Staffing of management Team and **Flagship Projects**

CRP Director's Office		**%**
Director	Peter Carberry (ICRISAT, India)*	20

Program Management Unit		
Program Manager	To be recruited	100
Capacity Development	Thomas Falk (ICRISAT, India)*	40
Monitoring, Evaluation and Learning	Enrico Bonaiuti (ICARDA, Amman)*	50
Gender & Youth	Esther Mwihaki Njuguna-Mungai (ICRISAT, Nairobi)*	40

Flagship Program 1 (FP1): Priority Setting & Impact Acceleration		
Leader	Arega Alene (IITA, Malawi)*	40
CoA Team Members	Swamikannu Nedumaran (ICRISAT, India)* Sika Gbegbelegbe (IITA, Malawi)* Murali Krishna Gumma (ICRISAT, India)* Keith Wiebe (CRP-PIM, Washington DC)* Kai Mausch (ICRISAT, Kenya)* Esther Mwihaki Njuguna-Mungai (ICRISAT, Nairobi)* Karl Hughes (ICRAF, Kenya)* Kizito Mazvimavi (ICRISAT, Zimbabwe)*	

Flagship Program 2 (FP2): Transforming Agrifood Systems		
Leader	Andy Hall (CSIRO, Australia)*	40
CoA Team Members	Kiran K Sharma (ICRISAT, India)* Kanar Dizyee (CSIRO, Australia)* Michael Hauser (ICRISAT, Nairobi)* Christopher Downs (CSIRO, Australia)* Geoffrey M Heinrich (CRS, Zambia)* Saikat Datta Mazumdar (ICRISAT, India)*	

Flagship Program 3 (FP3): Integrated Farm and Household Management		
Leader	Jules Bayala (ICRAF, Mali)*	40
CoA Team Members	Stephen Kyei-Boahen (IITA, Mozambique)* Manuele Tamo (IITA, Benin)* Quang Bao Le (ICARDA, Amman)* Shalander Kumar (ICRISAT, India)* Anthony Whitbread (ICRISAT, India)* Ingrid Oborn (ICRAF-SLU, Indonesia)* Göran Bergkvist (SLU, Sweden)*	

Flagship Program 4 (FP4): Variety & Hybrid Development		
Leader	Patrick Okori (ICRISAT, Malawi)*	40
CoA Team Members	Vincent Vadez (IRD, France)* Michel Edmond Ghanem (ICARDA, Morocco)* Pooran M Gaur (ICRISAT, India)* Shiv Kumar Agrawal (ICARDA, Morocco)* Godfree Chigeza (IITA, Zambia)* SK Gupta (ICRISAT, India)* Chris O. Ojiewo (ICRISAT, Kenya)* Alpha Kamara (IITA, Nigeria)* Esther Mwihaki Njuguna-Mungai (ICRISAT, Nairobi)* Louise Sperling (CRS, USA)* Ronnie Vernooy (Bioversity, Italy) Zewdie Bishaw (ICARDA, Addis Ababa)	

Flagship Program 5 (FP5): Pre-Breeding & Trait Discovery		
Leader	Rajeev Gupta (ICRISAT, India)*	40
CoA Team Members	Ousmane Boukar (IITA, Kano)* Aladdin Hamwieh (ICARDA, Cairo) Enghwa NG (ICRISAT, India)* HD Upadhyaya (ICRISAT, India)* Kiran K Sharma (ICRISAT, India)* Pooja Bhatnagar (ICRISAT, India)* Rajeev Varshney (ICRISAT, India)* Shivali Sharma (ICRISAT, India)* Jean Francois Rami (CIRAD, France)* Laurent Laplaze (LAPSE, Senegal)*	

NOTE: * CV's Available

CRP Director's Office

PETER S CARBERRY
CRP Director

NAME **Affiliation**	**PETER S CARBERRY** **ICRISAT, India**
Education (Degree, Year, Institution)	**Ph.D**. in Agriculture, 1987, University of Sydney, New South Wales, Australia **B.Sc. Agri**. II(I) Hons, 1982, University of Sydney, New South Wales, Australia
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Deputy Director General - Research**, ICRISAT India 2015-present **Partnership Leader,** CSIRO-DFAT Africa Food Security Initiative 2013-2014 **Theme Leader**, Partnering for International Food and Fibre Security, CSIRO Sustainable Agriculture Flagship 2009 – 2014 **Deputy Director**, Agri-Industry & International Relationships, CSIRO Sustainable Agriculture Flagship 2009 - 2013
Key recent publications relevant to the FP/CRP	Peter S Carberry – Researcher ID: B-9768-2008 Google Scholar citations: **6365**; h-index: **40** • **Carberry PS**, Hochman Z, Hunt JR, Dalgliesh NP, McCown RL, Whish JPM, Robertson MJ, Foale MA, Poulton PL, van Rees H (2009) Re-inventing model-based decision support with Australian dryland farmers. 3. Relevance of APSIM to commercial crops. Crop & Pasture Science 60, 1044–1056. • **Carberry P. S**., Bruce, S. E. Walcott J. J. and Keating B. A., 2010. Innovation and productivity in dryland agriculture: a return-risk analysis for Australia. Journal of Agricultural Science 149:77-89 • **Carberry, Peter S.,** Wei-li Liang, Stephen Twomlow, Dean P. Holzworth, John P. Dimes, Tim McClelland, Neil I. Huth, Fu Chen, Zvi Hochman, and Brian A. Keating. 2013. Scope for improved eco-efficiency varies among diverse cropping systems. Proceedings of the National Academy of Sciences 110:8381-8386. • Foran T, Butler, JRA, Williams LJ, Wanjura WJ, Hall A, Carter L, **Carberry PS** 2014. Taking complexity in food systems seriously: An interdisciplinary analysis. World Development 61:85-101. • **Carberry, Peter**; Geng, Shu; Liang Wei-li, 2015. Systems research helping to meet the needs and managing the trade-offs of a changing world. Journal of Integrative Agriculture 14: 1475-1477.
Key relevant programmes/projects managed	• Associate Editor, Food Security journal 2014 - present • Editorial Board, Journal of Integrative Agriculture 2013 - present • Director, Australian Institute of Agricultural Science and Technology, 2006 - 2010 • President, Australian Society of Agronomy, 2003-2004; Vice-President, 2002 • Board Member, Conservation Farmers Inc. 2004-2008 • Research Fellow, Wageningen University and Research, 2007 • Board Member, International Crop Science Congress 2004

	• President, Southern Queensland Branch, Australian Institute of Agricultural Science and Technology, 1997-99; Committee member, 1992-2002; 2006-2011 • Representative, Darling Downs Research Advisory Committee, 1997-2007

Program Management Unit

THOMAS FALK
Capacity Development

NAME **Affiliation**	**THOMAS FALK** **ICRISAT, India**
Education **(Degree, Year, Institution)**	**Ph.D.**, 2007, University of Marburg **Diploma in Economics**, 1998, University of Marburg
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Ecosystem Services Specialist** , ICRISAT, 2015 to Present **Coordination of stakeholder engagement and research on natural resource governance** in the "The Future Okavango" project, 2010 - 2015
Key recent publications relevant to the FP/CRP	• Javaid, A., & **Falk, T**. (2015). Incorporating local institutions in irrigation experiments: evidence from rural communities in Pakistan. Ecology and Society, 20(2), 28. • Hinkel, J., M. E. Cox, M. Schlüter, C. R. Binder and **T. Falk**. (2015). A diagnostic procedure for applying the social-ecological systems framework in diverse cases. Ecology and Society 20 (1): 32. • Lohmann, D., **Falk, T.**, Geissler, K., Blaum, N., Jeltsch, F. (2014). Determinants of semi-arid rangeland management in a land reform setting in Namibia, Journal of Arid Environments, Vol. 100–101: 23–30. • **Falk, T**., Vollan, B., & Kirk, M. (2012). Analysis of material, social, and moral governance in natural resource management in southern Namibia. International Journal of The Commons, 6(2): 271–301. • **Falk, T**., Bock B., and Kirk, M. (2009). Polycentrism and poverty: Experiences of rural water supply reform in Namibia. Water Alternatives 2 (1).
Key relevant programmes/projects managed	Southern African Science Service Centre for Climate Change and Adaptive Land Use, member of scientific consortium

ENRICO BONAIUTI
Monitoring, Evaluation and Learning Coordinator

NAME **Affiliation**	**ENRICO BONAIUTI** **ICARDA, Amman**
Education (Degree, Year, Institution)	**M.Sc.** in Marketing and Economics, 2006, "Luigi Bocconi" University, Milan, Italy **B.Sc.Agr**. and **M.Sc.Agr.** II(I) Hons, 2004, University of Florence, Italy
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Monitoring, Evaluation and Learning Head**, ICARDA Amman, 2017-Present **Research Program Coordinator**, ICARDA Amman, 2014-2016 **Monitoring & Evaluation Specialist,** ICARDA Iraq, 2013-2014 **Agriculture & Water Expert**, Med-Ingegneria S.r.l. Iraq, 2011-2013
Key recent publications relevant to the FP/CRP	• **Enrico Bonaiuti**, Claudio Proietti, Bastian Mueller, Richard Thomas, Jalal Omari, Moayad Al-Najdawi, Leigh Ann Winowiecki, Quang Bao Le, Patricia Victoria Bravo Sosa, Valerio Graziano, Percy Cabello, Belal Mazlom, Mohammad Opada Al Bosh, Bashar Ayyash, Mustafa Kaatuah, Mohammad Salem, Omar Alsoudani, Mohammad Wadi, Satish Nagaraji. (15/5/2017). A Web-based Platform for Enhancing Monitoring, Evaluation and Learning (MEL) in Research for Development - Toward Achieving Development Outcomes. ▪ https://mel.cgiar.org/xmlui/handle/20.500.11766/7349 • **Enrico Bonaiuti**, & Richard Thomas. (15/3/2015). Dryland Systems Risk Management Plan. Amman, Jordan: CRP on Dryland Systems. ▪ https://mel.cgiar.org/xmlui/handle/20.500.11766/3349 • Jennie Dey De Pryck, Tana Lala-Pritchard, Richard Thomas, **Enrico Bonaiuti**, Quang Bao Le, Karin Reinprecht. (15/3/2015). Gender Strategy. Amman, Jordan: CRP on Dryland Systems. https://mel.cgiar.org/xmlui/handle/20.500.11766/3219 • **Enrico Bonaiuti**, Richard Thomas. (31/12/2015). Guidelines for mapping Bilateral/W3 Projects. Amman, Jordan: CRP on Dryland Systems (DS). ▪ https://mel.cgiar.org/xmlui/handle/20.500.11766/4694 • Richard Thomas, **Enrico Bonaiuti**. (1/11/2014). Invitation for Proposal: CRP-Commissioned External Evaluation - CGIAR Research Program on Dryland Systems. Amman, Jordan: CRP on Dryland Systems (DS). ▪ https://mel.cgiar.org/xmlui/handle/20.500.11766/3296 • Aya Mousa, Bashar Ayyash, Mehtab Khan, Jalal Omari, Chandrashekhar Biradar, Patricia Victoria Bravo Sosa, Claudio Proietti, Percy Cabello, Moayad Al-Najdawi, Belal Mazlom, **Enrico Bonaiuti**, Valerio Graziano. (16/7/2016). Monitoring, Evaluation and Learning Platform: System Design & Architecture. Amman, Jordan: CRP on Dryland Systems. ▪ https://mel.cgiar.org/xmlui/handle/20.500.11766/4960
Key relevant programmes/projects managed	• Manager for the GIZ Project " Impact evaluation of SLM options to achieve land degradation neutrality", 2016-Present • Monitoring and Evaluation Officer for the IFAD Project "Restoration of degraded land for food security and poverty reduction in East Africa and the Sahel: taking successes in land restoration to scale", 2015-Present

- Monitoring, Evaluation and Learning Platform Coordinator for CRP on Dryland Systems, Grain Legumes, Dryland Cereals, Roots Tubers and Bananas and ICARDA, 2015-2016.
- Program Coordinator for CRP on Dryland Systems, 2014-2016

ESTHER MWIHAKI NJUGUNA-MUNGAI
Gender & Youth
Team Member, FP1: Priority Setting & Impact Acceleration & FP4: Variety & Hybrid Development

NAME **Affiliation**	**ESTHER MWIHAKI NJUGUNA-MUNGAI** **ICRISAT, Nairobi**
Education (Degree, Year, Institution)	**Ph.D.** in Agriculture Economics, 2009, University of Nairobi **M.Sc.** in Agriculture and Development Economics, 2001, Wageningen University and Research Center **B.Sc.** in Agriculture and Home Economics, 1994, Egerton University
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Scientist, Gender Research** - ICRISAT, East and Southern Africa Regional Program, May 2017 to date **Scientist, Gender Research** - CGIAR Research Program on Grain Legumes ICRISAT, 2014 to April 2017 **Research Associate -** KARI McGill Food Security Research Project, 2011 – 2014 **M&E and Gender Support Specialist -** Kenya agricultural Arid and Semi-Arid Lands (KASAL) projects, 2010 – 2011
Key recent publications relevant to the FP/CRP	Esther Njuguna-Mungai • Singbo, A., Yila, J., **Njuguna-Mungai, E.,** Sissoko, K., Ramadjita, T., 2017: Gender agricultural productivity gap and its decomposition in Mali: an empirical analysis (in preparation) • Lone Badstue, Marlene Elias, Cathy Farnworth, Diana Lopez, Ann Rietveld, **Esther Njuguna**, 2017. Gender norms, agency and innovation – Lessons from Local Men and Women Innovators (in preparation) • **Njuguna, E.M.,** Brownhill L., Kihoro E. Muhammad L., Hickey G.M., 2016. Gendered technology adoption and household food security in semi-arid Eastern Kenya. In Transforming gender and food security in the global South. Edited by Jemimah Njuki, John R. Parkins and Amy Kaler, Routledge, 2016. • **Njuguna, E.M**., Liani, M., Beyenne, M., Ojiewo, C.O. 2016. Exploration of cultural norms and practices influencing the women's participation in chickpea participatory varietal selection trainings activities: The case study of Ada'a and Ensaro Districts, Ethiopia. Journal of Gender, Agriculture and Food Security. Vol 1 Issue 3 pp 40-63, 2016. • Food Security, Gender and Resilience: improving smallholder and subsistence farming, 2016. Edited by Leigh Brownhill, **Esther Njuguna**, Kimberly L. Bothi, Bernard Pelletier, Lutta Muhammad and Gordon, M. Hickey. • Brownhill, L., **Njuguna E.M.** and Miruka, M., 2013. Strategy for Mainstreaming Gender in the KARI McGill Food Security Research Project, 3rd Edition, KARI McGill Food Security Research Project.
Key relevant programmes/projects managed	• Gender integration into the CRP Grain Legumes – 2014-2017 • Gennovate study: Global study on gender norms and innovations in agriculture and natural resources management, in the drylands – 2015 to 2017

	• Analysis of gender gaps in legumes and cereals systems in the drylands: 2016 to 2018 • Review of gender integration into the breeding processes of legumes and cereals in the drylands 2016 to 2018

Flagship Program 1: Priority Setting & Impact Acceleration

AREGA ALENE
Leader, FP1: Priority Setting & Impact Acceleration

NAME **Affiliation**	**AREGA ALENE** **IITA, Malawi**
Education (Degree, Year, Institution)	**Ph.D.** in Agricultural Economics, 2003, University of Pretoria, South Africa
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Senior Agricultural Economist,** IITA, Lilongwe, Malawi, 2015-Present **Country Representative**, IITA-Malawi, 2011-Present **Impact Assessment Economist**, IITA, Lilongwe, Malawi, 2007-2014
Key recent publications relevant to the FP/CRP	• Wossen, T., T. Abdoulaye, A.D. Alene, S. Feleke, J. Ricker-Gilbert, V. Manyong, and B.A. Awotide (2017). Productivity and welfare effects of Nigeria's mobile phone based input subsidy program. World Development 97:251–265. • Manda, J., A.D. Alene, C. Gardebroek, M. Kassie, and G. Tembo (2016). Adoption and Impacts of Sustainable Agricultural Practices on Maize Yields and Incomes: Evidence from Rural Zambia. Journal of Agricultural Economics 67(1):130–152. • Khonje, M., J. Manda, A.D. Alene, and M. Kassie (2015). Analysis of Adoption and Impacts of Improved Maize Varieties in Eastern Zambia. World Development, 66: 695–706. • Alene, A.D. (2010). Productivity growth and the effects of R&D in African agriculture. Agricultural Economics 41: 223–238. • Alene, A.D., A. Menkir, S.O. Ajala, B. Badu-Apraku, and A.S. Olanrewaju (2009). The economic and poverty impacts of maize research in West and Central Africa. Agricultural Economics 40(5):535–550. • Alene, A.D. and O. Coulibaly (2009). The impact of agricultural research on productivity and poverty in sub-Saharan Africa. Food Policy 34(2): 198–209. • Alene, A.D., V.M. Manyong, E. Tollens, and S. Abele (2009). Efficiency–equity tradeoffs and the scope for resource reallocation in agricultural research: evidence from Nigeria. Agricultural Economics 40(1):1–14. • Alene, A.D., V.M. Manyong, G. Omanya, H.D. Mignouna, and M. Bokanga (2008). Economic efficiency & supply response of women as farm managers: comparative evidence from western Kenya. World Development 36(7):1247–1260.
Key relevant programmes/projects managed	• Coordinator/IITA Focal Point, CGIAR Research Program on Policies, Institutions, and Markets, 2014-Present • IITA coordinator for the socioeconomics component of the Tropical Legumes II (2007-2014) and Tropical Legumes III (since 2015) projects, 2007-Present • IITA Coordinator for DIIVA project (Diffusion & Impact of Improved Varieties in Africa), 2009-2013

SWAMIKANNU NEDUMARAN
CoA Team Member, FP1: Priority Setting & Impact Acceleration

NAME	**SWAMIKANNU NEDUMARAN**
Affiliation	**ICRISAT, India**
Education (Degree, Year, Institution)	**Ph.D. (Agrl Economics)**, 2007, TamilNadu Agricultural University, India **M.Sc. (Agrl Economics)**, 2001, TamilNadu Agricultural University**,** India
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Senior Scientist,** Innovation system for the Dryland, ICRISAT, Apr 2016 to now. **Scientist**, RP-Markets, Institutions and Policies, ICRISAT Apr 2010- Mar 2016. **Senior Researcher**, University of Hohenheim, Germany Apr 2007 – Mar 2010
Key recent publications relevant to the FP/CRP	• **Nedumaran, S.** and Singh, N.P. 2017. Trade-offs between Non-farm Income and On-farm Soil and Water Conservation Investments of Smallholder Farmers in the Semi-arid Tropics of India. *Agricultural Economics Research Review*, 30(1):47-56. • Singh, P., Boote, K.J., Kadiyala, M.D.M., **Nedumaran, S.,** Srinivas, K., and Bantilan, M.C.S. 2017. An assessment of yield gains under climate change due to genetic modification of pearl millet. *Science of the Total Environment*, 601-602:1226-1237. • Islam, S., Cenacchi, N., Sulser, T.B., Gbegbelegbe, S., Hareau, G., Kleinwechter, U., Mason-D'Croz, D., **Nedumaran, S.,** Robertson, Robinson, S., and Wiebe, K., 2016. Structural Approaches to Modeling the Impact of Climate Change and Adaptation Technologies on Crop Yields and Food Security. *Global Food Security*. 10:63-70. • **Nedumaran, S.,** Shiferaw, B., Bantilan, M.C.S., Palanisami, K. and Wani, S.P. 2014. Bioeconomic modeling of farm household decisions for ex-ante impact assessment of integrated watershed development programs in semi-arid India. *Environment, Development and Sustainability, 16.* pp. 257-286. • Wossen, T., Berger, T., **Nedumaran, S**., Ramilan, T. 2014. Climate variability, consumption risk and poverty in semi-arid Northern Ghana: Adaptation options for poor farm households. *Environmental Development*, 12. pp. 2-15. • Singh, P., **Nedumaran, S.,** Traore, P.C.S., Boote, K.J., Rattunde, H.F.W., Prasad, P.V.V., Singh, N.P., Srinivas, K., and Bantilan, M.C.S. 2014. Quantifying potential benefits of drought and heat tolerance in rainy season sorghum for adapting to climate change. *Agricultural and Forest Meteorology*, 185. pp. 37-48. • Singh, P., **Nedumaran, S.**, Boote, K.J., Gaur, P.M., Srinivas, K., and Bantilan, M.C.S. 2014. Climate change impacts and potential benefits of drought and heat tolerance in chickpea in South Asia and East Africa. *European Journal of Agronomy*, 52 (2014) 123–137.

Key relevant programmes/projects managed	• PI: Assessment of plausible futures of dryland agriculture in Semi-Arid Tropics (SAT) and alternative technologies/management systems and policy interventions (CRP-PIM Phase I 2012-2016) • Co-PI: Global Futures project at ICRISAT, 2010-2014, Funded by IFPRI) • PI: Global Futures Project at ICRISAT (2015 to now, Funded by IFPRI and PIM) • PI: Strategic Foresight Using Pearl Millet Model Improvement for Assessing Benefits and Targeting of Drought and Heat Tolerant Pearl Millet Technologies in Changing Climate (2014-15, Funded by USAID)

SIKA GBEGBELEGBE

CoA Team Member, FP1: Priority Setting & Impact Acceleration

NAME **Affiliation**	**SIKA GBEGBELEGBE** **IITA, Malawi**
Education (Degree, Year, Institution)	**Ph.D.**, 2008, Purdue University **MS**, 2002, University of Guelph **B.Sc.**, 1999, University of Guelph
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Scientist,** Social Science Dept, IITA, (June 2015 to now) **Associate Scientist**, Socio-economics Dept (Jan 2011 to June 2015) **Post-doctoral fellow**, ReSAKSS (Jan 2008 – Jan 2011)
Key recent publications relevant to the FP/CRP	• Robinson, S., Mason d'Croz, D., Islam, S., Cenacchi, N., Creamer, B., Gueneau, A., … Wiebe, K. D. (2015). Climate Change Adaptation in Agriculture: Ex Ante Analysis of Promising and Alternative Crop Technologies Using DSSAT and IMPACT. Washington DC: IFPRI. Retrieved from http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/129694 • Kindie Tesfaye, **Sika Gbegbelegbe**, Jill E. Cairns, Bekele Shiferaw, BM Prasanna, Kai Sonder, Kenneth J. Boote, Dan Makumbi, Richard Robertson, 2015. Bioeconomic impact of climate change on maize production in sub-Saharan Africa and its implications for food security. *International Journal of Climate Change Strategies and Management*. http://www.emeraldinsight.com/doi/abs/10.1108/IJCCSM-01-2014-0005 • **Sika Gbegbelegbe**, Uran Chung, Bekele Shiferaw, Siwa Msangi, Kindie Tesfaye, 2014. Quantifying the impact of weather extremes on global food security: A spatial bio-economic approach; *Weather and Climate Extremes*; http://www.sciencedirect.com/science/article/pii/S2212094714000474 • Uran Chung, **Sika Gbegbelegbe**, Bekele Shiferaw, Richard Robertson, Jin I. Yun, Kindie Tesfaye, Gerrit Hoogenboom, Kai Sonder, 2014. Modeling the effect of a heat wave on maize production in the USA and its implications on food security in the developing world; *Weather and Climate Extremes*; http://www.sciencedirect.com/science/article/pii/S2212094714000668
Key relevant programmes /projects managed	**Global Futures and Strategic Foresight,** 2015 to now

MURALI KRISHNA GUMMA
CoA Team Member, FP1: Priority Setting & Impact Acceleration

NAME **Affiliation**	**MURALI KRISHNA GUMMA** **ICRISAT, India**
Education (Degree, Year, Institution)	**Ph.D.** in Spatial Information Technology (Remote sensing), 2008, Jawaharlal Nehru Technological University, Hyderabad, India. **M.Tech.** in Spatial Information Technology (Remote sensing), 2002, Jawaharlal Nehru Technological University, Hyderabad, India. **B. Tech.** in Civil Engineering, 1998, Nagarjuna University, India.
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Head – RS/GIS Lab, ISD**, ICRISAT India 2017-present **Scientist - GIS/Geospatial science (Leading GIS team)**, ISD, ICRISAT India 2013 - 2016 **Remote Sensing Scientist, SSD,** IRRI, Los Banos, Philippines 2010 - 2013
Key recent publications relevant to the FP/CRP	Murali K Gumma – Researcher ID: B- 0000-0002-3760-3935 Google Scholar citations: **1607**; h-index: **22** • **Gumma, M.K,** Thenkabail, P.S, Teluguntla P.G, Mahesh R, Irshad, A.M, and Whitbread A.M. (2016). Mapping Rice Fallow Areas for Short Season Grain Legumes Intensification in South Asia using MODIS 250m Time-Series Data. International Journal of Digital Earth 9(10):981-1003. • **Gumma, M.K,** Deevi, K, Irshad, A.M, Varshney, R, K, Gaur, P, and Whitbread A.M. (2016). Satellite imagery and household survey for tracking chickpea adoption in Andhra Pradesh, India. International Journal of Remote Sensing 37 (08):1955-72. • **Gumma, M.K,** Uppala, D, Irshad, A.M and Whitbread A.M, (2015) Mapping of direct seeded rice crop lands combining Lansat8, MODIS 250m and RISAT1 time series data in Raichur district of Karnataka, India. Photogrammetric Engineering and Remote Sensing. 81(11), 873-880 • **Gumma, M.K,** Mohanty, S, Andrew, N, Rala, A, Irshad, A.M, Das, S.R. (2015) Remote sensing based change analysis of rice environments in Odisha, India. Journal of Environmental Management**.** 148(2015):31-41 • **Gumma, M.K,** Thenkabail, P.S, Andrew, N, Maunahan, A, Islam, S. (2014), Mapping seasonal rice cropland extent and area in the high cropping intensity environment of Bangladesh using MODIS 500 m data for the year 2010. ISPRS Journal of Photogrammetry and Remote Sensing. 91(5), 98-113
Key relevant programmes /projects managed	• Global Food Security Analysis-Support Data at 30 Meters (GFSAD30) Project, 2013 - 2018 • Adoption and expansion of Chickpea in Andhra Pradesh 2013-14 • Prioritization of watersheds using biophysical factors derived from Remote sensing and socio-economic parameters from primary survey, 2014-2015 • Mapping of ICRISAT mandate cereals and legumes across Asia and Africa, 2014-2016 • Mapping rice-fallow cropland areas for short-season grain legumes intensification in South Asia using MODIS 250 m time-series data, 2014-2016.

	• Quantifying production losses due to drought and submergence of rainfed low-lands rice areas. Bill &Melinda Gates Foundation project, 2011-2013. • Temporal changes due to abiotic-stress in rice-growing area and their impact on livelihood over a decade. Bill &Melinda Gates Foundation project, 2010-2012.

KEITH WIEBE
CoA Team Member, FP1: Priority Setting & Impact Acceleration

NAME **Affiliation**	**KEITH WIEBE** **IFPRI, Washington DC**
Education (Degree, Year, Institution)	**Ph.D.** in Agricultural Economics, 1992, University of Wisconsin-Madison, USA **MA** in Agricultural Economics, 1987, University of Wisconsin-Madison, USA **B.A**, Economics (with Distinction), 1984, Carleton College, Northfield, Minnesota, USA
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Senior Research Fellow**, IFPRI, Washington DC, 2013 – present **Deputy Director**, Agricultural Development Economics Division, Food and Agriculture Organization of the United Nations, Rome, 2009 – 2013
Key recent publications relevant to the FP/CRP	• Molly E. Brown, Edward R. Carr, Kathryn L. Grace, **Keith Wiebe**, Christopher C. Funk, Witsanu Attavanich, Peter Backlund, Lawrence Buja, "Do markets and trade help or hurt the global food system adapt to climate change?" *Food Policy* Volume 68, April 2017, pages 154–159 (published online February 2017). http://dx.doi.org/10.1016/j.foodpol.2017.02.004. • Martin K. van Ittersum, Lenny G. J. van Bussel, Joost Wolf, Patricio Grassini, Justin van Wart, Nicolas Guilpart, Lieven Claessens, Hugo de Groot, **Keith Wiebe**, Daniel Mason-D'Croz, Haishun Yang, Hendrik Boogaard, Pepijn A. J. van Oort, Marloes P. van Loon, Kazuki Saito, Ochieng Adimo, Samuel Adjei-Nsiah, Alhassane Agali, Abdullahi Bala, Regis Chikowo, Kayuki Kaizzi, Mamoutou Kouressy, Joachim H. J. R. Makoi, Korodjouma Ouattara, Kindie Tesfaye, and Kenneth G. Cassman. "Can sub-Saharan Africa feed itself?" *Proceedings of the National Academy of Sciences*. Published online: 12 December 2016. www.pnas.org/cgi/doi/10.1073/pnas.1610359113. • Marco Springmann, Daniel Mason-D'Croz, Sherman Robinson, **Keith Wiebe**, H. Charles J. Godfray, Mike Rayner and Peter Scarborough. "Mitigation potential and global health impacts from emissions pricing of food commodities." *Nature Climate Change*. Published Online: 7 November 2016. DOI: 10.1038/NCLIMATE3155. http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate3155.html • Shahnila Islam, Nicola Cenacchi, Timothy B. Sulser, Sika Gbegbelegbe, Guy Hareau, Ulrich Kleinwechter, Daniel Mason-D'Croz, Swamikannu Nedumaran, Richard Robertson, Sherman Robinson, **Keith Wiebe**. "Structural approaches to modeling the impact of climate change and adaptation technologies on crop yields and food security." *Global Food Security* 10(2016): 63-170. http://dx.doi.org/10.1016/j.gfs.2016.08.003 • **Keith Wiebe**, Hermann Lotze-Campen, Ronald Sands, Andrzej Tabeau, Dominique van der Mensbrugghe, Anne Biewald, Benjamin Bodirsky, Shahnila Islam, Aikaterini Kavallari, Daniel Mason-D'Croz, Christoph Müller, Alexander Popp, Richard Robertson, Sherman Robinson, Hans van Meijl and Dirk Willenbockel. "Climate change impacts on agriculture in 2050 under a

	range of plausible socioeconomic and emissions scenarios." *Environmental Research Letters* 10(2015)085010, doi:10.1088/1748-9326/10/8/085010.
Key relevant programmes/projects managed	Global Futures and Strategic Foresight program, a CGIAR initiative led by IFPRI in collaboration with all 15 Centers of the CGIAR, with support from the CGIAR Research Program on Policies, Institutions, and Markets (PIM), the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), and the Bill & Melinda Gates Foundation, 2013 – present

KAI MAUSCH
CoA Team Member, FP1: Priority Setting & Impact Acceleration

NAME **Affiliation**	**KAI MAUSCH** **ICRISAT, Kenya**
Education **(Degree, Year, Institution)**	**Doctor of Economics**, 2010, Leibniz University of Hannover, Germany **Diplom economist**, 2007, Leibniz University of Hannover, Germany
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Scientist (Economics)**, ICRISAT, Nairobi, Kenya, Since Jan 2013 • Development and implementation of mostly legume related projects in Eastern and Southern Africa and beyond; • Topics range from adoption, dissemination, impact evaluation, value chain analysis, to targeting of project interventions; • One of the key focuses is the analysis and improvement of the delivery of ICRISAT's products to the final beneficiary, in the context of changing markets and diverse rural household characteristics. 12/2009 – 12/2012, **APO (Economics)**, ICRISAT, Lilongwe, Malawi • Analysis of the global dissemination and spillover effects of ICRISAT research to support priority setting.
Key recent publications relevant to the FP/CRP	• **Mausch K,** Orr A and Miller BP. 2017. Targeting resilience and profitability in African smallholder agriculture: Insights from ICRISAT-led research programs. FACETS 2: 545–558. doi:10.1139/facets-2017-0029. • Walker, T., Alene, A., Ndjeunga, J., Labarta, R., Yigezu, Y., Diagne, A., Andrade, R., Muthoni Andriatsitohaina, R., De Groote, H., **Mausch, K.**, Yirga, C., Simtowe, F., Katungi, E., Jogo, W., Jaleta, M. and Pandey, S. (2014), Measuring the Effectiveness of Crop Improvement Research in Sub-Saharan Africa from the Perspectives of Varietal Output, Adoption, and Change: 20 Crops, 30 Countries, and 1150 Cultivars in Farmers' Fields. Report of SPIA, CGIAR-ISPC Secretariat. • **Mausch, K.**, Revilla Diez, J. and Klump, R. (2012), Rural Vietnam: Pro-Poor growth vs income structure, chapter 6 in: Klasen, S. and Waibel, H. (eds.) "Vulnerability to Poverty: Theory, Measurement and Determinants", Palgrave Macmillan. • **Mausch, K.** and Bantilan, C. (2012), Global homogenous groundnut zones and applicability across – a tool to utilize the true potential of cultivars for enhancement of impact from agricultural research, ICRISAT Working Paper Series no. 31. • **Mausch, K.** (2010), Poverty, Inequality and the Non-farm Economy: The Case of Rural Vietnam, Logos Publishing House.
Key relevant programmes/projects managed	• **Tropical Legumes II and III,** Global lead economist since 2015, lead economist ESA, 2012 to 2015. • **DIIVA project: ICRISAT ESA coordinator 2009-2013 Diffusion & Impact of Improved Varieties in Africa.**

KARL HUGHES
CoA Team Member, FP1: Priority Setting & Impact Acceleration

NAME **Affiliation**	**KARL HUGHES** **ICRAF, Nairobi, Kenya**
Education (Degree, Year, Institution)	**Ph.D.,** 2012, Department of Global Health and Development, London School of Hygiene and Tropical Medicine, London, UK. **MES,** 1998, Faculty of Environmental Studies, York University, Canada. **BA,** 1994, Departments of Anthropology and Philosophy, University of British Columbia, Canada
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Head, Monitoring, Evaluation, and Impact Assessment,** ICRAF, 2014 to date **Senior Evaluation Specialist**, Independent Evaluation Department, Asian Development Bank (ADB), Manila, Philippines, 2013-2014 Program Effectiveness Team Leader, Oxfam GB, Oxford, UK, 2010-2013
Key recent publications relevant to the FP/CRP	• Hughes, Karl, Seth Morgan, Kathy Baylis, Judith Oduol, Emilie Smith-Dumont, Tor-Gunnar Vagen, Mary Mutemi, Claire LePage, and Hilda Kegode. (2017) *Assessing the Downstream Socioeconomic and Land Health Impacts of Agroforestry in Kenya.* (Forthcoming) • Hughes, Karl. (2014) 'Assessment of Agriculture and Rural Development', In, *Country Assistance Program Evaluation for Tajikistan*. Independent Evaluation Department, Asian Development Bank. http://www.adb.org/sites/default/files/linked-documents/8-Agriculture-Rural-Dev.pdf • Hughes, Karl and Helen Bushel. (2013) *A Multidimensional Approach to Measuring Resilience: Oxfam GB Working Paper*. Oxford. http://policy-practice.oxfam.org.uk/publications/a-multidimensional-approach-to-measuring-resilience-302641 • Hughes, Karl. (2012). *Effectiveness Review: Sustainable Livelihood Development and Ethnic Minority Diversity in Lao Cai Province, Viet Nam*. Oxfam GB. http://policy-practice.oxfam.org.uk/publications/effectiveness-review-sustainable-livelihood-development-and-ethnic-minority-div-303434 • Hughes, Karl and Claire Hutchings. (2011) *Can we obtain the required rigour without randomisation: Oxfam GB's non-experimental Global Performance Framework.* 3ie Working Paper series 13; Available from: http://www.3ieimpact.org/en/evaluation/working-papers/working-paper-13/
Key relevant programmes/projects managed	• The Drylands Development Programme (DryDev) (2014-18) • Forests, Trees and Agroforestry (MEIA Team member) • Assessing the Downstream Socio-economic and Land Health Impacts of Agroforestry (2016-17)

KIZITO MAZVIMAVI
CoA Team Member, FP1: Priority Setting & Impact Acceleration

NAME **Affiliation**	**KIZITO MAZVIMAVI** **ICRISAT, Zimbabwe**
Education (Degree, Year, Institution)	**Ph.D.** in Development Studies, 2004, University of Wisconsin-Madison, USA. **M.A.** in Agricultural and Applied Economics, 2002, University of Wisconsin-Madison, USA. **M.Phil.** in Agricultural Economics, 1997, University of Zimbabwe, Harare, Zimbabwe. **B.Sc.** in Agricultural Economics, 1990, University of Zimbabwe, Harare, Zimbabwe
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Country Representative and Theme Leader - Monitoring Evaluation, Learning and Impact Assessment,** ICRISAT Zimbabwe, Since May 2014 **Head - Impact Assessment**, ICRISAT Patancheru, India, May 2012 – Apr 2014. **Scientist - Agricultural Economics** ICRISAT Bulawayo, Zimbabwe, Jul 2008 – Apr 2012. **Regional Scientist**. ICRISAT Bulawayo, Zimbabwe. (*January - June 2008*).
Key recent publications relevant to the FP/CRP	• Kaliba, A.R., **Mazvimavi K.** and Ghebreyesus, 2017. G.S Economic profitability and risk analyses of improved sorghum varieties in Tanzania. *Journal of Development and Agricultural Economics.* (Forthcoming, 2017) • Michler, J.D., Baylis, K. Arends-Kuenning, M. and **Mazvimavi, K.** 2017. Conservation Agriculture and Climate Resilience – Impacts. Selected paper presented at a conference entitled: "Impacts of international agricultural research: Rigorous evidence for policy" organized by the CGIAR Independent Science and Partnership Council, and Policies, Institutions and Markets research program led by IFPRI, 6 - 8 July 2017 Nairobi, Kenya. • Murendo, C and Gwara, S and Mpofu, N and Pedzisa, T and **Mazvimavi, K** and Chivenge, P. 2016. The adoption of a portfolio of sustainable agricultural practices by smallholder farmers in Zimbabwe. In: 5th International Conference of the African Association of Agricultural Economists, September 23-26, 2016, Addis Ababa, Ethiopia. • Tsusaka, T.W. Msere, H.W. Siambi, M. **Mazvimavi K.** and Okori P. 2015. Evolution and impacts of groundnut research and development in Malawi: An ex-post analysis. *African Journal of Agricultural Research*. 3, 139-158. • Liverpool-Tasie, L.S.O. Sanou, A. and **Mazvimavi, K.** 2015. How profitable is sustainable intensification? The case of fertilizer micro-dosing in Niger. Selected Paper prepared for presentation at the 2015 Agricultural & Applied Economics Association and Western Agricultural Economics Association Annual Meeting, July 26-28 2015. San Francisco, CA. http://ageconsearch.umn.edu/handle/205879

	• Pedzisa, T., Rugube, L Winter-Nelson, A., Baylis, K., and **Mazvimavi, K.,** 2015.The Intensity of Adoption of the Conservation agriculture by smallholder farmers in Zimbabwe, *Agrekon* (Forthcoming 2015). • Pedzisa T., Rugube L., Winter-Nelson A., Baylis K., and **Mazvimavi, K.** 2015. Abandonment of Conservation Agriculture by Smallholder Farmers in Zimbabwe. *Journal of Sustainable Development* 8:1, 69-82
Key relevant programmes/projects managed	

FLAGSHIP PROGRAM 2: TRANSFORMING AGRIFOOD SYSTEMS

ANDY HALL
Leader, FP2: Transforming Agrifood Systems

NAME **Affiliation**	**ANDY HALL** **CSIRO, Australia**
Education **(Degree, Year, Institution)**	**Ph.D.** in Science and Technology Policy Studies, 1994, University of Sussex, UK **M.Sc.** in Rural Resource Management, 1989, University Collage of North Wales, UK **B.Sc.** in Biology, 1987, Portsmouth Polytechnic, UK
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Senior Principle Scientist,** innovation practice and policy, 2013 - Present **Group Leader**, Agricultural research for development 2015 -2017
Key recent publications relevant to the FP/CRP	Andy Hall – ResearcherID: H-8691-2015 Google Scholar citations: **3112**; h-index: 27 • Dorai, K. **Hall, A** and Dijkman, J (2016) *Strategic study of good practice in AR4D partnership*. Rome, Italy. CGIAR Independent Science and Partnership Council (ISPC), viii + 39pp + annex 49pp • Michael Robertson, Brian Keating, Daniel Walker, Graham Bonnett and **Andrew Hall** (2016) Five Ways to Improve the Agricultural Innovation System in Australia. *Farm Policy Journal, vol 15, no 1.* • **Hall, A** Carberry, P, Djikeng, A, et al (2016), 'The journey to R4D: an institutional history of the Australia Africa Food Security Initiative' in Innovation Systems: Towards Effective Strategies in Support of Smallholder Farmers. CTA, Wageningen. • Foran T, Butler, JRA, Williams LJ, Wanjura WJ, **Hall A**, Carter L, Carberry PS 2014. Taking complexity in food systems seriously: An interdisciplinary analysis. World Development 61:85-101. • **Hall A,** W Janssen, E Pehu, R Rajalahti**,** 2005 *Enhancing Agricultural Innovation: How to go beyond the Strengthening of Research Systems*. Economic Sector Work report. The World Bank: Washington DC pp. 149
Key relevant programmes/projects managed	• **Project Leader,** CSIRO/ISPC Agrifood systems innovation pathways and partnerships 2015 -2017 • **Project Leader**, CSIRO/DFAT Food Systems Innovation 2014 -2016 • **Program leader.** Central research team, DFID Research Into Use program 2010-2011 • **Program leader.** UNU-MERIT's Learning, Innovation and Knowledge (LINK) network of regional rural innovation studies and capacity strengthening hubs in South Asia, East and West Africa and Latin America 2005 - 2010 • **South Asia Regional Coordinator,** DFID's Crop Post-Harvest Programme1997–2004

KIRAN K SHARMA
CoA Team Member, FP2: Transforming Agrifood Systems and FP5: Pre-Breeding & Trait Discovery

NAME	**KIRAN K SHARMA**
Affiliation	**ICRISAT, India**
Education (Degree, Year, Institution)	**Ph.D.** in Botany, 1988, University of Delhi, Delhi, India **M.Sc.** in Plant Physiology, 1983, CCS Haryana Agricultural University, Hisar, India **B.Sc.** in Biology, 1979, University of Delhi, Delhi, India
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Principal Scientist (Cell Biology & Molecular Biology)**, ICRISAT, India, 1991-Present **Chief Executive Officer, Agribusiness and Innovation Platform (AIP),** ICRISAT, India, 2011-Present **Director, PTTC** (Platform for Translational Research on Transgenic Crops), ICRISAT, India, 2009-Present
Key recent publications relevant to the FP/CRP	• Bhatnagar-Mathur, P., Gupta, R., Reddy, P.S., Reddy, B.P., Reddy, D.S., Sameer Kumar, C.V., Saxena, R.K. and **Sharma, K.K.** (2017). Retrograde regulation by novel mitochondrial *orf147* in pigeonpea (*Cajanus cajan* L. Millsp.) modulates aberrant anther dehiscence causing cytoplasmic male sterility. Plant Molecular Biology (under final review). • Parankusam, S., Bhatnagar-Mathur, P. and **Sharma, K.K.** (2017). Heat-induced proteomic changes reveal molecular mechanisms responsible for heat tolerance in chickpea. **Environmental & Experimental Botany, doi: 10.1016/j.envexpbot.2017.07.007** • Parankusam, S., Bhatnagar-Mathur, P. and **Sharma, K.K.** (2017). Molecular insights into the functional role of Nitric Oxide (NO) as a signal for plant responses in chickpea. **Functional Plant Biology,** https://doi.org/10.1071/FP16324 • Bhatnagar-Mathur, P., Sunkara, S., Bhatnagar-Panwar, M., Waliyar, F., **Sharma, K.K.** (2015). Biotechnological advances for combating *Aspergillus flavus* and aflatoxin contamination in crops. **Plant Science, 234: 119-132**. 10.1016/j.plantsci.2015.02.009 • Bhatnagar-Mathur, P., Rao, J.S., Vadez, V., Reddy, D.S., Rathore, A., Yamaguchi-Shinozaki, K. and **Sharma, K.K.** (2014). Transgenic peanut overexpressing the DREB1A transcription factor have higher yields under drought stress. **Molecular Breeding, 33: 327-340**. DOI: 10.1007/s11032-013-9952-7 • **Sharma, K.,** Aravazhi, S. and Karuppanchetty, S., and Datta Mazumdar, S. (2013). Role of public-private partnership in the development of semi-arid tropics value chain. **Secheresse** 24(4): 367-373. doi: 10.1684/sec.2013.0406 • **Sharma, K.K.,** Aravazhi, S., Philroy, J., Karuppanchetty, S.M. and Datta Mazumdar, S. (2014). Agribusiness and Innovation Platform at ICRISAT. In: K. Meridia, S. Mysore, S. Kumar and C. Rakhmatov Eds., Technology Transfer and Commercialization: Experiences of India and USA. Michigan State University, USA, pp. 185.
Key relevant programmes/projects managed	• Principal Investigator of over 20 Research Projects in Genetic Engineering, (1992- present).

- Conceptualized and established the Agri-Business Incubator at ICRISAT (2003-present).
- Conceptualized and established PTTC (Platform for Translational Research in Transgenic Crops) at ICRISAT, (2007-present).
- Associate Editor, In Vitro Cellular & Developmental Biology-Plant, (2015 – present).
- Editorial Board, Journal of Plant Biochemistry & Biotechnology, (2015 – present).
- CEO, Agribusiness & Innovation Platform (AIP), ICRISAT (2011-present).
- Director, Platform for Translational Research (PTTC), ICRISAT, (2009 – Present).
- Flagship Leader, FP5-CRP-DC (2015-2016).
- Member, International Science Advisory Panel (ISAP), Global Institute for Food Security (GIFS), Saskatoon, Canada (March 2016 – Present).
- Member, Scientific Advisory Committee, DBT-BIRAC-BMGF Grand Challenges India (2016 – present).
- Member, Apex Committee on Agricultural Biotechnology, Department of Biotechnology, Government of India (2014- present).
- Member, 6th QRT Review Team, National Academy for Agricultural Research and Management (NAARM), Indian Council for Agricultural Research, India (Jan.-Dec. 2012).
- Member, Expert Advisory Committee, Innovation, Science & Technology Entrepreneurship Development (i-STED), National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology, Government of India (Jan 2010 - present)
- Member, Expert Committee on "Technology Based Entrepreneurship Development Programmes (TEDPs), Women Entrepreneurship Development Programmes (WEDPs), General Entrepreneurship Development Programmes (EDPs), Faculty Development Programmes (FDPs) and Entrepreneurship Awareness Camp (EACs)" NSTEDB, Department of Science & Technology, Ministry of Science & Technology, Government of India, (April 2011-March 2014).
- Member, Advisory Board-Ethics Committee, VenturEast – A venture Capital Investment Committee, Hyderabad, India (October 2008 - present).

KANAR DIZYEE
CoA Team Member, FP2: Transforming Agrifood Systems

NAME	**KANAR DIZYEE**
Affiliation	**CSIRO, Australia**
Education (Degree, Year, Institution)	**Ph.D.** in Business/agricultural economics, 2017 (expected to be formally awarded in Oct 2017 graduation ceremony), University of New England, Armidale, Australia **M.Phil.** in System Dynamics (University of Bergen – Norway) **and MS.c.** in Business Administration (Radboud University Nijmegen – The Netherlands), 2012. **M.Sc.** in Integrated Science and Technology, 2010, James Madison University, Virginia, USA, 2010. **B.Sc.** in Agriculture/ Forests, University of Dohuk, Kurdistan Region, Iraq, 2007.
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Research Scientist**, CSIRO, 2017-present **Research Technician** (casual), CSIRO, 2016-2017 **Independent Consultant (value chains & System Dynamics)**, self-employed, 2014 – 2016 **Research Assistant**, Norwegian institute of International Affairs, 2012-2014. **Project worker/modeler** (part time), SalMar, 2012.
Key recent publications relevant to the FP/CRP	• Kanar Dizyee (Kanar Hamza) • Google Scholar citations: **17**; h-index: **3** • **Dizyee, K.**, Baker, D., & Rich, K. M. (2017). A quantitative value chain analysis of policy options for the beef sector in Botswana. Agricultural Systems, 156, 13-24. • **Hamza, K. H.**, Rich, K. M., Baker, A. D., & Hendrickx, S. (2014). Commercializing smallholder value chains for goats in Mozambique: A system dynamics approach. Proceedings in Food System Dynamics, 117-134. • **Hamza, K.**, Rich, K. M., & Wheat, I. D. (2014). A system dynamics approach to sea lice control in Norway. Aquaculture Economics & Management, 18(4), 344-368. • Rich, K. M., Rich, M., & **Dizyee, K.** (2016). Participatory systems approaches for urban and peri-urban agriculture planning: The role of system dynamics and spatial group model building. Agricultural Systems. • Baker, D., **Dizyee, K.**, Parker, W., Scrimgeour, F., & Griffith, G. (2016). Primary Industry Chains and Networks: Analysis for Public and Private Interests. Systems Research and Behavioral Science.
Key relevant programmes/projects managed	

MICHAEL HAUSER
CoA Team Member, FP2: Transforming Agrifood Systems

NAME	**MICHAEL HAUSER**
Affiliation	**ICRISAT, Nairobi**
Education (Degree, Year, Institution)	**Doctoral degree** in Agriculture, 2004, University of Natural Resources and Life Sciences, Vienna, Austria **Dipl.-Ing**, in Agroecology, 1999, University of Agriculture, Vienna, Austria
Employment and appointments for the past 5 years	**Theme Leader 'Markets, Institutions, Nutrition, Diversity and Principle Scientist**, ICRISAT Kenya, 2017-present **Assistant Professor and Guest Lectures**, University of Natural Resources and Life Sciences, Vienna, Austria, 20117 - present **Director**, Centre for Development Research, University of Natural Resources and Life Sciences, Vienna, Austria, 2009 - 2016 **President**, AGRINATURA – The European Alliance on Agricultural Knowledge for Development, CULS, Prague and CIRAD, Paris, 2013-2017
Key recent publications relevant to the FP/CRP	• **Hauser, M**., Lindtner, M., Prehsler, S. and Probst, L. (2016). Farmer participatory research: Why extension workers should understand and facilitate farmers' role transitions, in: Journal of Rural Studies, 47 (2016) 52-61 • **Hauser, M** and Lindtner, M (2016). Organic agriculture in post-war Uganda: Emergence of pioneer-led niches between 1986 and 1993, in: Renewable Agriculture and Food Systems, 06/2016, 1-10 • Chowdhury, A; Odame, HH; Thompson, S; **Hauser, M** (2015): Enhancing farmers' capacity for botanical pesticide innovation through video-mediated learning in Bangladesh, in INT J AGR SUSTAIN. 2015; 13(4): 326-349 • Zake, J.; **Hauser, M.** (2014). Farmers' perceptions of implementation of climate variability disaster preparedness strategies in Central Uganda, in: Environmental Hazards. 2014; 13(3): 248-266 • Dessie, Y; Wurzinger, M; Schubert, U., **Hauser, M.** (2013): The role of institutions and social learning in soil conservation innovations: implications for policy and practice. In: ENVIRON SCI POLICY, (27), 21-31
Key relevant programmes/projects managed	• Commission for Development Research, Austrian Academic Exchange Services, Vienna, Board Member, 2006-2017 • Poverty Think Tank, Austrian Development Agency, Vienna, Member, Vienna, 2007-2013 • NATURA, Network of European Agricultural [Tropically and Subtropically Oriented] Universities and Scientific Complexes Related with Agricultural Development, Board Member, 2006-2010 • Forum Rural Development, Vienna Institute for Development and Cooperation (VIDC) and the Ministry of Foreign Affairs, Vienna, Advisor, 2003-2007

CHRISTOPHER DOWNS
CoA Team Member, FP2: Transforming Agrifood Systems

NAME **Affiliation**	**CHRISTOPHER DOWNS** **CSIRO, AUSTRALIA**
Education **(Degree, Year, Institution)**	**Ph.D.** in Protein Biochemistry, 1992, Macquarie University, Sydney, Australia **M.Sc.**, 1985, University of Auckland, New Zealand **B.Sc.**, 1983, University of Auckland, New Zealand **Postgraduate Diploma** in Technology Management, 2004, Waikato University, New Zealand
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Board of Directors,** Institute for Food Technologists USA, 2016 – present **Board of Directors,** Australian Institute for Food Science and Technology, 2016 – present **Research Director (Food Program),** CSIRO Agriculture and Food, 2014 – present **Board of Directors,** New Zealand Institute for Landcare Research Ltd, 2012 – present **Deputy Chief and Portfolio Director**, CSIRO Animal, Food and Health Sciences, 2011 – 2014 **Director,** Business Development and Strategy, and Theme Leader Food & Health, CSIRO Food & Nutritional Sciences, 2008 – 2011
Key recent activities relevant to the FP/CRP	• Lead CSIRO's food research strategy, capabilities and impact delivery in food manufacturing, dairy, meat, grains and horticulture sectors • Lead development and implementation of CSIRO's Food Innovation Centre business model • Lead impact delivery across CSIRO through key client relationship development/management. Global alliance development with agri-food industry partners • Lead business development strategy and delivery, and teams of business development and communication professionals

GEOFFREY M. HEINRICH
CoA Team Member, FP2: Transforming Agrifood Systems

NAME **Affiliation**	**Geoffrey M. Heinrich** **CRS, Zambia**
Education (Degree, Year, Institution)	**Ph.D.** in Crop Physiology and Production, 1981, Univ. of Nebraska, Lincoln **M.Sc.** 1979, Crops and Soils, Michigan State University **B.Sc.,** 1975, Crops and Soils, Michigan State University
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Senior Technical Advisor. S. Africa Regional Office** (2008 – present)
Key recent publications relevant to the FP/CRP	• **2015. Building Soil Health for Smallholder Resilience.** An Ag Sector Council Seminar. Dec. 10, 2015. USAID / Feed the Future Agrilinks Webinar Series. https://kdad.adobeconnect.com. (full web link available on request). Sieglinda Snapp and Geoff Heinrich • **2015. Understanding Natural Resources: A SMART Skills Manual.** USAID. Cooperative Agreement No. AID-OAA-L-10-00003. Modernizing Extension and Advisory Systems (MEAS Project) University of Illinois. **ISBN-10:** 1614921423.**Download** this publication and related material at www.crs.org/our-work-overseas/research-publications or at www.meas-extension.org/meas-offers/training G. M. Heinrich, G. Burpee and D. Brick. • **2012. Strengthening Pluralistic Agricultural Extension in Malawi. Report on the MEAS Rapid Scoping Mission carried out January 7-27, 2012. Final Report submitted to USAID/Malawi.** Published by MEAS / University of Illinois. **www.meas-extension.org** . Leader with Associates Cooperative Agreement No. AID-OAA-L-10-00003 Brent M. Simpson, Geoff Heinrich and Grace Malindi. • **2011. Preparing Groups of Poor Farmers for Market Engagement: Five key skill sets.**In: Innovations as Key to the Green Revolution in Africa: Exploring the Scientific Facts. Bationo, A.; Waswa, B.; Okeyo, J.M.; Maina, F.; and Kihara, J.M. (Eds). 2011, pp 103 – 111. **Published by Springer Science + Business Media, UK** (Springer.com) **ISBN: 978-90-481-2541-8** J. Ashby, G. Heinrich, G. Burpee, T. Remington, S. Ferris, K. Wilson, C. Quiros. • **2004. A Foundation for the Future: The Sorghum and Millet Improvement Program in Southern Africa. Proceedings of the SMIP Final Review and Reporting Workshop, 25 – 26 November 2003.** Bulawayo, Zimbabwe. International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). Box 776 Bulawayo, Zimbabwe. GM. Heinrich (Ed).
Key relevant programmes/projects managed	• Development of the Agriculture Strategy for smallholder farmers for CRS in southern Africa (2008 – present). Includes: recovery, resilience, climate smart agriculture, land restoration, market links. • Development of CRS Manual on Natural Resource Management (Soil, Water and Ecosystems) for smallholder farmers (2009 – present). Production of related manual on how to develop community-based natural resource management plans. • Development of CRS "best practice guide" and key indicators for Watershed Management projects (2016)

- Support CRS development of “best practice guide” for restoration of degraded semi-arid lands (2017 – on-going)
- Project Manager for the SADC/ICRISAT Sorghum and Millet Improvement program (SMIP). 1999 – 2004
- ICRISAT Country Representative for Zimbabwe (2000 – 2004)
- ICRISAT Regional Representative for Southern Africa (2002 – 2004)
- Principle Scientist – ICRISAT. Technology Transfer (1994 – 1998)
- Associate Professor – Farming Systems. Kansas State University (1983 – 1990)

SAIKAT DATTA MAZUMDAR
CoA Team Member, FP2: Transforming Agrifood Systems

NAME **Affiliation**	**SAIKAT DATTA MAZUMDAR** **ICRISAT, India**
Education (Degree, Year, Institution)	**Ph.D.** in Natural Sciences (Food Safety), 2008, Philipps University Marburg, Germany **M.Sc.** in Food Science and Technology, 1994, Central Food Technological Research Institute (CFTRI), Mysore, India **B.Sc.** Chemistry Honors-Gold Medalist, 1992, North Eastern Hill University (NEHU), Shillong, India
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Chief Operating Officer (COO),** NutriPlus Knowledge (NPK) Program, Agribusiness and Innovation Platform (AIP) ICRISAT India, 2011-present **Technical Director,** NutriPlus Knowledge (NPK) Program, Agribusiness and Innovation Platform (AIP), ICRISAT India, 2009-2011 **Scientific Coworker (DOCTORAL),** Philipps Universität Marburg, Institute of Pharmaceutical Chemistry, 2005–2008 **Product Development Manager,** Hindustan Unilever Research Centre, Whitefield, Bangalore India, 1998–2004
Key recent publications relevant to the FP/CRP	• Kunchala, R and Durgalla, P and Banerjee, R and **Mazumdar, S D** and Srinivas, V and Gopalakrishnan, S (2017) Probiotic Potential Streptomyces Species From The Grains Of Pearl Millet (*Pennisetum Glaucum*). African Journal of Microbiology Research, 11 (14). pp. 553-559. ISSN 1996-0808. http://oar.icrisat.org/9959/ • Kunchala, R; Banerjee, R; **Mazumdar, S D**; Durgalla, P; Srinivas, V and Gopalakrishnan, S (**2016**). Characterization of potential probiotic bacteria isolated from sorghum and pearl millet of the semi-arid tropics. African Journal of Biotechnology, 15 (16). pp. 613-621. ISSN 1684-5315.http://oar.icrisat.org/9432/ • **Datta Mazumdar S**, Durgalla P, and Gaur P. 2016. Utilization of Pulses-Value Addition and Product Development. Pages 65- 97 in Pulses for Sustainable Food and Nutrition Security in SAARC region (Gurung T. R. and Bokhitar, S.M, eds.). SAARC Agriculture Centre, Bangladesh. ISBN: 978-984-34-1521-9 (Print). http://www.sac.org.bd/archives/publications/Pulses%20for%20Nutrition%20Security.pdf • **Datta Mazumdar S***, Gupta S.K, Banerjee R, Gite S, Durgalla P, and Bagade P. 2016. Determination of variability in rancidity profile of select commercial Pearl millet varieties/hybrids. DC 24. Poster presented in CGIAR Research Program on Dryland Cereals Review Meeting held at Hyderabad, India, 5-6 October 2016. International Crops Research Institute for the Semi-Arid Tropics, Patancheru, Telengana, India. http://drylandcereals.cgiar.org/index.php/determination-of-variability-in-rancidity-profile-of-select-commercial-pearl-millet-varietieshybrids/ • Sharma K.K, **Datta Mazumdar S**, Banerjee R, Durgalla P, Selvaraj A, Philroy J. 2016. Commercializing dryland cereals through product development, scientific validation and entrepreneurship. DC 23. Poster presented in CGIAR Research Program on Dryland Cereals Review Meeting held at Hyderabad, India, 5-6 October 2016. International Crops Research Institute for the Semi-

	Arid Tropics, Patancheru, Telengana, India. http://drylandcereals.cgiar.org/index.php/commercializing-dryland-cereals-through-product-development-scientific-validation-and-entrepreneurship/
Key relevant programmes/projects managed	• **Establishment of five ISO17025: 2005 Food Testing Laboratories in five African countries (Zimbabwe, Rwanda, Congo, Gambia, and Nigeria)** under India-Africa Summit II (IAFS – II) with support from Ministry of Food Processing Industries, Government of India-**Ongoing** • **Collaborative research activities funded by Hindustan Unilever Private Limited on** : "Unlocking Health Benefits of Pearl millet: Identifying factors for Starch Digestibility, and Slowly Digestible Starch (SDS) using a World inbred Germplasm Association Panel"-**Completed 2016** • Obtained grant from Department of Science and Technology, Government of India under **India – Sri Lanka Inter governmental science and technology cooperation program for the research project, "Ensuring Human Health, Food and Nutritional Security through Novel Cereal and fruit based Prebiotics". Completed-2016** • Obtained grant from Department of Science and Technology, Government of India under Indo-South Africa Joint Science and Technology Research Program: "**Validating the nutraceutical properties of select indigenous foods, of India and South Africa, prepared using local cereals and legumes towards understanding their role in addressing malnutrition, hidden hunger and lifestyle diseases"-Ongoing**

FLAGSHIP PROGRAM 3: INTEGRATED FARM AND HOUSEHOLD MANAGEMENT

JULES BAYALA
Leader, FP3: Integrated Farm and Household Management

NAME **Affiliation**	**JULES BAYALA** **ICRAF, Mali**
Education (Degree, Year, Institution)	**Ph.D.** in Agroforestry/Ecophysiology, 2002, University of Wales, Bangor, UK **Engineer Degree in Forestry**, 1990, University of Ouagadougou, Burkina Faso
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Senior Scientist**, ICRAF Mali 2009-present **Head of Forestry Department**, Institut de l'Environnement et de Recherches Agricoles (INERA), Burkina Faso 2009 **Agroforestry/Ecophysiology Scientist**, Forestry Department of Institut de l'Environnement et de Recherches Agricoles (INERA), Burkina Faso 2002-2009.
Key recent publications relevant to the FP/CRP	Jules Bayala – ResearcherID: Google Scholar citations: 1**676**; h-index: **23** • **Bayala J.**, Zougmoré R., Dayamba S.D., Olivier A. 2017. Climate-Smart Agriculture Technologies in West Africa: learning from the ground Research for Development experiences. Agric Food Secur. (in press). • **Bayala J.**, Zougmoré R., Ky-Dembele C., Bationo B.A., Buah S., Sanogo D., Somda J., Tougiani A., Traoré K., Kalinganire A. 2016. Towards developing scalable climate-smart village models: approach and lessons learnt from pilot research in West Africa. ICRAF Occasional Paper No. 25. Nairobi: World Agroforestry Centre. • **Bayala J.**, Sanou J., Teklehaimanot Z., Ouedraogo S.J., Kalinganire A., Coe R., van Noordwijk M.. 2015. Advances in knowledge of processes in soil-tree-crop interactions in parkland systems in the West African Sahel: A review. Agric. Ecosyst. Environ. 205: 25-35. • **Bayala J**., Sanou J., Teklehaimanot Z., Kalinganire A., Ouédraogo S.J. 2014. Parklands for buffering climate risk and sustaining agricultural production in the Sahel of West Africa. Curr. Opin. Environ. Sustain. 6: 28-34. • **Bayala J**., Bazié H.R., Sanou J. 2013. Competition and facilitation-related factors impacts on crop performance in an agroforestry parkland system in Burkina Faso. African Journal of Agricultural Research 8(43): 5303-5310. • **Bayala J**., Sileshi G.W., Coe R., Kalinganire A., Tchoundjeu Z., Sinclair F, Garrity D. 2012. Cereal yield response to conservation agriculture practices in drylands of West Africa: a quantitative synthesis. J. Arid Environ. 78: 13-25.

Key relevant programmes/projects managed	• BIODEV project Manager, 2012-2016 • Associate Editor, Agroforestry Systems Journal 2012 - present • Editorial Advisory Board of International Journal of Biological and Chemical Sciences 2010 - present • Member of African Forest Forum (AFF) • Member of African Network for Soil Biology and Fertility (AfNet) • Member of Société de la Science du Sol du Burkina

STEPHEN KYEI-BOAHEN

CoA Team Member, FP3: Integrated Farm and Household Management

NAME **Affiliation**	**STEPHEN KYEI-BOAHEN** **IITA, Mozambique**
Education (Degree, Year, Institution)	**Ph.D.** in Agronomy, 2000, University of Saskatchewan, Canada **M.Sc.** in Crop Science, 1995, University of Helsinki, Finland **B.Sc.** Crop Science, 1986, University of Ghana, Ghana
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Systems Agronomist**, IITA, Mozambique, 2007-present **Country Representative**, IITA Mozambique, 2009-present
Key recent publications relevant to the FP/CRP	• Chibeba, A. M., **Kyei-Boahen, S**. Guimarães, M. F., Nogueira, M. A. and Hungria, M. 2017. Feasibility of transference of inoculation-related technologies: A case study of evaluation of soybean rhizobial strains under the agro-climatic conditions of Brazil and Mozambique. Agric. Ecosyst. Environ. • http://dx.doi.org/10.1016/j.agee.2017.06.037 • Chibeba, A. M., **Kyei-Boahen, S**., Guimarães, M. F., Nogueira, M. A. and Hungria, M. 2017. Isolation, characterization and selection of indigenous *Bradyrhizobium* strains with outstanding symbiotic performance to increase soybean yields in Mozambique. Agric. Ecosyst. Environ. 246 291-305 • **Kyei-Boahen, S**., Savala, C.E.N., Chikoye, D. and Abaidoo, R. 2017. Growth and Yield Responses of Cowpea to Inoculation and Phosphorus Fertilization in Different Environments. Frontiers Plant Sci. 8:646. doi.org/10.3389/fpls.2017.00646 • Farrow, A., Ronner, E., van den Brand, G., **Boahen, S.K**, Leonardo, W., Wolde-Meskel, E., Adjei-Nsiah, S., Chikowo, R., Baijukya, F., Ebanyat, P., Sangodele, E., Sanginga, J.M., Kantengwa, S., Phiphira, L., Woomer, P.L., Ampadu-Boakye, T., Baars, E., Kanampiu, F., Vanlauwe, B., Giller, K. 2016. From best fit technologies to best fit scaling: incorporating and evaluating factors affecting the adoption of grain legumes in Sub-Saharan Africa. Expl Agric: page 1-26. doi:10.1017/S0014479716000764 • Gyogluu, C. **Boahen, S.K**, and Dakora, F.D. 2016. Response of promiscuous-nodulating soybean (*Glycine max* L.) genotypes to *Bradyrhizobium* inoculation at three field sites in Mozambique. Symbiosis 69(2): 81-88 doi:10.1007/s13199-015-0376-5 • Kamara, A.Y., Ewansiha, S.U., **Boahen, S.K.** and Tofa, A.I. 2014. Agronomic response of soybean varieties to plant population in the Guinea Savannas of Nigeria. Agron. J. 106:1051–1059
Key relevant programmes/projects managed	• **Project Leader**, Feed the Future Mozambique Improved seeds for better Agriculture, 2015-2020 • **Project Leader**, Platform of Agricultural Research and Technology Innovation project: Soybean and Cowpea program, 2009 – 2015

- **Project Leader**. Platform of Agricultural Research and Technology Innovation project: Beans, Groundnut and Sesame program, 2011 - 2015
- **ESA Coordinator**, TL II Cowpea and Soybean Seed Systems: 2008-2014

TAMÒ MANUELE
CoA Team Member, FP3: Integrated Farm and Household Management

NAME	TAMÒ MANUELE
Affiliation	IITA, Benin
Education (Degree, Year, Institution)	**Ph.D.,** 1991**,** Swiss Federal Institute of Technology, Zurich (ETHZ), Institute of Plant Sciences **M.Sc.,** 1986, Swiss Federal Institute of Technology, Zurich (ETHZ), Faculty of Agriculture
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Internal Coordinator for CRP Grain Legumes,** IITA Since 2012 **Insect Ecologist, IITA Country Representative for Benin**, Since 2007
Key recent publications relevant to the FP/CRP	• **Tamò, M.**, Datinon, B., Dannon, E., Traore, F., Dabire, C., Pittendrigh, B. R. & Srinivasan, R. (2017) Towards successful establishment of exotic parasitoids attacking the pod borer *Maruca vitrata* in west Africa. Biocontrol News and Information, 38: 12-13. • Sokame, B. M., Tounou, A. K., Datinon, B., Dannon, E. A., Agboton, C., Srinivasan, R., Pittendrigh, B. R. & **Tamò, M**. (2015) Combined activity of *Maruca vitrata* multi-nucleopolyhedrovirus, MaviMNPV, and oil from neem, *Azadirachta indica* Juss and Jatropha curcas L., for the control of cowpea pests. *Crop Protection***,** 72. 150–157. • Agunbiade, T., Coates, B. S., Datinon, B., Djouaka, R. F., Sun, W., **Tamò, M**. & Pittendrigh, B. R. (2014) Genetic Differentiation among Maruca vitrata F. (Lepidoptera: Crambidae) Populations on Cultivated Cowpea and Wild Host Plants: Implications for Insect Resistance Management and Biological Control Strategies. *PLoS ONE***,** 9. 1–9. • **Tamò, M.**, Srinivasan, R., Dannon, E., Agboton, C., Datinon, B., Dabire, C., Baoua, I., Ba, M. N., Haruna, B. & Pittendrigh, B. R. 2012. Biological control: a major component for the long-term cowpea pest Management strategy. pp 249-259. In: Boukar, O., Coulibaly, O., Fatokun, C., Lopez, K., Tamò M. (eds.). Enhancing cowpea value chains through research advances. Proceedings of the 5th World Cowpea Research Conference, 26 September – 1 October 2010 Saly, Senegal. • Dannon, E.A., **Tamò, M.**, Van Huis, A., Dicke, M., 2012. Assessing non-target effects and host feeding of the exotic parasitoid *Apanteles taragamae*, a potential biological control agent of the cowpea pod borer *Maruca vitrata*. *BioControl,* 57:415-425 • Huesing, J., Romeis, J., Ellstrand, N., Raybould, A., Hellmich, R., Wolt, J., Ehlers, J., Dabiré, C., Fatokun, C., Hokanson, K., Ishiyaku, M.F., Margam, V., Obokoh, N., Mignouna, J., Nangayo, F., Ouedraogo,J., Pasquet, R., Pittendrigh, B., Schaal, B., Stein, J., **Tamò, M.**, Murdock, L., 2012. Regulatory considerations surrounding the deployment of Bt-expressing cowpea in Africa: Report of the deliberations of an expert panel. *GM Crops* 2: 211-224

Key relevant programmes/projects managed	• Coordinator of Product Line 5 (insect-smart legume systems) and RMC member for CRP Grain Legumes, Since 2013 • IITA focal point for CRP Grain Legumes, Since 2012 • Leader of the Plant Health Management Program of IITA, From 2001- 2006 • Coordinator, Integrated Control of Legume, From 1998-2001 • Pests and Diseases Project, Plant Health Management Division, ▪ IITA • PI of several research projects

QUANG BAO LE
CoA Team Member, FP3: Integrated Farm and Household Management

NAME **Affiliation**	**QUANG BAO LE** **ICARDA, Amman**
Education (Degree, Year, Institution)	**Ph.D.** in Integrative Geography (specialization: Ecology and Natural Resources Management, Rural Land Use Systems Transition), 2005, University of Bonn, Germany **M.Sc.** in Environmental Science (specialization: Environmental Risk Assessment, Conservation Ecology), 1998, Chiang Mai University, Thailand (in collaboration with Saarland University, Germany) Forestry Engineer (specialized on Forest Biological Sciences, Agroforestry Systems), 1993, College of Agriculture and Forestry, Hue University, Vietnam
Employment for the past 5 years	**Integrated Systems Research Modeler -** ICARDA, Amman, Jordan, 2017 – present **Agricultural Livelihood Systems Expert -** CRP Dryland Systems, c/o ICARDA, Amman, Jordan, 2015 – 2016 **Senior Scientist -** Institution for Environmental Decisions (IED), Department of Environmental Systems Science (D-USYS), ETH Zurich, Switzerland, 2011 – 2014
Key recent publications relevant to the FP, CoA/CRP	Google Scholar Profile: https://scholar.google.com/citations?user=X7GybUQAAAAJ Citations: 1581, H-index: 19 • Miyasaka, T., **Le, Q.B.**, et al. (2017). Agent-based modeling of complex social–ecological feedback loops to assess multi-dimensional trade-offs in dryland ecosystem services. *Landscape Ecology* 32, 707-727. • Villamor, G.B., **Le, Q.B.**, et al. (2014). Biodiversity in rubber agroforests, carbon emissions and rural livelihoods: Multi-agent, multi-dimensional simulation tool to preview policy scenarios in lowland Sumatra. *Environmental Modelling and Software* 61, 151-165. • Vu, Q.M., **Le, Q.B.**, Vlek, P.L.G. (2014). Hotspots of human-induced biomass productivity decline and their social–ecological types toward supporting national policy and local studies on combating land degradation. *Global and Planetary Change* 121, 64-77. • **Le, Q.B.**, Seidl, R., Scholz, R.W. (2012). Feedback loops and types of adaptation in the modelling of land-use decisions in an agent-based simulation. *Environmental Modelling and Software* 27-28, 83-96. • **Le, Q.B.**, Park, S.J., Vlek, P.L.G. (2010). Land use dynamic simulator (LUDAS): A multi-agent system model for simulating spatio-temporal dynamics of coupled human-landscape system. 2. Scenario-based applications for impact assessment of land-use policies. *Ecological Informatics* 5(3), 203 - 221.
Key relevant programmes/projects managed	• Leader of CoA "*Integrated Systems Analysis and Modeling of Agricultural Livelihood Systems in Global Dryland", Overarching Flagship,* CRP Dryland Systems. • Core research member: *Resilience of Global Food Value Chains*, World Food System Center, ETH Zurich (Switzerland). • Natural-Social Science Interface Group Leader, *Sustainable Land-Use Practices In Mountain Regions: Integrative Analysis of Ecosystem Dynamics Under Global Change, Socio-Economic Impacts and Policy Implications (MOUNTLAND)*, ETH Zurich (Switzerland)**.**

- Leader of team on *Multi-agent system modeling of land-use systems change* (sub-project E3), *Global Change and Hydrological Science in the Volta Basin (GLOWA-Volta),* ZEF, University of Bonn (Germany).

SHALANDER KUMAR
CoA Team Member, FP3: Integrated Farm and Household Management

NAME **Affiliation**	**SHALANDER KUMAR** **ICRISAT, India**
Education (Degree, Year, Institution)	**Ph.D.** in Agri Economics, 1998, National Dairy Research Institute, Karnal, India **M.Sc**. in (Dairy/Agri Economics), 1991; N.D.R.I., Karnal, India **B.Sc. Ag**. (Hons), 1989, AGRA University, AGRA, India
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Principal Scientist/ Scientist**, Innovation Systems for the Drylands, ICRISAT India 2013-present **Principal Scientist & Head,** Division of Transfer of Technology, Training and Production Economics, Central Arid Zone Research Institute (CAZRI), Jodhpur, India, 2011-2013 **Project Manager**, Agricultural Technology Information Center, CAZRI, 2011-2013 **Principal Scientist** (Agricultural Economics), Central Research Institute for Dryland Agriculture (CRIDA), HYDERABAD, India, 2009-20011
Key recent publications relevant to the FP/CRP	Google Scholar https://scholar.google.co.in/citations?user=yPJKIG8AAAAJ&hl=en Research gate: >16000 reads • **Shalander Kumar**, Ramilan T, Ramarao C.A., Rao Ch. Srinivasa, Whitbread A. 2016. Farm level rainwater harvesting across different agro climatic regions of India: Assessing performance and its determinants. *Agricultural Water Management* 176 (2016) 55–66 • Haileslassie A, P Craufurd, T Ramilan, **Kumar, Shalander**, A Whitbread, Rathor, Michael Blummel, Polly Ericsson, Krishna Reddy Kakumanu 2016. Empirical evaluation of sustainability of divergent farms in the dryland farming systems of India. *Ecological Indicators* 60: 710–723 • **Kumar, Shalander**, Haileslassie A, T Ramilan; Wani SP. 2014. Assessing different farming systems for enhancing farm income and resilience in extreme dry region of India. *www.ageconsearch.umn.edu/bitstream/165846/2/Kumar%20CP.pdf* • **Kumar Shalander**, KL Sharma, K Kareemulla, GR Chary, CA Ramarao, CS Rao, B Venkateswarlu. 2011. Techno-economic Feasibility of Conservation Agriculture in Rainfed Agriculture, *Current Science*, 101(10): 1171-1181 • Krishna Reddy K, Palanisami K, Ranganatha C.R, Samad M, **Shalander Kumar**, Haileslassie A 2016. Quantification of Risk Premium on Farm Technology adoption in dryland system of south Asia. *International Journal of Climate Change Strategies and Management.* 8 (5): 689 – 717, • **Kumar Shalander**, Raju B.M.K., Rama Rao C.A., Kreemulla K. and Venkateswarlu B. 2011. Sensitivity of yields of major rainfed crops to climate in India. *Indian Journal of Agricultural Economics*, 66 (3):340-352.
Key relevant programmes/projects managed	• **Regional Flagship Leader (South Asia)**, CGIAR Research Program on Dryland Systems, 2015 and 2016 • **National Coordinator**, National Initiative on Climate Resilient Agriculture (NICRA) component II- covering 100 districts of India, Nov 2010 to August 2011 • **Chair,** Interdisciplinary Research Team of South Asia Flagship of CRP Dryland Systems (2015 and 2016)

- **Project Coordinator**, Integrating systems modelling tools enabling informed decisions for upscaling climate resilient agriculture, 2016-2018, Govt of India (ICAR)
- **Project's Center principal investigator**, Policy and Institutional Options for Inclusive Agricultural Growth, NAIP, World Bank 2009-2011
- **Editor**, Indian Journal of Dryland Agricultural Research and Development published by Indian Society of Dryland Agriculture, CRIDA, Hyderabad (2011-2015)
- **Board of Advisor**, Goat and Sheep Farmers Welfare Association (India), Bhopal since January 2015

ANTHONY M WHITBREAD
CoA Team Member, FP3: Integrated Farm and Household Management

NAME **Affiliation**	**ANTHONY M WHITBREAD** **ICRISAT, India**
Education **(Degree, Year, Institution)**	**Ph.D.** in Soil Science & Agronomy, 1997, University of New England, Armidale, Australia **B.Rur.Sc.** (Hons), 1993, University of New England, Armidale, Australia
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Research Program Director**, Innovation Systems for the Drylands (ISD), ICRISAT, 2014 – till date **Professor**, Georg-August-University Göttingen, Germany, 2011 – till date **Scientist/Senior Scientist**, CSIRO Sustainable Ecosystems, Australia, 1999-2010
Key recent publications relevant to the FP/CRP	Anthony Whitbread and AM Whitbread – Researcher ID: F-3068-2010 **Google Scholar citations**: **2566**; h-index: **21** • Akinseye FM, Traore PCS, Adam M, **Whitbread AM** (2016). Assessing crop model improvements through comparison of sorghum (Sorghum bicolor L. moench) simulation models: a case study of West African varieties Field Crops Research 201, 19-31 • Gumma MK, Deevi K, Irshad AM, Varshney RK, Gaur P, **Whitbread AM** (2016). Satellite imagery and household survey for tracking chickpea adoption in Andhra Pradesh, India. International Journal of Remote Sensing. 37(8), 1955-1972 DOI 10.1080/01431161.2016.1165889 • Sennhenn A, Njarui DMG, Maass BL, **Whitbread, AM** (2017) *Exploring Niches for Short-Season Grain Legumes in Semi-Arid Eastern Kenya — Coping with the Impacts of Climate Variability.* Frontiers in Plant Science, 8 (699). pp. 1-17. ISSN 1664-462X • **Whitbread A**, Robertson M, Carberry P, Dimes J (2010). How farming systems simulation can aid the development of more sustainable smallholder farming systems in Southern Africa. European Journal of Agronomy 32, 51-58. 0.1016/j.eja.2009.05.004 • Kumar S, Ramilan T, Ramarao CA, Srinivasa Rao C, **Whitbread A** (2016). Farm level rainwater harvesting across different agro climatic region of India: Assessing performance and its determinants. Agricultural Water Management 176, 55-66.
Key relevant programmes/projects managed	• Flagship Co-lead CRP Water, Land and Ecosystems (WLE) – Restoring Degraded Ecosystems / Land and Water Management for Sustainable Intensification, 2015-. • Panel President, Food Security - R4D Program, Swiss National Science Foundation (SNF) (www.r4d.ch), 2014-. • Leadership roles and PI in large scale projects funded by BMGF, ACIAR, DFID, CCAFS, CRP Dryland Systems, Indian government**.** • 2013 Associate Editor, Food Security: the Science, Sociology and Economics of Food Production and Access to Food.

INGRID ÖBORN
CoA Team Member, FP3: Integrated Farm and Household Management

NAME **Affiliation**	**INGRID ÖBORN** **SLU, Uppsala** **ICRAF, Nairobi, Kenya**
Education (Degree, Year, Institution)	**Ph.D.** in Soil Science, 1994, Swedish University of Agricultural Sciences (SLU), Uppsala **M.Sc.** in Agriculture, 1984, Swedish University of Agricultural Sciences (SLU), Uppsala
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Regional Coordinator ICRAF Southeast Asia**, Bogor, Indonesia, 2015-present **Senior Research Fellow ICRAF**, Nairobi, Kenya 2012-2015 **Professor of Agricultural Cropping Systems,** Dept Crop Production Ecology, SLU, Uppsala, Sweden 2009-present
Key recent publications relevant to the FP/CRP	Google scholars citations: 2744; h-index: 30 • Libère Nkurunziza, Iman Raj Chongtham, Christine A Watson, Håkan Marstorp, **Ingrid Öborn**, Göran Bergkvist, Jan Bengtsson. 2017. Modelling effects of multiple farm management practices on barley performance using Projection on Latent Structures (PLS). *European Journal of Agronomy* 90, 43-52. • Shem Kuyah, **Ingrid Öborn**, Mattias Jonsson, A Sigrun Dahlin, Edmundo Barrios, Catherine Muthuri, Anders Malmer, John Nyaga, Christine Magaju, Sara Namirembe, Ylva Nyberg & Fergus L Sinclair. 2016. Trees in agricultural landscapes enhance provision of ecosystem services in Sub-Saharan Africa, *International Journal of Biodiversity Science, Ecosystem Services & Management* 2(4), 255-273. • **Nyberg G, Knutsson P, Ostwald M, Öborn I, et al. 2015.** Enclosures in West Pokot, Kenya: Transforming land, livestock and livelihoods in drylands. *Pastoralism* **5**:25 • Nyaga, J., Barrios, E., Muthuri, C.W., **Öborn, I.**, Matiru, V., Sinclair, F.L. 2015. Evaluating heterogeneity in agroforestry adoption and practices within small-holder farms in Kenya. *Agriculture Ecosystem and Environment* 212, 106–118. • Tidaker P, Bergkvist G, Sundberg C, Kätterer T. **Öborn I.** 2014. Rotational grass/clover as energy crop in a cereal cropping system – a life cycle perspective. *Agricultural Systems* 129, 133–141. • Hoang, M.H., Namirembe, S., van Noordwijk, M., Catacutan, D., **Öborn, I.** 2014. Farmer portfolios, strategic diversity management and climate change vulnerability - comparative studies in Vietnam and Kenya. *Climate and Development* 6, 216-225 • **Öborn, I**., Bengtsson, J., Hedenus, F., Rydhmer, L., Stenström, M., Vrede, K., Westin, C., Magnusson, U. 2013. Scenario Development as a Basis for Formulating a Research Program on Future Agriculture: A Methodological Approach. *Ambio* 42, 823–839

Key relevant programmes/projects managed	• Project leader (PI). Unraveling the causes and implications of crop productivity gaps in underperforming regions through integration of geospatial, biophysical and socio-economic factors (*Yield Gap Africa*). 2015-2017, Swedish Research Council Formas. • ICRAF coordinator; *LegumeCHOICE*: Realizing the underexploited potential of multi-purpose legumes towards improved livelihoods and a better environment in crop-livestock systems in East & Central Africa; BMZ 2014-2017 (IITA lead) • ICRAF Focal point for the CGIAR Consortium Research Program: 'Integrated Systems for the Humid Tropics' (*Humidtropics*), 2013-2016 • Visiting Professor, Scotland's Rural Collage, Edinburgh, UK, 2012-2017 • Associate Editor, *Ambio* 2012 – 2016 • Steering Committee: Swedish International Agricultural Network Initiative *(SIANI*) 2015-ongoing • Steering Committee: Agriculture for Food Security 2030 – translating science to policy and practice (*AgriFoSe2030*), 2015-ongoing • *Program Director* of the *Future Agriculture* – Livestock Crops and Land Use Research Program 2009-2012, SLU • Swedish CGIAR Reference Group 2006-2007, 2012-2016 • *Sida Research Council* 2007-2013 • Elected Member of the S*LU University Board* 2011-2012 • Project leader (PI).Micronutrient management strategies in organic systems: How to utilize local and site specific resources for sustainable crop and animal production of high quality products? 2007-2010 Swedish Research Council Formas.

GORAN BERGKVIST
CoA Team Member, FP3: Integrated Farm and Household Management

NAME **Affiliation**	**GÖRAN BERGKVIST** **Department of Crop Production Ecology, SLU, Sweden**
Education **(Degree, Year, Institution)**	**Ph.D.** in Crop Production Science, 2003, SLU, Sweden **M.Sc.** Agronomy, 1993, SLU, Sweden
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Head of the unit**, Agricultural Cropping Systems at the Department of Crop Production Ecology, SLU, 2015-present. **Team leader**, Agricultural Cropping systems at the Department of Crop Production Ecology, SLU 2012-2014. **Vice dean**, Agricultural Sciences at the Faculty of Natural Resources and Agricultural Sciences, SLU. 2016-present.
Key recent publications relevant to the FP/CRP	Göran Bergkvist http://www.slu.se/en/cv/goran-bergkvist/ Google Scholar citations: **554**; h-index: **12** 1. Nkurunziza, L., Chongtham, I.R., Watson, C.A., Marstorp,H., Öborn, I., **Bergkvist, G**., Bengtsson, J. (2017) Understanding effects of multiple farm management practices on barley performance. European Journal of Agronomy 90, 43–52. http://dx.doi.org/10.1016/j.eja.2017.07.003 2. St-Martin, A., Vico, G., **Bergkvist, G**. & Bommarco, R. (2017) Diverse cropping systems enhanced yield but did not improve yield stability in a 52-year long experiment. Agriculture, Ecosystems and Environment 247 (2017) 337–34. 3. **Bergkvist, G.**, Ringselle, B., Magnuski, E., Mangerud, K. & Brandsaeter, L.O. (2017) Control of Elymus repens by rhizome fragmentation and repeated mowing in a newly established white clover sward. Weed Research 57, 172–181." 4. Chongtham, I.R., **Bergkvist, G.**, Watson, C.A., Sandström, E., Bengtsson, J. & Öborn, I. (2017) Factors influencing crop rotation strategies on organic farms with different time periods since conversion to organic production, Biological Agriculture & Horticulture 33, 14-27. DOI: 10.1080/01448765.2016.1174884 5. Tidåker, P., **Bergkvist, G**., Bolinder, M., Eckersten, H., Johnsson, H., Kätterer, T., Weih, M. (2016) Estimating the environmental footprint of barley with improvednitrogen uptake efficiency—a Swedish scenario study. European Journal of Agronomy 80, 45–54. 6. Reckling, M., **Bergkvist, G.**, Watson, C.A., Stoddard, F.L.,Zander, P.M.,Walker, RL., Pristeri, A.,Toncea, I. and BachingerJ. (2016) Trade-offs between economic and environmental impacts of introducing legumes into cropping systems. Frontiers in Plant Science 7:669. doi: 10.3389/fpls.2016.00669 7. Reckling, M., Hecker, J-M., **Bergkvist, G**., Watson, C., Zander, P., Schläfke, N., Stoddard, F.L., Eory, V., Topp, C.F.E., Maire, J. & Bachinger, J. (2016) A cropping system assessment framework: Assessing legumes at the cropping system scale. European Journal of Agronomy 76, 186–197. doi:10.1016/j.eja.2015.11.005
Key relevant programmes/projects managed	• Chairman of the SLU Cropping System Platform, 2014-present • Chairman of the Field Research Unit, a joint venture between SLU and stakeholders in agricultural field research, 2016-present • Chairman of the SLU Management board for long-term experiments, 2016-present

	• Member of the Faculty board, 2010-present • Chairman of the subject committee of Cropping Systems within the Field Research Unit, 2004-present • Member of Steering committee of “Odling i balans”, 2013-present, http://www.odlingibalans.com/ • Member of the Reference group for approval of new varieties on the Swedish variety list, 2010-present • Consulting editor of Plant and Soil, 2010-present • Lead and are member of several national and European (OSCAR, FertilCrop (task leader)) research projects relating to design and evaluation of cropping systems.

FLAGSHIP PROGRAM 4: VARIETY & HYBRID DEVELOPMENT

PATRICK OKORI
Leader, FP4 – Varieties and Hybrid Development

NAME **Affiliation**	**PATRICK OKORI** **ICRISAT, Malawi**
Education **(Degree, Year, Institution)**	**Ph.D.,** 2004, Swedish University of Agricultural Sciences, Uppsala **M.Sc. Crop Science,** 1997, Makerere University, Uganda **B.Sc. Ag**., 1994, Makerere University, Uganda
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Principal Scientist – Groundnut Breeding**, Research Program – East and Southern Africa, ICRISAT, 2012 to present **Product line leader**, CGIAR Research Programme on Grain Legumes 2013-todate. **Dean** School of Agricultural Sciences Makerere University, Uganda 2011-2012. **Associate Professor**, Agricultural Production Department, Makerere University, 2010.
Key recent publications relevant to the FP/CRP	• Mayada M, **Okori P.** et al 2016. Resistance to anthracnose and turcicum leaf blight in sorghum under dual infection. (Plant Breeding In Press). • Anitha, S., Monyo, E. S., **Okori, P.,** 2014. Simultaneous detection of groundnut rosette assistor virus (GRAV), groundnut rosette virus (GRV) and satellite RNA (satRNA) in groundnuts using multiplex RT-PCR. Archives of Virology [SEP]DOI 10.1007/s00705-014-2139-7. • Gasura, E, Setimela, P.S., Tarekegne, A., Icishahayo, D., Edema, R. Gibson, P.T. and **Okori, P.**, 2014. Variability of Grain-Filling Traits in Early Maturing CIMMYT Tropical Maize Inbred Lines. Crop Science 54:530–536. • Tembo, l., Asea, G., Gibson, P.T., and **Okori, P**. 2013. Resistance breeding strategy for Stenocarpella maydis and Fusarium graminearum cob rots in tropical maize. Plant Breeding doi:10.1111/pbr.12013. • Martin, T., Biruma, M., Fridborg, I., **Okori, P**., and Dixelius, C., 2011. A highly conserved NB-LRR encoding gene cluster effective against Setosphaeria turcica in sorghum. BMC Plant Biology: 11:151. • Biruma. M., Martin, T., Fridborg, I., **Okori, P.** and Dixelius , C. 2011. Two loci insorghum with NB-LRR encoding genes confer resistance to Colletotrichum sublineolum. Theor Appl Genet. DOI 10.1007/s00122-011-1764-8.
Key relevant programmes/projects managed	• FtF Malawi Improved Seed Systems and Technologies 2013-2018). • Tropical Legumes III, 2014-2018. • Tropical Legumes II, 2012 to 2015; • Groundnut varieties improvement, ESA, 2013-todate • Malawi Seed industry development project – 2013 to 2022

VINCENT VADEZ
CoA Team Member, FP4: Variety & Hybrid Development

NAME **Affiliation**	**VINCENT VADEZ** **ICRISAT, India / IRD, France**
Education **(Degree, Year, Institution)**	**Ph.D.,** 1996, Supagro, Montpellier **Engineering degree**, 1990, Supagro Montpellier
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Senior Scientist / Principal Scientist** – ICRISAT, India, 2008 – Until Now
Key recent publications relevant to the FP/CRP	• **Vadez V**, Kholova J, Hummel G, Zhokhavets U, Gupta SK, Hash CT 2015. L*easyScan: a novel concept combining 3D imaging and lysimetry for high-throughput phenotyping of traits controlling plant water budget* J. Exp Bot 66: 5581-5593. • Kholová J, Tharanya M, Kaliamoorthy S, Malayee S, Baddam R, Hammer GL, McLean G, Deshpande S, Hash CT, Craufurd PQ and **Vadez V**. 2014. Modelling the effect of plant water use traits on yield and stay-green expression in sorghum. Func Plant Bio 41: 1019–1034. • **Vadez V** 2014. Root hydraulics: the forgotten side of root in drought adaptation. Field Crops Res 165:15-24. • **Vadez V**, Kholova J, Medina S, Aparna K, Anderberg H 2014. Transpiration efficiency: New insights into an old story. J. Exp Bot 64: 6141–6153. • **Vadez V** and Kholová, J 2013. Coping with drought: Resilience versus risk. Targeting the most suitable G*E*M options by crop simulation modelling - Secheresse 24: 274-81. • **Vadez V**, Soltani A, Krishnamurthy L, Sinclair TR 2012. Modelling possible benefit of root related traits to enhance terminal drought adaption of chickpea. Field Crops Res 10.1016/j.fcr.2012.07.022 • Kholová J, McLean G, Hammer GL, **Vadez V**, Craufurd PQ 2013. Drought stress characterization of post-rainy sorghum (rabi) in India. Field Crops Res 141: 38-46
Key relevant programmes/projects managed	• **Tropical Legumes I,** 2008-2013. • **ACIAR project** (improving postrainy sorghum production) • **Various FTF USAID** labs as co-PI.

MICHEL EDMOND GHANEM
CoA Team Member, FP4: Variety & Hybrid Development

NAME **Affiliation**	**MICHEL EDMOND GHANEM** **ICARDA, Morocco**
Education **(Degree, Year, Institution)**	**Ph.D.,** 2009, Université catholique de Louvain, Belgium **M.Sc.,** 2003, Université catholique de Louvain, Belgium **Agronomy Engineer, 2001,** Université catholique de Louvain, Belgium and Univesité Saint Joseph de Beyrouth
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Crop Physiologist**, ICARDA **Adjunct Professor**, WSU
Key recent publications relevant to the FP/CRP	• **Ghanem, Marrou and Sinclair. 2015. Physiological Phenotyping of Plants for Crop Improvement.** Trends in Plant Science 20:139-144, • **Ghanem et al. 2015. Production potential of Lentil (*Lens culinaris* Medik.) in East Africa.** Agricultural Systems 137:24-38, • **Chen, Ghanem and Siddique 2017. Characterising root trait variability in chickpea (*Cicer arietinum* L.) germplasm.** Journal of Experimental Botany DOI 10.1093/jxb/erw368 • **Guiguitant et al. 2017. Relevance of limited-transpiration trait for lentil (*Lens culinaris Medik*.) in South Asia.** Field Crops Research. DOI: 0.1016/j.fcr.2017.04.013
Key relevant programmes/projects managed	• PL2 coordinator: on CRP-GL September 2013- 2017 • FP2-Co-leader: on CRP-Wheat, September 2016- current

POORAN M GAUR
CoA Team Member, FP4: Variety & Hybrid Development

NAME **Affiliation**	**POORAN M GAUR** **ICRISAT, India**
Education **(Degree, Year, Institution)**	**Ph.D.** in Crop Science, 1990, University of Saskatchewan, Saskatoon, Canada **M.Sc. Agr**i. (Plant Breeding & Genetics), 1978, Jawaharlal Nehru Agricultural University, Jabalpur, India
Employment for the past 5 years	**Principal Scientist,** Chickpea Breeding & Theme Leader Crop Improvement, ICRISAT, India, Feb 2016 – to date **Principal Scientist,** Chickpea Breeding & Assistant Research Program Director – Grain Legumes, ICRISAT, India, Jul 2013- Feb 2016 **Principal Scientist,** Chickpea Breeding, ICRISAT, India, Mar 2006 – to date
Key recent publications relevant to the FP/CRP	130 Journal Articles + 50 Book Chapters and Papers in Proceedings of Conferences/Symposia. Google Scholar citations: **4871**; h-index: **39** • **Gaur PM** et al. 2016. Inheritance of protein content and its relationships with seed size, grain yield and other traits in chickpea. Euphytica 209:253-260. • **Gaur PM** et al. 2015. Allelic relationships of flowering time genes in chickpea. Euphytica 203:295-308. • **Gaur PM** et al. 2013. Large Genetic Variability in Chickpea for Tolerance to Herbicides Imazethapyr and Metribuzin. Agronomy 3:524-536. • Devasirvatham V, **Gaur PM** et al. 2012. Effect of high temperature on the reproductive development of chickpea genotypes under controlled environments. Functional Plant Biology 39:1009-1018. • **Gaur PM** et al. 2008. Improving drought-avoidance root traits in chickpea. Plant Production Science 11:3-11.
Key relevant programmes/projects managed	• **Product Line Coordinator** for the Product Line 7 (Herbicide tolerant machine-harvestable chickpea, faba bean and lentil varieties) of the CRP-Grain Legumes (2013- 2016). • **Coordinator** of IFAD Grant Project "Sustainable Management of Crop-based Production Systems for Raising Agricultural Productivity in Rainfed Asia" (2013 – 2017). • **Objective Leader** of Objective 5 (Chickpea Improvement) in Tropical Legumes II (2008-2015) and Tropical Legumes III (2015 – to date) projects • **Product Delivery Coordinator** of the Generation Challenge Program (GCP) Challenge Initiative on "Improving drought tolerance in chickpea for Africa and Asia" (2009-2014).

SHIV KUMAR AGRAWAL
CoA Team Member, FP4: Variety & Hybrid Development

NAME **Affiliation**	**SHIV KUMAR AGRAWAL** **ICARDA, Morocco**
Education	**Ph.D**., 1990, GB Pant University of Agriculture and Technology, India
Employment for the past 5 years	**Food Legumes Coordinator and Principal Lentil Breeder**
Key recent publications relevant to the FP/CRP	• **Kumar S**, Rajendran K, Kumar J, Hamwieh A and Baum M. 2015. Current knowledge in lentil genomics and its application for crop improvement. *Frontiers in Plant Science* doi: 10.3389/fpls.2015. • Johnson CR, Thavarajah D, Fenlason A, Thavarajah P, McGee R, **Kumar S**, Combs GF Jr. 2015. A global survey of low-molecular weight carbohydrates in lentils. Journal of Food Composition and Analysis, 44:178-185. • Kumari S, Sahgal A, Kumar J, **Kumar S**, Singh S, Siddique K and Nayyar H. 2017. Identification of high temperature tolerant lentil *(Lens culinaris subsp. culinaris)* genotypes through leaf and pollen traits. Frontiers in Plant Science doi: 10.3389/fpls.2017.00744. 19 May 2017. • Sengupta D, McPhee K and **Kumar S**. 2017. Development of molecular markers for iron metabolism related genes in lentil and their expression analysis under excess iron stress. Frontiers in Plant Science doi: 10.3389/fpls.2017.00579. 13 April 2017. • Kumar J, Sengupta D, Gupta S, Dubey S, Gupta P and **Kumar S**. 2017. Quantitative trait loci from identification to exploitation in crop improvement. Plant cell Reports. Doi:10.1007/s00299_0172127-y.
Key relevant programmes/projects managed	• **ICARDA Focal Point**: on CRP-GL and CRP-A4NH September 2012- 2016. • **Product Line leader (PL)** PL6 in CRP-Grain legumes.

GODFREE CHIGEZA
CoA Team Member, FP4: Variety & Hybrid Development

NAME **Affiliation**	**GODFREE CHIGEZA** **IITA, Zambia**
Education	• **Ph.D**., 2013, University of KwaZulu Natal, South Africa • **M.Phil.,** 2003, University of Queensland, Asutralia • **B.Sc.,** 1994, University of Zimbabwe
Employment for the past 5 years	**Soybean Breeder ,**IITA, Oct 2015 to present **Maize Breeding Lead,** AME, MRI-Syngenta, Zambia, Aug 2014 - Sep 2015 **Maize Product development Lead,** ARC, South Africa, Apr 2011-Aug 2014
Key recent publications relevant to the FP/CRP	• Agoyi, E.E., Odong, T.L., Tumuhairwe, J.B., **Chigeza, G.,** Diers,B.W, and Tukamuhabwa, P., 2017. Genotype by environment effects on promiscuous nodulation in soybean (*Glycine max* L. Merrill). Agric & Food Sec. DOI 10.1186/s40066-017-0107-7. • Chiona, M., **Chigeza. G.,** Ntawuruhunga, P., 2017. Exploring Climatic Resilience Through Genetic Improvement for Food and Income Crops. *In Nhamo, N., Chikoye, D., Gondwe, T.* (Editors). Smart Technologies for Sustainable Smallholder Agriculture. Upscaling in Developing Countries. Academic Press, Elsevier B.V • **Chigeza, G**, Mashingaidze, K., and Shanahan, P., 2014. Combining ability and correlated response to selection for oil yield in sunflower (Helianthus annuus) under contrasting moisture environments. Field Crops Res 167: 40-50 • **Chigeza, G**, Mashingaidze, K., and Shanahan, P., 2013. Advanced cycle pedigree breeding in sunflower.ii: combining ability for oil yield and its components. Euphytica 2013 DOI 10.1007/s10681-013-0985-0 • Townsend, T., Segura, V., **Chigeza,G**., Penfield, T., Rae,A., Harvey, D., Bowles,D.,and Graham, I., 2013. The use of combining ability analysis to identify elite parents for *Artemisia annua* F1 hybrid production. PLoS ONE 8: e61989. doi:10.1371/journal.pone.0061989.
Key relevant programmes/projects managed	• **Soybean Breeding** (Soybean Innovation Laboratory) todate. • **WEMA Project South Africa** (2011-2014).

SK GUPTA
CoA Team Member, FP4: Variety & Hybrid Development

NAME **Affiliation**	**SK GUPTA** **ICRISAT, India**
Education	**Ph.D**. in Plant Breeding and Genetics, 1997, CCHAU, Hisar, India
Employment for the past 5 years	**Plant Breeder on grain legumes** - PAU, Ludhiana, India, 2001-2007 **Principal Scientist (Pearl millet Breeding)** – ICRISAT, since 2008
Key recent publications relevant to the FP/CRP	• Yadav, O P and Rai, K N and Yadav, H P and Rajpurohit, P S and Gupta, S K and Rathore, A and Karjagi, C G (2016) *Assessment of Diversity in Commercial Hybrids of Pearl Millet in India.* Indian Journal of Plant Genetic Resources, 29:.130-13. • Gupta, S K and Rai, K N and Singh, P and Ameta, V L and Gupta, Suresh K and Jayalekha, A K and Mahala, R S and Pareek, S and Swami, M L and Verma, Y S. 2015. *Seed set variability under high temperatures during flowering period in pearl millet (Pennisetum glaucum L. (R.) Br.).* Field Crops Research 171: 41-53. • Gupta, S K and Nepolean, T and Sankar, S M and Rathore, A and Das, R R and Rai, K N and Hash, C T. 2015. *Patterns of Molecular Diversity in Current and Previously Developed Hybrid Parents of Pearl Millet [Pennisetum glaucum (L.) R. Br.].* Am J Plant Sci, 6:.697-1712. • Gupta, S K and Rathore, A and Yadav, O P and Rai, K N and Khairwal, I S and Rajpurohit, B S and Das, R R 2013. *Identifying Mega-Environments and Essential Test Locations for Pearl Millet Cultivar Selection in India.* Crop Science, 53: 2444-2453.
Key relevant programmes/projects managed	• **HOPE Objective 3** (Pearl millet improvement) Global Coordinator 2009-2014. • **Product Line leader:** CRP-DC 2012-2016. • **PI ICRISAT-**Pearl Millet Hybrid Parents Research Consortium 2014 to date

CHRIS O. OJIEWO
CoA Team Member, FP4: Variety & Hybrid Development

NAME **Affiliation**	**CHRIS O. OJIEWO** **ICRISAT, Kenya**
Education	**Ph.D., Agriculture (Plant Breeding),** 2007, Okayama University, Japan **M.Sc., Agriculture (Plant Breeding),** 2005, Okayama University, Japan **B.Sc., Horticulture,** 2001, Jomo Kenyatta University of Agriculture and Technology
Employment for the past 5 years	**Theme Leader -** Seed Systems, ICRISAT, October 2016 to date **Coordinator -** Tropical Legumes III, October 2016 to date **Senior Scientist -** Legume Breeding, ICRISAT, February 2013 to date **Scientist** - Legume Breeding and Seed Systems, ICRISAT, 2012-2013. **Scientist -** Vegetable Breeding and Seed Systems, WorldVeg, 2008- 2012
Key recent publications relevant to the FP/CRP	• **Ojiewo CO**, Wesonga J, Bishaw Z, Rubyogo JC and Abang M. 2017. Mainstreaming Efficient Legume Seed Systems in Eastern Africa: Challenges, Opportunities and Contributions Towards Improved Livelihoods. A book publication of FAO (FAO, 2017, In press. • **Ojiewo CO**, Tenkouano A, Hughes Jd'A, Keatinge JDH, Nair R, Monyo ES, Ganga-Rao NVPR, Varshney RK, Silim S and Siambi M. 2015. The Role of Vegetables and Legumes in Assuring Food, Nutrition and Income Security for Vulnerable Groups in Sub-Saharan Africa. World Med& Health Policy, 7:187-210. • **Ojiewo CO**, Samuel Kugbei S, Nono-Womdim R, Bishaw Z, Rubyogo JC (2015). Community Seed Production. A book publication of ICRISAT, ICARDA, CIAT and FAO. ICRISAT, 2015. • Njuguna EM, Liani ML, Beyene B, **Ojiewo CO.** 2016. Exploration of cultural norms and practices influencing women's participation in chickpea participatory varietal selection training activities: A case study of Ada'a and Ensaro districts, Ethiopia. J. Gender, Agri and Food Sec 1: 40-63.
Key relevant programmes/projects managed	**Theme Leader, Seed Systems,** ICRISAT (Since October 2016) **Coordinator, Tropical Legumes III Project,** ICRISAT (Since October 2016)

KAMARA ALPHA
CoA Team Member, FP4: Variety & Hybrid Development

NAME **Affiliation**	**KAMARA ALPHA** **IITA, Nigeria**
Education	**Ph.D.,** 1998, University of Kassel, Germany **MS,** 1993, Christian Albrecht's University of Kiel, Germany **B.Sc.,** 1986 Agriculture General, Njala University College, University of Sierra Leone
Employment for the past 5 years	**Savanna Systems Agronomist -** International Institute of Tropical Agriculture (IITA), March 2007 to date **Systems Agronomist -** Promoting Sustainable Agriculture in Borno, IITA Ibadan, Nigeria, Jan 2004-Feb 2007 **Systems Agronomist -** Drought-tolerant maize project, IITA, Apr 2002-Dec 2003
Key recent publications relevant to the FP/CRP	• **Kamara A. Y.**, Sylvester U. Ewansiha, Abdullahi I. Tofa, and Steve Boahen (2014). Agronomic response of soybean to plant population in the Guinea Savannas of Nigeria. Agronomy Journal 106:1051-1059, • **Kamara A. Y.**, Friday Ekeleme, Jibrin M. Jibrin, Gbessay Tarawali, and Ibrahim Tofa (2014), Assessment of level, extent and factors influencing *Striga* infestation of cereals and cowpea in a Sudan Savanna ecology of northern Nigeria. Agric., Ecos Enviro 188 111–121. • **Kamara A.Y**, S. U Ewansiha, and A. Menkir 2013. Assessment of Nitrogen Uptake and Utilization in Drought Tolerant and Striga Resistant Tropical Maize Varieties. Archives of Agronomy and Soil Science doi.org/10.1080/03650340.2013.783204 • **Kamara A. Y.**, Sylvester U. Ewansiha, Hakeem A. Ajeigbe and Lucky O. Omoigui (2012). Response of old and new cowpea varieties to insecticide spray regimes in the Sudan savanna of Nigeria. Archives of Phytopathology and Plant Protection 1–12 • **Kamara, A.Y**, S. U Ewansiha, and A. Menkir, A. I Tofa. 2012 Agronomic response of drought-tolerant and *Striga*-resistant maize cultivars to nitrogen fertilization in the Nigerian Guinea savannas. Maydica, 57: 114-120
Key relevant programmes/projects managed	• **IITA focal point**: CRP 5. Water, Land, and Ecosystems Sept 2011- To-date, • **Taskforce leader**, Sudan Savanna taskforce of the Kano-Katsina Maradi-PLS of the sub-saharan African Challenge program, Mar 2007- to-date. • **PI, Seed Systems** Tropical Legume 2008-2014 to date • **Leader Nigeria**. Taking Maize Agronomy to Scale in Sub-Saharan Africa (TAMASA project). 2014-Present

LOUISE SPERLING
CoA Team Member, FP4: Variety & Hybrid Development

NAME **Affiliation**	**LOUISE SPERLING** **CRS, USA**
Education	**Ph.D.,** Development Anthropology, High honors, McGill University, Montreal, Canada. **M.A.**, Development Anthropology, Magna cum Laude, State University of New York, Binghamton, USA. **B.A.**, Archeology-Anthropology Phi Beta Kappa, Fulbright/ IIE Teaching Fellowship, Wesleyan University, Connecticut, USA.
Employment for the past 5 years	**Senior Technical Advisor,** Recovery Program, Agriculture and Livelihoods, CRS, 2014 – to date **Project Manager/Principal Investigator,** Seed System Security, International Center for Tropical Agriculture (CIAT), 2005 – to date **Select consultancies:** frameworks and lessons for scaling seed systems, 2013 **Principal Scientist**, Seed Systems, Agrobiodiversity and Africa Programs, International Center for Tropical Agriculture (CIAT), 2002-2011
Key recent publications relevant to the FP/CRP	(see list of 105 publications, https://www.researchgate.net/profile/Louise_Sperling2) • 2016, Seed systems smallholder farmers use. (S.McGuire and L.Sperling) Food Security, 8:179-195. • 2014, Integrated Seed Systems (L. Sperling, S. Boettiger and I. Barker): in S. Boettiger editor: Growing Smartly: Scaling Seed Systems and the Adoption of Agricultural Technologies among Smallholder Farmers. Basel, Switzerland: Syngenta Foundation for Sustainable Agriculture. • 2013, Making seed systems more resilient to stress. (S.McGuire and L. Sperling). Global Environmental Change, 23(3):644-653. • 2013, The role of evidence in humanitarian assessment: the Seed System Security Assessment and the Emergency Market Mapping Analysis. (K.G. Byrne, J. March, S. McGuire, L. Meissner and L. Sperling, *alphabetical order*) Disasters, s1: s83-s104. • 2012, Fatal gaps in seed security strategy. (L. Sperling and S. McGuire) Journal of Food Security: the Science, Sociology and Economics of Food Production and Access to Food, 4(4): 569-579. • 2011, The links between food security and seed security: facts and fiction that guide response. (S. McGuire and L. Sperling). Development in Practice:21(4-5):493-508. • 2010, Understanding and strengthening informal seed markets. (L. Sperling and S. McGuire). Experimental Agriculture 46(2):119-136.
Key relevant programmes/projects managed	• Capacity Building in Seed System Security Assessments: Cross-continent and Cross-institutional Focus: OFDA.USAID funded. 2016- 2018. • Effecting Change in Seed Security Response in Crisis, Chronic Stress and Developmental Contexts: OFDA/USAID- funded. 2005-2016, several linked projects. • Tropical Legumes II Project: Developing Sustainable Seed Production and Delivery Systems for Reaching the Poor in Drought-Prone Areas in sub-Saharan Africa and South Asia (2007-11). Bill and Melinda Gates Foundation (BMGF)-funded.

	• Assessing the Effects of Long-Term Seed Aid in Ethiopia IDRC-funded (2006-2007) • Assisting disaster-affected and chronically-stressed communities in East and Central Africa: focus on smallholder farmer seed systems. OFDA/USAID-funded. (2002-2005) • Seed Aid and Germplasm Restoration in Disaster Situations: Lessons learned: Latin America, Africa and Asia. IDRC-funded (2003-2005).

FLAGSHIP PROGRAM 5 (FP5): PRE-BREEDING &TRAIT DISCOVERY

RAJEEV GUPTA
Leader, FP5: Pre-Breeding & Trait Discovery

NAME **Affiliation**	**RAJEEV GUPTA** **ICRISAT, India**
Education **(Degree, Year, Institution)**	**Ph.D.,** 1997, University of Cambridge, UK **M.Phil.,** 1995, University of Cambridge, UK **MS,** Plant Pathology, 1991, Punjab Agricultural University, India **BS Agriculture (Hons),** 1988, Punjab Agricultural University, India
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Principal Scientist & Theme leader (Genomics & Trait Discovery),** Genetic Gains Department, ICRISAT, Feb 2016 to present **Principal Scientist (Applied Cereals genomics),** Dryland Cereals Department, ICRISAT, 2015-2016 **Research Scientist III & Lead**, Agronomic Traits, DuPont Pioneer, USA, 2003-2015
Key recent publications relevant to the FP/CRP	**Publications (~20 with >3000 citations)** details at http://scholar.google.com/citations?user=f646BioAAAAJ • Deshpande S, …. and **Gupta, R.,** 2016. In The Sorghum Genome (pp. 169-187). Springer International Publishing. • **Rajeev Gupta**, .. and Sheng Luan (2002) ***Nature*** 417: 567-571. • **Rajeev Gupta**, …., and Sheng Luan (2002) ***PNAS. USA*** 99:15806 • **Rajeev Gupta**, ….., Sheng Luan (2002). ***Plant Cell*** 14:2495-2507. • **Rajeev Gupta**, .. and Sheng Luan (1998) ***Plant Journal*** 16: 581-589. **Patents (total ~50)** • Methods for enhancing plant stress tolerance (US7250555B2) • Zing finger proteins expressed in plant meristems (US7309816B1) • Maize Genes for Controlling Plant Growth and Organ Size and their Use in Improving Crop Plants (US7550575B1, US7834240B2, US 8575422 B1) • Manipulation of plant xylan synthases (US8173866 B1) • Manipulation of AMTs to improve nitrogen use efficiency in higher plants • Manipulation of Serine/threonine Protein Phosphatases for Crop Improvement. WO2014004487A1 • Engineering plants for efficient uptake of urea to improve crop production. WO2014081673A2 • Methods to alter plant cell wall composition for improved biofuel production and silage. US20150082480A1 • Plant drought tolerance and nitrogen use efficiency by reducing sensitivity to ethylene. US20150159166A1

Key relevant programmes/projects managed	• PI: Cambridge India Network for Translational Research in Nitrogen (CINTRIN). A joint virtual center with NIAB, UCAM, SLCU Cambridge, UK, ICRISAT, NIPGR, PAU, India. Bhaba-Newton Fund UK (BBSRC#: BB/N013441/1). ~US$ 3.5M (2016-2019) • Co-PI: Delivering more produce and income to farmers through enhancing genetic gains for chickpea and pigeonpea. DAC-Government of India. ~US$1.4M (2017-2020) • Co-PI: Integrated genomics-assisted breeding for efficient development of superior finger millet varieties for Karnataka. Government of Karnataka (GoK). ~US$1.6M (2016-2019). • PI: NUE lead for multi-million dollars collaboration between ACPFG and DuPont Pioneer (2012-2017)* • PI: DuPont-Pioneer's Internal Discovery grant award to explore novel approaches for improve crop productivity. DuPont Pioneer Johnston IA, USA US$350, 000 (2011-2014)

OUSMANE BOUKAR
CoA Team Member, FP5: Pre-Breeding & Trait Discovery

NAME **Affiliation**	**OUSMANE BOUKAR** **IITA, Kano**
Education (Degree, Year, Institution)	**Ph.D.** in Plant Breeding and Genetics, 2002, Purdue University, West Lafayette, IN, USA **M.Sc.** in Plant Breeding and Genetics, 1998, Purdue University, West Lafayette, IN, USA **B.Sc.** in Ingenieur Agronome, 1988, National Advanced School of Agronomy, Dschang University, Dschang, Cameroon
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Cowpea Breeder**, IITA-Kano, 2007-2011 and 2014-present **Cowpea Breeder**, IITA-Ibadan, 2011-2014 **TL II-III Objective 3 PI**, IITA, 2011 – present
Key recent publications relevant to the FP/CRP	• **Boukar O.,** Massawe F., Muranaka S., Franco J., Maziya-Dixon B., Singh B, and Fatokun C. 2011. Evaluation of cowpea germplasm lines for protein and mineral concentrations in grains. Plant Gen. Res.: Characterization and Utilization; 1–8 • **Boukar O.**, Fatokun C., Roberts P.A., Abberton M., Huynh B., Close, T. J., Kyei-Boahen S., Higgins T. J. V. and Ehlers J. D. 2015. Cowpea. *In* A. M. De Ron (ed.), *Grain Legumes,* Handbook of Plant Breeding 10, DOI 10.1007/978-1-4939-2797-5_7 pages 219 - 250, Springer, 2015. • Munoz-Amatriain M., Mirebrahim H., Xu P., Wanamaker S., Luo M., Alhakami H., Alpert M., Atokple I., Batieno B.J., **Boukar O.**, Bozdag S., Cisse N., Drabo I., Ehlers J.D., Farmer A., Fatokun C., Gu Y.Q., Guo Y., Huynh B., Jackson S.A., Kusi F., Lawley C.T., Lucas M.R., Ma Y., Timko M.P., Wu J., You F., Roberts P.A., Lonardi S., Close, T.J. 2016. Genome resources for climate-resilient cowpea, an essential crop for food security**.** Plant Journal 1 - 40, • **Boukar O,** Fatokun C, Huynh B, Roberts PA, Close TJ (2016) Genomic tools in cowpea breeding programs: status and perspectives. Front. Plant Sci, 7: 757, 1 – 13. • Samireddypalle A., **Boukar O.**, Grings E., Fatokun C.A., Kodukula P., Devulapalli R., Okike I. and Blümmel M. 2017. Cowpea and Groundnut Haulms Fodder Trading and Its Lessons for Multidimensional Cowpea Improvement for Mixed Crop Livestock Systems in West Africa. Front. Plant Sci., 8:30.
Key relevant programmes/projects managed	• Tropical Legumes III, PI- Objective 3, 2015 to present • IITA-Monsanto Project, PI, 2015 to present • FtF Climate Resilient Cowpea, IITA PI from 2014 to present • Member of Technical and Management Advisory Committee of the Feed the Future Legume Innovation Lab – USAID, 2012 to present • Leader of GCP/IBP Cowpea Community of Practice, 2014 to present • Utilization of wild relatives in the breeding of cowpea for improved adaptation to drought and heat project, PI, 2015 to present • Tropical Legumes II, PI - Objective 3 and IITA coordinator, 2007 to 2015 • Tropical Legumes I, IITA PI Objective 2, 2007 to 2014

- GCP Tropical Legume I, Product Delivery Leader Obj. 2, 2013 to 2014
- Member of the American Society of Plant Biologist International Committee, 2013 and 2014

ENG HWA NG
CoA Team Member, FP5: Pre-Breeding & Trait Discovery

NAME **Affiliation**	**ENG HWA NG** **ICRISAT, India**
Education (Degree, Year, Institution)	**Ph.D.** in Plant Breeding and Genetics, 2013, Texas A&M University, Texas, USA **MS** in Molecular Biology, 2009, University of Northern Iowa, Iowa, USA **BA** in Biotechnology and Chemistry, 2007, University of Northern Iowa, Iowa, USA
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Forward Breeding Theme Leader,** ICRISAT India 2016- present **Research Scientist,** Dupont Pioneer USA, 2013-2016 **Research Associate,** Texas A&M AgriLife System USA, 2010-2013
Key recent publications relevant to the FP/CRP	• **E.-H. Ng**, W. Smith, E. Hequet, S. Hague, and J. Dever. 2014. Generation Means Analysis for Fiber Elongation in Upland Cotton. (Crop Sci., Jul 2014, 54:1-7). • **E.-H. Ng**, W. Smith, E. Hequet, S. Hague, and J. Dever. 2014. Diallel Analysis of Fiber Quality Traits with an Emphasis in Upland Cotton (Crop Sci. Mar 2014, 54:1-7). • **E.-H. Ng**, K.Gregory, W. Smith, E. Hequet, S. Hague. 2013. Stability analysis of Upland Cotton in Texas. (Crop Sci. Vol. 53, 1347-1355) • F. Farias, W. Smith, C. Morello, S. Hague, **E.H. Ng**, K. Joy, F. Farias. 2013. Genetic Analysis of Boll Maturation among Brazilian and U.S. Upland Cotton- Collaboration project with Embrapa Brazil. (9° Congresso Brasileiro do Algadao).
Key relevant programmes/projects managed	• Project lead, CGIAR High Throughput Genotyping Project 2016-Present • Executive Advisory Group, CGIAR Excellence in Breeding Module 3- 2017- Present • Team lead, Modernizing Crop Improvement Task Force- ICRISAT, 2017- Present • Lead Scientist, Rice Breeding Technology DuPont Pioneer, 2013-2016

HARI D UPADHYAYA
CoA Team Member, FP5: Pre-Breeding & Trait Discovery

NAME **Affiliation**	**HARI D UPADHYAYA** **ICRISAT, India**
Education (Degree, Year, Institution)	**Ph.D.** in Plant Breeding, 1980, GB Pant University of Agriculture and Technology, Pantnagar (GBPUAT), India **M.Sc.,** 1976, GB Pant University of Agriculture and Technology, Pantnagar (GBPUAT), India
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Head Genebank & Principal Scientist -** ICRISAT, Patancheru, India, 2014-present **Adjunct Prof. -** The UWA, Crawley WA 6009, Australia, 2014-2020 **Adjunct Prof. Agronomy -** KSU, Manhattan, USA, 2009-2018 **Principal Scientist, Groundnut Breeding, Grain Legumes and Head Genebank -** ICRISAT, Patancheru, India, 2013- 2014 **Assistant Director, Grain Legumes Program and Principal Scientist and Head Genebank -** ICRISAT, Patancheru, India, 2011-2013
Key recent publications relevant to the FP/CRP	**Upadhyaya Hari – ResearcherID: C-4858-2014** Total publications: 813 International peer reviewed articles: 291, including in Nature Biotechnology, Nature Genetics, PNAS, J. Exp. Botany, Scienctific Reports, DNA Res etc. • **Upadhyaya H. D.,** *et al* 2017. Post-Flowering Drought Tolerance Using Managed Stress Trials, Adjustment to Flowering, and Mini Core Collection in Sorghum. Crop Science. 57:1–12. doi: 10.2135/cropsci2016.04.0280 • Varshney RK, RK Saxena, **HD Upadhyaya** *et al*. 2017. Whole genome re-sequencing of 292 pigeonpea accessions identifies genomic regions associated with domestication and agronomic traits. Nature Genetics. doi:10.1038/ng.3872 • **Upadhyaya, H.D** *et al.,* 2016. Genetic dissection of seed-iron and zinc concentrations in chickpea. Scientific Reports. 6:24050.DOI: 10.1038/srep24050 • **Upadhyaya, H.D** *et al.,* 2016. Genome-wide scans for delineation of candidate genes regulating seed-protein content in chickpea. Frontiers in Plant Science. doi:10.3389/fpls.2016.00302 • Chen, X., H. Li, M.K. Pandey, Q. Yang, X. Wang, V. Garg, H. Li, X. Chi, D. Doddamani, Y. Hong, **H.D. Upadhyaya** *et al*., 2016. Draft genome of the peanut A-genome progenitor (*Arachis duranensis*) provides insights into geocarpy, oil biosynthesis and allergens. Proc. Natl. Acad. Sci. www.pnas.org/cgi/doi/10.1073/pnas.1600899113
Key relevant programmes/projects managed	• Managing Genebank Platform-ICRISAT (2017-2022, US$ 17.49 millions) • Managed Genebank CRP-ICRISAT (2011-2016, US $ 15.78 millions) • Managed Genebank up gradation - Rehabilitation of CGIAR Global Public Goods (GPG) (2003-2006, US $ 1,295,000) • Completing genotyping of composite germplasm set of chickpea (2005 – 2006, US $ 103,400) • Collective Action for the Rehabilitation of Global Public Goods in the CGIAR Genetic Resources System (2007-2009, US $ 593,000) • Development of strategies and procedures for diversity analysis (2007-2009, US $ 403,000)

- Sustainable conversation and utilization of genetic resources of two underutilized crops- Finger millet and foxtail millet- To enhance productivity, nutrition and income in Africa and Asia (2008-2010, €1000,000)
- Phenotyping sorghum reference set for drought tolerance (2008-2010, US $ 473,650)
- Associate Editor for Crop Science for three years (2016-2018)
- Steering committee member and plenary speaker, International *Setaria* Conference, March 7-9, 2017, at the Danforth Center in St. Louis.
- Chair of the C451 Crop Science Research Award Committee (2016)
- Member of the Editorial Board of The Crop Journal, (2017 onward)
- Member of the Crop Science Research Award Committee (2015-2016)
- Chair of the Seed Science Award Committee of the Crop Science Society of the America (2014)
- Member of Seed Science Award Committee of CSSA (2013)
- Member of Fellows committees of "American Society of Agronomy" and "Crop Science Society of America" (2011-12) -

POOJA BHATNAGAR MATHUR
CoA Team Member, FP5: Pre-Breeding & Trait Discovery

NAME **Affiliation**	**POOJA BHATNAGAR MATHUR** **ICRISAT, India**
Education (Degree, Year, Institution)	**Ph.D.** in Biotechnology, 2007, Jawaharlal Nehru Technological University (JNTU), Hyderabad, India. **M.Sc.** in Biotechnology, 2000, Dr. YS Parmar University of Horticulture and Forestry, India. **B.Sc.** in Horticulture, 1998, Dr. YS Parmar University of Horticulture and Forestry, India.
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Theme Leader -** Cell, Molecular Biology and Genetic Engineering, ICRISAT. 2016-present **Senior Scientist** – Cell, Molecular Biology and Trait Development, ICRISAT. 2011-2016
Key recent publications relevant to the FP/CRP	• Santisree. P., **Bhatnagar-Mathur, P.** and Sharma, K.K. (2017). Heat responsive proteome changes reveal molecular mechanisms underlying heat tolerance in chickpea. Environmental and experimental Botany: doi: 10.1016/j.envexpbot.2017.07.007 • Santisree. P., **Bhatnagar-Mathur, P.** and Sharma, K.K. (2017). Molecular insights into the functional role of Nitric Oxide (NO) as a signal for plant responses in chickpea. Functional Plant biology. doi.org/10.1071/FP16324 • Watira, T.W., Zhang, F., Niu, L., **Bhatnagar Mathur, P.**, Putterill, J. and Tadege, M. (2016) Three *FLOWERING LOCUS T*-like genes function as potential florigens and mediate photoperiod response in sorghum. New Phytologist: 210(3) doi: 10.1111/nph.13834 • **Bhatnagar-Mathur, P.** Sunkara, S., Bhatnagar-Panwar, M., Waliyar,F. and Sharma, K.K. (2015). Biotechnological advances for combating *Aspergillus flavus* and aflatoxin contamination in crops. Plant Science, 234:119-32. doi: 10.1016/j.plantsci.2015.02.009. • **Bhatnagar-Mathur, P.**, Rao, J.S., Vadez, V., Rathore, A., Yamaguchi-Shinozaki, K. and Sharma, KK. (2014). Drought tolerant transgenic peanut for the marginal environments moves closer to reality. Molecular Breeding, 33: 327-340. DOI: 10.1007/s11032-013-9952-7 • **Bhatnagar-Mathur, P.**, Vincent V., Jyostna Devi, M., Lavanya, M., Vani, G. and Sharma, K.K. (2009) Over expression of Vigna P5CSF129A gene in chickpea for enhancing drought tolerance. Molecular Breeding, 23:591–606.
Key relevant programs/projects managed	• Over 15 years of experience in genetic engineering of legumes and cereals. Identification and functional validation of candidate genes to integrate scientific innovations to design and build new biological functions and systems using genome-editing technologies. • Involved with the “Platform for Translational research on Transgenic Crops” (PTTC) at ICRISAT, for addressing product translation, biosafety, IP and technology transfer through public-private partnerships.

	• Expert participant in the COP-MOP6-Biosafety clearinghouse (BCH) workshops, on biotech and other regulatory issues relating to the "Cartagena Protocol on Biosafety". • GOI-nominee in extensive technical training and mentoring programs on "*Safety Risk Assessment of Foods Derived from Genetically Engineered Plants"; Guidelines and Standard Operating Procedures for Biosafety of Genetically Modified Organisms*"; *Risk assessment and Risk communication programs under the* World Bank supported - GEF Biosafety Project-Phase I • Capacity building for stakeholders in Asia and Africa to ensure biosafety compliance and stewardship in public sector transgenic crops. • Advanced certifications from World Intellectual Property Organization (WIPO).

RAJEEV K. VARSHNEY
CoA Team Member, FP5: Pre-Breeding & Trait Discovery

NAME **Affiliation**	**RAJEEV K. VARSHNEY** **ICRISAT, India**
Education **(Degree, Year, Institution)**	**Ph.D.** in Agricultural Botany (Molecular Biology), 2001, CCS University, Meerut, India
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Global Research Program Director - Genetic Gains**, ICRISAT, India, Feb 2016 – present **Principal Scientist** - Applied Genomics, , ICRISAT, India, Dec 2008 – to date **Research Program Director - Grain Legumes**, ICRISAT, India, Aug 2013- Feb 2016 **Director – Center of Excellence in Genomics (CEG)**, ICRISAT, India, Jan 2012 – to date **Leader, SubProgramme 2 -** Generation Challenge Programme (GCP), hosted by CIMMYT, Mexico, Aug 2007 – Sep 2013) **Senior Scientist** – Applied Genomics, ICRISAT, India, Sep 2005 – Dec 2008)
Key recent publications relevant to the FP/CRP	Rajeev K Varshney – Researcher ID: C-5295-2014 Google Scholar citations: **21114**; h-index: **68, ***indicates correspinding authorship*:* • **Varshney RK*** et al. (2017) Pearl millet genome provided a resource to improve agronomic traits in arid environments. **Nature Biotechnology** , *in press* • **Varshney RK*** et al. (2017) Whole-genome resequencing of 292 pigeonpea accessions identifies genomic regions associated with domestication and agronomic traits. **Nature Genetics** 49(7):1082-1088 • Bertioli DJ, 22 authors, **Varshney RK**, 15 authors (2016) The genome sequences of *Arachis duranensis* and *Arachis ipaensis*, the diploid ancestors of cultivated peanut. **Nature Genetics** 48:438-446 • Chen X, 48 authors, **Varshney RK*,** Yu S (2016) Draft genome of the peanut A-genome progenitor (*Arachis duranensis*) provides insights into geocarpy, oil biosynthesis, and allergens. **Proceedings of National Academy of Sciences (USA)** 113: 6785–6790 • Janila P, 13 authors, **Varshney RK*** (2016) Molecular breeding for introgression of fatty acid desaturase mutant alleles (ahFAD2A and ahFAD2B) enhances oil quality in high and low oil containing peanut genotypes. **Plant Science** 242: 203–213 • **Varshney RK***, et al. (2014) Marker-assisted backcrossing to introgress resistance to Fusarium wilt (FW) race 1 and Ascochyta blight (AB) in C 214, an elite cultivar of chickpea. **The Plant Genome** 7 (1) • **Varshney RK***, et al. (2014) Marker-assisted introgression of a QTL region to improve rust resistance in three elite and popular varieties of peanut (Arachis hypogaea L.). **Theoretical and Applied Genetics** 127: 1771-1778 • **Varshney RK*,** et al. (2013) Draft genome sequence of chickpea (*Cicer arietinum*) provides a resource for trait improvement. **Nature Biotechnology** 31:240–246

Key relevant programs/projects managed	• Editor for Several Journals like Plant Biotechnology Journal, The Plant Genome, Molecular Genetics and Genomics, Plant Genetic Resources, BMC Plant Biology, BMC Genetics, Molecular Breeding, Euphytica, Journal of Plant Biochemistry and Biotechnology, Journal of Food Legumes, Theoretical and Applied Genetics, Plant Breeding and Editorial Board Member for Frontiers in Plant Science. • Elected Fellow of American Association for Advancement in Sciences (AAAS), German Academy of Sciences Leopoldina, Crop Science Society of America (CSSA), The World Academy of Sciences, Indian National Science Academy (INSA), The National Academy of Sciences, India (NASI), National Academy of Agricultural Sciences, India (NAAS), Indian Society of Genetics & Plant Breeding, AP Akademi of Sciences (APAS) and Telangana State Akademi of Sciences (TSAS), Association of Biotechnology & Pharmacy (ABAP). • Member of Research Advisory Council for Tea Board of India (Ministry of Commerce, Government of India); Research Advisory Committee of Central Sericultural Research & Training Institute, Silk Board of India (Ministry of Textiles, Government of India); Research Advisory Committee of Central Research Institute for Jute and Allied Fibres, Indian Council of Agricultural Research.

SHIVALI SHARMA
CoA Team Member, FP5: Pre-Breeding & Trait Discovery

NAME **Affiliation**	**SHIVALI SHARMA** **ICRISAT, India**
Education **(Degree, Year, Institution)**	**Ph.D.** in Plant Breeding, 2005, HP Agricultural University, Palampur, India. **M.Sc.** in Plant Breeding, 2000, HP Agricultural University, Palampur, India. **B.Sc.** Agriculture, 1998, HP Agricultural University, Palampur, India.
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Theme Leader,** Pre-breeding, ICRISAT, India, Mar 2016- present **Senior Scientist**, Genetic Resources, ICRISAT, India, Apr 2015-Feb 2016 **Scientist,** Genetic Resources, ICRISAT, India, Dec 2011-Mar 2016
Key recent publications relevant to the FP/CRP	• **Sharma Shivali,** Pandey MK, Sudini HK, Upadhyaya HD and Varshney RK. 2017. Harnessing genetic diversity of wild *Arachis* species for genetic enhancement of cultivated peanut. Crop Science 57: 1121-1131 • **Sharma Shivali**. 2017. Pre-breeding using wild species for genetic enhancement of grain legumes at ICRISAT. Crop Science 57: 1132-1144 • **Sharma Shivali** and Upadhyaya HD. 2016. Interspecific hybridization to introduce useful genetic variability for pigeonpea improvement. Indian J Genet & Pl Breed. 76: 496-503. • Upadhyaya HD, Bajaj D, Das S, Kumar V, Gowda CLL, **Sharma Shivali**, Tyagi AK and Parida SK. 2016. Genetic dissection of seed-iron and zinc concentrations in chickpea. Scientific Reports 6, Article number: 24050. doi:10.1038/srep24050. • **Sharma, Shivali**, and Upadhyaya HD. 2015. Vernalization and photoperiod response in annual wild *Cicer* species and cultivated chickpea. Crop Science 55: 2393-2400. doi: 10.2135/cropsci2014.09.0598 • **Sharma Shivali**, Upadhyaya HD, Varshney RK and Gowda CLL. 2013. Pre-breeding for diversification of primary gene pool and genetic enhancement of grain legumes. Frontiers in Plant Science. Plant Sci., 20 August 2013 | doi: 10.3389/fpls.2013.00309.
Key relevant programs/projects managed	• Identification of superior alleles and lines from *Cajanus* species for pigeonpea (*Cajanus cajan*) improvement (as PI: funded by Global Crop Diversity Trust (GCDT)) • Synthesis of new abiotic and biotic stress tolerant genepool through introgression of alleles from wild species into pearl millet cultivars (as PI: funded by Global Crop Diversity Trust (GCDT)) • Synthesis of Botrytis Gray Mold (BGM) resistant genepool following introgression of wild *Cicer* species with cultivated chickpea (as PI: funded by Department of Science & Technology (DST), GOI, India) • Pre-breeding for chickpea improvement (as PI: funded by Department of Science & Technology (DST), GOI, India)

JEAN-FRANCOIS RAMI
CoA Team Member, FP5: Pre-Breeding & Trait Discovery

NAME **Affiliation**	**JEAN_FRANCOIS RAMI** **CIRAD, France**
Education **(Degree, Year, Institution)**	**Ph.D.** in Genetics and Plant Breeding, 1999, University of Paris XI, France. **Diplome d'Ingénieur Agronome,** Specialization Genetics and biotechnology, 1994, ENSAIA, France. **Diplome d'Etudes Approfondies (Master of sciences),** Biotechnology and food industry, 1994, ENSAIA, France.
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Research Scientist -** CIRAD-UMR AGAP, Montpellier, France, 2002- present **Molecular Breeder** – Euralis Genetique seed company, Toulouse, France, 1998-2002 **Research Assistant –** Rustica Prograin Genetique seed company, Toulouse, France, 1995-1998
Key recent publications relevant to the FP/CRP	• Nguepjop Joël Romaric, Tossim Hodo-Abalo, Bell Joseph Martin, **Rami Jean-François**, Sharma Shivali, Courtois Brigitte, Mallikarjuna Nalini, Sané Djibril, Foncéka Daniel. 2016. Evidence of genomic exchanges between homeologous chromosomes in a cross of peanut with newly synthetized allotetraploid hybrids. Frontiers in Plant Science, 7 (1635), 12 p. • Guindo Diarah, Davrieux Fabrice, Teme Niaba, Vaksmann Michel, Doumbia Mohamed, Fliedel Geneviève, Bastianelli Denis, Verdeil Jean-Luc, Mestres Christian, Kouressy Mamoutou, Courtois Brigitte, **Rami Jean-François**. 2016. Pericarp thickness of sorghum whole grain is accurately predicted by NIRS and can affect the prediction of other grain quality parameters. Journal of Cereal Science, 69 : 218-227. • **Rami Jean-François**, Leal-Bertioli Soraya C.M., Foncéka Daniel, Moretzsohn Márcio C., Bertioli David J.. 2014. Groundnut. In : Allien gene transfer in crop plants, Volume 2: Achievements and impacts. Eds. Aditya Pratap, Jitendra Kumar. Philadelphia : Springer, 253-279. ISBN 978-1-4614-9571-0 • Billot C., Ramu P., Bouchet S., Chantereau J., Deu M., Gardes L., Noyer J.L., **Rami J.F.**, Rivallan R., Li Y., Lu P., Wang T., Folkertsma R.T., Arnaud E., Upadhyaya H.D., Glaszmann J.C., Hash C.T. 2013. Massive sorghum collection genotyped with SSR markers to enhance use of global genetic resources. PLoS One, 8 (4) : e59714 (16 p.). • Fonceka D, Tossim H-A, Rivallan R, Vignes H, Faye I, Ndoye O, Moretzsohn MC, Bertioli DJ, Glaszmann J-C, Courtois B, **Rami J-F.** 2012 Fostered and left behind alleles in peanut: interspecific QTL mapping reveals footprints of domestication and useful natural variation for breeding. BMC Plant Biology, 12(26)

Key relevant programs/projects managed	• "Improving sorghum adaptation in West Africa with genomics-enabled breeding"-Sorghum and Millet Innovation Lab, as Co-Pi • Product Delivery Coordinator of the Generation Challenge Programme Sorghum Research Initiative • “Genotyping and genetic analysis of the sorghum GCP BCNAM populations developed in Mali” – G7010.05.02-Generation Challenge Programme $250k as Pi • “Improving sorghum productivity in semi-arid environments of Mali through integrated MARS” – G4008.48-Generation Challenge Programme $880k as Pi

LAURENT LAPLAZE
CoA Team Member, FP5: Pre-Breeding & Trait Discovery

NAME **Affiliation**	**LAURENT LAPLAZE** **LAPSE, Senegal**
Education (Degree, Year, Institution)	**"Habilitation à Diriger des Recherches"**, Life Sciences, 2008, Université Montpellier II **Ph.D.** in Plant Physiology, 1999, University Montpellier II.
Employment for the past 5 years (OR alternatively the most recent appointments held)	**Research Director,** IRD, Dakar, Senegal, Sept 2015 - Present **Research Director,** IRD, Montpellier, France, 2013-2015 **Research Director,** IRD, Dakar, Senegal, 2010-2016 **Researcher**, IRD, Montpellier, France, 2001-2010
Key recent publications relevant to the FP/CRP	• Passot S, Gnacko F, Moukouanga D, Lucas M, Guyomarc'h M, Moreno Ortega B, Atkinson J, Niang M, Bennett M, Gantet P, Wells D.M., Guédon Y, Vigouroux Y, Verdeil J-L, Muller B and Laplaze L. **2016.** Characterization of pearl millet root architecture and anatomy reveals three types of lateral roots. ***Front. Plant Sci.***, 7:829. • Lavenus J., Guyomarc'h S., Laplaze L. 2016. *PIN* transcriptional regulation shapes root system architecture. **2016.** ***Trends in Plant Sciences,*** 21: 175-177. • Larrieu A., Champion A., Legrand J., Lavenus J., Mast D., Brunoud G., Oh J., Guyomarc'h S., Pizot M., Farmer E.E., Turnbull C., Vernoux T., Bennett M.J., Laplaze L. **2015.** A fluorescent hormone biosensor reveals the dynamics of jasmonate signalling in plants. ***Nature Communications***, 6: 6043. • Lavenus J., Goh T., Guyomarc'h S., Hill K., Lucas M., Voss U., Kenobi K., Wilson M., Farcot E., Hagen G., Guilfoyle T.J., Fukaki H., Laplaze L., and Bennett M.J. **2015.** Inference of the Arabidopsis lateral root gene regulatory network reveals a bifurcation mechanism that defines primordia flanking and central zones. ***The Plant Cell***, 27:1368-1388. • Ahmadi N., Audebert A., Bennett M.J., Bishopp A., Costa de Oliveira A., Courtois B., Diedhiou A., Diévart A., Gantet P., Ghesquière A., Guiderdoni E., Henry A., Inukai Y., Kochian L., Laplaze L., Lucas M., Luu D.T., Manneh B., Mo X., Muthurajan R., Périn C., Price A., Robin S., Sentenac H., Sine B, Uga Y., Véry A.A., Wissuwa M., Wu P., Xu J. **2014.** The roots of future rice harvests. ***Rice***, 7: 29. **69 publications in peer-reviewed journals** **H-index : 29 (source: Web of Knowledge)**
Key relevant programs/projects managed	• Co-director international joint laboratory LAPSE (IRD/ISRA/UCAD/AfricaRice/U. Thiès) • Coordinator RootAdapt Project (ANR, France; 536 k€) on pearl millet root traits discovery • Coordinator NewPearl Project (Fondation Agropolis/Fondazione Cariplo, 562 k€) on pearl millet root and grain quality traits discovery • "Chercheur d'Avenir" Award from Région Languedoc-Roussillon