



Hy Dao

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WORK EXPERIENCE

2013 - CURRENT

PROFESSOR AT THE DEPT OF GEOGRAPHY AND ENVIRONMENT OF THE UNIVERSITY OF GENEVA (50%)

1994 - CURRENT

GEOGRAPHER AT THE UNITED NATIONS ENVIRONMENT PROGRAMME / GLOBAL RESOURCE INFORMATION DATABASE, UNDER SECUNDMENT BY THE UNIVERSITY OF GENEVA (50%)

1999 - 2013

LECTURER AT THE UNIVERSITY OF GENEVA : GEOGRAPHICAL INFORMATION, REMOTE SENSING, CARTOGRAPHY AND TERRITORIAL DEVELOPMENT IN BACHELOR, MASTERS AND CONTINUING EDUCATION PROGRAMMES

1992 - 1998

ASSISTANT AT THE DEPARTMENT OF GEOGRAPHY OF THE UNIVERSITY OF GENEVA (SEMINARS : REMOTE SENSING, GRAPHICAL SEMIOLOGY, GIS)

EDUCATION AND TRAINING

1999

PH.D. IN GEOGRAPHY, UNIVERSITY OF GENEVA

1989

POSTGRADUATE DIPLOMA IN REMOTE SENSING, INTERNATIONAL INSTITUTE FOR AEROSPACE SURVEYS AND EARTH SCIENCES (ITC), THE NETHERLANDS

1987

MASTERS IN GEOGRAPHY, UNIVERSITY OF GENEVA

LANGUAGE SKILLS

Mother tongue(s): **FRENCH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C2	C1	C1	C1
GERMAN	B1	B1	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● ADDITIONAL INFORMATION

ORGANISATIONAL SKILLS

Deputy Director at UNEP/GRID-Geneva Management of projects and programmes for policy support at local, national and international levels

Director of the Complementary Certificate in Geomatics Overall management, curriculum development of the [Complementary Certificate in Geomatics](#)

Co-director of the Certificate of Advanced Studies in Geographic Information Overall management, curriculum development of the [Certificate of Advanced Studies in Geographic Information](#)

NETWORKS AND MEMBERSHIPS

Geneva

Official representative of the University of Geneva at the Geneva Land Information System (SITG)

Bern

Member of the Swiss Commission on Remote Sensing (SCRS)

JOB-RELATED SKILLS

Expertise

Planetary boundaries, territorial cohesion, risk assessment, environmental and territorial indicators, population mapping, geomatics for territorial development, thematic cartography

PUBLICATIONS

[Le rapport « Is Europe living within the limits of our planet? » : ce qu'il nous dit et ne nous dit pas sur la contribution de l'Europe à l'environnement mondial](#)

– 2023

[Dispositifs de partage des informations pour l'aménagement urbain : Expériences participatives à Genève et Lausanne](#)

– 2023

[Statistical cartography and international governance in the age of big data](#) – 2022

[Télé-détection et enjeux environnementaux globaux à l'heure du Big Data](#) – 2021

[Semantic Graphs to Reflect the Evolution of Geographic Divisions](#) – 2021

[Assessing urban heat-related adaptation strategies under multiple futures for a major U.S. city](#) – 2021

[Immersion de divisions territoriales et description de leur évolution dans le Web sémantique](#) – 2020

[Reconstituting past flood events: the contribution of citizen science](#) – 2020

[Characterizing the role of socioeconomic pathways in shaping future urban heat-related challenges](#) – 2019

[Extending the Shared Socioeconomic Pathways at the City Scale to Inform Future Vulnerability Assessments — The Case of Boston, Massachusetts](#)

– 2019

[Influence of changes in socioeconomic and climatic conditions on future heat-related health challenges in Europe](#)

– 2019

[Projections of Human Exposure to Dangerous Heat in African Cities Under Multiple Socioeconomic and Climate Scenarios](#)

– 2019

Co-use of existing scenario sets to extend and quantify the shared socioeconomic pathways

National environmental limits and footprints based on the Planetary Boundaries framework: The case of Switzerland

– 2018

Building an Earth Observations Data Cube: lessons learned from the Swiss Data Cube (SDC) on generating Analysis Ready Data (ARD)

– 2017

Live Monitoring of Earth Surface (LiMES): A framework for monitoring environmental changes from Earth Observations

– 2017

Operationalizing a contested concept: indicators of territorial cohesion – 2017

PROJECTS

Projects at the University of Geneva

TRACES (2021-2025, FNS/ANR, project leader). Semantic Environmental Trajectories of Territories.

TerriScope (2021-2022, Alliance Campus Rhodanien, project leader). Pilot analysis of environmental trajectories of municipalities in France and Switzerland: case study on the evolution of land cover.

Résilience climatique de la Ville de Lancy (2021-2022, Ville de Lancy, project co-leader). Study of the climatic resilience of the municipal territory of the City of Lancy..

Géoportail "Inégalités territoriales" (2020-2021, Université de Genève, project leader) : developing a geoportal of indicators on education for the Haute école pédagogique (HEP) in Valais.

Géoportail "Éducation et Territoire – Géoscola" (since 2016, Canton du Valais, project leader) : developing a geoportal of indicators of territorial inequalities in the Geneva area..

Infrastructures sportives du canton de Genève (2019-2020, Etat de Genève, co-responsible). Inventaire cartographique et statistique des infrastructures sportives du canton de Genève.

ESPON 2020 Database Portal (2021-2022, European Grouping on Territorial Cooperation - ESPON, main applicant) : phase 2 of the development of an on-line database of key indicators of the European territorial cohesion <https://www.espon.eu/programme/projects/espon-2020/monitoring-and-tools/espon-2020-database-portal>.

ESPON 2020 FUORE « Functional Urban Areas and Regions in Europe » (2018-2020, ESPON 2020 Cooperation Programme, responsible of the UNIGE partner), <https://www.espon.eu/functional-urban-areas-tool>

ESPON 2020 Bridges « Balanced regional development in areas with geographical specificities » (2017-2020, ESPON 2020 Cooperation Programme, leader, lead of the UNIGE partner), <https://www.espon.eu/bridges-territories-geographical-specificities>.

Planetary Boundaries for Europe (2017-2019, European Environment Agency, project leader) : assistance to the analysis of planetary boundaries at the European level, in support of the European State of the environment report 2020 (SOER 2020).

ESPON 2020 Database Portal (2017-2020, European Observation Network - ESPON, main applicant) : developing an on-line database of key indicators of the European territorial cohesion <https://www.espon.eu/programme/projects/espon-2020/monitoring-and-tools/espon-2020-database-portal>.

PLACARD (2015-2020, Horizon 2020, responsible of the UNIGE partner) : PLAtform for Climate Adaptation and Risk reduction (2015-2020, Horizon 2020 <http://www.placard-network.eu/>).

BLUE DOT (2014-2015, Fondation Boninchi, project leader) : Empreinte environnementale des nations: performances nationales et priorités globales, <http://bluedot.world/>.

Translating the Limits of Our Planet into Environmental Targets for Switzerland (2013-2015, Federal Office for the Environment, project leader) : setting strategical environmental targets for Switzerland by downscaling scientifically sound global limits of the planet <http://pb.grid.unep.ch>.

Projects at GRID-Geneva

Big Data and geospatial technologies in support of environmental monitoring and governance towards addressing SDGs 13,14 and 15.3 (2023-2024, Swiss National Science Foundation, project leader).

Country fiches for the European Commission (2020-2021, European Commission, project leader) : developing interactive and updatable country fiches for EU budget programming in the context of the European Green Deal.

IAEGs-SDGs Live (2014-2020, Swiss Federal Office for the Environment, project leader) : monitoring progresses towards internationally-agreed environmental goals (IAEGs) and Sustainable Development Goals (SDGs), <https://gegslive.unepgrid.ch/>.

Swiss Data Cube (since 2017), Swiss Federal Office for the Environment, project co-leader) : development of an infrastructure of analysis-ready time-series of satellite data on Switzerland, for the monitoring of the environment and territorial development, <http://www.swissdatacube.org/>.

ROD : Reporting Obligations Database (2014-2017, UNEP, project leader).

Global Assessment Report - GAR : global risk indicators for the Global Assessment Report (2009- 2015, UNISDR, project member) <http://www.preventionweb.net/english/hyogo/gar/>.

Megatrends (2013-2015, Federal Office for the Environment - FOEN, project leader) : Indicators of global environmental trends

ESPON Database 2013 (2010-2014, ESPON, expert) : expertise on population databases for spatial planning at the European level, <http://www.espon.eu/>.
