International Training Program on Foundations of Computable General Equilibrium (CGE) Modeling for Economic Policy Analysis in South Asia

Organized by IFPRI, ICAR-IARI, SANEM and CGIAR

ICAR-IARI, Pusa, New Delhi

17 to 21 March, 2025

CONCEPT

Often, policy questions need to be addressed within an economy-wide framework that captures impacts on the overall economy and at sector and household levels. Computable General Equilibrium (CGE) models are especially designed to evaluate the direct and indirect impacts of policies and shocks at both macroeconomic and microeconomic scales. Given the demand for economy-wide analysis, the International Food Policy Research Institute (IFPRI), the South Asian Network on Economic Modeling (SANEM), together with the Indian Council of Agricultural Research-Indian Agricultural Research Institute (ICAR-IARI) with support from CGIAR, are offering an introductory training course on CGE modeling.

The course is aimed at researchers and policy analysts who have some economics background but would like to learn more about economy-wide models and how to use them. The course will introduce participants to CGE modeling, providing them with a practical grounding in IFPRI's Standard CGE model that can be used to investigate a range of policy issues. It will also provide a launch-pad for those wishing to take their modeling capabilities to more advanced levels.

The program includes two main activities: (1) a weeklong in-person training course; and (2) a post-training hands-on research assignment. While the assignment does not offer direct financial incentive to the participants, it plays a crucial role in reinforcing the training course. Participants will have the opportunity to choose a topic of their own interest for the assignment and will receive ongoing guidance from researchers at SANEM and IFPRI.

Course participants should have a background in economics, be quantitatively oriented, and be competent users of Microsoft Excel. Experience with programming languages is an advantage.

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To cater to the rising demand for economy-wide modeling techniques, IFPRI in collaboration with its national-level partners has been offering several training programs since 2001 via in-person and hybrid formats. More than thirty in-person training courses have been organized, with over 500 participants from nearly 30 countries. In 2022 and 2024, IFPRI organized a comprehensive training program on CGE modeling with participants[1] from across South Asia. It facilitated early career researchers to analyze contemporary policy issues for the agriculture sector which was evident from their recent publications[2]. Further, the importance of economy-wide modeling techniques is rising among policy makers in the region as is the need for modeling skills among researchers in South Asia. Therefore, as a part of IFPRI's commitment towards policy research in South Asia, it will organize this course in India with select participants from Bangladesh, India, Sri Lanka, and Nepal as well.

[1] https://capacity.ifpri.info/2022/09/22/capacity-building-training-program-on-computable-general-equilibrium-cge-modeling-for-policy-analysis/#:~:text=An%20international%20capacity%2Dbuilding%20training,with%20the%20Indian%20Council%20of

[2] NIAP-Policy Briefs (icar.gov.in); https://doi.org/10.2499/p15738coll2.136691

COURSE RESOURCE PERSONS

Dr. Barun Deb Pal is a Research Coordinator at IFPRI, where he works on agricultural development in South Asia, including issues of climate change, economic growth, and climate smart agriculture. Barun has extensive expertise in CGE modeling, input-output and social accounting analysis, and linear and nonlinear land use planning models. Prior to IFPRI, Barun worked with India's National Council of Applied Economic Research (NCAER).

Dr. Selim Raihan is a Professor at the Department of Economics, University of Dhaka, Bangladesh and the Executive Director of the South Asian Network on Economic Modeling (SANEM). He is a member of the Board of Directors, Global Development Network (GDN). He is the Honorary Senior Research Fellow at the University of Manchester, UK. His areas of expertise include international trade, economic growth, poverty, labor market, macroeconomic policies, political economy, and climate change issues.

Dr. Asha Devi S S is a Scientist (Senior Scale) in the Division of Agricultural Economics, ICAR-Indian Agricultural Research Institute, New Delhi. Her areas of expertise include Agricultural Development and Policy, Production Economics, Climate Change and Seed Systems.

Dr. Renjini V. R is a Scientist in the Division of Agricultural Economics at ICAR-Indian Agricultural Research Institute, New Delhi. Her areas of research include agricultural marketing, agricultural trade policies, trade agreements, market access and energy use in agriculture. In addition to her research, she teaches Microeconomics, International Trade, and Agricultural Marketing to graduates and postgraduate students.

AGENDA FOR THE INAUGURAL SESSION

0930 - 1000	*Registration and tea/coffee*
1000 - 1130	**INAUGURAL SESSION** Moderator: Ms. Anisha Mohan, Communications Specialist, IFPRI
1000 - 1005	**Welcome Address** Dr. Alka Singh, Professor & Head, Division of Agricultural Economics, ICAR-IARI
1005 - 1010	**Opening Remarks** Dr. Shahidur Rashid, Director-South Asia Regional Office, IFPRI
1010 - 1020	**Overview of the training** Dr. Selim Raihan, Executive Director, SANEM
1020 - 1030	**Remarks by Guest of Honor** Dr. Ch. Srinivasa Rao, Director and Vice Chancellor, ICAR-IARI
1030 - 1040	**Remarks by Guest of Honor** Dr. R. C. Agrawal, Deputy Director General – Agricultural Education, ICAR
1040 - 1055	**Remarks by Chief Guest** Dr. P. K. Joshi, President, Agricultural Economics Research Association (AERA), India
1055 - 1100	**Vote of Thanks** Dr. Anjani Kumar, Senior Research Fellow, IFPRI
1100 - 1130	*Group Photo & High Tea*

COURSE AGENDA

Day 1: Monday		
	11:30 – 12:30	Introduction to Social Accounting Matrices (Lecture)
	12:00 – 13:00	Social Accounting Matrices (Exercises)
	13:00 – 13:30	*Lunch*
	13:30 – 15:00	SAM multiplier analysis (Lecture)
	15:00 – 15:30	*Refreshment break*
	15:30 – 17:30	SAM multiplier analysis (Exercises)
Day 2: Tuesday		
	09:00 – 10:30	Introduction to CGE models (Lecture)
	10:30 – 11:00	Refreshment break
	11:00 – 12:30	Overview of IFPRI's Standard Model (Lecture)
	12:30 – 13:30	*Lunch*
	13:30 – 15:00	Installing and running the Excel-Interface CGE Model (Demonstration)
	15:00 – 15:30	*Refreshment break*
	15:30 – 17:30	Running the Excel-Interface CGE Model (Exercises)
Day 3: Wednesday		
	09:00 – 10:30	Running simulations in the Excel-interface CGE model (Exercises)
	10:30 – 11:00	Refreshment break
	11:00 – 12:30	Running simulations continued (Exercises)
	12:30 – 13:30	*Lunch*
	13:30 – 15:00	Running simulations continued (Exercises)
	15:00 – 15:30	*Refreshment break*
	15:30 – 17:30	Running simulations continued (Exercises)
Day 4; Thursday		
	09:00 – 10:30	Running simulations in the Excel-interface CGE model (Exercises)
	10:30 – 11:00	Refreshment break
	11:00 – 12:30	Group modeling project – running simulations (Exercise)
	12:30 – 13:30	*Lunch*
	13:30 – 15:00	Group modeling project continued
	15:00 – 15:30	*Refreshment break*
	15:30 – 17:30	Group modeling project continued
Day 5: Friday		
	09:00 – 10:30	Group modeling project continued
	10:30 – 11:00	Refreshment break
	11:00 – 12:30	Group presentations
	12:30 – 13:30	*Lunch*
	13:30 – 15:00	Extending the Standard Static Model
	15:00 – 15:30	*Refreshment break*
	15:30 – 17:30	Closing and award of certificates