#### **CURRICULUM VITAE**

:

1. PROPOSED POSITION

- 2. PERSONAL INFORMATION
- Institute for Agricultural Environment (IAE)



NAME	:	<b>BUI THI PHUONG LOAN</b>				
DATE OF BIRTH	:	1 <sup>st</sup> December 1975				
SEX	:	Female				
NATIONALITY	:	Vietnamese				
PERSONAL ADDRESS	:	8/1/85 – Le Van Hien Street, Duc Thang,				
	:	Bac Tu Liem, Hanoi, Vietnam				
TELEPHONE NO.	:	Tel: + 84 (4) 3789 3272 (office);				
FAX NO.	:	0978494172 (mob)				
E-MAIL ADDRESS		+ 84 (4) 37893277				
		<u>bploannisf@yahoo.com;</u>				
		buiphuongloan.iae@gmail.com;				

#### **3 EDUCATION:**

- ✓ Hanoi National University, BSc. Environmental Management, 1993-1997
- ✓ Vietnam Academy of Agriculture Science, MSc., 2004-2006
- ✓ Vietnam Academy of Agriculture Science, PhD. Student, 2012-2016

#### **4 OTHER TRAINING:**

- ✓ Adsorption behavior of heavy metals in alluvial and grey degraded soils in red river delta in VietNam. Japan 2007
- ✓ ASPAC Asia Pacific Travel Grant 2010. The environment the future
- ✓ Vulnerability to climate change: adaptation strategies and layers of resilience at ICRISAT, Patancheru, India from 18 –22 October, 2010. Short Course on Cropping System Models (DSSAT)
- ✓ Seminar on Low Carbon Agriculture- Energy Conservation and emission reduction in Beijing from May 10-21, 2011
- ✓ South-South Technology Transfer: Ethanol Production from Cassava on 22 June 2011 at Kamolthip Ballroom, Siam City hotel, Bangkok, Thailand
- ✓ Conference on Arsenic in groundwater in Southrn Asia from 14-17th November 2011, Hanoi, Vietnam
- ✓ Architecture of GAMS programming at IAE, Hanoi from 10-15 August, 2012. Short

Course on GAMs Models National Seminar on Green – 2012

- ✓ Growth Policy Tools for Low Carbon Development in Vietnam: On-site e-Learning Training of Trainers Seminar. Hanoi from 18-20 December 2012
- ✓ Production and Service of Agro-meteorological Information for the Adaptation to Climate Change", September 24-28, 2012, Suwon, Republic of Korea
- ✓ Workshop environmental Footprint indicators assessing the sustainability of rice farming practices. IRRI, Philippines, 11-13 June 2013
- ✓ Workshop for Production of Agro-meteorological Information and Service of Agrometeorological stations for the adaptation to Climate change in Kandy, Sri Lanka. from 08th -12th, July 2013
- ✓ Seminar on Resource Utilization of Agricultural Waste and Agricultural Sustainable Development for APEC Members. from November 4th to 15th, 2013 in Beijing, China
- ✓ Training on Climate-Smart Agriculture Policy and Carbon Balance appraisal of AFOLU project and policies for nationally appropriate mitigation actions (NAMA) development in Vietnam from 20-21 March, 2014
- Workshop for Production of Agro-meteorological Information and Service of Agrometeorological stations for the adaptation to Climate change in Ulaabaatar, Mongolia. from 3-7, June 2014
- ✓ Climate change: Adaptation and mitigation in Agriculture. NISEAS, Tuskuba, Japan. from 11-17, Aug 2014
- ✓ Communities of Practice" meeting and workshop on Measuring, Reporting and Verification for Green House Gas Emission in Agriculture. 18-19Sept. 2014 Hue city, Vietnam
- ✓ Forum on Mitigating Negative Effects of Climate Change on Agriculture, 30 Sept.-3Oct, Bali, Indonexia
- ✓ Asia Low Emission Development Strategies (LEDS) Forum 2014, November 10-13, 2014 in Yogyakarta, Indonesia

#### 5 COUNTRIES OF WORK EXPERIENCE: VIETNAM

#### **6 LANGUAGES** [FOR EACH LANGUAGE INDICATE PROFICIENCY]:

Language	Speaking	Reading	Writing
Vietnamese	Native	Native	Native
English	Sufficient	Sufficient	

#### **08 EMPLOYMENT RECORD:**

From	:	2012	То	:	Present			
Employer	:	Institute for Agriculture Environmental						
Positions held	:	Head of department						
		Research Officer						
		Climate change						
		Measurement GHGs emission from paddy rice						
		Modelling (D	NDC	; DSSAT	; CQESTR; EX-ACT; AQUACROP; GAMs)			

From [Year]	:	2008	То :	2012				
Employer	:	Institute for Agriculture Environmental						
Positions held	:	Vice head of department						
		Research Officer						
		Environment;						
		Climate char	nge					
From	:	1998	To :	2008				
Employer	:	National Institute for soils and fertilizes						
Positions held	:	Research Of	ficer					

### **09 DETAILED TASKS : WORK UNDERTAKEN THAT BEST ILLUSTRATES CAPABILITY TO HANDLE THE TASKS ASSIGNED**

### **1. Name of assignment or project:** Greenhouse Gas Emission (GHG) measurement from rice fields in Quang Binh and Binh Dinh province

Year: 2014 Location: Vietnam

**Client:** SNV

**Main project features:** The main goal of this activity is to measure GHG emission from rice fields in Quang Binh and Binh Dinh provinces. These data will allow us to estimate the GHGs emission from rice fields under smallholder management, as opposed to under controlled experimental conditions.

**Positions held:** Project member, technical

#### **Activities performed:**

1. Building a proposal on GHG emission measurement methodology selection and justification, including workplan for project activity, participation groups.

+ Select the methodology for the GHG measurement from rice fields

+ Provide training and coaching courses on GHG and its linkages with SRI and climate change

+ Facilitation undertaking, monitoring, following up and testing samples

+ Processing data, consolidating, analyzing and validating/verifying GHG emission measurement data (emphasizying intervention i.e inputs reduction and water management/AWD).

+ Analysis GHG emission measurement in linkages with overall rice cultivation, lowcarbon rice production approaches including SRI, climate change context and agriculture development.

+ training of farmer self-assessment

2. Financial planning for the project

3. organize climate change seminars and workshops at the national and regional level.

**4.** Reporting and presenting the results in stakeholders meetings

### **2. Name of assignment or project:** Economic Viability of Climate Change Mitigation Through the Use Biochar

Year: 2013 Location: Vietnam

#### **Client**: IPFRI

**Main project features:** The main goal of this activity is to study the economic viability of using biochar as an amendment to increase agricultural productivity and as a tool that provides climate change mitigation services. The method used to conduct this analysis is cost-benefit analysis

Positions held: Project assistant

#### Activities performed:

1. Preparation of the Project Design Document (Building a proposal)

2. Planning program Of Activities (work plan detail)

- Survey a suitable number of farmers and conduct an analysis of local farming systems in reference to the possible adoption of Biochar with particular emphasis on the existing costs and barriers to adoption. This analysis should concentrate of the economic viability of the system from the farmer's perspective.

- Conduct a cost-benefit analysis of the adoption of Biochar at the farm level.

- Determine the feasibility of alternative implementation methods (i.e. community Biochar reactor, portable on-farm reactor, household reactor).

- Participate and help with the organization of workshops and meetings.

- Monitoring and accessing carbon financing for low-carbon projects

- Write a report and submit an article to a peer reviewed journal

3. Activity Based Budget (building financial for the project and planning detail budget)

4. financial settlement

5. Wringting report

## **3. Name of assignment or project:** Study the influence of irrigation methods and applied organic materials on Green House Gas (GHG) emission on paddy rice field

Year:2012-2013

Location: Vietnam

**Client:** NAFOSTED, MOST

**Main project features:** the research is to quantify GHG emission from different paddy rice farming systems to assist the sectorial inventory of GHG emission and to find out the low carbon farming system for mitigating climate change

Positions held: Project assistant

- Activities performed:

1. Building a proposal:

+ Setup field experiment layout for spring rice and summer rice with 8 treatments and 3 replications

+ Training and trainer about the methodology for the GHG measurement from rice fields

+ Provide training

+ Observe the growing of rice in 10 days interval

+ Measure soil and water environmental parameters on the rice field

+ Take air sample for measuring  $CH_4$  and  $N_2O$ : 4 time per season (top tillering, particle initiation, flowering and milk repening)

+ Harvest the crop and calculate results

+ To find out the low carbon farming system for mitigating climate change and assess opportunity of carbon market for agriculture in Vietnam, accessing carbon financing for low-carbon projects

2. Planning detail financial activity for project (Consultancy fees; timesheets; submission of invoices...)

3. financial settlement

4. Writing report and public paper

### **4.** Name of assignment or project: An estimation of reduction potential for the agriculture sector in Vietnam

Year: 2012 Location: Vietnam Client: UNDP

**Main project features:** assessment aiming at verifying and economically underbuilding low carbon development options in the Green Growth Strategy and aims to provide input to under-build emission reduction targets

#### Positions held: Project member

Activities performed: Business As Usual-max; this scenario is based on the assumption that there are is action/policy undertaken to reduce GHG emissions.

- Business As Usual-min: this is the scenario which include limited adaptation of low carbon options which are currently being applied within the existing agricultural policies (hence without additional support from NAMAs or carbon markets)

- Mitigation scenario: this involves a scenario which includes the impacts of low carbon options on overall emissions which are supported by new/additional mechanisms.

### **5. Name of assignment or project: Research Biochar production from agricultural** waste in the Mekong delta

Year:2011-2012

**Location:** Mekong delta

**Client:** MOET

**Main project features:** study and application of biochar production in the Mekong Delta for the type of waste (rice straw, rice husk, sugar cane leaves, corn stem and leaf, corn core and coconut cover) in scale small. The study proposed four methods of producing biochar suitable for different types of agricultural waste.

Positions held: Project member, technical

Activities performed: - Building four methods of producing biochar suitable for different types of agricultural waste.

- Setup field experiment: used biochar produced from rice straw and rice husk for a gray soil in Long An for maize crop in the summer- autumn season and rice crops in the autumn - winter season

- Demonstration in the fields ( apply biochar for rice and maize)

- Take soil sample analaysis for after season
- Harvest the crop and calculate results

- Training for farmer

### 6. Name of assignment or project: Study on Agricultural Mitigation Potentials in Vietnam

**Year:**2010-2011

Location: Vietnam

**Client:** JICA and MARD support

**Main project features:** This study will contribute important role into achieving a priority policy action of SP-RCC, namely, "To collect sustainable agricultural practices (of co-benefit type) which reduce GHG emission

Positions held: Project member, technical

#### **Activities performed:**

- To identify the factsheet of mitigation option for agriculture in Vietnam, together with adaptation measures to reduce vulnerability and impacts of climate change;

- To examine potential agricultural mitigation technologies, practices, and options in Vietnam with possible interactions of mitigation, adaptation, and reduced vulnerability

- To develop relevant policies to promote sustainable agricultural practices, which

reduce GHG emissions, to be extended in Vietnam.

#### 7. Name of assignment or project: Partnership to Develop Innovative Policies on Climate Change Mitigation and Market Access

Year:2009-2011 Location: Vietnam Client: IFPRI

**Main project features:** explore the potential of mitigation measures for rice production in Vietnam, to demonstrate to the agricultural managers and farmer their mission and methodology to implement mitigation measure on their field, and to calculate the abatement cost for carbon sequestration for that mitigation measure, a scientific base for linking between the farmer and carbon market for a clean development mechanism.

**Positions held:** Project assistant

#### **Activities performed:**

- 1. Building workplan detail for project (activity project and financial)
- Collect data on agricultural activities for all of Vietnam
- Quantify mitigation potential by agricultural sub-sector, location, timeframe, and mitigation activity
- identify areas of high-potential for agricultural mitigation and poverty alleviation

- Contribute to pilot study on agricultural mitigation activities in an area combining high potential for mitigation: implement grid carbon baseline inventory of study site; convert long-term to transitional change and measure change in carbon in woody biomass; develop carbon look-up table for agricultural activities in the study site;

- training of farmer self-assessment and reporting
- propose relevant policies to promote mitigation options in agriculture
- 2. Planning detail financial activity for project (Consultancy fees; timesheets; submission of invoices...)

3. financial settlement

Wirting report and public paper

8. Name of assignment or project: Study arsenic in groundwater in HaNam province and safe water Technology for Arsenic Removal

Year:2009-2011

**Location:** Ha Nam province

**Client:** MARD, VAAS

**Main project features:** The objective of the present study was to assess the potential and applicability of these natural minerals for removing both As(III) and As(V) present in drinking water

Positions held: Project leader

Activities performed: Assess the adsorption capacity of Asen (III) and Asen (V) of materials

Compare the Asen adsorption capacity of studied materials

Determine the adsorption capacity of natural minerals (Zeolite, Bentonite; Laterite) to develop adsorption materials mitigating arsenic toxin in household wastewater" not only significant economic contribution to society but also have a huge impact on the environment: control the content of asen in drinking water, ensure human health

## **9.** Name of assignment or project: Determination the pollutants to agricultural areas downstream of Nhue river, Nhat Tiu, Kim Bang and Hoang Dong, Duy Tien, Ha Nam for example

Year:2010-2012

**Location:** Ha Noi and Ha Nam provinces

**Client:** Vietnam Academy for Agricultural Sciences

Main project features: the irrigation capacity of the river for crop production;

degradation of river water quality; and accumulation of pollutants in the field **Positions held:** Assistant of Project

#### **Activities performed:**

**1.** Building a proposal

Simulating agricultural activities

. Research also found that increasing the area of row planting crops increasing the chemical residue in the watershed water

Estimation the mass of pollutants to the field

2. Building workplan detail (activity and financial)

financial settlement

### **10. Name of assignment or project:** Study the economic impact of climate change and adaptation measure for agriculture sector in Vietnam

**Year:**2009

Location: Vietnam

**Client:** World bank

- Main project features: To determine impacts of climate changes on crop production;

- To determine physical and economic losses of the agriculture sector under extreme climatic events in historical climate conditions and climate change conditions, respectively;

To determine costs and benefits (CBA) (economic effective) of various adaptation measures and greatest economic return of adaptation measures

Positions held: Project member, technical and modelling

- Activities performed: Review agronomic data for Vietnam;

- To quantify changes in agricultural productivity in response to climate change scenarios;

- Identify potential government-led adaptation measures and their benefits relative to the different climate change scenarios;

Calculate cost potential government-led adaptation measures and their benefit relative to the different climate change scenarios

### **11. Name of assignment or project:** Rating balance exist toxic substance in the main point production of the vegetables

**Year:**2008-209

Location: Hanoi

#### Client: MARD

**Main project features:** The research was conducted to evaluate pesticide residue in top soil as well as in the vegetable in nine main vegetable production zones in 2008 and also to evaluated it between intensive vegetable system and rotation vegetable system on Fluvisol (Hoai Duc district) and Acrisol (Me Linh district) in 2009.

#### Positions held: Project assistant

#### **Activities performed:**

- Evaluation of pesticide residue in soil and vegetable from main vegetable production zones in peri -urban of Hanoi city

- Evaluation heavy metal content in soil and vegetable of intensive/rotation vegetable production systems on Acrisol in MeLinh district and Fluvisol in Hoai Duc district, Hanoi, 2009

# 12. Name of leader or project: Study and build process farming techniques and soil protection for the main crops in the plains under the influence of climate change Year:2013-2015

Location: Viet Nam Client: MONRE

#### **10 PUBLICATION**

- 2014 1. ArjunPandey, Van Trinh Mai, Duong Quynh Vu, *Thi Phuong Loan Bui*, Thi LanAnh Mai, Lars Stoumann Jensen, Andreas de Neergaard, 2014, Organic matter and water management strategies to reduce methane and nitrous oxide emissions from rice paddies in Vietnam, Agriculture, Ecosystems and Environment 196, pp.137–146
- 2014 2. Mai Van Trinh, *Bui Thi Phuong Loan*, Pham Thanh Ha, 2014. Modelling N2O emission from different farming techniques, to be a basic information for developing new farming techniques that enhancing nitrogen use efficiency for rice and maize. National worshop on measures for improving fertilizer use efficiency in VienNam. Page 327-338.
- 2013 3. Mai Van Trinh, Mai ThiLanAnh, Bui Thi Phuong Loan, Nguyen Thi Thu Thuy, Pham Thanh Ha and Vu Thi Hang, 2013, Dynamic of some soil environmental elements in rice soil in summer season under different water regimes and organic materials, Vietnam Journal of Agriculture and Rural development, March 2013, 113-119.
- 2013 4. Mai Van Trinh, Tran Van The and *Bui Thi Phuong Loan*, 2013, Potential to mitigate GHG emission from rice production in Vietnam, Vietnam Journal of Agriculture and Rural development, March 2013, 64-70
- 2013 5. Pham Quang Ha, Mai Van Trinh, *Bui Thi Phuong Loan*, Do ThanhDinh and Pham Thanh Ha, 2013, Modelling with using DSSAT software for forecasting climate change impacts on rice productivity in Mekong river delta, Vietnam Journal of Agriculture and Rural development, March 2013, 60-63
- 2013 5. Nguyen Thi Hue, Mai Van Trinh, *Bui Thi Phuong Loan*, Tran Vu Nam and Pham Quang Ha, 2013, GIS application for building map impact assessment of climate change on rice production in Mekong river Delta, Vietnam Journal of Agriculture and Rural development, March 2013, 54
- 2013 7. Mai Van Trinh, Vu Thi Hang, Pham Quang Ha and *Bui Thi Phuong Loan*, , Develop assessment indicators impacts of climate change on agriculture in Vietnam, Vietnam Journal of

Agriculture and Rural development, March 2013, 47-53

- 2012 8. Mai Van Trinh, Nguyen Thi Hue, Pham Thanh Ha, Vu Duong Quynh, *Bui Thi Phuong Loan*, 2012, Influence of using waste water from Lam Son methanol factory on yield and quality of sugarcane and soil quality, Science and Technology Journal of Agriculture and Rural development, December 2012, 37-43
- 2012 9. Bui Thi Phuong Loan and Mai Van Trinh, Introduction of natural minerals can be used for removal of arsenic from drinking water, Toxicology Magazine 20, 46-51
- 2011 10. *Bui Thi Phuong Loan,* Mai Van Trinh, 2011. Introduction of natural minerals can be used for removal of Asenic from drinking water. Toxicology Magazine , N<sup>0</sup> 20, pp 46-51
- 2011 11. Mai Van Trinh, *Bui Phuong Loan*, Do Thanh Dinh, 2011. The use of water in the Nhue river basin for agricultural production. Journal of Vietnamese Agricultural Science and technology, N° 3(24), pp 43-48
- 2010 12. *Bui Thi Phuong Loan*, Pham Quang Ha, Vu Duong Quynh, Tran Viet Cuong,2010. Evaluation of pesticide residue in soil and vegetable from main vegetable production zones in peri -urban of Hanoi city. Journal of Vietnamese Agricultural Science and technology, N° 2(15), pp 69-75
- 2010 13. *Bui Thi Phuong Loan,* Nguyen Hong Son & all, 2010. Assessment of Arsenic Adsorption Capacity of Bentonite, Laterite and Zeolite in order to Select the Best Adsorbent for Removal of Arsenic from Drinking Water. Results of science technology research 2006-2010
- 2010
   14. Pham Quang Ha, Vu Duong Quynh, *Bui Thi Phuong Loan*, Mai Van Trinh, 2010. Heavy metal content in soil and vegetables of intensive /rotation vegetable production systems on Acrisol in MeLinh district and Fluvisol in Hoai Duc district, Hanoi.Vietnam soil science journal N<sup>0</sup>34
- 2009 15. Trinh. M. V., Ha, P. Q., Cuong, T. V., Thong, N. D., Hue, N. T., *Loan, B. P*.

Truong, P. H., Huong, C. T. T., Anh, P. L., Giang, T. T., 2009. Applying modelling to simulate pathway and spatial distribution of dioxin due to chemical spraying in the war, A Luoi district, Thua Thien Hue province, Toxicology Magazine 12, 12-16.

- 2007 16. *Bui Thi Phuong Loan*, Nguyen Quang Hai and Kazuhiko Egashira, 2007. Comparison of adsorption capacity of heavy metals between alluvial soils and grey degraded soils in Hanoi, Vietnam. Journal of the Faculty of Agriculture, Kyushu University, Vol. 52, p.p. 395-400
- 2007 17. Nguyen Quang Hai, *Bui Thi Phuong Loan*, and Kazuhiko Egashira,2007. Contribution of soil components to adsorption of heavy metals in alluvial soils and grey degraded soils from Hanoi. Vietnam.Journal of the Faculty of Agriculture, Kyushu University, Vol. 52, p.p. 401-404
- 2005
  18. Phạm Quang Hà, Bùi Huy Hiền, H.T.T. Hoa, P.K.Tu, H.T. Ninh, *B.T.P. Loan*, V.D. Quỳnh, J.E. Dufey, 2005. Overview of sandy soils managemnt in Vietnam. Management of tropical Sandy soils for Sustainable Agriculture. IRD. IWMI. .FAO. 27Nov 2 Dec. 2005 Khon Kaen, Thailand. Workshop Proceeding
- 2005 19. *Bui Thi Phuong Loan*, Pham Quang Ha, Nguyen Thi Lan, 2005. Some chemical properties of sandy soils in Dien Chau, Nghe An province. Research results of National Institute for Soils and Fertilizers, volume 4, Agricultural Publishing House, Hanoi pp.145-151
- 2005 20. *Bui Thi Phuong Loan*, Pham Quang Ha, 2005. Cation exchange capacity in some soil types in North of Vietnam and its relationship to some physical and chemical properties. Vietnam soil science journal N<sup>0</sup>21 page 5-9

#### 11. PROCEEDING

#### **2014** 1. 2014 AFACI Expert Workshop on

Production and Service of Agrometeorological

Information for the Adaptation to Climate Change (AMIS). June 3-7, 2014, Mogolia

#### 2013 2013 AFACI Expert Workshop of

2.Progress Appraisal of the Production and Service of Agrometeorological. Information for the Adaptation to Climate Change (AMIS). July 8-12, 2013

#### KANDY, SRI LANKA

- 2012 3. H.V.Nguyen, H.M.Nguyen, D.T.Vu. L.P.Bui, 2012. Phytoremediation of contaminated mined arsenic soils: Combination of fern species and arbuscular mycorrizhal fungi. The 4<sup>th</sup> International Congress on Arsenic in the Environment (As-2012) in Cairns. Australia on the 22-27 July 2012.
- 2011
  4. Bui Thi Phuong Loan, Nguyen Hong Son, Nguyen Thi Hue, Mai Van Trinh, Vu Dang Thanh, 2011. Assessing Arsenic Adsorption Capacity of Natural Bentonite, Laterite and Zeolite
  Conference on Arsenic in groundwater in Southrn Asia from 14-17<sup>th</sup> November 2011, Hanoi, Vietnam

#### **12. CERTIFICATION**

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications and my experience.

SIGNATURE:

DATE OF 13/04/2015 SIGNING:

Bui Thi Phuong Loan

Day Month Year