

Evaluation Report for the Accreditation of the Masters Programme on “Integrated Watershed Management” (Kenyatta University, School of Humanities and Social Sciences, Department of Geography in Nairobi-Kenya)

AZ 1211

Name of the Course	Degree	Starting Date	ECTS-credits ¹	Program duration	Fulltime – part time	Capacity each year	Master A = Applica- tion oriented R = Re- search ori- ented
Integrated Watershed Management	M.Sc.	Jan 2007	90	3 sem.	Full-time	20	A

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¹ The actual credit units provided are 15, but this is based on contact hours only. Please compare Chapter 1.2.

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1st Part: Evaluation Report

Introduction

This report is one of three reports resulting out of a series of on-site visits as part of an accreditation procedure at the Kenyatta University (Nairobi, Kenya), the Makerere University (Kampala, Uganda) and the University of Dar Es Salaam (Tanzania). At the Kenyatta University and at the Makerere University, it was the Masters Programme on Integrated Watershed Management (IWM) which was evaluated and at the University of Dar Es Salaam it was the Masters Programme on Integrated Sanitation Management (ISM).

The two Masters programmes mentioned above were established and implemented through funding from the IWMNet, which is a network of universities in Germany and Eastern Africa which collaborates in the field of "Integrated Watershed Management". The Centre for International Capacity Development at University of Siegen launched the project titled "Capacity Building for Integrated Watershed Management in Eastern Africa (IWMNet)" in September 2007. This project was funded within the EU Water Facility Programme. The development of a masters programme is the major activity at regional level (implying the East African Region) among other activities which focus at the national and the local level. The programme on IWM was set up in collaboration with relevant institutions such as the International Water Management Institute (IWMI)², the Applied Training Programme (ATP) of the Nile Basin Initiative (NBI) and Water Resources Management Authorities of the partner countries.

Based on the masters programme (MSc) on "Integrated Watershed Management" (IWM) established at Kenyatta University (KU) in 2006 (the first batch of students started in 2007), this project is designed to enhance capacity building in IWM and strengthen the on-going water sector reform processes in Kenya, Tanzania, Uganda and Ethiopia (please see project leaflet on www.iwmnet.eu).

After the IWMNet had already started, the Department of Water Resources Engineering of the University of Dar Es Salaam together with the Kenyatta University in Kenya, Makerere University (MAK) in Uganda, the University of Zambia (UNZA) and the German University of Siegen (US) also raised funds/grants (ACP-Europe Cooperation Programme in Higher Education, EDULINK – 9th European Development Fund) which is an EU funded project to establish a new Masters Degree programme in Integrated Sanitation Management (MISM) at the University of Dar Es Salaam. The overall objective is to strengthen training and research capacity of universities in Eastern and Southern African region to improve water and sanitation governance. The first batch of students in the programme for ISM started in November 2010.

The evaluation reports are all based on information provided in the documentation for accreditation of the university in question, additional documents provided during the on-site visit or shortly thereafter on request, oral information during discussions with the representatives

² The IWMI is organised as a non-profit organisation and is one of 15 international research centres supported by the network of 60 governments, private foundations and international and regional organisations collectively known as the Consultative Group on International Agricultural Research (CGIAR).

of the university management, including university governance quality assurance, the executives of the respective schools and departments as well the person(s) in charge of the study programme, a group of student representatives and at the end also lecturers of the programme. Additionally, the expert group visited facilities as such as seminar rooms, the computer laboratories and in particular those providing GIS, and the laboratories where analyses in relation to water and/or sanitation management are conducted.

It must be mentioned that both programmes at the three universities cannot as yet claim to offer a Joint Degree Programme among the partner universities involved, as originally intended (see leaflet IWMnet). This level of cooperation has not yet been realised. Also intended at the beginning was an accreditation by the Inter-University Council for East Africa (IUCEA) supported by the German Academic Exchange Service, DAAD. Within this cooperation of IUCEA and the DAAD "Guidelines for Program Self-Assessment" and "Guidelines for External Assessment at Program Level" were developed. However, at the point in time that the accreditation was scheduled to be conducted, the IUCEA was not yet ready to carry out accreditations. Nevertheless, it was the intention from the beginning of the project that the degree programmes should be based on the Bologna Principles to guarantee quality at all partner universities and to secure credit transfer in the region which will be evaluated in the following chapters.

For all three universities the expert group noted that the marketing is highlighting the exchange among the universities and the involvement of the University of Siegen in the programme. The partnership with the University of Siegen may still continue, but in no case is the university still actively involved in the implementation of the programmes. Therefore, it is requested by the expert group to no longer mention the University of Siegen as a partner of the programmes on marketing brochures and leaflets because otherwise expectations of students will be raised that cannot be fulfilled. An international orientation of the three programmes is nevertheless recognisable, e.g. by staff and student exchange and is highlighted by a Memorandum of Understanding among the three universities.

The evaluation as such is based on the demands of the European Standards and Guidelines for Quality Assurance in Higher Education (ESG, 2005) and as well the ECTS-User's Guide. According to the demands of the ESG, which require "established processes, criteria and procedures that are used by agencies which should be also pre-defined and publicly available" (ESG 2005, p. 25), the ZEvA therefore uses its standardised procedure that operates according to the guidelines of the German accreditation council, but with the guidelines adapted to the specific needs of this accreditation procedure. This specific framework was made available to the universities in form of a report template well in advance. Also the ESG and the ECTS User's Guide were made available.

1 „Integrated Watershed Management“

1.1 University Governance and Management

The criterion is fulfilled.

The Kenyatta University comprises 15 schools with about 42000 students enrolled in programmes at Bachelors, Masters and Doctoral level. The university has developed its own understanding of quality in teaching and learning in order to create a basis for the quality-oriented development and realisation of study programmes which is documented in the Kenyatta University Information Booklet in which a "Strategic & Vision Plan" is elaborated upon. This is documented by the fact that performance indicators also in relation to teaching and learning are developed, benchmarks are set and methods of collecting and analysing data are developed, but not yet fully implemented. These activities belong to the priority area of the university which is called "Monitoring and Evaluation". Besides quality aspects the booklet also highlights the "customer focus" as one priority area. This aspect is reflected in the message of the self-documentation "...that programme educational objectives should be consistent with the institution's mission that take the needs of all stakeholders (e.g. students and organisations in the professions) into account". The evaluated masters programme on IWM is in line with the first priority area of the university, namely to develop and offer programmes for sustainable development which are geared directly towards an obvious need of the country.

Study programmes at KU undergo an internal accreditation procedure to identify the best placing in a departmental sense, but also to guarantee academic quality and guarantee that it is an enhancement in the academic offering of the university. The Commission for Higher Education was involved during the inception of the programme. It is at this commission that all study programmes of Kenya have to be approved. In addition to this initial approval, the performance of study programmes is part of the periodic reviews (every three years) of Kenyan universities that are also carried out by the Commission for Higher Education. After the initial procedures it was decided that the programme is well placed under the Department of Geography which is part of the largest school of the university, viz. the School of Humanities and Social Sciences. Nevertheless, a more intensive cooperation with other schools and departments is highly recommended (cc Chapter 1.4).

The KU is also member of the Inter-University Council for Eastern Africa (IUCEA). In 2009 the East African Legislative Assembly (EALA) enacted the IUCEA Act 2009, thus effectively integrating IUCEA into the Eastern African Community (EAC) operational framework. The Act spells out the objectives, functions, institutional set up and systems of governance and management of IUCEA. The IUCEA Act 2009 also mandates the institution to advise the EAC Partner States on higher education matters, and to contribute towards (among others) meeting national and regional developmental needs as well as developing quality assurance processes in order to ensure that teaching, learning and research in the region achieve and maintain international standards.

During the development of the programme the Kenya Vision 2030 and the Millennium Development Goals were taken into consideration. The KU defined as its mission of the International Masters Programme in Watershed Management to train personnel, based on skills of holistic thinking and decision making in order to analyse problems, carry out research, develop strategies and achieve appropriate solutions. The university is thus reacting to the lack of programmes that integrate various disciplines in general and to solve water-related problems of the country in particular.

The objectives of the programme are:

- to train personnel to manage watersheds in an integrated way;
- to undertake research and consultancy in various aspects of watershed management;
- to equip professionals with relevant knowledge and skills to apply in various fields of watershed management; and
- to enhance the sustainable management of watersheds.

There has been lack of a programme in Kenya that integrates the various disciplines to solve watershed problems. There was thus the need to establish the International Masters Programme in Integrated Watershed Management in response to both teaching and research challenges by applying multi- and interdisciplinary approaches. This programme will focus on developing concepts and solutions for sustainable development of limited water and soil resources in tropical and sub-tropical regions.

The study programme benefits from a capacity building programme for staff in water management which is offered by the University of Kenyatta. This capacity building programme was developed in parallel to the study programme within the context of the EU project. Therefore, this is certainly a two-way benefit. These activities are all in line with the local level Water Act of 2002 which highlights water governance from the grass-root level by decentralised water users' associations and the development of water catchment management plans. It is only because the Masters programme on IWM is organised in a modular form, that it can offer these selected units as short courses for institutions and organisations to enhance improved application of skills and knowledge of IWM and ISM (Integrated Sanitation Management). These courses facilitate the identification of applicable technical, managerial and strategic approaches to IWM. Besides contributing to networking, these training courses also enable the programme to generate further funds through tuition fees essential for the future financial sustainability of the Masters programme. Additionally to training courses, Summer Schools have been offered which have provided an opportunity also to recent students to participate and refresh or expand their practical skills through developing planning, implementation and monitoring tools within a given catchment area. It has given students the possibility to get into contact with other participants from practice that included catchment managers and local stakeholders such as members of Water Resources Users' Associations. It has served therefore as a contact platform to identify potential topics and areas for conducting the thesis research and as well contacting potential employers. The international character of the Summer Schools adds to the desired international profile of the study programme. Unfortunately, it is not clear in how far this activity can be maintained in future as the necessary funds are no longer available from the project.

The envisaged admission capacity per year is 30 students (15 students per semester). With one exception at the beginning of the programme in 2007, student batches started only in September of each year, leading to the fact that the original objective of having 30 students per year has not yet been met. As the expert group considers the programme as highly relevant for each of the respective countries, more marketing and networking activities are strongly recommended to especially increase the number of national students (cc Chapter 1.3). Detailed information on the status of IWM students is provided in the annexure of the self-documentation.

To increase the number of female students especially at Masters level in programmes of engineering and natural sciences, KU has defined the policy that every female student that graduates at Bachelors level with an A, will receive a scholarship if she continues in a Masters Programme in the natural sciences or engineering. This activity is coordinated by the Centre for Gender and Affirmative Action Implementation. This Centre is mandated to perform the following functions (see : http://www.ku.ac.ke/gender/index.php?option=com_content&view=article&id=63&Itemid=60)

- Development, dissemination and implementation of relevant policies, namely: The Gender Policy, Gender Based Violence and Sexual Harassment Policy in Kenyatta University;
- To work towards attainment of 40% involvement and participation of women in all operations of Kenyatta University; and
- Formulating ways of having more girls enrolled in Kenyatta University in all Courses and particularly in Sciences in order to embrace Affirmative Action
- In response to the mandate, the Centre has developed the Gender Policy and Gender Based Violence and Sexual Harassment Policy.

The specific needs of handicapped persons of the university community are taken into consideration by the Disability Services Office. In the "Postgraduate Prospectus 2008-2010" it is stated that "the Library provides additional assistance and facilities to users with special needs". This includes information resources in the form of cassettes, Braille, CDs etc. and the necessary equipment needed to use them. They also have JAWS software that assists visually impaired users to access electronic resources.

In addition to the Disability Centre, a Wellness Centre develops mental and psychological related interventions to promote the total wellness of staff and students. Kenyatta University HIV/AIDS Control Unit (ACU) is one of the major interventions developed as a response to the HIV/AIDS pandemic in the institution. The KU Aids Control Unit falls under the ACU of the Ministry of Education through the Commission for Higher Education's ACU, which coordinates ACU activities among the universities. Under the ACU also falls the KUSACO (Kenyatta University Students' Aids Control Organization) which is a student membership organization dealing with HIV/AIDS activities among the students.

Concerning the issue of equal opportunities and scholarship schemes, KU includes a Financial Aid Centre that will mobilize funds and other resources from benefactors and will ensure a sustainable financial base in order to facilitate the education of orphans and vulnerable students at Kenyatta University. For this target group KU offers specific scholarships. Additionally KU offers altogether 29 scholarships for postgraduates at all schools, of which one scholarship was obtained by an IWM student. However, But the representatives of the study programme concluded that IWM students must be further motivated to apply at an individual basis. A large component of students was/is financed by the DAAD and for the next intake in September 2012 again the funding of five students through DAAD scholarships is assured. Other donors include the Nile Basin Initiative who directly send funded colleagues or provide them with institutional loans. Some of the students are also self-financed. The university is encouraged to better inform potential Kenyan applicants for IWM about the opportunity to

also apply at the DAAD for a scholarship because altogether 25 DAAD "surplace" scholarships (meaning scholarships for Kenyan students in Kenya) are more or less reserved annually for Kenyan students to study at their Kenyan University of choice.

The university offers students who do not have an adequate level of proficiency in English a three month training in the English Department where students have the possibility to obtain an English certificate and then continue studying in their programme of choice. Recently the university established a policy that applicants who did not conduct their prior education in English must provide evidence of adequate proficiency in English.

The financial sustainability of the study programme as such is certainly an issue, taking into consideration that the programme is not directly benefitting from the scholarships provided, for example, by the DAAD. Fees are administered centrally and all programmes have to annually provide their estimated budgets to the respective financial branch of the administration. Based on this information all programmes have their budgets approved or have to adapt it according to the demands of the administration. As international students have to pay considerably higher fees and out of the 43 students admitted to date to the IWM programme 29 are international students, this should be reflected in the resources made available to the programme. The expert group recommends to make use of at least part of the tuition fees (around 2330 €/year) of international students to directly improve facilities and resources of the IWM programme (cc. Chapter 1.4). The university mentioned that there is the vision to eventually upgrade the IWM programme to the level of an institute, which would be welcomed by the expert team, if it implies that the resource situation of the study programme will be improved.



Figure 1: Reception by university governance representatives at KU

1.2 The Study Programme's Conceptual Classification and its Underlying Qualification Objectives

The criterion is partially fulfilled.

The study programme concept focusses on disciplinary and trans-disciplinary qualification objectives that correspond to the aspired scientific educational goal and the degree level of a Master of Science. As already mentioned in the preceding chapter, this programme focuses on developing concepts and solutions for sustainable development of limited water and soil resources in tropical and sub-tropical regions. The main focus of the programme is the watershed as a spatial unit for training, research and planning leading to sustainable utilization of available resources for the benefit of all stakeholders. This message is supported in particular by the modules SWM 700 on "principles of integrated watershed management" and the SWM 701 "watershed use and human interactions" offered in the first semester and as well as through all core units offered in the second semester.³ The modules altogether reflect in an appropriate manner the defined qualification and educational goals. The taught contents include disciplines from social science, law, natural sciences to engineering. The resulting competences comprise e.g. the understanding of policy interventions in a watershed

³ This assessment is based on the last update of the curriculum for IWM dated February 2012.

(MWM 701) and the application of techniques for analysis and planning (MWM 660) (cc also next chapter).

One problem in evaluating the IWM programme was the fact that different versions of the module catalogue were included in the documentation which made it difficult for the expert group to identify the most recent one in use. Additionally, another update of the module catalogue was handed out during the on-site visit. Also missing was a timetable indicating the course of modules. This is considered indispensable for assessing the modules and the suitability of the programme.

Nevertheless the expert group took the last version provided as the one to be evaluated. The major difference to be noted here is that the study duration changed from 4 to 3 semesters, i.e. from 24 to 18 months. The last semester in both cases was devoted to work on the Master Thesis. This most recent version of the curriculum (including the examination regulations) had not yet been approved by the University Senate, but the motivation to change the structure from 24 to 18 months was to mainstream the programme with other Masters Programmes within the School of Humanities and Social Sciences and to adapt it to the programme of IWM at the Makerere University and the ISM programme at the University of Dar Es Salaam. According to this new structure in the first two semesters students have to study a total of 10 units and in the third semester the Masters Thesis corresponds to five units. Among the 10 units of the first year two units must be electives. Each unit covers a total of 60 contact hours. According to this scheme a student will have graduated with 15 credit units. Taking the translation of module MWM 700 according to the ECTS Users' Guide scheme as a basis for calculation (cc Table 2: European Credit Transfers in the self-documentation of KU), one credit unit includes an overall workload of 180 hours (including the 35 h contact), implying that it corresponds to 6 ECTS if one ECTS is taken to comprise 30 hours. Translated into ECTS we can assume that IWM students graduate with 90 ECTS (30 ECTS/semester and 30 ECTS provided for the Masters Thesis). Overall this corresponds with the ECTS User's Guide which explains that according to the "Bologna process" second cycle qualifications typically include 90-120 ECTS credits, with a minimum of 60 ECTS credits at the level of the 2nd cycle.

Unfortunately a clearer assignment of units to the different modules is not possible because the most recent version of the module catalogue does not depict contact hours and resulting units. The expert group accordingly requests an updated module catalogue which includes the average time spend on self-study. If the translation into ECTS is still applicable, it means that for all modules 35 contact hours/class attendance and around 155 hours for self-study (including preparation of essays and for examinations) are foreseen. Despite this aspect of credit units, the module descriptions distinguish well between content and learning outcomes, i.e. the knowledge, skills and competences gained in a particular context. The competences described are all relevant and support the educational goals. Nevertheless, the expert group criticises the lack of an appointed person who is in charge of the respective module and the outdated references and the lack of an outline of the course to follow the course of modules. The idea of offering more elective units – which was mentioned during the on-site visit and is documented in the latest version of module description - is generally welcomed by the expert group, but at the same time attention should be paid to the fact that the clear focus of the programme could be watered down if too many electives are offered.

The common regulations for all Master's degrees in the university apply (published also on the website). Additionally the following apply for registering in the IWM programme:

- The applicant should be a holder of a Bachelor's degree with at least a second class honours or equivalent in Engineering, Hydrology and related disciplines OR
- A holder of a Bachelor's degree with at least a second class honours or equivalent in Social and Human Sciences OR
- A holder of a Bachelor's degree with at least a second class honours or equivalent in Natural Sciences.

Holders of a Lower Second Class degree in the above-mentioned areas will be considered provided that they have at least two years relevant working experience.

The overall employability of graduates - if competences are successfully attained as described in the module catalogue - must be judged as positive. This is also supported by the overall development of the programme within the context of the IWMnet project which included the integration of external expertise into the development of the programme. Graduates could work in the public sector, e.g. in water authorities, but equally well in the private sector especially in NGOs intervening in the water and sanitation (and/or health) sector. The team work that is promoted and the group assignments add up to the personal and professional development of the students. In case of non-native English speaking students the possibility is given to take additional courses in the Department of English and Linguistics to achieve the necessary level of proficiency in oral and written English.

After successful graduation students receive their Masters certificate and a postgraduate academic transcript per year. The transcript depicts the modules/courses, the academic hours spent on the module (contact hours) and the grade achieved. As the transcript does not provide the credit units and it does not show how many hours make up one credit, it is not possible to evaluate the transcript and certificate at a European or International level. Here, two solutions to the problem are most obvious. Future transcripts could provide a footnote explaining that 35 contact hours and approximately 155 hours of self-study add up to 6 credit points/ECTS per module or the university develops a diploma supplement that provides this information and eases the recognition of workload at foreign universities or employers in foreign countries/companies. Additionally, for those student batches where it still applies, it would be an add-on for students to mention on the certificate and/or transcript the international cooperation within the context of the EU project.

The Masters programme on IWM generally leads to the degree of a Master of Science which is considered as adequate form of degree for that programme. Under special circumstances it may lead to a Master of Arts degree. This could be the case once a student holding a Bachelor of Arts degree is admitted and graduates especially on a research topic related rather to the social sciences than to engineering and natural sciences. In Anglophone countries the second cycle degree often takes into recognition the first cycle degree. The degree awarded is according to the qualification gained at a Masters level taking the Dublin descriptors as basis:

- They have to demonstrate knowledge, e.g. in Module 706, which enhances the Bachelor's level, and which provides a basis for further developing ideas adapted to a particular situation.
- Students are trained, e.g. in Module 708, to communicate their conclusions, and the knowledge and rationale underpinning these during the presentations and group work. These skills will eventually be proved during the defence of their Master Thesis.

The entry qualifications to the IWM programme include a Honours degree which, according to the Kenyatta University, generally encompasses 4 years of study time. Nevertheless, Bachelor degrees with honours completed in 3 years study time are possible under other National Qualification Frameworks (cc "The Framework for Higher Education Qualifications in England, Wales and Northern Ireland". August 2008, p. 20). Eventually students of IWM will achieve their Master degree on average after 5.5 years of study (based on the 18 month concept for IWM).

1.3 Study Programme Concept

The criterion is partially fulfilled

The study programme is well thought of and coherent in terms of structure. The individual modules support – also in their logical order – the qualification and educational goals of the programme. The programme benefits from the fact that evaluations and several curriculum development workshops in the context of the capacity building project (within the EU Water Facility Project) took place to better focus the IWM programme contents on market needs. During the curriculum development representatives of all partner universities and further external experts were invited.

The programme started in January 2007 with three students. Since then altogether 43 students have been admitted, but until February 2012 only 3 of them had already graduated. One is now doing his PhD and the two others returned to the ministries they worked in before – but having received a job promotion. One additional student has finished by now (February 2012) and is waiting only for the formal act of graduation, while 12 students are still waiting for their defence which applies also to students who already started in September 2007. This long lag time is considered as a severe problem and it becomes especially an issue for international students and scholarship holders. Apparently several factors lead to this long wait to the defence; one of the main reasons seems to be the long waiting phase in between the submission of the final draft of the Master Thesis and the official date for the defence (cf. Chapter 1.5). Nevertheless, since the inception of the programme only one student has officially dropped out of the programme. For the next batch starting in August/September 2012 around 40 students have applied and 17 will be accepted.

At the commencement of the programme no female students enrolled in the programme. Now, out of the 43 students ten are female. The lack of women is considered a general problem especially at the Masters level of programmes in engineering and natural sciences (cf. Chapter 1)

Generally, it is considered as very positive that an international programme is frequented by such a high number of foreigners. The need for qualified personnel in the field of Integrated Watershed Management was observed for East Africa in general and market surveys proved this need for Kenya more specifically. Unfortunately, no Kenyan national has enrolled in the last batch and altogether only 13 Kenyan students have been admitted so far. This depicts a high dependency on foreign students who to a large extent are sponsored by the DAAD. It can be concluded that either local market needs are not met or that the local marketing is insufficient and potential students are just not aware of the programme and its potential benefits. It is highly recommended that the marketing for the programme be improved, also to improve the contacts with local to regional authorities and as well as with international organisations concerned with the water sector so that eventually more Kenyan students can be admitted and the local market needs be satisfied.

The study programme concept covers the delivery of disciplinary and cross-disciplinary knowledge. For example, MWM 706 on "Remote Sensing and GIS" and MWM 710 on "Hydrological Processes and Watershed Modelling" are rather disciplinary while MWM 700 on Integrated Water Resources Management and as well the modules 713 to 715 are rather interdisciplinary. The delivery of methodological competencies is, for example, integrated in MWM 703 on research methodology, in 702 on mapping, field and laboratory techniques and in 712 on Environmental Impact Assessment. Generic competences are provided, for example, by the need to make presentations and the requirement to conduct group work especially during field work (Sem. 1 and 2).

Altogether, however, the expert group criticises an inadequate transfer of methodological competences which include an inadequate use of GIS, e.g. in the context of case studies. To overcome this problem it is recommended that a 2 month practical training at organisations that have the competences and resources (cc next chapter) be integrated into the module catalogue. One possibility would be that after the second semester students could continue during their break time with this 2 month practical training as a bridging phase between theoretical and more practical (e.g. data collection) work during their thesis semester.

The field work of the Masters Thesis is often conducted in the home countries of foreign students – in particular Uganda and Tanzania. As a result of the collaboration of the universities the supervision is guaranteed by staff of the partner universities in the respective countries. Unfortunately, the fact that students travel long distances in these cases and apparently have a less rigid work schedule seems to be part of the reason that the submission of the thesis and its defence is delayed (cf. Chapter 1.5).

Teaching is often conducted in form of seminars – demanding homework and presentations - which is complemented by lectures, fieldwork, group and laboratory work. Accordingly the form of examinations varies from essays, presentations, group assignments to oral and written exams. Typically the module grade is made up by a continuous assessment (30% of final grade) which is composed of two essays, two presentations on a seminar topic and a written test in addition to a closed book examination (70% of final grade). Lecturers try to include aspects of the different nationalities of their students into their seminars by giving them the opportunity to present topics from their home countries. Altogether students are encouraged to exchange their different knowledge stemming from their different professional backgrounds also by making use of group and project work. This is also where "integration" of the

different topics of IWM takes place – besides modules as “principles of integrated water resource management” or the project on IWRM. Pilot case studies offer the possibility to go into the field and get hands-on experiences. Still, the potential and possibilities offered by field work cannot be completely realised due to equipment not being fully adequate and trained staff not always being available. Despite these shortcomings, the expert group considers in summary the study programme concept to be academically feasible and adequate.

The Department of Geography is working on the further development of online modules on IWM that can be shared among the three collaborating universities. The Department of Geography of KU already offers some online modules at undergraduate level in cooperation with the KU Institute of Open, Distance & e-Learning (ODEL). These activities are strongly supported by the expert group because it offers the opportunity to students to benefit from a larger staff and therefore resource pool.

Concerning the integration of research into the IWM programme some first efforts are certainly evident. Some integrated research projects are already being conducted, e.g. at Lake Victoria and on the topic of climate change adaptation for pastoralists. If grants for conducting research are secured, lecturers use in particular postgraduate students for assistance during the field work. Nevertheless, initiatives to conduct more research and eventually better integrate results into the teaching of IWM should be further encouraged. One of the obstacles here is certainly a staff situation that is already over-committed and at the edge of undertaking additional activities.

The expert group welcomes the fact that staff exchange takes place which – if possible – should be at least maintained if not further increased. Some recent adaptations of the contents of the course consider the issue of climate change. This topic is considered as relevant in the context of IWM and should remain in the programme. According to the university all programmes are revised every three to four years and this includes the integration of stakeholders.

1.4 Realisation of the Study Programme

The criterion is partly fulfilled.

The expert group visited – among others - the computer lab, the GIS lab, the so-called resource centre providing selected literature and a laboratory that was mainly equipped for soil analyses and which is also used for cartography. Whereas the computer lab seemed to be adequate, other physical facilities need improvement. In particular in this context, it needs to be mentioned that improvements are recommended to the resource centre/IWM library and the laboratory where basic water and soil analyses are supposed to be conducted.



Figure 2: Computer facilities for IWM students

Whereas the opening hours of the general library are considered sufficient since this is also important for Internet access and as working space for students - as already mentioned, the available relevant literature in print is considered to be poor. As on the topic of IWM substantial amounts of relevant literature exists online, the expert group asks the university to provide a list with up-to-date literature on the topic of Integrated Watershed Management which is available online and for free. Additionally, it is recommended to compile a reader on CD of available online literature on the topic of IWM to be distributed to all students. Apparently adequate GIS software and licences exist, but the expert group was not convinced that full use of these resources was being made. To better guarantee the quality of GIS taught in the programme, the expert group requests a list of all available spatial data sets stored in the GIS lab that can be used in the context with GIS for integrated water or watershed management. The data may, for example, cover administrative borders, topography, water bodies, land use and soil types, but also population density and other social data (for example available from WORLD RESOURCES INSTITUTE: <http://www.wri.org>). Students could be further encouraged to improve their GIS skills by making use of free software products such as GRASS GIS or something similar. Additionally, the module descriptions/readers require a general update of literature. Lecturers are encouraged to promote also the use of open source software for hydrological modelling, especially to those students that show an interest in that field of study. Overall it seems that the modelling competences are rather weak, yet they are not considered to be indispensable for the chosen profile of the study programme.

The use of personal notebooks should be supported by providing campus licences of the Microsoft Package or at least having download facilities and/or CDs available to install OpenOffice or similar programmes.

Possibilities to further improve the infrastructure are, for example, making direct use for this from the tuition fees paid by international students of IWM. Lecturers in the IWM programme who studied for at least for 3 months at a German university are highly encouraged to make use of the possibility to apply to the DAAD once a year for a grant up to a maximum value of € 200 for scientific books and journals to help them advance their academic knowledge. These books could be and should be made available in the resource centre. Further opportunities exist for direct DAAD-alumni. More detailed information can be obtained on www.daad.de. A registration on the website of the German Alumni Water Network (GAWN) should be promoted also to stay informed on water-related topics.



Figure 3: Cartography and Soil Analyses Laboratory

Another issue which is criticized by the expert group is that field days, and therefore the gain from practical and methodological competences within the programme, is quite limited. This is partly connected to the limited laboratory facilities. It should therefore be assured by the university that students obtain more practical experience in the field that covers the teaching of methodological aspects. This should be corroborated by the module catalogue. To solve this problem that certain aspects cannot be taught at the university because of a lack of resources, the expert group recommends, for example, the integration of two months of a practical phase into the curriculum in cooperation with water authorities or other national and/or

international stakeholders in water management. This recommendation aims at improving two aspects:

- 1) to provide more practical, hands-on knowledge to the students, and
- 2) to overcome the problem of having only limited resources in data gathering and laboratory analyses.

As a centre at the university is already dealing with internships, this could facilitate the setting up of such a practical add-on to the curriculum.

It is further recommended that this field phase should also consider aspects of dealing with statistical data and/or GIS (cf. Chapter 1.6). To further improve the teaching of important methodological competences, the expert group would also like to strongly encourage the exchange and intensive collaboration with the partner universities on the subjects of GIS and hydrological modelling, which could include joint field days with the partners.

The lack of recognition by the University of the time spent on supervising thesis work is part of the reason that lecturers seem to be partly overburdened. To solve this problem it is recommended that administrative tasks of lecturers be reduced and/or their teaching duties be reduced, which may imply that fewer students can be admitted at Bachelors and Masters levels and/or efforts must be made by the University to employ more academic and administrative personnel. Otherwise it seems to be unrealistic to keep, or better still, to improve the current standard of teaching. To make the supervision of a masters thesis more attractive and for it to be recognised, the time devoted for this supervision should be considered as part of the lecturer's workload. The internal organisation of the faculty should take care that thesis supervision be more or less evenly distributed among available lecturers.

The programme is housed in the Department of Geography with 19 staff members (permanently employed) of which one is a full professor and another is an associate professor. The programme on IWM is integrating different disciplines. To better reflect this aspect in the composition of teaching staff, to further improve the qualification of staff assigned to the teaching of a particular module and to increase the number of professors teaching in the programme, the expert group highly recommends to increase the number of lecturers coming from other schools such as the School of Pure and Applied Sciences Research. The university reports that the replacement of a vacant position of a professor takes between 3 to 12 months. Sometimes as intermediary solutions part-time lecturers replace vacant positions. It is recommended to improve the monitoring in how far lecturers assigned to a module reflect the required professional background of a module. In case of a lack of staff in a particular field, in some cases the possibility exists to exchange staff with the partner universities.

Programmes to improve the quality of teaching are in place. These initiatives are partly managed by the Quality Assurance Office. Lecturers are encouraged to participate, for example, in courses on pedagogy and didactics, but this is on a voluntary basis. Unfortunately these courses cost and lecturers get only a discount. The expert group would like to recommend offering these courses without a fee. It is perceived as a positive step towards improving the quality in teaching that the university policy on job promotion considers, so that besides research activities evidence of quality teaching is also taken into consideration. In this respect

the recently established system of giving students the opportunity to evaluate their courses and modules in regard to their perceived quality is a positive step forward.

The students' workload seems to be appropriate. There were no indices that students are overburdened. The means of verification of the workload could be integrated into the recently implemented evaluation system.

As the offered modules only overlap with other programmes in the case of the electives, there is no risk that delays of studies occur because of parallel lectures.

Concerning general services offered to students it happened quite recently that the centralised system to register online for modules became functional. A Centre for Career Development and Placement functions as an incubation centre to support students with their endeavours in case they want to become self-employed. The system of providing students with a rigid timeline on paper for orientation has been in place only since November 2011. It was one of the measures to deal with the problem of the delay of graduation. Also recently an orientation phase at the beginning of the programme has been established. Further aspects on student support will be discussed in Chapter 1.7. Further support is also given, for example, by the establishment of a "study buddy" system and the provision of guidance documents (cf. Chapter 1.7).



Figure 4: The meteorological station of the Kenyatta University (data from which feeds into the national network)

1.5 Examination System

The criterion is partly fulfilled.

The examinations conducted seem to be module- and competence-related and serve to test and verify the achievement of defined educational goals. The form of assessments is adequate and known by the students in advance because they are provided in the module catalogue and because lecturers give this information at the beginning of their courses. If students fail in an examination, under normal circumstances the exam is repeated in the following semester. The form of assessments varies according to the different competences tested. Communication skills are provided and assessed, for example, by presentations (individual and in groups). Essays and written exams prove in how far students are capable of expressing their ideas and of summarising knowledge and they have to prove their in-depth knowledge of a certain topic. Oral examinations serve to verify in how far students are capable of expressing and explaining certain issues to experts. The frequency of examinations and the related workload is appropriate. Altogether students confirm this statement because they do not consider the number of exams as too demanding, but as quite manageable.

Concerning the quality of the exams, the expert group likes to recommend that quality assurance is encouraged to monitor that exams are always conducted according to regulations and that exam questions are not repeated from one year to the next.

The expert group were critical of the fact that students often delay the start of the Masters Thesis and after having submitted their Masters Thesis they had to wait for several months before they have the opportunity to officially defend their thesis. This situation is partly connected to the lengthy procedure to appoint a new examiner in case one examiner drops out – which apparently is quite often the case. A change in the procedure of appointing examiners is recommended, for example, by introducing measures that shorten the time for appointment of examiners. Nevertheless, it is welcomed that external examiners of the region are integrated into the examination system, but this can only be welcomed if it is guaranteed that it does not impact the timely submission of the thesis and its defence. Academic supervisors for the students doing the Masters Thesis should be appointed right from the beginning of the field work. Part of the duties of supervisors is to keep an eye on timely delivery.

The expert team recommends that during the re-accreditation the future external expert team is advised to verify in how far the university has succeeded in guaranteeing the graduation of students after 18 month (in case of the former 4 semester structure after 24 month).

The Kenyatta University, School of Humanities and Social Sciences, Department for Geography provides online the Admission Requirements of all Postgraduate Degree Programmes in Geography. Here also the duration and pattern of the course are given, as are the respective core modules and electives. The examination regulations are partly found online in the "university calendar". It is recommended that all regulations be made available online in a more systematic manner. This applies in particular to the common regulations for all Master's degrees at the university.

1.6 Quality Assurance

The criterion is fulfilled.

The KU in 2003 set up the Centre for Quality Assurance, which together with the Quality Assurance Board (QAB) which was constituted in July 2006, is meant to assist the University in achieving its mission of providing quality education and training, promote scholarship, service, innovation and creativity and inculcate moral values for sustainable individual and societal development.

The mandate of the Centre for Quality Assurance includes the following (reviewed 2008):

- Coordinate the Student-Lecturer Evaluation exercise.
- Synthesize, analyze and submit a report to management for necessary action on departmental external examiners reports
- Initiate departmental market surveys to determine market needs and relevance of our academic programmes.
- Liaise with departments to monitor course reviews to ensure relevance as informed by the market surveys.
- Maintain a tracking system of departmental cyclic course reviews (at least once every four years) and provide periodic reports on status.
- Recommend to management departmental programmes due for review.
- Recommend the development or de-establishment of programmes based on the findings of the market surveys.

A logical framework was developed which depicts the actions and activities that will be implemented within the time frame of 2010 – 2015 (<http://www.ku.ac.ke/index.php/about-ku/administration/directorates/quality-assurance>). It shows that evaluations procedures on lecturer – student interaction are already developed, but that they now intend to implement it. The activities include the development of survey instruments at departmental level to determine market needs, e.g. tracer studies where already conducted at undergraduate level. Since not many students have graduated yet, a tracer study for IWM cannot be started within the next three years, but should be initiated before students from cycle 12 have started⁴. One Directorate of Alumni and Outreach Programmes offers the opportunity that graduates can register online with the benefit of staying in contact with the university and activities offered. But it is not known to the expert group in how far the Alumni Directorate and the Centre for Quality Assurance cooperate and coordinate their activities to systematically make use of alumni also to validate the current quality of study programmes and if necessary initiate measures to adapt programmes to detected needs.

The evaluation of modules and courses by students which was recently introduced falls under the auspices of the Quality Assurance Office. The extent to which conclusions are drawn out of evaluation results and how the feedback is guaranteed to lecturers and students cannot be assessed yet. For future re-accreditation it must be mentioned that the issue of the appropriateness of student workload should be considered during evaluations.

⁴

Intake in August/September 2012 will be cycle 7.

An evaluation of the programme focusing on the core modules 700 to 704 was conducted in 2009. One issue that was criticized then – the weak exposure to statistics (from data gathering to software use such as SPSS) - unfortunately still remains a problem. It is recommended that this aspect should be considered when further elaborating on the issue of field and practical work (cf. Chapter 1.4). An evaluation of the IWM programme from the students' perspective took place in December 2007, and covering three students who had finished their 2nd year and three having almost finished their first year, did not give evidence that the workload is too high.

1.7 Transparency and Documentation

The criterion is partly fulfilled.

The university generally makes the requirements relating to the study programme, the course of study and examinations accessible at the beginning of the study programme. Still, the expert group noted that the information provided in print on how students can organise their on- and off-campus life is scarce and not well organised. This is in particular criticized because students who come from abroad (which is usually the case) naturally have more difficulties to become acquainted with their new circumstances. To solve this, the development of a Study Handbook is requested, which provides all necessary information on organising the students' lives. This handbook should comprise study issues such as internet connection, copy possibilities and admission, but also issues such as housing, shopping facilities, banking, medical care and leisure opportunities. It must nevertheless be mentioned that much information from that on ambulance to off-campus housing can be found in various informative documents on the website of the university (e.g. <http://www.ku.ac.ke/schools/graduate/index.php/resources/school-downloads>).

In general information to new students will be provided by those that are already there. Since it is important to already have sufficient information before departing to the new place of study, it is recommended that email addresses of recent student batches should be provided to those students who are expected to arrive. The approval of students to this procedure can be easily obtained. Additionally, one contact person and one study programme coordinator must be defined who are responsible to take care of arriving students to show them around and in the second case being responsible for all study issues around the IWM programme. Although an orientation phase has recently been instituted the information for new incomings students can be improved. Nevertheless, information can be obtained from the Kenyatta University's information booklet 2011-2013 and certainly from the internet. As the local internet connection during the months preceding this visit was not very reliable and stable, this information source was somewhat limited. Information on postgraduate study programmes offered at KU can be obtained from the KU booklet on "Graduate School Prospectus 2008-2010". Altogether information from the internet comprises – among others - admission requirements, postgraduate prospectus and the Kenyatta University Catalogue and Calendar. Also the fees structure was made available in print and can be easily found on the website. Some of the information provided online requires an update.

The Centre for Linkages and International Programs (CLIP) is a strategic unit under the Vice-Chancellor's office and is charged with coordinating all international activities, collaborations and linkages. The CLIP recently established a "buddy system" with the objective that "older" national students help around the incoming (international) students. Apparently this programme is at this point in time (February 2012) only functional at undergraduate level. The expert group recommends extending this activity to students at graduate level and encourages that this Centre generally receives a higher visibility among all international students.

Since recently, the university has supplied first year Masters students with an "individual course schedule" which depicts all deadlines over the four semesters which are to be met by the student as well as the university members (e.g. registrar, dean, senate,...) to comply with regulations and to guarantee that students finish their study on time.

Some initial module descriptions, but without any further information on lecturers, methods applied and credit units, are available on the website of IWMNet. It is indispensable that the complete and updated module catalogue including all required information be made available online (open access also for marketing purposes). The same applies to all complete examination regulations which should be easily accessible on the website.

1.8 Summary Report

The expert group acknowledges the high potential of the Master's Degree Programme on Integrated Watershed Management and its importance for the Eastern African Region in general and for Kenya in particular. The new programme structure and duration of 18 instead of 24 months allows for better student and lecturer mobility between the three universities. The contents of the programme offers good employment opportunities for the graduates after completion of their Masters degree.

The Kenyatta University governance and management display sound and progressive developments. Many of the developments are quite recent and are not yet fully operational, but the strategies are already elaborate. This is reflected by good approaches to guarantee quality assurance. Also here, many ideas and attempts are still at a conceptional stage and are waiting for further steps towards implementation, but the most important steps, for example, towards evaluation of modules or tracer studies, as well as making use of their results for a continuous development of study programmes, are already in place.

3rd Part: Continuation of procedure

1 Response statement by university

KENYATTA UNIVERSITY RESPONSE TO THE EVALUATION REPORT FOR THE ACCREDITATION OF THE MASTERS PROGRAMME IN INTEGRATED WATERSHED MANAGEMENT

Thank you for the accreditation report for the MSc (IWM) offered in the Department of Geography, Kenyatta University.

Attached please find the Accreditation Report in track changes, with comments further elaborated in Table 1. Also attached are the following Annexes;

Annex 1: The Curriculum for Masters in Integrated Watershed Management - Approved by SPAS

Annex 2: Course Description and Time Allocation (an example)

Annex 3: Updated Status of Students

Annex 4: Memorandum of Agreement between KU and RCMRD

Annex 5: Geography Brochure

Annex 6: International Students' Information Handbook

Annex 7: CIPC Brochure

Table 1: Explanation of Comments on Accreditation Report Comment

Explanation	
KU1	The Masters Programme is offered in the School of Pure and Applied Sciences (SPAS). Department of Geography administratively falls in the School of Humanities and Social Sciences (SHSS). However, the MSc programmes are offered in SPAS while the MA programmes are offered in SHSS
KU2	School of Pure and Applied Sciences
KU3	Summer schools and workshops - these can still be applied by the Department in liaison with the Kenya DAAD Scholars Association (KDSA). In addition, funding can also be sourced through the IWMNet Trust which is still under registration
KU4	Advertising to national (Kenyan) students through the Kenyan press and also through the important stakeholder Ministries including Ministry of Water and Irrigation, Water Resources Management Authority, Kenya Forest Service, Kenya Wildlife Service and other parastatals.
KU5	Financial Aid Office
KU6	The Department will explore ways of implementing the recommendation through the appropriate university channels.
KU7	Annex 1 indicates the curriculum that has been approved by SPAS which will be ta-

	bled in Senate. As indicated, the students will undertake 5 course units per semester. The MSc Thesis is equivalent to 10 course units.
KU8	All Masters courses at KU take 24 months which is equivalent to two academic years. The MSc (IWM) will still take 24 months
KU9	School of Pure and Applied Sciences
KU10	Annex 2 provides an example of the time allocation per course unit
KU 11	The Course outlines are updated by the Course lecturer but the appointed IWM Coordinator is Prof. Obando
KU12	The issue of electives has been noted and in the next review of the curriculum this will be addressed
KU13	The Registrar Academic to consider this proposal. However, a letter is issued by Chairman at the Departmental to students.
KU14	Currently the Masters is registered under SPAS, therefore leading to MSc (IWM)
KU15	Annex 3- Updated list of completed students
KU16	The Individual Schedule for tracking progress of the students are now effective and will eliminate this problem
KU17	Marketing of Masters course through local media, internet and local partners - see also KU4
KU18	Being enhanced also with collaboration with the Regional Centre for Mapping of Resources for Development (RCMRD). Kenyatta University and RCMRD have a Memorandum of Agreement that allows use of landsat data and GIS facilities for KU students. Our students are also able to undergo additional practical training on GIS and Remote Sensing. See Annex 4 for MOA
KU19	Fieldwork for the Master thesis has been designated only 2 months so that students do not stay away from campus for long. Also students get a supervisor from the home partner university for monitoring purposes. Additionally the individual tracking schedules and progress reports are being used for monitoring the students' progress
KU20	This is a noted concern
KU21	Currently the department liaises with the laboratories in Chemistry Department and in the Department of Water Resources

Engineering

KU22	E-Resources in the Post Modern Library - students now being inducted on how best to use these resources for their studies and thesis research - to supplement the literature in print
KU23	Spatial data sourced from RCMRD (see KU18) Additionally data on Landsat ETMs for 1980 - 2000 available for Kenya, Uganda and Tanzania. Lecturers in GIS are able to use images from research for class practicals as well. Currently ILWIS 3.7 which is open source is being used for GIS practicals. Students are also facilitated and encouraged to down-load the GIS (and other) open source software according to the need of research study
KU24	This is being done
KU25	GAWN circulated to students monthly
KU26	This is noted and being enhanced
KU27	Three Associate Professors - Prof. Kisovi (Chairman), Prof. Ogutu and Prof. Obando; and one Full Professor - Prof. Shisanya (See Annex 5 - Department brochure)
KU28	Staff from School of Engineering and School of Environmental Studies are now involved in teaching and supervision of students
KU29	External examiner moderates examinations after the internal examiners have set them and moderated at the departmental level. The past examination papers are now online - hence limiting the chances of repetition
KU30	The individual tracking schedules by Graduate School have improved the situation
KU31	Quality Assurance is already implementing this
KU32	There is coordination of activities - also Graduate Tracer survey being implemented by Alumni Directorate
KU33	This is a concern to be addressed in SWM703 - Research Methodology. Student skills in statistics are also enhanced during proposal writing and in Watershed Evaluation I and II
KU34	Annex 6 -International Students' Information Handbook 2012-2014 which provides detailed information
KU35	Prof Obando in IWM Coordinator and also the academic advisor for postgraduate students in the Department. Dr. Makokha is the Chairman of the Departmental Board of

	Postgraduate Studies.
KU36	Noted. Information update
KU37	Annex 7 Brochure for Centre for International Programmes and Collaborations (CIPC), see KU 34 - additional information
KU38	The 'buddy system' extends to all postgraduates students as well. In addition, the Mentoring programmes has structures in place that caters for all Kenyatta University students

2 SAK-Decision

Recommendations:

- It is recommended that the exchange and intensive collaboration with the partner universities on the subjects of Geographical Information Systems and hydrological modelling is strongly encouraged. To increase available regional data sets it is recommended to make better use of existing contacts with the Makerere University of Kampala and/or with other organisations for the purpose of exchanging information and data. This cooperation should include an intensified use of jointly designed e-learning modules by the three universities.
- It is recommended that joint field days with partner universities focusing on practical water-related data gathering and analyses will be carried out.
- It is highly recommended that the marketing and networking for the programme be improved, and that contacts with local to regional authorities and with international organizations involved in water management should be intensified. This promises to lead to an increase in the number of Kenyan students, so that local needs for more staff qualified in water management can be satisfied.
- It is highly recommended that more resources should be devoted to an upgrade of premises and equipment, in particular for the resource centre and the laboratories. At the same time it must be guaranteed that qualified staff is available for field and laboratory modules in which methodological competences such as data gathering, analysis and synthesis are being taught. To further improve these competences the expert group also recommends to increase the number of obligatory field days. Additional financial resources could be mobilized if at least a part of the tuition fees international students have to pay are allocated directly to the IWM program.
- It is recommended to better guarantee that students acquire adequate methodological competences by including a 2-month practical phase into the curriculum, ideally at the end of the second semester. This practical phase could best be organized as contract-based cooperation with water departments or other national and/or international stakeholders. Another possibility of placing the practical training of the students would be after the second semester. Students could extend the 2 month practical training into the semester break so that it could serve as a bridging phase between theoretical and more practical (e.g. data collecting) work during their thesis semester.

- It is recommended that the workload of lecturers will be reduced as lecturers seem to be overburdened with tasks. This could be done by e.g. cutting down their administrative duties and/or by diminishing their teaching duties, and if this cannot be done, by employing additional staff, or include more staff from other departments and, if possible, from schools. In this context one possibility would be to increase the number of lecturers coming from other schools such as the School of Pure and Applied Sciences.
- It is recommended to increase the attractiveness of supervising a Master's thesis by considering the time devoted to its supervision as part of a lecturer's workload.
- It is recommended to further encourage the Quality Assurance Office to ensure that examinations are conducted according to regulations and that exam questions are not used more than once.
- It is recommended to improve the monitoring in how far lecturers who are assigned to a specific module have the necessary expertise.
- It is recommended to consider the following measures for improving the integration of new students (in particular international students) into campus life:
 - Email addresses of IWM students should be provided to students who have been admitted to the next batch, so that especially non-Kenyan students can already link up with fellow students. (Of course, students have to agree to give out their email addresses).
 - The existing system to link up senior students with newcomers for facilitating their integration into campus life – which works well at undergraduate level - should be extended to postgraduate level.
 - One contact person should be appointed who helps new students with non-academic problems.
- It is recommended that an up-to-date and complete module catalogue, a timetable of the program and the modules and the examination regulations will be made available on the website.
- It is recommended that also all other official regulations are made available online in a user friendly manner.
- It is recommended that during the re-accreditation the external expert team is advised to verify in how far the university has succeeded in guaranteeing the graduation of students after 18 months (in cases to which the former 4 semester structure applies, after 24 months).

The SAK welcomes the planned and implemented measures and activities as explained in the response of the university to the evaluation report. Nevertheless the SAK does not regard all caveats to be sufficiently taken into account.

The SAK grants the accreditation of the study programme "Integrated Watershed Manage-

ment" (M.Sc.) for a period of five years. The accreditation is subject to the following conditions:

Conditions:

1. A Diploma supplement or an adapted transcript of records must be provided allowing a comparison of credits at least with the level valid in Europe.
2. The module descriptions must be revised according to the recommendations listed in the report (e.g. updated references and appointing persons that are responsible for the respective modules). Additionally, a timetable must be produced which shows the sequence of modules. An updated module catalogue should be provided in print and also made available online. The same applies to the timeline depicting the sequence of modules.
3. It should be assured that students obtain more practical experience in the field that covers the teaching of methodological aspects to complement, for example, laboratory expertise taught at the university. This should be proved by the module catalogue.
4. The university is requested to provide a list with up-to-date literature on the topic of Integrated Watershed Management. It should make that list available online and for free.
5. It is requested that a list of available regional (sub-national to local) data sets that can be used in the context with Geographical Information Systems for integrated water/watershed management, be made available to students.
6. It must be guaranteed that the defence of the thesis will not take place later than three months after its submission. The University must introduce appropriate measures.

The accreditation is granted for the duration of five years, once the above conditions have been met. They have to be met not later than twelve months at the latest after the university has been notified about the decision of the SAK.