

Curriculum Vitae

April 2021

Samir KC.

- **EDUCATION**

- 2001-2009 Ph.D. in Spatial Sciences, University of Groningen, The Netherlands (Scholarship Award from Netherlands Foundation for the Advancement of Tropical Research, The Netherlands.)
- 2001-2002 Attained full course of Master in Demography (required for Ph.D.), Population Research Centre, University of Groningen, The Netherlands
- 1997 Master in Statistics, Department of Statistics, Tribhuvan University, Kathmandu, Nepal
- 1994 B.Sc. Degree in Statistics, Mathematics, and Physics, Tribhuvan University, Kathmandu, Nepal

- **CURRENT POSITION(S)**

- Jan 2021 - Research Group Leader, Multidimensional Demographic Modelling, IIASA, Austria
- Feb 2020 - Distinguished Visiting Professor, Institute for Liberal Arts and Sciences (ILAS), Kyoto University, Japan
- July 2019 - Deputy Director, Asian Demographic Research Institute, Shanghai University, Shanghai, China
- June 2015 - Professor and Leader, Human Capital and Development Pillar at Asian Demographic Research Institute, Shanghai University, Shanghai, China
- Jan 2018 - Founding member, Digital Data System for Development, Kathmandu, Nepal
- Sep 2012 - Leader of Project "Modeling Human Capital Formation", Wittgenstein Centre for Demography and Global Human Capital (IIASA, VID/ÖAW, WU), International Institute for Applied Systems Analysis (IIASA), World Population Program, Laxenburg, Austria
- May 2005 - Research Scholar, IIASA, World Population Program, Laxenburg, Austria

- **PREVIOUS POSITIONS**

- May 2014 – Dec 2017 Co-Principal Investigator, internal IIASA project "Accounting for socioeconomic heterogeneity in IIASA models."
- 2002-2003 Program Manager, The Economic Evaluation of Practical Approach to Lung Health (Ph.D. related) in Nepal, Nawalparasi, Nepal
- 2001 Biostatistician, Nepal Health Research Council, Ministry of Health and Population, Kathmandu, Nepal
- 2000-2003 Lecturer (Adjunct) of Statistics and Computer Applications at the Department of Community Medicine, Institute of Medicine, Kathmandu, Nepal
- 1997-2003 Lecturer (Adjunct) in Statistics at various campuses of Tribhuvan University and Lecturer at Pokhara University, Kathmandu, Nepal

- SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

2017- Masters (3 current, 2 graduated) and Ph.D. (4 current) students at Asian Demographic Research Institute, Shanghai University

2008- Supervising Ph.D. students as part of IIASA Young Scientists Summer Program (YSSP) at IIASA, Austria

2000-2003 Co-supervising postgraduate medical and public health students, Department of Community Medicine, Institute of Medicine, Kathmandu, Nepal
- TEACHING AND TRAINING**

July 2020 Postgraduate course "Multidimensional Demography" at Shanghai University, Shanghai, China

Feb-2020 - Open course on "Understanding Population Change" at Kyoto University

Nov 2019 Training on "CEPAM-Macro model" at Joint Research Center, European Union, Ispra, Italy

Sep 2017 - Postgraduate course, "Demography: Concepts, Theories, and Computations" at Shanghai University, Shanghai, China

Mar 2017 - 2019 Undergraduate course, "Global Demography and Population Studies" at Shanghai University, Shanghai, China

Nov-Dec 2015/2016 Postgraduate course "Population, Human Capital and Policy II" at Business University of Vienna, Vienna, Austria

Nov-Dec 2014 Intensive training workshop (8 days) on Demographic Computations Series 2: Multistate Population Projection in Excel and R, organized by ISEC, IIASA, and TIFAC, Bangalore, India ([link](#))

June 2014 Teaching an intensive course (5 days) on conducting sub-national Population Projection at the Statistical Research and Training Center (SRTC), Tehran, Iran

April 2014 Teaching an intensive course on Population Projection (5 days) at European Doctoral School of Demography (EDSD), Warsaw, Poland

2010 Teaching at the intensive training workshop (8 days) on Demographic Computations: Multistate Population Projection, organized by ISEC, IIASA, and TIFAC, Bangalore, India ([link](#))

2009 Teaching at the intensive training workshop (5 days) on Demographic Computations: Population Projection, Kathmandu, Nepal

2000-2003 Lecturer (*Adjunct*) of Statistics and Computer Applications at the Department of Community Medicine, Institute of Medicine, Kathmandu, Nepal

1997-2003 Lecturer in Statistics and Research Methodology at Tribhuvan University and Pokhara University, Kathmandu, Nepal
- ORGANISATION OF SCIENTIFIC MEETINGS and TRAINING WORKSHOPS**

2020/21 Principal organizer and trainer "Methods in developing sub-national population and human capital models and its application in development, in Democratic People's Republic of Korea"
(forthcoming – delayed due to COVID-19)

2019 Principal organizer and trainer "Methods in developing sub-national population and human capital models and its application in

2018	development," 13-17 October 2019, Shanghai, China Principal organizer and trainer "Workshop on modeling and projecting sub-national population trends: Preliminary Results," 22-24 January 2018, Shanghai, China
2017b	Co-organizer and co-trainer of Summer School "Demography, Human Capital and Economic Growth," 19-23 June 2017, Shanghai, China (link)
2017a	Principal organizer and trainer of "Workshop on modeling and projecting sub-national population trends," 7-11 April 2017, Shanghai, China (link)
2016	Co-organizer of Shanghai University's Asian Population Forum (around 80 participants), 10-12 October 2016, Shanghai, China (link)
2011	Co-organizer of the IIASA/Oxford Expert Meeting on the Future of High Fertility Countries (12 participants), 7-9 November 2011, Dhulikhel, Nepal
2009	Co-organizer of the international conference "Education and Demography" (150 participants), 30 November- 1 December 2009, Vienna Institute of Demography (VID), Vienna, Austria

INSTITUTIONAL RESPONSIBILITIES

2020-	Leader of Multidimensional Demographic Modeling Research Group, IIASA. Scientific management of researchers and funds within the research group.
2019-	Deputy Director, ADRI. Responsible for supporting the Director on administrative and scientific management of the institute.
2017-	The executive head of Asian MetaCentre (headquarter at ADRI). Responsible for planning and managing Asian MetaCentre activities.
2015-	Professor and Leader of Research Pillar "Human Capital and Development" at the Asian Demographic Research Institute (ADRI), Shanghai University. Responsible for developing and teaching Undergraduate- and Masters courses on Demography; recruit and supervise Ph.D. students; and recruit and lead a team consisting of Associate Professor, Assistant Professor, and some Post Docs.
2013-2016	Member of IIASA's internal Post-doc selection committee
2013	Elected Member of IIASA's Internal Research Committee, core scientific body of IIASA
2011-2015	Thematic Focal Person of "Modeling Human Capital" at Wittgenstein Center for Demography and Global Human Capital (IIASA, VID/OEAW, WU), Vienna, Austria
Since 2012	The leader of Project, Modeling Human Capital Formation, World Population Program, IIASA, Laxenburg, Austria

- **Awards and Grants**

2019	Shanghai University's best scientific paper publication for PNAS article (KC, Wurzer, Springer, and Lutz, 2018)
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2017	Shanghai University's best scientific paper publication for PNAS article (Abel, Barakat, KC, and Lutz, 2016)
2016	Shanghai Governments' 1000 Foreign Talent Award (comes with 1 million RMB of research grant and 750 thousand RMB as remuneration to be spread across three years)
2001-2005	Ph.D. Scholarship from WOTRO (Dutch government's scholarship), The Netherlands

Miscellaneous

- Co-creator of www.population.io, What's my place in the world population? How long will I live?
- Principal creator of <http://dem.dds4dev.org/>, Demographic Dynamics of Nepal - Portal
- March-May 2019, Member of Task Force on Human Resource Projection, Ministry of Education, Science, and Technology, Government of Nepal.
- Consultant (past and current) to World Bank, United Nations Development Program, USAID, UNFPA, Population Reference Bureau, Nepal government, and DFID-Asia Foundation Nepal.

Software

MSDem, co-creator of a Multistate Demography package in R ([link](#))

URLs:

Shanghai University: <http://adri.shu.edu.cn/>

IIASA: www.iiasa.ac.at/web/home/research/researchPrograms/WorldPopulation/Staff/K-C-Samir.en.html

Email: kc@iiasa.ac.at

Publications

- Balachandran A, James KS, van Wissen L, **KC S**, and Janssen F (2021) “Can Changes in Education Alter Future Population Ageing in Asia and Europe?” *Journal of Biosocial Science*.
- **KC S** (2020) Internal Migration in Nepal (Chapter 13). Internal Migration in the Countries of Asia (Eds. Martin Bell, Aude Bernard, Elin Charles-Edwards, and Yu Zhu). Springer.
- Chao F, Guilamoto CZ, **KC S**, and Ombao H (2020). “Probabilistic Projection of the Sex Ratio at Birth and Missing Female Births by State and Union Territory in India.” *PLoS ONE*
- **KC S**, Mishra R, Mishra R, & Shukla A (2020). Community COVID-19 Vulnerability Index in India. IIASA Working Paper. Laxenburg, Austria: WP-20-007
- O'Neill B, Jiang L, **KC S**, Fuchs R, Pachauri S, Laidlaw E, Zhang T, Zhou W, & Ren X (2020). The effect of education on determinants of climate change risks. *Nature Sustainability*.
- Balachandran A, James KS, van Wissen L, **KC S**, & Janssen F (2020). Can changes in education alter future population ageing in Asia and Europe? NIDI Working Paper 2020/02.
- Lucas PL, Hilderink HBM, Janssen PHM, **KC S**, van Vuuren DP, & Niessen L (2019). Future impacts of environmental factors on achieving the SDG target on child mortality—A synergistic assessment. *Global Environmental Change*.
- **KC S**, Wurzer M, Speringer M, & Lutz W (2018). Future Population and Human Capital in Heterogeneous India. *Proceedings of the National Academy of Sciences*.
- **KC S** and Lutz Wolfgang (2020). Human Capital Formation in Asia 1970-2010 (Chapter 22) in Routledge Handbook of Asian Demography (Eds. Zhao Zhongwei and Hayes Adrian C.).
- Lutz Wolfgang and **KC S** (2020). The Demographic Future of Asia (Chapter 27) in Routledge Handbook of Asian Demography (Eds. Zhao Zhongwei and Hayes Adrian C.).
- **KC S**, Speringer M, & Wurzer M (2017). Population projection by age, sex, and educational attainment in rural and urban regions of 35 provinces of India, 2011-2101: Technical report on projecting the regionally

explicit socioeconomic heterogeneity in India. IIASA Working Paper. IIASA, Laxenburg, Austria: WP-17-004

- Riahi K, van Vuuren DP, Kriegler E, Edmonds J, O'Neill B, Fujimori S, Bauer N, Calvin K, **et al.** (2017). The shared socioeconomic pathways and their energy, land use, and greenhouse gas emissions implications: An overview. *Global Environmental Change* 42: 153-168. DOI:10.1016/j.gloenvcha.2016.05.009.
- van Vuuren DP, Riahi K, Calvin K, Dellink R, Emmerling J, Fujimori S, **KC S**, Kriegler E, et al. (2017). The Shared Socio-economic Pathways: Trajectories for human development and global environmental change. *Global Environmental Change* 42: 148-152. DOI:10.1016/j.gloenvcha.2016.10.009.
- Abel G.J., Barakat B., **KC S.**, and Lutz W. 2016. Meeting the Sustainable Development Goals leads to lower world population growth. *Proceedings of the National Academy of Science*. www.pnas.org/cgi/doi/10.1073/pnas.1611386113 (co-corresponding Author, authors listed in alphabetical order)
- **KC S**, Springer M, Thapa A, & Khanal MN (2016). Projecting Nepal's Demographic Future- How to deal with spatial and demographic heterogeneity. IIASA Working Paper. IIASA, Laxenburg, Austria: WP-16-021
- Loichinger E, **KC S**, and Lutz W (2016) A four-dimensional population module for the analysis of future adaptive capacity in the Phang Nga province of Thailand. In: Vienna Yearbook of Population Research 2015. Verlag der Oesterreichischen Akademie der Wissenschaften, Vienna, Austria, pp. 263-287. ISBN 13: 978-3-7001-8007-4
- Goujon A, **KC S**, Springer M, Barakat B, Potancokova M, Eder J, Striessnig E, Bauer R, et al. (2016) A Harmonized Dataset on Global Educational Attainment between 1970 and 2060 – An Analytical Window into Recent Trends and Future Prospects in Human Capital Development. *Journal of Demographic Economics*, 82 (03). pp. 315-363.
- Abel G, Barakat B, **Samir KC**, and Lutz W (2016) Meeting the Sustainable Development Goals leads to lower world population growth. IIASA Working Paper. WP 16-007, IIASA, Laxenburg, Austria
- A Goujon, W Lutz, **KC Samir** (2015), Education stalls and subsequent stalls in African fertility: A descriptive overview. *Demographic Research* 33, 1281-1296
- Yüceşahin, M. M., **KC, S.** (2015), Demographic and Human Capital Heterogeneity in Selected Provinces of Turkey: A Scenario Analysis Using Multidimensional Population Projection Model, *Economics and Sociology*, Vol. 8, No 3, pp. 215-244
- Jaeger J, Nakicenovic N, Fuss S, **KC S**, Rovenskaya E, Wagner F (2015). Special Issue based on IIASA's 40th Anniversary Conference Guest Editorial. *Technological Forecasting and Social Change*, Vol. 98, p.211
- Lutz W, Butz W, **KC S**, Sanderson W, and Scherbov S. (2014). Population growth: Peak probability. *Science*, 346(6209), 561–561. (Letters to Science, October 2014)
- Lutz W, Butz W P and **KC S**, eds. 2014. *World Population and Human Capital in the 21st Century*. Oxford University Press.
- **KC S** & Lutz W (2014). The human core of the shared socioeconomic pathways: Population scenarios by age, sex and level of education for all countries to 2100. *Global Environmental Change*, published online (4 July 2014).
- **KC S** (2014). An age distribution story: Reading into the population pyramid of Nepal. *Asian Population Studies*, published online (14 March 2014).
- **KC S** & Lutz W (2014). Demographic scenarios by age, sex, and education corresponding to the SSP narratives. *Population and Environment*, 35(3), 243–260. (Published online 19 February 2014).
- **KC S** (2013). Community vulnerability to floods and landslides in Nepal. *Ecology and Society*, 18(1):8 (March 2013).
- **KC S** (2013). Population stabilization, human. In: SA Levin (ed.), *Encyclopedia of Biodiversity (Second Edition)*. Elsevier/Academic, Waltham, USA, pp.199-209 (Published online 23 January 2013).
- Lutz W & **KC S** (2013). Demography and human development: Education and population projections. Occasional Paper No. 2013/04, UNDP Human Development Report Office, New York, NY, USA.
- Lutz W & **KC S** (2013). The Asian century will be built on human capital. *East Asia Forum Quarterly (EAFQ)*, 5(1):7-8 (January-March 2013).
- Skirbekk V & **KC S** (2012). Fertility-reducing dynamics of women's social status and educational attainment. *Asian Population Studies*, 8(3):251-264.

- Lutz W & **KC S** (2011). Global human capital: Integrating education and population. *Science*, 333(6042):587-592 (29 July 2011).
- Lutz W & **KC S** (2010). Dimensions of global population projections: What do we know about future population trends and structures? *Philosophical Transactions of the Royal Society B: Biological Sciences*, 365(1554):2779-2791 (27 September 2010).
- **KC S**, Barakat B, Goujon A, Skirbekk V, Sanderson WC & Lutz W (2010). Projection of populations by level of educational attainment, age, and sex for 120 countries for 2005-2050. *Demographic Research*, 22(15):383-472 (16 March 2010).
- **KC S** & Lentzner H (2010). The effect of education on adult mortality and disability: A global perspective. *Vienna Yearbook of Population Research 2010*, 8:201-235.
- Stonawski M, Skirbekk V, **KC S** & Goujon A (2010). Projections of religiosity for Spain. In: *Eurostat/UNECE Work Session on Demographic Projections*. 28-30 April 2010, Lisbon, Portugal, pp.421-438.
- Goujon A & **KC S** (2009). Past, present, and future demographic trends in Spain [Pasado, presente y futuro de las tendencias demograficas en Espana]. In: Ferrer JV (ed.), *Economia Espanola, 2nd Edition*. McGraw-Hill, Madrid, Spain pp.75-86.
- Lutz W, Sanderson WC, Scherbov S & **KC S** (2009). Demographic and human-capital trends in Eastern Europe and Sub-Saharan Africa. In: Stiftung Bertelsmann & Institute Migration Policy (eds), *Talent, Competitiveness and Migration*. Verlag Bertelsmann Stiftung, Gütersloh, Germany, pp.163-192.
- Lutz W, **KC S**, Khan HTA, Scherbov S & Leeson GW (2009). Future ageing in Southeast Asia: Demographic trends, human capital, and health status. In: Arifin EN & Ananta A (eds), *Older Persons in Southeast Asia: An Emerging Asset*. ISEAS Publishing, Singapore, pp.47-67.
- **KC S** (2009). *Lung Health in Rural Nepal: Multistate Modeling of Health Status and Economic Evaluation of Integrated Respiratory Care Guidelines*. IIASA Research Report RR-09-001. (**Ph.D. Thesis**)
- Lutz W, **KC S** & Scherbov S (2009). Future population growth, aging and human capital in the Mediterranean. In: Lutz W & Goujon A (eds), *Capital Humano, Genero y Envejecimiento en el Mediterraneo*, PAPERSIEMed. 7, IEMed., Barcelona, Spain, pp.19-29.
- Goujon A & **KC S** (2009). Women's level of educational attainment in North Africa (1970-2050). Gender gap versus gender dividend: Challenges and policy implications. In: Lutz W & Goujon A (eds), *Capital Humano, Genero y Envejecimiento en el Mediterraneo*, PAPERSIEMed. 7, IEMed., Barcelona, Spain, pp.19-29.
- Goujon A & **KC S** (2008). The past and future of human capital in South-east Asia: From 1970 to 2030. *Asian Population Studies*, 4(1):31-56. (Published online 20 March 2008).
- Lutz W, Goujon A, **KC S** & Sanderson W (2007). Reconstruction of populations by age, sex and level of educational attainment for 120 countries for 1970-2000. *Vienna Yearbook of Population Research 2007*, 5:193-235. (Published online 11 December 2007).
- Shrestha, N., **S. KC**, R. Baltussen, K.K. Kafle, D. Bishai, and L. Niessen. 2006. Practical approach to lung health in Nepal: Better prescribing and reduction of cost. *Tropical Medicine and International Health* 11(5): 765-772.
- Mohan CI, Bishai D, **Kumar S**, ten Asbroek G, Niessen L. Changes in utilization of TB health services in Nepal. *International Journal of Tuberculosis and Lung Disease*. 2005 Sep;9(9):1054-6.
- Bishai D, **Kumar KC S**, Waters H, Koenig M, Katz J, Khatry SK, West KP Jr. The impact of vitamin A supplementation on mortality inequalities among children in Nepal. *Health Policy and Planning* 2005 Jan; 20(1): 60-6.

Conference presentations (since 2010)

- *MSDem: A multidimensional population and human capital model*. 12th October 2019. 2nd Asian Population Forum, Shanghai University, Shanghai, China.
- *De-Population in Nepal and Its Potential Future Implications*. 4th August 2019. First International Sociological Conference, Kathmandu, Nepal.
- *The Asian Century will be based on Human Capital: Demography and Geopolitics*. 14th July 2018. Plenary Session, Third Asian Population Association Conference, Shanghai, China.
- *Future Population and Human Capital in Heterogeneous India*. 13th July 2018. Third Asian Population Association Conference, Shanghai, China.

- *Sex-ratio at birth, changing pattern of son-preference in Asia: A case study of India.* 26-28th April 2018. Population Association of America, Denver, USA.
- *Predicting Indian fertility level in light of education.* 29th Oct – 3rd Nov 2017. The 2017 International Population Conference, Cape Town, South Africa.
- *Education differential in Mortality: Past, Present, and the Future.* 29th Oct – 3rd Nov 2017. The 2017 International Population Conference, Cape Town, South Africa.
- *Meeting the Sustainable Development Goals Leads to Lower World Population Growth.* Population Association of America. 27th -29th April 2017, Chicago, USA
- *Projecting the regional explicit socioeconomic heterogeneity in India.* European Population Conference. 31st Aug-3rd Sep 2016, Mainz, Germany
- *Projecting the regional explicit socioeconomic heterogeneity in India.* Eurostat-UNECE Work Session on Demographic Projections, 18-20 April 2016, Geneva, Switzerland
- *Projecting the Regional Explicit Socioeconomic Heterogeneity in India.* Population Association of America 2016 Conference, 31st March – 2nd April 2016, Washington DC, USA.
- *Demography, Human Capital and Applications.* Peking University, 22nd March 2016. Beijing, China.
- *Projecting the regional explicit development of the population structure and social heterogeneity in Nepal.* British Society for Population Studies 2015 Conference, September 7, 2015, Leeds, UK.
- *Projecting Population at Spatial Level in Nepal and its Application in the Health Sector Planning.* The 3rd APA conference. August 28, 2015, Kuala Lumpur, Malaysia.
- *New Set of Projections of Population by Age, Sex, and Educational Attainment - Demographic and Human Capital Implications in Asia.* The 3rd APA conference. August 28, 2015, Kuala Lumpur, Malaysia.
- *Multidimensional Population Projection: Adding New Dimensions to Age and Sex.* Seminar at JY Pillay Comparative Asia Research Centre (JY CARC), September 25, 2014, NUS, Singapore
- *Results of the New Wittgenstein Centre Population Projections by Age, Sex and Level of Education for 171 Countries.* Joint Eurostat/UNECE Work Session on Demographic Projections, October 31, 2013, Rome, Italy.
- *New Set of Population Projections by Age, Sex, and Educational Attainment for 171 Countries of the World: Methods and Challenges.* XI Conference of Young Demographers, September 19, 2013, Krakow, Poland.
- *Good Data on Educational Attainment is Hard to Find: The Story behind the WIC-2012 Dataset.* XXVII International Population Conference of the International Union for the Scientific Study of Population (IUSSP), August 30, 2013, Busan, ROK.
- *Issues in Projections of Education Composition for China, India, and Indonesia.* JY Pillay Comparative Asia Research Centre (JY CARC) conference "40% of the World: Population Change, Human Capital and Development in China, India, and Indonesia", May 23, 2013, Singapore.
- *Differential Fertility by Level of Education in DHS Countries.* Annual Meeting of the Population Association of America (PAA), April 11, 2013, New Orleans, USA.
- *World Population and Human Capital: Challenges and Opportunities.* 4th Meeting of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda (HLPEP), March 26, 2013, Nusa Dua-Bali, Indonesia.
- *The Effect of Education, Adult Health and Disability in Pakistan: A Sub-national Perspective and Projection of Population by Level of Educational Attainment, Age, and Sex for Turkey, 2000-2050.* European Population Conference (EPC), June 13-15, 2012, Stockholm, Sweden.
- *New Set of Projections of Population by Age, Sex, and Educational Attainment - Demographic and Human Capital Implications in Asia.* Asian Population Association (APA) Conference, August 28, 2012, Bangkok, Thailand.
- *Healthy Ageing and Educational Attainment of Elderly.* Conference "Advances in Methodology and Applications: Bio-demography and Multistate Event History Analysis on Healthy Aging" organized by Peking University (PKU) and China Population and Development Research Center (CPDRC), October 15, 2012, Peking University, Beijing, China.
- *IIASA's Education Projections.* Asian MetaCentre Workshop on Differential Vulnerability to Flooding Events, 25 February 2010, Phuket, Thailand.
- *The Relationship Between Education and Adult Disability and Population Projections.* 22nd REVES Conference, 20 May 2010, Havana, Cuba.