideas in environmental field as well as their related works from well-known scientists and make network for future study."

## Nidhi Singh

"In addition to the knowledge and skills I will gain from this workshop, I am excited about the opportunity to network and collaborate with other researchers and practitioners from around the world. I believe that building strong partnerships and collaborations is critical for achieving the SDGs, and I am eager to connect with other like-minded individuals who share my passion for sustainable development."

#### • Ram Devi Tachamo

"I believe that gaining and enhancing skills in open science help to make science more accessible, inclusive and equitable for the benefit of all. I am confident that acquiring this training will help me to contribute to SDG 4, SDG 5, SDG 13, SDG 14 and SDG 17."

#### • Vinit Kumar

"I'm very interested in exploring Open Science and how it relates to the SDGs at this workshop. I would like topics such as application of Open Science in research and education as well as how it may help with the SDGs. I would like to know about Open Science policies and practises in other nations and institutions."

## • Gomaa Abdelgawad Mohammed Ali

"I am confident that the training program will help me to learn about the latest developments in open science and enhance my skills in data sharing, collaboration, and capacity building for open science and SDGs. The program will also provide a unique opportunity to interact with researchers

from different parts of the world and foster international collaboration."

#### Aziza MENOUNI

"I believe that my skills and knowledge in open science and sustainable development will enable me to contribute positively to the workshop discussions and activities. I will also be interested to hear from my peers coming from other continents on how to reposition the importance of open science within an inclusive and ethical frame, and how gender can be considered in this matter."

#### Mohamed Mahmoud Mohamed

"I seek to attend the "International Training Workshop on Open Science and SDGs 2023" as a means to jumpstart not only my long-term goals as a scientist and university professor, who has a track record and a commitment to a career in sustainability, energy, and environmental science, but also to advance my partnership and collaboration with others in different countries, who have a diverse educational background."

## **♦ SDGs Data Sources and SDG Technologies**

## • Temitope Deborah Agboola

"As a prospective participant in open science and SDG training program, I would love to be exposed to machine learning, deep learning and any other skills that will be thought during the training. I am always open to learning and a fast learner. Machine learning is very important to my research because it will enable me interpret large data (large sequence result) and fully understand the implication of having such data."

## • Kangbéni Dimobe

"I am highly motivated to attend the 2023 International Training Workshop on Open Science and SDGs in China. I am confident that this workshop will equip me with valuable skills and knowledge, which will enable me to contribute to the global efforts towards achieving the SDGs."

## • Rabia Saleem

"Attending a workshop on open science and SDGs can provide many benefits and motivation to contribute to sustainable development. Some potential reasons to attend this training are learning new skills such as data analysis, open-source software development, and sustainable research practices, and connecting with a community as such workshops can provide opportunities to meet and network with other individuals interested in open science and SDGs."

## • Syed Sikander Azam Azam

"I look forward to the opportunity to network and learn from other like-minded professionals and experts in the field. Additionally, looking for an access to research resource on Big Data Platform and eager to remain updated on the cutting edge technologies of open science and SDGs."

## Marcial Rivera Rodríguez

"I am grateful that my name has been considered for this opportunity, and that, under the same criteria on which this sharing activity is generated, I will work to create spaces to share the knowledge, techniques and skills learned with students and professionals upon my return to the country."

## **♦** Experience Sharing

## Alireza Kamal

"I am passionate about participating in this workshop and am devoted to learning about the latest advances and developments in the field of global environmental change. I am confident that exposure to the latest research and developments as part of this workshop will provide me with the opportunity to enhance my knowledge and skills in a meaningful way."

## • Atapattu Arachilage Anjana Jayasanka Atapattu

"Working and attending this program will allow me to meet people from various nations and cultures, so this will offer me different points of view and contribute to my flexibility and creativity, other than the cultural and language gains."

## Chifundo Kanjala

"Through this workshop, I hope to gain a deeper understanding of how open science practices can be used to promote the sharing of data and research findings, particularly in the context of Malawi and UNICEF's work in the country. I am particularly interested in learning more about how open science can be used to improve the quality and availability of data, as well as how it can support data-driven decision-making at all levels of the organization."

#### • Lauren Maxwell

"By participating in this training, I hope to gain new insights, broaden my perspectives, and acquire practical skills to apply in my current work and future endeavors. I look forward to the opportunity to learn from the training team and fellow participants, exchange ideas, and contribute meaningfully to the discussions and activities during the workshop."

## Maha Nasr Sayed

"By attending the workshop, I believe that I will gain valuable information on open science from different perspectives, and how to overcome challenges related to fragmented policies, competition, technical barriers and cultural differences, which threaten the full realization of open science. I also believe that the workshop would cover the topic of creating sustainable relationships between researchers, as well as between researchers and companies, to translate scientific innovations to tangible products/services that can benefit the societies."

## • Bolortuya Ulziibat

"There is no doubt that open science is one of the solutions for these issues. In other words, this training workshop will be important for me to find solutions to the above problems and to make a certain contribution to the scientific development of my own country."

## Meran Keshawa Ediriweera Patabendige

"By participating in the planned event in China, I would like to voice the importance of open sciences among Sri Lankan undergraduate and postgraduate students."

#### • Md. Mizanur Rahman Sarker

"I hope that the lecturers, seminars and presentations, comments and suggestions of the world-renowned experts will be motivational, helpful and inspired me to improve my research. This is a unique opportunity to develop and advance my research link with think tanks, broader academic and research community."

#### Muhammad Bilal Akbar.

"Through my participation in the International Training Workshop on Open Science and SDGs 2023, I aim to acquire valuable attitudes, skills, and a commitment to lifelong learning and leadership. These assets will empower me to achieve my ultimate goal: fostering equal development in our society, disseminating knowledge to those in need, and making a positive impact on the world."

## Til Prasad Pangali Sharma

"I am excited to learn from the experience of the participants, as well as to share my own experience and perspectives. By engaging in meaningful discussions and collaborations, I am confident that we can develop innovative and effective solutions that contribute to sustainable and resilient development."

### Tonni Agustiono Kurniawan

"Scientific exchanges and research collaborations among colleagues in an institute or with various institutes beyond national borders are indispensable. Transdisciplinary research brings together the knowledge of people from different backgrounds. It is considered to be particularly useful for developing solutions to complex sustainability challenges."

#### Babar Abbas

"I strongly believe in the power of collaboration and knowledge exchange, and this workshop will provide an ideal platform to engage with fellow participants, forge meaningful connections, and build a global network of like-minded individuals passionate about open science and the SDGs."

## • Boon How Chew

"I am confident that the knowledge and skills that I will gain from this workshop on open science and best practices across domains for SDGs will enable me to make even greater contributions to the field of meta-research, open science, clinical epidemiology, and in particular making my diabetes research more 'open' in my professional career."

## • Zoljargal Batbuyan

"I am a researcher myself, and I have always wanted to contribute to the spread of science and the enlightenment of society."

## < Local Information >

## About China

The Chinese Government has prepared a website that provides an array of information, from geographic facts and figures to historical milestones, economic status, and current developments in politics, education, culture, and sports as well as much more. Please visit <a href="http://english.gov.cn.">http://english.gov.cn.</a>



## About Beijing

Beijing, sometimes romanized as Peking, is the capital of the People's Republic of China and one of the most populous cities in the world. The population as of 2013 was 21,150,000. The

metropolis, located in northern China, is governed as a direct-controlled municipality under the national government, with 14 urban and suburban districts and two rural counties. Beijing is the second largest Chinese city by urban population after Shanghai and is the nation's political, cultural, and educational center. The city's history dates back three millennia. As the last of the Four Great Ancient



Capitals of China, Beijing has been the political center of the country for much of the past eight centuries. The city is renowned for its opulent palaces, temples, gardens, tombs, walls and gates, and its art treasures and universities have made it a center of culture and art in China. For more information on the city, its surrounding area, and upcoming events, please visit the official website at <a href="http://english.beijing.gov.cn/">http://english.beijing.gov.cn/</a>.

## Weather

Beijing enjoys a typical continental yet affable monsoon climate. It has distinctive four seasons, the brief blooming spring, the long hot summer, the golden fruitful autumn, and the brisk harsh winter. The weather in August and September is still a little bit hot and wet. Summer clothing, including shorts and dresses, is generally enough even in the evenings. Sunscreen, sun hat, and sunglasses are necessary.



## Banking

Banking hours are generally 09:00 to 17:00. Several national banks have offices in the central business district.

## Credit Card

Most hotels, large restaurants, and shops will accept international credit cards, the most widely recognized being MasterCard and Visa. Automatic teller machines are plentiful and situated throughout the city.



