

SHAWN M^cGUIRE

Lecturer, Natural Resources and Development
School of Development Studies, University of East Anglia
Norwich, U.K. NR4 7TJ
tel. +44.1603.59.33.75 (w) +44.1603.66.77.42 (h)
dob: 10 February 1970
S.Mcguire@uea.ac.uk

EDUCATION

- | | | |
|------|--|--|
| 2008 | University of East Anglia | Postgraduate Certificate in Higher Education Practice |
| 2005 | Wageningen University | PhD, Technology and Agrarian Development; thesis on formal research institutions and informal seed management in a stressed region of Ethiopia |
| 1996 | University of East Anglia | MSc, Agriculture, Environment and Development; <i>Distinction</i> ; dissertation on institutional changes from privatisation of agricultural research. |
| 1993 | University of Ottawa/
Université d'Ottawa | BSc (Hons.), Biology; <i>Summa cum laude</i> ; dissertation on spatial dynamics of forest-moss Nitrogen cycles. |

SKILLS AND PROFILE

Written and spoken: **English** – first language; **French** – fluent; **Dutch** and **Spanish** – excellent; **Amharic** – good

- skilled in inter-disciplinary research, drawing together natural and social sciences.
Areas of investigation include:
 - reforming crop breeding and seed supply systems
 - farmer crop genetic resource management and local systems for seed supply
 - agricultural research to support chronic stress areas, including emergency seed aid
 - institutions and institutional change in formal agricultural R&D
- experienced in diverse research methods, integrating qualitative and quantitative analysis
- skilled in presenting to and writing for both academic and non-academic audiences
- **Software:** Programming for statistical analysis and graphing (SAS / SPSS / Sigma); database design (Access); various word processor and spreadsheet packages

My background combines biological and social science, focusing on the interface between agricultural researchers and farmers. Uniquely, I combine a rigorous empirical focus on how and why farmers use and diffuse technologies, with analysis of agricultural research institutions and policies. This enables me to develop a critical, and grounded, understanding of the challenges in linking agricultural research and use, particularly in scaling up impacts. This approach has been applied to assess the impacts of Participatory Plant Breeding, as well as to analyse the effectiveness of seed systems - informal as well as formal - in transferring technologies to farmers. My work has concentrated on semi-arid East Africa, and I am particularly interested in improving the impact of research in chronically-stressed contexts. Innovative approaches for diffusion are needed, such as through informal markets, an issue I plan to explore in future research.

EMPLOYMENT EXPERIENCE

2002 - School of Development Studies, University of East Anglia

Lecture in natural resource and agricultural development. Research farmer participation in agricultural technology development and diffusion, focusing particularly on seed supply, emergency relief activities, and coping strategies. Director of Undergraduate Teaching and Learning.

1993-1995 Centre for Land and Biological Resources Research, Agriculture Canada

Modelled nitrogen dynamics and greenhouse-gas production of different cultivation practices, leading statistical analysis for whole laboratory group.

1992 Ecology Division, University of Calgary

Investigated plant ecological dynamics after forest fire disturbance in Rocky Mountains; developed models on fuel moisture absorption and loss under different environmental conditions.

1991 Department of Biology, University of Victoria

Investigated ecology and phylogeny of recently-discovered hydrothermal vent fauna; documented

CONSULTANCY EXPERIENCE

ODG

2008 - 2009 SIDA, in collaboration with WorldFish Center and FAO

Co-ordinated three literature reviews on HIV/AIDS and fishing communities in Africa – 9 days

2005 -2007 IDRC and USAID, in collaboration with Ethiopian Institute of Agricultural Research and CIAT

In collaboration with L. Sperling (PI, CIAT), initiated most extensive study of emergency seed aid ever done, examining impact over 30 years in Ethiopia. This involved empirical research across several sites, co-ordinating multiple research partners, and considerable policy engagement. I spearheaded policy and quantitative analysis, and co-organised an international workshop assembling relief and agricultural development experts to revise policy. Work highly regarded by donors, with whom we are now discussing additional funding for multi-country study – 80 days funded.

2005 support to LADDER

Revised and re-designed databases for Ugandan survey data from LADDER programme.

Other Consultancy

2002 FAO, Agriculture and Economic Analysis Division

Advised two research projects on seed system development in Ethiopia to enhance biodiversity and farmer welfare.

1999-2000 Intermediate Technology Development Group and Overseas Development Institute

Assisted research linking agrobiodiversity, livelihood strategies, and development policy in Kenya, Peru and Zimbabwe. I co-ordinated final research design on seed systems and diversity, including analysis and interpretation.

1997-1999 CGIAR Systemwide Program on Participatory Research and Gender Analysis

Developed the first major analysis of experiences in farmer-led participatory plant breeding (PPB), and invited key researchers investigating local genetic resource management into a global electronic discussion forum, which I chaired. Also helped lead workshops designing PPB research in Holland, Ethiopia, Ecuador and Côte d'Ivoire.

RESEARCH FUNDING

2005 - 2007 IDRC (Canada) and USAID (£150 000)

2005 - 2008 ESRC/NERC Studentship (approx. £50 000)

+3 Studentship for S. Ross, on PhD “Talking the walk: Language as the missing ingredient for biodiversity conservation? Plant Knowledge in West Usambara Mountains, Tanzania”, jointly supervised with B. Maddox.

1996 - 2001 Natural Sciences and Engineering Research Council – PhD scholarship (approx. £35 000)

Competitive research scholarship from major Canadian research council; supported both MSc and PhD research.

1994 - 1995 Canadian Society for International Health (approx. £3000)

Research grant to support independent study assessing the conservation risk of indigenous medicinal plants in Ethiopia, supported by Plant Genetic Resources Centre of Ethiopia and Seeds of Survival for Africa.

PUBLICATIONS

Peer-reviewed journal articles

McGuire, S. J., and L. Sperling. 2008. Leveraging farmers’ strategies for coping with stress: seed aid in Ethiopia. *Global Environmental Change* **18(4)**: 679-688.

McGuire, S. J., 2008. Securing access to seed: Social relations and sorghum seed exchange in eastern Ethiopia. *Human Ecology* **36 (2)**: 217-229.

McGuire, S. J., 2008. Path-dependency in plant breeding: challenges facing participatory reforms in the Ethiopian Sorghum Improvement Program. *Agricultural Systems* **96 (1-3)**: 139-149.

McGuire, S. J., 2007. Vulnerability in farmer seed systems: Farmer practices for coping with seed insecurity for sorghum in Eastern Ethiopia. *Economic Botany* **61 (3)**: 211-222.

Sperling, L., J.A. Ashby, M. Smith, E. Weltzien and S. McGuire. 2001. A framework for analysing participatory plant breeding approaches and results. *Euphytica*. **122 (3)**: 439-450.

Gregorich, E., P. Rochette, S.J. McGuire, B.C. Liang, and R. Lessard. 1998. Soluble organic carbon and carbon dioxide fluxes in maize fields receiving spring-applied manure. *Journal of Environmental Quality* **27 (1)**: 209-214.

McGuire, S. 1997. The effects of privatization on winter-wheat breeding in the UK. *Biotechnology and Development Monitor*. **33**: 8-11.

Manicad, G. and S. McGuire. 2000. Supporting farmer-led plant breeding. *Biotechnology and Development Monitor*. **42**: 2-7. ISSN: 0924-9877.

McGuire, S. 1997. The effects of privatization on winter-wheat breeding in the UK. *Biotechnology and Development Monitor*. **33**: 8-11. ISSN: 0924-9877.

McGuire, S., and D. Currie. 1993. Factors related to mixing depth in meromictic lakes. *Canadian Journal of Fisheries and Aquatic Sciences* **50 (6)**: 1338-1342. ISSN: 1205-7533.

Under Review

Sperling, L., and McGuire, S.J. n.d. Understanding and strengthening informal seed markets Under Review in *World Development*. 25 pp. Submitted October 2008, awaiting comments

Chapters in Books

- McGuire, S. 2002. "Farmers' management of sorghum genetic resources in Ethiopia: A basis for participatory plant breeding?" *Collaborative Plant Breeding: Integrating farmers' and plant breeders' knowledge and practice*. D. Cleveland and D. Soleri (Eds.). Wallingford: CABI. pp 107-136. ISBN: 0-85199-585-3.
- L. Sperling, J. Ashby, E. Weltzien, M. Smith, and S. McGuire. 2001. "Base-broadening for client-oriented impact: Insights drawn from participatory plant breeding experience." *Broadening the Genetic Base of Crop Production*. D. Cooper, C. Spillane, and T. Hodgkin (Eds.). Wallingford: CABI. pp. 419-435. (2001). ISBN: 0-85199-411-3.
- McGuire, S. 2000. "Farmer management of sorghum diversity in Eastern Ethiopia" *Encouraging Diversity: The Conservation and development of plant genetic resources*. C. Almekinders and W. de Boef (Eds.). London: IT Publications. pp. 43-48. (2000). ISBN: 1-85339-510-2.

Other publications

- Sperling, L., Deressa, A., Assefa, S., Assefa, T., McGuire, S. J., *et al.* 2007. Long-Term Seed Aid in Ethiopia: Past, present and future perspectives. DEV/ODG Reports and Policy Papers No. 1, The School of Development Studies, University of East Anglia, UK. 145 pp.
- McGuire, S. J., 2005. *Getting Genes: Rethinking seed system analysis and reform for sorghum in Ethiopia*. PhD Thesis, Wageningen University, the Netherlands ISBN 90-8504-179-1. 279 pp
- McGuire, S., G. Manicad, and L. Sperling. 2003. *Technical and Institutional Issues in Participatory Plant Breeding, done from the perspective of farmer plant breeding: A Global analysis of issues and of current experience*. PPB Monograph No. 2. Cali: CGIAR Participatory Research and Gender Analysis Program. ISBN 958-694-052-7. 124 pp.

Conference Papers

- Sperling, L., and S.J. McGuire. 2009. "Five Myths about seed aid." To be presented at World Conference of Humanitarian Studies, Groningen, 4-7 February 2009.
- McGuire, S. 2001. "Analysing Farmers' Seed Systems: Some conceptual components." *Targeted Seed Aid and Seed System Interventions: Supporting farmers' seed systems in East and Central Africa*. L. Sperling (Ed.) pp. 1-8. (2001). Cali and Ottawa: CIAT and IDRC.
- McGuire, S. 2001. "PPB in Context: new questions for practice." Participatory Research and Gender Analysis African Regional Seminar on Participatory Plant Breeding and Participatory Genetic Resource Conservation. M'Be, Côte D'Ivoire. 10 pp.
- McGuire, S. 2000. "Impact of farmer-led PPB: evidence so far." *Proceedings of the seminar on Assessing the Impact of Participatory Research and Gender Analysis*, September 1998, Quito, Ecuador. N. Lilja, J.A. Ashby and L. Sperling (Eds.) pp. 77-88. Cali: CGIAR Systemwide Program on Participatory Research and Gender Analysis.
- McGuire, S. 1999. "Polluting the fields: Farmers' perspectives on gene-flow." Society for Applied Anthropology Annual Conference, Tucson Arizona. April 1999. 23 pp.
- McGuire, S. 1997. "Crop genetic resource, social movements, and international conflict." Workshop on 'Resource Conflicts and the Anthropology of Law.' University College London.

Research Student Supervision

- Sirkku Juhola: “Understanding Institutional Interplay: A Case Study of Agricultural Biodiversity Institutions” (with Kate Brown, completed 2006)
- Paul Musali: “Rethinking Natural Resource Management in the Kigezi Highlands: a Vulnerability Based Model” (with Adrian Martin, completed 2008)
- Samantha Ross “Talking the walk: Language as the missing ingredient for biodiversity conservation? Plant Knowledge in West Usambara Mountains, Tanzania” (with Bryan Maddox, ongoing)
- Dyton Maliro “Vulnerability, social protection and agriculture: Which Pathways for Reduced Vulnerability and Enhanced Livelihoods in Malawi?” (with Frank Ellis, ongoing)
- Kevin Crooks “Social Behaviour and Agricultural Innovations Adoption: Technology Diffusion in Jamaica” (with Bereket Kebede, ongoing)
- Ben Taylor “Ethiopia’s Growth Set to Bloom: a Global Production Network Analysis of a Neoliberal Experiment” (with Rhys Jenkins, ongoing)