

Tropical Man

PhD IN TROPICAL
KNOWLEDGE
AND MANAGEMENT



NOVA
School
of Business
& Economics

Shaping
powerful
minds

FCT

Fundação para a Ciência e a Tecnologia
MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA

OVERVIEW

The tropics, historically seen as lagging temperate zones, are now growing faster than the rest of the world, both in terms of population and of gross domestic product. Traditional tropical knowledge needs to be adapted to the new environment, which requires a substantial improvement in managerial abilities and governance practices.

Many developing nations in the tropics are thus looking for best practice tropical knowledge and innovation appropriate to their economies.

Opportunity exists for university, research institutions, not-for-profit entities, industry and key economic and business agencies to collaborate to form stronger strategic alliances and to develop a clear framework for mutual knowledge applicable to diverse local conditions.

Coordinated responses to major opportunities and service solutions can be delivered to Governments internationally as a result of closer working relationships between tropical businesses and industry, on the one hand, and academic and research institutions, on the other.

THE WORLD'S TROPICS IN NUMBERS *

- The Tropics covers only **40%** of the world's surface area, but hosts approximately **80%** of its terrestrial biodiversity
 - The tropical world's economy is growing **20%** faster than the Rest of the World and many tropical nations are important contributors to world trade, politics and innovation
 - The Tropics is home to **40%** of the world's population, and **55%** of the world's children under the age of five years old
 - By 2050, some **50%** of the world's population and close to **60%** of the world's children are expected to reside in the Tropics.
- Consistent with rapid economic growth since 1980 the Tropics' share of global energy generation has more than doubled, from **7%** to **15%**. The Tropics produces **23%** of global renewable energy, mostly through hydroelectricity generation.
 - The Tropics has outperformed the Rest of the World in terms of economic growth over the past **30 years**. The Tropics is now estimated to represent **18.7%** of global economic activity, up from **14.5%** in 1980.

* stateofthetropics.org

CHALLENGES FOR THE TROPICAL REGIONS

Developing a tropical knowledge is the key to greater diversification and it can be achieved by building the relationships required, packaging up tropical knowledge and solutions to meet the demands of tropical regions.

Tropical knowledge and expertise encompasses a vast range of sectors including tropical health, education, agriculture, biotechnology, agribusiness and governance.

Tropical Knowledge will diversify the economy and drive productivity in existing industries including tourism, manufacturing and professional services. It will also boost productivity and innovation.

TropiKMan PhD

TropiKMan links natural and environmental sciences with management. The aim of the TropiKMan Programme is to give PhD students in agrobiotechnology, health sciences and agribusiness and governance for development an entrepreneurial attitude, it also provides an opportunity for inventors, innovators and businesses to showcase their inventive and innovative ideas, projects and processes to potential investors, mentors, government officials and the public.

TropiKMan aims at bridging knowledge of several disciplines to tackle scientific problems in tropical regions with management perspective and train students with innovative and entrepreneurial attitudes.

It is an opportunity for applicants to realize the potential commercial value of their knowledge, invention or innovation and contribute to the export and employment potential of the tropical regions.

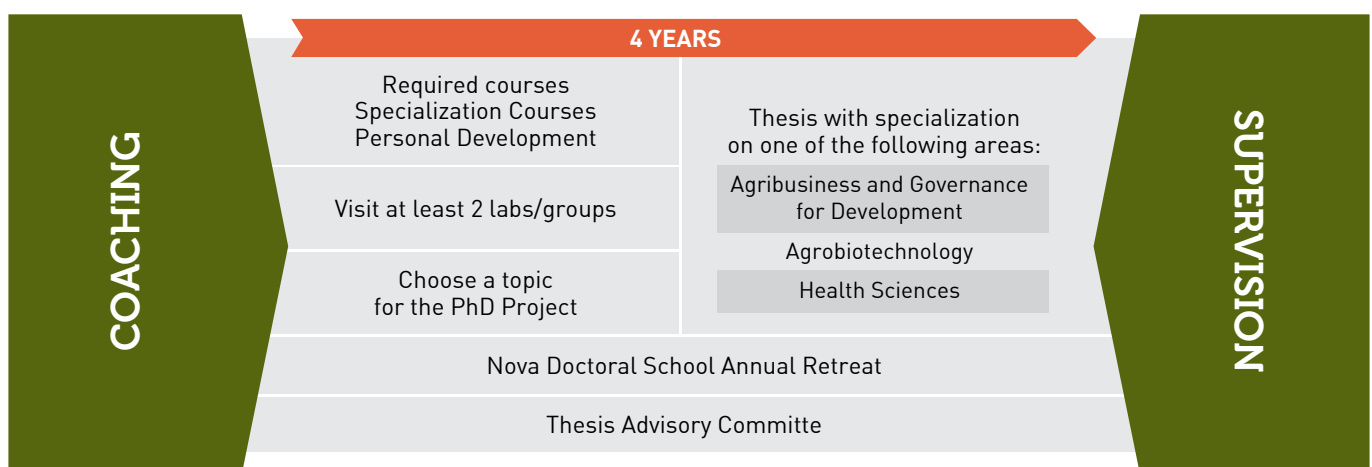
Benefits of a Tropical Knowledge and Management

- Diversify management base
- Strengthen existing capacity and capability
- Improve productivity
- Maximise networking and innovation and
- Position (Angola, Brazil, Cabo Verde, Mozambique, etc) as world leaders in tropical knowledge and innovation
- Bring multiple benefits across a range of sectors: health, energy, etc
- Build knowledge, training and skills facilitation, increasing the available skilled workforce

What can a Tropikman Phd expect?

1. Promote the capture and sharing of tropical knowledge across the world
2. Support increased economic resilience and diversification
3. Improve innovation
4. Drive export of tropical knowledge and products, including natural resource management services, tropical health service delivery for remote areas, agriculture and agribusiness, and governance for development
5. Drive tropical knowledge relationships across the regions
6. Deliver tangible benefits from commercialization of products, ideas, knowledge and concepts

PROGRAM STRUCTURE



TropiKMan is organized in 4 years (240ECTS), awarding the PhD title in Tropical Knowledge and Management, in 3 possible headings: Agribusiness and Governance for Development, Agrobiotechnology or Health Sciences.

In the 1st semester, students, to whom a coach is appointed, will take core interdisciplinary courses - REQUIRED COURSES (15ECTS), introducing the group to the Doctoral Program context, and leveling their background, to be acquired in a modular structure, each module ending in with an evaluation. Still in the first semester, students will tailor their DP with the coaches' assistance, attending 6ECTS from NOVA DOCTORAL SCHOOL and 9ECTS from SPECIALIZATION COURSES-SC, the choice of the latter leading to the PhD specialization.

1 REQUIRED COURSES (15 ECTS)

1. African Development Successes: history and prospect (3ECTS)
2. Science and Business for Development and North-South-South Triangular Cooperation (3ECTS)
3. Neglected Tropical Diseases (3ECTS)
4. Trends in Agronomics and Environment for Tropical Regions (3ECTS)
5. Agribusiness Economics and Management (3ECTS)

2 NOVA DOCTORAL SCHOOL (2ECTS/COURSE)

Complementary and transferable activities to support personal and professional development

- Entrepreneurship and innovation
- Research ethics
- Research skills development



Who can apply

1. Highly motivated students from natural, environment, life, health, economics, management, history and other sciences, from around the world, specially from Portuguese speaking and Southern African countries, who want a collaborative environment to pursue their research on Agrobiotechnology, Health Sciences, ou Agribusiness and Governance for development, in Tropical or European countries, provided they fulfill minimum academic criteria.
2. Entrepreneurs who want to upgrade or extend their business to African countries and other tropical regions.
3. Professionals who wish to pursue careers involving triangular North-South-South cooperation and global development issues.

3 SPECIALIZATION COURSES (9 ECTS)

Three courses from Specialization Courses must be attended. It is possible to attend more, that being mentioned in the Diploma supplement. To allow the students to tailor their academic diploma but guaranteeing the coherence of the courses, groups of SC are offered to be chosen by specialization:

- Agribusiness and Governance for Development
- Agrobiotechnology
- Health Sciences

In the end of the 1st semester, coach and student will plan lab/group ROTATIONS (ROT) (20ECTS), starting at the 2nd semester. Heads of Research groups from the International Consortium will inform the Executive Council of their availability to host ROTs and a list of available ROTs will be provided. Each student will visit at least 2 labs/groups during this period, for 2 months each. By the end of the 1st year, the student will choose a group and a topic for the PhD PROJECT.

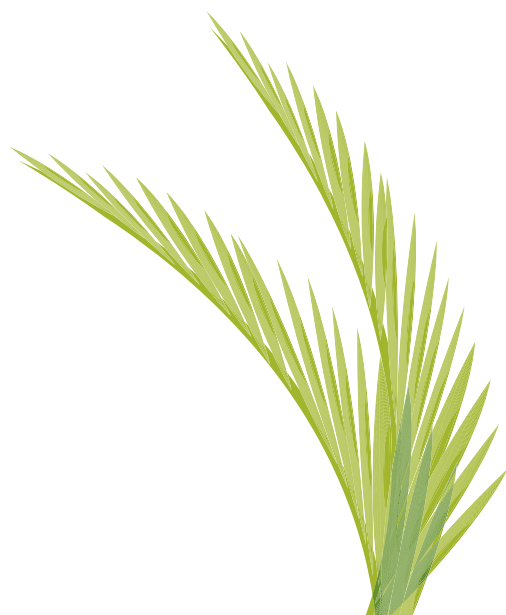
The onset of the 2nd year coincides with the start of the THESIS (180ECTS), which will take 3 years, and will be examined annually by the Thesis Advisory Committee, to evaluate achievements, verify adequacy of the designed plan and remove bottlenecks. During the THESIS, students are urged to attend at least 12 seminars per year, attend and present their works in international conferences, and also publish their results in international journals with referees. Moreover, students must attend one NDS Annual Retreat (5ECTS), where they should present their PhD project progresses. On DP end, a dissertation will be elaborated and discussed by a jury. The whole DP should be attended in full time dedication.

Overall, this program is of particular interest for candidates who seek to deepen their understanding on the specificities of tropical knowledge and management in the context of North-South and South-South relations.

Admission criteria

Applications are selected on evidence of a proper degree of scholarly ability, motivation to complete a challenging academic program and consistent career objectives with the DP subject. Qualified students from any discipline may be considered for admission. In detail, the minimum academic/professional qualifications needed for a student to be enrolled into the program are:

- a) A Bologna's 2nd cycle degree from an accredited institution or legal equivalent
- b) Another degree plus a highly relevant academic and professional curriculum
- c) Proven English proficiency is mandatory



— BRIEF INSTITUTIONS PRESENTATION —

TropiKMan PhD is an Informal International Consortium (IC) joint by the Tropical Research Institute (IICT) to manage the Program. The IC gathers the following institutions:

1. Instituto de Investigação Científica Tropical was established in 1883, and has accumulated historical and scientific collections and a long experience in multi-disciplinary research for development. So as to bridge the gap from science for development to business for development, IICT co-directs Sharing Knowledge Agrifood Network (SKAN), with INOVISA (the entrepreneurial unit of Instituto Superior de Agronomia), as is a shareholder of IBET, a public-private partnership of UNL, and the Gulbenkian Foundation. It has skilled and experienced groups developing research in food security and safety, climate-smart agriculture, and biodiversity.
2. Nova School of Business and Economics, as the leading institution, which is Triple Crown accredited and a CEMS member school. The expertise of NovaSBE in high rated post-graduation programs with high records in tropical research and cooperation programs by the partners, ensuring the best combination for a successfully PD. NovaSBE was the 1st higher education institution in Portugal to introduce structured PhD programs, in the tradition developed by the best American universities. In management advanced education, the school launched the first MBA in Portugal, constantly ranked one of the best MBA programs in Europe. Faculty at NovaSBE has a well-established academic record, publishing regularly in outstanding referred journals in the areas of the PhD program.
3. Instituto de Higiene e Medicina Tropical (IHMT) is targeted for the tropics. With more than 100-years existence, is characterized by its post-graduate training, research and cooperation towards developing the scientific knowledge of tropical and inter-tropical health related issues. The goal is to exploring new themes and specializations, which are vital in today's global society. IMHT cooperates with education institutions from the Portuguese-speaking countries, World Health Organization, European Union or the World Bank.
4. African University Eduardo Mondlane (UEM), which is the most prestigious university in Mozambique and holds long term relations with IICT namely consubstantiate in the joint Biotechnology Masters and in the in preparation Masters in Post Harvesting Sciences. UEM is engaged in collaborative research and strategic partnership with international institutions that work for development, and universities all over the world.
5. University of Pretoria (UP) aims at developing international visibility and recognition in areas of importance to developing countries, especially those of Africa and in the global South, such as animal and human health and education. It joins the IC via its department of Veterinary and Tropical Diseases.
6. The University of Cape Verde (Uni-CV) is a center for creation, dissemination and promotion of culture, science and technology, in order to promote human development, as a strategic factor of sustainable development. Uni-CV pursues, among others, the following purposes:
 - Promote entrepreneurship of Cape Verdean society, contributing to the training of human resources in priority areas of development;
 - Develop scientific, technical and cultural exchange with local and foreign research and higher education institutions;
 - Contribute to the development of international cooperation particularly in the fields of education and knowledge, science and technology.

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