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FRAMING PRESENTATIONS
The Speaker will present a conceptual framework of convergence with regional, national and
global perspectives. Presentation should be beyond the organizational visions, expertises
and experiences.

REAL-WORLD LABORATORIES
The speaker will present contextual framework of real world experimentation on
convergence of various sectors.
OVERVIEW

The McGill World Platform for Health and Economic Convergence (MWP) and The International Clinical Epidemiology Network (The INCLEN Trust International) are hosting a two and a half day high-level workshop in New Delhi, India, with the support of the Bill and Melinda Gates Foundation and MWP's and INCLEN's partners and sponsors on June 22nd-24th. The workshop will bring together actors from academia, the private sector, civil society, government, and international institutions to address some of the complex and seemingly intractable challenges at the nexus of health, nutrition, agriculture, wealth production, consumption, and distribution. This workshop is part of an on-going initiative led by the two convening organizations to foster novel, action-oriented collaboration between science, policy, and innovation in all these sectors, capitalizing on business as a catalyst for a real world change. It also builds upon the research and development agenda of the CGIAR Research Program (CPR4) on agriculture for improved nutrition and health.

THE FOCUS

In India and many other developing countries chronic hunger and under-nutrition persist among poor and vulnerable populations, even as over-nutrition and associated non-communicable diseases (NCDs) climb.

The problem of hunger continues to haunt India and many other countries. By India's Planning Commission's estimates the number of persons living on less than $1 per day in India in 2010 was 354 million people, or 30% of the population. The National Family Health Survey found that half of Indian children under five years old were chronically malnourished, and one out of five were acutely malnourished. The percentage of children underweight in India is twice as high as in sub-Saharan Africa.

Meanwhile, overnutrition is leading to a global epidemic in obesity, with its many serious attendant ills. In industrialized countries, costs associated with obesity and their NCDs consequences are threatening the economic viability of organizations, health systems and governments. The problem has now spread to, and is accelerating in low to middle-income countries (LMICs) and emerging markets such as Bangladesh and India. In the western world, human biology had over three centuries to adapt to such transformation and failed to do so. In LMICs the time scale for the transition from subsistence agriculture to industrialized societies is now mere decades. A recent study by the University of Maryland and the National Council of Applied Economic Research in New Delhi found 22% of Indians living in cities were overweight and 7% were obese. The rapid rise of this epidemic in LMICs is particularly troublesome since their health systems are fragile and already burdened with chronic hunger, under-nutrition and other poverty-related health conditions.

The way out of this Gordian knot lies in new forms and scales of innovation and collaboration. This conference is intended to develop four parallel Roadmaps for shaping this convergent innovation and applying it throughout all levels and sectors of society, so as to point the way to real solutions to the daunting challenges of diet-related health issues.
THE ROADMAPS

Greater convergence will be achieved through the use of collaborative Roadmaps. The Roadmaps provide a platform that is used to move forward action by convening a strategic consortium of academic, private, and public partners around a specific and pressing health or social issue; setting achievable objectives to be implemented over a one-to three-year horizon; and generating knowledge, intellectual leadership, policy direction, product and program innovation through novel collaborations at local, national, and global levels. For this workshop the Roadmap themes will be:

ROADMAP 1: DE-SILOING NUTRITION INNOVATION

One likely reason why any number of innovative approaches to solving persistent undernutrition in India has failed to make a large dent in the problem is that the innovation has taken place in separate silos. That is, individual innovations have come from individual companies, from individual academic research efforts, from individual government agencies, from individual NGOs, from individual healthcare organizations, and so forth. Instead, bringing a range of different stakeholders together to innovate collaboratively and to coordinate individual innovative efforts is more likely to lead to broader, more effective solutions. This Roadmap workshop aims to develop strategies to produce and scale up innovation through novel, integrated approaches that span nutrition-related innovation strategies across agriculture, health, and wealth.

Besides bringing together previously siloed innovators, the effort must also combine traditionally siloed forms of innovation, be they bodies of knowledge, methods, organizations or systems. The innovation must take into account how these phenomena are woven into everyday life, and how they might be addressed through innovation in technology, community engagement, organizational strategies and social policy. There must be efforts to apply the innovation at local, national and global levels.

Two “Real-World Laboratories”—one with the an initiative to biofortify a variety of millets, and the other to facilitate the increasing adoption of grain legumes in small farms—will serve as a foundation for discussion.

ROADMAP 2: NEW FORMS OF BUSINESS ENGAGEMENT

Private enterprise is playing an increasingly large role in the international development agenda. While advancements are being made to align business interest with social goals, there is need to move beyond notions of corporate social responsibility to engage and expand the reach of the business community in global development. Efficient markets, good governance and innovative business models would afford the nation with the key to more nutritious food. If done right the process can simultaneously spur wealth generation and enhance the quality of life for millions.

This Roadmap workshop aims to identify the cross-sectoral collaboration necessary to spur private sector engagement in the pursuit of developing goals at the interface of health, agriculture, and nutrition. It can examine and build on current business models that provide engagement in development goals, and consider more novel models of business engagement.
Three "Real World Laboratories"--an organization that produces specialized food products to treat malnutrition, an initiative to provide mobile-phone-based health advice and tracking to pregnant women, a novel partnership to improve health and economic development in rural and low-income regions of Eastern India facing challenging climatic conditions - will serve as a foundation for discussion.

**ROADMAP 3: RETHINKING POLICY**

During six decades of planned development, the twin challenges of growth and poverty reduction have been key policy concerns for India. High rates of economic growth have finally been achieved and have exceeded expectations, especially in this last decade. While poverty has declined, the reduction has been well below what was anticipated. Hunger remains an enormous problem. Meanwhile, India's economic boom is changing the way its people die. Diseases linked to affluence, especially heart problems, are overtaking poverty-related illnesses such as tuberculosis and diarrhoea as the biggest killers.

Policy may have played a large role in these shifts. Though it contributed to a dramatic increase in its economic growth, it also led to an increase in income inequality, and has relatively reduced the economic role of farms. Agriculture now accounts for 50% of the labour force, which is a decrease from the 70% in the early nineties. Policy has also affected dietary attitudes and choices in ways that may favor less healthful foods.

This Roadmap workshop will explore civil society and policy addressing over-nutrition in particular, and look at examples of international linkages impacting domestic attempts at addressing the problems. The goal is to suggest effective policies that promote healthier foods and diets to prevent and reduce overweight in India, and that increase commitment to obesity and diet-related NCD prevention programs among both policy-makers and the public.

Several "Real-World Initiatives"--including the work of a number of foundations and policy think tanks--will serve as a foundation for discussion.

**ROADMAP 4: BETTER METRICS AND ANALYTICS**

Since the roots of the problem spread through all aspects of society, the World Health Organization (WHO) and other health professionals and agencies at all levels have called for a life course, with a whole-of-society (WoS) approach in dealing with diet-related health conditions. But efforts to take such broad, multifactorial approaches require sophisticated models that are in turn highly dependent on access to extensive data on demographics, health, economics and other key areas. But these data tend to be fragmented, out-of-date, unrepresentative, and often simply unavailable, especially at the local level. Much of the key data lie within the healthcare system, and there are few bridges to make them accessible to social and economic policy makers at all levels.

There is a need for an integrative WoS knowledge architecture and modeling platform that use scientific and other knowledge encoded in a novel manner to foster the co-creation of shared health, social and economic value by all actors of society. The time may be ripe since data are increasingly available to allow monitoring in near real-time of a broad range of health determinants and outcomes. Frequently referred to as 'Big Data', massive geo-referenced datasets are generated by a
wide range of mobile devices, embedded sensors, and information systems. The generation of these data is increasing most rapidly in developing countries. Together with advances in computing power and data analysis methods, these data make possible near real-time monitoring of societal drivers of population health.

This roadmap aims to foster the development of knowledge systems and build local, national and global capacity that will improve the validity and convergence among metrics of all types that describe nutrition and health status at the individual and population level along the development continuum, and connect these to key health, social and economic influences and their determinants. These systems are to provide into risks, processes and outcomes, should drive cooperation (be it open or competitive) and convergence among actors, within and across domains of activity (e.g., health, education, agriculture, food, media, transportation, housing and development, etc.), sectors (e.g., academic, public, private and civil society), and jurisdictions (community, city, province/state, countries, regional, and global), from a system level and a WoS perspective. The roadmap will build upon conceptual development by partners from the Knowledge System for Sustainability Management and early proof of concept work by the MWP for the development of a whole-of-society knowledge architecture and modeling platform. The aim is to provide metrics and analytics for evidence and performance that will be provided in near real time, on multiple scales with high geographic resolution that, combines statistical, mathematical and computational models. This will effective and integrated knowledge co-creation and translation into policy, innovation and decision making by individuals, small stake holders and all other actors in society. Discussion will be anchored in three real world laboratories: a demographic, health and environment surveillance site located in district Palwal (Haryana); a World Bank multi-sectoral analytics and simulation project for scaling up nutrition; challenges in data & information management, metrics and analytics faced by The Cereal Systems Initiative for South Asia (CSISA) at the interface with nutrition, health, and industrial value chain.
**DAY 1: SETTING THE FOUNDATIONS FOR ROADMAP DEVELOPMENT**  
**Location:** Venetian Hall  

**Plenary Session with Moderator: T.K. Arun - Senior Editor, Economic Times**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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| 9:30 am - 9:45 am | **Welcome & Introductions**  
*Narendra K Arora*  
Executive Director, the INCLEN Trust; International, India  
*Laurette Dube*  
The James McGill Chair of Consumer and Lifestyle Psychology and Marketing at the Desautels Faculty of Management, Scientific Director McGill World Platform, Canada |
| 9:45 am – 10:50 am | **Inaugural session: Paths of Convergence for Agriculture, Health and Wealth**  
*Harish Rawat*  
Honourable Minister of State, Ministry of Food Processing Industries, Government of India  
*Naresh C. Saxena*  
Member, National Advisory Council of India; Former Member, Planning Commission, Government of India  
*Neeta Gangadharan*  
Secretary, Ministry of Women and Child Development, Government of India  
*Amrudha Gupta*  
Mission Director, National Rural Health Mission, Government of India  
*Navraj Sandhu*  
Principal Secretary, Department of Health, Government of Haryana, India  
*Nita Menon*  
WHO Representative for India |
| 10:50 am – 11:20 am | **Tea Break** |
| 11:20 am - 12:45 pm | **Roadmap 1: De-silico Nutrition Innovation**  
(15 minutes presentations followed by 25 minutes plenary Q&A)  
*Chairs*  
*John McDermott*  
Director, Agriculture for Improved Nutrition and Health, the International Food Policy Institute, USA  
*Jordan LeBel*  
Associate Professor of Marketing, John Molson School of Business, Concordia University, Canada  
*Prabha Pingali*  
Deputy Director, Agriculture Development, Bill and Melinda Gates Foundation  
*V.Prakash*  
Distinguished Scientist of CSIR India, President, International Society of Nutraceuticals, Nutritional and Natural, Council Member of IUFoST and IUNS. Former Director of CFTRI  
*Aldo Uva*  
President, Flavor Division, Firmenich S.A., Switzerland  
*Thomas Raardon*  
Professor of International Development and Agribusiness/Food Industry, Michigan State University, USA |
| 12:45 pm - 1:45 pm | **Lunch** |
| 1:45 pm - 3:05 pm | **Roadmap 2: New Forms of Business Engagement**  
(15 minutes presentations followed by 25 minutes plenary Q&A)  
*Chairs*  
*Robin van Puyenbroeck*  
Partner, Strategy XXI, USA  
*Nirmala Murthy*  
President, Foundation for Research in Health Systems  
*Rojev Batra*  
Group Head, Corporate Affairs, Hindustan-Unilever, India  
*Ellen Gustafson*  
Founder, The 30 Project; Co-Founder, FEED Project, USA  
*Steven Thompson*  
CEO, John Hopkins Medicine International, USA  
*Raghun Cavale*  
Vice President India Business, Infosys, India |
**Roadmap 3: Rethinking Policy**  
*(15 minutes presentations followed by 20 minutes plenary Q&A)*

**Chairs**  
Paul Thomassin  
Associate Professor of Agricultural Economics, Faculty of Agricultural and Environmental Sciences, McGill University, Canada  
Deoki Nandan  
Former Director of National Institute of Health & Family Welfare, New Delhi, India

**RM 3**  
3:05 pm - 4:15 pm

- P.K. Pradhan  
  Secretary of Health, Government of India, India  
- VM Katoch  
  Secretary (Department of Health research) and Director general, Indian Council of Medical Research, New Delhi  
- R.C. Mishra  
  Central Provident Fund Commissioner, Ministry of Labour, Government of India.  
- Sunetha Kadiyala  
  Research Fellow, Poverty, Health and Nutrition Division, International Food Policy Institute, India  
- Siddhartha Prakash  
  Director of Corporate Affairs, Medtronic, India

**Tea Break**  
4:40 pm - 5:10 pm

**Roadmap 4: Better Metrics and Analytics**  
*(10 minutes presentations followed by 30 minutes plenary Q&A)*

**Chairs**  
Prakash Shetty  
Professor of Public Health Nutrition, Institute of Human Nutrition, University of Southampton, UK  
Alok Kumar  
Associate Professor, Department of Economics, University of Victoria, Canada

**RM 4**  
5:10 pm - 6:30 pm

- R.S. Sharma  
  Director General and Mission Director, Unique Identification Authority of India (UIDAI)  
- Arun Chockalingham  
  Director, Office of Global Health, National Heart, Lung and Blood Institute, National Institutes of Health, USA  
- Josef Schmidhuber  
  Head, Global Perspective Studies Unit, FAO  
- David Buckridge  
  Professor, Department of Epidemiology, Biostatistics and Occupational Health, McGill University

**Concluding Remarks**  
6:30 pm - 6:45 pm

**Cultural Event**  
(Venue: Venetian Hall)  
Musical Program “Sur Tal: An Evening of Evergreen Melodies”  
Mc Lata Tandon

**Cocktail Dinner**  
8:00 pm - 10:00 pm
# DAY 2: ROADMAP DEVELOPMENT FOR GROUPWORK WORKSHOPS

*(See Detailed Program)*

### ROADMAP 1: De-siloing Nutrition Innovation

**LOCATION:** VENETIAN HALL

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**CHAIRS**

- John McDermott
  Director, Agriculture for Improved Nutrition and Health, the International Food Policy Institute, USA
- Jordan LeBel
  Associate Professor of Marketing, John Molson School of Business, Concordia University, Canada
- N. Viswanadham
  INAE Distinguished Professor, Computer Science and Automation, Indian Institute of Science, Bangalore

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**Welcome remarks by Chairperson**

**Summary of the day 1 discussion by Chairperson**

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**FRAMING PRESENTATIONS**

- Gerald Combs
  Center Director, Grand Forks Human Nutrition Research Center, ARS
- Rajan Sanjuk
  Country Manager-India and Senior Advisor-South-Asia, Global Alliance for Improved Nutrition (GAIN)

**DISCUSSIONS AND COMMENTS FROM PARTICIPANTS**

---

**REAL WORLD LABORATORIES**

- K. N. Rai - Harvest Plus
  Iron-fortified Pearl Millet Initiative

- C. Laxminipati Gowda & I. S. Khairwal - CGIAR Research Program on Grain Legumes
  A goal to conserve and characterize legume genetic resources, develop improved legume crops, promote crop and pest management, develop and facilitate efficient legume seed production and distributions, and enhance legume value chains, and facilitate partnerships.

---

**PLANNING AND FACILITATION TEAM**

- **Jaykumar Menon**
  Adjunct Professor, McGill University, Canada, Former X-Prize recipient
- **Rajiv Tandon**
  Senior Advisor Maternal, Newborn, Child Health & Nutrition, Save the Children, India
- **Sanjay Chaturvedi**
  Head, Department of Community Medicine, UCMS, University of Delhi, India
- **Charity Parr-Vasquez**
  McGill Youth Volunteer
- **Vaishali Deshmukh**
  INCL EN Volunteer

---

**TEAM MEMBERS**

- **Andrew MacDonald**, Crop Systems Agronomist, CIMMYT, Kathmandu, Nepal
- **Anuja Aggarwal**, Senior Pediatric Nutritionist, Department of Pediatrics, All India Institute of Medical Sciences, India
- **Akshaya Kumar Panda**
  Scientist, M.S. Swaminathan Research Foundation, Orissa, India
- **Ashish Wele**, CEO, Nirmal Seeds, India
- **Biju Cherian**, Country Manager, Harvest Plus
- **Cherie Robison**, Director, Strategic Partnerships and Development, International Wheat and Maize Improvement Centre (CIMMYT), Mexico
- **Dyne Keminjue**, Director General, Asian Vegetable Research and Development Center, Taiwan
- **Gergi Woble**, Program Associate at ICICI Centre for Child Health and Nutrition, Pune
- **Hemant Phatak**, Director Nutrivita Foods Pvt Ltd.
- **Jan Westra**, Senior Vice-President, Asia, Middle East & Africa, R&D, PepsiCo Dubai, UAE
- **Karam Chand**, Deputy Director, (Agriculture), Patwai District, Haryana, India
- **Mahabaleshwar Hegde**, Scientific Advisor, IRISHA, Medical College Pune
- **N G Hegde**, President of BAIFF Development Research Foundation, Pune, India
- **Naenal E Vikram**, Associate Professor, Department of Medicine, All India Institute of Medical Sciences, Delhi, India
- **P.K. Joshi**, Director, the International Food Policy Research Institute, USA
- **P.T. Gopal**, Director and CEO, Pristine Organics Pvt Ltd
- **Raminder Singh**, Chief Medical Officer, Patwai District, Haryana, India
- **Ruchika Mehra**, Manager, Research and Development, GlaxoSmithKline, India
- **Ruchika Sachdeva**, Investments and Partnership Group, GAIN, India
- **Seema Puri**, Associate Professor, Department of Food and Nutrition, Institute of Home Economics, University of Delhi, India
- **Sunil Singh**, Associate Professor, G. B. Pant Social Science Institute, India
- **Sunil Chacko**, Professor Adjunct, University of Alberta, Canada, IGNOU, India
- **Swarna Vepp**, Director LANS Project, MSSF, Chennai, India
- **Tisar Ranjan Nayak**, Scientist M.S. Swaminathan Research Foundation, Orissa, India
- **V.S. Chandrasekhar**, Country Advisor, Population and Reproductive Program, David and Lucile Packard Foundation

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**PROGRAM OVERVIEW**

*Paths of Convergence for Agriculture, Health and Wealth*
## ROADMAP 2: NEW FORMS OF BUSINESS ENGAGEMENT
### LOCATION: SAFFRON HALL

**CHAIRS**
- **Robin van Payenbroeck**
  - Partner, Strategy XXI, USA
- **Nirmala Murthy**
  - President, Foundation for Research in Health Systems
- **Nick Drager**
  - Professor of Practice of Public Policy and Global Health Diplomacy, McGill University, Canada; Former Director of Health, Trade and Ethics, World Health Organization, Switzerland

**Welcome remarks by Chairperson**

**Summarization of the day 1 discussion by Chairperson**

**FRAMING PRESENTATIONS**
- **Padma Shri Ranjit Roy Chaudhury**
  - National Professor of Pharmacology, Adviser - Department of Health and Family Welfare, Govt. of NCTD,
  - Former Member, BoG – MCI, India
- **Amir Dossal**
  - Founder, Global Partnerships Forum, Former Executive Director, UN Office of Partnerships

**DISCUSSIONS AND COMMENTS FROM PARTICIPANTS**

### REAL WORLD LABORATORIES
- **K.S. Shankar- Mother-Child Tracking System**
  - SMS and mobile web-based technology to ensure delivery of critical pre-natal medical services to vulnerable communities
- **Adeline Lesbinae Gautier-Nutriset & Raymond Rodriguez - Global Health Share**
  - New business models to address nutrition problems and the widening health and social disparities

## PLANNING AND FACILITATION TEAM

**Allen Paulson**
- Professor, Department of Process Engineering and Applied Science; Director of the Canadian Institute of Fisheries, Technology, Dalhousie University, Canada

**Ray Rodriguez**
- Managing Director, Global Health Share Initiative; Professor Department, Molecular and Cell Biology, University of California Davis, USA

**Rajib Dasgupta**
- Associate Professor, Centre of Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi, India

**Tim Drager**
- McGill Youth Volunteer

**Rechna Aggarwai**
- INCLEN Youth Volunteer

## TEAM MEMBERS

- **Alejandro Cravioto**, Executive Director, International Center for Diarrhoeal Disease Research, Bangladesh
- **Anamjit Singh**, Assistant Professor, Indraprastha Institute of Information Technology, IIT, Delhi
- **Ankita Marwaha**, Nutrition and Health Policy, PepsiCo, India
- **Arjit Mezzadra**, Head – New Product Development at GlaxoSmithKline Consumer Healthcare Limited
- **Ashi Kathuria**, Consultant, South Asia Human Development, World Bank, India
- **Baskar Reddy**, Head of agriculture, federation of Indian Chambers of Commerce and Industry, India
- **Deepak Guvanase**, GlaxoSmithKline Consumer Healthcare Limited
- **Ellen Gustafson**, The 30 Project; Co-Founder, FEED Project, USA
- **Jacques Hendiz**, Director of Operations, Goodman Cancer Research Center, McGill University
- **Matt Theis**, CommCare-Sense, Field Investigator, Dimagi, India
- **Nasruddin Huda**, Former Director, Grantham Caledonian College of Nursing, Special Advisor for GAVI Alliance to the Minister of Health, NK Dhamija, Deputy Commissioner(Training), Ministry of Health and Family Welfare
- **Rajendra P Gupta**, President & Member, Board of Directors, Disease Management Association of India
- **Renu Kohli**, Head, Nutrition and Health Policy, PepsiCo. India Holdings Pvt Ltd., India
- **Raj Tripathi**, Director, WW Strategy and Business Development, Health Vault, Microsoft, USA
- **Sanjeera Srivastava**, Group Leader, Proteomic Laboratory, Indian Institute of Technology, India
- **Satish Kumar**, Dean School of Public Health, SRM University, India
- **Shweta Devan**, Manager, Group Medical Services, Office of Group Medical Director, Apollo Hospitals Group New Delhi Area, India
- **Shelly Sundberg**, Senior Program Officer, Nutrition, Global Health Program, The Bill & Melinda Gates Foundation, USA
- **Sonu Kumar Anbet**, Director Food Industry and Consumer Affairs, Elanco, Singapore
- **Vinay Kumar**, Chief operating officer, DigitalGREEN, India
- **Vijay Sharma**, GlaxoSmithKline Consumer Healthcare Limited
ROADMAP 3: RETHINKING POLICY
LOCATION: REGENT HALL

CHAIRS

Paul Thomassin
Associate Professor of Agricultural Economics, Faculty of Agricultural and Environmental Sciences, McGill University, Canada

Deeki Nandan
Former Director of National Institute of Health & Family Welfare, New Delhi, India

Suneetha Kadaya
Research Fellow, Poverty, Health and Nutrition Division, International Food Policy Institute, India

Welcome remarks by Chairperson
Summarization of the day 1 discussion by Chairperson
FRAMING PRESENTATIONS

Prashant Mathur
Scientist D, Division of Non-communicable Diseases, Indian Council of Medical Research, New Delhi, India

DISCUSSIONS AND COMMENTS FROM PARTICIPANTS

REAL WORLD LABORATORIES

Shreeranjjan
Policy for Multi-stakeholder Effort to Scale Up and Intensify Fight Against Under-nutrition: ICDS (Integrated Child Development Scheme)

Anoop Misra
School program for prevention of childhood obesity

Rakesh Gupta
National Rural Health Mission: Multi-sectoral approach to health

PLANNING AND FACILITATION TEAM

Shakti Kumar Gupta
Chief Hospital Administration at All India Institute of Medical Sciences (AIIMS), New Delhi, India

Prashant Mathur
Scientist D, Division of Non-communicable Diseases, Indian Council of Medical Research, New Delhi, India

Rakesh Gupta
Director, National Rural Health Mission, Haryana State, India

Kakali Mukhopadhyay
Senior Associate Researcher, Agricultural Economic Program, McGill University

Caroline Bracht
McGill Youth Volunteer

Poma Tudu
INCLEN Volunteer

TEAM MEMBERS

Amir Khan, Deputy Director, Strategy, Planning and Management, The Bill and Melinda Gates Foundation, India
A. Nandakumar, Director, Government of India, Ministry of Agriculture, Department of Animal Husbandry, Dairying and Fisheries, Krishi Bhavan, New Delhi
Bela Shah, Scientist G and Head, Indian Council of Medical Research, New Delhi, India
Debashish Chakraborty, Professor, Department of Economics, Jadavpur University, India
Gy Ramanujan, Centre for Sustainable Agriculture, India
Kalyan K Gunguly, Deputy Director, Scientist E, Indian Council of Medical Research, New Delhi, India
Laxmikant Pala, Senior advisor, SAVE THE CHILDREN, New Delhi
Mohuya Chaudhuri, NDTV Correspondent
P K Prabhakar, Deputy Commissioner, Child Health, Ministry of Health and Family Welfare, India.
Seema Gulati, Chief Project Officer, Diabetes Foundation of India
Shubhra Kumar, Research Assistant, Model Districts Health Project at Columbia Global Centers, Mumbai, India
Tanuja Aggrewal, Associate Professor, Faculty of Management, University of Delhi, India
T.K. Arun, Senior Editor at The Economic Times
Unmesh Kapri, Professor Public Health Nutrition, All India Institute of Medical Sciences, Delhi, India
Vijay Singh Dahiya, District Magistrate Officer, Palwal district, Haryana, India

PROGRAM OVERVIEW

Paths of Convergence for Agriculture, Health and Wealth 11
ROADMAP 4: BETTER METRICS AND ANALYTICS
LOCATION: CONNAUGHT HALL

CHAIRES

Alok Kumar
Associate Professor, Department of Economics, University of Victoria, Canada

Prakash Shetty
Professor of Public Health Nutrition, Institute of Human Nutrition, University of Southampton, UK

Sanjay Zodpey
Director, Public Health Education, Public Health Foundation of India, Director, Indian Institute of Public Health, India

Welcome remarks by Chairperson
Summarization of the day 1 discussion by Chairperson
FRAMING PRESENTATIONS

Aditya Jain
Assistant Professor, Operations Management, Indian School of Business, India

DISCUSSIONS AND COMMENTS FROM PARTICIPANTS

REAL WORLD LABORATORIES

Manoja K. Das and Mark Daniel - INCLEN- SOMAARTH
Demographic and Environment Surveillance

John Newman - World Bank Initiative
Multi-Sectoral Analytics and Simulation to Scale Up and Accelerate Nutrition Security and Resilience of Agriculture

Andy McDonald - CSISA
The Cereal Systems Initiative for South Asia

PLANNING AND FACILITATION TEAM

Dwaipayyan Bharelwaj
Scientist Institute of Genomics and Integrative Biology, Mall Road, New Delhi, India

Mark Daniel
Research Chair of Social Epidemiology, University of South Australia, Australia

Manoj K. Das
Director, Projects
INCLEN TRUST

Aidan Rezaghan
McGill Youth Volunteer

KirannahNaorem
INCLEN Youth Volunteer

TEAM MEMBERS

Anil K Rajvanshi, Director of the Nimbkar Agricultural Research Institute (NARI) at Phalan, Maharashtra, India

Atiqur Rehman, Associate Professor, Department of Geography, Faculty of Natural Sciences, Jamia Millia Islamia, Delhi, India

A. Laxmaiah, Deputy Director, Division of Community Studies, National Institute of Nutrition, India

Bharati Kulkarni, Assistant Director, National Institute of Nutrition, India

Denis Xavier, Director, St-John Medical College and Research Institute, India

Emmanuel Skoufias, Lead Economist PREM Poverty Reduction and Equity, World Bank, USA

Kallur N Saraswathy, Assistant Professor, Department of Anthropology, University of Delhi, India

Manju Mehra, Professor, Clinical Psychology, Department of Psychiatry, All India Institute of Medical Sciences, India

Nikhil Tandon, Professor Department of Endocrinology and Metabolism, AIIMS, Delhi, India

Preet Rustagi, Professor and Joint Director, Institute for Human Development, New Delhi, India

Ravinder. M. Pandey, Professor and Head, Department of Biosciences, All Indian Institute of Medical Sciences, New Delhi, India

Spencer Moore, Associate Professor, Social Epidemiology, Queen's University, Canada

Sapna Surendran, Research and Evaluation Coordinator at Child In Need Institute, India
# DAY 3: CLOSING PLENARY ROADMAP PRESENTATION AND DISCUSSION

**Location:** Venetian Hall

**Plenary Session with Moderator:** Jacques Hendlitz  
Director of Operations, Goodman Cancer Research Center, McGill University

<table>
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<th>ACTIVITY</th>
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<tbody>
<tr>
<td><strong>Paths of Convergence from Small Holders to Consumers, Entrepreneurs, and Emerging Market Multinationals (15 minutes presentations and 15 minutes Q&amp;A)</strong></td>
<td>8:45 am – 9:30 am</td>
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</tbody>
</table>
| **Paul Donato**  
Executive Vice President and Chief Research Officer, The Nielsen Company, USA |                  |
| **Amitava Chattopadhyay**  
L’Oréal Chaired Professor of Marketing, INSEAD, Singapore Campus, Singapore; Author, the New Emerging Market Multinationals |                  |
| **Presentation from Roadmap 1**                                        | 9:30 am – 9:45 am |
| **Question & Answer**                                                   | 9:45 am – 10:00 am |
| **Presentation from Roadmap 2**                                         | 10:00 am – 10:15 am |
| **Question & Answer**                                                   | 10:15 am – 10:30 am |
| **Presentation from Roadmap 3**                                         | 10:30 am – 10:45 am |
| **Question & Answer**                                                   | 10:45 am – 11:00 am |
| **Presentation from Roadmap 4**                                         | 11:00 am – 11:15 am |
| **Question & Answer**                                                   | 11:15 am – 11:30 am |
| **Tea Break**                                                           | 11:30 am – 11:45 am |
| **Closing Panel**                                                       | 11:45 am – 1:00 pm |
| **Montek Singh Ahluwalia**  
Deputy Chairman, Planning Commission, Government of India |                  |
| **Abhijit Sen**  
Member, Planning Commission, Government of India, |                  |
| **M.K. Bhan**  
Secretary, Department of Biotechnology, Government of India |                  |
| **Poonam Khetrapal Singh**  
WHO Deputy Regional Director for South-East Asia |                  |
| **Kunal Bagchi**  
Regional Advisor, Nutrition and Food Safety, WHO Regional Office for South-East Asia |                  |
| **Closing Remarks**                                                     | 1:00 pm – 1:15 pm |
| **Laurette Dubé**  
The James McGill Chair of Consumer and Lifestyle Psychology and Marketing at the Desautels Faculty of Management, Scientific Director McGill World Platform, Canada |                  |
| **Narendra Arora**  
Executive Director, The INCLEN Trust International, India |                  |
DAY-2 GROUP WORK:
PROGRAM FOR ROADMAP DEVELOPMENT

PATHS OF CONVERGENCE FOR AGRICULTURE, HEALTH, AND WEALTH
ROADMAP 1: DE-SILOING NUTRITION INNOVATION

In India and many other developing countries chronic hunger and under-nutrition persist among poor and vulnerable populations, even as over-nutrition and associated non-communicable diseases (NCDs) climb. Several nutrition-related innovations have been proposed and in many cases tried, but all have failed to have a large impact on the problems. One likely reason is that the innovation has taken place in silos. That is, individual innovations have come from individual companies, from individual academic research efforts, from individual government agencies, from individual NGOs, from individual healthcare organizations, and so forth. Instead, bringing a range of different stakeholders together to collaboratively innovate and to coordinate individual innovative efforts is more likely to lead to broader, more effective solutions. This Roadmap workshop aims to develop strategies to produce and scale up innovation through novel and integrated approaches that span nutrition-related innovation strategies across agriculture, health, and wealth.

Effective collaborative innovation to address nutritional issues for the disadvantaged and the vulnerable in the most resource-poor conditions will have to account for a variety of considerations. Besides bringing together previously siloed innovators, the effort must also combine traditionally siloed forms of innovation, be they bodies of knowledge, methods, organizations or systems. What's more, if the resulting innovation is to be fully effective it must be anchored in a broad base of understanding of human perception, experience, motivation, social norms and cultural values.

The innovation must take into account how these phenomena are woven into everyday life, and how they might be addressed through innovation in technology, community engagement, organizational strategies and social policy. There must be efforts to apply the innovation at local, national and global levels. Special attention should be afforded to grassroots creativity and to local entrepreneurship as embodied in micro-, small- and medium-sized enterprises.

To ensure that the Roadmap conversation is focused, and that it is biased toward action-oriented approaches, two 'Real World Laboratories', outlined below, will serve as a foundation for discussion. Additionally, a number of already-developed approaches to innovation convergence, also outlined below, will be used to frame discussions around strategy development. Participants are encouraged to bring their unique perspectives and expertise based on their own initiatives to expand the conversation beyond the Real-World Laboratories in order to target critical issue areas and pathways for collaboration.

REAL-WORLD LABORATORIES

IRON PEARL MILLET INITIATIVE

Anemia is caused by low dietary intake, poor availability of iron, and chronic blood loss due to hookworm infestations and malaria. In India the disorder affects about 58 percent of pregnant women, 56 percent of non-pregnant women, and 79 percent of children (6-35 months). Pearl millet is the third most important cereal crop grown for food and fodder in India, and among others is a particularly significant staple crop in the Indian states of Maharashtra, Gujarat, Uttar Pradesh, Haryana, and Rajasthan, among others. Pearl millet has a higher nutritive value than most other major cereals, including its content of micronutrients such as iron, calcium, and zinc.
HarvestPlus is an international research program that aims to improve the iron status of Indian pearl-millet consumers, especially women and children. In 2012, they introduced the first biofortified high-iron pearl millet variety. The program, based at the International Center for Tropical Agriculture (CIAT) and the International Food Policy Research Institute (IFPRI), seeks to reduce hidden hunger around the world by utilizing biofortification to breed higher levels of micronutrients directly into key staple foods.

**CGIAR RESEARCH PROGRAM ON GRAIN LEGUMES**

Grain legumes are a critical source of nutrition to the poorest consumers, who cannot afford enough meat, dairy and fish. Their nutritional profile strongly complements that of cereals. Grain legumes, diverse cereals, root- and tuber-based farming systems, making them more nutrient-efficient, resilient and sustainable, and reducing crop-failure risks. They also increase yields, and thus farm incomes, by utilizing under-exploited system niches such as rotation, double- and inter-crops. And they tend to fetch high market prices. But grain legumes have received less policy support than other commodities, leading farmers to shift them to less-productive environments.

The Consultative Group on International Agricultural Research (CGIAR) Program on grain legumes unites ten initial Principal Partners with regional grain-legume networks and value-chain partners. The goal is to conserve and characterize legume genetic resources, develop improved legume crops, promote crop and pest management, develop and facilitate efficient legume seed production and distributions, enhance legume value chains, and facilitate partnerships.

**BUILDING BLOCKS**

**CGIAR RESEARCH PROGRAM**

The Consultative Group on International Agricultural Research (CGIAR) research program is designed to bridge the current gap between agricultural development and its unfulfilled health and nutritional benefits. It has four research components: value chains, biofortification, control of agriculture-associated diseases, and integrated agriculture, nutrition, and health development programs and policies. The work on value chains to improve nutritional quality and food safety has four components: Using biofortification of staple cereals to deliver micronutrients to rural people; improving value chains for nutrient dense foods (e.g. milk, legumes) to improve diets of children; improving food quality and safety in informal markets using risk-based approaches and incentives; and studying mechanisms for enhancing demand for nutrient-rich foods and nutritious diets.

**THE GREENER REVOLUTION**

Although the "green revolution" helped increase the production of staple foods, it did so at the expense of overall nutritional adequacy as well as a sustainable environment. A greener revolution directed at increasing the production of micronutrient-rich foods would help ensure sustained improvements in health. To accomplish this goal, agriculture and nutrition must be viewed in the larger context of the food system, which involves the production, distribution and utilization of food. This approach requires a new mindset for the development of agricultural and food polices, where in the measure of success is not production volumes but rather human nutrition and health.
THE QUIET REVOLUTION

There has been a rapid transformation of food supply chains in India over the past two decades. Modern retail sales are growing at 49% per year and quickly penetrating urban food markets and rural markets. The main actors by far in this unfolding quiet revolution are in the private sector, whether modern or traditional. The government's direct role as buyer and seller, in contrast, contributes to only 7% of the food economy of India. How can this insight be leveraged to better align the private sector with the innovation goals critical to addressing nutrition-related challenges?

INDUSTRY INNOVATION TO ADDRESS IRON DEFICIENCY IN ADOLESCENT GIRLS AND YOUNG WOMEN (LEHAR IRON CHUSTI)

In 2011, PepsiCo India launched Iron Chusti fortified snacks. Both products (a biscuit and a puffed snack) deliver 50% of the RDA of vitamins B2, B12 and Folate, and 25% Iron. The product was competitively priced at 2 rupees. The products were launched in one region of Andhra Pradesh and were accompanied by an extensive education effort to build the awareness of iron-deficiency anemia and its symptoms among the target group. Through public-private collaboration, a comprehensive education program was administered via both school-based education and strong community-inspired engagement that included a short education video (http://www.youtube.com/watch?v=yt_HCkei5eg). The impact of the education efforts were measured and found to result in a significant increase in awareness of iron deficiency, its symptoms, and iron rich foods. One of the key obstacles PepsiCo experienced to a scalable and sustainable approach is the intensive education that is required to educate the girls and create the demand for iron-fortified products. The education component of public health must come from the public sector and the role of the private sector is to answer demand created by the public sector’s education efforts – by providing nutritious food and drink that meets the demands of public health, and is also appealing, delicious, and accessible.
ROADMAP 1: DE-SILOING NUTRITION INNOVATION  
LOCATION: VENETIAN HALL

CHAIRS

John McDermott  
Director, Agriculture for Improved Nutrition and Health, the International Food Policy Institute, USA

Jordan LeBel  
Associate Professor of Marketing, John Molson School of Business, Concordia University, Canada

N. Viswanadham  
INAE Distinguished Professor, Computer Science and Automation, Indian Institute of Science, Bangalore

Welcome remarks by Chairperson  
Summarization of the day 1 discussion by Chairperson

FRAMING PRESENTATIONS

Gerald Combs  
Center Director, Grand Forks Human Nutrition Research Center, ARS

Rajan Sankar  
Country Manager-India and Senior Advisor-South-Asia, Global Alliance for Improved Nutrition (GAIN)

DISCUSSIONS AND COMMENTS FROM PARTICIPANTS

REAL WORLD LABORATORIES

K.N. Rai - Harvest Plus  
Iron-fortified Pearl Millet Initiative

C.L Laxmipathi Gowda & I.S. Khairwal - CGIAR Research Program on Grain Legumes  
A goal to conserve and characterize legume genetic resources, develop improved legume crops, promote crop and pest management, develop and facilitate efficient legume seed production and distributions, and enhance legume value chains, and facilitate partnerships.

PLANNING AND FACILITATION TEAM

Jaykumar Menon  
Adjunct Professor, McGill University, Canada, Former X-Prize recipient

Rajiv Tandon  
Senior Advisor Maternal, Newborn, Child Health & Nutrition, Save the Children, India

Sanjay Chaturvedi  
Head, Department of Community Medicine, UCMS, University of Delhi, India

Charity Parr-Vasquez  
McGill Youth Volunteer

Vaishali Deshmukh  
INCLEN Volunteer

TEAM MEMBERS

Andrew MacDonald, Crop Systems Agronomist, CIMMYT, Kathmandu, Nepal

Anuja Aggarwal, Senior Pediatric Nutritionist, Department of Pediatrics, All India Institute of Medical Sciences, India

Akshaya Kumar Panda, Scientist, M.S. Swaminathan Research Foundation, Orissa, India

Ashish Wel, CEO, Nirmal Seeds, India

Biju Cherian, Country Manager, Harvest Plus A

Chesue Robinson, Director, Strategic Partnerships and Development, International Wheat and Maize Improvement Centre (CIMMYT), Mexico

Dyono Keatinje, Director General, Asian Vegetable Research and Development Center, Taiwan

Gargi Wable, Program Associate at ICICI Centre for Child Health and Nutrition, Pune

Hemant Phatak, Director Nutrivita Foods Pvt Ltd.

Jan Weststrate, Senior Vice-President, Asia, Middle East & Africa, R&D, PepsiCo Dubai, UAE

Karam Chand, Deputy Director, (Agriculture), Palwal District, Haryana, India

Mahabaleshwar Hegde, Scientific Advisor, IRSHA, Medical College Pune.

N G Hegde, President of BAF Development Research Foundation, Pune, India

Naval K Vikram, Associate Professor, Department of Medicine, All India Institute of Medical Sciences, Delhi, India

P.K. Joshi, Director, the International Food Policy Research Institute, USA

P. T. Gopal, Director and CEO, Pristine Organics Pvt Ltd

Raminder Singh, Chief Medical Officer, Palwal District, Haryana, India

Ruchika Mehra, Manager, Research and Development, GlaxoSmithKline, India

Ruchika Sachdeva, Investments and Partnership Group, GAIN, India

Seema Puri, Professor, Department of Food and Nutrition, Institute of Home Economics, University of Delhi, India

Sunit Singh, Associate Professor, G. B. Pant Social Science Institute, India

Sunil Chacko, Professor Adjunct, University of Alberta, Canada, IGNOU, India

Swarna Vepa, Director LANSA Project, MSSF Chennai, India

Tusar Ranjan Nayak, Scientist M.S. Swaminathan Research Foundation, Orissa, India

V.S. Chandrashekar, Country Advisor, Population and Reproductive Program, David and Lucile Packard Foundation

DAY-2 GROUP WORK

World Platform  
Health and Economic Convergence

THE INCLEN TRUST
# DAY 2 ROADMAP 1 BREAKOUT WORKSHOP

**LOCATION: VENETIAN HALL**

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<td>Top challenges and opportunities (Larger Roadmap group)</td>
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<tr>
<td>5:00 pm – 5:30 pm</td>
<td><strong>Planning &amp; Facilitation team meets to prepare presentation for next day</strong></td>
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ROADMAP 2: NEW FORMS OF BUSINESS ENGAGEMENT

Economic globalization, political change, and technological innovation have created a global arena in which private enterprise is playing an increasingly large role in the international development agenda. While advancements are being made to align business interest with social goals, there is need to move beyond notions of corporate social responsibility to engage and expand the reach of the business community in global development. The private sector is often the primary producer and service provider with regard to healthcare, agriculture and nutrition. If afforded, efficient markets and good governance at global, national, and local levels, innovative business models could be the keys to ensure access to clean drinking water, nutritious food, better education, health-promoting livelihoods, and better access to higher-quality healthcare. It will likely require public-private collaboration nurtured by integrated policy solutions, and if done right the process can simultaneously spur wealth generation and enhance the quality of life for millions.

This Roadmap workshop aims to identify the cross-sectoral collaboration necessary to spur private sector engagement in the pursuit of development goals at the interface of health, agriculture, and nutrition. It can examine and build on current business models that provide engagement in development goals, and consider more novel models of business engagement. The latter could include non-profit social business, for-profit social business, public-private partnerships, and other multi-stakeholder relationships, including innovative financing mechanisms for social value creation. These models can be analyzed for strengths, weaknesses, viability, feasibility, and constraints, and for their ability to impact health, agriculture, and nutrition. Participants can identify common ground for the various private and public sectors, so as to help scale up collaboration and improve the range, efficiency, and outcomes of the effort to apply business engagement to solve pressing problems of need.

To ensure that the Roadmap conversation is focused, and that it is biased to action-oriented approaches, two "Real-World Laboratories," outlined below, will serve as a foundation for discussion. Additionally, a number of discussion points are outlined below. Participants are encouraged to bring their unique perspectives and expertise based on their own initiatives to expand the conversation beyond the Real-World Laboratories in order to target critical issue areas and pathways for collaboration.

REAL-WORLD LABORATORIES

MOTHER-CHILD TRACKING SYSTEM, GOVERNMENT OF KARNATAKA, INDIA

Using SMS and mobile-web-based technology, the Mother-Child Tracking System (MCTS) ensures the delivery of critical pre-natal medical services to vulnerable communities that otherwise would not have access to care. The MCTS serves both as a powerful educational tool for women to create awareness regarding pregnancy health as well as an extension of the health-care system as it tracks and monitors the medical services that pregnant women and children require. The MCTS mobile web-portal also serves as a reminder mechanism to increase the efficiency of care by notifying mothers and health personnel in advance of needed medical services through SMS-based push and
pull messages. Karnataka state uses this system, and is currently the only state in India that utilizes SMS messaging for updating pregnancy-related health records.

GLOBAL HEALTHSHARE® AND NUTRISET INITIATIVE: NUTRITIONAL AND AGRICULTURAL INTERVENTIONS

The Global Health Share Initiative project is designed to address the widening health and social disparities in climate-challenged regions of South Eastern India, the Global HealthShare® (GHS) Initiative at the University of California, Davis (UCD), in collaboration with the Ramakrishna Mission Vivekananda University (RKMVU), Belur campus, India, is proposing a novel partnership to improve health and economic development in the rural, low-income regions of Eastern India adversely impacted by the May 2009, Cyclone Aila. Community-based participatory research (CBPR) will be used to empower the local inhabitants of the Sundarban region to make their own decisions about how to improve their quality of life and create practical and sustainable livelihoods. The strategic objectives in the Aila-affected Sundarban region are: (1) Identify local and regional stakeholders to help assess the nutritional, agricultural, health and economic status in the Aila-affected Sundarban region; (2) Design and implement a sustainable, health, agriculture, and nutrition, education and training program based on the fundamentals of community health, good agricultural practices (GAP), and evidence-based nutritional recommendation appropriate for the climate-challenged Sundarbans; (3) Engage civil society through public-private partnerships to create community centers that will serve as foci for enterprise development, information dissemination, training in public health and GAP. For 25 years Nutriset has been dedicated to developing new business models and social entrepreneurship to prevent and treat malnutrition in developing countries.

BUILDING BLOCKS

PRIVATE SECTOR SPHERES OF IMPACT

There are numerous pathways through which the business sector can impact development and create social value. The most direct pathway is via core business activities. Developing a product or service of intrinsic social value, such as a low-cost vaccines, is an obvious approach. But pro-social HR policies, infrastructure development, supply chains, activities that generate income for impoverished workers, and structural and institutional investment can all also be highly relevant.

A second pathway includes social investment, including philanthropic activities and programs, enterprise development, education and training, supporting local community leaders, entrepreneurs, and technical specialists. Yet another pathway is business engagement in policy dialogue and advocacy activities. Businesses and their leaders can lend support to establishing international cooperation and norm setting, to improving public capacity and service delivery in economic and health-related efforts, to help attract foreign investment to countries, for working to open up foreign market opportunities, and to partake in multi-stakeholder dialogues around complex public problems.
Establishing formal alliances with other private organizations, and with government bodies, donor agencies, NGOs, and universities, can lead to relief from market constraints and the risk sharing. Facilitating the transfer of technologies and management principles among and between private and public entities can yield efficiency improvements by engaging the core competencies of each actor while creating added value across sectors.

**INNOVATIVE BUSINESS MODELS**

**SOCIAL BUSINESSES**

Social businesses are no-loss, non-dividend companies whose primary goal is to address a social problem. Any and all profits are used to expand the companies’ reach, increase its impact, and improve the product or service. Social Businesses either provide a product or service with a specific social goal, or are owned by an underprivileged part of society that receives direct and indirect benefit from business ownership.

For-profit social enterprises are businesses whose goal is to offer benefit to their investors while promoting the capacity to realize a specified social goal. For-profit social enterprise differs from corporate social responsibility. The latter commits to social objectives motivated by the perception that such commitment will ultimately make the enterprise more valuable, while for the former, profit maximization and dividends to investors are secondary to the main objective of pursuing the specified social goal.

Public-private partnership models currently exist in four archetypal forms, though the lines between these forms can blur. Coordination PPPs harmonize policy objectives and activities amongst groups of partners, working to minimize duplication of activities and building towards a common goal. Funding PPPs consolidate financing for a specific issue in single organizations, spreading risk and bringing in resources by recruiting partners. Product development PPPs, or PDPs, bring multiple stakeholders together to develop processes or products that no individual partner could develop alone. Delivery PPPs combine on-the-ground capabilities of different partners to deliver products or services. All PPPs and other multi-stakeholder initiatives benefit from the pooling of resources, risk sharing and combining of knowledge.

**INNOVATIVE FINANCING**

Social finance has grown tremendously in recent years. Like social enterprise, it can occur both in for-profit and not-for-profit forms. Social finance can be divided into two broad categories: impact investing and social financing. Impact investing refers to investments made for both their return on investment and their social impact. Impact investment funds, whether venture-capital-based or via other forms of investment vehicles, inject capital into startup or established social businesses with the intent of reaping both a financial and social benefit. Social finance refers to the practice of institutional financing for social solutions. Examples of social finance are microloans and microinsurance, donor-driven funds, or special taxes and other initiative intended to raise capital for social projects.
SOCIAL IMPACT METRICS

While the for-profit social business model and certain impact-investment models place an emphasis on financial returns, all private-sector models aiming for social impact strive for high social returns at the lowest possible cost. Thus there's a need to account for externalities as well as for costs and revenues. Common public-health indicators can be useful, but there is currently no one-size-fits-all method of evaluation, and projects enlist a variety of third-party ad hoc measures and procedures to gauge social benefit. In order to gain traction and efficiency in determining the impact and success of different business-engagement approaches, a common metric for the benefit produced by these projects, as well of the sustainability of the benefit is critical.
ROADMAP 2: NEW FORMS OF BUSINESS ENGAGEMENT
LOCATION: SAFFRON HALL

CHAIRS
Robin van Puyenbroeck
Partner, Strategy XXI, USA
Nirmala Murthy
President, Foundation for Research in Health Systems
Nick Drager
Professor of Practice of Public Policy and Global Health Diplomacy, McGill University, Canada; Former Director of Health, Trade and Ethics, World Health Organization, Switzerland

Welcome remarks by Chairperson
Summarization of the day 1 discussion by Chairperson

FRAMING PRESENTATIONS
Padma Shri Ranjit Roy Chaudhury
National Professor of Pharmacology, Adviser - Department of Health and Family Welfare, Govt. of NCTD, Former Member, BoG – MCI, India
Amir Dossal
Founder, Global Partnerships Forum, Former Executive Director, UN Office of Partnerships

DISCUSSIONS AND COMMENTS FROM PARTICIPANTS

REAL WORLD LABORATORIES
K.S. Shankar- Mother-Child Tracking System
SMS and mobile web-based technology to ensure delivery of critical pre-natal medical services to vulnerable communities
Adeline Lescanne Gautier-Nutriset & Raymond Rodriguez -Global Health Share
New business models to address nutrition problems and the widening health and social disparities

TEAM MEMBERS
Alejandro Cravioto, Executive Director, International Center for Diarrhoeal Disease Research, Bangladesh
Amarjeet Singh, Assistant Professor, Indraprastha Institute of Information Technology, IIT, Delhi
Ankita Marwaha, Nutrition and Health Policy, PepsiCo, India
Arijit Mazumdar, Head - New Product Development at GlaxoSmithKline Consumer Healthcare Limited
Ashi Kathuria, Consultant, South Asia Human Development, World Bank, India
Baskar Reddy, Head of agriculture, federation of Indian Chambers of Commerce and Industry , India
Deepak Gunvante, GlaxoSmithKline Consumer Healthcare Limited
Ellen Gustafson, The 30 Project; Co-Founder, FEED Project, USA
Jacques Hendlitz, Director of Operations, Goodman Cancer Research Center, McGill University
Matt Theis, CommCare-Sense; Field Investigator, Dimagi, India
Nazmul Huda, Former Director, Grameen Caledonian College of Nursing, Special Advisor for GAVI Alliance to the Minister of Health,
NK Dhamija, Deputy Commissioner(Training), Ministry of health and Family Welfare
Rajendra P Gupta, President & Member, Board of Directors, Disease Management Association of India.
Renu Kohli, Head, Nutrition and Health Policy, PepsiCo. India Holdings Pvt Ltd. , India
Raj Thiagarajan, Director, WW Strategy and Business Development, HealthVault, Microsoft, USA
Sanjeeta Srivastava, Group Leader, Proteomic Laboratory, Indian Institute of Technology, India
Satish Kumar, Dean School of Public Health, SRM University, India
Shefali Dewan, Manager, Group Medical Services, Office of Group Medical Director, Apollo Hospitals Group New Delhi Area, India
Shelly Sundberg, Senior Program Officer, Nutrition, Global Health Program, The Bill and Bill & Melinda Gates Foundation, USA
Somu Kumar Ambat, Director Food Industry and Consumer Affairs, Elanco, Singapore
Vinay Kumar, Chief operating officer, DigitalGREEN, India
Vijay Sharma, GlaxoSmithKline Consumer Healthcare Limited

PLANNING AND FACILITATION TEAM
Allen Paulson
Professor, Department of Process Engineering and Applied Science;, Director of the Canadian Institute of Fisheries, Technology, Dalhousie University, Canada
Ray Rodriguez
Managing Director, Global Health Share Initiative; Professor Department, Molecular and Cell Biology, University of California Davis, USA
Rajib Dasgupta
Associate Professor, Centre of Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi, India
Tim Drager
McGill Youth Volunteer
Rachna Aggarwal
INCLEN Youth Volunteer

PATHS OF CONVERGENCE FOR AGRICULTURE, HEALTH AND WEALTH

DAY-2 GROUP WORK
# DAY 2 ROADMAP 2 BREAKOUT WORKSHOP

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<td>Planning &amp; Facilitation team meets to prepare presentation for next day</td>
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ROADMAP 3: RETHINKING POLICY

During six decades of planned development, the twin challenges of growth and poverty reduction have been key policy concerns for India. High rates of economic growth have finally been achieved and have exceeded expectations, especially in this last decade. India being the second most populous country in the world after China, is now categorised as 'lower-middle-income,' up from "low-income.". Yet it is is the fourth-largest economy in terms of GDP. While poverty has declined, the reduction has been well below what was anticipated.

By the Planning Commission's estimates the number of persons living on less than $1 per day in India in 2010 was 354 million people, or 30% of the population, as compared to 407 million, or 38%, in 2005. According to the 66th round of the National Sample Survey (NSS) carried out between July 2009 and June 2010, the rural poverty rate was lowest in Bihar and Chhattisgarh, and highest in Kerala, followed by Punjab and Haryana.

Despite India's remarkable economic growth over the last decade, many children still struggle to meet their most basic needs, including access to sufficient food and healthcare. According to the National Family Health Survey (2005-06), 20% of Indian children under five years old were acutely malnourished and 48% were chronically malnourished. The percentage of children underweight in India is twice as high as in sub-Saharan Africa.

At the same time, overweight and obesity during childhood is a matter of growing concern in India. A recent study by the University of Maryland and the National Council of Applied Economic Research in New Delhi found 22% of Indians living in cities were overweight and 7% were obese. This shift coincides with rapid economic growth and the huge expansion of cities over the past two decades. Health experts attribute the increased prevalence of deadly lifestyle diseases to sedentary urban lifestyles among the booming middle class, the rise of vehicle ownership and a higher intake of fatty foods. India's economic boom is changing the way its people die. Diseases linked to affluence, especially heart problems, are overtaking poverty-related illnesses such as tuberculosis and diarrhoea as the biggest killers. In urban areas a third of deaths resulted from heart disease. The country is currently facing an "epidemiological transition" that will lead to non-communicable diseases such as heart problems accounting for a growing proportion of deaths (Voluntary Health Association of India). These trends mean India faces a paradoxical burden of simultaneously fighting the problems of mass obesity and malnutrition.

Policy may have played a large role in these shifts. The liberalization policy of India initiated in 1991 ended many public monopolies and allowed automatic approval of foreign direct investments among many sectors. Though the policy contributed to a dramatic increase in its economic growth, it also led to an increase in income inequality. The liberalization impact on agriculture, a core part of the Indian economy, may also be problematic. India has a large and diverse agriculture, ranking second in the world in farm output. But the economic contribution of agriculture to India's GDP is steadily declining with the country's broad-based economic growth. Agriculture now accounts for 50% of the labour force, down from 70% in the early nineties, with its share in overall GDP falling from 30% in the early nineties to 16.6% in 2009.

Nutrition policy, meanwhile, influences consumers' attitudes and choices. Several acts, programmes and missions, including the 1993 national nutrition policy, the 1995 national nutrition plan, and the 2001 national nutrition mission, have been formulated with scientific and technological underpinnings. But they have yet to achieve nutrition goals. The combined effect of trade liberalization and agriculture and nutrition policy has undoubtedly influenced dietary consumption patterns, and the results are not encouraging.
This Roadmap workshop will explore civil society and policy in terms of on-the-ground experiences, existing local and federal policies addressing over-nutrition, and examples of international linkages impacting domestic attempts at addressing the problems. Key objectives include:

1) Exploring the causes and impact of under-nutrition and especially over-nutrition among different income groups and across different regions in India;

2) Suggesting effective policies and programs that promote healthier foods and diets to scale up and accelerate fight against hunger and undernutrition, while preventing and reducing overweight obesity and diet-related NCD prevention programs among both policy-makers and the public.

To ensure that the Roadmap conversation is focused, and that it is biased to action-oriented approaches, "Real-World Initiatives" outlined below can serve as a foundation for discussion. Participants are encouraged to bring their unique perspectives and expertise based on their own initiatives to expand the conversation beyond the Real-World Laboratories in order to target critical issue areas and pathways for collaboration.

**REAL WORLD LABORATORIES: FOR FIGHTING UNDERNUTRITION**

The IFPRI 2010 conference on linkages between agriculture and nutrition released the first Global Food Policy Report in April of 2012. It provides a comprehensive, research-based analysis of major food policy challenges at the global, regional, national, and local levels. It highlights important developments and events in food policy that occurred in 2011, discusses lessons learned, offers policy recommendations, presents IFPRI's food policy tools and indicators, and takes a look forward into 2012. Navdanya, CINI, the International Network for Clinical Epidemiology Trust International (INCLEN) and many other organizations have identified multiple causes and conditions of under-nutrition. The National Rural Health Mission and the Total Sanitation Campaign are some of the major government programmes that address issues relating to child malnutrition. The HUNGaMA (Hunger and Malnutrition) Survey conducted by Naandi Foundation across 112 rural districts of India in 2011 provides reliable estimates of child nutrition covering nearly 20% of Indian children. Its objective was to understand the current situation and provide a basis for focused action. A discussion can highlight the data and articulate the integrative approaches used to alleviate under-nutrition.

**REAL WORLD LABORATORIES: FOR PREVENTING OVERNUTRITION**

The Obesity Foundation India (OFI) offers those affected by obesity many valuable resources to begin educating themselves about the disease and overcoming the negative stigma often associated with it, in addition to advocating for access to safe and effective treatment. From information about the emotional, social and physical effects of all forms of obesity, to the most current information on the disease and its treatments, OFI provides individuals with the tools needed to take a proactive approach in the fight against obesity. National Diabetes, Obesity and Cholesterol Foundation; N-DOC is committed to the fight against diabetes, obesity and cholesterol related disorders, and to raising awareness of these diseases.

Diabetes Foundation of India; Recent initiatives by the DFI are the Food Guide Pyramid, Choose Healthy and Stay Healthy, and "Project Marg-the Path."

DAY-2 GROUP WORK

Paths of Convergence for Agriculture, Health and Wealth
ROADMAP 3: RETHINKING POLICY
LOCATION: REVENT HALL

CHAIRS
Paul Thomassin
Associate Professor of Agricultural Economics, Faculty of Agricultural and Environmental Sciences, McGill University, Canada
Deoki Nandan
Former Director of National Institute of Health & Family Welfare, New Delhi, India
Suneetha Kadiyala
Research Fellow, Poverty, Health and Nutrition Division, International Food Policy Institute, India

Welcome remarks by Chairperson
Summarization of the day 1 discussion by Chairperson

FRAMING PRESENTATIONS
Prashant Mathur
Scientist D, Division of Non-communicable Diseases, Indian Council of Medical Research, New Delhi, India

DISCUSSIONS AND COMMENTS FROM PARTICIPANTS

REAL WORLD LABORATORIES
Shreeranjan
Policy for Multi-stakeholder Effort to Scale Up and Intensify Fight Against Under-nutrition: ICDS (Integrated Child Development Scheme)
Anoop Misra
School program for prevention of childhood obesity
Rakesh Gupta
National Rural Health Mission: Multi-sectoral approach to health

PLANNING AND FACILITATION TEAM
Shakti Kumar Gupta
Chief Hospital Administration at All India Institute of Medical Sciences (AIIMS), New Delhi, India
Prashant Mathur
Scientist D, Division of Non-communicable Diseases, Indian Council of Medical Research, New Delhi, India
Rakesh Gupta
Director, National Rural Health Mission, Haryana State, India
Kakali Mukhopadhyay
Senior Associate Researcher, Agricultural Economic Program, McGill University
Caroline Bracht
McGill Youth Volunteer
Poma Tudu
INCLEN Volunteer

TEAM MEMBERS
Amir Khan, Deputy Director, Strategy, Planning and Management, The Bill and Melinda Gates Foundation, India
A. Nandakumar, Director, Government of India, Ministry of Agriculture, Department of Animal Husbandry, Dairying and Fisheries, Krishi Bhavan, New Delhi
Bela Shah, Scientist G and Head, Indian Council of Medical Research, New Delhi, India
Debesh Chakraborty, Professor, Department of Economics, Jadavpur University, India
GV Ramanjanyulu, Centre for Sustainable Agriculture, India
Kalyan K Ganguly, Deputy Director, Scientist E, Indian Council of Medical Research, New Delhi, India
Laxmikant Palo, Senior advisor, SAVE THE CHILDREN, New Delhi
Manpreet Khurmi, Child Health Consultant, Child Health, Ministry of Health and Family Welfare, India
Mohuya Chaudhuri, NDTV Correspondent
P. K Prabhakar, Deputy Commissioner, Child Health, Ministry of Health and Family Welfare, India.
Seema Gulati, Chief Project Officer, Diabetes Foundation of India
Shubhra Kumar, Research Assistant, Model Districts Health Project at Columbia Global Centers, Mumbai, India
Tanuja Aggarwal, Associate Professor, Faculty of Management, University of Delhi, India
T.K Arun, Senior Editor at The Economic Times
Umesh Kapil, Professor Public Health Nutrition, All India Institute of Medical Sciences, Delhi, India
Vijay Singh Dahiya, District Magistrate Officer, Palwal district, Haryana
# DAY 2 ROADMAP 3 BREAKOUT WORKSHOP

**LOCATION:** REGENT HALL

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<tr>
<th>TIME</th>
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<tr>
<td>9:00 am – 9:15 am</td>
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<td>9:15 am – 9:30 am</td>
<td>Summarization of day 1 discussion</td>
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</tbody>
</table>
| 9:30 am – 10:00 am| **Prashant Mathur**
Scientist D, Division of Non-communicable Diseases, Indian Council of Medical Research, New Delhi, India |
| 10:00 am – 10:45 am| **Discussion and comments from participants**                            |
| 10:45 am – 11:00 am| **Tea-Break**                                                            |
| 11:00 am – 11:30 am| **REAL WORLD LABORATORIES**                                              |
| 11:30 am – 1:00 pm| **Breakout Discussion (2 groups)**
Enlist challenges and opportunities at regional, national and global level |
| 1:00 pm – 2:00 pm| **Lunch**                                                                |
| 2:00 pm – 3:00 pm| **Reconvene:** Synthesis and prioritization of opportunities and challenges
Identification of Top 5 Challenges / Opportunities
How to solve and call for action? |
| 3:00 pm – 4:00 pm| **Breakout Discussion (2 groups)**
Developing Roadmap for tackling the Top 5 Challenges and Opportunities identified |
| 4:30 pm – 5:30 pm| **Reconvene:** Consensus development on Roadmap on the
Top challenges and opportunities
(Larger Roadmap group) |
| 5:30 pm – 5:50 pm| **Planning & Facilitation team meets to prepare presentation for next day** |
Overnutrition is leading to a global epidemic in obesity, with its many serious attendant ills. The problem results from a complex interaction between agriculture, health, and wealth production and consumption systems poorly aligned with the needs and constraints of human biology. Obesity is also strongly associated with universal trends such as aging of the global population and rapid urbanization.

It is likely that the problem will accelerate, should the status quo continue because the time scale for the transition from subsistence agriculture to industrialized societies is now reduced to mere decades in low to middle-income countries (LMICs) and emerging markets such as Bangladesh and India. In the western world, human biology had over three centuries to adapt to such transformation and failed to do so. The rapid rise of this epidemic in LMICs is particularly troublesome since their health systems are fragile and already burdened with chronic hunger, under-nutrition and other poverty-related health conditions. Meanwhile, in industrialized countries, costs associated with obesity and their NCDs consequences are threatening the economic viability of organizations, health systems and governments.

As the roots of the problem spread through all aspects of society, the World Health Organization (WHO) and other health professionals and agencies at all levels, have called for a life course, whole-of-society (WoS) approach in dealing with diet-related health conditions. But efforts to take such broad, multifactorial approaches require sophisticated models that are in turn highly dependent on access to extensive data on demographics, health, economics and other key areas. But these data tend to be fragmented, out-of-date, unrepresentative, and often simply unavailable, especially at the local level. Much of the key data lie within the healthcare system, and there are few bridges to make them accessible to social and economic policy makers at all levels. As a result, work in developing useful models has progressed slowly.

There is thus a crying need for an integrative WoS knowledge architecture and modeling platform that enlists scientific and other knowledge encoded in a novel manner. The time is ripe to tackle this challenge, given that data are increasingly available to allow near-real-time monitoring of a broad range of health determinants and outcomes. Massive geo-referenced datasets and other forms of "Big Data" are generated by a wide range of mobile devices, embedded sensors, and information systems. The generation of these data is increasing most rapidly in developing countries. Together with advances in computing power and data analysis methods, these data make it possible to examine societal drivers of population health with unprecedented timeliness and fidelity.

This Roadmap workshop aims to foster the development of such knowledge systems, along with the establishment of the data flows needed to feed them. The goal is to be able to describe and analyze historical and real-time nutrition and health status at individual and population levels along the development continuum, and to connect these insights to key health, social and economic determinants. These systems can be applied to promote collaboration among actors within and across health, education, agriculture, food, media, transportation, housing and development, as well among academic, public, private and civil society sectors, and community, city, province/state, countries, regional, and global jurisdictions.
This surveillance site is located in district Palwal (Haryana), off Delhi-Mathura highway (NH-2), approximately 75 kms from Delhi. The site includes 52 villages (approximately, 200,000 population) from three Blocks of Palwal (Hathin, Hodal and Palwal). We are in the process of recruiting a cohort of 612 children and following them for the next four years. This initiative will examine the full course of development as individuals and families go from subsistence agriculture, still struggling against hunger and nutritional deficiency, to the progressive rise of obesity, diabetes and non communicable diseases (NCDs) with industrialization. The aim is to improve the science of nutrition transition to improve policy and intervention.

The surveillance site shall be measuring individual level behavior i.e. lifestyle behavior, home environment, neurocognitive abilities and social norms. In addition, we are also planning to measure biological markers of nutritional deficiency, stunting, changing dietary patterns, overnutrition, metabolic risk factors, body composition, genetics as well as epigenetics of the cohort.

The INCLEN-SOMAARTH Demographic and Environment surveillance site has been working with various partners including health sector, agriculture, local and state level governing bodies for last three years. SOMAARTH has a dedicated GIS wing, where all field village maps are geo-referenced with demographic, health and environmental data. An annual update of GIS data provides a longitudinal pattern of changes which can be used for successive spatial analyses in order to address heath, environment, and policy-related issues.

The overarching goal is to characterize the many shades of biological, environmental and behavioral risk, vulnerability and resilience to hunger, undernutrition, overnutrition, obesity/NCDs and the responsiveness to whole-of-society transformation occurring at both ends of the development continuum, all in order to point to paths of convergence for a more effective transition. In examining individuals nested within households, communities, and states/provinces, we will be able to examine the biological markers of dietary patterns, nutritional status, disease risk as well as the variability in biological responsiveness to changing environments. We will also establish reference level and a harmonized tracking system to monitor in household, communities, regional and state/ province level the baseline and changing state of (a) undernutrition, overnutrition, obesity/ NCDs and (b) spatial and temporal transformation resulting from single and combined policy, innovation and intervention by actors from agriculture, education, food, health, media and other social and economic systems shaping diet and lifestyle. This knowledge will minimize unintended consequences of policy, innovation and intervention to fight the effects undernutrition and overnutrition may have on each other by providing essential data and an analytical framework to evaluate trade-offs and inform decisions.
WORLD BANK MULTI-SECTORAL ANALYTICS AND SIMULATION PROJECT FOR SCALING UP NUTRITION

This initiative is led by the World Bank, Safansi, SAFANSI and Reach. The immediate objective is to help health districts in Bangladesh identify what multisectoral actions they should undertake to bring about a significant and sustainable reduction in malnutrition. The project examines the relationships among adequacies of food, health and healthcare with nutrition outcomes using the 2009 Bangladesh Household Food Security and Nutrition Survey and the subsequent district-level nutritional surveillance survey. The project also aims to develop a Multisectoral Simulation Tool (MST) to analyze which interventions, singly or jointly, will have the largest impact, and at what scale they have to be operated, what key implementation actions need to be monitored and how much the necessary intervention costs. The project also dynamically assesses the resilience of agriculture and food systems.

Discussion will bear upon pushing the boundaries of such multi-sectoral analytics and simulation to examine both demand-driven action that related to agriculture, food, health and wealth at the household scale and supply-driven action at the field, farm, community, landscape, domestic and global market levels. Both contexts of undernutrition and overnutrition will be considered to inform multi-sectoral policy, innovation and intervention to prevent the rise of their double burden.

THE CEREAL SYSTEMS INITIATIVE FOR SOUTH ASIA (CSISA): CHALLENGES IN DATA & INFORMATION MANAGEMENT, METRICS AND ANALYTICS AT THE INTERFACE WITH NUTRITION AND INDUSTRIAL VALUE CHAIN

CSISA was established in 2009 as a platform to support regional and national efforts on improving cereal production growth in South Asia's most important grain baskets, and is beginning a Phase 2 with a commitment to emphasis on data management and integrated impacts at scale. Operating in rural hubs in Bangladesh, India, Nepal, and Pakistan, CSISA involves 4 CG centers and >300 public, civil society, and private sector partners in the development and dissemination of: improved cropping systems; resource-conserving management technologies; new rice, wheat and maize varieties; livestock feed supply chains; aquaculture systems; improved policies; and public-private delivery systems. Discussion will bear on building synergy with other initiatives in the nutrition and industrial value chain domains to better assess the pathways and impact that agricultural innovation has on nutrition and health as well as on the progressive transformation of diet, consumption, value chains, and markets.

BUILDING BLOCKS

THE WHOLE-OF-SOCIETY KNOWLEDGE ARCHITECTURE

Building upon a framework developed by partners from the Knowledge System for Sustainability Management, the MWP has MWP has started developing a prototype implementation of this approach in Canada (Quebec) and in partnership with the INCLEN Trust, is planning to extend to India (Palwal district in Haryana state). The integrative WoS knowledge architecture for nutrition security and diet-related disease prevention and management includes a real-time population health
record and an indicator system for the nutritional quality of food consumption and related innovation and marketing practices. The population health record is a real-time knowledge-based system that integrates administrative and clinical data for a representative sample of a population and calculates population nutrition and health indicators at high geographic resolution level. The architecture consists of three major components: real-time collection of databases and data sources; ontology that provides a semantic framework for defining indicators and supporting interactive browsing of indicators by users application suite of query and analysis tools that allows users to analyze population nutrition and health indicators.

As a first module in the WoS knowledge architecture, the indicator system for the nutritional quality of food consumption and related innovation and marketing practices, uses a similar knowledge modeling approach to public and private databases of retail purchases, advertising, and marketing conditions of relevant food products. Users of the population health record can analyze, visualize, and query indicators related to specific diseases or factors that influence nutrition and health; identify zone of risk, vulnerability and resilience by geographic clusters of disease; and display temporal trends of diseases. Other modules will track the structure and dynamics of agriculture and health systems.
This initiative responds to the growing demand of partners to develop a monitoring system that can be used to examine progress towards development goals within a country while also serving as a point of comparison between countries. Currently, the FAO has a program called FAOSTAT that collects a variety of data on the agricultural output of over 200 nations. However, this data does not directly correspond to the progress being made by nations towards the Millennium Development Goals outlined by the United Nations. The FAO is developing a pilot project of Food Security Score Cards (FSSC). The FSSC will aim to capture indicators on the key dimensions of food security, including availability, access, utilization and economic vulnerability. The FSSC will attach scores to all the different dimensions of food security, allowing policy makers to identify specific problems in the area of food security and to direct intervention where appropriate. The FAO will also assign an overall score for food security. This score will allow comparisons on food security to be made across nations.
### ROADMAP 4: BETTER METRICS AND ANALYTICS

**LOCATION:** CONNAUGHT HALL

### CHAIRS
- **Alok Kumar**
  Associate Professor, Department of Economics, University of Victoria, Canada
- **Prakash Shetty**
  Professor of Public Health Nutrition, Institute of Human Nutrition, University of Southampton, UK
- **Sanjay Zodpey**
  Director, Public Health Education, Public Health Foundation of India, Director, Indian Institute of Public Health, India

### Welcome remarks by Chairperson

### Summarization of the day 1 discussion by Chairperson

### FRAMING PRESENTATIONS
- **Aditya Jain**
  Assistant Professor, Operations Management, Indian School of Business, India

### DISCUSSIONS AND COMMENTS FROM PARTICIPANTS

### REAL WORLD LABORATORIES
- **Manoja K. Das and Mark Daniel - INCLEN-SOMAARTH**
  Demographic and Environment Surveillance
- **John Newman - World Bank Initiative**
  Multi-Sectoral Analytics and Simulation to Scale Up and Accelerate Nutrition Security and Resilience of Agriculture
- **Andy McDonald - CSISA**
  The Cereal Systems Initiative for South Asia

### PLANNING AND FACILITATION TEAM
- **Dwaipayan Bharadwaj**
  Scientist Institute of Genomics and Integrative Biology, Mall Road, New Delhi, India
- **Mark Daniel**
  Research Chair of Social Epidemiology, University of South Australia, Australia
- **Manoj K. Das**
  Director, Projects INCLEN TRUST
- **Aidan Renaghan**
  McGill Youth Volunteer
- **Kiranjali Naorem**
  INCLEN Youth Volunteer

### TEAM MEMBERS
- **Anil K Rajvanshi,** Director of the Nimbkar Agricultural Research Institute (NARI) at Phaltan, Maharashtra, India
- **Atiqur Rahman,** Associate Professor, Department of Geography, Faculty of Natural Sciences, Jamia Millia Islamia, Delhi, India
- **A. Laxmaiah,** Deputy Director, Division of Community Studies, National Institute of Nutrition, India
- **Bharati Kulkarni,** Assistant Director, National Institute of Nutrition, India
- **Denis Xavier,** Director, St-John Medical College and Research Institute, India
- **Emmanuel Skoufias,** Lead Economist PREM Poverty Reduction and Equity, World Bank, USA
- **Kallur N Saraswathy,** Assistant Professor, Department of Anthropology, University of Delhi, India
- **Manju Mehta,** Professor of Clinical Psychology, Department of Psychiatry, All India Institute of Medical Sciences, India
- **Nikhil Tadon,** Professor Department of Endocrinology and Metabolism, Fortis, Delhi, India
- **Preet Rustagi,** Professor and Joint Director, Institute for Human Development, New Delhi, India
- **Ravinder M Pandey,** Professor and Head, Department of Biostatistics, All India Institute of Medical Sciences, New Delhi, India
- **Spencer Moore,** Associate Professor, Social Epidemiology, Queen's University, Canada
- **Sapna Surendran,** Research and Evaluation Coordinator at Child In Need Institute, India.

### DAY-2 GROUP WORK

**Paths of Convergence for Agriculture, Health and Wealth**
# DAY 2 ROADMAP 4 BREAKOUT WORKSHOP

**LOCATION: CONNAUGHT HALL**

## DETAILED PROGRAM:

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<tr>
<td>9:30 am – 10:00 am</td>
<td><strong>Aditya Jain (value/supply chain research)</strong> Assistant Professor, Operations Management, Indian School of Business, India</td>
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<tr>
<td>10:00 am – 10:15 am</td>
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<td>10:15 am – 10:30 am</td>
<td>Tea-Break</td>
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<td><strong>REAL WORLD LABORATORIES</strong></td>
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<tr>
<td>11:45 am – 11:55 am</td>
<td><em>Manoja K Das and Mark Daniel - INCLEN, SOMAARTH</em> Demographic and Environment Surveillance</td>
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<tr>
<td>12:15 am – 1:00 pm</td>
<td><strong>Andy MacDonald CSIISA</strong> The Cereal Systems Initiative for South Asia</td>
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<tr>
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<td>4:00 pm – 5:00 pm</td>
<td>Breakout Discussion (2 groups) Developing Roadmap for tackling the Top 5 Challenges and Opportunities identified</td>
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<tr>
<td>5:00 pm – 6:00 pm</td>
<td>Reconvene: Consensus development on Roadmap on the Top challenges and opportunities (Larger Roadmap group)</td>
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<tr>
<td>6:00 pm – 7:00 pm</td>
<td>Planning &amp; Facilitation team meets to prepare presentation for next day</td>
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STRUCTURE FOR PLENARY REPORT

1. Re-Framing the Challenge as well as identifying the project action plan(s) target group(s)
2. What is or are the key action items for successful achievement of action plans
3. Who is currently involved and with what level of commitment? Who else needs to be involved? How do people work together?
4. How can it be accomplished
   a. Knowledge and information flows across agriculture, food, business and social spheres
   b. Further development of the business case and
   c. Implementation plan with different scenarios
   d. Timelines (both short and long term objectives/milestones)
5. What are the risks and how can they be mitigated? What are the rewards (value proposition) and how can they be incentivized across all the key sectors?
6. How do we judge success through metrics useful for all key sectors?
BIOS

PATHS OF CONVERGENCE FOR AGRICULTURE, HEALTH, AND WEALTH
PLENARY & PARTICIPANTS BIOGRAPHIES
HOSTS

LAURETTE DUBÉ
The James McGill Chair of Consumer and Lifestyle Psychology and Marketing at the Desautels Faculty of Management, Scientific Director McGill World Platform, Canada

Laurette Dubé is a Full Professor and holds the James McGill Chair of consumer and lifestyle psychology and marketing at the Desautels Faculty of Management of McGill University, which she joined in 1995. She is also the founding chair and scientific director of the McGill World Platform for Health and Economic Convergence, a unique initiative to promote convergence between academic disciplines, innovations, and initiatives by individuals, communities, enterprises, governments, at all levels, to tackle the most pressing societal problem through systemic change.

Dr. Dubé’s lifetime research interest bears on the study of affects and behavioral economic processes underlying consumption and lifestyle behavior and how such knowledge can inspire more effective health and marketing innovations. At the top of the discipline of marketing in Canada and among the world leaders in her areas of expertise, she has made outstanding theoretical contributions, while working creatively and rigorously on issues of managerial and social significance. Beyond scientific publications in books and in the leading scientific journals of her field, including Journal of Consumer Research and Journal of Marketing Research, her work has been presented in leading general audience and business publications such as Maclean's, The Globe and Mail, USA Today and The Wall Street Journal.

Dr. Dubé received her Ph.D. in marketing from Cornell University, Ithaca, New York, U.S.A. (1990). She has an M.P.S. in Services Marketing Management from the same university, an M.B.A. in finance from HEC Montréal, Montreal, Quebec, Canada, and a B.Sc. in health sciences (nutrition) from Laval University, Quebec, Canada with 10 years of experience in hospital management. She holds a research career award jointly funded by the Canadian Institutes of Health Research and the Social Sciences and Humanities Research Council of Canada. Dr. Dubé is a Fellow of the Royal Society of Canada.

NARENDRA K. ARORA
Executive Director – The INCLEN Trust International (INCLEN), India

Narendra Kumar Arora, MD, MMSc, is Executive Director of The INCLEN Trust International, Executive Director for Child Health Research Nutrition Research Initiative and Adjunct Research Professor at Public Health Foundation of India.

Narendra Arora holds a MD from the All India Institute of Medical Sciences in New Delhi, India and received a MMSc in Clinical Epidemiology and Bio-Statistics from the University of Newcastle, Australia under the INCLEN Program. A faculty member since 1983, Narendra Arora was Professor of Paediatrics Gastroenterology, Hepatology and Nutrition at the All India Institute of Medical Sciences from 2004 – 2007. Professor Arora is a renowned public health expert in India and is extensively involved in policy-making, program planning, implementation and evaluation of public health programs at both national and international level. He has contributed in the development of training and health education tools for primary health care and has participated in various public health education programs. Professor Arora’s research interests include public health and nutrition, child and maternal health, policy advocacy, program evaluation, health research, capacity building, research priority setting, clinical epidemiology and paediatrics among other areas. He has been involved as Principal Investigator and Co-Investigator in over 60 major research projects commissioned by national institutes such as DST, ICMR, GOI-MOH and AIIMS as well as by international agencies such as WHO, UNICEF, USAID, World Bank, INCLEN and has over 150 publications.
in national and international peer-reviewed journals to his credit. Narendra Arora has been awarded numerous prestigious distinctions for academic excellence and research endeavours.

MODERATOR

**JACQUES HENDLISZ**  
**Director of Operations, Goodman Cancer Research Center, McGill University**

Jacques Hendlisz holds a Degree in Anthropology and a Diploma in Management, both from McGill University. In the last 35 years he has held executive positions in health care management, in community care rehabilitation, long term care, acute care and most recently, he was the CEO of the Douglas University Mental Health Institute.

During his tenure at the Douglas, he developed the Institute's Research and Teaching Mission, re-organized the delivery of health care services of the Douglas as well as introduced both specialized and ultra specialized mental health programs. He was a leader in the fight to influence policy changes at a Provincial and Federal level to combat Stigma in Mental Health in Quebec and Canada. Amongst his most significant achievements were the development of programs, web based and through telehealth to facilitate Knowledge Transfer. He has lectured at McGill University, in various departments. At present, he is Director of Operations at the Goodman Cancer Research Centre of McGill University. He is also the President of Research Canada, an Alliance for Health Research.

**T.K. ARUN**  
**Senior Editor, The Economic Times**

T.K. Arun is Editor, Opinion of The Economic Times, India's leading business paper with a circulation of 800,000 every day. He writes a fortnightly column on the paper's edit page, Cursor. He has been the paper's Resident Editor at Delhi, headed the economy bureau and looked after the editorial page in another stint in the past. He has been with the paper since 1994, except for a two-and-a-half year stint with the dot com world during 1999-2001, when he edited an online portal called Narad online. He has worked as a technical advisor at the Kerala State Planning Board, before beginning his career in journalism in 1992 at the Observer of Business and Politics, New Delhi. He did his Master's in economics from the Centre for Economic Studies and Planning, Jawaharlal Nehru University, New Delhi and did some work on a doctoral program but did not complete it.
OPENING PLENARY

ANURADHA GUPTA
Mission Director, National Rural Health Mission, Government of India

Anuradha Gupta, IAS (HY:81), has been appointed as Additional Secretary, Department of Health and Family Welfare in the Ministry of Health and Family Welfare. Presently, she is serving as Joint Secretary in Department of Health and Family Welfare.

HARISH RAWAT
Honorable Minister of State, Ministry of Food Processing Industries, Government of India

Shri Harish Rawat, a politician from Indian National Congress party and a member of the 15th Lok Sabha. Previously he was a Member of the Parliament of India representing Uttarakhand in the Rajya Sabha, the upper house of the Indian Parliament (2002–2008). He is currently a Minister of State in the Union Cabinet in the Ministry of Agriculture and Parliamentary Affairs. He did his B.A. and LL.B. from Lucknow University, Lucknow before joining politics. Starting at village level politics, and after staying as a Trade Unionist and an Indian Youth Congress member for many years, he joined the Indian Parliament in 1980 as a member of the 7th Lok Sabha by defeating the BJP veteran Dr. Murli Manohar Joshi from Almora parliamentary constituency, followed by the 8th Lok Sabha and the 9th Lok Sabha. He has been head of Congress Volunteer Wing Congress Sewa Dal since 1980. In 2000, he was unanimously elected the President of Uttarakhand Pradesh Congress Committee (PCC), and remained so until he was replaced by Yashpal Arya. In 2002, he was elected a member of the Rajya Sabha. In Indian general election, 2009, he left his traditional stronghold of Almora after it became a reserved seat post-delimitation to contest from Haridwar (Lok Sabha constituency), and won the elections with 332055 votes. Presently, he is union minister of state for labour.

NARESH C. SAXENA
Member, National Advisory Council of India, Government of India

Dr. Naresh C. Saxena worked as Secretary, Planning Commission (1999-2002), Secretary, Rural Development (1997-99), GOI, and Director of the National Academy of Administration, Mussoorie (1993-96), where he also taught during 1976-80. He is a member on the Editorial Board, Development Policy Review, London, International Forestry Review, Oxford, and the Royal Swedish Academy of Agriculture and Forestry, Stockholm. He was a Director for the ADB Institute, Tokyo from 2002-2004. He was Visiting Professor on Forestry to the Regional Community Forestry Training Centre, Bangkok during 1993-98. On behalf of the Supreme Court of India, Dr Saxena monitors hunger based programmes in India. He chaired the GOI Committee on identification of the poor in 2009. Currently he is chairing a GOI Committee to look at the implementation of the Forest Rights Act, 2006. He did his Doctorate in Forestry from the Oxford University in 1992. He was awarded honorary Ph.D from the University of East Anglia (UK) in 2006.

NATA MENABDE
WHO Representative to India

Dr Nata Menabde is WHO Representative to India. She has a solid public health academic background and 28 years of experience as a health professional, during which she has built an extensive track record in public health and health systems at country and international levels. As a leader, she has proven her ability to instil a clear vision, effective teamwork and high performance in the organizations she has led. Prior to taking up her current job of leading WHO’s largest country operation worldwide she has worked as Deputy Regional
Director of the WHO Regional Office for Europe where she has tenaciously promoted strategic and results-based partnerships with other institutions. Earlier Dr. Menabde led the WHO European Regional Office’s work on Health Policies and Systems and was in charge of WHO’s extensive operations in 35 countries. She holds a Honours Diploma from Tbilisi State Medical Institute, Georgia and a PhD degree in Clinical Pharmacology from the USSR Academy of Medical Sciences. She has been awarded a Thomas Jefferson Fellowship in Health Management and Leadership, and International Health in USA and completed Health Care Economics course at the University of York, UK. Later on she studied Public Health at Nordic School of Public Health, Sweden. Dr Menabde has long-standing experience in public health, European health system reforms and institutional restructuring. Her track record also includes accomplishments in the areas of tuberculosis and HIV/AIDS, noncommunicable diseases and risk factors such as tobacco and obesity, climate change and other environmental concerns, the International Health Regulations and other aspects of health security, intellectual property rights and the social determinants of health. Dr Menabde has successfully partnered with key stakeholders such as the Council of Europe, the European Union, the European Commission, UNICEF, the World Bank, OECD, the Global Fund, the European Investment Bank and others to increase the effectiveness of WHO’s work. Her current interests are related to health and health systems governance and policies, and to promoting evidence based decision making, and accountability through performance of health systems, as well as addressing public health concerns in other sector policies.

**NEELA GANGADHARAN**

*Secretary, Ministry of Women and Child Development, Government of India*

Ms Neela Gangadharan is the secretary to Ministry of Women and Child Development, Government of India since December 2011. Dr Kunal Bagchi is the Regional Advisor, Nutrition and Food Safety for the World Health Organization Regional Office for South-East Asia. Ms Anuradha Gupta is the mission director for the National Rural Health Mission, Government of India. Ms Navraj Sandhu is the Principal Secretary to Department of Health, Government of Haryana.

**NAVRAJ SANDHU**

*Principal Secretary, Department of Health, Government of Haryana, India*

No Biography available
ROADMAP 1: DE-SILOING NUTRITION INNOVATION

ALDO UVA
President, Flavor Division, Firmenich S.A., Switzerland

Aldo Uva serves as President of the Flavor Division at Firmenich S.A. Before this, he served as General Manager of Natuzzi SpA until 2008, and then the Chief Executive Officer of Natuzzi SpA from July 2008 to March 23, 2009. Mr. Uva has served as the Global Vice President of Beverages at Nestlè, where he was in charge of the strategic reorganization and implementation plan. Prior to this, he served as Senior Vice President of Transformation Management of the Sara Lee Corp. In 2001 he joined Sara Lee as Regional Vice President of South Europe and Latin America for Sara Lee Household and Body Care and served as President and Chief Executive Officer of Sara Lee Coffee and Tea North America. Before joining Sara Lee, he served as the President and Chief Executive Officer of Parmalat USA and Mexico. He began his career with Merloni Elettrodomestici (now known as Indesit Company), where he worked for 13 years, the last five of which were as President and Chief Executive Officer for the former U.S.S.R. and Eastern Europe division. Mr. Uva received an economics degree from the University of Bologna in Italy.

ANDREW MACDONALD
Crop Systems Agronomist, International Maize and Wheat Improvement Center (CIMMYT), Kathmandu, Nepal

Mr. Andrew McDonald has been involved in agricultural production for all of his working life of nearly twenty years. Andrew grew up on a cropping and cattle family farming enterprise in the South Burnett Region and knows the challenges faced everyday by people on the land. Before joining Beangrowers Australia, Andrew was an Agronomist with BGA Agriservices, specializing in servicing their Horticulture clientele in a broad and diverse range of crops, as well as continuing to have a strong interest in broad acre production in that role. Since joining Beangrowers Australia in 2008, Mr. McDonald has continued to provide a high level of expertise to all of our loyal producers and provides assistance to the pulse industry. Andrew currently sits on the panel with the South East Zone for the Grains Research and Development Corporation. All accumulation employees are involved in the agriculture industry in some way or another, from research and development through to quality assurance. Beangrowers Australia continues to build strong relationships with growers in ever changing seasons and trading arenas.

ANUJA AGGARWAL
Senior Pediatric Nutritionist, Department of Pediatrics, All India Institute of Medical Sciences, India

Ms. Anuja Agarwal is a Senior Pediatric Nutritionist at the All India Institute of Medical Sciences in New Delhi, India. Her research interests lie in the fields of Clinical Pediatric Nutrition and of late, in Epidemiology and Public Health Nutrition. She just concluded a project with WHO/SEARO entitled “Dietary Prevention of Non-Communicable Diseases, for which she was the principal investigator. She has also been a central co-coordinating team member for the “Determinants of Undernutrition in Children and Assessment of Management at Different Level of Health Care” initiative of the IndiaCLEN. The study was designed to understand the complex causes of under nutrition, the depth of the problem, and the possibilities of further progress in terms of reforming nutrition and public health policies and programs. Last, she has also been a Co-Guide for a study that compared dietary magnesium intake and blood magnesium levels between overweight and lean children and their association with insulin resistance in children and adolescents.
AKSHAYA KUMAR PANDA
Scientist, M.S. Swaminathan Research Foundation

Mr. Akshaya Kumar Panda was brought up in the rural flora and fauna rich Nayagarah district of Odisha state. He graduated in Botany with a Master's degree in Sustainable Development and continuing master degree in Social Work in IGNOU. In 2001 Mr. Kumar Panda joined M. S. Swaminathan Research Foundation (MSSRF) and worked as a scientist in the area of Sustainable Agriculture; Food, Nutrition and Health Security, Sustainable Livelihood Security, and Natural Resource Management. Akshaya Kumar Panda worked with the tribal people in 24 villages in three districts of Odisha state to establish “Community Gene-Seed-Grain Banks.” The major focus of the programme is to bring food, health and nutritional security of tribal people of Koraput district. For its sustainability and scale of impact we networked with various Govt. Organizations, Research Institutes, Non-Govt. Organizations, Donors and Community based Organizations. A federation of 64 NGOs from 4 districts of Odisha, named “KISAN” was established to create mass awareness and impact of the above activities. Akshaya Kumar Panda's work also includes the establishment of household kitchen gardens, health & sanitation programmes for children and pregnant women, development of health cards for tribal households, participatory approaches in agriculture, and promotion of an herbal health care system.

ASHISH WELE
CEO, Nirmal Seeds, India

Ashish Wele is an Agriculture expert (Agronomist) with core competence in the subject of Agriculture Business Management. As President of Nirmal Seeds, he is responsible to lead the team of professionals. Special focus is given on developing the Company in the Global market with particular attention on East Africa. He is responsible for spearheading robust international relationship programs with key stakeholders including foreign governments, universities, R & D centers, Ambassadors, UN Organizations and funding agencies to explore opportunities efficient agriculture farming developments and sustainable seeds production models.

Nirmal Seeds in collaboration with Harvest Plus Challenge Program co-funded by Bill Gates & Melinda Foundation has made successful efforts in the development of Iron enriched Pearl Millet through nutritional breeding. Bio-fortified version of ICTP 8203 (Fe) is launched in May 2012 for distribution to farmers by Nirmal Seeds in selected areas of Maharashtra. Referring to this, Ashish did the presentation as a Panelist, in May last week, at event organized by Center for Strategic & International Studies (CSIS) in Washington D.C. about the role of Bio-fortified crop in improving nutrition.

BINU CHERIAN
Country Manager, Pearl Millet, HarvestPlus

Mr. Cherian obtained a Master's degree in Agriculture from the University of Allahabad and an MBA in Retail and Supply Chain Management from the Anna University of Technology. Prior to joining HarvestPlus, he worked in the private sector managing large-scale agricultural projects, strategic sourcing of plant raw material, development of successful supply chain linkages, and scaling-up of research to commercial delivery platforms in different geographic areas. He has specialization in Agricultural project management.

CHARITY PARR-VASQUEZ
Project Outcomes Manager, Advanced Foods and Materials Network

Charity Parr-Vasquez is the Project Outcomes Manager at Advanced Foods and Materials (AFM) Canada, in Guelph, Ontario. In her role as Project Outcomes Manager, Dr. Parr-Vasquez is responsible for the
management of AFM Canada's Research Program. Dr. Parr-Vasquez monitors all currently funded projects on an ongoing basis for scientific, budgetary and HQP progress. She is also responsible for the coordination, development and submission of letters of intent and applications from funding from federal, provincial and industrial organizations. In her role as Project Outcomes Manager Dr. Parr-Vasquez also works with the Scientific and Associate Scientific Directors to manage AFM Canada's International Food Research Collaboration (IFRC) and International Society of Food Applications of Nanoscale Science (ISFANS). Dr. Parr-Vasquez received her B.Sc., Honours Molecular Biology and Genetics, and Ph.D., Food Science, from the University of Guelph and joined the organization in January 2010.

**CHERAE ROBINSON**

*Director, Strategic Partnerships and Development, International Wheat and Maize Improvement Centre (CIMMYT), Mexico*

Ms. Cherae Robinson raises visibility, support, and engagement for international organizations. Using creativity, innovation, and passion she develops relationships and partnerships that help organizations achieve greater impact. While studying for a degree in biology from Morgan State University, Cherae discovered fervor for global affairs. After an internship with AARP's International Affairs department, she wrote policy briefs and articles examining best practices for the health and livelihoods of the world's 50+ population for AARP's Global Aging Program. She joined the US Centers for Disease Control and Prevention (CDC) in 2006 where she trained microbiologists and epidemiologists in developing countries on foodborne disease outbreak response and co-chaired a WHO working group on DALY's as a metric for measuring the burden of foodborne disease on various populations in the developing world. Eventually her focus shifted to communications and partnerships for the program. After a short stint in Chicago she began work on national campaigns, events and regional celebrity relations at the global humanitarian organization CARE. Focusing on microfinance and girls education as key issues she brought visibility and large strategic partnerships at the national level to the organization. Presently she leads the Strategic Partnerships and Development team at CIMMYT, the international agriculture research institute that was once home to Nobel laureate Norman Borlaug. Her work focuses on engaging the private sector and other innovative partners in CIMMYT's work in order to build a sustainable, food secure future.

**C.L. LAXMIPATHI GOWDA**

*Director, Grain Legumes Program, ICRIST, Hyderabad, India*

C.L. Laxmipathi Gowda is currently working as Director of the Grain Legumes Program at ICRIST, Hyderabad, India. In addition, he has been involved in developing the CGIAR Research Program on Grain Legumes (CRP 3.5). CRP 3.5 works on eight grain legumes—chickpea, common bean, cowpea, groundnut, faba bean, lentil, pigeon pea and soybean. Grain legumes are very important in human health and nutrition, as they contain high amounts of protein (>20%), oil, micronutrients and vitamins. Many of these are essential for complementing the cereal diets that people eat. Many studies have shown that consumption of legumes can reduce obesity, improve gut health, reduce colon cancer, and provide other essential nutrients that cannot be found in other foods. Hence, awareness creation to encourage people to consume more legumes for better health is one of the main aspects of our research under the CRP 3.5 on Grain Legumes. Currently, availability of legumes is limited, and is costly (compared to subsidised cereals). Hence people, especially poor segments of society are malnourished, and this needs to be corrected.
DYNO KEATINGE

Director General, Asian Vegetable Research and Development Center, Taiwan

Dr. Dyno Keatinge joined AVRDC – The World Vegetable Center as Director General in 2008. He is an agronomist with a Doctorate in Agriculture from Queen's University, Belfast, Northern Ireland and is Visiting Professor of Tropical Agriculture at the University of Reading, UK. Dr. Keatinge has global expertise in crop agronomy having worked at ICARDA in Syria, Pakistan and Turkey, IITA in Nigeria and Cameroon and ICRISAT in India and several countries in sub-Saharan Africa. He was also Professor of Agricultural Systems and Management at Reading University for much of the 1990s and has worked professionally in every continent on earth except Antarctica.

GARGI WABLE

Program Associate at ICICI Centre for Child Health and Nutrition, Pune, India

Biography not available

GERALD COMBS

Center Director, Grand Forks Human Nutrition Research Center, ARS

Dr. Combs was named Center Director, Grand Forks Human Nutrition Research Center, in January, 2002. He came to Grand Forks from Ithaca, NY, where he was a Professor of Nutrition in the Division of Nutritional Sciences at Cornell University, having been on that faculty since 1975. At Cornell, Dr. Combs served as the Director of Graduate Studies for the Field of Nutrition of the Graduate School and as a coordinator of the Food Systems for Improved Health Program in the College of Agriculture and Life Sciences.

Dr. Combs was born in Ithaca, NY, but grew up in Silver Spring, MD, the son of a Professor of Nutrition at the University of Maryland. He also attended that university, completing a B.S. degree in Zoology in 1969 whereupon he matriculated in the Graduate School at Cornell, completing a M.S. degree (Entomology) in 1971 and a Ph.D. degree (Nutrition) in 1973. That year he accepted an appointment as Assistant Professor at Auburn University, Auburn, AL, which he held through 1975 when he joined the Cornell faculty.

Dr. Combs is internationally recognized for his research in the nutritional biochemistry of trace elements and vitamins. His special interests have concerned the metabolism and physiological actions of the antioxidant nutrients selenium, vitamin E, vitamin C and factors that can affect their metabolic functions and dietary needs (e.g., vitamin A, carotenoids, iron, copper, zinc), particularly as they relate to health maintenance in and reduction of chronic disease (e.g., cancer) risks in humans and animals. He has presented more than 275 invited lectures and has published widely in this area (some 350 articles, reviews, chapters and book), including two important text/reference books, The Role of Selenium in Nutrition (Academic Press, 1986) and The Vitamins: Fundamental Aspects in Nutrition and Health (Academic Press, 1992; revised edition 1997). At Cornell, Dr. Combs taught two graduate-level courses (The Vitamins; Mineral Nutrition) and one undergraduate course (Integrating Food Systems and Human Nutrition Needs); in previously years, he taught courses in human and animal (poultry) nutrition.

Dr. Combs’ original research has employed several animal models (e.g., intact chicks, rats, mice and rabbits; isolated perfused rat liver preparations; isolated rat or chick hepatocytes and erythrocytes) with appropriate biochemical techniques for the study of questions relevant to human health. This basic arm of his research program has served to produce understanding as well as specific methodologies that he has employed in clinical intervention studies with humans. Dr. Combs may be best known for the work of his team in demonstrating for the first time that nutritional supplements of selenium can substantially reduce cancer risks.
in humans. Dr. Combs is keenly interested in nutrition and health issues relating to national development and in the linkage of those issues to agricultural production. To that end, he has maintained since 1980 collaborations in China aimed at developing effective and sustainable food-based approaches to combating endemic selenium deficiency much of that in that country. He has served on numerous national and international scientific bodies.

As Center Director, Dr. Combs maintains an adjunct appointment as Professor, Department of Biochemistry and Molecular Biology, School of Medicine and Health Sciences, University of North Dakota. He is also a Professor Emeritus, Cornell University. He is a member of the American Society for Nutritional Sciences, the British Nutrition Society, the New York Academy of Sciences, the Society for Experimental Biology and Medicine, the Poultry Science Association, the International Society for Trace Element Research in Humans. He is also a member of the International Nutrition Forum of the Institute of Medicine, National Academy of Sciences, the Board of Scientific Advisors of the American Council on Science and Health, the scientific research society Sigma Xi, and the honor society Phi Kappa Phi.

HEMANT PHATAK
Director, Nutrivita Foods, India

Nutrivita Foods is a part of a global network of local producer called PlumpyField. We produce nutritional solutions with 100% Indian raw materials, which provide an additional impact to the local economy and especially agriculture. After many years of research and development these RUTF (ready-to-use therapeutic food) products has been designed and proved efficacious to treat SAM children. The product is safe and manufactured in hygienic conditions. We seek to build genuine and viable partnerships with the state and non-state actors, institutions and individuals to make them a willing and an active stakeholder in our aspirations and mission to eradicate malnutrition. As an entity that supports the use of RUTF to eradicate the severe form of malnourishment we are confident that businesses and the economic society, as part of their Global Social Responsibility would play a leading role in our endeavour to root out the scourge of malnutrition from the world. Relating the Indian scenario at this stage of discussions on nutritional policies for prevention and treatment of malnutrition, it seems relevant to integrate the private sector and its specific competence to find appropriate solutions. Initially the overall health and nutrition status of the country and its key risk factors for health and nutrition need to be identified. One of the challenges is to be part of the relevant group of bodies to create this dynamic work with in order to promote research evidence based on various nutritional solutions. However there are gaps in the implementation of these existing nutrition interventions which can be filled by ensuring the participation of government bodies and civil societies. These goals have to be achieved through multiple health and nutrition interventions planned by the government. This access should be respected by state and societal actors, in accordance with customary laws, governance and benefit rights.

I.S. KHAIRWAL
Senior Adviser, Harvest Plus

Dr. Khairwal is a senior adviser with harvest plus and received a Ph.D. in Plant Breeding. He has over 36 years of experience. He has published the book “Pearl Millet Seed Production and Technology” in 1990. During his time as a breeder, he has developed and released 12 pearl millet hybrids and 2 varieties at the national level in India. He is also a fellow of the Indian Society of Genetics and Plant Breeding.

JAN WESTSTRATE
Senior Vice-President, Asia, Middle East & Africa, R&D, PepsiCo Dubai, UAE

Based in Dubai, UAE, Jan Weststrate oversees the research and development agenda in PepsiCo's diverse growth markets in Asia, the Middle East and Africa. Dr. Weststrate previously spent 22 years with Unilever...
where he most recently served as Vice President, R&D Savory Category with Unilever's biggest brand Knorr, based in the U.K. There he led a global team of around 500 product developers to help deliver the R&D agenda for the savory category's short-, medium- and long-term strategies. He was also responsible for long-term technology development, including building a stronger patent portfolio for new technologies; improving quality globally; reducing sodium levels without reducing taste; reducing product packaging and ingredient complexity; and driving sustainability through waste reduction and sustainable sourcing.

His prior roles included leading Unilever's R&D laboratory in Vlaardingen, the Netherlands, Unilever's largest R&D center globally, and Vice President Research Unilever Foods Division. Dr. Weststrate also led the Unilever Health Institute as Unilever's Chief Nutrition Officer. Early on in his career he was part of the team that developed one of Unilever's most successful innovations, Becel Pro Activ, a reduced-calorie margarine containing plant sterols that was demonstrated to reduce cholesterol. Dr. Weststrate received his PhD in Agricultural Sciences from the Wageningen Agricultural University in the Netherlands. Dr. Weststrate is also a (co-)author of 85 publications in peer reviewed journals in the area of human nutrition and food science.

**JAYKUMAR MENON**

*Adjunct Professor, McGill University*

Jaykumar Menon is an award-winning international human rights lawyer, an entrepreneur, a former McKinsey consultant, and an adjunct professor at McGill University. As director of the education and global development group at the X PRIZE Foundation, he is exploring prizes in water, clean energy, hunger, infectious disease, education technology, and other areas. As a lawyer, working with the Center for Constitutional Rights, and alongside community activists and private investigators, Jaykumar has represented the student leaders from Tianannmen Square against the former Premier of China (Li Peng), helped win a $4 billion judgment on behalf of victims of the Bosnian genocide against Radovan Karadzic, and freed a man from death row in Indiana. As a scholar (an adjunct professor at the McGill Institute for the Study of International Development, and a Research Fellow at the McGill-based Centre for International Sustainable Development Law), he has written articles in leading international human rights law reference books and law journals, including those published by the Oxford University Press. As an entrepreneur, he co-founded a venture-funded Internet company with current seven-figure revenues. Jaykumar is a published creative writer, and served as associate editor of a book published by McSweeney's. Jaykumar studied at Columbia Law School (J.D.), Brown Medical School (completed one year, as a member of the Program in Liberal Medical Education), the Columbia School of International and Public Affairs (M.I.A.), and Brown University (B.A.). Jaykumar hopes to creatively effect large-scale and just social change.

**JOHN McDERMOTT**

*Director, Agriculture for Improved Nutrition and Health, the International Food Policy Institute, USA*

Dr. John McDermott joined IFPRI in 2011 to lead the new CGIAR research program on agriculture for improved nutrition and health. Previously he was Deputy Director General and Director of Research at ILRI in Nairobi (2003-11). John has lived and worked in Africa for 25 years.

As a researcher, Dr. McDermott's research career has focused on public health, animal health and livestock research in developing countries, primarily Africa. He has led projects on zoonotic and emerging diseases in Asia and Africa. John has a strong background in quantitative methods (modeling, study design, statistics). He has a Ph.D. in quantitative epidemiology from the University of Guelph, a Masters Degree in Preventive Veterinary Medicine from the University of California – Davis, and a Doctor of Veterinary Medicine from the University of Guelph. During his research career, John is the author or co-author of 200 peer-reviewed
publications, book chapters and conference papers and has advised over 30 post-graduate students, including 20 PhD graduates. He was a visiting Lecturer at the University of Nairobi and a Professor at the University of Guelph. He has also served as an advisor to FAO, WHO, OIE and other international agencies, a non-executive Director of the Global Alliance for Livestock Vaccines and Medicine (GALVmed) and as a member of the advisory committee of Veterinarians with Borders (Canada).

**JORDAN LeBEL**

Associate Professor of Marketing, John Molson School of Business, Concordia University, Canada

Dr. Jordan LeBel is an Associate Professor at the John Molson School of Business (Concordia University) in Montreal where he teaches "The Marketing of Food" and "Experience Marketing." He is the recipient of the 2005 and the 2010 Dean's Award for Teaching Excellence and the 2010 President's Award for Excellence and Innovation in Teaching. Dr. LeBel specializes in consumer psychology as it relates to food choices, eating behavior, and food organizations' marketing strategies. Dr. LeBel serves as Executive Advisor to the McGill World Platform for Health and Economic Convergence, an international collaboration between leading experts in research, policy, and business to develop effective and sustainable solutions to the problems of obesity and non-communicable chronic diseases. He is Vice President of the board of Youth Employment Services, a not-for-profit organization helping young people find jobs and helping entrepreneurs launch their business.

Dr. LeBel's research focuses on hedonic and aesthetic consumption. He is interested in the definition of pleasure, its dimensions, and its impact on consumption decisions and behaviours. His expertise and work on comfort foods and chocolate have received extensive coverage in broadcast and print media (the Today Show on NBC, CBS, PBS, Discovery Channel, CTV, Global, Glamour, Self, Washington Post, NY Daily, Globe & Mail, National Post, Toronto Sun, The Gazette, La Presse, Le Devoir). Dr. LeBel lends his expertise and creativity to companies and non-profit organizations of all sizes interested in aligning design, communications and operations in the development of consumer experiences and marketing strategies. He has worked with small and larger companies like Procter and Gamble and Cadbury.

**K.N. RAi**

Principal Scientist, International Crops Research Institute (ICRISAT)

Dr. Kedar N. Rai, is a Principal Scientist in Breeding at International Crops Research Institute (ICRISAT) for the Semi-Arid Tropics (ICRISAT), with 32 years of experience in pearl millet improvement. He received his Ph.D. degree in Genetics in 1974, from the University of California, Davis, USA. His research efforts have been on germplasm utilization, population improvement and hybrid development for grain yield and disease resistance. During his career, he has trained and mentored a large number of scientists and technicians in pearl millet improvement. Since 2004 he has led pearl millet research for the genetic improvement of grain iron and zinc content and received the CGIAR 1998 Outstanding Locally Recruited Scientist Award at International Centers Week 98 in Washington.

He was a Visiting Scientist with Dr. Wayne Hanna at the USDA/University of Georgia during 1987, Coastal Plain Experiment Station, Tifton and is currently a Visiting Scientist with Prof. David Andrews at the University of Nebraska, Lincoln. He has contributed tremendously to the achievements of ICRISAT's pearl millet research team, which have won the first Doreen Margaret Mashler Award in 1994, and for which ICRISATwon the King Baudouin Award in 1996.
KARAM CHAND  
Deputy Director, Agriculture, Palwal District, Haryana
Karm chand is a deputy director in agriculture department in Palwal district of Haryana, India.

MAHABALESHWAR HEDGE  
Scientific adviser, IRSHA, Medical College, Pune, India
Biography not available

NAVAL K VIKRAM  
Associate Professor, Department of Medicine, All India Institute of Medical Sciences, Delhi, India
Dr. Naval K. Vikram underwent his graduate medical training and his postgraduate training in Internal Medicine at the prestigious All India Institute of Medical Sciences, New Delhi, India. He worked as a research associate for some time and subsequently joined as a faculty member in the department of Medicine at the same institute. His research interests include obesity, metabolic syndrome, type 2 diabetes mellitus and body composition. Dr. Vikram has been involved in several studies in this field and has authored/co-authored about sixty scientific articles in reputed national and international journals.

N. VISWANADHAM  
INAE Distinguished Professor, Computer Science & Automation, Indian Institute of Science, Bangalore
Dr. N. Vaswanadham is a professor and the Executive Director for The Centre for Global Logistics and Manufacturing Strategies (GLAMS) at the Indian School of Business (ISB). He is also in-charge of the ISB-IBM collaboratory on Service Sciences. He has held several prestigious positions before joining the ISB such as Deputy Executive Director of The Logistics Institute-Asia Pacific and also Professor in Department of Mechanical and Production Engineering at the National University of Singapore during 1998-2005; GE Research Fellow during 1989-90 and Tata Chemicals Chair Professor at the Indian Institute of Science, Bangalore.
Dr. Vaswanadham has contributed significantly to the area of automation, and in particular, supply chain automation. He is the author of three textbooks, eight edited volumes, over hundred journal articles and more than hundred conference papers on Automation. His current research interests include Logistics and Global Manufacturing and Service Networks. He has developed an ecosystem framework for the analysis and design of integrated manufacturing and service supply chain networks. He has deeply studied and written thought leadership papers on emerging market supply chains and rural supply chains.

N.G. HEGDE  
President, BAIF Development Research Foundation
Dr. N.G. Hegde is the President of BAIF Development Research Foundation, a well-respected voluntary foundation in India committed to sustainable development in rural areas. Under his leadership BAIF has successfully implemented many projects in livestock, environmental protection and wastelands development. BAIF focuses on these areas because it recognizes a correlation between poverty and environmental protection. Dr. Hegde earned an M.S. in horticulture from the University of Hawaii, and through 1991, he further studied the impact of social forestry on the rural poor while working toward his Ph.D. in economics at the University of Pune.
P.K. JOSHI  
**Director, the International Food Policy Research Foundation, India**

Dr. Pramod K. Joshi is the director for South Asia. Previous to this, he held the positions of the director of the National Academy of Agricultural Research Management, Hyderabad, India, and the director of the National Centre for Agricultural Economics and Policy Research, New Delhi. Earlier, he was South Asia Coordinator at the International Food Policy Research Institute and senior economist at the International Crops Research Institute for the Semi-Arid Tropics in Patancheru. His areas of research include technology policy, market, and institutional economics.

Dr. Joshi has also served as the chairman of the SAARC Agricultural Centre's governing board in Dhaka, Bangladesh (2006–08); chairman of the UN-CAPSA governing board in Bogor (2007); and member of the intergovernmental panel on the World Bank's International Assessment of Agricultural Science and Technology for Development (2007–08). He served as a member of the International Steering Committee for the Climate Change, Agriculture, and Food Security Challenge Program, led by the ESSP Science Community and the CGIAR (2009–11). He was also a member of the core group of the Indian government's “Right to Food” National Human Rights Commission and the secretary-general of the Fourth World Congress on Conservation Agriculture. Currently, Dr. Joshi is the trustee of the Trust for Advancement of Agricultural Sciences (since 2008) and secretary of the Agricultural Economics Research Association in India.

P.T. GOPAL  
**Director and CEO, Pristine Organics Pvt Ltd**

Biography not available

PRABHU PINGALI  
**Deputy Director, Agriculture Development, Bill and Melinda Gates Foundation**

Dr. Prabhu Pingali is the Deputy Director of Agricultural Development at the Bill and Melinda Gates Foundation. Formerly, he served as Director of the Agricultural and Development Economics Division of the Food and Agriculture Organization (FAO) of the United Nations. Prabhu Pingali was elected to the U.S. National Academy of Sciences as a Foreign Associate in May 2007, and he was elected Fellow of the American Agricultural Economics Association in 2006. He was the President of the International Association of Agricultural Economists (IAAE) from 2003-06.

Dr. Pingali has over twenty five years of experience in assessing the extent and impact of technical change in agriculture in developing countries, including Asia, Africa and Latin America. An Indian national, he earned a Ph.D. in Economics from North Carolina State University in 1982. From 1996-2002 he was Director of the Economics Program at CIMMYT, Mexico. Prior to joining CIMMYT, from 1987 to 1996, he worked as an Agricultural Economist at the International Rice Research Institute at Los Baños, Philippines. Prior to that, he worked from 1982-1987 as an economist at the World Bank's Agriculture and Rural Development Department. He has been a visiting scholar at Stanford University's Food Research Institute, and an Affiliate professor at the University of the Philippines at Los Baños. Dr. Pingali has authored nine books and over one hundred referred journal articles and book chapters on technological change, productivity growth and resource management issues in Asia, Africa and Latin America. He has received several international awards for his work, including two from the American Agricultural Economics Association: Quality of Research Discovery Award in 1988 and Outstanding Journal Article of the Year (Honorable Mention) in 1995.
RAJAN SANKAR
Country Manager-India and Senior Advisor-South-Asia, Global Alliance for Improved Nutrition (GAIN)

An Indian national, Dr. Rajan Sankar joined GAIN as Special Adviser and Regional Manager for GAIN South Asia in March 2006. He is responsible for supporting GAIN's program development and grant management in South Asia, under the leadership and support of the Executive Director and Directors in Geneva. Dr. Sankar is a medical graduate from the University of Madras with specialization in Internal Medicine and Endocrinology and a post-graduate (MD) with specialization in Medicine and Therapeutics from University of Bombay. He is elected a Member of the prestigious National Academy of Medical Sciences (India) in 1999. His special areas of interest are thyroid disorders in pregnant women and in children and micronutrient deficiency disorders. He has undergone training in Clinical Epidemiology and has extensive experience with managing and monitoring micronutrient deficiency elimination programs in India and the South Asia region generally.

Prior to joining GAIN, Dr. Sankar was a Project Officer in the Child Development and Nutrition section of UNICEF in India, responsible for the coordination of micronutrient malnutrition elimination programs with eleven field offices and the India country office. Before this, he was Regional Technical Advisor for Asia with the Micronutrient Initiative (MI) responsible for the strategic development and delivery of micronutrient malnutrition control programs in India, Bangladesh, Pakistan and Nepal. From 1994 to 2001, Dr. Sankar was head of the Thyroid Research Centre within the Government of India's Ministry of Defense in New Delhi. In 2001, he retired from the Indian Army Medical Corps in the rank of Colonel after 24 years of service. He has been a member of the Steering Committee on Universal Salt Iodization of the Government of India and is the Vice President of the Thyroid Association of India. He has published over 50 scientific papers in national and international journals.

RAJIV TANDON
Senior Advisor- Maternal, Newborn, Child Health & Nutrition, Save the Children, India

Dr. Rajiv Tandon serves as Senior Advisor for Save the Children India. He brings over 25 years of clinical and public health expertise and experience, in both the public and private sectors. He earned a Doctor of Medicine (MD) in Pediatrics, from the Mahatma Gandhi Institute of Medical Sciences, Nagpur University, India, where he received university gold and silver medals. He led a pediatrics and neonatology private practice and a multispecialty nursing home for over 15 years and earned recognition as Distinguished Fellow of the Indian Academy of Preventive & Social Medicine (Causa Honoris), Fellow of the Indian Academy of Pediatrics, Fellow of the National Neonatology Forum of India, Fellow of the Academy of Medical Specialties (Pediatrics) IMA, and Paul Harris Fellow of Rotary International.

Dr. Tandon has significant experience in supporting Government of India systems and program, such as the Reproductive and Child Health Program of the MoHFW, the National Rural Health Mission and the ICDS Program of MWCD. He has supported nutrition advocacy efforts, including the Coalition for Sustainable Nutrition Security in India, which has promoted collaboration and consensus building to improve nutrition in India.

RAMINDER SINGH
Chief Medical Officer, Palwal District, Haryana

Raminder Singh has been working as chief medical officer at Palwal district in Haryana, India.
RAY RODRIGUEZ
Executive Director, Global Health Share Initiative; Professor Department, Molecular and Cell Biology, University of California Davis, USA

Dr. Ray Rodriguez is one of the early pioneers of biotechnology. Ray Rodriguez was an A.P. Giannini and NIH Postdoctoral Fellow in the laboratory of Herbert Boyer at the University of California Medical Center in San Francisco, from 1974-77. At UCSF Ray Rodriguez developed technologies that now serve as the foundation of the modern biotechnology industry. Dr. Rodriguez joined the faculty at the University of California, Davis in 1977. In 1988, he was a Distinguished Visiting Professor in the International Center for Biotechnology at Osaka University, Japan, and in 1991, he was a Visiting Scientist with the Human Genome Project at the Lawrence Livermore National Laboratory. He was also founder and chairman of the International Rice Genome Organization from 1989 to 1992. In 1991, Ray Rodriguez formed Davis Bioscience Associates, the predecessor of Davis Bioscience Group. In 1993, he founded Ventria Bioscience Inc., a plant-based life sciences company producing genetically enhanced foods with novel health and medical benefits. He served as chairman of Ventria's Board until 1999.

In 2000, Ray Rodriguez co-founded the Center for High Performance Computing and Bioinformatics at UC Davis. He currently serves as Director of the NIH-funded Center of Excellence for Nutritional Genomics at UC Davis. As a professor of Molecular and Cellular Biology, Ray Rodriguez is actively involved in research and teaching at the undergraduate and graduate level. He is also a member of numerous scientific organizations and serves on several advisory committees including serving as an advisor to the NIH since 1988. He has published nearly 100 articles and books on genetic engineering and biotechnology and currently holds 11 biotech patents.

RUCHIKA MEHRA
Manager, Research and Development, GlaxoSmithKline, India

Ms. Mehra joined GSK in 1997 and is currently the Head of Nutrition Sciences and New Product Research for the Indian Sub-Continent. In this role she leads a team of nutritionists, public health professionals, and food engineers to deliver scientifically backed innovative healthcare solutions in the space of food and beverages. The portfolio includes ideation on new product exploration and leading the nutrition research program in human volunteers. Key areas of knowledge/experience include Maternal and Child Health and nutrition; Energy and Physical Activity; Adult Wellness and Clinical Nutrition (Nutrition in disease management and recovery). She is also involved with enabling experience based education among adolescents and young adults while volunteering with an NGO called Manzil. Ms. Mehra is a Nutritionist by training and completed her M.Sc in Nutrition from Delhi University in India. Prior to joining GSK, Ms. Mehra worked with a leading corporate hospital in the area of therapeutic nutrition.

RUCHIKA SACHDEVA
Investments and Partnership Group, GAIN India

Ms. Ruchika Sachdeva is a Nutrition postgraduate from Delhi University. Ruchika Sachdeva has thirteen years of diverse experience with the food Industry and the civil society in the field of Nutrition Research, Concepts, Claims, New Product development (NPD), Medical Marketing, Regulatory Affairs, KOL (Key Opinion Leaders/Institutions) Management, organizing Scientific Conferences and Trainings. She joined Global Alliance of Improved Nutrition (GAIN) in September 2007. At GAIN her work focuses on building partnerships, carrying out advocacy activities that raise awareness around nutrition and planning events that bring together a wide range of stakeholders and forge partnerships in the fight against malnutrition. Prior to joining GAIN, she has worked as a Senior Nutritionist in the Medical Marketing Department of Dumex India

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Private Limited. Her role demanded substantial contribution to the development of new products in the infant, child and maternal nutrition category and its medical marketing strategy and program. She has played a lead role in designing product concept, claims and medical marketing packages as per the regulatory guidelines. Ruchika Sachdeva worked at the Research and Development Department of GlaxoSmithKline Consumer Healthcare Limited developing product concept, claims and claim support dossiers for launches/re launches of Nutrition Healthcare Category range. She has also worked as Project Consultant at Breastfeeding Promotion Network of India, a sister concern of WABA which deals with infant feeding issues and as a Research Associate in a WHO project (Multicentric Growth Reference Study) in the Department of Paediatrics, AIIMS.

SANJAY CHATURVEDI
Head, Department of Community Medicine, University College of Medical Sciences, University of Delhi, India

Through a series of community-based research initiatives on childhood undernutrition and childhood obesity, our team at INCLEN has outlined an inductive framework of causation, with a whole-of-reality approach. The big picture of continued undernutrition and specter of childhood obesity that is emerging through the qualitative evidence, after respondent validation, compels us to factor the non-health and health determinants together, with an integrated approach to address undernutrition and obesity – considering a significant overlap in their causation. Two of the critical core themes in this regard are ‘multitasking, time constrained mothers with dwindling family support’ and ‘near universal reach of ready-to-eat/drink snacks and drinks.’ To intervene in these areas would require an effective convergence of actors and resources from healthcare, food industry and market of ready-to-eat food, mainly in the area of replacing health compromising products with health enhancing products. The main obstacles such initiatives are likely to face would be to: keep such products affordable by underprivileged mothers; sustaining their acceptability by children and parents; and enabling the mothers to store food and cook quickly.

SEEMA PURI
Associate Professor, Department of Food and Nutrition, Institute of Home Economics, University of Delhi, India

Dr. Seema Puri is an Associate Professor, Department of Nutrition, at the Institute of Home Economics and University of Delhi. She holds a doctorate degree in nutrition from Delhi University and has undergone specialized trainings in Global Health Research and Social Gerontology. She has over 28 years of teaching and research experience.

Dr. Puri’s research interests include geriatric nutrition, child health and nutrition and nutrition and HIV/AIDS. She has undertaken projects funded by World Bank, UNICEF, Micronutrient Initiative, Department of Science and Technology, Government of India, Ford Foundation, etc. She has supervised the masters and doctoral research of many students. She has presented papers at numerous national and international conferences and has several publications in peer reviewed journals to her credit. Publications also include a jointly authored textbook on “Nutrition and Dietetics”, an edited work on “Diet and Ageing”, a guidebook on “Healthy eating in old age”, and booklets on “Diets for the Elderly”.

Dr. Puri has also undertaken short term consultancy assignments for the UN World Food Programme wherein she developed counseling material related to nutrition and HIV/AIDS, assessing growth of children using new WHO standards, maternal and child nutrition. She was invited as Temporary Adviser to the World Health Organization (EMRO) for development of food based dietary guidelines. With WHO (SEARO), she has developed nutrition messages using the life course approach. She has also developed “Nutrition guidelines for
HIV-affected children” for UNICEF and NACO. Dr. Puri has been associated with several food related companies as a consultant on research and new product launches. (i.e. Almond Board of California, TATA Tea, Glaxo Smithkline Healthcare, NutriHealth Systems, Danone, PepsiCo Health and Wellness and Tupperware India).

**SUNIT SINGH**  
*Associate Professor, G.B. Pant Social Sciences Institute, India*

Dr. Sunit Singh obtained his Doctors of Philosophy degree in Economics from University of Allahabad and is currently on faculty as an Associate Professor at G B Pant Social Science Institute, Allahabad. He is actively involved in various action research projects in the development sector and has produced a number of research papers. His work includes papers on Redesigning agri-extension for integrating smallholders with high-value markets, Agri-services in Uttar Pradesh (UP) for inclusive rural growth, Development perspectives in rural marketing: urbanization in conflict with local aspirations, Participatory intervention model for micro enterprise development, Managing the commons for sustainable development: organizing communities for collective good. Some of his recent completed research projects include: Supply Chain Management for fruits and vegetables in Uttar Pradesh, Potato Value Chain in India: Focus on Agra-Delhi Potato Pathways, Resource Management and Socio-economic Planning of Allahabad district and Skill Development Planning for Unorganized Sector workers. Presently he is associated with a Rice Value Chain study. While intensively working with NABARD sponsored Farmers’ Club Dr. Singh finds that for ensuring sustainable nutritional security it is imperative to develop local knowledge based organic farming technologies coupled with strategic pluralistic extension system. Currently he is associated with a study on Rice Value Chain in UP.

**SUNIL CHACKO**  
*Professor Adjunct, University of Alberta, Canada, Simon Fraser University, Canada, Indira Gandhi National University, New Delhi*

Dr. Sunil Chacko is Professor (Adjunct) at two Canadian Universities: University of Alberta, Edmonton, and Simon Fraser University, Vancouver, and also at India's Indira Gandhi National University, New Delhi. Dr. Chacko is Partner with New Info Solutions LLC, a biotechnology and finance advisory agency he co-founded in 1999 with offices in Washington DC, US, Vancouver, Canada, Tanabe, Japan and New Delhi, India. He is Co-Convener of the India Pacific Council, a Partner with MarineTech Corporation, Japan, and Vice President for North America and Japan of the Global India Foundation. Dr. Chacko is an International Scientific Committee Member of Canada's National Centre of Excellence: Advanced Foods and Materials Network.

He has received a medical degree from Kerala University in India, a master's in public health from Harvard University, and an MBA with concentration on finance from Columbia University, along with training in information technology (IT) and database/software programming. He was a Research Scholar at the prestigious Jawaharlal Nehru University (JNU) prior to getting a scholarship to attend Harvard University.

He currently researches functional foods and works on chronic diseases prevention and has been advising on the new sciences industry, pharma & biotech and on incentives to encourage partnerships between academia, government research institutions and industry on harnessing the new sciences for product development of new medicines, vaccines and diagnostics.

**SWARNA VEPA**  
*Director, LANSA Project, MSSF Chennai, India*

Dr. Swarna S. Vepa is at present Visiting Professor at Madras School of Economics, Chennai teaching development economics to Postgraduate students. She is also appointed as Research Director on DFID
Project “Leveraging Agriculture for Nutrition at M. S. Swaminathan Research Foundation, Chennai. She received her Ph.D. degree from the Department of Economics, Delhi School of Economics in 1995. Earlier she worked with MSSRF as Ford Foundation chair for women and Food security and at the Institute of Economic Growth Delhi and taught economics at Shriram College of Commerce, Delhi.

She was a member of many advisory groups and working groups constituted from time to time by the planning Commission in India and several United agencies such as WFP, FAO, UNESCAP and so on. Her research interest are in rain-fed agriculture, Rural and Urban food security, poverty, and gender related topics such as labour force participation, micro credit, women in agriculture and so on. She has many books and publications to her credit.

THOMAS REARDON
Professor of International Development and Agribusiness/Food Industry, Michigan State University, USA

Dr. Tom Reardon is Professor in the Department of Agricultural, Food, and Resource Economics at Michigan State University, USA, where he has researched and taught since January 1992. From 1986 through 1991, he was Senior Research Fellow at the International Food Policy Research Institute (IFPRI), in Washington DC. From 1984 to 1986 he was Rockefeller Foundation Post-Doctoral Fellow attached to IFPRI and also working with ICRISAT in West Africa. Tom finished his Ph.D. in Agricultural and Resource Economics at University of California at Berkeley in 1984.

Dr. Reardon is widely recognized as the leading global expert in links between the “supermarket revolution” and development of agrifood value chains and farms in developing regions, as well as links between agrifood industry transformation and food security. He has also worked extensively on rural nonfarm employment and food security. His work as of May 2010 has 7000 citations in Google Scholar and 1100 in ISI. He is on the World Economic Forum (Davos) Global Alliance Council for Food Security, and has been a food security advisor to the Chicago Council for Global Affairs and an invitee to Davos. He is listed in “Who's Who in Economics,” and received a Distinguish Faculty Award from MSU. Dr. Reardon's research work is mainly in India, China, Indonesia, and Nicaragua, including studies of the rise of supermarkets, the transformation of value chains in horticulture, shrimp, dairy, and rice, and the emergence of rural business hubs and other linkages between farmers and the modern food industry.

TUSAR RANJAN NAYAK
Scientist, M.S. Swaminathan Research Foundation, Orissa, India

Dr. Tusar Ranjan Nayak is a Senior Scientist and Coordinator for the Area, Food and Nutritional Security Program. The M.S. Swaminathan Research Foundation has been doing project proposal planning related to food and nutrition security for the tribes in Koraput tribal region of Odisha. This research on food and nutrition aspects in tribal region, involves coordination and implementation at the grass root level. Tusar Ranjan Nayak’s research has enhanced the Socio-economic status of 1000 tribal households through promotion of livelihood opportunities and conservation of 110 varieties of local land races. Additionally Tusar Ranjan Nayak has published 6 papers on food and nutrition security.

V.S. CHANDRASHEKAR
Country Advisor, Population and Reproductive Program, David and Lucile Packard Foundation

V. S. Chandrashekar, has spent over two decades steeped in the reproductive health field in India, bringing with him an array of expertise in family planning, maternal health, safe abortion, and HIV/AIDS. Beginning with Social Marketing, Chandra has managed large service delivery, technical assistance, capacity
building and behavior change communication programs at state and national level. He has worked with cooperatives, national and international NGOs and the private sector. His previous positions include - Country Program Director, Population Services International, Country Director – Ipas, Resident Advisor, Center for Communication Programs, Johns Hopkins University. Prior to joining the reproductive health sector, Chandra was involved in the dairy cooperative movement in the state of Madhya Pradesh. He holds a post-graduate diploma in Rural Management from Institute of Rural Management Anand (Gujarat, India) as well as a Bachelor’s in Business Management from the University of Mysore.

In his current position with the Packard Foundation, Chandra leads the foundations grant making strategy and works closely with the Foundations grantees and other stakeholders. Prior to joining the Foundation, Chandra worked as an independent consultant providing strategic inputs and support to a variety of programs in the country and Asia Pacific region.

V. PRAKASH

Distinguished Scientist of CSIR India, President, International Society of Nutraceuticals, Nutritionals and Naturals, Council Member of IUFoST and IUNS. Former Director of CFTRI

Dr. V. Prakash began as Pool officer of the Council of Scientific & Industrial Research at Central Food Technological Research Institute (CFTRI) in 1981 and rose to the position of Director of CFTRI in 1994. He is leading the Institution in dissipating appropriate technologies to produce, growers, and small entrepreneurs with a focus on economic upliftment and employment generation by promoting adaptable technologies that are sustainable. Today, as a result of his efforts CFTRI is a National networking R&D Institute in Food Science and has filed 900 patents, a unique distinction for any organization or R&D institution or Industry in India and abroad. CFTRI has made a very significant mark in the south-Asian region and other parts of the globe as an Institution that supports rural livelihood as well as entrepreneurship development.

Dr. Prakash has more than 160 publications in national and international journals, more than 410 papers presented in conferences, and is the author of 6 books in addition to more than 50 patents to his credit. He is a fellow of Indian Academy of Sciences, National Academy of Agricultural Sciences, Association of Food Scientists and Technologists, National Academy of Sciences, Indian National Academy of Engineering and International Union of Food Science and Technology (IUFoST). He is a member of many national and international committees with organizations such as the WHO, UNDP, and UNU, and is on the editorial board of several scientific journals. His report as the Chairman of the Working Committee of the Planning Commission on Agriculture and Food Processing has been a major driving force for the Indian Government in national-level policy-making. V. Prakash also serves as the Chairman of IUNS Task Force on Technologies for reaching out Nutrition.

VAISHALI DESHMUKH

Program Officer, The INCLEN Trust International, New Delhi

Ms. Vaishali Deshmukh is a post graduate in Social Work from Nagpur University, Maharashtra. She currently works as Program Officer in INCLEN TRUST, Delhi and is been involved in projects on under nutrition, Neuro-developmental disabilities in children. She is also involved in several other research activities related to child health and program evaluation at INCLEN. Her primary research interests include childhood nutrition, maternal and child health, neurological disability, policy advocacy.
ROADMAP 2: NEW FORMS OF BUSINESS ENGAGEMENT

ROADMAP 2

ADELINE LESCANNE GAUTIER

General Manager, Nutriset, France

Ms. Adeline Lescanne-Gautier joined Nutriset SAS in 2003 and is responsible for developing Nutriset's strategy for the “PlumpyField” network of franchises, focusing on local and sustainable production of Plumpy’nut® in the developing world. Between 2004 and 2012, 13 franchises were established—in Niger, Ethiopia, Sudan or India. These franchises are currently supplying international organizations and NGOs implementing humanitarian programs in the field.

In 2007, Ms. Lescanne-Gautier became Director of Operations at Nutriset, overseeing the operations of the logistics and commercial departments. In 2010, she took on the role of Deputy General Manager of Nutriset while continuing to represent the interests of the “PlumpyField” network both at Nutriset and in the wider nutrition and development community. Since 2003, she has continued to develop her expertise in: initiating feasibility studies; selecting local partners; and ensuring appropriate systems are put in place for the transfer of technology via training on technical and quality control aspects of programming. Adeline Lescanne-Gautier is currently serving as General Manager for Nutriset.

ALLAN PAULSON

Professor, Department of Process Engineering and Applied Science,; Director of the Canadian Institute of Fisheries, Technology, Dalhousie University, Canada

Dr. Allan Paulson is a Professor of Food Science at Dalhousie University in Halifax, Nova Scotia, and Associate Scientific Director of the Advanced Foods and Materials Network of Centres of Excellence (AFMNet). He has worked in food research for more than 25 years, specializing in food chemistry, processing and packaging. His research has included work with gels, emulsions and foams for delivery of bioactive molecules and probiotics, developing biodegradable/edible packaging material and microencapsulation matrices, investigating thermal processing of foods in different container types and retort systems, and improving antimicrobial peptides for food use. Allan Paulson has been active with Canada's Natural Sciences and Engineering Research Council for adjudicating research grants, is on the College of Reviewers for the Canada Research Chairs Program, and he received the WJ Eva Award from the Canadian Institute of Food Science and Technology for contributions and service. He is a consultant to the food industry through the Canadian Institute of Fisheries Technology, a contract Research and Development centre for commercial utilization of food and marine resources, and chaired the publishing committee of the Food Research International scientific journal.

ALEJANDRO CRAVIOTO

Executive Director, International Center for Diarrhoeal Disease Research, Bangladesh

Dr. Alejandro Cravioto received his Medical Degree with honours in 1973 in the Faculty of Medicine of the National Autonomous University of Mexico. He continued his studies in Pediatrics from 1973-1976 in the National Institute of Pediatrics in Mexico City and then in the London School of Hygiene and Tropical Medicine of the University of London, receiving a Diploma in Tropical Public Health in 1977 and a Ph.D. in 1981.
Dr. Cravioto is the author of more than 50 papers published in international journals and two textbooks, one on vaccines and another on pediatric diarrhoea. He is a member of the Academy of Medicine, the Academy of Pediatrics and the Academy of Sciences of Mexico, as well as 20 other scientific societies in Mexico, Europe and the United States of America. In 1996 he received the National Award in Public Health given by the Mexican Government. His work has also been recognized with the Nestle Nutrition Award in 1990 and the Glaxo Award for Clinical Research in 1991. At present, he continues as Professor of Microbiology and Public Health in the Faculty of Medicine of the National Autonomous University of Mexico with a leave of absence and has recently finished eight years as President of the Panamerican Federation of Associations of Medical Schools. His main interests in research during all these years have been the study of the interaction between infection and growth in young Mexican infants, as well as the pathogenic capacity of bacteria able to cause disease in humans.

**AMARJEET SINGH**  
*Assistant Professor, Indraprathra Institute of Information Technology (IIIT), Delhi*

Dr. Amarjeet Singh is current Asst. Professor in Mobile Computing Group at IIIT Delhi. Over the past 2.5 years at IIIT Delhi, he has been engaged in multiple projects on using mobile and computing technologies for critical applications in healthcare, agriculture and energy sustainability. Amarjeet is leading the efforts for deployment of sensors across the new IIIT Delhi campus for fine monitoring of water and energy consumption. He consulted Iffco Kisan Sanchar Limited (IKSL) for scaling up their voice based value added services for farmers in rural India. Currently he is working with multiple end user organizations (e.g. HISP and Apollo) on developing mobile based computing technologies for improving the overall efficiency of healthcare delivery system.

**AMIR DOSSAL**  
*Founder, Global Partnerships Forum, Former Executive Director of the United Nations Office for Partnerships*

Amir Dossal is Founder of the Global Partnerships Forum, a new global initiative to address economic & social challenges through innovative partnerships period. He is also Special Representative of the Secretary-General of the International Telecommunication Union for Global Partnerships and co-initiator of the Pearl Initiative, which promotes transparency and accountability in the Gulf Region.

Mr. Dossal joined the United Nations in 1985. Over the course of his 25-year career, he has accomplished many deeds with the common aim of uniting public and private energies for peace and social progress. By nature philanthropic and visionary, he has worked to bring the governmental milieu closer to the private sector and civil society in order to better serve the public interest.

From 2007 – 2010, Amir Dossal was Executive Director of the United Nations Office for Partnerships (UNOP), which he established in 2007: Within this framework, he spearheaded several key strategic alliances with governments, private companies, foundations and sponsors to contribute to Millennium Development Goals. Acting as an interface with the “UN Foundation” he has attracted investments of over 560 million from various donors, which have supported nearly 500 international projects for women and children's health, climate change and biodiversity. In 2009, Amir Dossal was a key architect of a strategic partnership between UNOP, the UN Office on Sport for Development and Peace (UNOSDP) and Peace and Sport.

**ANKITA MARWAHA**  
*Nutrition and Health Policy, PepsiCo, India*

Biography not available
ARIJIT MAZUMDAR
Head - New Product Development at GlaxoSmithKline Consumer Healthcare Limited
Biography not available

ASHI KATHURIA
Consultant, South Asia Human Development, World Bank, India
Ashi Kathuria is a Senior Nutrition Specialist consultant in South Asia Human Development, World Bank.

BASKAR REDDY
Head of Agriculture, Federation of Indian Chambers of Commerce and Industry, (FICCI) India
Dr. Sannada Baskar Reddy is Director, Agriculture Federation of Indian Chambers of Commerce and Industry (FICCI). He received his Ph.D. in Soil and Water Conservation Engineering from Indian Agriculture Research Institute (IARI), New Delhi and his Masters Degree in Water Science and Technology and Bachelors degree in Agricultural Engineering. He has more than 11 years of diverse experience in his field and works closely with the private sector in agri-business, key ministries in the central government and several state governments on policy and regulatory issues that relate to agriculture marketing, agriculture extension, horticulture, warehousing and farm machinery.

He heads the effort on a new PPP initiative called as “Million Farmers Initiative” jointly with the Ministry of Agriculture, Government of India. The project aims to connect a million farmers with companies using a value chain approach. The companies/NGOs would act as facilitators for providing solutions to farmers. Subsidies and support provided by the government to small and marginal farmers would also be afforded through these organizational efforts.

DEEPAK GUNVANTE
Glaxosmithkline
Deepak have 27 years strong experience in Food/Healthcare Industry (12 years with Hindustan Unilever & 14 years with GlaxoSmithKline Consumer Healthcare), primarily in India. He have handled varied responsibilities in R&D, Quality assurance, Projects, Supply Chain, Regulatory affairs and Strategic Innovations, besides having had International exposures & assignments.

ELLEN GUSTAFSON
Founder, The 30 Project; Co-Founder, FEED Project, USA
Ms. Ellen Gustafson is a sustainable food system activist, innovator, and social entrepreneur. She is the Founder and Executive Director of the 30 Project, a new way to connect global hunger and obesity and crowd-source long-term food system change. The 30 Project is both hosting and inspiring dinners around the world to promote a new dialogue and new solutions to a better food system. She is also the Co-Founder of FEED Projects, a charitable company that creates consumer products which help FEED the world, and Co-Founder and former Executive Director of FEED's non-profit partner, the FEED Foundation. Under Ellen's leadership, FEED provided over 65 million school meals to children around the world - at no cost to them.

Previously, Ellen was a US Spokesperson for the U.N. World Food Program, a terrorism research reporter in the ABC News Investigative Unit, and a research associate for the Military Fellows at the Council on Foreign Relations. She has been featured, with FEED business partner Lauren Bush, as one of Fortune Magazine's 2009 Most Powerful Women Entrepreneurs and was named to Inc Magazine's 2010 “Top 30 Under 30” list. Amongst her many public speaking accomplishments, she has spoken at the Fortune Most Powerful Women's...
Conference, given multiple TED talks, keynoted to the Italian Parliament, lectured at Harvard, NYU, Columbia University, The U.S. Naval Academy, Feeding America, and many more. She serves on the Columbia University Alumni Board of Directors and the founding Board of Directors for a new Bronx charter school within the Success Charter Network. She holds a B.A. from New York's prestigious Columbia University.

**K. S. SHANKAR**  
*Engineer Planner, Mother and Child Tracking System, Karnataka State Government, India*

Mr K.S. Shankar an Engineer Planner works for Karnataka State Government, India as Joint Director (State Demographer) in the Directorate of Health and Family Welfare Services. He has initiated IT activities in the Health department, including a mother-and-child tracking system through SMS mobile technology and a mobile messaging system for auxiliary nurse midwives in India. He has customized the MCTS software according to the state needs with the technical support of NIC, Bangalore. Karnataka state is the only state in India who has brought SMS based Mobile Technology for updating the records of MCTS which gives the real time data on MCTS portal. Mr. K.S. Shankar is the recipient of “Top Innovator of Top 11 in 2011 Innovators Challenge” award instituted by Rockefeller Foundation and Health Alliance of America for his MCTS application.

**MATT THEIS**  
*CommCare-Sense; Field Investigator, Dimagi, India*

Mr. Matt Theis has worked extensively in rural areas to support community health projects. Ranging from full patient record data entry via touch screen computer to installing the solar panels to power them, Matt has worked on numerous levels of 'mhealth', with experience both in sub-Saharan Africa and India. Matt is currently leading an effort to decrease mother and infant mortality, increase community house visits, and integrate with national health data systems in Bihar through a phone supporting audio, images and video. Matt is Country Director for Dimagi Software Innovations in India, overseeing all staff and projects within the country.

Matt was originally trained in Aerospace Engineering from the Massachusetts Institute of Technology and worked for Boeing on unmanned aircraft before joining Dimagi.

**NAZMUL HUDA**  
*Former Director, Grameen Caledonian College of Nursing; Former Special Advisor for GAVI Alliance to the Minister of Health; Special Adviser to Minister of Health, Bangladesh; Faculty, Health Sciences, International University of Business, Agriculture & Technology, Dhaka, Bangladesh; Visiting Senior Lecturer, Social Business and Health, Glasgow Caledonian University, Glasgow, UK.*

Dr. Nazmul Huda is a graduate in medicine from the University of Dhaka and holds a PhD in Public Health Sciences from the University of Alberta. In the past Dr. Huda has worked in Bangladesh for a key safe motherhood project of Unicef and a reproductive health improvement project of the Population Council of USA. Dr. Huda then joined the Institute of Child and Mother Health in Dhaka as the head of Center for Training and Communication.

With the faculties of the Imperial College of UK Dr. Huda had fellowship to work on several projects including examining the health issues of the street children in Dhaka city, to explore the risk of importation of HIV through the movement of women between India and Bangladesh and health risk assessment of arsenic in drinking water. Dr. Huda is the founder of an organization dedicated for infant nutrition called TARIF (Training, Advocacy and Research on Infant Feeding) and a rural health center in Bangladesh.
Dr. Huda worked for Grameen as a consultant to evaluate the Rural Health Centers in 1996. He later joined Grameen Health Care Trust again in 2009 as an Advisor. His most recent position was working with the Grameen Caledonian College of Nursing as the Director (Academic and Admin affairs). At present Dr. Huda is working to create an institution for agricultural health, to address the health issues caused by Agricultural Environment, in Bangladesh.

NIRMALAMURTHY
President, Foundation for Research in Health System, SRM University, Chennai

Nirmala Murthy is an honorary president of the Foundation for Research in Health System, a non-government research organization, which she helped create in 1989. She has a Master’s degree in statistics from Bombay University, India (1967), and a doctorate from the Harvard School of Public Health, Boston, USA (1974). In 1974, she joined the faculty of the Indian Institute of Management, Ahmedabad, doing research and training in the area of public health management.

She is a specialist in Health Information Systems, monitoring & Evaluation of Health and Welfare programs and has designed several management training programs for health care providers working at different levels in public health system. As early as 1983, she pioneered the computerized health information system that involved digitization of primary health records in one rural block of over 300,000 population and tracked health services received by over 30,000 women and children for over 3 years. This system had then demonstrated the feasibility of using microcomputers, which was then an emerging technology, in a rural setting and also shown that significant improvement in service quality and coverage could be expected when services were personalized. Since then, she has replicated this concept in different programs like HIV/AID, Child nutrition, and reproductive health, which is now been adopted at the national level. Currently she is implementing a new model of integrated HMIS in slums of 10 cities in Uttar Pradesh using mobile telephones where community workers update the health records using their mobile phones as SMS or through GPRS, and the real time data are made available to program managers, as and when needed. She is also the principal investigator of a 3 year research project that involves developing a set of Health applications related to mother and child care services and assessing their impact on poor and rural population in Karnataka, India. She has published over 50 research papers in journals and books in the area of her expertise.

NICK DRAGER
Professor of Practice of Public Policy and Global Health Diplomacy, McGill University, Canada; Former Director of Health, Trade and Ethics, World Health Organization, Switzerland

Dr. Nick Drager, former Director of the Department of Ethics, Equity, Trade and Human Rights and Senior Adviser in the Strategy Unit, Office of the Director-General at the World Health Organization is Honorary Professor, Global Health Policy, London School of Hygiene & Tropical Medicine; Professor of Public Policy and Global Health Diplomacy, McGill University; Adjunct Research Professor, Norman Paterson School of International Affairs and Senior Fellow, Global Health Programme, The Graduate Institute, Geneva.

His work focuses on current and emerging public health issues related to globalization and health, especially global health diplomacy/governance, foreign policy and international trade and health. The policy related, research and training activities of the work programme he leads are designed to contribute to enabling policy makers and public health practitioners to analyse and act on the broader determinants of health development, to better manage and shape the global and national policy environment for health and to place public health interests higher on the global development agenda to improve health outcomes. Dr. Drager has extensive experience working with senior officials in developing countries worldwide and major multilateral and bilateral development agencies in health policy development, health sector analysis, strategic planning and
resource mobilization and allocation decisions and in providing advice on health development negotiations and in conflict resolution. He has deep experience in global health diplomacy and high level negotiations on international health development issues. He has represented WHO at international events and conferences, serves as chair, keynote speaker at numerous international conferences; he lectures at Universities in Europe, North America and Asia; and is the author of numerous papers, editorials, and books in the area of global health and development. He has an M.D. from McGill University and a Ph.D. in Economics from Hautes Etudes Internationales, University of Geneva.

**N.K. DHAMIJA**
**Deputy Commissioner (Training), Ministry of health and family welfare**
No Biography available

**PADMASHRI RANJIT ROY CHAUDHURY**
**National Professor of Pharmacology, Adviser - Department of Health and Family Welfare, Govt. of NCTD, Former Member, BoG - MCI**

Dr. Ranjit Roy Chaudhury is a distinguished academician who has held a number of eminent positions. He is member of the Central Ethics Committee of the ICMR and member of the Governing Bodies of the Postgraduate Institute of Medical Education and Research, Chandigarh, Population Foundation of India, Delhi, Indraprastha Institute of Information Technology, Delhi and the Foundation for Revitalization of Local Health Traditions, Bangalore. He is also the UNESCO Professor in Rational Use of Drugs at Chulalongkorn University, Bangkok and Chairman of the Task Force for Research at the Apollo Hospitals. He is also closely connected with the WHO Regional Office, New Delhi in many of its programmes.

Ranjit Roy Chaudhury graduated from the Prince of Wales Medical College, Patna in 1954 and was awarded the D. Phil degree of Oxford University in 1958. He was the first Indian doctor to be awarded the Rhodes scholarship. After working at the All India Institute of Medical Sciences as Assistant Professor of Pharmacology from 1958 till 1960, he was appointed, at the early age of 34, as Professor and Head of the Department of Pharmacology at the then newly established Postgraduate Institute of Medical Education and Research, Chandigarh in 1964. He built up the prestigious Department of Pharmacology there and started the first DM Course in Clinical Pharmacology in India. Roy Chaudhury was Dean of the Institute and retired as Acting Director in 1980 to join the World Health Organization. He served WHO in senior positions at WHO Headquarters, Geneva, at the Regional Office at Alexandria Egypt and in Rangoon, Burma as Head of Mission and at Chulalongkorn University, Bangkok. In 1991 Roy Chaudhury joined as Emeritus Scientist at the National Institute of Immunology, New Delhi and served there till 2005. He founded the Delhi Society for Promotion of Rational Use of Drugs. Roy Chaudhury has been associated with developing the three editions of the Ethical Guidelines for Research of the Indian Council of Medical Research (ICMR).

**RACHNA AGGARWAL**
**Senior Program Officer, The INCLEN Trust**

Dr. Rachna Aggarwal, recently joined as a Senior Program Officer at INCLEN, New Delhi. She is a medical graduate from Dr. P.D.M.M. College Amravati, Maharashtra and received her M.P.H degree from the University of Oklahoma, Health Sciences Centre, USA. Her research interests lie in studying diseases clinically and epidemiologically and she has worked on Systemic lupus erythematosus, and other rheumatic diseases at the Oklahoma Medical Research foundation. She received the Centocor Scholar in Rheumatology award granted by the American Federation of Medical Research and is moved towards studying obesity among children.
RAJEEV BATRA

Group Head, Corporate Affairs, Hindustan-Unilever, India

Mr. Rajeev Batra is presently Head of Corporate Affairs at Hindustan Unilever Ltd. In this role he works on building and nurturing sustained relationships, interventions with the government, diplomatic corps, civil society and other interested third party stakeholders, in areas of crisis management, policy mediation, business environment and various other areas.

RAJIB DASGUPTA

Associate Professor, Centre of Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi, India

Dr. Rajib Dasgupta graduated in Medicine from the University of Calcutta in 1989 and was awarded the Gold Medal in Surgery and the First Certificate of Honors in Medicine. He obtained his Masters and PhD in Community Health from Jawaharlal Nehru University, New Delhi, India. He served a decade with the Epidemiology Division of the Municipal Corporation of Delhi. During this period (1993-2003), he dealt with the epidemics of Cholera O139, Plague, Dengue Hemorrhagic Fever and SARS – problems that were technically challenging and politically sensitive. He joined the Jawaharlal Nehru University in 2003 where he is currently Associate Professor (Community Health). He has recently concluded the Fulbright Senior Research Fellowship and was Visiting Associate Professor at the Johns Hopkins Bloomberg School of Public Health, Baltimore USA where he worked on social determinants in the context of programme implementation. He has researched on different child health programs including polio eradication, immunization, school health and nutrition. He has published in leading international and national journals dealing with programmatic and public health ethics aspects. He is closely engaged with the National Rural Health Mission (NRHM) and serves on key national advisory bodies on both communicable and non-communicable diseases, and child health programs. He has been consultant to the UNICEF, World Bank and Save the Children.

RAJENDRA P GUPTA

President & Member, Board of Directors, Disease Management Association of India.

Mr. Rajendra Pratap Gupta is a global thought leader & has been involved in healthcare policy of USA, Middle East and India. Rajendra was the author the first draft of the elections manifesto of BJP in 2009 Lok Sabha elections. He has authored the comprehensive health reforms document in 2009 which has been used by policy makers. Rajendra is often consulted by policy makers on diverse issues. Quite recently , he was invited by the planning commission, Government of India for the 12th five year plan for giving inputs on restructuring the governments flagship program; National Rural Health Mission, & addressing the issue of Malnutrition &under-nutrition.

Rajendra has been appointed on the five member team at Quality Council of India to look at Quality issues in Healthcare. Recently, Rajendra was ranked amongst the top 10 healthcare leader of the decade by a leading healthcare magazine in South Asia & Presented with ‘Global Healthcare Leader of the Year’ Award by the Sheriff of Los Angeles, USA on 28th April 12. Rajendra has expertise in pharmacy retail, telemedicine, disease management, rural healthcare, healthcare policy & innovation and is a co-architect of the healthcare model for the BOP for one of the largest corporations in the world. He sits on over a dozen boards in healthcare & retail across USA, Europe, Middle East & India & has delivered lectures across the globe on Healthcare.
RAJ THIAGARAJAN
Director, WW Strategy and Business Development, HealthVault, Microsoft, USA
Mr. Raj Thiagarajan is the Worldwide Director of Strategy and Business Development for Microsoft HealthVault. Given HealthVault brings public and private healthcare ecosystem stakeholders together to create a consumer driven healthcare solution, Raj is focused on the intersection of emerging business models that are sustainable and scalable in consumer-driven healthcare. Raj's mission is to evangelize and expand Health Vault globally by working with regional healthcare ecosystem stakeholders and partners.

RAGHU CAVALE
Vice President India Business, Infosys, India
Dr. Cavale has 27 years of work experience in many geographies of the globe and is an alumnus of IIT, Madras. He is passionate about the holistic application of technology and economics to solve inclusivity problems in health, education, financial access, and energy. He chairs many committees on technology and is adjunct faculty at many Universities. Infosys is a 7 billion US$ global IT company. It operates in 34 countries and derives a major portion of its revenue from the North American market.

RENU KOHLI
Head, Nutrition and Health Policy, Pepsi Co. India
Ms. Renu Kholi is Head of Nutrition and Health Policy and PepsiCo. India. Before this Ms. Kohli was a Nutrition Advisor at Nestle India until 2003. Ms. Kohli primarily works in infant nutrition supporting nutritional and product claims, labeling, nutrition training and group competency, and the regulations governing infant nutrition business.

ROBIN VAN PUYENBROECK
Partner, Strategy XXI, USA
Mr. Robin van Puyenbroeck advises public and private sector clients on political and organizational strategies. Building on his expertise in facilitating global networks and partnerships, he was appointed the Special Representative of the Secretary-General of EUCLID, an international intergovernmental organization holding a university mandate and charter, to support EUCLID in achieving its agenda and to liaise with the United Nations community. In addition, Robin serves as the International Coordinator for the Pearl Initiative, a private sector-led initiative based in the UAE that aims at creating a greater culture of transparency and accountability in the Arabian Gulf. The Pearl Initiative was established in cooperation with the UN Office for Partnerships (UNOP). Robin is also a Strategic Advisor at the Global Partnerships Forum, which facilitates public-private partnerships for development.

Over the years, Robin has built a strong foothold in the international affairs arena and he is actively engaged in numerous non-profit boards. He serves as Treasurer on the Board of Directors of the United Nations Association of NY and as a Steering Committee Member of the New Leaders program at the Carnegie Council for Ethics in International Affairs. He is also a fellow at the Next Generation Project of Columbia University's American Assembly and the Strauss Center for International Security and Law. In addition, he serves on the Advisory Board of Kupona Foundation and the Advisory Group on Renewable Energy and Sustainable Development with the Public-Private Alliance Foundation. Robin is a doctoral candidate in Diplomacy and International Affairs at the Pôle Universitaire Euclide; He holds an LL.M. in international law (Hons.) from the Université Libre de Bruxelles and a JD (Hons.) from the University of Ghent, Belgium. He also studied European law at the Universidad de Valencia, Spain, and holds a Certificate in Global Affairs (Hons.) from New York University. He speaks Flemish, English, French, Spanish and some German.
SANJEEVA SRIVASTAVA

Group Leader, Proteomic Laboratory, Indian Institute of Technology, India

Dr. Sanjeeva Srivastava is the Group Leader for the Proteomics Laboratory at the Indian Institute of Technology Bombay India (IITB). He obtained his Ph.D. from the University of Alberta and post-doc from the Harvard Medical School in the area of proteomics, stress physiology and has specialized expertise in applications of data enabled sciences in global health, developing country and resource limited settings. Current research in this group centers on biomarker and drug target discovery and deciphering the protein interaction networks in complex human diseases (e.g., gliomas) as well as infectious diseases (e.g., malaria) with use of high throughput proteomics, nanoproteomics, protein microarrays, DIGE and mass spectrometry. Additionally, multi-dimensional Omics data are employed for in silico studies and models. The group has developed E-learning resources such as Virtual Proteomics Laboratory and Open Source Courseware Animations Repository as a community resource and is collaborating actively both across India and internationally to advance this knowledge frontier for the benefit of global health. Dr. Srivastava has taught proteomics courses at the Cold Spring Harbor Laboratory and is the recipient of several awards including the National Young Scientist Award (Canada), Young Scientist Awards (Department of Atomic Energy and Board of Research in Nuclear Sciences India and the Department of Science and Technology India) and the Apple Research Technology Support Award (UK).

SATISH KUMAR

Dean, School of Public Health, SRM University

Dr. Satish Kumar's professional journey took off in 1987 and his career in Public Health began as a Junior Research Fellow at the prestigious National Institute of Health and Family Welfare (NIHFW) in New Delhi. Here at NIHFW, he was initiated into research of vulnerable communities. His work among the tribes is one of the few studies done on population genetics and working at NIOHFW has given him the platform to work with primitive tribes of India. Through his work, he was awarded a Doctorate in Health by the Punjabi University. At the same time he step foot on the research ladder holding various positions such as Senior Research Fellow, followed by Project Associate, then Assistant Research officer and finally making it to the position of a Research officer in the 8 years of tenure at NIOHFW. During this period (1987-1995) he led various national level projects on Health and family welfare.

His next opportunity was at another premier institute--Indian Institute of Health Management Research (IIHMR), Jaipur. His appointment at IIHMR as a Senior Research Officer slowly took route to another milestone, and in a very short period of time he climbed the rungs of the academic ladder as Assistant Professor, Associate Professor and Professor.

Having grown with the Institute, he wore multiple hats throughout his stint at IIHMR. As part of his portfolio, Health Research was a critical component of his job responsibilities. Here, his was duly acknowledged for being one of the few successful leaders in Health Research, having led International and National Research Projects, successfully managed research teams with over 200 investigators/ research officers. Having been considered a qualitative expert researcher, he has conducted international trainings on this topic at Uganda and Nepal.

SRM University, one of India's premier private University approached him to help them establish their School of Public Health, thereby offering him the Position of the Dean of the School of Public Health in 2006. He took this opportunity as a challenge. Having relocated back to Southern India and toiled through the first year to get a curriculum for the flagship MPH program through consensus/collaboration with various Schools / Departments at SRM University, we have come a long way to develop a world-class curriculum for a Master’s in Public Health Program. Since inception, the school has grown phenomenally under his leadership and he
has successfully accomplished this in a short time, having added 3 more innovative Master's programs, namely, Master's in Biostatistics and Epidemiology, dual degree program with the School of management - Master's in Public Health / Health Administration as well as Master's in Clinical Trials

**SHAVETA DEWAN**  
Manager, Group Medical Services, Apollo Hospitals

As the Manager of Group Medical Services at Apollo Hospitals, Shaveta Dewan has expertise in preparing hospitals for accreditation surveys and maintaining accreditation readiness for JCI and NABH. Dewan has participated in JCI audits and accreditation exercises along with international and national experts. Dewan's strengths lie in formulating and implementing quality systems and processes for clinical, operational and service excellence. Dewan also undertakes collaborative activities with other institutions for joint initiatives in healthcare education. Dewan has wide exposure in areas of Health care management and drafting and implementing best practices in health care administration.

**SHELLY SUNDBERG**  
Senior Program Officer, Nutrition, Global Health Program, The Bill and Melinda Gates Foundation

Ms. Shelly Sundberg is a program officer on the nutrition team in the Family Health division of Global Health Program. She joined the Bill & Melinda Gates Foundation in December 2009. She manages grants in the nutrition portfolio, conducts research to support the nutrition portfolio, works closely with the Foundation's Agricultural Development team on joint agriculture-nutrition initiatives, and collaborates with the Enteric Disease and Water Sanitation teams.

Ms. Sundberg's past research focused on the socio-economic determinants of household food consumption and nutritional status in West Africa. She has worked with the Michigan State University Food Security in Africa project in Mali looking at linkages between agricultural marketing, agricultural production, income, food consumption, and nutrition at the household level as well as household coping strategies in times of food shortage. She also worked with Elliot Berg on state and private grain marketing systems in Niger, Burkina Faso, Mali, Senegal, Mauritania, and Gambia. She has published journal articles on agricultural growth, food security, and poverty reduction in Africa. Ms. Sundberg has a bachelor's degree in African Studies from Georgetown University and completed a master's degree and doctoral studies at the Food Research Institute, Stanford University.

**SOMU KUMARAMBAT**  
Director Food Industry and Consumer Affairs, Elanco, Singapore

Biography Not Available

**Mr. STEVEN THOMPSON**  
CEO, John Hopkins Medicine International, USA

Steven Thompson is responsible for the coordination and oversight of the planning, integration and growth of Johns Hopkins Medicine's clinical enterprise. This includes the faculty clinical practice, the Johns Hopkins Health System (consisting of four hospitals; Johns Hopkins Community Physicians, a network of 25 statewide suburban community practices and 230 physicians that handles more than 540,000 patient appointments annually; Johns Hopkins Home Care Group, for which Hopkins health care givers provide adults and children with more than 35,000 home visits annually in central Maryland), and the Ambulatory Development Group. Steven Thompson also oversees the management of Johns Hopkins Medicine's external clinical business relationships, as well as the marketing programs that support the clinical enterprise.
In addition, Mr. Thompson is vice chair of the board of directors of Johns Hopkins Medicine International (JHMI), which is responsible for all the international activities of Johns Hopkins Medicine. JHMI establishes internal programs and businesses that are consistent with and support the Johns Hopkins mission to maintain excellence in clinical care, research and teaching. Through JHMI, the Johns Hopkins models of excellence in medicine and research have been recreated by Hopkins clinicians and advisers in health care facilities in Asia, the Middle East, Latin America and Europe. Steven Thompson also is the chairman of Johns Hopkins Singapore, a collaborative effort with the government of Singapore to bring American-style research and research-based clinical medicine to Southeast Asia. In addition, thousands of international patients who annually come to Baltimore for treatment at Johns Hopkins are assisted by JHMI in everything from arranging appointments to obtaining the services of interpreters.

**TIM DRAGER**

*Honors Economics, University of Ottawa*

Mr. Tim Drager previously studied at McGill University and plays varsity hockey for Ottawa University. Mr. Drager was also a research analyst with Industry Canada.

**VINAY KUMAR**

*Chief operating officer, Digital GREEN, India*

Mr Vinay Kumar is the Chief Operating Officer at Digital Green and provides leadership to program strategy, organizational development and operations. He has over 28 years of experience in public, private and non-profit sectors at various levels. Prior to joining Digital Green, he was India Operations Director at PATH, an international development organization based in Seattle. Earlier, he held the position of Regional Operations Head for Asia / Near East at IntraHealth International Inc., an affiliate of the University of North Carolina at Chapel Hill. Mr. Kumar was Vice President at JPS Associates, a management consulting firm and an officer at the Reserve Bank of India. He started his professional career at a journalist with United News of India. Mr. Kumar has an M. Phil. in International Relations and an MA in Political Science from Jawaharlal Nehru University, New Delhi. He completed an MBA from Faculty of Management Studies, Delhi University.

**Mr. VIJAY SHARMA**

*GlaxoSmithKline Consumer Healthcare Limited*

Vijay Sharma has been leading the Rural business for GSK Consumer Healthcare for over a year now. A seasoned sales and marketing professional, he has over 19 years experience across various companies including Hindustan Unilever Limited, where he spent 12 years. He has also worked in the education sector with an Entrepreneurial set up, and been an Independent Consultant in the field of rural strategy, working with both social enterprises as well as the corporate sector.

Vijay has built unique & innovative business models that create shared value for both the business and the community. His work at Project Shakti at HUL is a case study in various universities globally and an example of how to create a strong positive impact on the community while driving business. He has delivered lectures in various leading business schools across the globe including University of Michigan, Sam Walton School and has also been an invited speaker at various forums that aim to drive innovation at the Base of Pyramid. He is also a member of the Health Leadership Council for Market-based Partnerships for Health – a program driven by USAID. Vijay is a mechanical engineer from IIT Delhi, batch of 1993.
ROADMAP 3: RETHINKING POLICY

ROADMAP 3

**AMIR KHAN**
Deputy Director, Strategy, Planning and Management, the Bill and Melinda Gates Foundation, India

Dr. Amir Ullah Khan works at the Bill and Melinda Gates Foundation. He studied Electronics and Communication Engineering at Osmania University and Rural Management at the Institute of Rural Management at Anand. He has a PhD in Commerce and Business Studies from the Jamia Millia Central University at New Delhi. Dr. Khan has worked as Researcher for the Ministry of Finance, Government of India and the UNDP at Project LARGE (Legal Adjustments and Reforms for Globalising the Economy). He then was Academic Head at the Indian School of Finance and Management, after which he worked with Encyclopedia Britannica as Executive Director and Editor. He teaches a course on Indian Economic Policy at the Indian School of Business in Hyderabad and at the Indian Institute of Foreign Trade in Delhi. His latest book for Academic Foundation is titled Common Property Resource Management: A focus on Forestry, edited with Dr. Mousumi Majumdar. He has previously authored States of the India Economy that analyses regional and interstate diversity in India especially with respect to access to water, sanitation, health and education and the net impacts of infrastructure development.

Dr. Khan has worked on various research projects for the European Commission, National Council for Applied Economic Research, Planning Commission, Confederation of Indian Industry and the World Bank and has written on Economics and policy issues. For the EU, he worked on Agricultural trade and the impact of Sanitary and Phyto sanitary measures. For Oxfam and the Ashoka Foundation, he was involved in agenda setting for their work in the development sector in India, particularly in Agriculture and Rural development. He was a member of a special committee for the World Bank looking at HIV/AIDS concerns. For the British High Commission, he worked on moving farmers up the value chain, for USAID on unemployment and the vulnerable populations in India, and for the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) on what ails the small and medium sector. He is now working with the Digital Empowerment Foundation in encouraging the use of ICT in the critical areas of health, education, skill development and governance.

**Mr. NANDAKUMAR**
Director, Government of India, Ministry of Agriculture, Department of Animal Husbandary, Dairy and Fisheries, Krishi Bhawan, New Delhi, India

Nandakumar served as Secretary to Government of India, Department of Agriculture and Co-operation from September 2008 to February 2010. As Secretary of Agriculture, Nadakumar handled drought of 2009 effectively ensuring that India did not have to import food grains and also registered a positive growth in agriculture GDP. Prior to his appointment as Member, Mr. Nandakumar, worked as Chairman of a Committee of Secretaries to look at the Policy for optimizing fertilizer use in the context of emerging Food Security concerns and a new fertilizer policy. In 2006, in the midst of a food shortage Mr. Nandakumar was appointed Secretary of Food of India the background of impending food shortage. This challenging assignment was managed successfully for over 2 years ensuring availability of food in the country and keeping food inflation under control.

Mr. Nandakumar also served as Chairman of the Spice Board of India, a large number of initiatives were taken which has paid rich dividends in subsequent years. During this period, Nandakumar worked very closely with International Trade Centre, Geneva in various activities. He worked for 5 years in the Ministry of Urban Development of Government of India and initiated schemes for low cost housing, rural and urban drinking
water supply and sanitation. Many of the initiatives started during that period continue in the Policy Frame Work of Government of India.

Mr. Nandakumar worked as Secretary General of International Jute Study Group (UNCTAD) for 3 years thereby covering International experience in Trade Policy and negotiations. He has served on various Committees of FAO, WFP and Common Fund for Commodities. He served as a Member of the Prime Minister's “Expert Group on Employment in J & K”. Nadakumar currently serves on many Committees appointed by the Planning Commission.

ANOOP MISRA
Director, Diabetes and Metabolism, Fortis, Delhi, India

Dr. Anoop Misra is presently the Director of Department of Diabetes & Metabolic Diseases, Fortis Hospitals, New Delhi. Dr. Misra is an alumnus of All India Institute of Medical Sciences (AIIMS) in New Delhi. He was professor of Internal Medicine, Head, Diabetes and Metabolism Research Group, and in-charge, Clinical Pharmacology unit at AIIMS for over a decade. He has also been a associated with the South Western Medical Center in Dallas, Texas, USA, Dept. of Diabetes & Cardiovascular risk at the Royal Free Hospital, UK (2000) as who fellow and Dept. of Endocrinology & Human Nutrition, University of Texas (1996). He has been a member of WHO and ICMR expert groups for childhood obesity (2005, 2006), and who expert committee for appropriate measures of obesity in Asian populations (2005). He is in monitoring committees for National Institute of Nutrition (Hyderabad) and National Nutrition Monitoring Bureau. He is Director, Diabetes, Obesity and Cholesterol Diseases, Diabetes Foundation (India). Dr. Misra has published more than 250 scientific papers in peer reviewed international journals. He has been awarded highest award for Medicine in India Dr BC Roy Award (2006) and prestigious national honor, Padma Shri (2007) by the presidents of India for the respective years.

BELA SHAH
Scientist G and Head, Indian Council of Medical Research, New Delhi, India

Bela Shah heads the Division of Non-Communicable Diseases at the ICMR. With more than two decades of experience in public health projects, she has directed several multicentric efforts of the ICMR in areas of surveillance for noncommunicable diseases, asthma, diabetes, cardiovascular diseases, ageing, mental health, neuroepidemiology, environmental health, and climate change. She co-chairs the Joint Indo-US ICMR-CDC working group on environment and occupational health. She holds an MD in Preventive and Social Medicine from the All-India Institute of Medical Sciences in New Delhi.

CAROLINE BRACHT
Senior Researcher, G20 Research Group, Munk School of Global Affairs in Trinity College, University of Toronto

Caroline Bracht is a senior researcher for the G20 Research Group, based at the Munk School of Global Affairs in Trinity College at the University of Toronto. She has researched and written on G20 compliance, specifically with climate change, energy and development commitments, the relationship between the G20 and International Monetary Fund and contributed to the forthcoming book on the Global Governance of Climate Change. She is the coordinator and lead researcher for a project on the G20's implementation of the commitments in the Seoul Development Consensus commissioned by the International Labour Organization. She assisted in writing a report on the empowerment of women in a green economy for UN Women. She is pursuing a master's degree at the University of Toronto with a specific focus on participatory governance.
DEBESCH CHAKRABORTY
Professor, Department of Economics, Jadavpur University

Debesh Chakraborty is a former Professor of Economics at the Department of Economics, Jadavpur University, Calcutta, India. His area of interest is primarily focused on Macro Economic modelling, Input-Output Analysis, Economics of Energy and Environment, Regional Economics, Population and health economics and economics of SAARC countries. He has a teaching experience of about 30 years of undergraduate and post graduate course in Economics and more than 30 years of research experience in various fields of economics. He was attached as Postdoctoral researcher /fellow/visiting fellow to various universities and institutions-UNESCAP, Bangkok; NYU, USA; Tilburg University, the Netherlands; MERIT-Maastricht University, the Netherlands; East West Centre, University of Hawaii; Korea Institute of Population And Family Planning, South Korea; University of New Castle, U.K; Oulu University, Finland. He worked with Nobel Laureate Late Professor Wassily Leontief at New York University, USA. He has also been visiting researcher at the Department of Agricultural Economics, McGill University since 2007 and has worked with Prof. Paul Thomassin and Dr. Kakali Mukhopadhyay. He has co-authored several books and has a large number of publications in various academic journals. Since 2007, he has been engaged as expert in various ongoing health related study at McGill University. He will contribute to the Roadmap 3: Whole of Government Policy and Economic Modeling in the upcoming conference. He would like to share his macroeconomic experience in health related study in India.

DEOKI NANDAN
Former Director of National Institute of Health & Family Welfare, New Delhi, India

Dr. Deoki Nandan has worked as Principal/Dean & Chief of Hospital, S N Medical College, Agra. He has been actively working in the field of public Health for more than 25 Years and during this period he has been an adviser and have provided consultancy to many international Organizations e.g. WHO -SEARO, UNICEF, CARE-India, EPOS, Population Council, MOST-India and USAID. He is also member of many state level committees and National Technical Expert Committees specifically for AIDS, IMCI and Child Health. He has also been identified as National Trainer for ICDS, CSSM, RCH, RTI/STD, HIV/AIDS and IMCI. He has successfully undertaken more than 45 community based studies/research/projects on issues related to EPI, RCH, RTI/STD, and HIV/AIDS, in collaboration with national and international agencies, and has numerous research papers published in national and international scientific journals. Besides Public Health, Dr. Nandan has also presented excellent performance academics and has teaching experience of 28 years for undergraduate and postgraduate medical students. He is Technical member of PSC selection boards of Govt. of MP, UP and Uttarakhand; Academic Council member for Agra, Aligarh and Gwalior Universities; Member Governing Council of State Medical Faculty, UP and examiner for MBBS/MD examinations for more than 30 universities. He is also being nominated by Govt. of UP for Human Rights and has also been invited as an expert in international meets/workshops. As Principal/Dean of Agra Medical College he successfully improved the eminence of teaching, training and research and quality of patient care in the institution.

G.V. RAMANJANEYULU
Centre for Sustainable Agriculture, India

Dr Ramanjaneyulu is the executive director of the Centre for Sustainable Agriculture, Hyderabad. He is working on a policy paper on Impact of EU Common Agriculture Policy on Biodiversity in developing countries.
KAKALI MUKHOPADHYAY

**Senior Associate Researcher, Agricultural Economics Program, McGill University**

Kakali Mukhopadhyay is a Senior Associate Researcher in the Agricultural Economics Program at McGill University. Prior to joining McGill in 2007, she was a faculty at the Indian Institute of Management Calcutta and Madras School of Economics, Chennai. Her research in the past few years has been guided by the integration of energy and environment, trade and environment, air pollution and health, and economics of health primarily using Input-Output and Multi-Regional Computable General Equilibrium Modeling. She has received a number of international fellowships from World Bank, ADB, Indo-Dutch program, and Ford foundation. She was a visiting fellow/post-doctoral fellow at the Faculty of Business Management, Oulu University, Finland; Stockholm Environment Institute, Sweden; SOM Research School-Groningen University, and MERIT-Maastricht University, the Netherlands; School of Environment, Resources and Development (SERD), Asian Institute of Technology, Thailand and Indian Institute of Management Calcutta, India. She has authored four books and published her works in various peer reviewed journals.

During last couple of years, Dr. Mukhopadhyay is engaged in various health related studies. Among them is CIHR funded research on the Foundational Work for a Brain-to-Society Diagnostic for the prevention of childhood obesity and its chronic diseases consequences under the leadership of Professor Laurette Dube. She has also contributed with Prof Paul Thomassin, and Prof Larry Baker to prepare a report on “Scoping Review of Literature of Mainstream Macroeconomic Impact Models in Chronic Disease Related Industrial Sectors with Knowledge Synthesis and Critical Analysis of Three Macroeconomic Impact Modelling Frameworks for Canada” funded by CIHR. Recently a Public Health Agency Canada funded research entitled “Macroeconomic impacts of reducing nutrition-related chronic disease by adopting a healthier diet” has also been conducted by her with Prof Paul Thomassin. In continuation of the PHAC funded research, she will further be assessing the household behavior response due to change in diet; identifying key variables responsible and productivity loss for the whole economy. She has more than 10 years of research experience focusing on developing countries including India. She will participate in Roadmap 3: Whole of Government Policy and Economic Modeling. She would like to apply her methodological experience and knowledge so far gathered in Canada to the health related study in India.

KALYAN KUMAR GANGULY

**Deputy Director, Scientist E, Indian Council of Medical Research, New Delhi, India**

Dr. Kalyan Kumar Ganguly is the Deputy Director and Scientist at the Indian Council of Medical Research. New Delhi. His efforts are focused on multi-centric as well as collaborative (Indo-US) projects. He has nearly 50 publications in national and international journals and books. Dr. Ganguly was the first social scientist have received the “Prof. BC Srivastava Foundation Award” 1996 for his commendable work in the field of Community Medicine from Indian Council of Medical Research. Dr. Ganguly received his Ph.D. in Social Medicine and Community Health (1991) and a Master of Philosophy.(M. Phil) 1984, in Social Medicine from Jawaharlal Nehru University, New Delhi.

He is a Fellow of the Indian Public Health Association. He was awarded this fellowship by Indian Public Health Association, Kolkata in recognition of various Public Health related work done by him. He was a “Visiting Fellow” at the University of California, Los Angeles (UCLA). (March 2006 - June 2006). His focus during fellowship was on Epidemiology of HIV/AIDS. The fellowship was sponsored by the Government of the United States. Further, he was recipient of R24 NIH Fellowship for the period of 2008 thru 2011 in HIV/AIDS. Dr. Ganguly is Chairman of the Ethical Review Committee, Lady Harding Medical College and allied hospitals (Suchita Kriplani and Kalawti Saran Hospital) and Nursing College, New Delhi. He is also member of Ethical Review Committee of National Institute of Health and Family Welfare, New Delhi, the
Institute of Molecular Medicine, New Delhi, the Dr. Ambedkar Center for Biomedical Research, University of Delhi and All India Heart Foundation, New Delhi. He is also a member of Career Path Analysis of Research Staff of National Institute of Health and Family Welfare, New Delhi.

**LAXMIKANT PALO**

_Senior Advisor, Save the Children_

Dr Laxmikant has over 22 years of experience in public health, nutrition and community development programs in India across a diverse range of national and international organizations. Dr Laxmikant Palo currently working with the Save the Children as Senior Advisor-Nutrition. He served as the Senior Technical Advisor/Senior Program Manager for USAID/India. In this role, he has provided guidance and leadership to design, implement, manage, monitor programs in the area of public health, food and nutrition security. He also worked as Senior Technical Advisor/Theme Leader-Nutrition for the Vistaar Project at IntraHealth International in New Delhi. In this role, Dr Palo was responsible for managing the Secretariat for the Coalition for Sustainable Nutrition Security in India and leading nutrition technical assistance activities of the Vistaar Project. He also led the technical assistance team and all activities on nutrition for the Indian national and state governments and NGO partner organizations. Previously he worked with PATH, AED and DFID.

Dr Laxmikant has extensive experience in project design, program management, proposal writing, policy advocacy, evidence generation, research, strategic health communication, partnership management, training and technical assistance to government and project implementing partners. On the academics front, Dr Laxmikant has a Ph.D. Public Health and Nutrition.

**MANPREET KHURMI**

_Choice Health Consultant, Ministry of Health and Family Welfare, India_

Manpreet Khurmi a Child Health Consultant in Ministry of Health and Family. He was a Health Systems Specialist in supporting health systems strengthening for five years. His area of expertise is Reproductive, Maternal, Newborn, Child Health & Nutrition, development of policy and Operational guidelines. He has also been involved in implementation plans, monitoring, budgeting as well as documentation. He has also been involved in policy dialogue pertaining to social determinants of health, public policy and reforms with a focus on quality of care, gender, equity change in behavior Communication strategies. Other than program design and policy he has also worked in educational materials for mass media.

**MOHUYACHAUDHURI**

_NDTV Correspondent_

Mohuya Chaudhuri has 21 years of experience in journalism, both print and television. After working in The Economic Times for three and a half years, she joined New Delhi Television and worked in different capacities for over 16 years. She has reported on a wide range of issues including politics, economic policy, science, education, health, environment, gender, child rights, anthropology and conflict. Her area of specialisation is development reporting, especially health and conflict. Apart from reporting on epidemics, medical breakthroughs such as stem cell research, unethical clinical trials, immunisation, maternal and child health issues. Mohuya received the WHO Media Fellowship for Communicable Diseases for which she did her field study on Public Private Partnerships in delivering healthcare to the Community in Uganda. She set up the health, science and environment desk in New Delhi Television. She was Senior Editor (Health) for nearly seven years.

Mohuya Chaudhuri has made 13 documentaries on HIV/AIDS for the National AIDS Control Organisation and an independent film on the AIDS vaccine. She has received a grant from Johns Hopkins University to
make short films on infant deaths caused by pneumonia and how it can be prevented for the World Pneumonia Day, 2011. She has made a film on newborn care, “Bringing Them Home Safe” which looked at how training frontline workers and teaching the community best practices can substantially bring down neonatal and maternal deaths. The film was made for Vistaar, a Jharkhand government and Intra-Health International collaboration. She received the Kaiser Fellowship to run a year long campaign on malaria which included the making of a documentary, "When the Rain Comes". She has run several campaigns on different neglected diseases such as Japanese Encephalitis as well as malnutrition, which have led to policy change. She has also made films on the tobacco industry and its health impact on the community. Mohuya has won several national and international awards for her work. Mohuya has authored an article for a book "The Fear the Stalks", which looked at gender violence in public spaces. Mohuya is now a member of the World Health Organisation’s SAGE Working Committee on Vaccine Hesitancy.

**PAUL THOMASSIN**  
*Associate Professor in the Agricultural Economics Program, McGill University*

Dr. Paul Thomassin is an Associate Professor in the Agricultural Economics Program at McGill University. He received his Ph.D. and M.Sc. from the University of Hawaii at Manoa and his B.Sc. (Agriculture) from McGill University. His research area includes consumer willingness to pay for food attributes, macroeconomic analysis of food and agriculture policies, and environmental economics. From 2003-2007, he was the scientific director of Greenhouse Gas Management Canada, which was a SSHRC-BIOCAP national research network that investigated the social science dimensions of using the biosphere for greenhouse gas management. Dr. Thomassin is currently a Research Fellow at the Center for Interuniversity Research and Analysis of Organizations (CIRANO). This research includes the use of experimental economics to investigate consumers and producers perceptions of risk and how they impact decision making. He has been a Visiting Professor at the William S. Richardson, School of Law, at the University of Hawaii, Visiting Fellow at the National Centre for Development Studies at the Australian National University, and Honorary Professor in the Division of Science and Technology at the University of Auckland.

**P.K. PRABHKAR**  
*Deputy Commissioner, Child Health, Ministry of health and Family welfare*

No Biography available

**P.K. PRADHAN**  
*Secretary of Health, Government of India, India*

Before assuming the role of Secretary of Health Pradhan was the Special Secretary and Mission Director of the National Rural Health Mission in the Department of Health & Family Welfare. In his career spanning more than thirty four years, Mr. Pradhan has previously handled various portfolios in the urban sector both in the State Governments and Government of India. He has been responsible for the National Rural Health Mission for the last two years.

**POMA TUDU**  
*Research scientist, The INCLEN Trust International, New Delhi, India*

Dr. Poma Tudu received her M.B.B.S degree from the Lady Hardinge Medical College, New Delhi and has been a Research Officer with The INCLEN Trust International since the past 3 years. Her research interests lie in nutritional disparities and disabilities. At INCLEN, her efforts have been focused on a country wide project on Neuro-developmental disabilities among Indian children. She has been instrumental in validation of four
INCLEN diagnostic tools for epilepsy, cerebral palsy, Autism Spectrum Disorder and ADHD during the course of this project. She recently got selected into the Indian administrative services and will join her tenure as a Probationer in Sep 2012 after completion of her project at INCLEN

**PRASHANT MATHUR**

*Scientist D, Division of Noncommunicable Diseases, Indian Council of Medical Research, New Delhi, India*

Dr. Prashant Mathur is a Pediatrician who completed his post-graduation and PhD in Pediatric Gastroenterology & Hepatology from the All India Institute of Medical Sciences, New Delhi. He is a Member of the National Academy of Medical Sciences, Indian Academy of Pediatrics and International Clinical Epidemiology Network (INCLEN). He has received training in clinical epidemiology, qualitative research methods and program evaluation, has more than 25 peer reviewed publications in national and international journals and chapters in 12 books and is a reviewer of national and international journals.

At the ICMR he is Program Officer for research in the areas of Non-communicable Disease Surveillance, Obesity & Metabolic Syndrome, Chronic Disease Research and Gastroenterology. He has initiated several multi-centric task force programs in these areas of public health relevance, mainly childhood obesity, celiac disease and Nonalcoholic fatty liver disease. Dr Mathur is a represents ICMR at several committees of the departments of Government of India on NCD surveillance and NCD prevention and control. He coordinated the implementation of the national NCD risk factor surveys in 2007-2008 under the Integrated Disease Surveillance Program of the Ministry of Health in 7 States of the country. He is involved in the ICMRs collaboration with the Medical Research Council, UK, Canadian Institutes of Health Research and Global Alliance for Chronic Disease. He works closely with the WHO Offices of the South East Region and India Office, including serving as Temporary International Professional with the WHO South East Regional Office, New Delhi and has worked on Capacity Assessment for NCD Prevention and Control and Analysis of NCD related Policies in SEAR Countries.

**RAKESH GUPTA**

*Director, NRHM, Haryana State, India*

No Biography available

**R.C. MISHRA**

*Central Provident Fund Commissioner, Ministry of Labor and Employment, Government of India, India*

Mr. R.C. Mishra is presently working as Central Provident Fund Commissioner in Ministry of Labor and Employment. He is also the ex-officio Chairman of the Heritage Conservation Committee for Delhi. Recently (Nov. 2009) he made a presentation on Governing by Social Innovation and Civil Participation at McGill World Platform at Montreal, Canada. Born in 1952 he did his Masters in Physics in 1975 from the University of Allahabad and later did his MBA in 1992 from the University of Ljubljana, Slovenia.

Mr. Mishra joined the Indian Administrative Service - the premier Civil Service of India - in 1978 and has held several senior positions in the Federal and the State Govt. Some of his recent assignments have been - Director General, National Museum and Vice-Chancellor, National Museum Institute; Joint Secretary, Ministry of Culture; Deputy Election Commissioner, Election Commission of India; Principal Secretary (Finance), Govt. of Manipur; Executive Director (Strategic Planning), Broadcasting Corporation of India; Joint Secretary, Broadcasting and Policy, Ministry of Information & Broadcasting, Govt. of India; Director, Indian Institute of Mass Communication, New Delhi etc.

SIDHARTHA PRAKASH
Director of Corporate Affairs, Medtronic, India

Mr. Siddartha Prakash is a senior executive with 15 years international experience in public-private partnerships, corporate affairs and the social sector. He commenced his career at the World Trade Organization (WTO) in Geneva conducting detailed studies on the legal and economic implications of the WTO Agreements for developing countries. At the WTO, he developed strategic partnerships with UN agencies, NGOs and the private sector related to intellectual property rights.

During his tenure at the World Bank in Washington DC, he advised governments on economic reforms and the design and implementation of development projects. In 2006, he relocated to India to broaden my private sector experience leading the mining operations of an iron ore company. Subsequently, Siddartha Prakash has joined Pricewaterhouse Coopers (PwC) to develop their social sector practice in Delhi and relocated to Mumbai to lead Public Affairs for Pfizer, working with industry bodies to shape the pharmaceutical policy and develop public-private partnerships (PPP), strengthening healthcare service delivery in India. Siddartha currently heads the Corporate Affairs Division of Medtronic in Delhi, working with key stakeholders to grow the medical devices industry in South Asia.

SHAKTI KUMAR GUPTA
Chief Hospital Administration at All India Institute of Medical sciences (AIIMS), New Delhi, India

Dr. Shakti Kumar Gupta did his MBBS from Govt. Medical College, Jammu (1979) and obtained his MHA degree from AIIMS (1989) New Delhi. A recipient of WHO fellowship to USA (1997), Dr. Gupta represented the country in the East West Meeting on Telemedicine organized by Asian Productivity Organization, Japan at Hawaii, USA (1998). The Medical Council of India has appointed him as Inspector for recognition of Post Graduate courses in the discipline of Hospital Administration & Chairman for revising course curriculum for MD Hospital Administration. He was also appointed as International consultant on Procurement & Supply Management India TB & HIV/AIDS Programs supported by Global Fund under UNOPS Asia Office Project (UN Assignment) at Delhi. In addition Dr. Gupta is an editor of the Journal of Academy of Hospital Administration and Consultant and of JK Science- Journal of Medical Education & Research. He has about 33 research papers to his credit and has also authored three books.

Dr. Gupta works diligently to improve health standards involved as a member of the Bureau of Indian Standards for developing Indian standards for hospital equipment management and quality assurance standards for patient care services. As well, he belongs to the Core-Group for developing Curriculum for Diploma course in Health and Environment for Medical and Allied Health Professionals sponsored by ACTS Ministries, Bangalore in collaboration with School of Health Sciences, Indira Gandhi National Open University, New Delhi.
SEEMAGULATI  
Chief Project officer, diabetes Foundation of India
Seema is working as Chief Project Officer Diabetes Foundation India since 2006 and was a visiting Lecturer in Institute of Archaeology from 2002 to 2006. She worked as Project Assistant from August 1990 to May 1992 in a project titled “Study of Effects of Interaction between ABO incompatibility and haptoglobins on fertility among the Khatris and Aroras (two cast groups of an ethnic community of Delhi). She participated in 2 week Bangalore/Boston Nutrition Collaborative (BBNC) course in International Nutrition Research Methods and Diabetes Educator course from Project HOPE

SHUBHRA KUMAR  
Research assistant, Model Districts Health project at Columbia Global Centers, Mumbai, India
No Biography available

SUNEETHA KADIYALA  
Research Fellow, Poverty, Health and Nutrition Division, International Food Policy Institute, India
Dr. Suneetha Kadiyala is a Research Fellow in the Poverty, Health and Nutrition Division at the International Food Policy Research Institute (IFPRI). Since joining IFPRI in 2002, she has played a key role in the Regional Network on AIDS Livelihoods and Food Security (RENEWAL), an initiative coordinated by IFPRI. A nutritionist, for the last 12 years, her research has focused on HIV, livelihoods, food and nutrition security in eastern and southern Africa. She now co-leads "HIV and Nutrition Security" theme under RENEWAL. Since November 2008, Dr. Kadiyala is based in IFPRI's Regional Office in New Delhi. She is also currently the South Asia focal point for the Agriculture and Health Research Platform (AHRP). Her work in India focuses on tackling the agriculture-nutrition disconnect in India. Dr. Kadiyala has a PhD in International Food Policy and Applied Nutrition from the School of Nutrition Science and Policy, Tufts University, Boston.

TANUJA AGGRAWAL  
Associate Professor, Faculty of Management, University of Delhi, India
Tanuja Aggrawal, is Associate Professor in the Department of Human Resource Management (HRM) and Organizational Behaviour (OB) at Faculty of Management Studies, University of Delhi, India, from where she received her Ph.D. She has Postgraduate and Master of Philosophy degrees in Psychology with specialization in Organizational Behaviour from University of Delhi. With almost 20 years of teaching and research experience, she has received national and international awards for her research, notably the American Society for Training and Development (ASTD) Research-to-Practice Citation in 2004, Best Paper Award in the First International Conference of Academy of HRD (AHRD) USA and India (2002) and the Third Asian Conference of the AHRD- USA and Korean AHRD (2004). She is also the recipient of the All India Council for Technical Education (AICTE) Career Award for Young Teachers (2001) and UGC Fellowship. She is the recipient of the Scholarship under Erasmus Mundus external Cooperation Window, Lot 13 of the European Commission for the year 2010. Her research interests focus on Organizational Commitment, Human Resource Innovations, Career Management, Work-Life Integration, Performance and Reward Management, gender issues, and corporate social and environmental responsibility. She also focuses on social issues. Her M.Phil dissertation was a Psycho-social Study of Attitudes towards Family Planning among Rural and Urban Women. She also organized a National Seminar in University of Delhi on “Combating Malnutrition: Progress, Lacunae, and Future Strategies” (January 19th – 20th, 2007).
She has authored one book titled “Strategic Human Resource Management” and has published several Book Chapters, journal articles and conference papers in Journals such as International Journal of Human Resource Management, Career Development International, Indian Journal of Industrial Relations, Indian Journal of Training and Development, etc. She is currently on the Editorial Advisory Board of Equal Opportunities International, and on the Editorial Review Board of Gender in Management. She is also an Associate member, Centre for Equality and Diversity of Work (Manchester Business School), and DECER (Norwich Business School, University of East Anglia). She is a life member of National HRD Network and Indian Society for Training and Development. She is member of Managing Committee of Gandhi Bhawan, University of Delhi. She currently also holds the portfolio of Deputy Dean -Foreign Students (International Students Advisor) of the University of Delhi (since March 2007 till date). She was felicitated by the former President of India, Dr. Abdul Kalam Azad for her contribution to University administration as Deputy Dean (Foreign Students) on the occasion of Teachers Day, in September 2009.

**UMESH KAPIL**

*Professor Public Health Nutrition, All India Institute of Medical Sciences, Delhi, India*

Dr. Umesh Kapil is presently working as Professor, Public Health Nutrition at All India Institute of Medical Sciences (AIIMS), New Delhi. Dr. Kapil is an alumnus of All India Institute of Medical Sciences, New Delhi. He is recipient of three National Awards from Indian Council of Medical Research namely Dr. B. C. Srivastava Foundation Award in 1992, Dr. M. K. Sesadari Award in 1996 and Dr. P. N. Raju Oration Award in 2002. He is a fellow of i) National Academy of Medical Sciences, ii) Indian Association of Preventive and Social Medicine and iii) Indian Public Health Association. He has implemented more than 40 Research Projects funded by national and international UN organization. He has more than 200 publications in peer reviewed Indexed National and International Journals. His special area of interest is in the field of Maternal and Child Health. He was the first scientist in India who documented the emerging problem of Obesity in Children of high socio economic group in India. He has recently completed an ICMR sponsored project on Epidemiology of Obesity and associated morbidities in National capital territory of Delhi.

**VIJAYSINGH DAHIYA**

*District Magistrate Officer, Palwal, Haryana, India*

No Biography available

**V.M. KATOCH**

*Secretary (Department of health Research), Director General, Indian Council of Medical Research*

V.M. Katoch received the award on January 3, 2012 from prime minister Dr Manmohan Singh at the opening of the 99th Annual Session of the Indian Science Congress (ISC) held at Kalinga Institute of Industrial Technology (KIIT), Bhubaneshwar. The Indian Science Congress is annually organized by the Indian Science Congress Association, Kolkatta and is one of the largest congregations of Indian scientists. Sir P C Ray was one of the finest scientists of the pre-independence India who made remarkable contributions to the advancement of chemical sciences and industry in India totally based on Swadeshi thinking and efforts. The award that Dr Katoch has received was instituted in the year 1989 and is given on alternate year to a distinguished Indian scientist.

**SHREERANJAN**

*Joint Secretary, Ministry of Women and Child Development*

No Biography available
ROADMAP 4: BETTER METRICS AND ANALYTICS

ROADMAP 4

A. LAXMAIAH
Deputy Director, Division of Community Studies, National Institute of Nutrition, India

Dr. A. Laxmaiah has an academic background in Medicine and Public health, with hands on professional experience in Public Health Nutrition at National Institute of Nutrition, Indian Council of Medical Research, Hyderabad and he has been involved in many training & capacity building programmes on health & nutrition. He has considerable experience in carrying out epidemiological, operational, randomized clinical trials and evaluation of mega research projects. He is a faculty member in regular as well as many ad-hoc training programmes. He has successfully completed more than 40 research projects in the field of Public Health Nutrition and presented several research papers in National and International Conferences/Seminars/workshops etc. He has also delivered several guest lectures in various health and nutrition forums. He published more than 50 research papers in peer reviewed National & International journals and published more than 50 NIN/NNMB Technical Reports. He is an Expert member in several forums of health and nutrition viz., Department of Science and Technology (MDM), DWCD (ICDS), FNB, NDMA (Core group member), INCLEN (Mother & Child Nutrition). He also received many honours and awards to his credit.

ADITYAJAIN
Assistant Professor, Operations Management, Indian School of Business, India

Dr. Aditya Jain is an Assistant Professor of Operations at the Indian School of Business. The primary area of his current research is various theoretical and practical aspects of stochastic inventory management. Other research interests include issues in Operations-Finance Interface: Operations with Financed/Leased Capacity and the pricing of Third Party Logistic services.

Prior to obtaining his doctoral degree in Operations Management from the University of Rochester, Simon School of Business, Dr. Jain worked in the Indian automotive industry. As a part of Supply Chain Management, Strategic Business Group of Tata Auto Component Systems, he carried out several projects in logistics (between automotive OEM and key component suppliers), productivity improvement and quality management. He is an active member of societies INFORMS & POMS and a member of POMS Education Committee.

AIDAN RENAGHAN
Assistant Director of Presidential and Trustee Engagement with Alumni Relations and Development, University of Chicago

Mr. Aidan Renaghan was born in Ithaca, New York and earned a Bachelor of Arts degree in Philosophy and Writing Seminars from Johns Hopkins University. Immediately after receiving his Bachelor's degree, Aidan served for two and a half years in the United Stated Peace Corps in Ukraine. He served in Volodymyr-Volynskyi in Volynska Oblast and worked as an English teacher at a pedagogical college. He also worked to build capacity with many local NGO's and managed a number of community projects centered on youth engagement, human trafficking and the expansion of civil society in Ukraine. Recently he accepted a position as the Assistant Director of Presidential and Trustee Engagement with Alumni Relations and Development at the University of Chicago. He has served as a research assistant with the McGill World Platform for Health
and Economic Convergence. Aidan will act as the facilitator for Roadmap 4: Whole-of-Society Metrics and Analytics for Evidence and Performance.

**ALOK KUMAR**  
*Associate Professor, Department of Economics, University of Victoria, Canada*

Dr. Alok Kumar is currently an Associate Professor of Economics at the University of Victoria, Canada. His areas of interest are macroeconomics, development economics, and the economics of entrepreneurship. He received his Ph.D. from Queen's University, Canada in 2003. For his Ph.D. thesis, he was awarded the Governor General's Academic Gold Medal. Dr. Kumar's research interests cover a wide range issues. He has made significant contribution to development issues such as linkages between human capital and productivity and the effects of different forms of gender biases on the welfare of children and human capital investment. Dr. Kumar's research has addressed important policy questions related to the macro-economic implications of the labor market and monetary policies in the economies characterized by search frictions and their effects on occupational choice, labor market flows, and the dispersion of wages and prices. His work has been published in leading economic journals such as *International Economic Review*, *Review of Economic Dynamics*, and *Journal of Development Economics*. Prior to joining academics, he was working with the Planning Commission, Government of India. In the Planning Commission, he worked extensively on the agricultural and labor market issues.

**ANDY McDONALD**  
*CSISA, The Cereal Systems initiative for south Asia*

No Biography available

**ARUN CHOCKALINGHAM**  
*Director, Office of Global Health, National Heart, Lung and Blood Institute, National Institutes of Health, USA*

Dr. Arun Chockalingam leads the National Heart, Lung and Blood Institute's Office of Global Health. Prior to this appointment, Dr. Chockalingam was the Founding Director of the Global Health Program and subsequently served in an enhanced role as the Director of Continuing Public Health Education at the Faculty of Health Sciences at the Simon Fraser University, Vancouver, Canada. He received his Ph.D. in Cardiac Cell Physiology and Pharmacology from Memorial University of Newfoundland. In addition, he has an extensive and varied career in cardiovascular epidemiology, prevention, government research administration, and global health. Dr. Chockalingam served as Senior Policy Advisor, Centre for Chronic Disease Prevention and Control, Health Canada, and Associate Director of the Institute of Circulatory and Respiratory Health in the Canadian Institutes of Health Research, and he currently serves as Secretary General of the World Hypertension League. He has published over 150 papers and 11 book chapters, served as an Editorial Board member and reviewer for numerous journals. He has been a reviewer for a number of national and international research granting agencies. He was a member of the Institute of Medicine's 2010 Report on “Promoting Cardiovascular Health in the Developing World.” He is passionate about promoting healthy lifestyles and preventing chronic non-communicable diseases throughout the world.

**ANIL K RAJVANSHI**  
*Director of the Nimbkar Agricultural Research Institute (NARI) at Phaltan, Maharashtra, India*

Dr. Anil K. Rajvanshi has been the director of the Nimbkar Agricultural Research Institute (NARI) at Phaltan, Maharashtra since 1981. NARI is a private non-profit NGO working in rural India. It is a registered trust and
does pioneering work in the areas of agriculture, renewable energy, animal husbandry and environmentally sound sustainable development. Dr. Rajvanshi is also the trustee and honorary secretary of NARI. He has concentrated his efforts for last 28 years on how to use modern science and technology to achieve environmentally sound rural development. Dr. Rajvanshi's research has therefore spanned a whole spectrum of areas affecting the lives of rural population. These have included among others cooking and lighting, small power generation, water purification and effluent treatment through the use of renewable energy in environmentally sound way.

Dr. Rajvanshi was born and raised in Lucknow, India. After obtaining B.Tech. and M.Tech. degrees in Mechanical Engineering from I.I.T. Kanpur in early 1970's, Dr. Rajvanshi went to USA to pursue a Ph.D. degree at the University of Florida in Gainesville, U.S.A. He received his Ph.D. in mechanical engineering in 1979 with specialization in solar energy and then taught at the University of Florida for two and half years before returning to India in 1981 to join NARI. He left a very lucrative career in U.S. to come and work for rural development in India. Dr. Rajvanshi established the energy and sustainable development work at NARI from scratch to make it nationally and internationally known. He has directed its activities in these areas since 1981.

**ATIQUR RAHMAN**

*Associate Professor, Department of Geography, Faculty of Natural Sciences, Jamia Millia Islamia, Delhi, India*

Dr. Atiqur Rahman teaches at the Department of Geography, Jamia Millia Islamia, Delhi, India. He specializes on urban environmental management issues, remote sensing and GIS. He is the recipient of the prestigious Young Scientist Project by the Department of Science and Technology, Govt. of India (2001-2004). He was postdoctoral fellow at UFZ-Centre for Environmental Research, Leipzig, Germany (1998). He worked as co-PI (1999-2000) Indo-German (DST-DAAD) joint research project. He was a member of the Scientific Research Team of a NASA funded UEM project (2004-2007) on Urban Ecology and Sustainability. Recently he has been awarded a major project on Modeling and Mitigation of Arsenic in Groundwater Using Remote Sensing and GIS by the Ministry of Environment and Forest, Govt. of India.

**BHARATI KULKARNI**

*Assistant Director, National Institute of Nutrition, India*

Trained in Medicine, Community Health and Public Health, Dr. Bahrati Kulkarni’s research interests include maternal and child nutrition, body composition as well as nutritional aspects of bone health. She took part in a number of studies, which investigated the bone densities of different population groups using dual energy x-ray absorptiometry. As a Principal Investigator, she spearheaded studies that explored bone density changes during pregnancy and lactation in under nourished women. These studies have highlighted the importance of nutritional status in terms of optimal body weight and muscle mass as a determinant of bone health. She is currently working on a DBT-funded study which investigates the effect of calcium rich food supplementation on the bone density changes in lactating women. She is also a co-investigator of an international collaborative study which examines the association of migration and early life nutrition supplementation with the abdominal adiposity and risk of cardiovascular diseases.

**DAVID BUCKERIDGE**

*Professor, Department of Epidemiology, Biostatics and Occupational Health, McGill University*

Dr. David Buckeridge conducts research on the informatics of public health surveillance. In particular, he is interested in the development and evaluation of methods for surveillance systems that use clinical and
administrative data. Previous and on-going work includes the development of statistical methods for outbreak detection and the use of simulation modeling to evaluate surveillance systems.

DWAIPAYAN BHARADWAJ
Scientist Institute of Geonomics and Integrative Biology, Mall Road, Delhi

Dr. Dwainpayan Bharadwaj worked as a Ph.D. student at Indian Institute of Chemical Biology (CSIR), Kolkata and received Ph.D. degree in Biochemistry from Calcutta University in 1993. He purified and characterized a novel rat submaxillary gland membrane protease with procoagulant activity. After that he worked at University of New Mexico as Research Associate. During post-doctoral training, he identified FcRIIa as the major receptor of C-Reactive Protein (>200 citations). After coming back to India, he joined CSIR-Institute of Genomics and Integrative Biology as a faculty in 2000 and initiated to form a metabolic disorder research group in the institute. His group has been extensively working on monogenetic and complex disease genomics. His group characterized molecular events in Factor IX gene causing hemophilia B and showed a paradigm shift in genetic inheritance pattern of haemophilia B, relocating it into a space that marks conceptual continuum of Mendelian to complex diseases. This work has been highlighted in a commentary in International Monitor of Hemophilia.

The current focus of his laboratory is to understand the genomic, epigenetic & proteomic basis of metabolic diseases including type 2 diabetes (T2D) and obesity in Indian population. The laboratory uses extensive bioinformatics tools to hone on the pre-diagnostic markers (both at the genetic & protein level) of the disease and its end complications. His group proposed the "Mosaic Model" as an alternate model to widely accepted model "Common variant common disease". Also, a novel in silico quantitative method has been developed in the laboratory for the disease gene prioritization based on protein-protein interactions and network analysis.

The extensive work of his laboratory on genetic dissection of T2D revealed novel susceptibility genes like FOXA2, DOK5, etc. for Indians. He also demonstrated association of elevated levels of hsCRP, a marker for inflammation, with T2D and metabolic syndrome in North Indians.

His group has established the INdian Diabetes COnsortium (INDICO) constituted of clinicians and researchers from all over India to launch a foundation and generate resources for research community for comprehensive studies of metabolic disorders in India. Recently, his group completed first genome-wide association studies for T2D and related traits in Indian population that will facilitate newer insight into the pathophysiology of T2D. He is elected Fellow of the National Academy of Sciences, India.

JOSEF SCHMIDHUBER
Head, Global Perspective Studies Unit, FAO

Dr. Josef Schmidhuber is the Head of FAO's Global Perspective Studies Unit. He is coauthor of “World agriculture: towards 2015/2030”, FAO's long-term perspective of global agriculture. He started his professional career in 1990 as a consultant with the World Food Council, worked as an Econometrician and Economist with the FAO and as a Senior Economist with the Organization for Economic Co-operation and Development (OECD). He has also assumed numerous short-term assignments with private companies, banks and commodity funds as well as important public institutions such as the The World Bank, the OECD and the European Investment Bank (EIB). Dr Schmidhuber is Member of numerous international taskforces and initiatives, notably a lead author of the chapter on agriculture of the fourth assessment report of the International Panel on Climate Change (IPCC) and member of the International Taskforce on Commodity Risk Management.

Dr. Schmidhuber holds an MSc in Agricultural Economics and a PhD in Economics from the Technical University of Munich. His work has been published in several books, peer reviewed journal articles, or as
documents of international organizations such as the OECD, the IPCC or the FAO. His main work areas include commodity market analysis and outlook, trade and trade liberalization in agriculture, global food and nutrition issues, climate change, as well as bioenergy and agriculture.

**MARK DANIEL**

*Research Chair of Social Epidemiology, University of South Australia, Australia*

Dr. Mark Daniel arrived in Adelaide in September 2007. Previously he was Associate Professor & Canada Research Chair for Population Health, in the Département de médecine sociale et préventive, Faculté de médecine, l'Université de Montréal, based with the Centre de recherche du Centre hospitalier de l'Université de Montréal. Dr. Daniel began his career in the USA as Assistant Professor of Health Behavior & Epidemiology, in School of Public Health, University of North Carolina at Chapel Hill. Dr. Daniel completed a PhD in Health Care & Epidemiology in the Faculty of Medicine, University of British Columbia. At the University of South Australia, Dr. Daniel leads the Social Epidemiology & Evaluation Research Group, a recognized research concentration within the Sansom Institute for Health Research. Dr. Daniel's expertise is in the areas of (i) chronic disease epidemiology, (ii) sociospatial epidemiology, and (iii) community-based disease prevention and intervention evaluation in field settings. His research targets an understanding of the biological pathways between social and physical environments and important population health outcomes. Research foci include on the distribution of health-related resources and opportunities, social standing, contextual stressors, allostatic load, and psychosocial and behavioural mediators of the relationships between contextual factors and outcomes including obesity, metabolic syndrome, cardiometabolic diseases, HIV/AIDS, adverse births and cause-specific mortality. Dr. Daniel has experience with population data and evaluating community interventions with at-risk populations in Australia, Canada and the USA. Dr. Daniel is currently spearheading an international collaboration of researchers using geographic information systems to study person-place interactions in Canada, the USA, France and Australia.

**MANOJ K. DAS**

*Director Projects, The INCLEN Trust International, New Delhi*

Dr. M. K. Das is a pediatric gastroenterologist graduated from AIIMS, New Delhi, India. Currently he is functioning as Director Projects and coordinating the Childhood Obesity and Demographic and Environmental Surveillance project of INCLEN in Delhi. He has been involved in the child nutrition and health research at INCLEN. He has been involved in projects on childhood obesity and NAFLD funded by ICMR. He is also involved in several other research activities related to child health and program evaluation at INCLEN. His primary research interests include childhood nutrition problems, childhood obesity, and metabolic consequence of childhood obesity. Also he has interest in public health programs, program evaluation.

**KIRANMALANAOREM**

*Research Scientist, The INCLEN Trust International, New Delhi*

Kiranmala is a Physical Anthropologist graduated from University of Delhi. She was awarded PhD in Molecular Anthropology from same university in 2009. For last 3 years she has been involved in the childhood obesity and demographic surveillance project at The INCLEN Trust International. She has been involved in proposal development, instrument development and other research activities in both qualitative and quantitative research methodology involving the anthropometry, food intake and physical activity for the childhood obesity project.

She has keen interest in Demographical Research and molecular genetics with especial reference to complex
disorders. She has several publications on demo-genetic aspects on Indian population from North-East. Her current research interest includes measurement and determinant of childhood obesity and other complex disorder in various socio-cultural setting.

**DENIS XAVIER**  
*Director, St. John Medical College and Research Institute, India*

Dr. Denis Xavier is the Coordinator of the Division of Clinical Trials, St. John’s Research Institute, Bangalore, and the Professor and Head of the Department of Pharmacology, St. John’s Medical College, Bangalore, India. From this division, along with Dr. Prem Pais, he coordinates large trials and cardiovascular epidemiological studies from about 140 centers in India. This is one of the largest networks for clinical research in the India. Denis has developed the Indian POLYCAP study (TIPS) with Salim Yusuf and a steering committee while in Canada and is the project director for the same. The recruitment for this study is almost done. Below is more information about the Polycap study.

**EMMANUEL SKOUFIAS**  
*Lead Economist PREM Poverty Reduction and Equity, World Bank, USA*

Dr. Emmanuel Skoufias is a Lead Economist at the World Bank working on poverty and distributional issues. He holds a Ph.D. in Economics from the University of Minnesota and prior to joining the Bank he was faculty at the University of Colorado in Boulder and Pennsylvania State University, a Senior Researcher at the Inter-American Development Bank, and a Senior Research Fellow at the International Food Policy Research Institute (IFPRI). Dr. Skoufias has published more than 45 papers in a variety of journals on the targeting of social programs, the impacts of the PROGRESA program in Mexico, child health and nutrition, the role of public transfers in redistributing income in Latin America, land tenancy, labor demand and supply, risk sharing, and household vulnerability. He is currently co-leading the SecureNutrition Knowledge Platform that focuses on the linkages between agriculture, food security, and nutrition. The priorities of platform include: filling knowledge gaps, new operational guidance tools, metrics, and providing a shared space for active exchange of new ideas and experiences.

**JOHN NEWMAN**  
*Lead Poverty Specialist, South Asia Food and Nutrition Security Initiative, World Bank, USA*

Dr. John Newman is currently the World Bank Country Manager for Bolivia and is stationed in La Paz, Bolivia. He holds a Ph.D. in economics from Yale University. Aside from his operational work, he has published on a variety of topics related to economic development, with an emphasis on program evaluation, results management and the social sectors

**KALLUR N. SARASWARTHY**  
*Assistant Professor, Department of Anthropology, University of Delhi*

Dr. Kallur N. Saraswathy has a M.Sc., Masters of Philosophy and Ph.D. from Department of Anthropology, University of Delhi. As part of post-doctoral fellow programme, she worked on positional cloning of narcolepsy genes from Albert Einstein College of Medicine, New York. She is currently working as a Senior Assistant Professor in Department of Anthropology teaching undergraduate and post graduate students and guiding students in Anthropology. She has her expertise in the field of Human population genetics and has conducted seven research projects till now. Her main area of research deals in unwinding the questions surrounding migratory history patterns of Indian population groups especially among tribal communities of India. She has also widened her academic excellence in exploring human molecular techniques in detection of
genetic polymorphisms among candidate genes contributing to the causation of various complex disorders mainly dealing with CHDs and pregnancy complications. She has numerous research publications both national and international in areas of genome diversity studies and complex disorders.

**MANJU MEHTA**  
*Professor, Clinical Psychology, Department of Psychiatry, All India Institute of Medical Sciences, India*

Dr. Manju Mehta research experience is in the field of clinical psychology started from 1973 with dissertation in M.Phil, later Ph.D in 1978. After joining services at All India Institute of Medical Sciences in 1976 I have been engaged in research activities. She have carried out 10 funded Research projects, guided 10 Ph.D theses and 35 M.D. theses. The funded projects were in the area of training mothers of mentally retarded children, identification of mental health problems in school children, training teachers to identify common mental health problems. Major contribution has been in the area of development of assessment of neuropsychological assessment and psychological intervention. Some of the important research areas are development of psychological tools, development of intervention modules like cognitive behavior therapy, stress management, pain management and family therapy. She has developed assessment battery for specific learning disability. A training guide for parents and teachers has been published. In neuropsychological assessment important research has been done in cognitive impairment in patients with hypothyroidism, executive functions in children with ADHD, children with specific learning disabilities sleep problems, obesity, psychosis, drug addiction and chronic medical illness.

She has also been co-guide in research from different medical disciplines like neurology, endocrinology, ENT, medicine, pediatrics, dental, surgery and dermatology. Her Research is mainly in child & adolescent mental in ADHD. She has written two books, contributed 38 chapters in various books related to psychiatry and mental health. She has been course writer for Indira Gandhi Open University, New Delhi for M.Sc. in Family Counselling and Therapy. She have 160 papers published, have presented 300 papers in various conferences. She has organized 3 National Conferences. She has been regularly conducting workshops on stress management for students of All India Institute of Medical Sciences. She has been invited several times by National Judiciary Academy to conduct workshops for senior judges. She also conduct workshop for other clinical departments at AIIMS for development of interviewing skills and counseling. She is a Member of Academic Councils of several reputed universities in India. Currently she is President of Indian Association of Clinical Psychology, immediate past President of Indian Association of Child & Adolescent Mental Health. She was invited as an examiner to reputed universities and has received several awards such as Govindaswamy Memorial Gold Medal and Kang Oration Award.

**NIKHIL TANDON**  
*Professor Department of Endocrinology and Metabolism, AIIMS, Delhi, India*

Dr. Nikhil Tandon is an alumnus of the All India Institute of Medical Sciences, where he was declared the Best Graduate of his batch. After MD in Medicine from AIIMS, he was awarded the prestigious Cambridge Nehru Fellowship, which enabled him to be the first Indian clinician to receive a Ph.D. from the University of Cambridge, UK. His dissertation was on immunoregulatory mechanisms in autoimmune thyroid disease. Since his return from the UK he has been a Faculty member in the Department of Endocrinology at AIIMS, and was selected as Professor in 2005.

His major research interests have been immunogenetic analysis of disease associations of autoimmune endocrinopathies in India; evaluation of the post-salt iodization thyroid disease profile in the country and assessment of the prevalence of hypovitaminosis D and its influence on the bone health of our community. This has resulted in 65 research papers which have received nearly 650 citations. These research contributions
have received recognition from the National Academy of Medical Sciences [Membership], Indian Academy of Science [Associateship] and the National Academy of Sciences, India [Fellowship]. Dr Tandon is an Executive Member of the Endocrine Society of India and the Secretary of the Indian Society for Bone Mineral Research, while within AIIMS he has served as the Sub-Dean (Academic) and is currently the Member Secretary of the Ethics Committee. His expertise has also been used by the Government of India in the role of technical expert for various task force programmes and has been a Scientific Advisor to the ICMR for creating the National Guidelines for Management of Type 2 diabetes and planning a Registry for Diabetes of the Young.

**PRAKASH SHETTY**

**Professor of Public Health Nutrition, Institute of Human Nutrition, University of Southampton UK**

Dr. Prakash Shetty is currently Professor of Public Health Nutrition at the Institute of Human Nutrition, University of Southampton, UK and Editor in Chief of the European Journal of Clinical Nutrition. Until 2005 he served as Chief, Nutrition Planning, Assessment & Evaluation Service, in the Food & Nutrition Division of the Food & Agriculture Organisation of the UN (FAO) in Rome, Italy. Before joining the FAO he was Professor of Human Nutrition at the London School of Hygiene & Tropical Medicine (London University). Since his appointment in 1993 to the Chair of Human Nutrition at London University he has been Head of the Public Health Nutrition Unit, Department of Epidemiology & Population Health at the London School. He graduated from Madras University with an MBBS degree (1968) and an MD (1972), both from the Christian Medical College, Vellore, India. He was awarded his PhD in Medicine from Cambridge University, UK while working at the MRC Dunn Nutrition Laboratory in Cambridge and was elected Fellow of the Faculty of Public Health (FFPH) and of the Royal College of Physicians of London (FRCP). Prior to moving to the UK, he was Professor and Chairman of the Department of Physiology at St. Johns Medical College in Bangalore from 1980 to 1993 and established a Nutrition Research Centre of which he was the Director with research interests in energy and protein metabolism.

He has over 150 peer reviewed publications, chapters in textbooks and has edited several books and monographs in nutrition. He has served on several Expert Committees, both nationally and on International Committees and Consultations of the FAO, WHO, UNU and IAEA as well as on scientific taskforces and advisory committees of funding agencies and charities. At FAO he has been the principal focal point and led the FAO Secretariat for the FAO/WHO/UNU Joint Expert Consultations on Energy in human nutrition; and Protein & Amino acids in human nutrition; and more recently the WHO/FAO Joint Expert Consultation on Diet, nutrition and the prevention of non-communicable diseases. He has been a member of the International Dietary Energy Consultancy group (IDECG) and also serves as a member of the International Reference Group for WHO’s global strategy on diet, physical activity and health and Chaired the IUNS Taskforce on Evidence Based Nutrition. He has served and continues to serve on the Editorial Boards of several international journals in nutrition like Public Health Nutrition, and Journal of Food Science & Nutrition and was until 2005 the Deputy Editor of the British Journal of Nutrition. He currently serves as a Governor of the British Nutrition Foundation and on the Scientific Council of the Nestle Foundation, Lausanne, Switzerland.

**PREET RUSTAGI**

**Professor and Joint Director, Institute for Human Development, New Delhi, India**

Dr. Preet Rustagi has a doctorate in economics from Jawaharlal Nehru University (JNU). She is currently Professor and Joint Director at the Institute for Human Development (IHD), New Delhi. She has been working on labour, development and gender issues for the past twelve years. Her research interests include work, employment and institutions; gender development indicators; crimes against women; women's
equality and empowerment; urban poverty; children's education and work; child well-being and deprivations; and food security. She has been pursuing intensive district level analysis for the country to examine gender inequalities and discrimination against women and has also worked on the South Asian region.

She has published several articles on these subjects in various national and international journals and books. An edited volume on Concerns, Conflicts and Cohesions: Universalization of Elementary Education in India was published from Oxford University Press, New Delhi. She is an associate editor of the Indian Journal of Human Development, a bi-annual publication of the IHD and also an associate editor of the Indian Journal of Labour Economics, a quarterly publication of the Indian Society of Labour Economics.

RAVINDER M. PANDEY
Professor and Head, Department of Biostatics, All Indian Institute of Medical Sciences, New Delhi, India

Dr. R. M. Pandey is currently working as Professor and Head of Department of Biostatistics at AIIMS, New Delhi. He has academic background in statistics followed by training in population studies and Ph.D. in statistical demography. He has worked in Indian Council of Medical Research (ICMR) and National Institute of Immunology (NII) as the lead biostatistician. He was awarded Rock Feller Foundation Fellowship for post-doctoral training in biostatistics and clinical epidemiology at the School of Public Health, University of North Carolina at Chapel Hills, USA. His areas of research include statistical aspects of both observational and Experimental studies, with particular interest in non-communicable diseases. He is the Regional Coordinator of SEARO-WHO studies on non-communicable diseases. He has more than 200 research publications in peer reviewed medical journals. He has been Principal/Co-Principal Investigator in more than twenty funded research projects. For his contributions in the field of medical statistics, he was awarded Fellow of Royal Statistical Society (FRSS), Fellow Society of Medical Statistics (FSMS).

R.S. SHARMA
Director General and Mission Director, Unique Identification Authority of India (UIDAI)

Mr. R.S. Sharma has been appointed as the first Director General of the UIDAI. He is an Additional Secretary Rank Officer belonging to the 1978 batch of the Indian Administrative Service. He belongs to the Jharkhand Cadre where he has implemented a number of e-Governance projects as Principal Secretary of Information Department. Mr. R S Sharma is currently working as Director General & Mission Director (DG&MD) of the Unique Identification Authority of India (UIDAI) and is responsible for implementing a very ambitious and challenging project undertaken by the Government of India for providing unique Identification to all its Residents.

Prior to this assignment Mr. Sharma worked with the Government of Jharkhand as Principal Secretary of the Departments of Science and Technology and Drinking Water and Sanitation. His previous assignments include Principal Secretary of the Departments of Information Technology, Rural Development and Human Resources Development. As Principal Secretary of the IT Department, Mr. Sharma was responsible for formulation of State policies in the IT and e-Governance areas. He also over-saw the implementation of various e-Governance projects in all the Departments of the State Government. Mr. Sharma has held important positions both in the Government of India and State Governments in the past. He has worked in the sectors like Finance, Transport, Treasury, Provident Fund and Water Resources and has been deeply involved in the administrative reforms and leveraging IT to simplify the administrative processes. During his tenure in GOI, he has worked in the Department of Economic Affairs and has dealt with bilateral and multilateral development agencies like World Bank, ADB, MIGA and GEF. He was also in-charge of Financing of Infrastructure projects like Highways, Ports, Airports and telecom. Mr. Sharma's contributions to the IT and e-Governance have been widely recognized. He has been responsible for implementing a number of projects.
relating to ICT Infrastructure, Process Re-engineering and Service Delivery in Public Private Partnership (PPP) mode. Mr. Sharma holds Master's Degree in Mathematics from IIT, Kanpur (India) and a Masters in Computer Science from the University of California (USA).

SANJAY ZODPEY
Director, Public Health Education, Public Health Foundation of India, Director, Indian Institute of Public Health India

Dr. Sanjay P. Zodpey is a Medical Scientist, Public Health Specialist, and Epidemiologist. Dr. Zodpey completed all his medical education - MBBS, MD and PhD (Preventive and Social Medicine) from Government Medical College, Nagpur, Maharashtra, India. He has also acquired post-graduate qualifications in Sociology, Public Administration and Economics from Nagpur University. He has been awarded Fellowship of Indian Public Health Association (IPHA) and Indian Association of Preventive and Social Medicine (IAPSM). He has been active member of INCLEN network for last 16 years and participated in various INCLEN initiatives including IndiaCLEN Program Evaluation Network.

Dr. Zodpey currently works as Director, Public Health Education, Public Health Foundation of India (PHFI), New Delhi and also holds a leadership role as Director at the Indian Institute of Public Health, Delhi and Indian Institute of Public Health, Bhubaneswar. He also served as Director of Indian Institute of Public Health, Gandhinagar. He earlier worked as Professor of Preventive and Social Medicine and Vice Dean at Government Medical College, Nagpur.

Dr. Zodpey has been involved in several major international and national research initiatives that have contributed significantly to the field of public health. He has vast experience of research collaboration and partnership with national and international agencies, development partners, governments and contract research organizations. He has been an investigator for more than 40 research projects supported by various donor agencies and development partners. He has to his credit over 145 scientific publications in reputed national and international journals. He has been faculty for over 150 workshops dealing with various aspects of research methods, epidemiology and public health. He is a member of various technical task forces and academic committees constituted by Universities and State and Central Government.

SPENCER MOORE
Associate Professor, Social Epidemiology, Queen's University, Canada

Dr. Spencer Moore, an Assistant Professor in the School of Kinesiology and Health Studies at Queen's University and CIHR Institute of Aging New Investigator, is a social epidemiologist with expertise in social networks, social capital, and socioeconomic inequalities in health. He is PI of a CIHR-funded study examining at multiple levels the differential influence of Montreal neighborhood environments on the health of older adults. He is on the Advisory Council of the Kingston Coalition for Active Transportation and member of the Brain-to-Society research team. Research interests include Social Determinants of Health, Social Epidemiology, Health Promotion, and Community Health.

SAPNA SURENDRAN
Research and Evaluation Coordinator at Chid In Need Institute, India

No Biography available
CLOSING PLENARY

ABHIJIT SEN
Member, Planning Commission, Government of India

Prof. Abhijit Sen has a Ph.D. in Economics from the University of Cambridge. He has joined Planning Commission on leave as Professor of Economics in Jawaharlal Nehru University. He earlier held teaching posts at the Universities of Sussex, Oxford and Cambridge and is currently on the Senate/Executive Committees of University of Delhi, IIT(Delhi) and National Centre for Agricultural Policy. Prof. Sen has also been Adviser/Consultant with International organisations, such as the United Nations Development Programme, New York; International Labour Organisation, Geneva; Food and Agricultural Organisation of the United Nations, Rome; OECD Development Centre, Paris; the UN University World Institute of Development Research, Helsinki; International Fund for Agricultural Development, Rome; Asian Development Bank, Manila. Prof. Sen has authored /Co-authored more than 30 papers in the areas of Agriculture, Employment, Economic Reforms, Poverty.

AMITAVA CHATTOPADHYAY
L'Oreal Chaired Professor of Marketing, INSEAD, Singapore

Amitava Chattopadhyay is an expert on branding. His research has focused primarily on branding, communications, creativity, and new product development and marketing. Professor Chattopadhyay's research has appeared in several journals including the Journal of Marketing Research, Journal of Consumer Research, Journal of Marketing, Marketing Science, Management Science and Long Range Planning. He is on the editorial review boards of the Journal of Consumer Psychology, Journal of the Academy of Marketing Science, Journal of International Business Studies, Social Science Research Network, International Journal of Internet Marketing and Advertising, and the International Journal of Marketing Education. He has also been a member of the Advisory Board of the Association for Consumer Research. For his research, he has been the recipient of the Robert Ferber Award. Professor Chattopadhyay has developed and taught courses on branding, marketing strategy, communication strategy, consumer behaviour, marketing in emerging economies and international marketing for MBA and PhD students. He has taught in executive programmes in Europe, The Americas, Asia, Australia and Africa. He is on the board of directors/advisory boards of several companies and a consultant to several multinational firms. Professor Chattopadhyay holds a PhD from the University of Florida, a PGDM from the Indian Institute of Management, Ahmedabad, and a BSc (Honours) degree from Jadavpur University, India.

KUNAL BAGCHI
Regional Adviser, Nutrition and Food safety, WHO Regional Office for South-East Asia

No Biography available

M.K.BHAN
Secretary, Department of Biotechnology, Government of India

Dr. M.K. Bhan is M.B.B.S, M.D. Pediatrics, D. Sc. (Honorary), Fellow, Indian National Science Academy (FNA), Fellow, Academy of Sciences (F.ASc) and Fellow, Academy of Medical Sciences (F.A.M.S.). He is recipient of numerous awards: "Shanti Swarup Bhatnagar Award", 1990, for medical sciences, the highest Scientific Award below 45 years of age in Indian Sciences, National Ranbaxy Award, 1990, for Medical Sciences, Achar Gold Medal of the Indian Academy of Pediatrics, 1984, for the best original research, S.S.
Mishra Award of the National Academy of Medical Sciences, 1986, for the best unpublished research, Biotech Product and Process Development and Commercialization Award, 2003 and Pollins Foundation Research Award for US 100,000 (Year 2003). Dr. Bhan is involved with policy formulation role as: Chairman, WHO Task Force on child health research, Member, Board of Directors, International Vaccine Institute, Korea, Chairman, National Task Force on micronutrient policy, Member, Technical Advisory Group, World Health Organization, Member, NIH Task Force on Rotavirus Vaccines, Chairman, Maternal and Child Health Research, Indian Council of Medical Research, Chairman, Scientific Advisory Committee, National Institute of Nutrition, India, Member of the Jury for nearly all major national science awards in India such as Shanti Swarup Bhatnagar Award, Birla Science Award and Ranbaxy National Award, Member, Science and Engineering Research Council, Department of Science and Technology, India, Member, Medical Biotechnology Board, Department of Biotechnology, Member, Technical Advisory Group, Child and Adolescent Health Division, World Health Organization, Geneva, Chairman, National Adaptation Committee, Integrated Management of Child Health, India, Member, Scientific Advisory Committee, Indian Council of Medical Research, Advisor to the Drug Regulatory Authority of India, Member, Scientific Advisory Committee, National Institute of Enteric Diseases and Cholera, India, Member, Program Advisory Committee on Medical Biology, Department of Science and Technology, India, Member, Immunization Advisory Board, Government of India. Member, Scientific Advisory Committee, Tuberculosis Research Centre, India, Member, Scientific Advisory Committee, National Institute of Epidemiology, India, Chairman, Committee for Preparation of Strategy for Promotion of neonatal health in South East Asia, SEARO.

MONTEK SINGH AHLUWALIA

Deputy Chairman, Planning Commission, Government of India

Shri Montek Singh Ahluwalia is currently the Deputy Chairman of the Planning Commission for India. He has been a key figure in India’s economic reforms from the mid 1980s onwards. For his outstanding contribution to economic policy and public service, he was conferred the prestigious ‘Padma Vibhushan’ by President of India in 2011. After completion of studies, he joined the World Bank in 1968 as a Young Professional and then held various positions including Chief of the Income Distribution Division.

He joined the Government of India in 1979 as Economic Adviser in the Ministry of Finance after which he held a series of positions including Special Secretary to the Prime Minister; Commerce Secretary; Secretary in the Department of Economic Affairs; Finance Secretary in the Ministry of Finance; Member of the Planning Commission and Member of the Economic Advisory Council to the Prime Minister. In 2001, he was appointed as the first Director of the newly created Independent Evaluation Office of the International Monetary Fund. He resigned the position in 2004 to take up the position of Deputy Chairman of the Planning Commission which he holds at present.

Shri Ahluwalia has written on various aspects of development economics, including Indian economic policy and his articles have been published in a number of prominent Indian and international journals and books. He co-authored ‘Re-distribution with Growth: An Approach to Policy’, published in 1975. He also wrote ‘Reforming the Global Financial Architecture’, which was published in 2004 as Economic Paper No. 41 by the Commonwealth Secretariat, London.

Shri Ahluwalia has received several honorary degrees including an honorary doctorate in Civil Law from the University of Oxford. He is an honorary fellow of Magdalen College, Oxford and a Member of the Board of Directors of the Global Green Growth Institute, South Korea.
**PAUL DONATO**  
*Executive Vice President and Chief Research Officer, The Nielsen Company, USA*

Paul Donato is Executive Vice President and Chief Research Officer for Nielsen. Appointed to this position in April 2007, Paul is responsible for integrating research functions within Nielsen, overseeing the development and evaluation of research, and serving as Nielsen's research liaison to clients and industry associations. Partnering with product leaders and client service leaders, Paul is responsible for the development of a global network of Nielsen Measurement Scientists and exploring methods to measure media audiences and consumer behavior in the changing, converging media environment.

Paul joined the company as Senior Vice President and Chief Research Officer of Nielsen Media Research in 2000. Prior to joining Nielsen, Paul served as President and Chief Executive Officer of Kantar Media Research beginning in 1998. From 1993 to 1998, he was Senior Vice President in charge of media at Audits & Surveys Worldwide. Before that, he served as President of the Syndicated Group of Simmons Market Research Bureau for four years and held positions in research at RD Percy & Co. and Arbitron Ratings Company. Paul has also served as a consultant to McGraw-Hill and Whittle Communications. His areas of expertise include research development for television, print and the Internet. Paul has served on the boards of several television ratings services in Latin America and globally. He is a past Chairman of the U.S. Advertising Research Foundation (ARF). He is also the Director for Research, on the North American Board of AfriAfya, a Kenyan-based community health agency. Paul received a BA in Psychology and Sociology as well as an MA in Applied Sociology from the State University of New York (SUNY) at Stony Brook.

**POONAM KHETRAPAL SINGH**  
*WHO Deputy Regional Director for South Asia*

Dr. Poonam Khetrapal Singh is the WHO Deputy Regional Director for South-East Asia for the last eleven years. She has overall responsibility for managing all technical departments in WHO South-East Asia Region, and supervises all financial and human resources in this regard. Before joining WHO SEARO, Dr Singh was Executive Director in WHO's Headquarters in Geneva and a member of the Director General's Cabinet.

Dr. Poonam Singh has held several important portfolios in India including Secretary, Health, Family Welfare and Medical Education; Chairperson, Health Systems Development Corporation; Secretary, Finance; Managing Director, Punjab Financial Corporation among others in the Government of Punjab, India. She has also worked as a Specialist in Health, Nutrition and Population in the World Bank. Dr Poonam Khetrapal Singh has three masters degrees including one in Health Management and another in Population Studies. Dr Singh has a Ph.D. in Public Health and is a Fellow of the Royal College of Physicians, Edinburgh.
SECRETARIAT: THE INCLEN TRUST INTERNATIONAL

FATHAYYA SIDIQUI

Research Assistant, The INCLEN Trust International, New Delhi

Ms. Fathayya Siddiqui received her Master's in Economics from Jamia Millia Islamia (Central University) New Delhi. She then worked at the Centre for Budget and Governance Accountability in the Education sector, following which she worked in the Health sector. Her research interests lie in child and maternal health. She joined The INCLEN Trust International in 2011 as a Research Assistant and her current efforts are focused on an ICMR project with The INCLEN Trust called the “Childhood Obesity in India: A multi Center Study on its Measurements and Determinants ICMR Taskforce Study”.

GULSHAN KUMAR AHUJA

Manager HR & Admin, The INCLEN Trust International, New Delhi

Mr. Gulshan Ahuja received his Bachelors in Health Sciences from Ruhilkhand University, Bareilly, Uttar Pradesh. He worked with Novartis India Ltd. for 24 years in medical sales as an Area Manager and brought his expertise in the field of administration and Human Resources to The INCLEN Trust International when he joined as a senior Administration and Human Resource officer in 2010.

NEHA GUPTA

PhD Scholar, The INCLEN Trust International

Ms. Neha Gupta received her MSc in Public Health Nutrition, from Delhi University following which she worked with the UN's World Food Program, as a focal point for the hunger and malnutrition cluster. She went on to work with the Centre for Chronic Disease control before starting her PhD on Nutrition and health, from Delhi University. While pursuing her PhD, she is a scholar at The INCLEN Trust International with a focus on the effects of environmental factors on body composition and cardio-metabolic risk factors. Her research efforts are concentrated on the “Brain-to-Society Diagnostic” for prevention of childhood obesity.
MCGILL WORLD PLATFORM AND THE INCLEN TRUST INTERNATIONAL ARE GRATEFUL FOR THE FINANCIAL AND/OR STRATEGIC SUPPORT OF THE FOLLOWING ORGANIZATIONS

BILL & MELINDA GATES foundation

Southeast Asia Regional Office
WHO

Knowledge Systems for Sustainability Collaborative, University of Wisconsin