



## Dr. Minh HA-DUONG

*International leader on energy transition in South East Asia*

Birth	February 25th, <b>1969</b> in Paris
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Influence	Google scholar plain cites=3313, <b>h=26</b> , <i>h10</i> =41 in June 2021 2049 followers on LinkedIn in March 2021
Honors	Lead Author of the Intergovernmental Panel on Climate Change (IPCC), which was co-awarded the <b>2007 Nobel Prize</b> for Peace.
2018 – 2020	Founder and <b>Executive chairman, research</b> at the Vietnam Initiative for Energy Transition, an independent think tank based in Hanoi
2014 – 2018	<b>Director of the Clean Energy and Sustainable Development Lab</b> , Université des Sciences et Technologies Hanoi (USTH)
2009 – to date	<b>Senior researcher</b> , Directeur de Recherche CNRS. Centre International de Recherche sur l'Environnement et le Développement (CIRED), Nogent sur Marne, France.
2003 – 2009	<b>Researcher</b> , Chargé de Recherche, CNRS, CIRED.
2000 - 2003	<b>Visiting researcher</b> , Center for Integrated Study of the Human Dimensions of Climate Change, Engineering and Public Policy Department, Carnegie Mellon University, Pittsburgh, PA.
1997 – 2000	<b>Researcher</b> , Chargé de Recherche, CNRS. CIRED. Tenured in 1998.
2005	<b>Habilitation à Diriger les Recherches</b> Université de Paris I Sorbonne. Degree to supervise PhD thesis.
1994 - 1998	<b>PhD in Economic Analysis and Policy</b> Ha-Duong (1998) How to account for irreversibility in integrated assessment of climate change? École des Hautes Études en Sciences Sociales, Paris.
1991 - 1993	<b>Engineer, French Institute of Forestry, Agricultural and Environmental Engineering</b> (ENGREF), Paris.
1989 - 1991	<b>Engineer, École Polytechnique</b> , Palaiseau.
Languages	<b>French</b> : C2 native, <b>English</b> : C2 fluent, <b>Vietnamese</b> : B1 basic
Programming	Python, spreadsheets, databases, <i>Mathematica</i> , R, GAMS, L <sup>A</sup> T <sub>E</sub> X, C++, Pascal, Perl, HTML, CSS, PHP, javascript, GNU/Linux
Expertise	<b>Energy and environmental economics</b> , energy transition, public policy, low carbon energy market in Vietnam, Integrated assessment, risk analysis, microeconomics, systems theory and modelling.

## Achievements

In August 2018, I founded –with a core team of my former PhD students– the Vietnam Initiative for Energy Transition (VIET), a non-profit quasi-independent think tank in Hanoi. I defined the initial strategy, wrote the whitebook, hired an Executive Director, and continued to ensure the quality of bid proposals and research outputs as Executive Chairman, Research until the end of 2020. Starting with initial support from the European Climate Foundation, I developed the business into a 8 people, >400 kUSD annual budget team in 24 months. For VIET, I won consulting contracts from OECD, the European Union Delegation, and AFD for the Energy Transition Partnership in South East Asia. I gained multi-year financial support from the Gromwald Family Foundation, TARA and the German cooperation GIZ.

In June 2014, I was awarded a 170k€ budget by the French embassy in Hanoi to create a laboratory on Clean Energy and Sustainable Development (CleanED) at the University of Science and Technology of Hanoi (USTH). When I moved in December 2015, we had an empty room. Within three months, with one co-principal investigator Laurent van de Steene from CIRAD in France, I assembled a team of seven. Because USTH was four-years young, I was fully responsible for most aspects of creating the lab, from plumbing to hiring to long-term research strategy. I designed the 30m<sup>2</sup> office and the 60m<sup>2</sup> lab and follow-up the work of contractors. I decided on the information system for our team and trained the new lab staff in accounting, web communication, running weekly management meetings and running a research seminar.

Business development was my responsibility. In the first year only, I submitted five research proposals: to exchange personnel with CNRS; to organize a biomass energy week academic event in Hanoi; to help the Ministry of Industry and Trade map renewable resources potentials with a web portal; to start a professional course in USTH for Energy Efficiency Service Providers companies; to study the market for rice husk gasification domestic cook stoves. Today CleanED conducts interdisciplinary research in process engineering, electrical engineering and sustainability science.

Prior to moving to Vietnam, from 2003 to 2014, I led the CIRED research group in socio-economics of the energy transition. Along with two CNRS researchers and an average of five staff and students, we took the national leadership in all aspects of carbon capture and storage socio-economics:

I was the Principal Investigator for the ANR research project “Économie et Sociologie de la filière Capture et Stockage Géologique du CO<sub>2</sub>” (SOCECO2, 2006-2008, budget 455 k€, partners: ALSTOM, APESA, BRGM, Gaz de France, IFP, INERIS, TOTAL). This led me to research the public opinion in France with two national surveys, to supervise a Ph.D. , to periodically report to local and national stakeholders in Le Havre, Marseille and Paris.

I was Lead CIRED Researcher for the ADEME research project “Méthodologie de sélection des sites de stockage du CO<sub>2</sub> dans des réservoirs souterrains en France 2” (METSTOR 2, 30 months, 2006-2009, budget 190 k€, budget I managed 95k€, partner: BRGM). Following up on the feasibility study (METSTOR, 2005-2006), we created the pilot for a public GIS about carbon capture and storage in France, including spatial information on geological capacities; social constraints; technical and economic data.

Between 2008 and 2014, I managed the participation of the École des Ponts ParisTech in the Industrial Chair on Carbon Capture Transport and Storage, participating in selection and follow-up committees for more than twelve Ph.D. fellowships and bi-annual scientific events.

Socio-economics research on the energy transition encompasses more than carbon capture and storage. I am France's Lead Researcher in the FP7 Science in Society research project "R&Dialogue" (42-months 2012-2015, 4.5M€ budget, 15 partners), a research-action on the social dialogue about the low carbon society in 10 European States. In this capacity I manage a 240k€ budget and lead the three French research teams. We organised an interview campaign, three full day workshops on the energy transition at CNRS headquarters and eleven thematic discussion groups.

I co-organised a national workshop of the geo-engineering research community for the French National Research Agency (Atelier de Reflection Prospective "REAGIR", 2013-2014). Acting as a consultant, I wrote reports for the project on the international dimensions of geo-engineering research and on the long-term scenarios envisioned in the literature.

Earlier in my career, I was in charge from 1995 to 2000 of the integrated assessment modelling team at CIREN, including the budget, the reporting for 4 research contracts, the organisation of meetings and overall coordination with European co-contractors, in line with my Ph.D. on risk and uncertainty in integrated assessment models. I supervised two Ph.D. thesis on the sustainable development of the power generation sector in Vietnam. I build a global historical database of industrial accidents in the nuclear energy sector.

I volunteer time for peer reviewing, Ph.D. jury, and teaching at engineering schools, summer schools and universities several times a year. Beyond these duties, I took collective responsibilities at the local and national scales:

I pioneered several managerial initiatives at CIREN. I led the adoption of the XLab accounting system in 1998. I created and chaired a Laboratory Coordination Committee from 2005 to 2007, which became the Conseil de Laboratoire in 2008, where I still sit. I created the lab website 2006, the architecture I designed and CMS I selected are still in use with more than a thousand visitors per day. I led the adoption of the HAL open access archive for the dissemination of our scientific production in 2006.

Between 2008 and 2010 I was a member of the Comité National de la Recherche Scientifique, section 37, the committee of peers in charge of evaluating CNRS researchers and labs. I now sit in the 2014 jury for the Ph.D. and Master's fellowships « Bourses d'excellences » granted by the French Embassy in Hanoi.

The economic, social and cultural impact of my work extends beyond the academic sphere. During 2007-2014, my research group at CIREN organized 12 national conferences or workshops on energy policy and technology issues, 8 were open to stakeholders, 3 were for a scientific audience. I consult for associations, economic actors or media. Some of my results were showcased in popular media such as *Le Monde*, *Liberation*, *The Guardian*, *Pour la Science*, *TF1*. Finally, I contributed to the IPCC Assessment Reports 4 and 5, the most influential inter-governmental and scientific source of information for climate-change related policy making.

### **Selected consulting experience**

Brizard, Nicolas, Minh Ha-Duong, and Nguyễn Quốc Khanh (Dec. 26, 2017). Draft Technical report 'Enhance Energy Data and Statistics of Vietnam in view of the Establishment of an Energy Information System in Vietnam'. GT# 35/VEDS-RoMAP (Asia - Vietnam) Technical Report - Deliverable D2c Contract No 2014/352-852. EuropeAid/135600/DH/SER/MULTI. EU Technical Assistance Facility for the Sustainable Energy for All Initiative (SE4ALL). Neighbourhood (East, South), Asia (including Central Asia), Latin America, Caribbean, and Pacific, p. 69.

Ha-Duong, Minh, Nguyễn Xuân Trường, and Nguyễn Thị Lan Anh (Dec. 19, 2017). Final Evaluation report of 'Sustainable Energy for Urban Households in Hanoi'. Report submitted to the Finland embassy in Hanoi, in EN and VN. BlueGate Co., Ltd., p. 20.

Ha-Duong, Minh, An Ha Trường, Nam Nguyễn, and Hoàng Anh Trinh Nguyễn (June 30, 2016). Synthesis Report on Socio-environmental Impacts of Coal and Coal-fired Power Plants in Vietnam. Synthesis report submitted to GreenID. Clean Energy and Sustainable Development lab - CleanED, p. 47.

### **Selected publications**

Ha-Duong, Minh. Stranded assets risk derails Vietnam's plan for new coal power plants. *IAEE Energy Forum* 102, 27-29, January 2020.

Ha-Duong Minh, Nguyễn Lan Anh, Tracey Strange, and Trường An Ha. Social acceptability of large infrastructure projects in Vietnam. *Field Action Science Reports*, 14:72-81, 2016.

Nguyễn Trinh Hoàng Anh and Minh Ha-Duong. Perspective of CO<sub>2</sub> capture & storage (CCS) development in Vietnam: Results from expert interviews. *International Journal of Greenhouse Gas Control*, 37:220-227, June 2015.

Nguyễn Hồng Nam, Minh Ha-Duong, and Laurent Van De Steene. A critical look on rice husk gasification in Cambodia: engineering and sustainability. *Journal of Science and Technology (Vietnam Academy of Science and Technology)*, 53 (3A): 247-252, 2015.

Jeff M. Bielicki, Guillaume Calas, Richard S. Middleton, and Minh Ha-Duong. National corridors for climate change mitigation: Managing industrial CO<sub>2</sub> emissions in France. *Greenhouse gases: science and technology*, 3 (4):262-277, June 2014.

Nhan Thanh Nguyễn, Minh Ha-Duong, Sandra Greiner, and Michael Mehling. Improving the clean development mechanism post-2012: A developing country perspective. *Carbon and Climate Law Review*, 1 (4):76-85, 2010.

TN Nguyễn, M Ha-Duong, TC Trần, RM Shrestha, F Nadaud (2010) Barriers to the adoption of cleaner and energy efficient technologies in Vietnam. *GMSARN International Journal* 4 (2)

Nhan Thanh Nguyễn and Minh Ha-Duong. Economic potential of renewable energy in Vietnam's power sector. *Energy Policy*, 37 (5):1601-1613, May 2009.

Minh Ha-Duong, Michael J. Grubb, and Jean-Charles Hourcade. Influence of socioeconomic inertia and uncertainty on optimal CO<sub>2</sub>-emission abatement. *Nature*, 390:270-274, 1997