

**Glwadys Aymone Gbetibouo**  
**Curriculum Vitae**  
**Climate change and Environmental Consultant**  
**C4 EcoSolutions, Cape Town, South Africa.**

**Date of birth:** 15 February 1977

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## EDUCATION

- 2011:**       **Ph.D. Environmental Economics.**  
University of Pretoria, South Africa.  
Dissertation: *Vulnerability and adaptation of farming to climate change in South Africa.*
- 2004:**       **M.Sc. Agricultural Economics.**  
University of Pretoria, South Africa.  
Dissertation: Economic impact of climate change on major South African field crops: A Ricardian Approach.
- 2002:**       **Post Graduate Certificate.** Environmental and Resource Economics.  
University of Pretoria, South Africa.
- 2000:**       **Diplôme d'Ingenieur Agronome** (French Advance Degree in Agronomy).  
Ecole Supérieure d'Agronomie, Institut National Polytechnique Felix Houphouet Boigny, Yamoussoukro, Côte d'Ivoire.  
Dissertation: *Impact du microcrédit dans l'amélioration des conditions de vie des femmes: cas de la mutuelle de crédit MUCREFAB et du projet de Développement AFPA.*
- 1998:**       **Diplôme d' Agronomie Generale** (French Degree in General Agronomy Sciences).  
Ecole Supérieure d'Agronomie, Institut National Polytechnique Felix Houphouet Boigny, Yamoussoukro, Côte d'Ivoire.

## RESEARCH AND PROFESSIONAL EXPERIENCE

### Summary

- Since 10/2010       International Climate Change and Environmental Consultant, C4 EcoSolutions, Cape Town.
- 04/2010 – 09/2010       Visiting scientist, Institute of Agricultural Economics and Social Sciences in the Tropics and Subtropics, University of Hohenheim (Germany).
- 03/2010 – 06/2010       Research assistant, Department of Agricultural Economics Extension and Rural Development, University of Pretoria (Pretoria).
- 01/2002 – 12/2009       Research Assistant, Centre for Environmental Economics and Policy in Africa (CEEPA), University of Pretoria (Pretoria).

- 01/2002 – Course Tutor, Department of Agricultural Economics, Extension and Rural  
07/2002 Development, University of Pretoria (Pretoria).
- 04/2000 – Short-term consultant, United Nations Food and Agriculture Organization  
12/2000 (FAO), National Office Côte d'Ivoire (Abidjan).
- 07/1999 – Internship, African Institute for Economic and Social Development, National  
03/2000 Office Côte d'Ivoire (Abidjan).
- 07/1998 – Short term consultant, NGO Winrock International, Western Africa Regional  
10/1998 Office (Abidjan).
- 07/1997 – Internship, Société d' héveas de Grand-Béréby (SOGB) Côte d'Ivoire (Grand-  
10/1997 Béréby).
- Since **International Climate Change and Environmental Consultant, C4**  
10/2010 **EcoSolutions, Cape Town.**

Climate change international consultancy work for the **International Finance Corporation (IFC)**

- Support the development “Building Africa’s Resilience to Climate Change (BAREC)” program, a pre-pipeline advisory program in IFC.
- Advisory for the implementation of the Pilot Program on Climate Change Resilience (PPCR), a project funded under the Strategic Climate Fund and implemented in three countries, namely Mozambique, Niger and Zambia. (Currently running).

Climate change international consultancy work for the **Government of Rwanda**

- Baseline survey and development of indicators and targets for AAP/LDCF climate change adaptation projects in Rwanda (completed), November 2011 to January 2012.

Climate change international consultancy work for the **United Nations Environment Programme:**

- Chief Technical Assistant for the UNEP LDCF project: “Improvement of Early Warning System to reduce Impacts of Climate Change and Capacity to integrate Climate Change into Development in Lesotho.” (currently running)

Climate change international consultancy work for the **United Nations Environment Programme:**

- Chief Technical Assistant for the UNEP LDCF project: “Implementing NAPA Priority Interventions to Build Resilience in the most Vulnerable Coastal Zones in Djibouti.” (currently running)

Climate change international consultancy work for the **United Nations Development Programme:**

- Co-developer of the Afghanistan GEF\_LDCF full size project (project document) (in development)

- Co-developer of the Swaziland GEF-SCCF full size project (Project document). This adaptation project will ensure that local communities, River Basin Authorities (RBAs) and national government institutions in Swaziland acquire sufficient technical capacity, management capacity, and climate change knowledge for appropriate management of Swaziland's water resources in the face of climate change. (*Terminated*)
- Co-developer of the Territorial Approach to Climate Change (TACC) Programme of the Nigeria Delta State (Project document). The project will assist the Delta State in Nigeria to identify priority mitigation and adaptation measures to realize low carbon and climate resilient development in their territory. (*terminated*)
- Co-developer of the Malawi GEF-LDCF project (PIF). The project will use an ecosystem-based adaptation approach to develop strategies to reduce agricultural post-harvest losses in the face of climate change. (*terminated*)

04/2010 – **Visiting scientist, Institute of Agricultural Economics and Social Sciences in the Tropics and Subtropics, University of Hohenheim (Germany).**  
09/2010

Two research topics were investigated:

- The vulnerability and coping strategies of small scale farmers in the Limpopo River Basin, South Africa, when faced with climate extremes such as droughts and floods.
- A meta-analysis approach to assess the empirical application of the Ricardian model for measuring climate change agricultural adaptation for 33 countries.

03/2010 – **Research assistant, Department of Agricultural Economics Extension and Rural Development, University of Pretoria (Pretoria).**  
06/2010

Agricultural statistics assessment of eight African countries for the Harvest Choice Project of the Consultative Group on International Agricultural Research (CGIAR).

01/2002 – **Research Assistant, Centre for Environmental Economics and Policy in Africa (CEEPA), University of Pretoria (Pretoria).**  
12/2009

The work was undertaken within two projects, namely:

- Food and Water Security under Global Change: Developing Adaptive Capacity with a Focus on Rural Africa," which forms part of the CGIAR Challenge Program on Water and Food (2005 -2009). Under this project, I took a lead for the South African case studies: i) assessing adaptation and perceptions of climate change; and ii) mapping farming vulnerability to climate change across the nine provinces in South Africa.
- A GEF funded project and coordinated by the Centre for Environmental Economics and Policy in Africa (CEEPA), University of Pretoria, South Africa: "Climate Change Impacts on and Adaptation of Agroecological Systems in Africa" (2002 – 2005). This entailed multi-country research activities for 11 countries in Africa. The main goal of the project was to develop analytical methods and procedures to assess quantitatively how climate affects current agricultural systems in Africa, predict how these systems may be affected in the future by climate change under various global warming scenarios, and suggest what role adaptation could play. I had the co-responsibility for the South African case study.

01/2002 – **Course Tutor, Department of Agricultural Economics, Extension and Rural Development, University of Pretoria (Pretoria).**  
07/2002

- Part time lecturing and tutoring of the course: Quantitative Methods in Agricultural Economics.
- 04/2000 – 12/2000 Consultant, **United Nations Food and Agriculture Organization (FAO), National Office Côte d'Ivoire** (Abidjan).
- Management of the secretariat for the agriculture and environment sector in the United Nations project of common country assessment reports.
- 07/1999 – 03/2000 Internship, **African Institute for Economic and Social Development, National Office Côte d'Ivoire** (Abidjan).
- Impact evaluation of micro-credit programs on the rural organizations in the region of Alépé- Côte d'Ivoire, Coordination of the experts groups, report writing, analysis.
- 07/1998 – 10/1998 Consultant, **NGO Winrock International, Western Africa Regional Office** (Abidjan).
- Training in rural organizations and farm management for rural women, Yacolidabouo village.
- 07/1997 – 10/1997 Internship, **Société d' héveas de Grand-Béréby (SOGB) Côte d'Ivoire** (Grand-Béréby).
- Assessment of the production efficiency constraints of the firm.

## OTHER SKILLS

### Languages:

French:	native speaker (official birth country language)
English:	Fluent
Spanish:	Basic

### Computing, Technical:

Statistical:	STATA; SPSS and Eviews
General:	MS Office
Field methods:	carried out several farm household surveys
Conferences:	Experience in organising meetings, stakeholders forum
Programming:	GAMS (basic)
GIS:	ArcView (introductory knowledge)

### Professional Associations:

Agricultural Economics Association of South Africa (AEASA)

### Awards and fellowships:

- PhD visiting scholarship award, Food Security Center at the University of Hohenheim supported by the German Academic Exchange Service (DAAD)
- PhD scholarship under the IFPRI (International Food Policy and Research Institute) DGO Small Grants Initiative Program, 2005- 2007.
- Certificate of Excellence awarded by the NGO African Women Association Leaders in Agriculture and Environment (AWLAE) for results during the 1997-1998 academic year
- *Diplôme d' Agronomie Generale* Scholarship by Winrock International, 1997 – 1999.

## TRAINING AND WORKSHOP

- Training seminar on quantitative modelling and statistical software, Food and Water Security under Global Change: Developing Adaptive Capacity with a Focus on Rural Africa project, IFPRI, Washington DC, October 3- 20, 2006.
- Training Course on Computational General Equilibrium Models International Centre for Theoretical Physics, Trieste, Italy, December 1- 12, 2003.
- Training workshop on quality control for country level and regional analyses and reporting, GEF/WORLD BANK Regional Climate, Water and Agriculture: Impacts on and adaptation of Agroecological systems in Africa project, Cairo, Egypt, November 10-13, 2003.
- Training course on Integrated Climate Models for an interdisciplinary assessment of climate impacts and policies, International Centre for Theoretical Physics, Trieste, Italy, October 1- 3, 2003.
- Training workshop on Crop response and River basin in hydrology modeling, GEF/WORLD BANK Regional Climate, Water and Agriculture: Impacts on and adaptation of Agroecological systems in Africa project, Ghana, June 22-26, 2003.
- Winter School on Economics of the environment, Trade and Industrial Policy Strategies, Cape Town – South Africa, May 5-9, 2003.
- Launching and Training Workshop on Unified methodologies and data collections, GEF/WORLD BANK Regional Climate, Water and Agriculture: Impacts on and adaptation of Agroecological systems in Africa project, Cape Town – South Africa, December 4-7, 2002.
- Intensive training workshop on “The strengthening of capacities of women organizations”, United Nations Organization for Education, Science and Culture (UNESCO), Abidjan, Cote d’Ivoire, May 15-20, 2000.
- Training workshop on “Women and leadership for change and new information technologies”, NGO Winrock International West Africa, Grand-Bassam, Cote d’Ivoire, July 12-16, 1999.
- Training seminar on Culture, Managerial and Functional Communication at the multimedia ere, Conference of Advanced Institutions of Cote d’Ivoire (CGE), June 5-6, 1998.

## **PUBLICATIONS**

### **Primary authorship, refereed articles**

- Gbetibouo, G.A., R.M. Hassan and C. Ringler. 2010. South African farming sector vulnerability to climate change and variability: An indicator approach. *Natural Resources Forum* 34: 175-187.
- Gbetibouo, G.A., R.M. Hassan and C. Ringler. 2010. Modelling farmers’ adaptations strategies to climate change and variability, the case of the Limpopo Basin, South Africa. *Agrekon* 49 (2): 217-234.
- Gbetibouo, G.A., and R.M. Hassan 2005. Measuring the economic impact of climate change on major South African field crops: a Ricardian approach. *Global and Planetary Change* 47: 143- 152.

### **Coauthorship, refereed articles**

- Bryan, E.; T.T. Deressa, G.A. Gbetibouo and C. Ringler. 2009. Adaptation to Climate Change in Ethiopia and South Africa: Options and Constraints. *Environmental Science & Policy* 12: 413-426.
- Kurukulasuriya, P., R. Mendelsohn, R. Hassan, J. Benhin, M. Diop, H.M. Eid, K.Y. Fosu, G. Gbetibouo, S. Jain, A. Mahamadou, S. El-Marsafawy, S. Ouda, M. Ouedraogo, I. Sène, N. Seo, D. Maddison and A. Dinar. 2006. Will African Agriculture Survive Climate Change? *World Bank Economic Review* 20(3): 367-388.

### **Discussion/Working Papers and Research Briefs**

- Gbetibouo, G.A and C. Ringler. 2009. Mapping South African Farming Sector Vulnerability to Climate Change and Variability: A Subnational Level Assessment. IFPRI Discussion Paper 00885, Washington, DC: International Food Policy Research Institute.
- Gbetibouo, G.A and C. Ringler. 2009. Mapping South African Farming Sector Vulnerability to Climate Change and Variability: A Subnational Level Assessment. IFPRI Research Brief 15-3, Washington, DC: International Food Policy Research Institute.
- Gbetibouo, G.A. 2009. Understanding farmers' perceptions and adaptations to climate change and variability: the case of the Limpopo Basin, South Africa. IFPRI Discussion Paper 00849, Washington, DC: International Food Policy Research Institute.
- Gbetibouo, G.A. 2008. Understanding farmers' perceptions and adaptations to climate change and variability: the case of the Limpopo Basin, South Africa. IFPRI Research Brief 15-8. Washington, DC.

### **Research reports/thesis**

- Gbetibouo, G.A. 2011. Vulnerability and adaptation of farming to climate change in South Africa. PhD. Thesis, Faculty of Natural and Agricultural Sciences, University of Pretoria, Pretoria, South Africa.
- Gbetibouo, G.A. 2006. Report on South Africa National Stakeholders forum on: Vulnerability and Adaptive capacity to climate change in rural South Africa. A research report submitted to International Food Policy Research Institute under "Food and Water Security under Global Change: Developing Adaptive Capacity with a Focus on Rural Africa project.
- Nhemachena, C., J. Benhin, and Gbetibouo, G.A. 2006. Vulnerability to climate change and adaptive capacity in South African agriculture. Research paper submitted to the International Food Policy Research Institute Seminar. Food and Water Security under "Food and Water Security under Global Change: Developing Adaptive Capacity with a Focus on Rural Africa project.
- Benhin, JK and Gbetibouo, G.A. 2004. Climate, water and agriculture: impacts on and adaptation of agro-ecological systems in Africa: Case study of South Africa. Interim report submitted to the Centre of Environmental Economics and Policy in Africa under the Global Environmental Facility funded Project.
- Gbetibouo, G.A. 2004. Economic impact of Climate Change on major South African field crops: A Ricardian Approach. MSc. Thesis, Faculty of Natural and Agricultural Sciences, University of Pretoria, Pretoria, South Africa.
- Gbetibouo, G.A. 2000. Impact du microcrédit dans l'amélioration des conditions de vie des femmes: cas de la mutuelle de crédit MUCREFAB et du projet de Développement AFPA. DAA. Thesis, Ecole Supérieure d'Agronomie, Institut National Polytechnique Félix Houphouët Boigny, Yamoussoukro, Côte d'Ivoire.

### **Presentations at Conferences/Meetings**

- Gbetibouo, G.A., Hassan, R. and Ringler, C. 2010. Farmers' perceptions of climate change and variability: implications for adaptations in the Limpopo Basin South Africa. A paper presented at the International Colloquium 'Adaptation to climate change: Strategies for exchange and sharing of information for the benefit of communities', 6-8 July 2010, Dakar, Senegal.
- Gbetibouo, G.A. and Ringler, C. 2009. Mapping the South African Farming Sector's Vulnerability to Climate Change and Variability. A paper presented at the 2009 Amsterdam Conference on the Human Dimensions of Global Environmental Change 'Earth System Governance: People, Places and the Planet', Theme: Adaptiveness of Earth System Governance, 2-4 December 2009.
- Gbetibouo, G.A. Hassan, R. and Ringler, C. 2009. Modelling farmers' adaptations strategies for climate change and variability: the case of the Limpopo Basin, South Africa. A

- Paper Presented at the 47<sup>th</sup> Annual Agricultural Economics Association of South Africa Conference, Durban, 21–23 September.
- Gbetibouo, G.A. and Hassan, R. 2003. Economic impact of climate change on major South African field crops: A Ricardian analysis. A paper presented at the 1<sup>st</sup> International Young Scientists Global Change Conference, November 16- 19, Third World Academy of Sciences, Trieste, Italy.
- Gbetibouo, GA. 2003. Climate, water and agriculture: impacts on and adaptation of agro-ecological systems in Africa. A paper presented at the Energy Modelling Forum Workshop on Climate Change Impacts and Integrated Assessments, August, 1-7, Snowmass-Aspen, Colorado.
- Poonyth, D., Hassan, R.M., Gbetibouo, G.A., Ramaila, J.M., Letsoalo, M.A. 2002. Measuring the impact of climate change on South African agriculture: a Ricardian approach. A Paper Presented at the 40th Annual Agricultural Economics Association of South Africa Conference, Bloemfontein, 18–20 September.

**Under review article:**

Gbetibouo, G.A., R.M. Hassan and C. Ringler. Farmers' Perceptions of Climate Change and Variability: Implications for Adaptations in the Limpopo Basin South Africa. Under review. *Regional Environmental Change*.

**Journal referee for:**

- Journal of Environmental Management
- Irrigation and Drainage
- Climatic change
- IIED Briefing Papers