Dr. Smita Sirohi

M.S. Swaminathan ICAR Chair – National Professor

Dr. Smita Sirohi, alumnus of Delhi school of Economics and Jawaharlal Nehru University, is an agricultural economist with over three decades of experience spanning research, education, policy formulation, and international diplomacy. She currently holds the prestigious M.S. Swaminathan ICAR Chair – National Professorship, where her work focuses on international agricultural trade, global value chains, and the transformation of agri-food systems toward sustainability and resilience.

Dr. Sirohi has served in several high-impact leadership roles, including as Joint Secretary (G20/SCO/BRICS) in the Ministry of Agriculture & Farmers Welfare, Government of India, where she led India's engagement in global agri-food forums and was instrumental in delivering key G20 outcomes such as the Deccan High-Level Principles on Food Security and Nutrition, the MAHARISHI initiative on millets.

Her international portfolio includes a tenure as Adviser (Agriculture & Marine Products) at the Embassy of India in Brussels, where she worked closely with the European Union, Belgium, and Luxembourg, facilitating SPS negotiations, export promotion, and stakeholder consultations as part of the India-EU trade dialogue.

She previously headed the Division of Dairy Economics at National Dairy Research Institute and has made pioneering contributions to areas such as dairy sustainability, carbon markets in agriculture, farmer risk management, and livelihood resilience.

She has contributed extensively to teaching and capacity building, having guided numerous postgraduate and doctoral students and regularly delivered lectures at leading agricultural universities and training institutions. Dr. Sirohi has worked in close collaboration with national and international agencies and has served on multiple expert committees and policy-making bodies of national importance in the fields of agriculture, dairy, and trade. She has authored several books and published widely in reputed national and international journals. Dr. Sirohi has successfully led the design and delivery of high-profile policy dialogues, international conferences, and thematic exhibitions that bridge research, governance, and public engagement.

Dr. Sirohi is a Fellow of the National Academy of Agricultural Sciences (NAAS), National Academy of Dairy Sciences (India) and the Agricultural Economics Research Association (AERA).

Selected Publications:

1. Sirohi, S., Michaelowa, A., & Sirohi, S. K. (2007). Mitigation options for enteric methane emissions from dairy animals: An evaluation for potential CDM projects in India. *Mitigation and Adaptation Strategies for Global Change, 12*(2), 259–274.
2. Sirohi, S. (2007). CDM: Is it a win-win strategy for rural poverty alleviation in India? *Climatic Change, 84*(1), 91–110.
3. Sirohi, S., & Michaelowa, A. (2007). Sufferer and cause: Indian livestock and climate change. *Climatic Change, 85*(3–4), 285–298.
4. Sirohi, S., & Michaelowa, A. (2008). Implementing CDM for Indian dairy sector: Prospects and issues. *Climate Policy, 8*(1), 62–74.
5. Chand, P., Sirohi, S., & Sirohi, S. K. (2011). Using sustainable livestock production index for development of livestock sector: Case of arid region in India. *Journal of Applied Animal Research, 39*(3), 234–238.
6. Chand, P., Sirohi, S., & Sirohi, S. K. (2015). Development and application of an integrated sustainability index for small-holder dairy farms in Rajasthan, India. *Ecological Indicators, 56*, 23–30.
7. Choudhary, B. B., & Sirohi, S. (2019). Sensitivity of buffaloes (*Bubalus bubalis*) to heat stress. *Journal of Dairy Research, 86*(4), 399–405.
8. Sapkota, T. B., Vetter, S. H., Jat, M. L., Sirohi, S., Shirsath, P. B., Singh, R., Jat, H. S., Smith, P., Hillier, J., & Stirling, C. M. (2019). Cost-effective opportunities for climate change mitigation in Indian agriculture. *Science of the Total Environment, 655*, 1342–1354.
9. Balaganesh, G., Malhotra, R., Sendhil, R., Sirohi, S., Maiti, S., Ponnusamy, K., & Sharma, A. K. (2020). Development of composite vulnerability index and district level mapping of climate change induced drought in Tamil Nadu, India. *Ecological Indicators, 113*, 106197.
10. Choudhary, B. B., & Sirohi, S. (2020). Modelling climate sensitivity of agriculture in Trans and Upper Gangetic Plains of India. *Theoretical and Applied Climatology, 142*(1–2), 381–391.
11. Kanwal, V., Sirohi, S., & Chand, P. (2022). Risk perception, impact and management by farmer households in Rajasthan (India). *Environmental Hazards, 21*(2), 416–432.
12. Choudhary, B. B., & Sirohi, S. (2022). Understanding vulnerability of agricultural production system to climatic stressors in North Indian Plains: A meso-analysis. *Environment, Development and Sustainability, 24*, 13522–13541.
13. Choudhary, B. B., & Sirohi, S. (2022). Economic losses in dairy farms due to heat stress in sub-tropics: Evidence from North Indian Plains. *Journal of Dairy Research, 89*(2), 141–147.
14. Mech, A., Letha Devi, G., Sivaram, M., Sirohi, S., Dhali, A., Kolte, A. P., Malik, P. K., Veeranna, R. K., Niketha, L., & Bhatta, R. (2023). Assessment of carbon footprint of milk

production and identification of its major determinants in smallholder dairy farms in Karnataka, India. *Journal of Dairy Science, 106*(12), 8847–8860.

15. Sirohi, S. (2002). Would global trade liberalisation provide level-playing field for Indian dairy industry? Lessons for future negotiations. *Agricultural Economics Research Review, Conference Issue*, 66–77.
16. Pandit, A., Dhaka, J. P., & Sirohi, S. (2004). Factors affecting market price of dairy cows: A study of central alluvial plains of West Bengal. *Agricultural Economics Research Review, 17*(2), 219–228.
17. Bhowmik, P., & Sirohi, S. (2006). Gains from crossbreeding of dairy cattle in North-East: Micro evidence from Tripura. *Indian Journal of Agricultural Economics, 61*(3), 305–313.
18. Sirohi, S., Joshi, B. K., & Kumar, Y. (2007). Economics of milk production: Variations across productivity levels. *Indian Journal of Dairy Science, 60*(2), 124–128.
19. Hazra, P., & Sirohi, S. (2007). Dairy exports from India to Asian countries: Current trends and forecasts. *Foreign Trade Review, 42*(3), 40–58.
20. Kumar, S., & Sirohi, S. (2008). Economic performance of emerging private sector in Indian dairy industry: Evidence from firm level data. *Finance India, 22*(2), 467–486.
21. Sirohi, S., & Bhowmik, P. (2009). Dairy input procurement and output disposal system in South Tripura: Implications for dairy development. *Indian Journal of Agricultural Marketing, 23*(2), 28–35.
22. Sirohi, S., Kumar, A., & Staal, S. J. (2009). Formal milk processing sector in Assam: Lessons to be learnt from institutional failure. *Agricultural Economics Research Review, 22*(2), 245–254.
23. Sirohi, S., & Saxena, R. (2012). Research and development priorities for sustainable milk production in Karnataka. *Indian Journal of Animal Sciences, 82*(2), 209–215.
24. Chand, P., & Sirohi, S. (2012). District level sustainable livestock production index: Tool for livestock development planning in Rajasthan. *Indian Journal of Agricultural Economics, 67*(2), 199–212.
25. Chand, P., Sirohi, S., & Sirohi, S. K. (2013). Production and demand estimates of livestock feed and fodder in Rajasthan. *Indian Journal of Animal Nutrition, 30*(2), 149–156.
26. Chand, P., & Sirohi, S. (2015). Sectoral priorities for sustainable livestock development in Rajasthan: Lessons from total factor productivity growth. *Agricultural Economics Research Review, 28*(Conference Number), 81–92.
27. Rapolu, H. D., Pandey, D., Sharma, A., & Sirohi, S. (2015). Water footprint of milk production in Andhra Pradesh. *Indian Journal of Dairy Science, 68*(4), 384–389.
28. Rather, S. A., Papang, J. S., & Sirohi, S. (2016). What determines the choice of milk marketing channel of dairy farmers: Evidence from Kashmir region? *Indian Journal of Economics and Development, 12*(1a), 85–92.
29. Vedamurthy, K. B., & Sirohi, S. (2016). Factors responsible for defaulters of dairy credit: A discriminant function analysis approach. *Indian Journal of Dairy Science, 69*(3), 354–359.

30. Sirohi, S., Sridhar, V., Srivastava, A. K., Kalamkar, S. S., Sharma, D., & Boyal, V. (2017). Ration balancing: Promising option for doubling income from dairying. *Agricultural Economics Research Review, 30*(Conference Number), 193–203.
31. Chand, P., Sirohi, S., Mishra, A., & Chahal, V. P. (2017). Estimation of costs and returns from dairying in Malwa region of Madhya Pradesh. *Indian Journal of Animal Sciences, 87*(3), 381–386.
32. Darshnaben, P. M., Sendhil, R., Sirohi, S., Chandel, B. S., Ponnusamy, K., & Sankhala, G. (2018). Tracking the disparities in Gujarat dairy development – An application of biplot analysis. *Current Science, 114*(10), 2151–2155.
33. Thorat, V. S., & Sirohi, S. (2018). Income risk and management strategies of rural households: Evidence from distressed regions of Maharashtra. *Agricultural Economics Research Review, 31*(Conference Number), 101–110.
34. Mondal, B., & Sirohi, S. (2018). Varietal growth and gains from trade in Indian dairy imports: A quantitative introspection. *Agricultural Economics Research Review, 31*(2), 197–206.
35. Arti, S., Sirohi, S., & Oberoi, P. S. (2018). Influence of roughage: Concentrate ratio in the ration and feed prices on profitability of commercial dairy farms. *Indian Journal of Animal Nutrition, 35*(3), 320–325.
36. Kumar, A., Sirohi, S., Pandey, D., Harika, D. R., & Choudhary, B. B. (2019). Gross economic efficiency of water use in agriculture and water-saving farm plans for Punjab. *Agricultural Economics Research Review, 32*(Conference Number), 43–53.
37. Arti, S., Sirohi, S., & Oberoi, P. S. (2019). Effect of changes in milk yield and inter-calving period on profitability of commercial dairy farm. *Indian Journal of Animal Sciences, 89*(12), 1411–1412.
38. Sirohi, S., Chand, P., Sharma, D., & Saxena, R. (2019). Estimation of bovine equalizing units in India: A regional perspective. *Indian Journal of Animal Sciences, 89*(9), 1009–1013.
39. Kanwal, V., Sirohi, S., & Chand, P. (2020). Effect of drought on livestock enterprise: Evidence from Rajasthan. *Indian Journal of Animal Sciences, 90*(1), 94–98.
40. Kanwal, V., Sirohi, S., & Chand, P. (2021). Farmers' perception on climate extremes and their coping mechanism: Evidences from disaster prone regions of India. *Indian Journal of Traditional Knowledge, 20*(2), 512–519.
41. Kanwal, V., Sirohi, S., & Chand, P. (2022). Addressing agricultural income risks in India: Efficacy of risk management options in hazard prone regions. *Current Science, 122*(2), 178–186.
42. Anoop, M., Sirohi, S., & Singh, H. P. (2023). Effect of risk on irrigation adoption by coconut farmers in Kerala. *Indian Journal of Ecology, 50*(3), 870–874.