

EVALUATION AND ACCREDITATION DOCUMENTS

Graduate Study Programme (PhD) of Wascal in Climate Change and Land Use

Kwame Nkrumah University of Science and
Technology

Kumasi, Ghana

June 2024

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International evaluation and accreditation

EVALUATION REPORT

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Kwame Nkrumah University of Science and
Technology

Kumasi, Ghana

February 2024



The WASCAL network (West African Science Service Centre on Climate Change and Adapted Land Use) has mandated the Hcéres to perform the evaluation of the Doctoral Research Programme “Climate Change and Land Use” (DDRP - CCLU) delivered by Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. The evaluation is based on the “Evaluation Standards of Doctorate/PhD abroad”, adopted by the Hcéres Board on January 31st, 2022. These standards are available on the Hcéres website (hceres.fr).

In the name of the expert committee¹ :

Benoit Gabrielle, President of the committee

In the name of Hcéres¹ :

Stéphane Le Boulter, Acting President

The Higher Council for Evaluation of Research and Higher Education (Hcéres) is an independent public authority. It is responsible for evaluating higher education and research institutions, research organizations, research units, and training programmes.

1. In accordance with articles R. 114-15 and R. 114-10 of the French Research Code, evaluation reports are signed by the President of the expert committee and countersigned by the President of Hcéres.

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I. STUDY PROGRAMME IDENTITY SHEET

- Name of the Institution: Kwame Nkrumah University of Science and Technology (KNUST)
- Programme's title: Climate Change and Land Use
- Level and duration of studies: Doctoral Research Programme (PhD) with a three-year target duration
- Location(s) where the facility is located: Kumasi, Ghana
- Campus(es): Kumasi main campus
- Year of creation and context: 2011.

The Kwame Nkrumah University of Science and Technology (KNUST), which is renowned as the premier science and technology university in Ghana, was established in 1961. The Doctoral Research Programme in Climate Change and Land Use started in 2011 as part of the graduate programmes of the University under the Department of Civil Engineering.

This study programme is implemented in the framework of WASCAL (West African Science Service Centre on Climate Change and Adapted Land Use), a large-scale, research-focused service centre that encompasses 11 West African countries (Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Ghana, Mali, Niger, Nigeria, Senegal, Gambia and Togo) and was launched in 2012. The programme is funded by WASCAL and the German Federal Ministry of Education and Research (BMBF).

Each batch of the programme selects and admits one student from each country, who receives full sponsorship from WASCAL. Currently, 12 students are enrolled in the fifth batch, beginning in 2021.

PERSON IN CHARGE OF THE PROGRAMME

- Name, first name: Prof. Wilson A. Agyare
- Position held: Director
- Discipline: Agricultural Engineering

RESULTS OF PREVIOUS EVALUATIONS AND QUALITY SYSTEM IN PLACE

This programme has not undergone any international accreditation procedure so far. But it is regularly and thoroughly assessed internally and submitted to national accreditation according to the Ghana Tertiary Education Commission requirements.

The quality assurance system of the Doctoral Research Programme has been set up by the Quality Assurance and Planning Office (QAPO) of KNUST. It includes a holistic review of the programme's contents every four years implemented at Department, Faculty, College and University level. This process must include input from relevant stakeholders, namely representatives from business and industry partners, alumni, and government agencies.

Furthermore, the recruitment of PhD candidates and the supervision of their theses comply with the standards of the WASCAL network.

HUMAN AND MATERIAL RESOURCES DEDICATED TO THE PROGRAMME

- An administrative and technical staff, including a programme director and his deputy, a scientific coordinator, an IT/office manager, a finance officer, a secretary, a janitor, and a driver.
- A pedagogical team including 31 professors and lecturers from the host university and international lecturers and supervisors from West Africa and Germany.
- One building on the campus dedicated to teaching and meetings, housing classrooms, a computer room, and administration offices.
- A bus to transport students or staff.
- Access to the libraries and laboratories of KNUST, and their electronic resources.

NUMBER OF STUDENTS OVER THE EXISTENCE OF THE STUDY PROGRAMME

Batch	Year Group	Male	Female	Total	Graduates
1	2011/2012	8	2	10	10
2	2013/2014	10	1	11	11
3	2015/2016	7	3	10	10
4	2019/2020	11	1	12	10
5	2021/2022	9	2	11	0
Total		45	9	54	41

II. COMPOSITION OF THE EXPERTS PANEL

- Benoît GABRIELLE, Professor, AgroParisTech, Paris-Saclay University, Chair of the panel
- Christelle MARLIN, Professor, Paris-Saclay University, an Expert who took part in the on-site visit and its preparation but not in the evaluation report
- Mathilde COLAS, PhD Student, University of Technology of Troyes, Student Expert

Hcéres was represented by Pierre COURTELLEMONT, Science Advisor, and Michelle HOUPPE, Head of project (Europe and International Department).

III. EVALUATION PROCESS

DESCRIPTION OF THE ON-SITE VISIT

- Date: 30 & 31 August 2023
- Organisation of the visit: before the visit took place, the self-assessment report and many appendices had been received by the experts. The on-site visit took place over two days, according to a schedule agreed between WASCAL Centre and the experts' panel. Once written by the panel chair, the report was submitted to all panel members for review.
- Cooperation of the institution to be accredited: perfect cooperation by all stakeholders
- Any problems: no problems identified

PEOPLE MET

30th August 2023

Time	Session
7:00 am	Transfer from hotel to Accra airport
8:40 – 9:20 am	Flight from Accra to Kumasi
10:30 – 11:30 am	Coffee break on arrival
11:30 – 12:30 pm	Campus tour
12:30 – 2:00 pm	Lunch break
2:00 – 3:00 pm	Presentation of the PhD & Discussion WASCAL Director and his team
3:00 – 4:00 pm	Opening session with top management: <i>Presentation of KNUST University challenges</i>

31st August 2023

Time	Session
9:00 – 10:00 am	PhD Teaching staff and supervisors
10:00 – 11:00 am	Alumni & Employers of the PhD program
11:00 – 11:30 am	Coffee break
11:30 am – 12:30 pm	PhD Students
12:30 am – 2:00 pm	Lunch time and preparation of the closing session
2:00 – 2:30 pm	Quality assurance
2:30 – 3:30 pm	Closing session

Around 35 participants were met during the visit (in person and on-line).

IV. OVERALL PRESENTATION

Since its inception in 2012, the WASCAL (West African Science Service Centre on Climate Change and Adapted Land Use) network has aimed to provide climate change solutions through capacity building. By educating future scientists, WASCAL strives to help West African countries to develop suitable management strategies.

Funded by the German Federal Ministry of Education and Research (BMBF), WASCAL aims to strengthen research infrastructure and capacity in West Africa related to climate change by pooling the expertise of eleven West African countries and Germany. Each country hosts at least one programme. As a general pattern, each batch of each programme trains 11 students from the 11 partner countries who benefit from a full scholarship scheme funded by WASCAL until they graduate.

The WASCAL graduate study programme on climate change and land use (GSP-CCLU) is delivered by Kwame Nkrumah University of Sciences and Technology (KNUST), a fully-fledged public university established in 1961 with an excellent reputation among national universities. Following the British educational model, it extends across a large and green campus spanning over 2000 hectares, situated 13 km away from the centre of Kumasi. With more than 82,000 students enrolled in 2021-2022 (including distance learning students), it stands as the country's largest university and ranks among the top higher education institutions. It is structured in six Colleges, headed by provosts, and further subdivided into faculties, schools, and departments. The university relies on 1,168 academic staff and 2,386 administrative and technical staff.

The PhD programme is operated by the Civil Engineering Department – College of Engineering, under the auspices of the School of Graduate Studies (SGS) of KNUST. This School supervises all graduate programmes and ensures compliance with KNUST policies regarding postgraduate education.

Given the vulnerability of African land to changing climatic conditions, the objectives of the PhD are to equip students with the:

- i. knowledge on the subject of climate sciences, land use, and modelling.
- ii. skills to identify and critically analyse issues related to climate change and land use.
- iii. capability to conduct independent and multidisciplinary research on climate and land use changes.
- iv. proficiency in applying acquired knowledge to address societal problems related to climate change and land use/cover changes.
- v. competence in building networks among students and researchers from other Lead Universities in the region and Germany on climate change and land use issues.

So far, 41 students have graduated from the first four batches, one has abandoned the programme since 2021 and 12 are still ongoing in the fifth batch of the programme.

PRESENTATION OF THE TRAINING SELF-ASSESSMENT APPROACH

At the request of WASCAL management, the CCLU PhD programme is undergoing an external evaluation by Hcéres with the aim of seeking accreditation. The PhD management team drafted the self-evaluation report, with input from the pedagogical team, alumni, potential employers, and PhD students. The Internal Quality Assurance and Planning Unit (QAPO) of KNUST aided in collecting and analysing the data necessary for the report. The GSP is overseen by the national School of Graduate studies EDSTM, in compliance with its regulations.

V. EVALUATION REPORT

FIELD 1. DOCTORAL POLICY

The GSP-CCLU addresses key challenges for the sustainable development of Ghana and West Africa. It stands as a flagship programme of KNUST, involving five of its six colleges and a total of 31 faculty staff, including 12 professors. The host university prioritises sustainable goals (SDGs) in its curricula and has been recognised as the top university globally for SDG4 (on quality education) by the Times Higher Education. The GSP-CCLU is fully aligned with this strategy and enjoys support from its governing bodies, from department to top management level, as evidenced by their commitment to the programme. The GSP is listed as a “strength” in the SWOT analysis of the corporate strategic plan of KNUST for 2016-2025.

The GSP on land use and climate change involves five colleges and 13 Departments of KNUST. This cross-cutting programme is open to a variety of MSc tracks available in its host university or others in Ghana or West Africa. Candidates admitted to the programme are required to have a Research Master's degree in a range of disciplines/scientific fields such as Soil Science, Agricultural Engineering, Civil Engineering, Geomatic Engineering, Natural Resources Management, Mathematics, Geography, Land Economy, Atmospheric Physics, and Meteorology. This implies that the GSP is open to a large number of Master's graduates from the West African sub-region, enabling it to attract an increasing number of applications (see Field #3).

The GSP has developed local partnerships with research institutes such as the Water Research Institute (CSIR-WRI), Soil Research Institute (CSIR-SRI), and Forest Research Institute of Ghana (CSIR-FORIG). International research laboratories and universities (including African countries, Germany, Denmark, and New Zealand) are partners of the Climate Change Economics GSP from the Kwame Nkrumah University of Science and Technology, Kumasi.

These partners are involved in academic activities and research, particularly in teaching and supervising PhD candidates. They also offer research stays to students funded by WASCAL. However, aside from the institutes hosting the visits of PhD candidates in Europe (see below), it is not clear how these laboratories contribute to the research work, as students are not formally affiliated with them during the research projects.

The GSP considers the social, economic, and environmental needs of the 11 countries participating in WASCAL. This network includes a Ministerial Council that brings together all the higher education and research ministers to define broad themes based on the specific needs of the countries. These themes are then translated into research questions, from which thesis topics are derived. Beyond this generic scheme pertaining to all WASCAL GSPs, the CCLU programme emphasises on a problem-solving approach aimed at addressing issues relevant to socio-economic stakeholders impacted by climate change. To ensure this relevance, stakeholders are involved during the initial development phase of thesis projects, case studies are integrated in most PhD projects (e.g., focusing on specific regions or agricultural value-chains), and “policy briefs” are derived from the PhD dissertations. However, despite these efforts, these potential partners are not involved in the governance of the GSP or in the design of its training programme. Furthermore, they do not hire GSP graduates, as the majority secure positions in academia (only three exceptions were mentioned during the visit, out of 31 graduates). This limits the GSP's actual impact on the issues it aims to address and its ability to leverage transformative changes in sectors such as agriculture, food, or forestry, as well as in government bodies or NGOs.

Regarding research ethics, the GSP adheres to the institutional policy of KNUST, which pertains various aspects such as research, teaching, learning policy, and peer evaluation of teaching. These policies are documented in booklets made available to students and university staff on the institutional Web site.

PhD students can access the University's documentary and digital resources. The GSP trains for and encourages the production of scientific publications and the participation in international conferences, facilitated by visits to Germany or other countries overseas provides. However, the level of involvement in national or international conferences is not well-documented. The GSP boasts an output of 64 publications in international journals over the 2020-2023 time period, averaging about two articles per graduate. The targeted journals are well-established and reputable, such as the *International Journal of Remote Sensing* or *Science of the Total Environment*. However, graduates publish in a wide range of

journals, indicating a lack of an overall publication policy, including conference participation. Establishing such a policy would leverage the visibility and impact of the GSP. Also, there is no open repository where final PhD dissertations and scientific articles produced by GSP students are available. While some dissertations are posted on the WASCAL web site, there is no search function for GSP-related content.

KNUST and WASCAL play a vital role in providing international exposure to PhD candidates. The active involvement of researchers from West Africa and Germany contributes significantly to capacity building among both researchers and supervisors, benefiting both the university and the wider WASCAL network. PhD candidates themselves contribute to the internationalisation of the programme through their diverse backgrounds, research conducted in their home countries, and socio-professional integration across West Africa. Nevertheless, there is a noticeable lack of coordination between KNUST, as the host university, and the partner universities involved in the doctoral students' fieldwork. That said, several of KNUST's professors and supervisors have received training outside the country, indirectly contributing to the internationalisation of doctoral students' learning.

The doctoral training programme includes study trips to the nearby research centres focusing on water, soil, or forest research (CSIR-WRI, CSIR-SRI, CSIR-FORIG), as well as visits to the WASCAL Competence Centre, located in Ouagadougou, which offers assistance for data supply and analysis. It is worth noting that this assistance may not be available to all PhD students, as mentioned by the panel met during the site visit. Partnerships exist with two German universities and a research centre in New Zealand. The involvement of European research partners through mandatory visits for PhD candidates adds significant value to the training and research of GSP candidates. Nonetheless, formalising these collaborations through cooperation agreements or MoUs would be beneficial. However, there is currently a lack of collaboration with German partners beyond the supervision of PhD students. All in all, the doctorate benefits from an internationalisation that is conducive to the consolidation of collaborations between researchers and the application of knowledge to address societal challenges related to climate and land use.

To conclude, the GSP-CCLU is recognised as a flagship programme of KNUST, well-aligned with its strategic goals and backed by significant institutional support. With the participation from five colleges and over 30 university staff, it offers a multidisciplinary training and research agenda addressing the critical issue of climate change and its mitigation. Recognising the relevance of this topic with the WASCAL network and the broader West African region, the programme adopts a problem-solving approach that considers the needs of socio-economic stakeholders. However, there is room for improvement in engaging stakeholders more actively in programme design and development to maximise the impact of WASCAL graduates on climate change issues. The GSP has established local and international partnerships, ensuring relevant support from research laboratories. While its scientific output is excellent, there is potential for further enhancement through the implementation of a well-designed publication policy. The GSP provides international exposure to its PhD candidates with the organisation of study trips and visits to Germany, although the underlying partnership would benefit from more formal institutional agreements.

FIELD 2: TRAINING, HOSTING AND SUPERVISION ARRANGEMENTS FOR DOCTORAL STUDENTS

The recruitment procedure complies with the WASCAL policy, with positions advertised across the network through web site and social media channels. Admission criteria, clearly outlined on communication materials such as CCLU web site, include academic excellence (e.g., GPA over 60% for Master's degree and achieving at least second class/upper division for the BSc degree), quality of research proposal, and proficiency in English. Although the GSP suffers from a gender imbalance (with women only accounting for 20% of graduates), there is no explicit gender policy in place. Women applicants are given a two-point bonus on the scoring sheet (out of a total of 100).

Applications are reviewed by the local WASCAL partners to produce a "shortlist" of two candidates, which is then assessed by the GSP-CCLU admission panel comprising the programme's local advisory board (see Field 4 for the GSP governance).

According to WASCAL regulations, the GSP curriculum is structured in five mandatory steps:

Duration	Object
4 months	Language courses (EN/FR)
6 months	Initial training programme at KNUST
18 months	Data collection in home countries
6 months (including a mobility in Germany)	Data analysis
6 months	Thesis drafting at KNUST + defence

The official language of the programme is English, and all courses, as well as thesis dissertations, are conducted in English. The initial training programme comprises seven modules and 16 courses, which are all mandatory with no electives, although some courses may be attended as “free auditors” for those students already conversant with the topic at hand. The programme was evaluated as dense and lacking in flexibility by the PhD students and alumni met during the visit, particularly in accommodating their diverse backgrounds.

This training programme covers a wide range of fields and skills necessary to tackle societal and scientific issues relating to land-use, which is an all-encompassing and cross-cutting topic. While the programme is well designed and comprehensive, it could benefit from additional topics related to water resources, soil science, biodiversity, and ecology. Courses feature lectures and a balanced mix of hands-on and practical approaches, such as field visits, study trips, and the use of digital tools like GIS or environmental sensors. During the site visit, students expressed the need for expanded courses on modelling. In accordance with the multidisciplinary approach put forward by WASCAL in general, and the GSP CCLU in particular, courses integrate natural science and engineering topics with humanities and social sciences, including law, economics, and geography. The first module focuses on skills development and research methodology, to equip emerging researchers with the necessary knowledge and skills for developing their research project, covering areas such as ethics, communication skills, project management, and survey methods. In general, soft skills such as leadership or teamwork are not primary focus of the GSP. Entrepreneurship is not included given its academic orientation, although it is part of the broader WASCAL policy.

Courses are primarily delivered by professors and lecturers affiliated with KNUST, although contributions from an international team that included professors from Benin, Germany, and New Zealand. However, the involvement of academics and socio-economic stakeholders in providing their perspectives on land-use/climate issues is limited. This input would be valuable, particularly considering the “problem-solving” focus of PhD projects.

A syllabus is available for all courses, but lacks specificities regarding the procedures for evaluating acquired skills. According to an internal document, students are generally graded through a continuous assessment and final examination, with the opportunity for two attempts. Professors have indicated their readiness to provide individual, tailor-made support if needed. All GSP students have successfully completed the training programme so far. Course evaluations are conducted by students, aligning with the quality assurance policies of both KNUST and WASCAL (see Field #4). However, there is currently no formalised process for analysing their feedback or incorporating it into improvements. Pedagogical meetings to discuss, review, and improve the overall training curriculum with lecturers are not currently organised, although the Local Advisory Board (LAB) is competent to review the overall curriculum (refer to the provided minutes).

PhD candidates develop their research proposals throughout the initial training programme, with guidance from the GSP management, and defend them at the end of this six-month period, including the financial details, before the LAB. In line with the KNUST policy, each candidate is assigned between three and five supervisors. Typically, students have at least one lead supervisor from KNUST, a local supervisor from the country where fieldwork will be conducted, a German supervisor where feasible, and a mentor. This approach to multiple supervision allows for cross-disciplinary collaboration by involving complementary fields of expertise as needed. The participation of faculty members from 13 Departments across five colleges of KNUST in the GSP fosters multidisciplinary research projects. However, there is room for further development of collaborative research among KNUST researchers involved in the GSP.

During the field work/data collection and analysis phases, online meetings are scheduled every six months with the supervisors, with the inclusion of external experts if necessary. This proactive monitoring of students' progress ensures that research projects are on track and provides an opportunity for adjustments of courses if needed. Progress is also monitored by the LAB through reports submitted at the same frequency. Students are not represented on this Board.

The criteria for defending a PhD thesis are explicitly outlined in the "Graduate Student's Handbook" of KNUST. Yet, these criteria do not include the requirement for the publication of scientific articles. It is important to note that the GSP-CCLU policy requires the publication of one article and the submission of another one prior to the defence.

PhD candidates benefit from very good material conditions concerning digital and physical environments within the institution (e.g., conference room, classrooms, computer room, Internet access, access to digital resources, scientific literature, and central laboratories at KNUST). However, concerns have been raised by students and alumni regarding the budget or lump sum allocated to their research projects. They have noted a lack of flexibility when costly analyses (e.g., soil samples), or equipment are required. Implementing such flexibility poses challenges according to WASCAL management. The possibility of providing students access to a shared pool of equipment (eg, meteorological sensors) has been ruled out. It is recommended that the terms under which doctoral students are hosted within research laboratories be clearly specified in a hosting agreement.

To conclude, the GSP implements a high-quality and transparent recruitment procedure. Its initial training programme effectively equips PhD candidates from various academic backgrounds with the multidisciplinary knowledge and skills necessary to address societal and scientific challenges related to land-use and climate change. The programme features a high-quality international pedagogical team, and benefits from partnership with local research centres and international universities. Integrating input of socio-economic stakeholders could enhance the programme's value further. The supervision scheme for students' research projects is efficient and fosters cross-disciplinarity. However, clearer definitions are needed for hosting arrangements for PhD students within research laboratories. While Doctoral students receive adequate material and financial support through the WASCAL network, there is limited flexibility in budget allocation. Nonetheless, the criteria for the final Ph.D. defence are well-defined, leading to an excellent publication record.

FIELD 3: THE ATTRACTIVENESS, PERFORMANCE AND RELEVANCE OF THE DOCTORATE

The number of applications has shown a steady increase from batch 2 to batch 5 (see Table below), despite the consistent number of available spots, namely 11 (one per partner country). Batches 2 and 4 featured one self-paying student each, while Batches 2 and 3 included two students from Ghana due to a lack of applicants from Senegal and Niger, respectively. Notably, no students applied from Cabo Verde (which became a member of WASCAL after the recruitment of batch 2).

Batches	Number of applications
1	Not reported
2	56
3	84
4	104
5	194

This trend indicates a growing quantitative appeal, yet it does not enable an assessment of qualitative attractiveness. The number of applications for some countries remains low (e.g., Niger, Togo, or the Gambia). Applications were also received from outside of the WASCAL network for batches 4 and 5 (one from Iran and nine from Ethiopia), indicating the visibility of the GSP. However, none of these applicants were ultimately recruited.

The GSP currently lacks a mechanism to monitor its attractiveness and analyse its application data. The Quality Assurance Protocol of KNUST, which is applied to the GSP-CCLU, does not include or mention such a process, further constrained by the pre-selection procedure implemented by the WASCAL network.

Conducting an analysis by recruitment pool would enable the development of targeted information campaigns, ensuring sustainable and balanced qualitative attractiveness across genders and member countries.

In terms of performance, the GSP boasts a 100% success rate for its first three batches. Students benefit from a personalised support from the beginning of the training programme until the final defence, facilitated by a dedicated pedagogical team, close monitoring by the GSP management and local advisory board, and a solid supervision scheme. While some delays were experienced during the Covid pandemic, which also hampered visits to Germany, the programme adapted to these challenges. Individual cases, such as students missing key milestones in their projects, were handled by the Local Advisory Board (LAB).

The career path of the CCLU graduates is thoroughly monitored and documented, with plans for a “tracer study” in the near future. Ninety percent of graduates secure positions in academia, primarily as lecturers or professors in national public institutions, featuring an excellent track-record. Within less than 10 years after graduation, alumni from batch 1 have attained positions as Senior Lecturers or Department Heads in renown universities across the subregion. Outside of academia, while it remains the main focus of the GSP, a few alumni have pursued in the banking sector, as consultants, or programme officers in international organisations (the World Food Programme of the UN). Thus, the GSP-CCLU is very successful in capacity-building, training a “critical mass of human resources to strengthen the research, educational and policy capacity of West-African countries to deal with [...] climate change”¹ However, it does not directly contribute to the development of competencies in the private or public policy sectors, as outlined in the GSP vision document.

This situation reflects a deliberate choice by the programme management, but it presents a significant opportunity for future expansion of the GSP. By fostering interactions with public and private stakeholders directly affected by climate change, the programme can broaden its impact. While there are existing interactions in the design of PhD research projects and in terms of feedback at the conclusion of these projects, further development and encouragement of these aspects are essential, which may lead to market transfer through the WASCAL Climate services branch and competence centre. Efforts should be made to integrate graduates into the socio-economic environment, including in governmental and para-governmental agencies, NGOs, and companies. This integration would enhance the application of the knowledge generated by CCLU to solve concrete societal problems related to climate change. It would also be interesting to set up a skills portfolio. This approach would allow PhD students to reflect on the acquisition of their skills during the programme and learn how to apply them professionally, possibly in the socio-economic environment.

Alumni associations exist both by country and by programme within the WASCAL network, with platforms on social media. However, during the visit, alumni acknowledged that they currently do not play an active role in developing or promoting the GSP. Nevertheless, they recognized significant potential for their involvement, including serving as mentors or supervisors for future PhD candidates, proposing research ideas, or collaborating through joint research proposals.

To conclude, the GSP benefits from a well-structured international network of partner universities, ensuring high-quality recruitment of PhD candidates through clear admission procedures and regulations. The increasing number of applicants reflects its growing attractiveness, although a qualitative analysis is missing, and there is room for more targeted promotion, particularly among women. The programme features a remarkable 100% success rate for graduates and an outstanding track record of job market integration. However, the career paths of graduates predominantly focus on academia, with marginal impact on private or public decision-making bodies. This partially aligns with the goals set by the WASCAL network and emphasizes the relevance of fostering interactions with private and public stakeholders addressing climate change challenges. Alumni have the potential to contribute more actively to training and research programmes, as well as their promotion.

FIELD 4: MANAGEMENT AND CONTINUOUS IMPROVEMENT OF THE DOCTORATE

The GSP-CCLU is managed in compliance with KNUST policies and procedures, overseen by the School of Graduate Studies (SGS), the University body responsible for coordinating all postgraduate programmes. To ensure proper management, a range of guidelines and resources have been developed (Guide for Higher Degree Research Supervision, Graduate Students Handbook, Graduate School's Policy on

¹Factsheet, Doctoral programme in Climate change and land use, Ghana; www.wascal.org

Publication, Plagiarism Guide, etc.). These documents, available on the university's website, shed light into various aspects of the thesis process. The processes involved are clearly delineated and accessible to both students and professors.

The GSP is run by the Department of Civil Engineering, a constituent of the College of Engineering of KNUST. Direct oversight is provided by a management team comprising the executive team and technical staff, responsible for programme's daily operations. This effective management structure is evidenced by tangible operational actions.

A Local Advisory Board (LAB) and an International Advisory Board (ISAB) play crucial roles in providing strategic guidance for the programme. This governance scheme ensures that the programme adheres to WASCAL procedures at both national and international levels. These boards strengthen the governance of the programme in the long term by providing a broader vision to ensure sustainability add value to operational management. Nevertheless, further clarification regarding their operation, missions, and respective activities would be beneficial. Including a representative of the programme's doctoral students in the LAB would ensure that all the parties taking part in the GSP are adequately represented.

KNUST implements a doctoral supervision policy that extends to the GSP-CCLU, aligning with processes implemented by WASCAL and meeting its standards. Both organisations have established clear and accessible criteria, particularly concerning the recruitment of doctoral students, their training, research supervision, and thesis defence. While the SGS of KNUST advertises the availability of these grants, the monitoring of funding for doctoral students is solely the responsibility of WASCAL, as it originates from the BMBF. The SGS manages the final assessment of theses and the defence of PhD students. Enhancing transparency in the contributions of each body to the steering mechanisms for doctoral supervision and clarifying their relationship with one another would improve visibility and understanding of their involvement. Some processes, such as candidate recruitment, could benefit from greater formalisation.

The GSP-CCLU, funded by BMBF via WASCAL, is equipped with adequate resources, including dedicated support staff comprising a competent teaching team supported by WASCAL, high-quality scientific events, appropriate equipment, and funding for PhD students to conduct their training and research. Moreover, the GSP benefits from KNUST's resources, particularly those of the College of Engineering and the University as a whole, such as laboratories, libraries, the Postgraduate Student Learning Centre, and facilities for student life. In-house staff from KNUST, including professors specialising in subjects associated with CCLU, are also part of the team dedicated to the GSP. All these resources significantly contribute to the programme's activities and benefit the PhD Students.

To ensure the quality of teaching and research at KNUST, its central Quality Assurance and Planning Office (QAPO) develops and implements a range of policies (in the areas of quality assurance, teaching and learning, peer evaluation of teaching, research, ethics, anti-sexual harassment, among others). These policies comply with national requirements set by bodies like the Ghana Tertiary Education Council (GTECH) and the National Accreditation Board (NAB). QAPO also creates procedures, manuals, and guides relevant to teaching and research practice, which are applicable and useful to stakeholders involved in the GSP-CCLU. The quality assurance system established by the QAPO is implemented across all academic departments at the university, including the Civil Engineering Department responsible for the GSP-CCLU. The evaluation process incorporates results to enhance the strategic management of training and research implementation, focusing on aspect like the quality of teaching materials, course delivery and the teaching and learning environment. At the end of each semester, PhD students evaluate courses, instructors, and their study environment through online course evaluations provided by KNUST and the system established by WASCAL. Nevertheless, there is room for improvement in formalising feedback from PhD students to enhance transparency in existing processes. The absence of a mediation mechanism in case of difficulties between doctoral students and supervisors is noteworthy and should be addressed to facilitate conflict resolution.

The GSP is evaluated through an internal process at KNUST. This comprehensive process, facilitated by structured and appropriate bodies, allows for a thorough review of the programme's quality and enables continuous improvement. It is based on internal quality assurance standards and national requirements, with a goal of seeking internal and external accreditation every four years. During this process, the curriculum review committee, comprising representatives from commercial and industrial partners, encourages the adaptation of the programme to address the needs of socio-economic stakeholders dealing with climate and land use issues.

In terms of support for training and research, the Quality Assurance Policy states that specialised and tailored training is available upon request for all staff in their respective fields to ensure continuous

improvement of their work. The system established by QAPO enables professors and supervisors to access support whenever necessary. For instance, through KNUST's SGS, training sessions have been organised for PhD supervisors on the use of the online thesis deposition and management system. KNUST staff have the opportunity to take study leave, although the specifics of this leave are not clearly outlined in the report. The WASCAL network also offers guidance and training to supervisors as required, without specific details provided. This policy of support, guidance, and training for professors and supervisors greatly enhance the quality of doctoral training and supervision. However, further clarification may be needed regarding its application to the GSP-CCLU in order to improve transparency regarding the activities carried out by the programme's professors and supervisors.

The programme contributes to KNUST's capacity building through the expertise developed by the programme's team, the activities of the professors, the research partnerships, the doctoral research training and the hiring of alumni. Alumni who have joined departments involved in the GSP further strengthen the University's skills base. Indirectly, the programme's excellent reputation, evidenced by the increasing number of graduates recruited by various organisations, enhances its attractiveness. This heightened reputation leads to a broader range of potential collaborations and increased applications. The CCLU also contributes to capacity building for the WASCAL network as a whole, resulting in mutual benefits for both organisations, KNUST and WASCAL.

To conclude, the management of the GSP-CCLU is largely effective overall. The governance structure is well-defined, with each body fulfilling its specific roles to ensure the smooth operation of the programme. However, there are opportunities to formalise aspects of the overall management of the doctorate by both KNUST and WASCAL to enhance transparency. Establishing a mechanism for periodic stakeholder meetings would facilitate discussion and improvement of the programme. Additionally, implementing pedagogical meetings involving professors and doctoral students could promote collaborative practices. While the training and supervision team contributes to the international profile of the GSP, there is potential for further development of collaborative research among professors from KNUST, the WASCAL network, and partner universities, including those in Germany. Career development opportunities for GSP staff could be better specified to improve their professional growth. The GSP benefits from an effective internal evaluation process based on high-quality assurance standards, supporting continuous improvement. Nevertheless, formalising student feedback on the training programme would improve transparency. Including students' representatives in programme bodies would enhance governance and the relevance of curriculum review processes. Mediation mechanisms could also be introduced to help resolve problematic situations between PhD candidates and supervisors. Overall, the GSP-CCLU is well managed with high-standard quality assurance processes in place.

VI. CONCLUSION

The Graduate Study Programme on Climate Change and Land Use, operated by KNUST as part of the WASCAL network, is well aligned with the strategic goals of its host university and benefits from its strong and broad support, with the involvement of five out of its six colleges. Its scientific positioning on the cross-cutting issue of land use has fostered cross-disciplinarity since the programme's inception. The GSP has achieved an excellent track record in terms of scientific publications, the success of its PhD candidates, and the job-market integration of alumni. Notably, within less than a decade after graduation, some alumni have already attained positions as Senior Lecturers or Department Heads in renowned universities across the subregion. The management of the GSP is well-designed and effective, providing adequate support to its PhD candidates in terms of financial means, human resources, and infrastructure. The increasing number of applications, over the various batches of students, evidences its attractiveness, although targeted promotion efforts and a proactive gender policy are recommended. Formal processes to incorporate students' feedback and a more inclusive governance structure, where PhD students are represented and interactions between teachers or supervisors are facilitated, would benefit the GSP. In terms of capacity building and societal impact, the GSP-CCLU has predominantly focused on the academic sector. However, given that issues related to climate change and land use will impact a wider range of stakeholders (including national or international agencies, governments and administrations, NGOs, the agriculture and forestry sectors, and the private sector in general), the GSP management is encouraged to develop a partnership policy with these stakeholders to address scientific and societal challenges posed by climate change in West Africa.

STRENGTHS

In general, for the WASCAL network

- A well-structured international network of partner universities that ensures high-quality recruitment of PhD students on an international level, providing a top-level opportunity for capacity-building across West Africa on climate change
- A thematic focus on a cross-cutting topic with high societal and scientific relevance to West Africa, aligned with well-established needs for public and private decision-making, as well as research and higher education
- An efficient foreign languages and inter-cultural training
- An organisation with adequate support in terms of financial means, human resources, and infrastructure
- A well-formalised and documented framework to select, host and supervise PhD candidates
- The support of a WASCAL regional Competence Centre which centralises data collected by PhD candidates, facilitating collaboration and knowledge-sharing among researchers

Specific points to CCLU programme

- A strong commitment from the host university, with the involvement of five of its Colleges, and 12 faculty staff
- A programme hosted by a top-ranking university in the West African sub-region, which spearheaded the local centre of excellence centre on water resources
- A well-designed framework for all programme activities, based on a solid and rigorous quality assurance process
- A well-designed and effective management implementing an operational internal evaluation process based on high-quality assurance standards for the continuous improvement of the programme
- A programme providing very good material conditions for its PhD candidates, including access to centralised laboratories
- A cross-disciplinary/cross-college faculty team fostering multidisciplinary in the PhD research projects
- A programme developing research projects of high scientific and societal relevance, focused on problem-solving
- An excellent scientific output, totalling over 60 publications in international journals or conferences
- A tailor-made and close supervision of PhD candidates

- An initial training programme well adapted to the GSP topic, equipping students with relevant knowledge and skills for their research projects
- An attractiveness which has increased over the years, and yielded high-level PhD students
- An excellent track-record of GSP alumni integration into the academic sector
- A programme providing support to all involved parties (in particular PhD students and supervisors) through clear policies, guidelines, and guidebooks
- A programme offering opportunities to its staff for dedicated training and career development plans

WEAKNESSES

- A lack of formalised processes to gather and incorporate students' feedback to improve courses, as well as inflexibility in the overall timeline of PhD projects
- A lack of a structured partnership with German institutions, hindering the organization of visits by PhD students
- A difficulty of PhD students to take part in research groups or laboratories, and benefit from a scientific emulation by their peers
- A lack of a publication policy, which reduces the scientific impact of the GSP research
- A limited impact outside academia, especially regarding public policy or socio-economic stakeholders
- A programme with a significant gender bias, inadequately addressed

RECOMMENDATIONS FOR THE INSTITUTION

- Structure and formalise partnerships with a set of well identified and recognised German institutions to improve collaborations with them
- Ensure representation of PhD students in key decision-making bodies such as the Local Advisory Board and the curriculum review committee
- Establish annual pedagogical meetings involving all lecturers and teachers to facilitate discussions, reviews, and improvements to the overall training curriculum, overseen by the Local Advisory Board
- Implement mechanisms to foster collaborative research and practices, such as dedicated workspaces with associated facilities or cross-departmental working meetings, to encourage synergies and cross-disciplinary research among faculty and students
- Enhance the monitoring of the programme's continuous improvement process by formalising and transparently documenting processes for gathering and analysing feedback from students on courses, professors, their study environment, and from the GSP stakeholders (namely alumni, public and private partners). Consultative discussions should be held regularly to incorporate this feedback
- Set up a skills portfolio for PhD candidates to encourage reflection on skills acquisition and highlight their competences in academic or socio-economic settings
- Introduce mediation mechanisms to facilitate resolution of potential conflicts between PhD students and supervisors.

VII. OBSERVATIONS OF THE INSTITUTION



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Kwame Nkrumah
 University of Science
 and Technology

11th April, 2024

**The President
 The Higher Council for Evaluation of Research and Higher Education (Hcéres)**

Dear Mr. Bouler,

**RE: HCÉRES EVALUATION OF WASCAL CLIMATE CHANGE AND LAND USE
 PHD PROGRAMME AT THE KWAME NKURUMAH UNIVERSITY OF SCIENCE AND
 TECHNOLOGY, KUMASI**

The Kwame Nkrumah University of Science and Technology, Kumasi, Ghana received an evaluation report for the international accreditation of the WASCAL Climate Change and Land Use PhD Programme by the Hcéres in February, 2024. Following the recommendations by the expert team, kindly find below our observations on how we intent to deal with them in the future.

1. Structure and formalise partnerships with a set of well identified and recognised German institutions to improve collaborations with them.

Students from the WASCAL CCLU PhD programme have been embarking on scientific visits to German institutions for up to six months. There is a formal partnership between WASCAL (representing the host Universities, e.g. WASCAL CCLU KNUST) and German institutions through the sponsorship from the BMBF. Thus, all WASCAL host universities indirectly have a formal partnership with these German institutions. This is so because with 12 WASCAL host universities across West Africa, formal partnership between the individual universities and German institutions may lead to too many agreements. Currently, the Kwame Nkrumah University of Science and Technology (KNUST) has a Memorandum of Understanding (MoU) with The Technical University of Munich (TUM). Also, KNUST is developing an MoU with the University of Wurzburg. The University of Wurzburg is the main German partner for the WASCAL CCLU PhD programme as we have staffs from the institution as facilitators and supervisors on the programme. Also, a staff of the institution is on the International Advisory Board of the programme.

2. Ensure representation of PhD students in key decision-making bodies such as the Local Advisory Board and the curriculum review committee.

One of the first thing we ensure after every batch start is to elect a student representative among themselves. This student representative works directly with the WASCAL CCLU management to resolve any grievances or issues. Students also usually directly engage with management to



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1

resolve personal issues. The management in turn reports and discusses such issues with the Local Advisory Board (LAB) during our quarterly meetings. From time to time, management also engage the student body on academic and welfare issues. We also consider students and alumni evaluation and feedback during the curriculum review process. Both national and international accreditation have had unrestricted audience with our PhD students and alumni during their onsite visits. Going forward, steps will be taking to make students and alumni representation part of LAB.

3. Establish annual pedagogical meetings involving all lecturers and teachers to facilitate discussions, reviews, and improvements to the overall training curriculum, overseen by the Local Advisory Board.

We share a summary of student evaluation of the various taught courses with lecturers after the end of each model, highlighting important points to be addressed. Facilitators are expected to improve the delivery of the training curriculum based on the evaluation reports. Occasionally, we also have supervisors and facilitators meetings to discuss progress of students. Going forward, the LAB will also have annual formal meeting with facilitators and supervisors to discuss, review, and improve the overall training curriculum.

4. Implement mechanisms to foster collaborative research and practices, such as dedicated workspaces with associated facilities or cross-departmental working meetings, to encourage synergies and cross-disciplinary research among faculty and students.

The WASCAL CCLU PhD programme benefits from a multidisciplinary research group in the university with faculty member from 13 department of five out of the six colleges. However, this collaboration is mainly focused on PhD supervision. There are other collaborations among faculty members on projects such as AICCRA, Green Hydrogen in Africa, EOCap4Africa, PARADeS, as a results of working together at the centre. There is currently an initiative by the LAB to create research groups to foster further collaborative research under the centre, with the aim of making the centre a Centre of Excellence in climate change-related research.

5. Enhance the monitoring of the programme's continuous improvement process by formalizing and transparently documenting processes for gathering and analysing feedback from students on courses, professors, their study environment, and from the GSP stakeholders (namely alumni, public and private partners). Consultative discussions should be held regularly to incorporate this feedback.

Students evaluate and give feedback on the taught courses they take during the first year of the PhD programme, with the aim of improving the curriculum to suite their research needs. This has led to the organization of short courses over the years to address common needs. We also embark on tracer studies of our alumni and get their feedback on how the programme can be improved to meet the real-world problem-solving demands. Going forward, we will establish a consultative

discussion with students, lecturers, alumni, public and private partners to incorporate these evaluations and feedback. We will also develop an evaluation and feedback mechanisms of supervisors and the study environments.

6. Set up a skills portfolio for PhD candidates to encourage reflection on skills acquisition and highlight their competences in academic or socio-economic settings.

The Local Advisory Board will have consultative meetings all stakeholders (students, alumni, supervisors and facilitators, public and private partners) to set up the skills portfolio for PhD candidates.

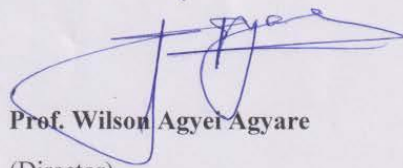
7. Introduce mediation mechanisms to facilitate resolution of potential conflicts between PhD students and supervisors.

Currently, the management of WASCAL CCLU and the Local Advisory Board serve as mediators to resolve potential conflict between PhD students and supervisors. PhD students sign undertaken to abide by developed programme activities by the LAB before the thesis phase of the programme. Also, supervisors sign contracts which stipulate their roles and responsibilities. This has led to minimal conflict between students and supervisors. If any, the management of the programme steps in to resolve any issues which is then reported to the LAB for further discussion. Also, the School of Graduate Studies (SGS) as the custodian of all graduate programmes of the KNUST superintends over WASCAL CCLU PhD programme. There are well established policies that seek protect students' interest such as:

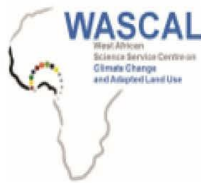
Guide for Higher Degree Research Supervision (<https://sgs.knust.edu.gh/sites/sgs.knust.edu.gh/files/2021-02/GUIDE%20FOR%20HIGHER%20DEGREE%20RESEARCH.pdf>) and

Graduate Students Handbook (<https://sgs.knust.edu.gh/sites/sgs.knust.edu.gh/files/2022-12/GRADUATE%20STUDENTS%27S%20HANDBOOK.pdf>).

Yours sincerely,



Prof. Wilson Agyei Agyare
(Director)



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11th April, 2024

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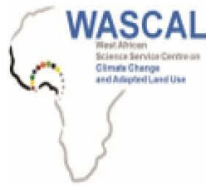
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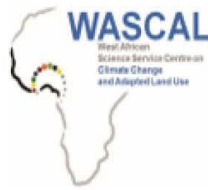
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5. Enhance the monitoring of the programme's continuous improvement process by formalizing and transparently documenting processes for gathering and analysing feedback from students on courses, professors, their study environment, and from the GSP stakeholders (namely alumni, public and private partners). Consultative discussions should be held regularly to incorporate this feedback.

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The Local Advisory Board will have consultative meetings all stakeholders (students, alumni, supervisors and facilitators, public and private partners) to set up the skills portfolio for PhD candidates.

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Yours sincerely,

Prof. Wilson Agyei Agyare

(Director)



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Evaluation of higher education and research institutions

Evaluation of research

Evaluation of academic programmes

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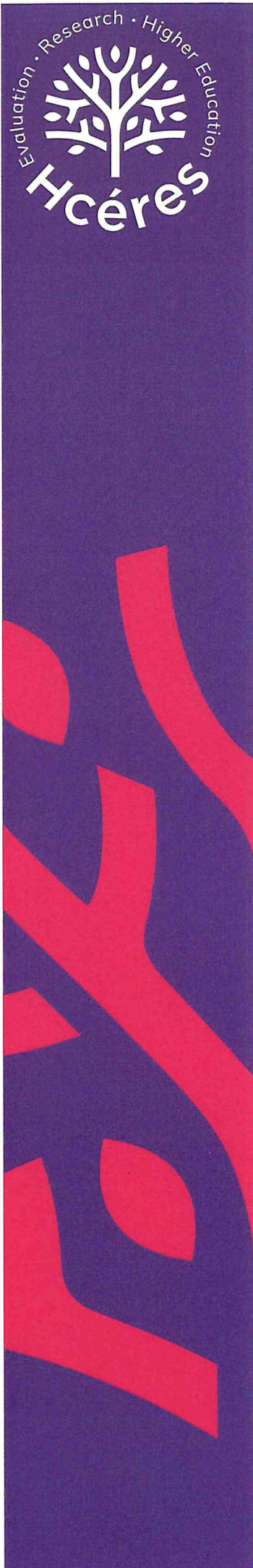


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International evaluation and accreditation

ACCREDITATION DECISION

**Graduate Study Programme (PhD) of WASCAL
in Climate Change and Land Use**

Kwame Nkrumah University of Science and
Technology

Kumasi, Ghana

June 2024

SCOPE OF THE ACCREDITATION GRANTED BY HCÉRES

HCÉRES has based its evaluation process on a set of objectives that study programmes must pursue to ensure recognised quality within France and Europe. These objectives are divided up into four accreditation criteria.

The Accreditation Commission issues an opinion about the accreditation of the study programme after examining the file. The Hcéres President takes the decision based on the Commission's opinion and the final evaluation report of the programme. This accreditation decision, taken in plenary session, is the result of a collegial and reasoned process.

The decision issued by Hcéres regarding the accreditation of the study programme corresponds to the awarding of a label to the evaluated entity.

This decision is independent of the accreditations carried out by the French State and therefore does not entail recognition in France of the institution or the diplomas delivered by it.

Decision No. EI-2024-23 on the accreditation of the Wascal Graduate Study Programme (PhD) in Climate change and land use delivered by Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

The President of the High Council for the Evaluation of Research and Higher Education,

Considering the Research Code, in particular Articles L. 114-3-1 to L. 114-3-6;

Considering the Board's deliberation of 29th September 2022 on the accreditation criteria for a doctorate/PhD abroad;

Considering the Decision No. 2023-9 of 16th March 2023 on the international accreditation procedure of the High Council for the Evaluation of Research and Higher Education;

Considering the agreement DEL_20220407 of 12th May 2022 - for the evaluation/accreditation of 7 programmes delivered by universities affiliated to WASCAL network and distributed over 7 sub-Saharan African countries;

Considering the opinion issued by the Accreditation Commission on 25th April 2024;

Decides:

Article 1

Noting that the Graduate Study Programme (PhD) in Climate Change and Land Use delivered by the Kwame Nkrumah University of Science and Technology, in Ghana, meets the four accreditation criteria, voted by the Board of the High Council on 29th September 2022, as follows:

ACCREDITATION CRITERION 1: DOCTORAL POLICY

The Graduate Study Programme in Climate change and land use (GSP CCLU) is recognised as a flagship programme of KNUST, well-aligned with its strategic goals and backed by significant institutional support. With the participation from five colleges and over 30 university staff, it offers a multidisciplinary training and research agenda addressing the critical issue of climate change and its mitigation. Recognising the relevance of this topic with the WASCAL network and the broader West African region, the programme adopts a problem-solving approach that considers the needs of socio-economic stakeholders. However, there is room for improvement in engaging stakeholders more actively in programme design and development to maximise the impact of WASCAL graduates on climate change issues. The GSP has established local and international partnerships, ensuring relevant support from research laboratories. While its scientific output is excellent, there is potential for further enhancement through the implementation of a well-designed publication policy. The GSP provides international exposure to its PhD candidates with the organisation of study trips and visits to Germany, although the underlying partnership would benefit from more formal institutional agreements.

ACCREDITATION CRITERION 2: TRAINING, HOSTING AND SUPERVISION ARRANGEMENTS FOR DOCTORAL STUDENTS

The Graduate Study Programme in Climate change and land use implements a high-quality and transparent recruitment procedure. Its initial training programme effectively equips PhD candidates from various academic backgrounds with the multidisciplinary knowledge and skills necessary to address societal and scientific challenges related to land-use and climate change. The programme features a high-quality international pedagogical team, and benefits from partnership with local research centres and international universities. Integrating input of socio-economic stakeholders could enhance the programme's value further. The supervision scheme for students' research projects is efficient and fosters cross-disciplinarity. However, clearer definitions are needed for hosting arrangements for PhD students within research laboratories. While Doctoral students receive adequate material and financial support through the WASCAL network, there is limited flexibility in budget allocation. Nonetheless, the criteria for the final Ph.D. defence are well-defined, leading to an excellent publication record.

ACCREDITATION CRITERION 3: ATTRACTIVENESS, PERFORMANCE AND RELEVANCE OF THE DOCTORAL PROGRAMME

The Graduate Study Programme in Climate change and land use benefits from a well-structured international network of partner universities, ensuring high-quality recruitment of PhD candidates through clear admission procedures and regulations. The increasing number of applicants reflects its growing attractiveness, although a qualitative analysis is missing, and there is room for more targeted promotion, particularly among women. The programme features a remarkable 100% success rate for graduates and an outstanding track record of job market integration. However, the career paths of graduates predominantly focus on academia, with marginal impact on private or public decision-making bodies. This partially aligns with the goals set by the WASCAL network and emphasizes the relevance of fostering interactions with private and public stakeholders addressing climate change challenges. Alumni have the potential to contribute more actively to training and research programmes, as well as their promotion.

ACCREDITATION CRITERION 4: MANAGEMENT AND CONTINUOUS IMPROVEMENT OF THE DOCTORAL PROGRAMME

The management of the GSP-CCLU is largely effective overall. The governance structure is well-defined, with each body fulfilling its specific roles to ensure the smooth operation of the programme. However, there are opportunities to formalise aspects of the overall management of the doctorate by both KNUST and WASCAL to enhance transparency. Establishing a mechanism for periodic stakeholder meetings would facilitate discussion and improvement of the programme. Additionally, implementing pedagogical meetings involving professors and doctoral students could promote collaborative practices. While the training and supervision team contributes to the international profile of the GSP, there is potential for further development of collaborative research among professors from KNUST, the WASCAL network, and partner universities, including those in Germany. Career development opportunities for GSP staff could be better specified to improve their professional growth. The GSP benefits from an effective internal evaluation process based on high-quality assurance standards, supporting continuous improvement. Nevertheless, formalising student feedback on the training programme would improve transparency. Including students' representatives in programme bodies would enhance governance and the relevance of curriculum review processes. Mediation mechanisms could also be introduced to help resolve problematic situations between PhD candidates and supervisors. Overall, the GSP-CCLU is well managed with high-standard quality assurance processes in place.

Article 2

The WASCAL Graduate Study Programme in Climate Change and Land Use delivered by the Kwame Nkrumah University of Science and Technology, in Ghana is accredited for a period of 5 years, from the date of this decision.

Article 3

The decision is accompanied by the following recommendations and comments:

- Structure and formalise partnerships with a set of well identified and recognised German institutions to improve collaborations with them
- Ensure representation of PhD students in key decision-making bodies such as the Local Advisory Board and the curriculum review committee
- Establish annual pedagogical meetings involving all lecturers and teachers to facilitate discussions, reviews, and improvements to the overall training curriculum, overseen by the Local Advisory Board
- Implement mechanisms to foster collaborative research and practices, such as dedicated workspaces with associated facilities or cross-departmental working meetings, to encourage synergies and cross-disciplinary research among faculty and students
- Enhance the monitoring of the programme's continuous improvement process by formalising and transparently documenting processes for gathering and analysing feedback from students on courses, professors, their study environment, and from the GSP stakeholders (namely alumni, public and private partners). Consultative discussions should be held regularly to incorporate this feedback
- Set up a skills portfolio for PhD candidates to encourage reflection on skills acquisition and highlight their competences in academic or socio-economic settings
- Introduce mediation mechanisms to facilitate resolution of potential conflicts between PhD students and supervisors.



Article 4

This decision will be published on the Hcéres website.

Paris, 14th June 2024.

The acting President
signed
Stéphane Le Bouler

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