



## Decision of the Accreditation Commission of AQAS

on the Master programmes:

- Agricultural Economics and Environmental Policy (M.AgSE)
- Environmental Systems and Climate Change (M.AgSE)
- Food Processing and Value Addition (M.AgSE)

and on the doctoral programmes

- Agricultural Economics and Environmental Policy (PhD AgSE)
- Environmental Systems and Climate Change (PhD AgSE)
- Food Processing and Value Addition (PhD AgSE)

offered by the Federal University of Agriculture, Abeokuta (Nigeria)

**Based on the report of the expert panel and the discussions of the Accreditation Commission in its 74<sup>th</sup> meeting on 25/26 February 2019, the Accreditation Commission decides:**

1. The Master programme “**Agricultural Economics and Environmental Policy**” (M.AgSE) and the PhD programme “**Agricultural Economics and Environmental Policy**” (PhD AgSE) offered by the Federal University of Agriculture in Abeokuta/Nigeria are accredited according to the AQAS criteria for Programme Accreditation.

The accreditation is conditional.

The study programmes essentially comply with the requirements defined by the criteria and thus the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) and the European Qualifications Framework (EQF) in their current version. The required adjustments can be implemented within a time period of nine months.

2. The conditions have to be fulfilled. The fulfilment of the conditions has to be documented and reported to AQAS no later than **31 December 2019**.
3. The accreditation is given for the period of **six years** and is valid until **30 September 2025**.
4. The accreditation decision for the Master programmes “**Environmental Systems and Climate Change**” (M.AgSE), “**Food Processing and Value Addition**” (M.AgSE) and the PhD programmes “**Environmental Systems and Climate Change**” (PhD AgSE) and “**Food Processing and Value Addition**” (PhD AgSE) offered by the Federal University of Agriculture in Nigeria are postponed.

The study programmes do not yet fulfil all Standards for Quality Assurance in the European Higher Education Area (ESG) and the European Qualifications Framework (EQF) in their current version. However, it is likely that the shortcomings can be remedied within 18 months.

5. The postponement period lasts for a maximum of 18 months and ends on **30 September 2020**. The university has the opportunity to revise the study programmes during this period.

6. The revised documentation will be reviewed by the expert panel. If considered necessary by the expert panel, a second site visit has to be organised. The accreditation commission then takes a final decision based on the expert panel's updated report.
7. The accreditation commission points out that the university must request to continue the accreditation procedure in written form within the given period. The revised documentation must be submitted in writing no later than **30 September 2020**. If the university does not request the continuation of the accreditation procedure or does not hand in the revised documentation within the given period, AQAS will automatically reopen the procedure and deny the accreditation.

For the Master programme "**Agricultural Economics and Environmental Policy**" (M.AgSE) and the PhD programme "**Agricultural Economics and Environmental Policy**" (PhD AgSE):

**Conditions:**

1. CEADSE must define the **responsibilities for quality assurance and its core processes** transparently. Furthermore, a concept has to be developed on how **results of evaluations are shared with stakeholders**.
2. Processes to collect regular **feedback from the labour market** as well as from the alumni must be implemented. Data on student progression and competition rates should be followed.
3. The **overall learning outcomes of all programmes** (Master and PhD) must be defined transparently and must be related to the descriptors of the national or European Qualifications Framework (EQF).
4. The **composition of courses** for all programmes needs to be revised based on the detailed feedback to each individual programme provided in this report. Moreover, the following general aspects should be considered:
  - a. The learning outcomes have to be aligned with the course descriptions.
  - b. The internship for Master and PhD programmes should be extended.
  - c. More practical experiences should be implemented.
  - d. More entrepreneurial content should be included.
5. The **examination methods** have to be transparently described in the course handbook.
6. For international exchange CEADSE has to develop a kind of transfer system which allows **aligning the local credit system with the European Credit System (ECTS)** which is based on student workload.
7. CEADSE has to develop a **concept** to ensure that for each study programme specific up-to-date **technical equipment** is available to students.

**Recommendations:**

1. A document which students receive on graduation which gives detailed information on the target of the study programme as well as on all competencies the student got during his/her studies (e.g. Diploma Supplement) should be introduced.
2. The degree and awarding title of the programmes should be reconsidered because they are not in line with comparable programmes on the international level and to facilitate entering the labour market of its graduates.

3. More options for the development of the teaching staff, e.g. trainings to enhance the didactic competencies, as well as for participation in international conferences should be offered.
4. CEADESE should revise the structure of its QA evaluation and include aspects like the learning environment, support services and the student workload.
5. The centre should consider implementing re-sit options for students within the same semester to avoid an unnecessary prolongation of time of study.
6. The labour market orientation of some of the programmes should be strengthened by a stronger interlinkage with the entrepreneurial centre and by including more industrial expertise in the teaching staff portfolio.
7. The course contents of the study programmes should be outlined more transparently on the webpage.
8. The literature used in the courses should be updated and should be in line with the course description in the student handbook.

For the Master programmes “**Environmental Systems and Climate Change**” (M.AgSE) and “**Food Processing and Value Addition**” (M.AgSE) and for the PhD programmes “**Environmental Systems and Climate Change**” (PhD AgSE) and “**Food Processing and Value Addition**” (PhD AgSE):

All conditions and recommendations mentioned above are also applicable for the four programmes for which the decision has been postponed. Moreover, the following aspects have to be addressed by CEADESE:

1. Specific PhD courses have to be introduced in order to make a clear differentiation between the Master programmes and the PhD programmes.
2. In the descriptions of the learning outcomes a clear distinction has to be made between courses addressing the Master level on one hand and addressing the PhD level on the other hand. The level of the programmes has to be described referring the national or European Qualification Framework.

With regard to the reasons for this decision the Accreditation Commission refers to the attached assessment report.



## Experts' Report

on the Master programmes

- Agricultural Economics and Environmental Policy (Master)
- Environmental Systems and Climate Change (Master)
- Food Processing and Value Addition (Master)

and on the doctoral programmes

- Agricultural Economics and Environmental Policy (PhD)
- Environmental Systems and Climate Change (PhD)
- Food Processing and Value Addition (PhD)

offered by the Federal University of Agriculture, Abeokuta (Nigeria)

Visit to the University: November, 19-22 2018

### Panel of Experts:

<b>Prof. Dr. Mamadou Diakité</b>	Fulda University of Applied Sciences, Department of Food Technology, Germany
<b>Prof. Dr. Jörg Szarzynski</b>	United Nations University, Institute for Environment and Human Security (UNU-EHS), Germany
<b>Prof. Dr. Mark Odhiambo</b>	Moi University, Department of Agricultural Economics and Resource, Kenya
<b>Dr. Bob Manteaw</b>	Africa Resilience Collaborative, Ghana (labour market representative)
<b>Anna Käferböck</b>	Student at School of Applied Science Wels, Austria (student representative)

### Coordinator:

Doris Herrmann	AQAS, Cologne, Germany
Patrick Heinzler	

## I. Preamble

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AQAS – Agency for Quality Assurance through Accreditation of Study Programmes – is an independent non-profit organisation, supported by more than 90 member institutions, both higher education institutions (HEIs) and academic associations. Since 2002, the agency has been accredited by the German Accreditation Council (GAC). It is therefore a notified body for accreditation of higher education institutions and programmes in Germany.

AQAS is a full member of ENQA and also listed in the European Quality Assurance Register for Higher Education (EQAR) which confirms that our procedures comply with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), on which all Bologna countries agreed as a basis for internal and external quality assurance.

AQAS is an institution founded by and working for higher education institutions and academic associations. The agency is devoted to quality assurance and quality development of both academic studies and teaching in Higher Education Institutions. The activities of AQAS in accreditation are neither restrained to specific academic disciplines or degrees nor to a certain type of Higher Education Institution

## II. Accreditation procedure

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This report results from the external review of the programmes in “Agricultural Economics and Environmental Policy” (Master and PhD), “Environmental Systems and Climate Change” (Master and PhD) and “Food Processing and Value Addition” (Master and PhD) offered by the Federal University of Agriculture, Abeokuta, Ogun State/Nigeria (FUNAAB).

### I. Criteria

The Master programme is assessed against a set of **criteria for programme accreditation** developed by AQAS. The criteria are based on the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) 2015. To facilitate the review each criterion features a set of indicators that can be used to demonstrate the fulfilment of the criteria. However, if single indicators are not fulfilled this does not automatically mean that a criterion is not met. The indicators need to be discussed in the context of the programme since not all indicators necessarily can be applied to a programme.

The PhD-programme is assessed against the AQAS **criteria for the accreditation of structured doctoral programmes**. The accreditation by AQAS is based on the following key concepts:

- The doctoral thesis is an independent, original academic piece of research. It can take the form of a monograph or a cumulative dissertation. The assessment of the originality is based on a set of criteria:
  - selection of the research topic,
  - formulation and development of questions around the research topic,
  - decision regarding the use of suitable methodological tools and methods,
  - the scientific research, and
  - the discussion and publication of research results.
- Doctoral programmes should foster subject-specific knowledge and, if possible, facilitate cross-disciplinary perspectives and inter-disciplinary exchanges.
- Doctoral programmes are carried out and completed within a specific timeframe.

The panel of experts was asked to assess the programmes on the basis of the relevant criteria and discuss the programmes separately, when needed.

## **II. Approach and methodology**

### *The initialisation*

The University mandated AQAS to perform the accreditation procedure in July 2017.

The University produced a Self-Evaluation Report (SER). In June 2018, the institution handed in a draft of the SER together with the relevant documentation of the study programme and an appendix.

The appendix included e.g.:

- Overview over statistical data of the student body (e.g. number of applications, beginners, students, graduates, student drop outs).
- CVs of the teaching staff
- Information on student services
- Core information on the main library
- Graduate academic regulations

AQAS checked the SER regarding completeness, comprehensibility and transparency. The final version of the SER was handed in August 2018.

The accreditation procedure was officially initialised by a decision of the AQAS Accreditation Commission on 20-21 August, 2018.

### *The nomination of the panel of expert*

The composition of the panel of experts follows the stakeholder principle. Consequently, representatives from the respective discipline/s, the labour market and students are involved. Furthermore, AQAS follows principles for the selection of experts of the European Consortium for Accreditation (ECA).

The Accreditation Commission nominated in August 2018 the before mentioned expert panel. AQAS informed the university about the members of the expert panel and the university did not raise any concerns against the composition of the panel.

### *The preparation of the site visit*

Prior to the site visit, the experts reviewed the SER and submitted a short preliminary statement including open questions and potential needs for additional information. AQAS forwarded these preliminary statements to the University and the panel members in order to increase transparency in the process and the upcoming discussions during the site visit.

### *The site visit*

After a review of the Self-Evaluation Report, a site visit to the university took place from 19-22 November, 2018. On site, the experts interviewed different stakeholders, e.g. the management of the HEI, the programme management, teaching and other staff, as well as students and graduates, in separate discussions and consulted additional documentation as well as student work. The visit concluded with the presentation of the preliminary findings by the group of experts to the university's representatives.

### *The report writing*

Following the site visit, the expert group drafted the following report, assessing the fulfilment of the AQAS criteria for programme accreditation. The report included a recommendation to the Accreditation Commission. The report was sent to the university for comments.

### *The decision*

The report, together with the comments of the department, forms the basis for the AQAS Accreditation Commission to make a decision regarding the accreditation of the programme. Based on these two documents, on 25/26 February 2019 the Accreditation Commission took its decision on the accreditation. AQAS forwarded the decision to the university. The university had the right to appeal against the decision or any of the imposed conditions.

In April 2019, AQAS published the report and the result of the accreditation as well as the names of the panel of experts.

## **III. General Information on the University**

### Standard PhD programme:

*The institution is entitled to award a doctorate.*

The Federal University of Agriculture in Abeokuta/Nigeria (FUNAAB) was established in 1988 by the Federal Government when four Universities of Technology, earlier merged in 1984, were de-merged. As stated in the Self-Evaluation Report (SER), FUNAAB is agriculturally inclined and is divided into ten colleges (College of Agricultural Management and Rural Development, College of Animal Science and Livestock Production, College of Biological Sciences, College of Engineering, College of Food Sciences and Human Ecology, College of Management Sciences, College of Physical Sciences, College of Plant Science and Crop Production and College of Veterinary Medicine).

The University is headed by the University council (led by the Chancellor and supported by the Pro-Chancellor). Furthermore, the University council consist of a Vice-Chancellor (who is the Chief Executive Officer of the University) and the Deputy Vice-Chancellor (responsible for Academic and Development). The day-to-day administration is led by the Chief Administrative Officer. The University Senate (which consists of the Vice-Chancellor, the Registrar, the Deputy Vice Chancellors, the university librarian, deans, academics directors, and other professors) keeps general control over the academic matters of the University and ensures the activities of CEADESE are in line with research and teaching/learning policies of the University. For Master and PhD study programmes the University has established a postgraduate school, which is led by a dean and supported by deputy deans of the postgraduate school and the secretary of the postgraduate school. The postgraduate school is responsible for the coordination, quality control of postgraduate studies and harmonisation of all postgraduate courses, programmes and regulations in all colleges and academic institutes at FUNAAB.

The daily operation of the Centre of Excellence in Agricultural Development and Sustainable Environment (CEADESE) is organised by the CEADESE director within the CEADESE board. The board has several sections according to the different tasks and responsibilities. Those section are: Monitoring and Evaluation Officer, Finance Officer, Budget Implementation Officer, Procurement Officer, Internal Auditor, National Institutional Partners representative (at least two) and African Institutional Partners representative (at least two). The CEADESE is part of the African Centre of Excellence (ACE) project, which was launched by the World Bank in 2013.

According to the SER, the objective of CEADESE is to strengthen human and material capacity for agricultural development. The Centre aims to focus on teaching, learning and research in agricultural productivity in the face of climate change challenges. The Centre runs jointly six M.AgSE and six PhD.AgSE programmes, whereby the CEADESE has the administrative lead and has set up positions such as programme leaders, assistant programme leaders or the Industrial Liaison Officer. Those positions form the board of studies at CEADESE, which takes decisions on academic matters such as admission of students, curriculum review, evaluation of research proposals and consideration of examination results. All M.AgSE programmes started in August 2014, whereas the three PhD AgSE programmes started in February 2014.

At the moment, FUNAAB has a total staff of 1,976 members, which includes academic and non-academic staff. The student population is currently 19,273 (about 2,538 pre-degree, diploma & Cambridge, 15,095 undergraduate students and about 1,640 graduate students).

#### **Preliminary Remarks of the Experts**

The panel of experts appreciates that FUNAAB applied for World Bank funding successfully and was able to develop and to offer some programmes which are urgently needed in Africa and may help to solve some major problems of the country and the region in the future.

One major problem of the assessment of the programmes was the documentation CEADESE handed in because some key information is lacking in the Self-Evaluation Report. As a consequence, the panel of experts had to ask for some information about processes and practices at FUNAAB and CEADESE during the site visit which was time-consuming. This situation made it more difficult for the experts to get a clear picture of the situation at the university and the centre.

Recognizing the fact that CEADESE has a longstanding tradition in the field of agricultural economics, food processing and hydrology, the experts gained the impression that the centre tries to include more modern and innovative academic fields (area of sustainability). In this area CEADESE apparently does not have a long-standing experience which might explain some of the shortcomings the panel of experts addresses.

#### **IV. Policy and procedures for quality assurance**

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##### Standards BA/MA programme:

*The programme is subject to the higher education institution's policy and associated procedures for quality assurance, including procedures for the design, approval, monitoring, and revision of the programmes.*

*A quality-oriented culture, focusing on continuous quality enhancement, is in place. This includes regular feedback mechanisms involving both internal and external stakeholders.*

*The strategy, policies, and procedures have a formal status and are made available in published form to all those concerned. They also include roles for students and other stakeholders. [ESG 1.1]*

##### Standards PhD programme:

*The results of the internal quality assurance management are taken into account for the further development of the doctoral programme.*

As outlined in the Self-Evaluation Report, FUNAAB has developed several levels of quality assurance mechanisms.

The university has implemented a strategic plan 2014-2019 which reiterates the commitment to quality assurance. The strategic plan includes an analysis on the actual situation and a SWOT analysis. The indicators outlined of the analyses comprise financial and human resources, internationalization, quality assurance, academic programmes, entrepreneurship or security. On uni-



versity level, FUNAAB has designed a university's quality assurance (QA) Policy, which aims to ensure the quality level in all academic areas, such as curriculum planning, delivery of course content, evaluation of courses as well as administrative unit processes. As outlined in the QA policy, FUNAAB tries to implement a QA system based on input QA indicators (such as quality of Teaching and lecturing staff, quality of equipment and laboratories or quality of student enrolment procedure), process QA indicators defining management responsibilities and output QA indicators (such as student success-ratio or stakeholder's satisfaction). As outlined in the SER, the university evaluates annually the quality of students and reviews the admission processes, if needed. Secondly, the university analyses the relevance of each programme in written reports. These reports cover topics such as study programme's profile and structure, methods of teaching and assessment, practical implementation, student evaluations or available resources. The analysis of these reports intends to lead to concrete measures which consist of several development steps.

Quality enhancement at the Federal University of Agriculture is furthered by the collection and analysis on student, staff and stakeholder's feedback. In addition to the feedback collected, unexpected inspection assessments are carried out in order to collect primary data by the quality assurance unit. The university states that each department has QA personnel who report periodically to the QA unit. These reports include the progress and challenges of the department. Furthermore, the university states that each programme has to undergo an internal review process which consists of two phases (academic audit cycle 1 and 2). The first academic audit cycle can be seen as a peer review by professors within the college. As stated, the evaluation is based on a systematized template and is carried out at the end of the first semester. A report will be generated afterwards. The second academic audit cycle focusses quality enhancement from an external point of view by professors outside the college. This will be done at the end of the second semester and a report will be generated as well. Newly developed programmes are subjected to internal and external review before approval by the postgraduate school and the university senate.

As stated by the university, the university also involves external and internal stakeholders. The listed external stakeholders include the National Universities Commission (NUC), Federal Ministry of Education, Federal Ministry of Agriculture, Federal Ministry of Environment and industry representatives, whereas internal stakeholders consist of Federal University of Agriculture members, teaching staff and students. The data and information are collected by doing review recommendations, feedback workshops, survey reports, student supervisory reports, student's quarterly progress reports, in-country supervisor reports and student course evaluation reports. Course evaluation is usually carried out after the completion of each course module (mostly at the end of the semester). The data of the evaluation includes the workload, contact hours, graduate's data, rates of student's progression and performance. The results of the quality assurance procedures are analysed and documented. Curricula modifications can be done based on the QA analysis results.

Being mandatory by Nigerian law, national accreditations procedures for all CEADESE programmes have been carried out successfully in April 2017 and all national regulations are applied accordingly as stated in the documentation. In addition, quality assurance teams from the NUC, the Association of African Universities (AAU), and the World Bank carry out biannual supervisory visits to CEADESE as part of ensuring quality of the programmes.

The SER describes that graduates have established an alumni platform to share ideas and which serves as an instrument for further collaboration. It is outlined that all graduates are regularly contacted for progress in their work and information. It is aimed that the graduates assume a university ambassador role for the centre. Graduates who require help in publishing will be supported and information on conferences is circulated to all graduates. CEADESE continues to support graduates through regular engagements and events. As outlined, the centre tries to bring alumni back to the centre as tutors but a typical trend in the fields is that Alumni will work in the industry.

## Experts' Evaluation

Based on the impressions gained during the site visit, the panel of experts concludes that the concerns about the efficiency of the internal quality assurance systems have to be considered as justified for CEADESE. The expert group was told by different CEADESE leadership bodies that the university has a quality system which informs all teaching, learning and administrative activities of the centre. However, upon evidence through meeting exchanges and documents, the panel of experts gained the impression that CEADESE does not seem to have a clear-cut quality assurance system. During the site visit, the expert group met with different leadership bodies of CEADESE including student representatives and industry stakeholders and in almost all meetings it became evidently clear that as much as there exists a leadership structure and the will to demonstrate that there is progress in that field, responsibilities and expectations are not clearly spelt out in the entire centre and also in the individual programmes. In the view of the expert panel it seems that there are currently too many people with different roles involved. This has to be seen as an unrewarding way to establish a good and fit for purpose quality assurance system. Apart from this, it is noteworthy that the Master programmes "Agricultural Economics and Environmental Policy" and "Environmental Systems and Climate Change" do not have internal QA systems at the moment. This clearly needs to be addressed properly by the centre and has been already notified by the National University Commission (NUC) which carries out national accreditations. It stays unclear how recommendations from these past accreditations have been considered. Therefore, responsibilities for QA and the core processes of QA within CEADESE must be transparently defined and the stakeholders have to be informed about them **(Finding 1)**.

The panel of experts got the impression that the CEADESE programmes have not gone through an internal (central) QA process of the University and therefore have some shortcomings which could have been solved beforehand by internal discussions and measures. The experts share consensus view that the curricula lack clarity and that the lack of an up-to-date documentation leads to severe problems for the experts and – even more severe - for the students to understand the programmes. Some years ago, the centre made some changes regarding course contents and study programme titles to become more attractive to students, which is completely legitimate and makes sense in the light of the World Bank funding. Nonetheless, those changes obviously have not been a subject of discussion in an adequate manner. Undoubtedly, such a situation presents only confusion to students as they may enrol in the programme based on programme titles and will not get the knowledge they thought they would get. Therefore, the profile of some of the programmes has to be sharpened and the documentation of the curricula must be revised **(see Finding 5)**.

During the site visit there was evidence that course and lecturer evaluations took place. Selected samples of student evaluation of courses were available. As much the expert panel appreciates this and sees value in that in terms of quality assurance, it is the view of the panel that this could be improved by expanding and deepening the kinds of evaluation questions that were presented to students. In other words, as much as there is a mechanism to evaluate course and lecturer performance, it was not comprehensive why other aspects of the teaching and learning processes such as equipment, environment, and contexts, and other support services that may facilitate or impede learning, are left out. Furthermore, it was not clear how students' evaluations were communicated to the centre and vice versa. CEADESE must revise its instruments for QA (e.g. the questionnaires for evaluating the programmes), including questions which address the programme as a whole, as well as the learning environment and support services and also add questions about the student workload. Moreover, the centre must develop a process how the results of the evaluations are shared (at least in an aggregated manner) with the stakeholders **(Finding 2)**.

The panel of experts appreciated the very open discussion with the representatives of the labour market during the site visit, which is also an indicator for a good relation between CEADESE and

the labour market. All representatives from the practice appreciate the existence of the centre, but they all agreed that such relationships could be made better by regular and purposeful engagement. As it stands now, apart from sending students for internships in some organisations, the level of input or feedback from the labour market to the centre is scanty or does not exist at all and this might indicate that there is no labour market involvement or influence on quality assurance processes. The Centre should develop a formal Memorandum of Understanding which suggests how the interlinkage with the labour market can be strengthened **(Finding 3)**.

During the site visit, CEADSESE handed in “internship log books” written by students to give evidence on quality assurance but, although the expert panel appreciates this as a step in the right direction, a more detailed look into the texts evoked the impression that the students do not take this task seriously and that it is only a routine practice. Moreover, there is no section in the log book that allowed the internship organization to provide feedback. The panel of experts sees this as a shortcoming because it seems that there is no opportunity for labour market representatives to provide feedback that will enhance the quality of the programme.

The panel of experts discussed with students during the site visit and got the impression that CEADSESE has a good and trustful relation with its students. Currently, it is not fully transparent how experiences from student advisory bodies/groups are used for the enhancement of the programmes. Additionally, it has to be noted that the centre has not yet put in place a systematic mechanism to track and trace the progress of their alumni and to use their experiences on the labour market to enhance the programme’s quality or to further develop the programmes. Currently, this is done on an informal basis and should be formalized in the future. Processes to collect regular feedback from the labour market as well as from the alumni must be implemented. Data on student progression and competition rates must be followed and should be handed in when the reaccreditation takes place **(Finding 4)**.

## Conclusion

The panel of experts appreciates the effort CEADSESE has made to implement innovative academic programmes. Nevertheless, the experts also detect a lack of evidence concerning some aspects which are crucial for the quality of the programmes. For example, evidence is missing how processes are defined, how outcomes are analysed and summarized and how decisions and measures for improvement are taken. It seems that some QA processes are critically deficient in certain key areas and it is unclear if serious measures are taken to guarantee the academic level of these programmes. Therefore, the criterion is not fulfilled.

## V. Quality of the curriculum

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### Standards BA/MA programme:

*The intended learning outcomes of the programme are defined and available in published form. They reflect both academic and labour-market requirements and are up-to-date with relation to the relevant field. The design of the programme supports achievement of the intended learning outcomes.*

*The academic level of graduates corresponds to the requirements of the appropriate level of the European Qualifications Framework.*

*The curriculum’s design is readily available and transparently formulated. [ESG1.2]*

### Standards PhD programme:

*The institution defines the aims of the doctoral programme.*

*The doctoral programme is aligned with the aims of the defined qualification.*

The doctoral theses provide evidence that the appropriate level on the European Qualifications Framework (EQF) or the respective level on the national qualifications framework for the award of Higher Education degrees have been achieved.

Doctoral programmes are structured in such a way - with regards to the research content and the required time - that students are enabled to progress efficiently through all stages of their research and achieve their doctorate within an appropriate timescale.

## 1. General Information on the Master programmes

The programmes have a modular structure and are differentiated in *centre courses*, *specific programmes courses*, *an internship* and *the thesis courses*. As stated by the University, the total structure of each Master programme comprises a maximum of 48 Credit Points (CP) and can be divided into general centre courses (10 CP), programme specific courses (23 -28 CP; differ for each programme), up to two internships with a length of 3-6 months (2-4 CP), seminar (2-3 CP) and Master Thesis (6 CP). According to the Self-evaluation report all Master programmes are designed to be completed within two years.

As outlined in the postgraduate prospectus the *centre courses* can be divided into *compulsory courses* (worth 8 Credit Points) and *elective language courses* (worth 2 CP). The compulsory centre courses are "Climate Change and Agriculture" (2 CP), "Information Systems and Agricultural Knowledge Management" (3 CP) and "International Trade and Commercial Policy" (3 CP). As elective centre courses students can either choose "Short English language course" (2 CP) and "Short French language course" (2 CP). This means that each Master programme has centre course to the extent of 10 CP.

According to the postgraduate handbook, the general structure for Master programmes can be plotted as follows:

1. centre Courses (10 CP) including:
  - Climate Change and Agriculture (2 CP; first semester)
  - Information Systems and Agricultural Knowledge Management (3 CP; second semester)
  - International Trade and Commercial Policy (3 CP; second semester)
  - Short English or French Language Course (2 CP; first semester)
2. Programme Specific Course (23-28 CP)
3. Internship(s) (2-4 CP; first and second semester)
4. Seminar Courses (2-3 CP) including:
  - Pre-Data Seminar (first semester)
  - Post-Data Seminar (second semester)
5. Thesis (6 CP)

The courses for Master students shall be completed within the first year and the second year will cover research activities for the Master Thesis. The internships will be done at the end of the second semester. The courses are delivered in the form of lectures, workshops and field visits.

### Experts' Evaluation

The university practice is to designate so called "800 range" courses for masters' level and "900 range" for doctoral level courses. However, it was very rare for the panel to identify "900 doctoral level courses" in the curricula. Most courses seem to be offered within the "800 range" – also for PhD students. CEADSE gave the reason for this situation, that the competencies of the PhD students which apply for the programmes are critically examined and quite frequently some competencies are lacking which makes it necessary for them to take "800 level courses". To the panel of experts it stays unclear what standards CEADSE/the university had set for the different category of programmes. Therefore, the level of the programmes must be defined on the basis of the

national or European Qualification Framework (EQF). It has to be shown that the intended learning outcomes address these different levels (Master and PhD) and that the distinction is transparent for stakeholders (**Finding 5**).

To make visible the added value of the ACE programmes in comparison to the traditional programmes, the alignment of sustainability for all programmes has to be customized for each programme. Therefore, the composition of courses for all programmes needs to be revised (**Finding 6**):

- The course descriptions have to be revised. The learning outcomes have to be aligned with the course descriptions. Also, it needs to be checked if the course content, the course description and the course title are in line (**Finding 6a**).
- The internship for Master and PhD programmes should be extended. The internship options for students should be extended both on national and international level. One way to strengthen this could be to institutionalize the network by signing more MoUs (**Finding 6b**).
- The ACE should implement practical experiences on a more international level. A possible way to do so is to use so called global scenarios on agricultural topics (**Finding 6c**).
- CEADESE should implement more entrepreneurial content in the programmes (**Finding 6d**).

The programmes themselves apart from going through national accreditation do not seem to have undergone any recognizable evaluation or advice from either stakeholders or even from FUNAAB itself. The lack of exchange with other universities in Africa and abroad which offer similar programmes leads to the situation that the panel of expert suspects that some of the courses available at CEADESE are scanty and inadequate to lead to the stated learning outcomes and to the qualifications the programmes are targeting at. The panel of experts spent quite a lot of time trying to understand why certain expected courses are not offered in the stated programmes to make them comparable to other programmes. In all instances, the answer was that CEADESE has concerns concerning the student course load and did not want to overburden students with extra courses. Nonetheless, the panel of experts requests that CEADESE when the profile of the programmes is sharpened also checks the usefulness of each of the courses in the programmes, eliminates some of the courses offered and includes others which are available at FUNAAB but not at the centre itself (**Finding 6**).

### **1.1 Agricultural Economics and Environmental Policy (Master)**

The Master programme “Agricultural Economics and Environmental Policy” aims to train Agro-Industrial managers who are sound in (sustainable) policy formulation and are asset in both public and private decision making. Furthermore, it is aimed that graduates are rather self-employed than employers. The programme shall take into account the lack of suitable manpower in that field and shall combine theoretical and practical aspects, so that graduates can design, perform, lead and implement economic research in Agricultural Economics and Environmental Policy. According to the university, students have to choose one elective course during their first two semesters. The options for the first semester are “Ecology of Food & Health Economics”, “Integrated Economic Modelling and Sustainable Development” or “Food Business Management and Entrepreneurship”, whereas the options for the second semester are “Applied Welfare Economics” or “Organization & Management of Cooperative”. Each elective course equals 2 CP. Additionally to the under 5.1 mentioned structure, a typical plan of study could be shown as follows:

*First semester:*

Two Centre Courses (4 CP), “Advanced Agricultural Economics (Micro & Macro)” (3 CP), “Econometrics”, Statistical Theory and Analysis” (3 CP), “Agricultural Development and Policy Analysis”

(3 CP), “Agricultural Production Economics” (2 CP), “Financial Management and Accounting” (2 CP), pre-data seminar (1 CP) plus one elective course (2 CP),

*Second semester:*

Two centre Courses (6 CP), “Resource and Environmental Economics” (2 CP), “Research Methodology and Experimental Design” (3 CP), “Farm Planning, Monitoring and Evaluation” (2 CP), “Marketing & Agro-Industrial Supply Chain Management” (2 CP), post-data seminar (1 CP) plus one elective course (2 CP).

### **Experts’ Evaluation**

This assessment is based on analysing the programme in terms of its content, mode of delivery, method of testing and grading of students and inbuilt quality assurance procedures. The objective of each course must be tied to and reflect the content and learning outcomes, which should provide information on what the learner is expected to achieve after going through the courses (**see Finding 6a**). In this respect, the evaluation uses standards and criteria benchmarks, which provide frame of reference for comparison to similar programmes internationally.

In general, most of the courses or modules offered in the M. AgSE degree programme have good objectives and satisfactory expected learning outcomes. However, there is still need for improvement as suggested in the sections that follow below. For ease of exposition and to avoid subjective evaluation, this part will give specific comments on specific courses offered in the programme not necessarily in order of importance, but rather in the order in which they are presented in CEADESE brochure and in the SER provided to the panel of experts.

The overall philosophy of the degree programme is adequate both in form and content and seems to fit in well with the programme objectives. However, the last sentence stated in the philosophy seems to limit the scope of the programme coverage to livestock production. The philosophy should broadly include solving problems in the production, marketing, financing and sustainable management of resources including livestock and crop production systems. The objectives of the programme are good and adequately reflect its intended achievements and output in terms of highly trained professional graduates capable of solving agricultural and environmental challenges and problems facing countries in the region and Africa at large.

The panel of experts is convinced that the programme has the potential to be useful and innovative if it was carefully revised. The course title as it stands suggests a very interesting combination that could help students to see the links between different aspects of agricultural economics and environmental policy or decision making. However, in its current form both programmes have to be reconsidered with all seriousness. One problem is that the title is misleading. In case CEADESE really wants to bring two interesting themes together and targets to train 'Agro-Industrial managers who are sound in (sustainable) policy formulation', then there must be offered a course that addresses the issue of policy in environmental decision making or even in agriculture (**Finding 7**). This is a serious omission that needs to be addressed at both levels if indeed the course aims at bringing agricultural economics and environmental policy together.

The structure of the M. AgSE programme is well articulated with respect to how the taught courses consist of the core, compulsory, elective, seminar and internship fit within the two years each made up of two semesters.

The Centre Compulsory Core Courses consisting of ACE 801 (Climate Change and Agriculture), ACE 802 (Information Systems and Agricultural Knowledge Management), ACE 804 (International Trade and Commercial Policy) and GES 801/GES 803 (Short English /French Language Courses) are assessed as necessary and relevant for the programme. The contents are appropriately pitched and offer the students appropriate knowledge and skills to be able to infuse important aspects of these courses into their specialization courses in Agricultural, Resources and Envi-

ronmental Economics. These courses, therefore, together with the other core and elective courses in general and applied economics in this degree programme will produce professional economists with balanced knowledge and skills for modelling environmental and climate change challenges.

The courses ACE 893 (Internship 1) ACE 894 (Internship 2), ACE 895 (Pre-data Seminar 1), ACE 896 (Post-data Seminar 2) and ACE 899 (Thesis) are compulsory as the other Centre Core Courses discussed in the last section. These courses are systematically distributed and appropriately scheduled during the two years of the degree programme. The course units, regulations and the methods of supervision, testing and grading are properly spelt out. Interviews with the current cohorts of students indicated that students are satisfied with regulations, mode and status of these course offerings and management. However, as mentioned in this report, the feedback from industry and labour market representatives indicated that these stakeholders would like the internship to take longer than currently scheduled (**see Finding 6b**). Thesis writing is an important component of the programme and is adequately catered for in terms of duration, units, supervision, sequencing, final examinations, grading and meeting the requirements for graduation at Master's level.

The comments in this section of the report are limited to the fundamental courses -both compulsory and electives - which are meant to produce the graduates as competent and accomplished agricultural and applied economists. These include courses listed as AES 801, AES 802, AES 804, AES 805, S 806, AES 807, AES 808, AES 809, AES 810, AES 811, AES 812 and AES 813. In general, these courses are quite good and are adequately pitched to a level appropriate for any Master's degree in Agricultural and Applied Economics with emphasis on the exploitation and management of natural and environmental resources.

The following courses, however, need some improvement in terms of contents, objectives and learning outcomes.

#### *AES 801 Advanced Agricultural Economics (Micro and Macro)*

This course ought to be split into two separate courses comprising Microeconomics (AES 801A) and Macroeconomics (AES 801B) giving a full and balanced emphasis to both in terms of contents, objectives and learning outcomes (**Finding 8**). As presented, the content coverage is more biased towards microeconomics at the expense of macroeconomics. This applies for the stated objectives and expected learning outcomes of the course. Similar programmes in other universities in Africa, Europe and America invariably present this course as two separate units. If the course is split as recommended here then the content, objectives and learning outcomes for macroeconomics must be increased.

#### *AES 803: Econometrics, Statistical Theory and Analysis*

This is another course that should be split into two as Econometric (AES 803A) and Statistics (AES 803B) with each having balanced contents, objectives and learning outcomes (**Finding 8**). Again, this is invariably done in most of the universities offering similar programmes elsewhere. The codes for the courses can be given any numbering system indicating they are 800 level courses without attaching the letters A or B. The course as offered now is satisfactory in Econometrics but weak on statistics in terms of content, objectives and expected outcomes.

#### *AES 805 Agricultural Development and Policy Analysis*

Here again is another course that would benefit from being split into Development Economics/ Agricultural Development and Agricultural Policy (**Finding 8**). As prescribed now the course con-

tent and expected learning outcomes are heavy on Agricultural Development but are weak on policy analysis.

The monitoring courses in the degree programme are satisfactory in terms of level of pitching, content, objectives and expected outcomes. These include AES 802 (Resource and Environmental Economics); AES 804 (Research Methodology and Experimental Design); AES 806 (Applied Welfare Economics); AES 807 (Agricultural Production Economics); AES 808 (Farm Planning, Monitoring and Evaluation); AES 809 (Ecology of Livestock, Food and Health Economics); AES 810 (Marketing and Agro-Industrial Supply Chain Management); AES 811 (Financial Management and Accounting); AES 812 (Organization and Management of Cooperatives) and AES 813 (Integrated Economic Modelling and Sustainable Development).

All these courses just listed are satisfactory, but could be improved by revisiting some of them to align their content coverage with their respective objectives and expected outcomes and by updating the references and other reading materials including hard copies and electronic professional journal articles. Indeed, this remark is relevant for all the courses in this programme.

A fundamental and necessary course on Mathematics for Economists is missing in the programme. Such a course for the Masters students at this level must be added to the programme to ensure the students have essential mathematical concepts needed in the analysis and modelling in production, marketing, and policy formulation (**Finding 9**). In any study programme at Master's level in general or applied economics, students are expected to be equipped with linear algebra, differential and integral calculus including static and dynamic optimization techniques used in economics. This course should be pitched at 800 Master's level just slightly below the PhD Advanced Mathematics for Economists, which the experts have also recommended to be included in the PhD Ag.SE programme for Agricultural Economics and Environmental Policy.

A striking observation is that mathematics only appears in M. AgSE in Environmental System and Climate Change as ESC 801 (Mathematical Methods and Numeric Application). However, this course is not suitable for Economics as it is structured for engineering related training.

## Conclusion

The conclusion is that the criterion is only partially fulfilled as judged by the expected qualification standard and benchmark. Although the degree programme has some good and strong features in terms of its relevant innovative and unique curriculum structure and content in the region, it stands to benefit from further improvements by splitting some courses and adding a few new ones. This aspect has been elaborated upon within the report and can only be summarized as follows:

- a. The AES 801 course on Advanced Agricultural Economics (Micro and Macro) should be split into Microeconomics and Macroeconomics with the necessary equal and balanced emphasis on their respective course objectives, expected learning outcomes and contents. As presently prescribed there is more emphasis on Microeconomics at the expenses of Macroeconomics.
- b. The Econometrics, Statistics Theory and Analysis (AES 803): This course again has more emphasis on Econometrics than on statistics in terms of contents, objectives and expected outcome. It should be split into Econometrics and Statistics for Economists.
- c. The course on Agricultural Development and Policy (AES 805) has more emphasis on Development and less on Policy and should also be divided into two courses as already discussed elsewhere in the report.
- d. One great omission which must be introduced at an 800 level course is Mathematics for Economists.
- e. It is worth noting that the major core courses that must be included in any curriculum for general or applied economics Masters' programme are Microeconomics, Macroeconom-



ics, Mathematics for Economists, Econometrics and Statistics for Economists. These courses impart the toolkits in terms of knowledge, skills and techniques required for economic analysis and modelling of problems in production, resource and environmental management, marketing, development and policy issues facing many nations.

- f. If and when some of these courses are formulated in a combination of two or more courses, then every effort must be made to ensure that such compounded courses contain balanced content, objectives, expected learning outcomes and time allocation for each of the generic components.

## **I.2 Environmental Systems and Climate Change (Master)**

The programme aims to foster multidisciplinary research on the issue of environmental sustainability with the aim of improving agricultural development under climate change scenarios. As stated by the university, the programme is designed to provoke a multidisciplinary approach in tackling complex environmental issues. Graduates shall be able to mitigate the risks posed by climate change to the environment. The study programme involves theoretical, practical, computational and internship components that will be needed to address emerging environmental challenges. It is aimed that graduates will have knowledge in different applications of the environmental systems, will have managing skills related to environmental safety or will be capable to develop environmental early warning systems and prediction for sustainable agriculture and national development.

Additionally, a typical plan of study could be shown as follows:

First semester:

Two centre courses (4 CP), "Mathematical Methods and numerical applications" (3 CP), "Fluid Mechanics" (2 CP), "Hydrological Measurements and Analysis" (3 CP), "Environmental Simulation Modelling" (3 CP), "Climate Change Processes, History and Contemporary Issues" (2 CP), "Remote Sensing, GIS and Land Management" (3 CP) and "Waste Water Management and Pollution Control" (3 CP),

Second semester:

Two Centre Courses (6 CP), "Environmental Economics" (1 CP), "Environmental Safety and Protection" (2CP), "Soil Processes assessment and Management" (2 CP), "Climate Change Impacts, Ecosystem Management and Sustainability" (2 CP) and "Environmental Impact Assessment and Safeguard Policies" (2 CP).

### **Experts' Evaluation**

The programme "Environmental Systems and Climate Change" is a valuable strategic enrichment within the scientific community of the West African context and beyond and it provides the capacity to address climate and environmental challenges in the sub-region. However, to emphasise the added value of the centre programmes in comparison to existing traditional programmes, the alignment and dimension with regard to sustainability in agriculture needs to be strengthened and customized for this programme. In consequence, the composition of courses also for this programme needs to be revised (**see Finding 6**).

The desired qualifications to be achieved during the programme are presented as intended learning outcomes. They are both subject-specific and interdisciplinary in nature. Although geobiophysical aspects of the study programme, including soil processes, waste water management, climate change processes and impacts, remote sensing, environmental economics and also aspects such as safety and protection or impact assessment are adequately covered, there seems to be a shortcoming with regard to the role of the global Climate Change Negotiation Process as

led by the UN Climate Change secretariat (UNFCCC) and conducted through the Conference of the Parties (COP), where Member States who adopted the United Nations Framework Convention on Climate Change come together on a regular basis. With the subsequent adoption of the Paris Agreement in 2015, parties to this agreement have progressively reaffirmed to collectively support the global response to the threat of climate change. The intended learning outcomes of the programme therefore need to be enhanced in order to cover the aspects mentioned above.

The programme started with the original title: “Hydrology and Climate Change”. Given the thematic gaps as described above, the intended learning outcomes are not fully updated in accordance with the new title and current developments in the academic/scientific field or/and labour market. In consequence, course content, descriptions and learning outcomes need to be revised and aligned with the new conceptual orientation of the programme (**see Finding 6**).

The academic degree awarded to the graduates Master Degree in Agricultural Development and Sustainable Environment – (M.AgSE) does neither correspond to the learning outcomes of the programme entitled “Environmental Systems and Climate Change”, nor to the requirements of the appropriate level of the European Qualifications Framework (**see Finding 5**). The extended title: “Environmental Systems and Climate Change with options in Hydrology and Climate Change, Environmental Geophysics, Remote Sensing and Climate Change, and Environmental Safety” is more adequately capturing the important Earth System Science components of the programme, but it is simply too long to be recognized as a professional title. In its current form, M.AgSE, the title might limit the professional scope of graduates since potential employers cannot recognize the broad portfolio of this environmental and climate change related study programme (**see Finding 25**).

The curricular structure of the programme partially supports the achievement of the learning outcomes. All curricular elements (courses/modules) and their functions are documented. The curriculum defines which elements are compulsory and which are electives. However, some of the elective courses, for instance “Environmental Safety and Protection”, “Soil Processes Assessment and Management”, and “Environmental Impact Assessment and Safeguard Policies” largely enhance and deepen the scientific understanding of students and therefore have to be classified as compulsory courses (**Finding 10**). On the other hand, courses such as “Fluid mechanisms” might be streamlined in order to allocate time for integration of further essential courses enriching the curriculum (**see Finding 6**).

There is an idealised typical course plan available. The order of curricular elements supports the learner’s progression. Taking into account the limitations caused by elective courses as mentioned above, the curriculum generally covers subject-specific and cross-subject knowledge, as well as subject-related skills. With regard to methodological and more general soft skills or professional skills, the curriculum can still be improved. In addition, the centre should integrate more innovative teaching components, such as scenario-based simulation exercises at international level, in order to enhance practical experience and professional know-how of students based on experiential and situated learning (**see Finding 6c**).

The curriculum defines which elements/courses are offered exclusively for the programme and which parts are used in other programmes. Curricular modifications after the renaming of the programme are not fully documented in a transparent manner and therefore the change in title is not fully reflected in the choice of new courses intended to contribute to an improvement in programme quality.

After the profile of the programme is sharpened, courses have been removed or added most likely the final exams most likely can demonstrate that the intended level of qualification has been achieved after completing the programme. All elements of the curriculum are assigned a certain

number of credits directly related to the expected workload. The total programme workload is allocated to the different courses/modules.

## **Conclusion**

In summary, the criterion is partially fulfilled, especially with regard to thematic gaps, the partially conducted upgrade of the intended learning outcomes and some potential limitations caused by the technical equipment of the agrometeorological measurement station available on campus (see below).

### **I.3 Food Processing and Value Addition (Master)**

The programme aims to focus on the current changes in the food industry (shift from supply-oriented to demand-oriented processes leading to substantial value addition). The programme takes into account the global demand of safe food due to the rapid demographic changes worldwide. Graduates of the programme shall be competent food processors and value addition experts with a high entrepreneur orientation and the adequate knowledge and skills in livestock food processing and value addition to products derived from meat, chicken, milk and fish. According to the university, students have to choose one elective course during their first two semesters. The options for the first semester are “Food Laws, Legislation and Policy”, “Special Topics in Sensory Analytics” or “Industrial Drying of Foods”, whereas the option for the second semester is “Topics in Raw Material Sourcing”. Each elective course equals 2 CP.

Additionally, a typical plan of study could be shown as follows:

First semester:

Two Centre Courses (4 CP), “Food Processing Technology” (3 CP), “Special Topics in Food Chemistry and Biochemistry” (2 CP), “Special Topics in Food Microbiology and Safety” (2 CP), “Food Business Management and Entrepreneurship” (2 CP) plus one elective course (2 CP).

Second semester:

Two Centre Courses (6 CP), “Recent Development in Food Processing, Value Addition and Value Chain Development” (1 CP), “Planning and Analysis of Experiments” (2 CP), “Livestock Products Processing Practical” (2 CP), “Food Product Development” (2 CP), “Physical and Engineering Properties of Foods and Biomaterials” (2 CP), “Process and Plant Design for the Food Industry” (2 CP), “Advanced Quality Management” (2 CP) plus one elective (2 CP).

### **Experts’ Evaluation**

Although Africa is one of the most important suppliers of raw materials for coffee and cacao worldwide, the value chains have all been relocated abroad. For FUNAAB, the study programme “Food Processing and Value Addition” offers the opportunity to strategically position itself in the area of food processing. Therefore, the degree programme “Food Processing and Value Addition” is of strategic importance not only for Nigeria but for Western Africa in general and beyond. In order to properly be prepared for the challenges of the future, the Master programme “Food Processing and Value Addition” must be optimized in terms of content and structure.

Food processing is highly application-oriented and applications are based on experience. CEADSE is still very young and it takes time to gain experience in food processing, especially in food processing and value addition. It is not enough just to have cooperation partners. Most important is the necessary strategic orientation to be able to use existing experiences on international level. The centre should think about implementing practical experiences on a more interna-

tional level. A possible way to do so is to use the opportunity to cooperate with international partner outside Africa (see **Finding 6c**).

In order to improve the desired quality level of the programme, practical relevance must be given priority. The prerequisite for this is that the necessary facilities and equipment for the completion of the practical elements are available. Since this is currently not the case, external ways to remedy this weakness should be used as they exist according to the labour market (see **Finding 6c**).

Food Processing is a programme that is strongly oriented to the needs of the industry. Therefore, it is also understandable that the practice phase is completed in the industry. Additionally, the necessary entrepreneurial orientation of young graduates can be achieved by targeting the content of the study programme. Although this has already been taken into account in the Master programme through the module FPV 821 (Food Business Management and Entrepreneurship), the content must constantly be adapted to the state of technical development. In addition to the internship, CEADESE should implement entrepreneurial content in the study programme (see **Finding 6d**).

The academic degree awarded to the graduates is a weak point of the programme “Food Processing and Value Addition”. In its current form, M.Ag.SE, the title might limit the professional scope of graduates since potential employers cannot recognize the broad portfolio of the “Food Processing and Value Addition” study programme (see **Finding 25**).

The curricular structure of the study programme partially supports the achievement of the learning outcomes. Curricular elements (courses) and their functions are not completely documented. The curriculum structure of the study programme should be presented in a more transparent and clear way. This presupposes that all necessary programme information is structured in a document. A programme handbook is already available, but still has to be improved in terms of content and structure. In the CEADESE handbook, only module contents were considered but not a complete module description. For example, the module FPV 804 (Planning and Analysis of Experiments) is mentioned in the SER but it cannot be found in the Programme Handbook. FUNAAB has to draft a handbook including course descriptions of all existing modules for the specific programmes (see **Finding 6a**).

In addition, it is difficult to distinguish between electives and compulsory modules as in the handbook available. The significance of the modules 802 (“Seminar on Recent Development in Food Processing, Value Addition and Value Chain Development”) and 803 (“Food Processing Technology”) for the study programme stays unclear (see **Finding 6**). By contrast, a module “Product Design” (the basic of product and process Engineering) is missing. Product Design consists of Experimental Design and Case Studies. The module FPV 804 (Planning and Analysis of Experiments) is a good basis for a missing Module “Product Design”; however, this module cannot replace “Product Design”. Therefore, the module FPV 804 is to be named “Product Design” and to adapt the contents. In addition to experimental design (Planning and Analysis of Experiments), different case studies based on rheological models for “Product Design” for all food types from plant as well as animal origin have to be considered (**Finding 11**).

There is an idealised typical course plan available. The order of curricular elements supports the learner’s progression. Innovative software-based learning methods like “Design expert” is available for the programme, which deserves to be appreciated because it is very innovative. The curriculum defines which elements/courses are offered exclusively for the programme and which parts are used in other programmes. Curricular modifications after the renaming of the programme are not fully documented in a transparent manner.

The final thesis exams demonstrate that the intended level of qualification has been achieved after completing the programme. All elements of the curriculum are assigned a certain number of

credits directly related to the expected workload. The total programme workload is allocated to the different courses/modules but the centre needs to show that the credit system at FUNAAB can be transferred to the European or American system (**see Finding 23**).

## **Conclusion**

In summary, the criterion referring to the programme objectives is only partly fulfilled, especially with regard to thematic gaps, the partially conducted upgrade of the intended learning outcomes and some potential limitations caused by the unusual academic degree.

### **I.4 Labour Market Orientation of all Master Programmes**

CEADESE has emphasized both in documents and in face-to-face meetings with the panel of experts that a key objective of the centre is to produce graduates who are well prepared to be self-employed and to function effectively on the labour market. This was a very well appreciated position by the panel and it seems that it is a vision and mission shared by the university.

In pursuit of this mission, FUNAAB as a foremost agricultural university has established different “avenues” both on the campus and outside that provides students with the requisite opportunity and exposure to experience industry culture and to acquire some field-based insights. A good example of such an “avenue” on the FUNAAB campus is the existence of an entrepreneurial centre and a food processing centre which are supposed to provide students of the university with the opportunity to acquire entrepreneurial skills.

These are good initiatives and CEADESE has taken advantage of it to stress the point that the centre is committed to making its graduates self-employed. Even though this is clearly expressed, there is no clear mechanism that shows how CEADESE is taking advantage of the entrepreneurial centre in the training of its students. Also, there are no mechanisms in the different courses or programmes that link what is studied at CEADESE to the offers of this entrepreneurial centre (**Finding 12**).

A key aspect of the CEADESE programmes is the centre’s commitment to creating opportunities for students to go on industry-based internships. The panel of experts appreciates it, however, there are aspects of the processes that need to be improved. For instance, the feedback loop is not clear as there is no indication that industries provide any sort of reporting such as feedback on the students and their experiences to the centre (**see Finding 4**). The log book that is lodged in the internship organization contains structures which can bias students to produce reports.

The centre also institutionalized so-called “industry supervisors”. This again is seen as a favourable idea by the experts; however, there was no evidence of who the industry supervisors are and what specific role they play. It was the overall view of the panel that even though the internship is institutionalized, it is only in fulfilment of a desire without the necessary measures to ensure that it actually brings a level of quality to students’ training and also mechanisms that ensure students’ access to a wider area including international networks (**see Finding 4**).

The panel met with representatives from the labour market and it was quite clear that even though there is a relationship between labour stakeholders and CEADESE, there is no evidence of formalization of such relationships. Labour market representatives clearly showed interest in an improved relationship. They were, however, concerned that the internship duration is too short and does not allow students to fully settle and learn what they need to learn during these internships. The stakeholders believed the short duration of the programme does not allow students to acquire the needed skills and knowledge required for the modern labour market and this has to be considered against the background of a general industry concern about the quality of human re-

source in Nigeria today. This was a fact that was affirmed by students. Students also asked for longer internships and in different branches if possible international.

The stakeholders from industry suggested that there should be regular interactions between the centre and them to use such interactions to improve students' industry experience as well as provide the centre with feedback to be acted on (**see Finding 4**).

It was obvious to the panel of experts that even though there is a stated and demonstrated desire by CEADESE and the university management to provide students with the essential experiential learning opportunities in industries, much more could be done by the centre in particular to engage with the private sector to create a broad industrial network from which students could choose partners for internships. Also, an effort should be taken to expose students to international or regional opportunities that could allow them to travel beyond their locales for internships.

## **Conclusion**

Based on the assessment of the different programmes and from the different interactions with students, faculty and the industry stakeholders, it became clear that even though FUNAAB and CEADESE both are committed to internships, much more activities could be taken on an operational level to enhance student learning. There is need for a formalized process through purposeful and conscious engagement with the private sector to increase opportunities as well as deepen the experiences that students derive from internships. Finally, it could well be said that the internship component of the different programmes gives the centre a unique opportunity and a marketing tool that could be used to brand the centres programmes as well as to attract a diversity of students from around the world.

The labour markets representatives obtained the impression that CEADESE in general should have more linkages and joint activities with them for mutual benefits.

## **2. PhD AgSE programmes**

The PhD programmes are research based and have a duration of six semesters. The university provides prospective students the postgraduate handbook which includes a timeline for students in order to complete the PhD programme in sufficient time. This timeline starts with the submission of a research concept note, which should be done within six weeks (maximum within the first semester) after the admission into the PhD programme. The presentation of the first non-thesis seminar, the research proposal seminar and the second non-thesis seminar should be done within the first three semesters after the admission into the programme. The presentation of the post-data seminar can be done either at the end of the third semester or during the fourth semester. Nonetheless, the post-data seminar can only be presented six months after having presented the pre-data seminar. The PhD programmes end with the presentation of the final public defence of the dissertation. Students should start working on the final presentation before the end of their fourth or during their fifth semester to finish their PhD in due time. The above listed general centre courses will be taken by PhD students as well.

## **Experts' Evaluation**

### **II.1 PhD programmes offered by CEADESE**

As written in the CEADESE brochure and in the SER, the PhD programmes at the centre are research based. Indeed, for those admitted students coming from the Master programmes offered by the centre, the only courses they have to take are those listed as seminars (1, 2, and 3, i.e. ACE 995, ACE 996 and ACE 998), Internships 1 and 2 (i.e. ACE 993 and ACE 994) and Thesis

defence (ACE 999). However, students admitted for PhD but with Master degree from outside the centre programme are required to take and pass the CEADESE compulsory M. AgSE core courses in addition to these 900 level seminars, internships and thesis courses before graduation. The PhD programmes as prescribed at the centre are deficient due to lack of 900 level theoretical and applied taught courses that expose the graduates to analytical toolkits and techniques required at this level.

The panel of experts concluded that the PhD courses at the centre are not adequate both in structure, form and content. Without taught courses, it becomes difficult to distinguish the PhD AgSE from the M. AgSE degree programmes in terms of progression from the Master's level. The offered PhD training in form of seminars, internships and thesis without taught and examinable advanced courses give a narrow and inadequate exposure of students to the complex theoretical and applied techniques expected at PhD level in any given field of specialization. Therefore, the number of courses offered in the PhD programmes at the centre should be increased by prescribing new special 900 level taught courses (**Finding 13**). The only PhD programme at the centre with some limited taught courses is the PhD AgSE in "Agricultural Economics and Environmental Policy".

## **II.2 Agricultural Economics and Environmental Policy (PhD)**

As noted in the previous section, this is the only PhD programme at the centre that has attempted to add some advanced taught courses at 900 level. However, it still needs to be improved by adding more of such research-oriented courses. CEADESE should compare its courses with similar or related PhD programmes offered by universities elsewhere in the region and other parts of the world. Apart from the suggestions made below, the centre should establish additional specific PhD courses to enhance the quality of the programme.

The current structure requires the students to take the compulsory Master's centre courses (if non-ACE graduates), the 900 level courses as mentioned above plus the three advanced 900 level courses in Microeconomics, Macroeconomics and Data Processing Statistics. This structure is good but must be enhanced by adding additional 900 level courses in Advanced Mathematics for Economists, Advanced Statistics for Economists, Advanced Econometrics, Advanced Production Economics and Risk Management, Advanced Natural Resource and Environmental Economics and Advanced Quantitative Methods in Environmental Economics. This programme can also be enriched by having special elective courses at 900 level which students can opt to take in addition to the common core and compulsory courses (**Finding 14**).

The lab work regarding data analysis has to be extended (**Finding 15**).

The following are brief evaluation comments on the taught courses in this programme:

- *AES 901: Advanced Microeconomics Theory, Analysis and Application*

This course is well designed and appropriately pitched in terms of content, objectives and expected outcome. The assigned list of references and reading materials are also satisfactory, but could be improved by adding relevant current peer reviewed journal articles including those in the TEAL (The Electronic agricultural Library) Platform. Other relevant text books should be added to the reading list, e.g. Microeconomics Analysis by Hal Varian (**Finding 16**).

- *AES 902: Advanced Macroeconomic Theory, Analysis and Applications*

Macroeconomics is also good, however, its objectives, contents and expected learning outcomes need to be recast to be specific and to reflect the theory and applications of macroeconomics. Specifically, the content should be enhanced by adding topics on consumption, saving and investment theories and their applications. The references should be updated to

include current relevant text books and peer reviewed journal articles on the subject (**see Finding 6**).

- *AES 904 Data Processing and Statistical Software and Packages*

This course is appropriate but needs enhancing in term of contents and expected learning outcome. As it is now, it has only one learning outcome. Since there is no Research Methodology course for the programme, this course could be extended to include such a course to be known as Research Methodology and Data Processing or Research Methodology and Data Analysis (**Finding 17**).

## **Conclusion**

The PhD programmes at CEADSE need to be improved by expanding the curriculum to include advanced 900 level taught courses. Such courses are necessary to push the students to the knowledge frontiers in their respective field of specialization. Elaborate suggestions on improving the PhD programme are already given above in this report. Therefore, the panel of experts comes to the conclusion that the programme is only partially fulfilling the set criteria and standard for accreditation.

### **II.3 Environmental Systems and Climate Change (PhD)**

Central criteria are not fulfilled by the PhD degree programme on “Environmental Systems and Climate Change”. Although the university has defined some basic rules and aims for the intake, learning outcomes, and the qualification of candidates of the doctoral programme, there is no precisely defined and consistent PhD curriculum available, tailored to the needs of international PhD programmes and with clear distinction to the requirements of the existing Master programme. In consequence, the programme does not necessarily provide subject-specific and cross-disciplinary competences and qualifications compared to standards of PhD graduates at international level.

As a result of the absence of any clearly defined PhD curriculum, all capacities and competencies typically requested from PhD graduates in the international context, such as comprehensive knowledge and understanding in the area of specialisation, including competences to unlocking and developing new areas of expertise, advanced instrumental, analytical and systemic competence, as well as professional scientific communication capacities for an adequate preparation and dissemination of research results, cannot be guaranteed at systemic, institutionalized level.

Therefore, the PhD degree programme on “Environmental Systems and Climate Change” is subject to a major revision by CEADSE. The centre has to implement specific courses for PhD students, focussing on advanced methodologies and thematic content and based on innovative teaching components, such as scenario-based simulation exercises at international level in combination with technology enhanced learning, finally enabling PhD students to systematically extend their analytical, scientific capacities (**see Finding 13**).

### **II.4 Food Processing and Value Addition (PhD)**

PhD is a unique degree in that it is not focused on acquiring knowledge. A Master programme essentially provides further knowledge or more in-depth knowledge of a subject. A PhD should be focussed on research. Due to this focus and importance of research in PhD programmes, it is often believed that creating new knowledge is the main goal of PhD. Though creating new knowledge is part of the PhD training, the main objective of doing PhD degree is to become a



competent researcher who can conduct independent research in his or her chosen area. If we go by the premise that the purpose of a PhD programme is to produce competent researchers, then the research done during the PhD phase serves this goal and the nature and sophistication of the research output is less important. What is important is to learn to properly formulate a problem and apply suitable techniques to produce results that further the state of understanding about the problem.

A PhD degree should result in some research results, which should be peer reviewed and published. Without this, there is no effective method to demonstrate that the ability to do research and communicate the results has been developed. All of these abilities are important to become a competent researcher. As should be clear many of these skills cannot really be taught but are learned largely through commitment, dedication, and perseverance. This makes PhD a mostly self-driven and self-taught degree with PhD programme and the supervisor gently aiding the process.

Central criteria of assessment of the PhD degree programme "Food Processing and Value Addition" are not fulfilled. Although the university has defined some basic rules and aims for the intake, learning outcomes, and the qualification of candidates of the doctoral programme, there is no precisely defined and consistent PhD curriculum available, tailored to the needs of international PhD programme. In consequence, the programme does not necessarily provide subject-specific and cross-disciplinary competences and qualifications compared to standards of PhD graduates at international level. Several 800 courses are included in PhD curriculum. A clear distinction has to be made between Master study programmes and PhD study programmes. A hierarchy has to be between both programmes. The centre has to implement special courses for PhD students which enhance those students (**see Finding 13**).

As a result of the absence of a clearly defined PhD curriculum, all capacities and competencies typically requested from PhD graduates in the international context cannot be guaranteed at systemic, institutionalized level. This comprises competencies such as comprehensive knowledge and understanding in the area of specialisation, including competences to unlocking and developing new areas of expertise, advanced instrumental, analytical and systemic competence, as well as professional scientific communication capacities for an adequate preparation and dissemination of research results.

The ability to conduct research in an area requires deep knowledge in that area, knowledge about related areas, and the experience of working on research problems, i.e. problems whose outcomes are not known. To develop these critical abilities, most PhD programmes have three components: some course work to provide the depth of knowledge, some methods to develop the depth of knowledge in the chosen area of study, and a thesis that provides the experience of working on research problems. Through these components, a PhD candidate should develop the following abilities, which form the foundation of a career in research: Breadth in the discipline, expertise in a vertical area, ability to identify research problems, the ability to actually do the research and the ability to write and present the result. Briefly summarized, the PhD programme need to focus on a teaching structure, which enables PhD students to enhance their abilities after graduation from the Master programme. These goals of a PhD study can hardly be realized with the current programme.

## **Conclusion**

The course content has to be revised. The learning outcomes have to be aligned with the course descriptions. Also, it needs to be checked if the course content, the course description and the course title are in line. This information is required when developing the different skills of PhD students. The PhD programme "Food Processing and Value Addition" has to be completely re-

vised by CEADSE. Specific courses must be implemented for PhD students focusing on advanced methodologies and thematic content. Moreover, innovative components should be included, for example, scenario-based simulation exercises at the international level combined with technology-based learning, enabling PhD students to systematically expand their analytical, scientific skills.

## **VI. Learning, Teaching and Assessment of Students**

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### Standards BA/MA programme:

*The delivery of material encourages students to take an active role in the learning process. Students are assessed using accessible criteria, regulations, and procedures, which are made readily available to all participants and which are applied consistently. Assessment procedures are designed to measure the achievement of the intended learning outcomes. [ESG 1.3]*

### Learning, Teaching

At the Federal University of Agriculture courses are typically imparted with electronic device support. It is stated that the university provides internet access across the university and the centre. Student oriented learning shall be facilitated by the use of modern facilities like interactive boards and e-compliant learning facilities. According to the university, the courses are designed in way that learning outcomes will be reached. The study programmes are organized by the Academic Planning Unit of FUNAAB in a way that overlapping of courses will not happen. The university states that at the beginning of each semester, course instructors make available to the students the course outline and materials. Each course indicates a component where students are made to lead discussions, presentations and independent study on relevant topics which counts towards continuous assessment. The courses could be formal lectures, assigned readings or combinations of both.

As outlined by the university, diversity of students is taken into consideration by enabling foreign students to participate in English courses at the first year. According to the SER, learning modes of the courses are tailored to suit the students of the programme

### Assessment

The university states that they allow flexibility in the mode of examination at the post graduate level. For instance, students could have an open or closed book three-hours in class examination, or have a take home examination. The examinations are assessed by the course lecturer, who will inform the students of the mode of examination in due time at the beginning of each course. Students will also be informed online so it can be guaranteed that every student is well informed on the examination mode.

It is stated that the university has clear examination regulations which are outlined in the post-graduate regulation prospectus for Master and PhD degree programmes. These regulations define for instance the examination length for sit-in examination according to the credit amount of a course. Having failed one course, students have the chance to re-take the examination in the following year. Additionally, the academic calendar is published online and made available to students before the beginning of the academic year.

Regarding the theses and dissertations, it is stated that those are examined by external and internal examiners. The oral defence of both Master theses and PhD dissertations is carried out in an open forum by the examination committee set up by the postgraduate school. The examination

committee consists of the programme leader, the student's supervisor, the external examiner, an internal examiner and the Dean of the Graduate school.

The postgraduate school also provides a handbook to guide all postgraduate students on issues relating to exams and dissertation.

### **Experts' Evaluation**

CEADESE uses in all courses continuous assessments to grade the students. These assessments may comprise tests, presentations or case studies. The final grade of each module is made up out of project works, case studies, group works, discussions and the final exam. It is ensured that all students will have completed a broad variety of examination types throughout their studies. The purposeful division of examination methods within the curricula is guaranteed by using both practical and theoretical approaches according to the specific modules. All final examinations take place at the end of the semester. FUNAAB determines only one date for the final exam. Only in cases of illness, students are allowed to take the examination at another day. This has to be confirmed by the university's Health centre. When students do not pass an exam, the whole module including all projects during the module has to be repeated in the following year. This leads to an additional workload for students and prolongates their studies. Therefore, it would be beneficial for the programmes if FUNAAB implements re-sit options regarding the assessment of students **(Finding 18)**.

As testified during the site visit, the composition of each module leads students to an engagement in the learning process and helps them transferring their knowledge into practice. During the site visit, the panel of experts gained the impression that there is a clear distinction between practical and theoretical teaching methods and the respective method is fit for purpose according to the intended learning outcome on course level. Despite the fact that all assessment regulations are made available in hard and soft copy according to FUNAAB's postgraduate regulations, the definition of examination methods stays rather unclear before starting the course due to missing specificity in the course descriptions **(Finding 19)**. However, the postgraduate regulations cover examination requirements, grading schemes, pre-requisites for Master and PhD candidates and procedures for oral and external assessments as well as requirements for the final thesis. The regulations determine that the teacher ought to tell the students at the beginning of the semester in which way the final exam is held and how the continuous assessment is planned. Most of the time the examination mode is essay type questions. Students are usually informed three weeks beforehand when the exam takes place.

It has been stated by the university that the inclusion of students with disabilities is currently a challenge for the university, but they are working on it to improve the situation.

### **Conclusion**

The criterion is only partially fulfilled. Nevertheless, the description of the courses in the student's handbook should point out more detailed information.

## **VII. Student Admission, Progression, Recognition and Certification**

### Standards BA/MA programme:

*Consistently applied, pre-defined, published regulations are in place which cover student admission, progression, recognition, and certification.*

[ESG 1.4]

### Standards PhD programme:

*The relevant formal criteria such as admission requirements and procedures, examination conditions and the award of the degree are described and have been published.*

### Admittance to the study programme

According to the report, the student's admission follows the University Admission Policy. The admission procedure is outlined in the postgraduate regulations. The regulations differentiate between Postgraduate diploma, Professional Master, Academic Master and PhD degrees. Prospective students for M.AgSE programmes must have satisfied the basic Undergraduate Matriculation requirements. To be eligible for admission into Academic Masters degree programmes, a candidate must be a graduate of FUNAAB or any other University recognized by the University Senate and shall have obtained a minimum of Second Class (Upper Division) degree in the relevant field. It is stated that in exceptional cases, candidates with Second Class (Lower Division) can be accepted as well. Holders of a Postgraduate Diploma or a professional Masters degree from FUNAAB or another recognised university with a minimum weighted average score of 60% may be considered for admission into the Academic Masters Degree as well. Prospective candidates may be additionally required to undertake an oral and/or written examination before admission. Students will usually be enrolled in September.

To be eligible for admission to the PhD programme, a prospective candidate must have obtained an Academic Masters/M.Phil. with a research degree of two years duration with a minimum weighted average score of 60% from FUNAAB or an equivalent recognised university. Candidates from other universities with a Masters degree of less than two years duration and Masters degree holders from FUNAAB with less than 60% weighted average can only be admitted to Master degree programmes and shall be required to pass a PhD qualifying examination before proceeding to the full PhD programme. The university states that courses can be prescribed for such candidates and those candidates are not allowed to present a Pre-Data seminar until having passed all prescribed courses, each of which the candidate must take and pass at 50% or a higher grade. All applications will be screened by the CEADESE Scientific Board in order to invite suitable candidates for an oral interview. The university states that the students are selected following an open, merit-based procedure and special concessions are given to female, regional applicants. Following the selection process, a short list will be created and forwarded to the Postgraduate School for final scrutiny and approval by the postgraduate board. If necessary, course bridges can be advised to students with any kind of deficit regarding the programme's content. Students who have acquired some prerequisite knowledge and skills prior to admission at CEADESE are given some degrees of percentage taught courses credit waivers. As outlined in the Graduate Students Handbook, this regulation is specifically applicable to PhD students.

The university states that theoretically for all Master and PhD programmes tuition fees have to be paid but due to the World Bank funding nearly all of the enrolled students have a scholarship.

### Progression

According to the university, the programme's structure takes into account the level of readiness of the students, occupational requirements as well as age requirements of the students. As the programme is taught in English, the university offers English language courses for international students.

### Creditation and recognition

As explained by FUNAAB, credits are assigned to courses based on the number of contact hours needed to complete the described course content. According to the SER, three hours of lectures per week is equivalent to three credits, two to three-hour practical is equivalent to one credit, and six hours of field work is equivalent to one credit. FUNAAB uses local credits. The workload calcu-

lation is stated under the postgraduate regulation prospectus and indicates a minimum of one CP and a maximum of six CP for each course.

### Experts' Evaluation

All necessary regulations can be found in the postgraduate regulations, which are published on the FUNAAB website. The selection procedure for the study programmes follows defined criteria and procedures that are publicly available. Specific requirements for the respective study programme support the objectives of the study programmes. The university takes into account the diversity of its student body. Students coming from Francophone countries need to provide basic English language skills to guarantee a good basis for their successful studies at FUNAAB. This will be fostered by the language offer within the respective curricula. Tuition fees distinguish between national and international applicants.

Based on the documents on the webpage and during the discussion round the panel of experts gained the impression that both qualitative and quantitative data regarding the past cohorts is collected, analysed and made publicly available. Apparently, there is no full transparency regarding the utilisation of funds received by World Bank and dedicated to support the students (scholarships, waivers, financial internship support etc.).

Prior learning or the recognition of prior periods of studies are regulated by the university. In cases needed, course contents of other higher education institutions will be compared to FUNAAB's syllabi and a decision of recognition will be made by the respective decision-making bodies at FUNAAB. Despite this, the university has established general core courses which every student will have heard during their studies at FUNAAB.

After the completion of the programme or the PhD programme students receive a certificate explaining the content of the respective study programme. Having in mind that FUNAAB decided using a Master and PhD title which is uncommon even within Nigeria, it has to become clear what is meant by those specific titles. Although these uncommon degrees have a certain USP potential for the university (**see Finding 25**). Seeing the potential in the field for the region and Africa, an additional document (e.g. transcript), complementing the final certificate and reporting on course specifics in more detail, has to be developed in order to provide potential employees with a full overview about themes and content of the respective study programme (**Finding 20**).

### Conclusion

The criterion is fulfilled. Generally, the university has a well-established system regarding the admittance to their study programmes. The panel of experts understands the background of implementing an uncommon degree title AgSE but suggests reconsidering due to transparency reasons for outsiders.

## VIII. Teaching Staff

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### Standards BA/MA programme:

*The composition (quantity, qualifications, professional and international experience, etc.) of the staff is appropriate for the achievement of the intended learning outcomes.*

*Staff involved with teaching is qualified and competent to do so.*

*Transparent procedures are in place for the recruitment and development of the staff. [ESG 1.5]*

### Standards PhD programme:

*The qualification of supervisory staff (m/f) is appropriate to ensure that doctoral students are supervised at the correct academic level.*

*The personnel are sufficient in number to safeguard supervision arrangements on the doctoral programme.*

*The remit of supervisors is clear and transparent.*

As stated in the CEADESE programme brochure, each study programme has a programme leader and an assistant programme leader. The organizational work for areas such as “Monitoring & Evaluation”, “Finance” or “Communications” is shared between the programme leaders. Additionally, there are two industry liaison officers to create a connection between CEADESE and the labour market. The monitoring and evaluation will be supported by one assistant. The centre indicates that over 75% of all teaching staff has at least a PhD title.

To promote high quality learning, teaching staff are supported with fellowships, learning and teaching development programmes for early career academics. As stated by the university, FUNAAB encourages scholarly activity to strengthen the link between education and research by awarding grants, facilitating the participation of national and international conferences or supporting academic staff to achieve higher degrees. Special attention shall be paid to new employed professors concerning their teaching abilities. Opportunities for professional development of teaching staff are given through regular training trips to other universities and research institutes. Another key activity regarding the enhancement of teaching quality is the occasional rewarding of excellent teaching initiatives and the encouraging of staff to develop enhancement initiatives. According to the SER, the university encourages and promotes staff development programmes such as faculty exchanges, faculty internships, training programmes or workshops (both national and international). CEADESE also puts emphasis on private public partnerships as being a key strategy to the centre. According to the university, this has fostered a closer relationship between the university and the private sector. Typical collaborations come in form of internship opportunities, student supervision and workshops.

As outlined by the university, the Master and PhD programmes “Agricultural Economics and Environmental Policy” are taught by four full-time professors, one associated professor, two readers, one senior lecturer and two lecturers. A connection to the labour market shall be guaranteed by the inclusion of two industrial managers who also taught courses at FUNAAB.

For the Master and PhD programmes “Environmental Systems and Climate Change” a total of nine full-time professors and eleven senior lecturers are listed to conduct the courses offered at CEDEASE.

The centre indicates for the Master and PhD programmes “Food Processing and Value Addition” three full-time professors, three readers, two senior lecturers and two lecturers 1 & 2. The PhD programme will be taught by the listed staff excluding the two lecturers 1 & 2.

### **Experts’ Evaluation**

Throughout all discussion rounds the panel of experts got the impression that the university has a good portfolio regarding the academic level of the teaching staff. All human resources involved in teaching are documented, including their academic and other relevant qualifications. Furthermore, documents indicate a clear alignment between staff and quantitative teaching hours in the respective programme. Despite this overall information provided to the expert panel, it will be beneficial for the centre in terms of transparency if the information on teaching staff would be available on the homepage of the centre (**see Finding 27**).

Generally, the university has an “open door policy” which creates a very good interaction between students and teaching staff. This approach facilitates the exchange of information. In cases where lecturers are not directly available the communication takes places via e-mail.

The centre organizes workshops to enhance and develop didactic qualifications of its teaching body. Those workshops are either organized by CEADESE or other African centres of Excellence. Those workshops include teaching methodology, research development or grant writing. Although those workshops are really important for the centre, it has to be pointed out that courses to improve the quality of teaching should be focused in a more striving manner. New professors should get the opportunity to upgrade their qualifications (be it through participations in international conferences or by publishing articles) **(Finding 21)**.

Currently the teaching staff is partly very young, which the panel of experts takes as a good sign to include innovation in teaching. Despite this, it is mentionable that there is a lack of industry experience expertise which is crucial for the disciplines. This is especially important if PhD programmes are to be supervised successfully and should be tackled in the future when it comes to appointing new teaching staff **(Finding 22)**.

### **Conclusion**

The criterion is fulfilled. The centre's teaching staff can be seen as adequate for all three study programmes although industrial expertise is needed for "Food Processing and Value Addition". Furthermore, the quality enhancement efforts of FUNAAB in the light of a centre of excellence are clearly visible, but can be improved.

## **IX. Learning Resources and Student Support**

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### Standards BA/MA programme:

*Appropriate facilities and resources are available for learning and teaching activities.*

*Guidance and support is available for students to advise on achieving successful completion of their studies. [ESG 1.6]*

### Standards PhD programme:

*There is a research environment in place which facilitates the relevant research and fosters the qualification which is necessary for a future research career inside academia or outside an academic context.*

*Doctoral students have access to access to an appropriate infrastructure.*

*Sufficient and suitable guidance and supervisory systems are in place.*

### Facilities and resources

According to the SER, the CEADESE centre caters for the academic, personal and professional needs of students with an emphasis on successful transition and academic progression. The university receives a sponsorship from the World Bank facilitated by the Association of African Universities (AAU) and the National Universities Commission (NUC).

The centre is located at the International Scholars Resources Centre and offers lecturer rooms equipped with teaching and learning facilities. The centre additionally offers seminar rooms, laboratories, workshops and computer rooms. The university has a central library, which has the largest collection of agricultural resources in Nigeria. The centre itself has a specialised library, which is equipped with e-resources with up-to-date journals and e-books. It is outlined that both electronic and printed resources are provided in order to give students the essential background reading for courses taught in the centre. The facilities include 24 hour reading rooms, research commons for the exclusive use of graduate students and faculty members, photocopy services

and networked environments with computers. As stated in the SER, the university provides internet connectivity.

#### Information, consultation and guidance

According to the Self-Evaluation Report, course components and descriptions are available on the CEADESE website for students and other stakeholders. Admitted students will receive useful information prior to their enrolment in the specific programme about living conditions and the working environment. Accommodation will be provided to students on campus and there is a paid shuttle system in place at the University for on-campus transportation of students. The university has established a personal tutoring policy, which supports students in terms of guidance. The CEADESE management, programme leaders and the faculty are available between one and two hours every day for consultations. International students will be assisted by the centre to obtain necessary immigration documents through the FUNAAB International Office. Additionally, students will get access to medical services at the university's Health Centre. Students are also registered under National Health Insurance Schemes.

#### **Experts' Evaluation**

FUNAAB has module handbooks which include literature, learning outcomes and examination methods, but those are purely for internal purposes and not available for students. The module descriptions are made available to students via a student's prospectus where all courses for all CEADESE study programmes are listed with a very minimal description of content. Thus, the assessment methods are not available to students beforehand. Examination methods are announced to students at the beginning of the course (**see Finding 19**).

The credit system at FUNAAB only measures credits in contact hours and self-learning time is not taken into consideration. In consequence, the credit system at FUNAAB does not differentiate between the difficulty of the module and the overall workload of students. With this in mind the credit system is not transparent for outsiders and takes FUNAAB the chance to internationalize their institution by exchanging students with other higher education institutions. Therefore, FUNAAB has to prepare a table to clarify the comparability between their credit system and other internationally recognized credit systems (**Finding 23**).

The university offers good services for the students. There is medical support service at the university, a day-care centre and also free bus transport from the dorms respectively the city to the colleges is offered. This is highly needed when one considers the campus size of about 10.000 hectares. For students with walking disabilities there is a special driver in addition to the common driving service. The teaching staff offers regular consultation hours for the students. The university also provides the opportunity to check work for plagiarism with a software.

Guidance for finding a place to do the internship as well as an entrepreneurship office is available. A two-month internship is mandatory in the Master courses; therefore, the university has built up a network with industrial partners to allow students to do their internship outside the campus. Lists with companies nearby which have already offered an internship to students in the past are available to the students to ease their search.

English lessons which are mandatory for non-English speaking students allow the students from Francophone countries to foster their language skills. Vice-versa students from English-speaking countries have to complete a French language course to take into consideration the realities of the neighbouring countries. FUNAAB also offers help for foreign students with the visa application at the international office.

For the study programmes the university infrastructure hold a central library for all students at FUNAAB and a specific library in a new building for CEADESE students. Additionally, there are smaller libraries in the different colleges within the campus. Those learning spaces offer comput-



ers with preinstalled software and separated learning rooms, which can be booked in advance. A variety of subject-specific books as well as e-books and e-journals is available at both libraries. In case needed the students can get guidance by the Librarian. The university has also subscribed to various e-journal databases. During the site visit, the experts got the chance to get a deeper view on the field specific literature offered by the centre. The panel members gained the impression that the amount of literature, be it hard copies or e-journals, is sufficient but especially in the field of agricultural economics there is a clear lack of up-to-date literature. This short-coming is also reflected in the assigned reading material listed by the lecturers under their respective courses in the programme (**see Finding 16**).

A new building was built for the CEADESE programmes including a centre library and a brand-new laboratory. Although the panel of experts could testify that CEADESE has acquired new technical equipment which cover certain fields of the Environmental Systems and Climate Change (such as technological equipment for the use in soil sciences), there are still basic instruments missing to carry out proper research (**Finding 24**). This is crucial especially when it comes to adequate education on PhD level.

By nature, the study programme “Food Processing and Value Addition” requires technical basis equipment for both animal and plant origin products. Both sides have to be tackled by the study programme to fulfil the general approach of the programme. Currently, the internship for products of animal origin is carried out externally in the industry, but the internship for products of plant origin is missing completely. Thus, the centre has to make sure that an internship for products of plant origin is organized within the curriculum (**see Finding 6b**). The panel of experts clearly sees here a potential within the spectrum of national and international institutionalized agreements, but the cooperation with the labour market or other universities needs to be improved. Nonetheless, talking to the labour market representatives a strong will to cooperate with FUNAAB has been made visible. The panel of experts suggests intensifying and institutionalizing the existing and amplifying the internship partners both on national and international level to foster the current exchange between the labour market and the university (**see Finding 6c**).

In general, the specific equipment for the study programmes has to be improved in order to enhance the overall quality of the programmes (**see Finding 24**). For instance, the study programme equipment needs more small plants to carry out tests in product development. At the moment these disadvantages can only be remedied by improving FUNAAB's cooperation until the adequate technical equipment is available. The internship options for students should be extended both on national and international level. One way to strengthen this could be to institutionalize the existing network of partners.

The study programme “Environmental systems and Climate change” needs clearly an update in mobile devices and up-to-date technology which complies with the World Meteorological Organisation standards for synoptic weather stations (**see Finding 24**). The main electronic station, for instance, only contains a (basic) sensor for global radiation. No other parameters of the entire radiation balance (net radiation, short- and longwave, incoming and reflected radiation) are captured. In addition, the portion of photosynthetically active radiation (PAR), an important parameter especially in plant sciences, is not recorded either. Currently, there are no mobile devices available for capturing further important plant parameters such as canopy leaf area index or xylem sap flow (**see Finding 24**). Evapotranspiration through the soil-vegetation-atmosphere continuum is only calculated using numerical approaches (e.g. Penman-Monteith equation) but not measured using direct approaches, such as Eddy Covariance Technologies, to determine sensible and latent heat fluxes. Given the strong limitations in technical equipment, no cutting-edge research is possible for students dealing with agro-meteorological research methodologies. On the other

hand, the newly established laboratory of the centre provides sufficient standard technological equipment for the use in soil sciences.

Moreover, a platform for communication and exchange of documents with students, or presentations via video equipment has been established, but there are no fully-fledged e-learning modules in place which continuously support the remote learning process of students.

## **Conclusion**

The criterion is not fulfilled. Sufficient and up-to-date equipment and infrastructure is crucial for Master and especially for PhD students to enable research on an international level.

## **X. Information**

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### Standards BA/MA programme:

*Data is collected from relevant sources and stakeholders, analysed, and used for the effective management and continuous enhancement of the programme. [ESG 1.7]*

*Impartial and objective, up-to-date information regarding the programme and its qualifications is published regularly. This published information is appropriate for and available to relevant stakeholders. [ESG 1.8]*

Being a World Bank project, FUNAAB benefits from a system of information collection provided by the World Bank. The university states that information regarding the programmes is published on a regular basis on the university website, in advertisements, memorandums and letters.

The university states that both external and internal stakeholders are involved in the data collection processes of the university. The listed external stakeholders include the National Universities Commission (NUC), Federal Ministry of Education, Federal Ministry of Agriculture, Federal Ministry of Environment and industry representatives, whereas internal stakeholders consist of Federal University of Agriculture members, teaching staff and students. The data and information are collected by doing review recommendations, feedback workshops, survey reports, student supervisory reports, student's quarterly progress reports, in-country supervisor reports and student course evaluation reports. Course evaluation is usually carried out after the completion of each course module (mostly at the end of the semester). The data of the evaluation includes the workload, contact hours, graduate's data, rates of student's progression and performance. The results of the quality assurance procedures are analysed and documented. Curricula modifications can be done based on the QA analysis results. The completion rate of enrolled (Master and PhD) students are additionally analysed each year.

### **Experts' Evaluation**

Based on the impressions gained during the site visit, the panel of experts clearly sees room for improvement regarding the data management at FUNAAB. The university provides a functional website which includes general and programme specific information.

A well-established and strong interaction between the labour market and the university is crucial, especially when it comes to study programmes regarding food processing and environmental issues. A certain lack of engagement between FUNAAB and the labour market became evident during the respective discussion round when the critical importance and the desire for more engagement from the centre side were discussed. Although interaction between the stakeholders takes place at irregular intervals, especially when it comes to find internships, FUNAAB has to involve the respective labour market representatives in a more institutionalized and regular man-

ner (**see Finding 4**). A good example of this issue is that the current internship logbooks are not used for the purposeful data collection and development of the internships. Additionally, there is no clearly defined memorandum of understanding in practice, which apparently has affected perceptions of such partnerships.

Information on Alumni are at the moment collected partially and on an informal basis, but the centre plans to implement an Alumni platform on social media. The panel of experts strongly supports FUNAAB to follow that path to establish a good interaction between the centre and its graduates to collect data on such statistics.

After the completion of the Master or the PhD programme, students receive a certificate explaining the content of the respective study programme. Having in mind that FUNAAB decided using a Master and PhD title which is uncommon even within Nigeria, it has to be clear what is behind those specific titles. Although these uncommon degrees have a certain USP potential for the university, FUNAAB should consider a critical reflection concerning the degree naming and the awarding title of the programmes (**Finding 25**).

Besides the internship opportunities and labour market representatives serving as a ready avenue for data collection and information exchange, there was also room for improvement to attract more foreign students to the programmes. Based on the statement made during the discussion rounds, the centre's key message was their willingness to advertise their programmes and to seek collaborations to attract foreign students. The panel of experts encourages strongly to make some effort to attract more foreign students, because this will be in the end beneficial for the country and for the neighbouring countries (**Finding 26**). A key to attract more foreign students is to promote the study programmes more prominently on the centre's webpage and to outline the course contents more transparently (**Finding 27**).

The centre also does not utilize currently the website as an avenue to share students' experiences and to collect information on their progress after graduation. Presentations made to the expert panel by the centre leadership provided some details of student composition both in the past and in the present. However, this information is missing on the centre's website where it could potentially serve as a marketing tool to attract specific types of students especially females and regional students. There was also no documentation of student's attrition rates and what factors were behind them.

Besides all this, it seems the centre is not utilizing the power of the internet and its website to fully inform the outside public on strategic details of their different programmes. The website certainly communicates about their different programmes, but apart from describing individual programmes there are no details about learning outcomes, assessment options and procedures. Additionally, it would be wise to provide information on the uncommon degree FUNAAB is awarding. A detailed explanation on this could be beneficial for potential employers of students (**see Finding 20**). Even though the centre prides itself in their internship programmes, there is very little in terms of details, numbers, labour market partners, and the overall benefits of students experiences in internships. It would have been great for such programmes to have featured on their website or even in other social media direct quotes from students on their overall experiences on the programme and specifically on the internship programmes.

## **Conclusion**

The criterion is only partly fulfilled. Information, if available at all, does not allow the collection of valuable information from diverse sources to enhance the programme. It is clear also that programme information on the website is only descriptive and lacks the mechanism for users of the site to engage. Website information is too descriptive and lacks details on key areas such as learning approaches and outcomes. The lack of relationship with graduates is a critical omission

and it is important that a well-defined mechanism is put in place to track alumni progress and also to engage them in ways that could improve programmes.

## **XI. Recommendations of the panel of experts**

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The panel of experts recommends

- to accredit with conditions

the study programme “**Agricultural Economics and Environmental Policy**” (M.AgSE) offered by **the Federal University of Agriculture, Abeokuta (FUNAAB)**.

The panel of experts recommends

- to accredit with conditions

the study programme “**Agricultural Economics and Environmental Policy**” (PhD AgSE) offered by **the Federal University of Agriculture, Abeokuta (FUNAAB)**.

The panel of experts recommends

- to postpone

the study programme “**Environmental Systems and Climate Change**” (M. AgSE) offered by **the Federal University of Agriculture, Abeokuta (FUNAAB)**.

The panel of experts recommends

- to postpone

the study programme “**Environmental Systems and Climate Change**” (PhD AgSE) offered by **the Federal University of Agriculture, Abeokuta (FUNAAB)**.

The panel of experts recommends

- to postpone

the study programme “**Food Processing and Value Addition**” (M.AgSE) offered by **the Federal University of Agriculture, Abeokuta (FUNAAB)**.

The panel of experts recommends

- to postpone the decision

the study programme “**Food Processing and Value Addition**” (PhD AgSE) offered by **the Federal University of Agriculture, Abeokuta (FUNAAB)**.

## **Findings:**

General:

1. Responsibilities for QA and the core processes of QA within CEADESE must be transparently defined and the stakeholders have to be informed about them.
2. The centre has to revise the structure of its QA evaluation including the learning environment, support services and the student workload.
3. A concept has to be handed in by the centre on how results of evaluations are shared with stakeholders.

4. Processes to collect regular feedback from the labour market as well as from the alumni must be implemented. Data on student progression and competition rates should be followed and handed in when the reaccreditation takes place.
5. The level of all programmes (Master and PhD) must be defined on the basis of the national or European Qualifications Framework (EQF).
6. The composition of courses for all programmes needs to be revised. Especially, the alignment of sustainability for all programmes has to be customized for each programme. When recomposing the content of the programmes, the usefulness of each course in the programme should be examined. When revising the composition of courses, the following points have to be considered:
  - a. The learning outcomes have to be aligned with the course descriptions.
  - b. The internship for Master and PhD programmes has to be extended.
  - c. The ACE should implement practical experiences on a more international level.
  - d. CEADESE should include more entrepreneurial content.

Curricular specifics Master programme “Agricultural Economics and Environmental Policy”:

7. CEADESE should introduce a course addressing the issue of policy making in agriculture.
8. Some of the courses should be split in order to give a full and balanced emphasis on certain topics.
9. A course on Mathematics for Economists could be introduced.

Curricular specifics Master programme “Environmental Systems and Climate Change”:

10. To enhance and deepen the scientific understanding of the discipline, courses on soil, environmental impact and policy making have to be made compulsory.

Curricular specifics Master programme “Food Processing and Value Addition”:

11. The centre has to introduce a module on “Product Design” which includes case studies based on rheological models for all food types from plant as well as animal origin.

For all Master programmes

12. A stronger link between the study programmes and the entrepreneurial centre would be beneficial.

For all PhD programmes:

13. Special PhD courses (900) have to be introduced in order to make a clear differentiation between the Master programme and the PhD programmes.

Curricular specifics PhD programme “Agricultural Economics and Environmental Policy”:

14. To enrich the programme, the centre should consider implementing compulsory courses for PhD students.
15. The lab work regarding data analysis should be extended.
16. The literature used in the courses should be updated and should be in line with the course description in the student handbook.
17. A course on Research Methodology and Data Analysis should be introduced.

For all programmes:

18. The centre should consider implementing re-sit options for students within the same semester to avoid an unnecessary prolongation of time of study.
19. The course descriptions have to include examination methods to ensure transparency for students.
20. An additional document to the final certificate, which explains the course specifics, has to be developed so that possible employers can see what graduates have learned within the programme. Especially CEADESE should think about the degree and awarding title of the programmes.
21. The centre has to ensure that teaching staff has the possibility to enhance their teaching quality by didactic training and participation at international scientific conferences.
22. The centre should include more industrial expertise in their teaching staff portfolio.
23. To be comparable on an international level, CEADESE has to set up a workload credit system that is comparable to internationally established systems, such as ECTS.
24. It has to be ensured that for each study programme specific up-to-date technical equipment is available to students.
25. FUNAAB should consider a critical reflection concerning the degree naming and the awarding title of the programmes to facilitate entering the labour market of its graduates.
26. To strengthen the regional value of the centre, the university should intensify its process to attract more students from the region.
27. The course contents of the study programmes should be outlined more transparently on the webpage.