



## Agricultural Geography and Land Engineering(IGU-AGLE)

### COMMISSION REPORT 2022

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## A. Membership

Following are the details of the IGU-AGLE steering committee members, please find below my details:

**Yansui Liu (Chair)**, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, China. Email: liuys@igsnr.ac.cn

**Guy M Robinson (co-chair, Treasurer)**, School of Social Sciences, University of Adelaide, Australia. Email: guy.robinson@adelaide.edu.au

**Yuheng Li (Secretary)**, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, China. Email: liyuheng@igsnr.ac.cn

**Coline Perrin**, French National Institute for Agricultural Research (INRA), UMR Innovation, Montpellier, France. Email: coline.perrin@inrae.fr

**Michael Woods**, Department of Geography and Earth Sciences, Aberystwyth University, UK. Email: m.woods@aber.ac.uk

**Hans Westlund**, School of Architecture and Built Environment, Royal Institute of Technology (KTH), Sweden. Email: hans.westlund@abe.kth.se

**Rajendra P. Shrestha**, School of Environment Resources and Development, Asian Institute of Technology (AIT), Thailand. Email: rajendra.shrestha@gmail.com

**Habibullah Magsi**, Department of Agricultural Economics, Faculty of Agricultural Social Sciences, Sindh Agriculture University Tandojam, Pakistan. Email: magsihabib@gmail.com

**Alexey Naumov**, Faculty of Geography, Lomonosov Moscow State University, Russia. Email: asnaumov@hse.ru

## B. Meetings

### B1. Session: Global Sustainable Agriculture and Land Management Systems

On July 20<sup>th</sup>, 2022, the session was held at the Paris International Geographical Congress. The Session aims to stimulate debate on sustainable agriculture and the various land management systems contributing to sustainable agri-food systems. The commission executive member Guy Robinson gave a presentation entitled "Turning water into gold: Sustainability, water management and horticultural production in South Australia's Riverland".

### B2. Session: Sustainable Poverty Reduction and Human-Earth Systems Science

On November 27<sup>th</sup>, 2022, Prof. Yansui Liu, as the conveners, successfully hosted the session online at the First Congress on World Geography. Focusing on the theme of global poverty reduction, development and human-earth systems science, a total of 22 representatives gave academic presentations, with a maximum of 120 participants. Prof. Yansui Liu gave a presentation entitled "Global sustainable poverty reduction and the frontiers of human-earth systems science".



### B3. Seminar on Sustainable Poverty Reduction and Development

On February 25<sup>th</sup>, 2022, The Seminar on Sustainable Poverty Reduction and Development was held in Beijing, China. This seminar was hosted by IGSNRR, CAS, Evaluation and Research Center for Targeted Poverty Alleviation, ANSO-APRD, and IGU-AGLE. The seminar attracted 150 experts, scholars and local government representatives. Prof. Yansui Liu gave a presentation entitled "Leveraging the strengths of professional teams to serve major national strategies: the mission of the Effectiveness Assessment of National Poverty Alleviation".



### B4. AGLE annual conference in Hanzhong, 2023

The AGLE annual conference will be held in Hanzhong City, Shaanxi Province, China in early May 2023. Yang County Research and Demonstration Base in Hanzhong City was jointly built by IGU-AGLE and Hanzhong Municipal People's Government in May 2018. Yang County case was selected by FAO as a good example of the One Country One Product programme in the Asia and the Pacific region ([www.fao.org/one-country-one-product/asia-pacific/good-practices/detail/caoba-yang-shaanxi-china/en](http://www.fao.org/one-country-one-product/asia-pacific/good-practices/detail/caoba-yang-shaanxi-china/en)).



### B5. Other sessions and forums

- Rajendra P. Shrestha, Session chair of Climate change and agriculture, ICUE, 2022, 26-28 October 2022, Jomtien Palm Beach hotel, Pattaya.
- Rajendra P. Shrestha, Launch and training of PyAEZ v 2.0.0.: An innovative open source application for land evaluation (agro-ecological zoning using Python), 28 Nov– 2 Dec, 2022, organized by FAO, AIT and IIASA.



- Habibullah MAGSI, Meeting with Food and Agriculture Organization (FAO) on Sindh Agriculture Action Plan to review Agriculture Policy 2030. Coorganized by World Bank, FAO, and Government of Sindh, Pakistan.

## C. Networking

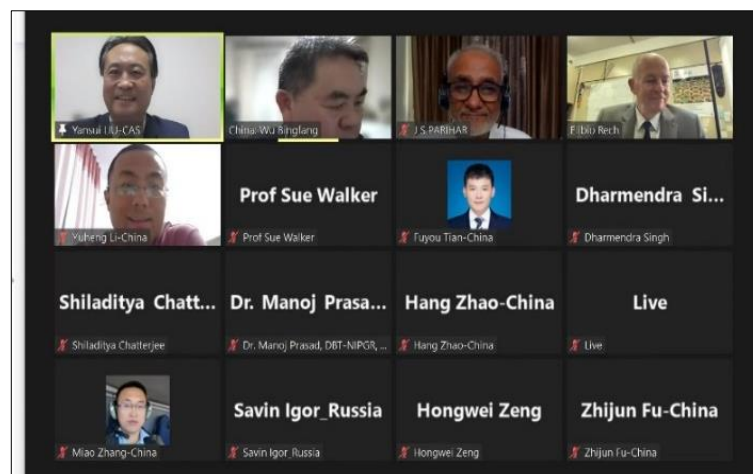
### C1. Scientific investigation of human-earth system in the Yellow River Basin of China

From July 27<sup>th</sup> to August 17<sup>th</sup>, 2022, the 20-day scientific expedition was successfully completed, which involved three provinces of China, namely Shaanxi, Shanxi and Henan, and included more than 30 counties and cities. The expedition was led by the IGU-AGLE chair Yansui Liu. It is the first large-scale scientific expedition to target counties and villages along the Yellow River Basin in China. More than 50 experts and scholars from the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Northwest University, Shaanxi Golden Land Village Revitalization Group, Yan'an University and Yulin University participated in the scientific expedition.



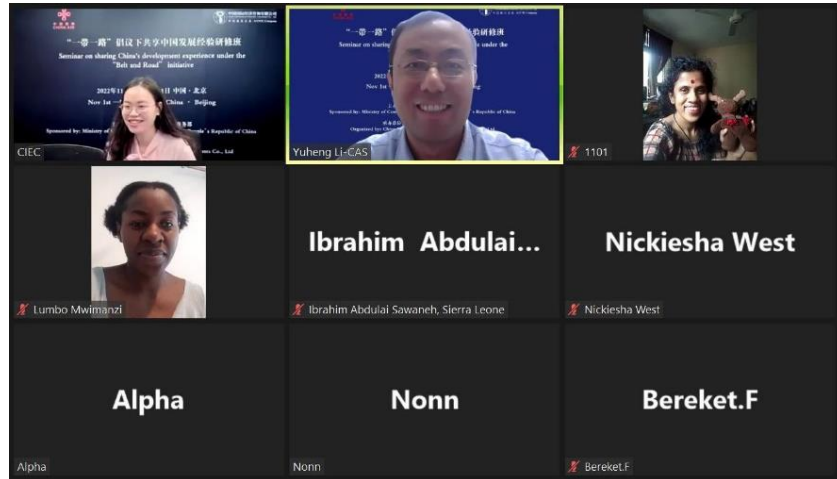
### C2. BRICS Forum on Big Data for Sustainable Development

On April 27<sup>th</sup>, 2022, Prof. Yansui Liu was invited to participate in the "BRICS Forum on Big Data for Sustainable Development", as co-chair of the parallel session on "Big Data in Support of Food Security and Poverty Alleviation". The IGU-AGLE secretary Yuheng Li gave an online presentation on global poverty reduction and resilience building, detailing the mechanisms and practical examples of resilience building for poverty reduction towards the global sustainable development goals.



### C3. Lecture on sharing China's development experience under "One Belt, One Road"

In November 2022, the IGU-AGLE secretary Yuheng Li was invited to give a lecture to 30 participants from 11 countries in the Africa and Pacific regions. He explained in detail China's poverty reduction history, experience and typical models, and proposed policies and measures for poverty reduction and development in Africa and the Pacific Island countries.



### C4. Other academic exchange activities

- Rajendra P. Shrestha, Keynote speaker entitled “Environmental Protection for Sustainable Development” at the International Conference on China-ASEAN high-end forum on the preservation of Geographical Environment and Talent training, held at Guiyang, China from 29-30 Oct 2022 co-organized by Guizhou Normal university and three other co-organizers.
- Habibullah MAGSI, As a Panelist in IFEM-2022 (International Faculty Exchange Meet) held during June 13-16, 2022 at the University of Technology and Applied Sciences-Shinas, Oman.
- Habibullah MAGSI, Webinar with Centre for Academic Learning Writing and Support Services (CALWASS) on question of “what is research contribution”.



## D. Publications

### D1. Typical Experiences and Models of Poverty Alleviation in China

Prof. Yansui Liu has published a series of books on Poverty Alleviation entitled *Typical Experiences and Models of Poverty Alleviation in China*. This book records a good cadre, a leader, a good enterprise, a road out of poverty, a good model, a good policy, a new perspective and an unforgettable event (referred to as "Eight ones") that the third-party evaluation experts found in the field evaluation survey. This book can provide impetus for grassroots people to get rid of poverty and get rich and rural revitalization, and also share valuable practical experience for rural workers to make scientific policies.

Liu Yansui, Yang Zisheng, Long Hualou and Li Yurui. *Typical Experiences and Models of Poverty Alleviation in China*[M], People's Publishing House, 2022.

### D2. Global Sustainable Agriculture and Land Management Systems

Prof. Guy M. Robinson is organizing a special issue on *Global Sustainable Agriculture and Land Management Systems* in Geography and Sustainability. The submission deadline is Mar 31<sup>st</sup>, 2023. The special issue aims to stimulate debate on sustainable agriculture and the various land management systems contributing to sustainable agri-food systems (<https://www.journals.elsevier.com/geography-and-sustainability>).

### D3. Innovative development of modern agricultural geography and land engineering

Prof. Yansui Liu, Yuheng Li and Weilun Feng are working on a chapter on *Innovative development of modern agricultural geography and land engineering*. The Book title is Research Directions, Challenges and Achievements of Modern Geography, which is edited by Prof. J. Banski and Prof. M. Meadows. Now the review progress is tentatively/conditionally accepted. This chapter aims to expound the scientific connotation and research content of agricultural geographic engineering, and analyze the scientific achievements and challenges faced by agricultural geography and land engineering research in recent years, and prospects for future research directions.

### D4. Other published books and papers

- [1] Liu Xueqi, **Liu Yansui**, Liu Zhengjia, et al.. Evaluating potential impacts of land use changes on water supply-demand under multiple development scenarios in dryland region[J]. Journal of Hydrology, 2022, 610: 127811.
- [2] Li Yurui, Zhang Xuanchang, **Liu Yansui**, et al. Agronomic technology to promote sustainable utilization of newly created farmland in the Chinese Loess Plateau[J]. Land Degradation & Development. 2022: 4403.
- [3] Guo Yuanzhi, **Liu Yansui**. Sustainable poverty alleviation and green development in China's underdeveloped areas[J]. Journal of Geographical Sciences, 2022, 32(1): 23-43.
- [4] Wu Wenhao, **Li Yuheng**, Liu Yansui. What constrains impoverished rural regions: A case study of Henan Province in central China[J]. Habitat International, 2022, 119:102477
- [5] Henning M, **Westlund H**, Enflo K. Urban - rural population changes and spatial inequalities in Sweden[J]. Regional Science Policy & Practice, 2022. doi.org/10.1111/rsp3.12602

- [6] Rouquier O, **Perrin C**. Can proximity food supply chains limit the banalization of commercial foodscapes of a small town [J]. Rural Economics, 2022, 379(1): 7-27.
- [7] **Naumov A**, Sidorova D, Goncharov R. Farming on Arctic margins: Models of agricultural development in northern regions of Russia, Europe and North America[J]. Regional Science Policy & Practice, 2022, 14(1): 174-186.
- [8] Helen X.H. Bao, **G.M. Robinson**, Behavioural land use policy studies: Past, present, and future[J]. Land Use Policy, 2022, 115, 106013.
- [9] B. Song, **G.M. Robinson** and D.K. Bardsley. Multifunctionality and path dependence: farmer decision-making in the peri-urban fringe[J] Journal of Rural Studies, 2022, 96, 64-77. doi.org/10.1016/j.jrurstud.2022.10.012.
- [10] Qasim S, Qasim M, **Shrestha R P**, et al. The role of religious beliefs in the conservation of biodiversity in the holy shrines of Pakistan[J]. Biodiversity, 2022: 1-5.
- [11] Kundu, A., Dentinho, T.P., **Magsi, H.**, Basu, K. and Bandyopadhyay, S. (Eds.) 2022. Accessible Housing for South Asia: Needs, Implementation and Impacts. Springer International Publishing. ISBN: 978-3-030-88880-0.

## E. Archival Contributions

The IGU-AGLE commission contributed two pieces of news to the IGU website.

### 1. IGU Distinguished Geographical Practice Award

<https://igu-online.org/igu-awards-announced/>

### 2. Chinese prize 2021 of “National Advanced Collective for Poverty Alleviation”

<https://igu-online.org/wp-content/uploads/2022/02/IGU-UGI-e-Newsletter-January-2022.pdf>

## F. Other Information

### F1. IGU Distinguished Geographical Practice Award

On July 18<sup>th</sup>, 2022, Prof. Yansui Liu was awarded the IGU Distinguished Geographical Practice Award for 2022. The award honors geographers whose work has been widely applied to all areas of academia and has made outstanding contributions. He was selected for his outstanding contributions to scientific decision-making and practice in the field of land use, rural poverty reduction and rural revitalization, and the application of agricultural geoengineering.



Closing Ceremony, IGU 100 Paris 2022  
July 22, 2022, 2pm-4pm

#### Distinguished Geographical Practice Award

##### Professor Liu Yansui

Institute of Geographic Sciences and Natural Resources Research,  
Chinese Academy of Sciences



#### IGU DISTINGUISHED PRACTICE AWARD

##### LIU YANSUI

The IGU recognizes Professor Liu's international research that has made substantial contributions to scientifically-based decision-making and practice in relation to land use, rural poverty reduction and revitalization, and in the geographical application of agricultural engineering. Professor Liu's work provides many excellent examples of the application of geographical knowledge and skills towards resolving important environmental and social problems.

Cape Town, South Africa  
18<sup>th</sup> July 2022

Michael E Meadows  
President, IGU



## F2. Fellow of the Geographical Society of China

On September 28<sup>th</sup>, 2022, Prof. Yansui Liu was invited to attend the first Member's Day of the Geographical Society of China. He was elected as the Fellow of the Geographical Society of China, which is the highest academic honorary title in the field of geography established by GSC. The team's research result "Research on the theory and key technology of precise poverty alleviation assessment and its application to decision-making" was selected as one of the Top Ten Research Advances in Geographical Sciences in China in 2021(<http://www.gsc.org.cn/content.aspx?id=1375>).



## F3. Vice-President of the Royal South Australian Geographical Society

The IGU-AGLE executive member, co-chair Guy Robinson was appointed as Vice-President of the Royal South Australian Geographical Society in September 2022.

## F4. Highly Cited Scientists

On November 15<sup>th</sup>, 2022, Clarivate released its 2022 "Highly Cited Researchers" List, which aims to identify the most influential researchers in the natural and social sciences around the world. A total of 6,938 people from 69 countries and regions around the world were included in the list of highly cited scientists. Prof. Yansui Liu was selected as the Highly Cited Researchers for the fifth consecutive year.

## F5. The fourth China New Development Awards of Springer Nature

On August 1<sup>st</sup> 2022, Yansui Liu's book "Urban-Rural Transformation Geography" was awarded the fourth China New Development Awards of Springer Nature.

