

# Economic Sustainability

## Abstract:

Over three billion people - almost half the world - live on less than \$2.50<sup>1</sup> a day and at least 80% of world's population lives on less than \$10<sup>2</sup> a day. Economic growth is what is expected to lift such a high proportion of humanity out of poverty and provide the necessary access to health, education, and a decent standard of living. Yet the global economy is posing increasing pressure on the environment. .

Resource scarcity is intensifying and water, land, biodiversity, materials, energy and other natural resources are being degraded and liquidated. In an article published in *Science* in January 2015<sup>3</sup>, an international team of 18 researchers put forward that four of nine planetary boundaries, defined as the safe operating space for humanity, have now been crossed as a result of human activity. These four boundaries are climate change, loss of biosphere integrity, land-system change and altered biogeochemical cycles (phosphorus and nitrogen). Nonetheless, environmental liabilities and risks continue to grow.

The outcome document of the Rio+20 Sustainable Development Summit, '*The Future We Want*', saw the renewed political commitment of the 192 Heads of State present reverse this trend through the promotion of a sustainable future, stating that governments "should contribute to eradicating poverty as well as sustained economic growth, enhancing social inclusion, improving human welfare and creating opportunities for employment and decent work for all, while maintaining the healthy functioning of the earth's ecosystems"<sup>4</sup>.

To uphold our commitments to achieve poverty reduction, environmental protection, and economic growth in an integrated way, actors are intervening at all levels to decouple our economic growth from environmental damage. Green growth strategies, circular economies, resource efficiency are among the buzz words that are associated with the debate. This session aims to provide a platform to discuss:

- what these mean concretely at the macro (national & supranational) and micro (firm) level,
- what are the challenges faced, and
- what are the possible solutions

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<sup>1</sup> Shaohua Chen and Martin Ravallion, The developing world is poorer than we thought, but no less successful in the fight against poverty, World Bank, August 2008.

<sup>2</sup> Martin Ravallion, Shaohua Chen and Prem Sangraula, Dollar a day revisited, World Bank, May 2008.

<sup>3</sup> Steffen et al., 2015. Planetary Boundaries: Guiding human development on a changing planet. *Science* Vol. 347 No. 6223.

<sup>4</sup> UNCED, 2012. The Future We Want: Outcome Document. New York: UN DESA.

## Session Co-chairs:

**Smeeta Fokeer** is an Industrial Development Officer with the United Nations Industrial Development Organization (UNIDO), responsible for project development and implementation of sustainable industrial policies. She is also involved in related research work, including the sustainable assessment of industry sectors as evidence for policy-making and industrial energy efficiency assessments. She regularly engages in global forum events for the advocacy of sustainable industrialisation. Previously she was a research associate at Rolls Royce UTC, where she was responsible for linking the aerodynamics properties of new jet engine fuel injector design to its performance. Smeeta holds a BEng in Environmental Engineering, an MSc in Environmental Management and a PhD in Environmental Fluid Dynamics from the University of Nottingham.



**Meng Ni** received his PhD in Mechanical Engineering from The University of Hong Kong in 2007 and now he is a full Professor in The Hong Kong Polytechnic University. Professor Ni's research focuses on solid oxide fuel cells and batteries for energy conversion/storage. He is serving as an associate editor for 4 scientific journals and a member of editorial board for 7 journals. Prof. Ni received the Young Scientist Award in Hong Kong in 2007.

He is a Humboldt Fellow.

## Speakers:

**Dave Betts, One Acre Fund:** Dave is a Business Development Manager with a focus on finance and operations. OAF supplies smallholder farmers with a complete set of services to significantly increase their productivity and begin a permanent pathway out of hunger and poverty. Dave has held several roles at OAF including Kenya Program and Systems Director, focusing on improving and scaling their asset loan program, as well as the OAF Ethiopia's teff extension and research Partnership Director. Prior to OAF, Dave earned a Mechanical Engineering degree from the University of Washington and worked as a field engineer for world's leading oilfield services company.



**Nicola Cantore, UNIDO:** Nicola is a researcher at the UNIDO Department of Policy Research and Statistics and coordinated the Industrial Development Report 2016. Previously he worked at the FEEM (Fondazione ENI Enrico Mattei), the Department of Agricultural Economics and Engineering of the University of Bologna and at the Overseas Development Institute. He has consulted for organisations including UNEP, UNDP and DFID. He is currently His research covers environment, development and structural change.



**Queena Qian, Delt University of Technology:** Queena is tenure-tracked Assistant Professor at Faculty of Architecture and the Built Environment. She has won various prestigious personal grants such as Delft Technology Fellowship (2014), Endeavour Australia Cheung Kong Fellowship (2013), and Fulbright scholarship (2010). Her research expertise is on sustainable housing development, building energy efficiency and energy retrofiting from transaction costs

perspective.

**Javier Ealo, Bosch:** Javier Ealo works as Business Development Manager at Robert BOSCH. His current area of interest revolves around the Internet of Things in applications such as Smart Cities, Industry 4.0, Connected Buildings or Smart Homes. He holds a MEng in Industrial Engineering and a MBA from the University of Cambridge.

