DATA FOR DEVELOPMENT

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A monthly update of socio-economic developments in India by the IHDS research community.

An assessment of multidimensional water poverty in India: An application of Alkire-Foster dual cut-off approach

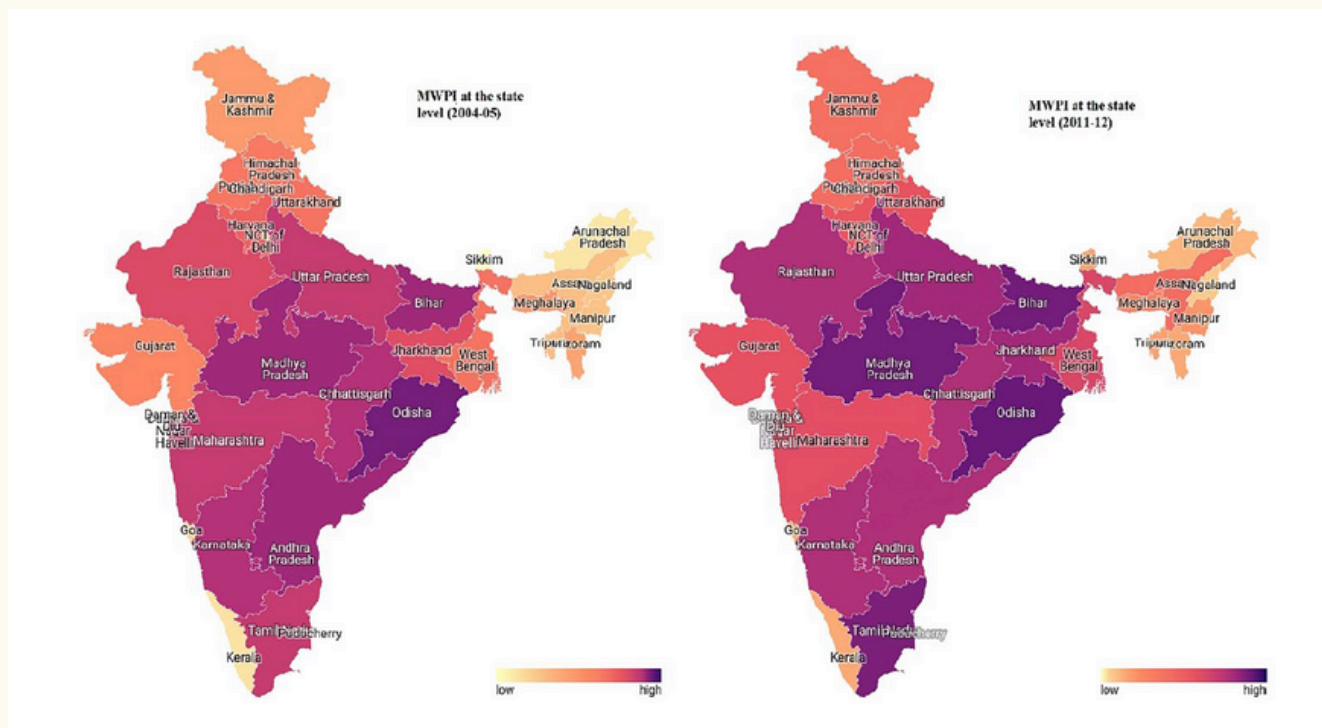*-Rida Wanbha Nongbri, Sabuj Kumar Mandal*

Proper measurement of water poverty is essential for designing appropriate and effective water policies, particularly in emerging economies like India. Against this backdrop, the author employed the Alkire-Foster approach (two-stage identification process) to estimate India's Multidimensional Water Poverty Index (MWPI) and quantify water deprivation at the household level. This methodology captures several attributes to understand the complex issues related to households' water deprivation, thus enabling the decomposition of the overall MWPI into dimensions as well as state, rural and urban classification. The author analyses the panel data from the Indian Human Development Survey (IHDS) rounds of 2004-05 and 20011-12, the study finds water poverty rates at 44.9 % and 40.9 %, respectively. By decomposing the country's MWPI for both rounds, Orissa and Bihar emerge as the states with the highest MWPI for 2004-05 and 2011-12, respectively. Furthermore, access to water sources and sanitation were identified as significant contributors to India's MWPI for both rounds. The uniqueness of the study lies in it being the first to estimate MWPI using the Alkire-Foster approach. This study

provides insightful data for policymakers to prioritise lower or higher-intensity water-poverty households to ensure improvements in the overall MWPI and intervention on specific indicators that majorly impact MWPI.

Figure 1. MWPI at the state level for both rounds

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Rida Wanbha Nongbri is a PhD candidate at the Department of Humanities and Social Sciences, IIT Madras. She is currently working on climate change, water poverty and household willingness to pay for improved access to water. Her research interests include water economics, environmental economics and development economics.

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Gender Gap in Poverty Biased by Caste in India: An Empirical Analysis

- Shishir Roy

The paper leverages IHDS-II survey data to explore the intricacies of the poverty gap between second generation son (male) and daughter (female) across different caste groups in India and the effect of the individual and household-level characteristics on the poverty gap. The research identifies the gender gap in three related dimensions, namely incidence of poverty, depth of poverty, and severity of poverty in India to the extent of 26.3 percent, 14.2 percent and 9.6 percent using the Oaxaca-Blinder RIF regression technique in India. The results also indicate that the gender disparity in poverty among second generation sons and daughters is compatible with caste hierarchy. The intergenerational mobility composition reduces the poverty gap between second generation sons and daughters. The 'gender gap in poverty biased by caste' is more evident in the northern, eastern, western and central regions compared to the southern region of India.

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Shishir Roy

Shishir Roy is an Assistant Professor in Economics at Acharya Prafulla Chandra College, Kolkata, West Bengal, India. Dr. Roy received his Ph.D. in Education Economics from Jadavpur University. His primary research area includes education economics, social inequality, gender and caste/race. He is also serving as a reviewer for some reputed international journals. He presented papers at national and international conferences and has published papers in internationally indexed journals.

Field Perspectives 📱
Insights and Observations corner

Comprehensive Training Approach for the India Human Development Survey 3 : Ensuring Robust Data Quality

- Dinesh Kumar Tiwari and Om Prakash Sharma

Training for the IHDS 3 data collection was a challenging task for the team because of the panel nature and digital data collection (Blaise software) & sample management (SurveyTrak). For IHDS 3 data collection a total of 17 trainings comprising 21 days each, were organised across various states of India. Given the complexity of the survey, all trainings were organised by the core research faculty (theme experts) of the IHDS team. This is in contrast to the Training of Trainers(ToT) model. Each training session comprised both classroom sessions as

well as training in the field. We focused on both the content and the processes (technical and other aspects) of the survey. For the specific instruments, separate parallel sessions were also organized. For instance, setting up training for Eligible Women's instruments for females only and that for community instruments for Supervisors only.

Classroom training consisted of a detailed presentation with an overview of the major concepts across various survey instruments, followed by hands-on training on the survey data model. During the classroom training mock interview sessions were also organized to help interviewers get acquainted with the questions and the associated instructions, along with the skip patterns in the data model. For major sections, we provided interviewers with both online and offline quizzes to solve. Thereafter, the results of the quizzes were discussed focusing on concepts that required further clarification. For several states, we also used regional language translators during training sessions for a better understanding of the colloquial dialects.

For field practice, teams were sent to households in selected villages to collect data from the field itself. A total of 2 such field trainings were done for all training sessions. After each of the field trips, feedback sessions were organised for the interviewers, where, the NCAER faculty shared their observations from the field visit.

Training for the procedural part of the survey, such as recording of all interview attempts for each household that was made to complete the survey, sub-sample generation, offline transfer of the sample to the partner interviewer, technical troubleshooting and data synchronization with the server, was done by the IT personnel of the core team. Practice sessions for the same were also organized towards the end of the training to build interviewers' confidence.

About the Authors

Dinesh Kumar Tiwari

Dinesh Kumar Tiwari is a Fellow at the NCAER - National Data Innovation Centre. He is a highly accomplished anthropologist with extensive experience in large-scale social surveys and experimental research. He is currently coordinating the activities of IHDS-3. His expertise lies in field management, monitoring, and ensuring robust data quality. With experience at the Indian Statistical Institute and the World Bank, he brings a wealth of knowledge spanning diverse domains, including migration studies, ethnographic research, public health, and experimental economics.

Om Prakash Sharma

Om Prakash Sharma has served as a Fellow at the NCAER - National Data Innovation Centre. His areas of specialisation include primary data collection, field management, field training, coding and editing. He has extensively worked on IHDS-3. He has also worked on other notable studies, such as the Fertilizer Consumption and Quality Seeds, IHDS-1, Rural Economic and Demographic Change in India, IHDS-2, and Third Census of Handloom Weavers. Between 1988 and 2005, he headed the NCAER field office in Bhopal, where he was responsible for recruiting, training and supervising field staff as well as editing primary data collected during fieldwork.

Publications List
Recent Publications using IHDS Data

Ahmed, S. (2024). Healthcare Seeking Behavior of People Below Poverty Line: Pattern and Determinants. Journal of Poverty, 1-20. Link

Azad, P., & Hari, K. S. (2024). The Role of Human Capital Components in Gender Wage Inequality in India. Studies in Microeconomics. Link

Bourlès, R., Demont, T., Vincent, S., & Ziparo, R. (2024). Female Entrepreneurship and Gender Norms: Theory and Evidences on Household Investment Choices. HAL Open Science Working Paper, hal-04661030. Link

Bhagowalia, P., & Chandna, A. (2024). The Impact of Women's Income on Household Nutrition. AgEcon Search. Paper presented at 32nd International Conference of Agricultural Economists, August 2-7, New Delhi. Link

Hussain, M. A., & Tyagi, M. (2024). Political connections and credit access: evidence from small businesses and microenterprises in India. Small Business Economics, 1-29. Link

Kumar, V. (2024). Husband Migration and Its Impact on the Family Left behind a Socio-economic. Journal Global Values. Vol. XV, No.1. Article No. 16, pp. 135-156. ISSN: (P) 0976-9447. Link

Lakshmanasamy, T. (2024). Demand for Children in India: Poisson Regression Estimation of Household Fertility Decision. Indian Journal of Applied Economics and Business. Vol. 6, No. 1, pp. 35-45. ISSN: 2582-4325. Link

Mohan, G., Perarapu, L. N., Chapagain, S. K., Reddy, A. A., Melts, I., Mishra, R., Avtar, R., & Fukushi, K. (2024). Assessing determinants, challenges and perceptions to adopting water-saving technologies among agricultural households in semi-arid states of India. Current Research in Environmental Sustainability, 7, 100255. Link

Munda, J., Adhikary, M., & Saha, A. (2024). Untouchability-Induced Migration in India: Exploring the Trajectory of Scheduled Caste Migrants. Contemporary Voice of Dalit.0(0). Link

Nupur, S., & Dutta, M. (2024). Determinants of Migration from Poor Households in India: An Empirical Investigation. The Indian Journal of Labour Economics, 1-19. Link

Raj, P., Roulet, T. J., & Bapuji, H. (2024). It's not who you know, but who you are: Explaining income gaps of stigmatized-caste business owners in India. Plos One, 19(8), e0307660. Link

Sreekumar, G., & Mandal, S. K. (2024). Impact of Social Connections on Flood-induced Migration Among Rural Agricultural Households: Empirical Evidence from India. Economics of Disasters and Climate Change, 1-27. Link

Urzainqui, D. (2024). Symbolic discrimination and material deprivation of historically disadvantaged groups in India. DEEP Working Paper 23, Data and Evidence to End Extreme Poverty Research Programme, Oxford. Link

Viswanathan, B., & Kumar, K. K. (2024). Economies of Scale in Household Consumption Patterns. In Perspectives on Economics and Management: Essays in Honour of Anindya Sen" (1st ed.) edited by Saibal Gosh & Partha Ray, pp. 11-27. Routledge India. Link

About IHDS

The India Human Development Survey (IHDS) began as a nationally representative, multi topic survey of 41,554 households in 1,503 villages and 971 urban neighborhoods across India. The first round of interviews were completed in 2004-05; Data is publicly available via ICPSR. The second round re-interviewed most of these households in 2011-12 (N=42,152) and data for the same is available via ICPSR. Fieldwork for IHDS 3 was undertaken in 2022-24 and data is currently being cleaned and processed.

IHDS 3 has been jointly conducted by researchers from the University of Maryland, the National Council of Applied Economic Research, Indiana University and University of Michigan.

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Thank you for your support.