

## **CURRICULUM VITAE**

### **A- Personal Details**

Name: G.H. Sabin Guendehou, birth date: 14 August 1971

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### **B- Educational Background**

#### ○ **Education History**

- 2007–2011: PhD on Environmental Sciences; thesis on “Methods and tools for estimating carbon dynamics in tropical forest ecosystems in Benin, West Africa” (alternately in Finland and Benin).
- 1997–1999: MSc. degree on Environmental management and water quality.
- 1995–1997: BSc. degree in Physics-chemistry, Univ. of Abomey Calavi (Benin).
- 1992–1995: University certificates in Physics-Chemistry, Univ. of Abomey Calavi (Benin).
- 1983–1991: Secondary school – A Level degree, Benin.
- 1977–1983: Primary school, Benin

#### ○ **Relevant Training Courses**

I took the following UNFCCC training courses and passed with success the final examinations:

- 2004 courses for the technical review of GHG inventories of Parties included in Annex I to the Convention;
- 2006 courses for the technical review under the Kyoto Protocol (KP) of Annex I GHG inventories (national systems, application of adjustments, modalities for accounting of assigned amounts under Article 7.4);
- 2009 courses for the initial review under Article 8 of the KP (review of national registries, information on assigned amounts, and activities under article 3.3 and 3.4 of the KP).

Reference: Sergey Kononov, email: [skononov@unfccc.int](mailto:skononov@unfccc.int)

### **C- Work Experience**

#### ○ **Employment records**

- Since June 2015, I have been appointed Director of the Scientific Information and Communication in Benin Centre for Scientific and Technical Research
- Since March 2014, I have been appointed Regional Project Coordinator of the UNFCCC project: Technical assistance for sustainable national greenhouse gas inventory management systems in West Africa (West Africa GHG project), a three years project. The project is responding to the needs of seven countries (Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Ghana, Senegal and Togo) in the context of the enhanced reporting under the Convention (e.g. decisions 1/CP.16 and 2/CP.17); partners of the project: the United States Department of the Interior, the United States Environmental Protection Agency, FAO, GIZ, UNEP/UNDP;
- Since February 2013, I have been coordinating the Global Climate Change Alliance and CILSS (Permanent Interstate Committee for Drought Control in the Sahel) project on ‘Quantification, modelling, and monitoring of forest carbon stocks in Benin, West Africa’, a three years research project;
- 2009–2011: I was attached, as visiting scientist, to the Finnish Forest Research Institute (METLA), Finland.
- 2005–2006: I completed 1 year internship in IPCC GHG Inventory Programme, Institute for Global Environmental Strategies (IGES), Japan where I carried out a research on “*Land-use changes and greenhouse gas fluxes: scientific understanding and contribution to improving methodologies for greenhouse gas inventory in Benin*”; and assisted the Technical Support Unit of the Programme;
- Since 2004: I have been researcher in the Institute for Research in Earth and Environmental Sciences within Benin Centre for Scientific and Technical Research;
- 2000–2001: I held the position of GHG inventory officer in the project “Initial national communication of Benin on Climate Change” (UNDP/GEF Enabling Activity); 2001–2003, I was recruited as consultant within the project;
- 1999: I completed the following internships:
  - . Ministry of Environment of Benin, on research topic: *GHG Inventory and Climate Change*.
  - . Company of Textile of Benin, on research topic: *Wastewater management and GHG emissions*.
  - . Slaughterhouse of Cotonou (Benin), on research topic: *waste management practices and GHG emissions*.
- 1997–1998: I was instructor in chemistry, Faculty of Sciences and Techniques, Univ. of Abomey Calavi.
- 2006: lecturer of Atmospheric chemistry courses, Faculty of Sciences and Techniques, Univ. of Abomey Calavi.

#### ○ **Professional Activities**

- GHG Inventory Team Leader of the National Committee on Climate Change of Benin.
- Member of the Designated National Authority of Benin for the Clean Development Mechanism.
- Reviewer for Ecological Modelling, a peer-reviewed International Journal on Ecological Modelling and Systems Ecology.
- Reviewer for Silva Fennica, a peer-reviewed international journal of forest science.

o **Relevant Expert Meetings / Workshops Attended and other International Experiences**

1. Experience with the National GHG Inventory Programme of the IPCC (IPCC NGGIP):

Reference: [nggip-tsu@iges.or.jp](mailto:nggip-tsu@iges.or.jp)

I have contributed to the activities of the IPCC NGGIP since 2002 as lead author, author of discussion paper, expert, reviewer, chair of break out groups, editorial board member, data provider, and speaker. I have participated in several technical, experts and scoping meetings, such as:

- IPCC Expert Meeting for Technical Assessment of IPCC Inventory Guidelines;
- Scoping meeting to consider the invitation from UNFCCC CMP7 to the IPCC to review, and update supplementary methodologies for estimating anthropogenic GHG emissions and removals from LULUCF activities under Article 3.3 and 3.4 of the Kyoto Protocol; participation in all expert meetings as lead author for the writing of the chapter on "Harvested wood product" of the "2013 Supplementary Methods and Good Practice Guidance arising from the Kyoto Protocol" published in February 2014;
- Expert meetings to develop the IPCC inventory software implementing the 2006 IPCC Guidelines for national GHG inventories ;
- Expert meetings to develop supporting materials for the 2006 IPCC Guidelines: for e.g. on 1) Uncertainty and validation of emission inventories, 2) Use of models and measurements in GHG inventories, 3) Estimating GHG emissions and removals from land uses such as agriculture and forestry;
- Annual editorial board and data evaluation meetings of IPCC emission factors database since 2005;
- Meetings of authors/experts, steering group, coordinating lead authors, Task Force Bureau, to develop the 2006 IPCC Guidelines for national GHG inventories;
- Expert Meeting on the application of the 2006 IPCC Guidelines to other areas;
- Expert group scoping meeting on revision of the Revised 1996 IPCC Guidelines for national GHG inventories;
- Expert review of the IPCC reports on *Good Practice Guidance for LULUCF* and *Definitions for Direct Human-Induced Degradation of Forests and Devegetation of other Vegetation Types and Methodological Options to inventory and report on Emissions resulting from these Activities*;
- Joint FAO-IPCC-IFAD expert meeting: Emerging activities to combat climate change – use of FAO data and IPCC GHG Inventory Guidelines for Agriculture and Land Use.

2. Experience with the Mitigation, Data and Analysis (MDA) Programme of the UNFCCC Secretariat:

Reference: Sergey Kononov, email: [skononov@unfccc.int](mailto:skononov@unfccc.int); [ksimeonova@unfccc.int](mailto:ksimeonova@unfccc.int)

- I have contributed to the activities of MDA Programme since 2004 as review expert, lead reviewer, review officer for the technical review of GHG inventories, initial reports, annual submissions, national communications (in-depth review), during centralized and in-country reviews under the convention and the Kyoto Protocol, of several Annex I Parties, including Australia, Austria, Bulgaria, Finland, France, Greece, Hungary, Italy, Latvia, Liechtenstein, Luxembourg, Malta, Monaco, The Netherlands, New Zealand, Norway, Russia, Slovakia, Slovenia, Spain, Ukraine, United Kingdom, USA.
- 2009-2010 and 2010-2011: I was attached, as Review Officer, to the MDA Programme of the UNFCCC in Bonn (Germany); I coordinated the technical review under the Convention and the Kyoto Protocol of submissions and GHG inventories of Annex I Parties.
- 2013-2014: I was recruited as resource person (trainer) to train developing countries during the following training and capacity building workshops (I covered the agriculture and forestry sectors): Reference: Jigme: email: [jjgme@unfccc.int](mailto:jjgme@unfccc.int)
  - o Hands-on training workshop for the Asia-Pacific region on the use of the non-Annex I GHG inventory software (NAIS), Manila, Philippines, 14–18 October 2013
  - o Hands-on training workshop for the Africa region on the use of the non-Annex I GHG inventory software (NAIS) Libreville, Gabon 10–14 March 2014
  - o Hands-on training workshop for the Latin America and the Caribbean region on the use of the non-Annex I GHG inventory software (NAIS), Bogotá, Colombia, 24–28 March 2014
- 2015: Member of the technical assessment team (TAT) for the technical assessment of the submissions of proposed forest reference emission levels for the implementation of activities referred to in decision 1/CP.16, paragraph 70 (Reduction emissions from deforestation and forest degradation in developing countries: REDD mitigation actions)
- 2015: Member of the Technical Team of Expert (TTE) for Technical analysis of biennial update reports submitted by developing country Parties under the international consultation and analysis.

3. Experience with the Executive Board of the Clean Development Mechanism (CDM) of the Kyoto Protocol

Since May 2013, I have been selected and appointed as expert of the Afforestation/Reforestation Working Group as support structure of the Executive Board of the CDM.

4. Experience with the United Nations Food and Agriculture Organisation

- FAO consultant: soil science expert for soil carbon monitoring methods/models to support GHG reporting and REDD+ monitoring in Tanzania, in 2010. (reference: [anssi.pekkarinen@fao.org](mailto:anssi.pekkarinen@fao.org); [Mikko.Leppanen@fao.org](mailto:Mikko.Leppanen@fao.org));
- FAO consultant: for the development of guidelines on methods for monitoring soil carbon stocks and its changes in Tanzanian National Forest Resources Monitoring and Assessment, in 2010–2011, including field work in Tanzania. (reference: [anssi.pekkarinen@fao.org](mailto:anssi.pekkarinen@fao.org); [Mikko.Leppanen@fao.org](mailto:Mikko.Leppanen@fao.org))

5. Experience with the United Nations Development Programme

Regional expert/consultant recruited several times between 2001–2008 by the UNDP National Communications Support Programme for the elaboration and implementation of the regional project *Capacity building for improving the quality of GHG inventories in West and Central Africa*. I have contributed as trainer, conducted peer-reviews of GHG inventories, facilitated technical workshops on several aspects of GHG inventories, elaborated technical documents; the capacity building activities were provided to the following countries: Benin, Burkina Faso, Burundi, Côte d'Ivoire, The Gambia, Ghana, Guinea, Mali, Niger, Nigeria, Senegal, Chad and Togo. (reference: [yamil.bonduki@undp.org](mailto:yamil.bonduki@undp.org)).

6. Other relevant experiences

- International consultant (in 2010) for the peer-review of Australia's national GHG inventory 2008: solid waste – fraction of degradable organic carbon dissimilated (DOCF) (reference: [rob.sturgiss@climatechange.gov.au](mailto:rob.sturgiss@climatechange.gov.au)).
- International consultant (in 2009) for the quality assurance peer-review on the 2007 Australia's national GHG inventory: solid waste (reference: [rob.sturgiss@climatechange.gov.au](mailto:rob.sturgiss@climatechange.gov.au))
- Expert reviewer of the Fourth Assessment Report (AR4) of IPCC.
- Expert reviewer of IPCC Special Report on Carbon Dioxide Capture and Storage (SRCCS).
- Expert reviewer of *UNDP Handbook on "Conducting Technology Needs Assessments for Climate Change"*.
- Participation in the 3<sup>rd</sup> International CH<sub>4</sub> and N<sub>2</sub>O Mitigation Conference, Beijing, China, 17–21 November 2003 and presentations on: 1) *Greenhouse Gas Inventories in West Africa: Relevant Issues and Strategy for Improving the Quality* 2) *Situation in Republic of Benin with regard to Greenhouse Gas Emissions Mitigation*
- Participation in the 3<sup>rd</sup> International Symposium on Non-CO<sub>2</sub> Greenhouse Gases: Scientific Understanding, Control Options and Policy Aspects, Maastricht, The Netherlands, 21–23 January 2002; presentation on *Contribution to Non-CO<sub>2</sub> greenhouse gases inventory for Cotonou (Rep. of Benin): waste sector*; and participation in a round table discussion on *Initiatives on climate change mitigation in developing countries*.
- Consultant for data collection activity for *Stratus Consulting Inc.*, USA for a project on global database on municipal solid waste generation and management in urban areas, in 2002–2003.
- Participation in the international workshop on Environmental Pollution and Applicability of Remediation Technologies in African countries, International Centre for high Science (ICS) and UNIDO, Enugu – Nigeria, 16–19 July 2001.

7. Relevant national experience

- I developed the GHG inventories of the initial and second national communications on climate change of Benin;
- I contributed to the elaboration of the National Adaptation Programme of Action (NAPA) of Benin;
- Consultant for the development of the national strategy to implement the convention on climate change.
- Trainer of national experts on the use of Revised 1996 IPCC Guidelines and software and the IPCC Good Practice Guidance;
- Currently involved in the preparation of the third national communication and first biennial update report of Benin

o **Special honour**

I received the certificate of the Nobel Peace Prize 2007 given to the IPCC in recognition for my contributions and was notified that I share the Prize with IPCC colleagues around the globe.

**D- Language Ability**

- Mother tongue: Fon
- Other language: French (fluent); English (very good)

## E- Computer Knowledge and Skills

MS Office tools, @RISK for uncertainty assessment, statistical computing software R, tree biomass and volume modelling, soil carbon modelling, IPCC model for estimating CH<sub>4</sub> emissions from landfills, Agriculture and Land Use national greenhouse gas inventory software (ALU software v4.0), Non-Annex I inventory software (UAT Version 1.0), IPCC inventory software v.2.11, algorithms for remote sensing images processing.

## F- Some publications and manuscripts

- GHS Guendehou, A Lehtonen, M Moudachirou, R Mäkipää & B Sinsin (2012): Stem biomass and volume models of selected tree species in West Africa, *Southern Forests: a journal of Forest Science*, 74:2, 77–88.
- R. Mäkipää, J. Liski, S. Guendehou, R. Malimbwi, and A. Kaaya. Soil carbon monitoring using surveys and modelling - General description and application in the United Republic of Tanzania. FAO Forestry Paper 168. FAO 2012, ISBN 978-92-5-107271-4 ISSN 0258-6150 available at: <http://www.fao.org/forestry/32545-078ade939238335dea8570f134cd68fca.pdf>
- G.H.S. Guendehou, J. Liski, M. Tuomi, M. Moudachirou, B. Sinsin and R. Mäkipää. Decomposition and changes in chemical composition of leaf litter of five dominant tree species in a West African tropical forest. *Tropical Ecology* 55 (2): 207-220, 2014.
- Guendehou, G. H. S., Liski, J., Tuomi, M., Moudachirou, M., Sinsin, B., and Mäkipää, R.: Test of validity of a dynamic soil carbon model using data from leaf litter decomposition in a West African tropical forest, *Geosci. Model Dev. Discuss.*, 6, 3003-3032, doi:10.5194/gmdd-6-3003-2013, 2013.
- Guendehou, G. H. Sabin & Lehtonen, Aleks. 2014. Guidance for tree measurement in tropical forest ecosystems using non-destructive sampling to develop stem biomass and volume models. *Metlan työraportteja / Working Papers of the Finnish Forest Research Institute* 287. 10 s. ISBN 978-951-40-2465-8 (PDF). <http://www.metla.fi/julkaisut/workingpapers/2014/mwp287.htm>.
- Guendehou, G. H. Sabin & Mäkipää, Raisa. 2014. Approach to data collection for soil carbon modelling in Benin. *Metlan työraportteja / Working Papers of the Finnish Forest Research Institute* 290. 10 s. ISBN 978-951-40-2469-6 (pdf). <http://www.metla.fi/julkaisut/workingpapers/2014/mwp290.htm>.
- S. Rüter, G. Alfredeisen, F. de Aquino Ximenes, S. Guendehou, K. Pingoud, Y. Tsunetsugu, and P. A. McCusker. 2013 Supplementary Methods and Good Practice Guidance arising from the Kyoto Protocol – Chapter 2: Methods for estimation, measurement, monitoring and reporting – section 2.8 Harvested wood product. Available at: <http://www.ipcc-nggip.iges.or.jp/public/kpsg/index.html>
- G.H.S. Guendehou (2007). Uncertainty Analysis as Basis for Improving the Quality of Inventory Data in the Land-Use, Land Use Change and Forestry sector: case study of Benin, In: *Proceedings of the 2<sup>nd</sup> International Workshop on Uncertainty in Greenhouse Gas Inventories*, IIASA, Laxenburg, Austria, 27-28 September 2007, pp. 61-68. Available at: <http://www.ibspan.waw.pl/ghg2007/GHG-total.pdf> [DOI: 10.13140/2.1.1732.3524]
- G.H.S. Guendehou (2006). Land-Use Changes and Greenhouse Gas Fluxes: Scientific Understanding and Contribution to Improving Methodologies for Greenhouse Gas Inventory in Benin. IGES, Hayama, Japan, 112 pp. Institute for Global Environmental Strategies, Japan, January 2006. Available at: [http://www.ipcc-nggip.iges.or.jp/tsu/intern\\_report/TSU\\_InternshipReportSabin.pdf](http://www.ipcc-nggip.iges.or.jp/tsu/intern_report/TSU_InternshipReportSabin.pdf) [DOI: 10.13140/2.1.4615.9363]
- R. Pipatti, C. Sharma, M. Yamada, J. Wagner Silva Alves, Q. Gao, G.H.S. Guendehou, M. Koch, C. López Cabrera, K. Mareckova, H. Oonk, E. Scheehle, A. Smith, P. Svardal, and S.M.M. Vieira – Volume 5: Waste – Chapter 2: Waste Generation, Composition and Management Data. IPCC 2006, pp. 23. Available at: <http://www.ipcc-nggip.iges.or.jp/public/2006gl/vol5.html>.
- G.H.S. Guendehou, M. Koch, L. Hockstad, R. Pipatti and M. Yamada. 2006 IPCC Guidelines for National Greenhouse Gas Inventories – Volume 5: Waste – Chapter 5: Incineration and Open Burning of Waste. IPCC 2006, pp.26. Available at: [www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/5\\_Volume5/V5\\_5\\_Ch5\\_IOB.pdf](http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/5_Volume5/V5_5_Ch5_IOB.pdf).
- G.H.S. Guendehou (2005). Contribution to the Development of Benin-specific Emission Factor for Land Transport, In: *Proceedings of the fourth International Symposium on Non-CO<sub>2</sub> Greenhouse Gases (NCGG-4): Science, Control, Policy and Implementation*, Utrecht, The Netherlands, 4-6 July 2005, pp. 273-276. Millpress, Rotterdam, ISBN 90 5966 0439, July 2005. [DOI: 10.13140/2.1.3436.2883]
- G.H.S. Guendehou and E.D. Ahlonsou (2003). Greenhouse Gas Inventories in West Africa: Relevant Issues and Strategy for Improving the Quality, In: *Proceedings of the Third International Methane & Nitrous Oxide Mitigation Conference*, Beijing, China, Nov 2003, pp. 709-714. U.S. Environmental Protection Agency & China Coal Information Institute, November 2003.
- G.H.S. Guendehou, and E.D. Ahlonsou (2003). Situation in Republic of Benin with regard to Greenhouse Gas Emissions Mitigation, In: *Proceedings of the Third International Methane & Nitrous Oxide Mitigation Conference*, Beijing, China, Nov 2003, pp. 753-757. U.S. Environmental Protection Agency & China Coal Information Institute, November 2003.

- G.H.S. Guendehou, and E.D. Ahlonsou (2002). Contribution to Non-CO<sub>2</sub> greenhouse gases inventory for Cotonou (Republic of Benin): waste sector, In: Proceedings of the Third International Symposium on Non-CO<sub>2</sub> Greenhouse Gases: Scientific Understanding, Control Options and Policy Aspects, Maastricht, The Netherlands, Jan 2002, pp. 79-81. Millpress, Rotterdam, ISBN 90-77017-70-4, January 2002.
- G.H.S. Guendehou et al. (2007). Manuel de Procédures pour la Gestion des Inventaires de Gaz à Effet de Serre au Bénin (Manual of Procedures for the Management of Greenhouse Gas Inventories in Benin). Projet PNUD/FEM RAF02/G31, Cotonou, Bénin, 63 pages.
- G.H.S. Guendehou and A. Pekkarinen. Unsupervised detection of vegetation cover changes using Landsat satellite images (manuscript).

#### Other papers

- Guendehou, G.H.S. (2008). Experience of Benin in applying the IPCC Guidelines for Inventories of GHG from land uses. Background paper. IPCC Expert Meeting on IPCC Guidance on estimating emissions and removals of greenhouse gases from land uses such as agriculture and forestry, 13-15 May 2008, Tilastokeskus (Statistics Finland), Helsinki, Finland.
- Guendehou, G.H.S. (2004). Open Burning of Waste. Discussion Paper. Fifth Authors/Experts Meetings: Waste, 2-4 November 2004, Ottawa, Canada, in the Preparation of the 2006 IPCC National Greenhouse Gas Inventories Guidelines.
- Guendehou, G.H.S. (2001). Status of land use change and forestry sector in Benin.
- Guendehou, G.H.S. 2000. Inventory of projects/plans related to climate change adaptation and mitigation in Benin.

**Other information:** I stayed in the following countries: Japan (1 year continuously, and several times afterwards), Finland (2009-2011), The Netherlands (3 times), Switzerland (several times), China, USA, Canada, Germany (several times), The Philippines, Russia, Brazil (3 times), Monaco (several times), Australia (several times), Nigeria (several times), Ghana (several times), Argentina, Ivory Coast (several times), Senegal, The Gambia, Tanzania, Greece, Austria, Norway, Austria, France, UK, Liechtenstein, Luxembourg, Chile, New Zealand, India, South Africa, Togo (several times), Niger (several times), Mali, Latvia, Thailand, Cabo Verde, Gabon, Colombia, Italy.

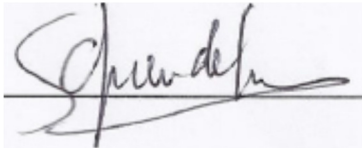
#### G- References

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