



# Programme-specific Section of the Curriculum for the MSc Programme in Global Environment and Development at the Faculty of Science, University of Copenhagen 2023 (rev. 2024)

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## 1 Title, affiliation and language

A shared section that applies to all BSc, part-time MSc and MSc programmes at the Faculty of Science is linked to this programme-specific curriculum.

### 1.1 Title

The MSc programme in Global Environment and Development leads to a Master of Science (MSc) in Global Environment and Development with the Danish title: *Cand.scient. (candidatus/candidata scientiarum) i globale naturressourcer og udvikling*.

### 1.2 Affiliation

The programme is affiliated with the Study Board of Natural Resources, Environment and Animal Science, and the students can both elect, and be elected, to this study board.

### 1.3 Corps of external examiners

The following corps of external examiners is used for the central parts of the MSc programme:

- Corps of External Examiners for Agricultural Science (*jordbrugsvidenskab*).

### 1.4 Language

The language of this MSc programme is English.

## 2 Academic profile

### 2.1 Purpose

To create globally competitive graduates that can identify critical aspects of sustainable natural resource management for economic, environmental, institutional, and societal development in both the global south and the global north and develop appropriate and feasible solutions. The programme will educate high-quality digitally competent graduates to become professionals in private and public companies, I/NGOs, government bodies, and research institutions. Through interdisciplinary and disciplinary, multicultural real-life experiences and laboratory experiments, students will learn to identify, analyse, understand, and forecast complex systems.

### 2.2 General programme profile

The programme encompasses all aspects of renewable natural resource-related development activities, from sustainable agricultural soil fertility management to sustainable rural livelihoods.

The learning approach combines field-related experiences, first-hand development and use of data collection instruments in complex real-life situations, and discipline-based theoretical and methodological specialisations. The programme combines:

- an interdisciplinary common part, which includes training in techniques for gathering data under a variety of field conditions combined with training in each step of the research process,
- an elective part that facilitates theoretical and methodological specialisation, and
- the thesis, which includes extensive fieldwork.

Global Environment and Development is the key subject area of the programme.

### **2.3 General structure of the programme**

The MSc programme is set at 120 ECTS.

The MSc Programme in Global Environment and Development consists of the following elements:

- Specialisation 120 ECTS

The student must choose one of the following specialisations:

- Agricultural Development (with a second year of study at University of Milano)
- Sustainable Environmental Development (with a second year of study at University of Warsaw)

All students start together and complete their first year in Copenhagen, learning interdisciplinarity (30 ECTS) and preparing for their natural science or social science specialisation (30 ECTS): the social science based Sustainable Environmental Development in Warsaw and the natural science based Agricultural Development in Milano. The first half (30 ECTS) of the second year is module work, terminating with a joint intra-semester workshop focused on peer-reviewing thesis synopses and joint reflection on method choices. Thesis work (30 ECTS) constitutes the second half of the second year.

The programme combines the key structural elements: (i) an interdisciplinary field-oriented common part, which includes training in techniques for gathering data under a variety of field conditions combined with training taking each student through the entire research process, (ii) an elective part that facilitates theoretical and methodological specialisation, (iii) the thesis, which includes extensive fieldwork, and (iv) proactive connections to employers, e.g. integrated into modules.

### **2.4 Career opportunities**

The MSc Programme in Global Environment and Development qualifies students to become professionals within business functions and/or areas such as:

- Private companies within food and agro-industry, e.g. in the sustainable sourcing of products.
- Development agencies (public or NGO) with national and international scope where graduates are involved in developing, implementing, managing, and monitoring intervention programs or projects.
- Government bodies where graduates are involved in, for instance, policy related activities.
- Consultancy and project design and evaluation.
- A PhD programme.
- Universities and research institutions where graduates are involved in research.

### 3 Description of competence profiles

Students following the MSc programme acquire the knowledge, skills, and competences listed below. Students will also acquire other qualifications through elective subject elements and other study activities.

#### 3.1 Generic competence profile

Graduates holding an MSc in Global Environment and Development have acquired the following regardless of specialisation:

##### Knowledge about:

- Key theories and current debates related to environment and development
- Key field data collection methods (in both natural and social science fields)
- Critical aspects of working at the environment-development nexus
- A philosophy of science basis for interdisciplinary and intercultural research and work across the social and natural sciences
- The values of scholarship: inquiry, reflection, integrity, open-mindedness, evidence-based thinking, and collegiality

##### Skills in/to:

- Apply and assess own knowledge, skills, and competencies in relation to complex, interdisciplinary problems
- Work in interdisciplinary and intercultural groups
- Apply selected methods in the field
- Analyse the validity and reliability of different types of natural and social science data
- Explore, understand, and challenge their disciplinary boundaries
- Identify, analyse, and communicate a research question from a complex setting to broader audiences, both professionals and non-professionals, at a variety of levels, using appropriate information and communication tools
- Apply intellectual, practical, numeracy, communication, information and communication technology, interpersonal/teamwork, self-management and professional development skills
- Analyse and interpret different forms of data to generate consistent conclusions

##### Competencies in/to:

- Critically reflect on and discuss approaches to environment and development questions
- Reflect on the benefits and challenges related to practising interdisciplinarity
- Reflect on case-level results and generalise these to broader discussions and issues
- Display the competence, behaviour, and attitudes required in professional working life, including digital skills and the ability to work in interdisciplinary and intercultural teams in both the private and public sectors
- Communicate clearly, concisely, and confidently in spoken and written format, including field-based reports to meet the objectives of multitudinous stakeholders
- Develop the independent learning skills necessary for the foundation of lifelong learning

### **3.2 Agricultural Development (with the second year of study at University of Milano)**

In addition to the generic competence profile, graduates holding an MSc in Global Environment and Development with a specialisation in Agricultural Development have acquired the following:

#### Knowledge about:

- Current research and advanced theories in relation to agriculture and development
- Natural science approaches to describe and characterise agricultural and ecological systems and analyse key aspects in relations to productivity, resilience, and sustainability

#### Skills in/to:

- Research planning, data collection, and using a range of field methods and data analysis techniques
- Link and harmonise agricultural activities with environmental conditions
- Critically identify sustainability issues in relation to agricultural development
- Design sustainable development plans in relation to specific agronomical, ecological, and socio-economic conditions.

#### Competences in/to:

- Plan and implement agricultural interventions in a professional capacity in private sector companies, government bodies, non-governmental organisations, research institutions, or development agencies
- Display independence and integrity, as well as awareness of ethical and moral questions related to agriculture and ecology and take these into account when working in different cultural settings
- Continuously acquire new skills and knowledge when working in complex field settings as well as in interdisciplinary teams in intercultural environments

### **3.3 Sustainable Environmental Development (with the second year of study at University of Warsaw)**

In addition to the generic competence profile, graduates holding an MSc in Global Environment and Development with a specialisation in Sustainable Environmental Development have acquired the following:

#### Knowledge about:

- Social science theories and concepts related to analysing and understanding challenges at the nexus of environment and development at micro and macro levels.
- The theoretical basis of qualitative and quantitative data collection methodology, including interviews, questionnaires, surveys, and rapid appraisal techniques.

#### Skills in/to:

- Undertake high quality quantitative and qualitative data collection on the environment and sustainable development.
- Apply principles, theories, and frameworks to case studies and critically engage in research and debates related to environmental resource governance and sustainable development.

#### Competences in/to:

- A thorough and interdisciplinary ability to analyse processes of change in relation to environmental resources and sustainable development
- The skills to identify, formulate, and operationalise interventions that are relevant to environmental resources and sustainable development in particular locations

## 4 Admission requirements

In compliance with Ministerial Order on the International Education Activities of Universities (No 247 of 13 March 2015) joint admission requirements and procedures have been established and are implemented by the five partner institutions involved in the delivery of the MSc Programme in Global Environment and Development.

### 4.1 Bachelor's degrees that automatically fulfil the academic requirements

Applicants with with one of the following Bachelor's or Professional Bachelor's degrees automatically fulfil the academic requirements for admission to the MSc Programme in MSc Programme in Global Environment and Development:

- Agricultural Economics/Environmental and Food Economics (*jordbrugsøkonomi/miljø- og fødevarerøkonomi*), Animal Science (*husdyrvidenskab*), Biochemistry (*biokemi*), Biology (*biologi*), Biotechnology (*bioteknologi*), Food and Nutrition (*fødevarer og ernæring*), Geography and Geoinformatics (*geografi og geoinformatik*), Landscape Architecture (*landskabsarkitektur*), Natural Resources (*naturressourcer*) from University of Copenhagen
- Economics, Anthropology or Sociology from University of Copenhagen.
- Forest and Landscape Engineering (*skov- og landskabsingeniør*) from University of Copenhagen.
- L-2 (Biotechnology), L-13 (Biological Sciences), L-18 (Economics and Business Management Sciences), L-21 (Sciences), L-25 (Agricultural and Forestry Sciences and Technologies), L-26 (Agri-Food Sciences and Technologies), L-32 (Sciences and Technologies for the Environment and Nature) , L-36 (Political Sciences and International Relations), L-37 (Social Sciences for Cooperation, Development and Peace), or L-38 (Zootechnical Sciences and Animal Production Technologies) from the University of Milan.
- Applied Sociology and Social Anthropology, Applied Geology, Biology, Biotechnology, Economics, Geography, Interdisciplinary Economic-Managerial Studies, Psychology or Sociology, Management, European Politics and Economics, Organization of Labour Market, Social and Public Policy, Spatial Development, Environmental Protection, Internal Security or International Relations from University of Warsaw

### 4.2 Other Bachelor's degrees

Applicants with a Bachelor's degree, Professional Bachelor's degree or equivalent from Danish or international universities other than those listed in 4.1 is qualified for admission to the MSc Programme in Global Environment and Development if the programme includes the following:

- 30 ECTS in natural sciences (e.g. agrobiolology, agronomy, animal sciences, biochemistry, biology, biotechnology, food and nutrition, forestry, geography, natural resources or environmental sciences)

or

- 30 ECTS in social sciences (e.g. agricultural economics, anthropology, economics, development economics, development studies, socio-economic geography or sociology)

### **4.3 Other applicants**

The Faculty may also admit applicants who, after an individual academic assessment, are assessed to possess educational qualifications equivalent to those required in Subclause 4.1-2.

### **4.4 Language requirements**

Applicants must document English language qualifications. Accepted tests and required minimum scores are published online at [www.science.ku.dk](http://www.science.ku.dk).

### **4.5 Supplementary subject elements**

The qualifications of an applicant to the MSc programme are assessed exclusively on the basis of the qualifying Bachelor's degree. Supplementary subject elements passed between the completion of the Bachelor's programme and the admission to the MSc programme cannot be included in the overall assessment.

However, subject elements passed before the completion of the Bachelor's programme may be included in the overall assessment. This includes subject elements completed as continuing education as well as subject elements completed as part of a former higher education programme. A maximum of 30 ECTS supplementary subject elements can be included in the overall assessment.

Subject elements passed before completing the Bachelor's programme, which are to form part of the MSc programme to which the student has a legal right of admission (§15-courses) cannot be included in the overall assessment.

## **5 Prioritisation of applicants**

There is no BSc programme with reserved access for this programme.

If the number of qualified applicants to the programme exceeds the number of places available, applicants will be prioritised according to the following criteria:

- Grades achieved in relevant courses\*
- Grade-point average achieved in qualifying degree.

\*relevant courses include courses in agricultural economics, agrobiolology, agronomy, animal sciences, anthropology, biochemistry, biology, biotechnology, development economics, development studies, economics, environmental sciences, food and nutrition, forestry, geography, natural resources, socio-economic geography and sociology.

## **6 Structure of the programme**

The compulsory subject elements, restricted elective subject elements and the thesis constitute the central parts of the programme (Section 30 of the Ministerial Order on Bachelor and Master's programmes (Candidatus) at Universities).

Before the beginning of the MSc Programme the student will choose specialisation. All students complete their first study year (60 ECTS) at the University of Copenhagen, then complete their second year of study (60 ECTS) at either the University of Warsaw or the University of Milano as per their study track. The first year set of restricted elective subject elements vary with second year line of specialisation.

## 6.1 Agricultural Development (with the second year of study at University of Milano)

The specialisation is set at 120 ECTS and consists of the following:

- Compulsory subject elements, 49 ECTS.
- Restricted elective subject elements, 41 ECTS.
- Thesis, 30 ECTS.

### 6.1.1 Compulsory subject elements (University of Copenhagen)

All of the following subject elements are to be covered (30 ECTS):

Course Code	Course Title	Block	ECTS
NIFK23004U	Global Challenges in Environment and Development	Block 1	7.5 ECTS
NIGK23000U	Quantitative and Qualitative Methods in Environment and Development	Block 2	7.5 ECTS
NIFK23006U	Practicing Interdisciplinary Field Research on the Environment	Block 3	15 ECTS

### 6.1.2 Compulsory subject elements (University of Milano)

- Compulsory subject elements, 19 ECTS.

List of subject elements offered as part of the specialisation is published online at [www.merged.info](http://www.merged.info).

### 6.1.3 Restricted elective subject elements (University of Copenhagen)

1) 30 ECTS are to be covered as subject elements from the following lists:

Course Code	Course Title	Block	ECTS
LPLK10367U	Tropical Crop Production	Block 1	7.5 ECTS
NPLK14019U	Plant Nutrition and Soil Fertility	Block 1	7.5 ECTS
NPLK16001U	Advanced Crop Production	Block 1	7.5 ECTS
NIGK13003U	Tropical Forest Restoration	Block 1	7.5 ECTS
NPLK14018U	Climate Management in Plant Production and Research	Block 2	7.5 ECTS
LPLK10287U	Agroforestry	Block 2	7.5 ECTS
NPLK18001U	Applied Insect Ecology and Biological Control	Block 2	7.5 ECTS
NMAK14003U	Applied Statistics	Block 2	7.5 ECTS
NPLK14030U	Climate Change and Land Use	Block 2	7.5 ECTS
LNAK10072U	Global Environmental Governance	Block 3	7.5 ECTS
NPLK20000U	Plant Ecophysiology in a Changing Climate	Block 3	7.5 ECTS
NIGK17000U	Land Use and Environmental Modelling	Block 3	7.5 ECTS
LNAK10010U	Environmental Impact Assessment	Block 4	7.5 ECTS
NIFK14026U	Entrepreneurship and Innovation	Block 1+4	7.5 ECTS
LOJK10292U	Agricultural Value Chains in Developing Countries	Block 4	7.5 ECTS
	Project in Practice	Block 4	15 ECTS

### 6.1.4 Restricted elective subject elements (University of Milano)

- Restricted elective subject elements, 11 ECTS.

List of subject elements offered as part of the specialisation is published online at [www.merged.info](http://www.merged.info).

### 6.1.5 Thesis

The MSc Programme in Global Environment and Development with a specialisation in Agricultural Development includes a thesis corresponding to 30 ECTS. The thesis must be written within the academic scope of the programme. The thesis must be carried out in



accordance with the rules defined by the cooperating university (Section 19 of the Ministerial Order on the International Education Activities of Universities).

The thesis must be based on empirical field work. The fieldwork can be combined with an internship at international organisations, NGOs, universities, or similar.

## 6.2 Sustainable Environmental Development (with the second year of study at University of Warsaw)

The specialisation is set at 120 ECTS and consists of the following:

- Compulsory subject elements, 49 ECTS.
- Restricted elective subject elements, 41 ECTS.
- Thesis, 30 ECTS.

### 6.2.1 Compulsory subject elements (University of Copenhagen)

All of the following subject elements are to be covered (30 ECTS):			
Course Code	Course Title	Block	ECTS
NIFK23004U	Global Challenges in Environment and Development	Block 1	7.5 ECTS
NIGK23000U	Quantitative and Qualitative Methods in Environment and Development	Block 2	7.5 ECTS
NIFK23006U	Practicing Interdisciplinary Field Research on the Environment	Block 3	15 ECTS

### 6.2.2 Compulsory subject elements (University of Warsaw)

- Compulsory subject elements, 19 ECTS.

List of subject elements offered as part of the specialisation is published online at [www.merged.info](http://www.merged.info).

### 6.2.3 Restricted elective subject elements (University of Copenhagen)

30 ECTS are to be covered as subject elements from the following lists:			
Course Code	Course Title	Block	ECTS
NIGK24014U	Applied Ethnobotany	Block 1	7.5 ECTS
NIFK15004U	Political Ecology	Block 1	7.5 ECTS
NIGK14009U	Land Use Transitions in the Global South	Block 1	7.5 ECTS
LOJK10272U	Applied Econometrics	Block 1	7.5 ECTS
NIFK22002U	Global Forests and People	Block 1	7.5 ECTS
NIFK23005U	People, Poverty and Environmental Change	Block 2	7.5 ECTS
NIFK16006U	Participatory Natural Resource Governance	Block 2	7.5 ECTS
NGEK10024U	Globalisation and Dynamics in Global Value Chains	Block 2	7.5 ECTS
NIFK17004U	Environmental Justice	Block 2	7.5 ECTS
LNAK10072U	Global Environmental Governance	Block 3	7.5 ECTS
NIGK13012U	Human Adaptation to Climate Change and Variability	Block 4	7.5 ECTS
NIGK20001U	Rural-Urban Transformations in the Global South	Block 4	7.5 ECTS
LOJK10292U	Agricultural Value Chains in Developing Countries	Block 4	7.5 ECTS
NIFK21000U	Gender, Environment and Sustainable Development	Block 4	7.5 ECTS
LNAK10010U	Environmental Impact Assessment	Block 4	7.5 ECTS

### 6.2.4 Restricted elective subject elements (University of Warsaw)

- Restricted elective subject elements, 11 ECTS.

List of subject elements offered as part of the specialisation is published online at [www.merged.info](http://www.merged.info).

### **6.2.5 Thesis**

The MSc Programme in Global Environment and Development with a specialisation in Sustainable Environmental Governance includes a thesis corresponding to 30 ECTS. The thesis must be written within the academic scope of the programme. The thesis must be carried out in accordance with the rules defined by the cooperating university (Section 19 of the Ministerial Order on the International Education Activities of Universities).

The thesis must be based on empirical field work. The fieldwork can be combined with an internship at international organisations, NGOs, universities, or similar.

## **7 Exemptions**

In exceptional cases, the study board may grant an exemption from the regulation on compulsory completion of the second year of study at one of two partner institutions: University of Warsaw and University of Milano.

In exceptional cases, the study board may grant exemptions from the rules in the curriculum specified solely by the Faculty of Science, University of Copenhagen.

## **8 Commencement etc.**

### **8.1 Validity**

This subject specific section of the curriculum applies to all students enrolled in the programme.

### **8.2 Transfer**

Students enrolled on previous curricula may be transferred to the new one as per the applicable transfer regulations or according to an individual credit transfer by the study board.

### **8.3 Amendment**

The curriculum may be amended once a year so that any changes come into effect at the beginning of the academic year. Amendments must be proposed by the study board and approved by the Dean.

Notification about amendments that tighten the admission requirements for the programme will be published online at [www.science.ku.dk](http://www.science.ku.dk) one year before they come into effect.

If amendments are made to this curriculum, an interim arrangement may be added if necessary to allow students to complete their MSc programme according to the amended curriculum.

## Appendix 1 The recommended academic progression

The table illustrates the recommended academic progression. The student is allowed to plan an alternative progression within the applicable rules.

**Table – Specialisation: Agricultural Development**

	Block 1	Block 2	Block 3	Block 4
1st year	Global Challenges in Environment and Development	Quantitative and Qualitative Methods in Environment and Development	Practicing Interdisciplinary Field Research on the Environment	Restricted elective
	Restricted elective	Restricted elective		Restricted elective
	Semester 1		Semester 2	
2nd year	Laboratory of Sustainability in Livestock Systems		Thesis	
	Laboratory of Sustainability in Agricultural Mechanization			
	Laboratory of Sustainability in Water Management			
	MERGED Intra-semester Workshop			
	Restricted elective			
	Restricted elective			

**Table - Specialisation: Sustainable Environmental Development**

	Block 1	Block 2	Block 3	Block 4
1st year	Global Challenges in Environment and Development	Quantitative and Qualitative Methods in Environment and Development	Practicing Interdisciplinary Field Research on the Environment	Restricted elective
	Restricted elective	Restricted elective		Restricted elective
	Semester 1		Semester 2	
2nd year	Global Problems in the Contemporary World		Thesis	
	Emerging Sustainable Development Law			
	Sustainable Development Economics			
	Measuring, Evaluating and Reporting Sustainability and Innovation			
	MERGED Intra-semester Workshop			
	Restricted elective			
	Restricted elective			

## Appendix 2 Interim arrangements

The Shared Section that applies to all BSc, part-time MSc and MSc Programmes at the Faculty of Science applies to all students.

The interim arrangements below only consist of parts where the current curriculum differs from the rules and regulations that were previously valid. Therefore, if information about relevant rules and regulations are missing, it can be found in the curriculum above.

### 1.2 Sustainable Environmental Development (with the second year of study at University of Warsaw)

#### Restricted elective subject elements (University of Copenhagen)

30 ECTS are to be covered as subject elements from the following list:

Restricted elective subject elements offered as part of this curriculum (see above)			
NIFK19005U	Critical Development Studies	Discontinued*	7.5 ECTS
LNAK10037U	Applied Ethnobotany	Discontinued*	7.5 ECTS

\*See discontinued courses below

#### 2 Discontinued courses

Course Code	Course Title	ECTS	Interim arrangement
LNAK10037U	Applied Ethnobotany	7.5	<p>The course was restricted elective on the specialisation Sustainable Environmental Development in the academic year 2023/24.</p> <p>Offered for the last time: 2023/24</p> <p>The course has changed its offering department and is identical to NIGK24014U Applied Ethnobotany.</p>
NIFK19005U	Critical Development Studies	7.5	<p>The course was restricted elective on Sustainable Environmental Development (with the second year of study at University of Warsaw) in the academic year 2023/24.</p> <p>Offered for the last time: 2023/24</p> <p>Last exam if applicable (cf. SCIENCE's Teaching and exam rules): 2024/25</p>

## Appendix 3 Description of objectives for the thesis

The thesis should be based on at least one month of fieldwork and must therefore, at least in part, include and analyse primary data collected by the student.

After completing the thesis, the student should have:

### Knowledge about:

- The chosen subject with point of departure in the key methods and approaches in the specialization.
- Bordering subject areas to main specialization and alternative approaches or methods.

### Skills in/to:

- Collect empirical data using preselected tools.
- Analyse collected data using appropriate frameworks and methods.
- Present objectives, methods, and results in a clear and comprehensive way.
- Discuss results in relation to literature in the subject area.
- Draw general conclusions from results and discuss the limitations of the specific data set.

### Competences in/to:

- Plan, perform, and evaluate an empirical study in a low- or middle-income country.
- Critically evaluate data quality and appropriateness of methods.
- Operationalize an objective, via development of research questions, selection of appropriate methods and relevant sources of information.
- Put an empirical study into a wider development perspective.