



PROGRAMME REVIEW REPORT



**Bachelor of Science in Environmental Conservation and Management
&
Bachelor of Science Honours in Environmental Conservation and Management**

Faculty of Science

University of Kelaniya

Site Visit Dates: 29th - 30th September 2022



**Review Panel: - Prof. Mayuri Wijesinghe
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**The Quality Assurance Council
University Grants Commission, Sri Lanka**

Signature Page:

1. University : University of Kelaniya

2. Faculty : Faculty of Science

3. Program : Bachelor of Science Honours in Environmental Conservation and Management

4. Review Panel :

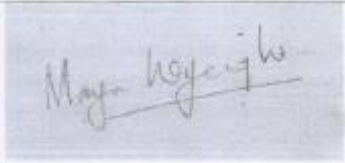
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Section 1: The Programme Under Review

The University of Kelaniya (UoK) is a leading national university in Sri Lanka comprising seven faculties - Commerce and Management Studies, Computing and Technology, Graduate Studies, Humanities, Medicine, Science and Social Sciences. The Faculty of Science (FoS) was established in 1959 and presently accommodates nearly 2,100 undergraduate and 200 postgraduate students. The FoS directly enrolls students for six programmes – BSc. in Biological Science, Physical Science, Environmental Conservation and Management (ENCM), Physics and Electronics and BSc. (Hons) in Management and Information Technology and Software Engineering. As seen from Table 1, ENCM has directly enrolled up to 50 students between 2015 and 2019, which has increased thereafter to around 88 students in 2020. The capacity of students allocated by the University Grants Commission for the ENCM programme between 2015 to 2020 is shown in Table 2.

Table 1.1: Number of students enrolled in the six direct intake programmes between 2015-2020

Degree Programme	No. of Students enrolled				
	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Bachelor of Science Degree Programme					
Biological Science	141	171	175	179	201
Physical Science	257	259	289	281	283
Environmental Conservation and Management Degree Programme	30	54	52	54	88
Physics and Electronics Degree Programme	41	50	41	40	64
Bachelor of Science Honours Degree Programmes (4yr)					
Management and Information Technology Degree Programme	48	97	95	98	112
Software Engineering Degree Programme	49	52	48	47	53

Table 1.2: The UGC allocations and the number of students enrolled in the BSc in Environmental Conservation and Management Degree Programme during 2015-2020

Academic Year	No. of Students enrolled	UGC Quota
2015/2016	30	50
2016/2017	54	60
2017/2018	52	60
2018/2019	54	60
2019/2020	88	109

Based on the performance in Levels I and II, the students of the ENCM programme have the opportunity to follow the four-year ENCM (Hons), whereas the rest of the students obtain the three-year BSc. (General) Degree. The number of students following honours degree programmes, including the ENCM (Hons), is shown in Table 3. Accordingly, 8 – 11 students have followed the ENCM (Hons) programme annually during the years of interest.

Table 1.3: Number of students who have followed the honours degree programmes offered by the Faculty of Science, based on performance at Levels I and II.

Bachelor of Science Honours Degree Programmes	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Bachelor of Science Honours in Biochemistry	6	6	6	6	6
Bachelor of Science Honours in Botany	6	7	8	6	7
Bachelor of Science Honours in Chemistry	20	20	20	20	20
Bachelor of Science Honours in Computer Science	15	13	15	15	13
Bachelor of Science Honours in Computer Studies	1	3	5	3	4
Bachelor of Science Honours in Environmental Conservation and Management	10	11	11	8	8
Bachelor of Science Honours in Mathematical Physics	3	2	4	3	3
Bachelor of Science Honours in Mathematics	13	15	14	15	16
Bachelor of Science Honours in Microbiology	7	7	8	7	7
Bachelor of Science Honours in Molecular Biology & Plant Biotechnology	4	4	4	4	3
Bachelor of Science Honours in Physics	8	8	7	6	6
Bachelor of Science Honours in Statistics	12	11	11	15	15
Bachelor of Science Honours in Zoology	10	8	7	7	8

Section 2: Observations on the SER

2.1 Preparation of the Self-Evaluation Report (SER)

The SER of the `Bachelor of Science in Environmental Conservation and Management & Bachelor of Science Honours in Environmental Conservation and Management has been well prepared and was in accordance with the guidelines stipulated in the Manual for Review of Undergraduate Study Programmes of Sri Lankan Universities and Higher Education Institutions of the UGC. The contents of the SER were comprehensive, yet concise and therefore easily comprehensible. The period covered by the SER was 2015 - 2019.

The Dean/FoS was appointed as the Chair of the SER preparation who was entrusted with providing overall guidance and supervision in the SER writing process. The working group was led by Dr MDMDWMMK Yatawara and it was evident that a participatory approach was followed, with several academic staff members from different departments being assigned different criteria or sections to focus upon. The team and the SER were approved by the Faculty Board of Science, with minor changes being incorporated based on their comments. The contributions of both the Centre for Quality Assurance (CQA) and Faculty Internal Quality Assurance Cell (IQAC) to the entire process were significant. The entire Department was well-versed in the SER process and demonstrated a great degree of commitment and cohesiveness.

Based on the guidelines given in the Manual for Review of Undergraduate Study programmes of Sri Lankan Universities and Higher Education Institutions, the working group members assessed the performance of both degree programmes with respect to the eight criteria and the respective standards. Further, they assessed the degree of internalization of the best practices and the level of achievement of standards, substantiated with relevant evidence in these degree programmes. Documentary and electronic evidence to support the claims of each criterion were collected by the working group members with the help of non-academic staff (Annexure 2) and, code numbers were assigned for each piece of evidence.

2.2 Observations on the SWOT analysis

The SWOT analysis was presented in the SER, some of which was verified through the uploaded evidence, and during both the stakeholder meetings and the site visit. The fact that the ENCM graduates have high employability was evident through the discussions with alumni and employers. Also, it was apparent through discussions with students and the documentary evidence, that students were provided with sufficient practical knowledge and hands-on experience in many subject areas included in the programme. Also, welfare, sports

and industrial engagement opportunities through a well-developed in-plant training programme were at a satisfactory level. However, some facts could not be verified due to the limited nature of the site visit (one day). For example, we were unable to view the hostels and medical facilities.

2.3 Previous reviews conducted and action taken

The recommendations of the subject review conducted for Zoology in 2008 had been considered for improving the teaching, learning, and assessment processes of the ENCM degree programmes. These revisions include the introduction of a tailor-made English language course unit and some optional courses to be included in the third-year curriculum as well as measures taken for the improvements in the continuous assessment process.

Section 3: The Review Process

The review process was rigorous and was conducted in several steps. The first was a desk evaluation of the SER, where members of the review panel made independent assessments, which was followed by a meeting to discuss strengths and weaknesses evident through the SER. This was followed by the inspection of the uploaded evidence after which there was again a discussion between the members of the review panel. After this, there was a lengthy stakeholder meeting for which a schedule was drawn up. This was held on the 30th of September 2022 where several stakeholder groups – Head, students, staff, non-academics, employers, and past postgraduates to name a few, were interviewed informally. The finalized stakeholder meeting schedule is given in Annex 1. The site visit, which was only for one day, was also planned out and took place on a limited scale, on 24 June 2022. The site visit schedule is attached as Annex 2. Visits were also made for physical verification of the claims. The following sections provide a brief record of the meetings conducted and the facilities observed during the review process. Since the faculty was in session, the review team was also able to observe some of the relevant teaching and learning processes.

3.1 Scheduled Meetings and Discussions

During the one-day site visit, the review panel had informal meetings/discussions with several groups and persons who were directly or indirectly involved with the programme or provided support in one way or another. Some of the academic and administrative staff were met during the review visit.

- Vice Chancellor, University of Kelaniya
- Dean, Faculty of Science
- Director IQAU
- Chairperson CQA
- Members of the SER team
- Heads of the Departments
- Academic Staff of the Departments
- Programme Coordinators
- Student Counsellors
- Students

3.2 Facilities observed

In addition to these meetings, the review panel also made visits to several facilities for physical verification. All members of the review panel were present at the discussions and participated in the physical verification process. The facilities inspected are given below.

- Office of the Vice Chancellor
- Office of the Dean
- Administrative block
- Department which department?
- Lecturers' offices
- Student Canteens
- Labs / Lecture halls
- Computer labs
- Glass blowing unit
- Physical Education unit

3.3 Outcomes of the review process

At the end of the site visit, the review panel had several internal meetings to discuss and evaluate the experiences and findings. The evaluation scores given were re-visited, and amended, where needed, based on the on-site observations. The day ended with a debriefing session where some healthy practices were adopted and apparent weaknesses of the study programme as observed by the review panel were highlighted.

Section 4: Judgment on the eight criteria of Programme Review

Criterion 1: Programme Management

Healthy Practices and Strengths

The Faculty of Science, University of Kelaniya holds an appropriate organizational structure and is developing it towards effective governance and management of its core functions. The Faculty and Department hold experienced, qualified, committed and enthusiastic academic staff and support staff. Governance and management procedures such as organizational structure, University Corporate Plan as well as the Faculty Action Plan and management procedures such as By-laws relating to examinations, Student Union and Charter for students which are related to programme management are in place. Key activities of the University are linked to the up-to-date Corporate Plan and Faculty Action Plan. In terms of quality assurance activities of the Faculty, the FQAC is coordinated by a senior academic staff member and its membership and TOR are clearly defined. Some minutes of Faculty Board meetings, staff-student meetings, and student counsellor meetings were provided. Student representatives are incorporated into the quality improvement of academic programmes and faculty management activities, and student participation was noted in the Faculty Board and the student welfare committee meetings. Furthermore, it was noted that the Department conducted regular student and staff meetings which is highly commendable. One of the Department's greatest assets is having a conducive atmosphere for teaching and learning activities and its enthusiastic academic staff being involved in imparting the required knowledge, skills, and competencies. The reviewers were able to observe satisfactory evidence (programme schedules, handouts and feedback forms) related to the conduct of the orientation programme for new entrants. The Faculty maintains a good rapport with its alumni and other stakeholders, which was observed during the stakeholder discussion. The Faculty regularly conducts tracer studies which enables it to obtain information about possible deficiencies in the educational process and the learning process, and this would form the basis for planning activities for improvement in the future.

Weaknesses

The student representation at the FQAC meetings and Quality Assurance activities is not evident. It was noted that the study programme lacks a policy, strategy and action plan aimed at differently-abled students. The SDC has not conducted adequate training programmes on SLQF, OBE and SCL. Continuous monitoring of the teaching and learning process is done mainly through student feedback, which includes questions to assess

performance of lecturers. The review team observed the lack of a standard Senate-approved template for course contents, and assessment criteria are not clearly defined in the available template. The volume of teaching and learning is not presented in notional hours. Hence, necessary actions should be taken to develop a suitable template as per the guidelines given in the SLQF 2015 and obtain necessary approval from appropriate statutory bodies. Although MoUs of collaborative partnerships with external organizations for some aspects e.g. field training were available, they must be further strengthened to the level of incorporating student and staff exchange programmes. It was observed that the formal mentoring programme for students could be improved. It is hence recommended that a formal programme is initiated, mentors trained and important documents systematically maintained. There was evidence of a lack of a proper fallback option for lower levels (e.g., higher diploma etc.). It was noted that the survey data (feedback from students and staff) and employability surveys are not meaningfully analyzed, and used for the improvement of the study programme.

Criteria 2: Human and Physical Resources

Healthy Practices and Strengths

The Faculty and the Department which offers the programme under review comprise well-qualified and a sufficient number of academics (3 Emeritus Professors, 2 Senior Professors, 8 Professors, 18 Senior Lecturers), as well as non-academic staff including technical officers, to provide necessary assistance to teachers and students. The academics have diversified in a variety of specialized areas within the broad field of Environmental Science. Most importantly, the staff are committed to teaching to ensure that a student-friendly environment conducive to learning is created. The students interviewed appeared to be content with the available infrastructure facilities lecture halls, hostels, IT laboratories etc. Technicians receive training in ICT / language skills through programmes conducted in collaboration with the Staff Development Unit. ICT facilities, including Wi-Fi, backup facilities etc. and technical assistance are above average and would have facilitated the transition from conventional to virtual modes of teaching. Since then, these facilities have been used to improve the diversity and effectiveness of teaching and learning strategies. Specialized training is facilitated for Special and General degree students through internship opportunities in industries, with whom the Faculty has signed agreements, as well as through laboratory and field training sessions

The library is adequately equipped with special facilities such as an electronic reading room. To support both teaching and learning activities, several centres and units have been established and are functioning smoothly to dispense duties in several areas – e.g. Data Management Unit – collating information on staff/student surveys, Unit for Gender Studies,

Research Unit etc. The Department of English Language Teaching (DELT) offers compulsory English courses for undergraduates which would undoubtedly increase the employability of students passing out from the programme. The Medical Centre and UNHC facilities are maintained at a satisfactory level. Research dissemination is done at a reasonable level as evident through international/publications. The Career Guidance Unit is well established and is involved in providing some career planning support and openings to job opportunities through the Career Fair which is one of the main annual activities of the CGU. Waste management is systematic through sorting and recycling facilitated by the Centre for Sustainability Solutions. Canteens and Sports facilities are adequate and maintained and ancillary services such as photocopying and other essential services are also provided within the premises.

Weaknesses:

Although the students seem to be content with the space, there is a severe lack of space for labs and lecture rooms, as reported by many factions. The existing building also requires maintenance and repair. This is seen as a severe hindrance to dispensing the normal functions of the department, whilst also preventing any progressive expansions. Some of the buildings used for teaching and learning were not adequately maintained. Toilet facilities are reported to be inadequate.

It was also evident that there is a limited number of foreign scholars / external input for teaching and learning components. The CGU activities could be enhanced to create more opportunities for career development – one recommendation is to offer certificate courses on different aspects that would further develop the soft skills of the students. Capacity building of all staff through the provision of in-service training and Continuing Professional Development (CPD) could be improved.

Criteria 3: Programme Design and Development

Healthy Practices and Strengths:

It was observed that the curriculum development and revision processes are done through a participatory approach. The Curriculum Development Committee which is established and meets regularly facilitates this process. This committee also plays a key function by approving routine documents which are required for the smooth functioning of the programme. The structure of both the ENCM and ENCM Honours degree programmes conform to the requirements of the SLQF. The programme is logically structured and consists of a coherent set of courses/modules whilst allowing some flexibility in students' choices of courses. Programme design and development procedures include specific details

relating to entry and exit pathways. The detailed structure of the programme is set out in the handbook along with required information on degree awarding criteria, calculation of GPA, repeats, medicals etc. The Intended Learning Outcomes (ILOs) are congruent with the mission and goals of the programme and are feasible to achieve. The programme design accommodates supplementary courses to broaden its outlook and enrich the generic skills of students. It is also multidisciplinary and incorporates many current topics. Curriculum mapping has been completed where ILOs have been aligned with the PLOs. Some external stakeholder participation has been considered at key stages of programme planning, design and development, and review. It was evident that both the ENCM and ENCM Honours degree programmes contain components of research and/or internship training. ICT components including GIS are incorporated into the curriculum.

Weaknesses:

A majority of the students will obtain a three-year general degree which is seen to be a considerable drawback from the point of view of the student's ability to undertake higher studies. The preference for a four-year degree was expressed in the interviews with students. The mechanisms for feedback on courses/peer review are rather poor as it does not maintain sufficient anonymity. The satisfaction survey results of students and staff although analysed, have not been used for the improvement of the programme. There was no evidence that stakeholder feedback for the programme has been used to a satisfactory level for the improvement of the programme.

Criteria 4: Course / Module Design and Development

Healthy Practices and Strengths:

The course design and development team involved both internal and external subject experts. The courses are aligned with the SLQF credit definition. CDC, FAQC, CQA and Senate-approved standard formats/templates/guidelines are used for course/module design & development. The courses are designed to meet the programme objectives and outcomes and reflect the knowledge and current developments in the relevant field of study/ subject areas and accommodate a diversity of teaching strategies. Course modules were well described on the website of the faculty and previously in a separate handbook distributed among the students. Also, the lesson plans are available for many of the courses in the CAL at present. Concerning credit weight and volume of learning, courses are scheduled and offered in a manner that allows the students to complete them within the intended period. Revisions of the curriculum are being undertaken by the CDC at regular intervals. Mechanisms to improve courses to enhance learning outcomes and achievements of students through regular monitoring and review processes (feedback) are in place. The

staffs involved in instructional design and development have undergone some training to ensure effective delivery of courses (E.g. on the use of CAL)

Weaknesses:

Analyses of student feedback and how many students participated in the surveys are not clear. Much of the evidence was not consistently provided for the three years as required by the SLQF guidelines. Feedback reports are not strategically analysed to enable the findings to be utilized for the improvement of courses in terms of content and delivery. There is no evidence on Faculty course design policy and procedures regarding differently-abled students. For the period under observation in the SER, evidence for detailed templates specifying credit value and the workload (notional learning hours) as per SLQF, broken down into different types of learning such as direct contact hours, self-learning time, assignments, assessments, etc. were limited. This seems to have been rectified in recent years and updated on the faculty website. It would be preferable to offer a continuous industrial training session rather than a 4 days per week session, which the students claim interrupt both the training and academic programmes.

Criteria 5: Teaching and Learning

Healthy Practices and Strengths:

The Department is motivated towards achieving student-centred teaching and learning in line with OBE. The programme encourages blended learning with a diversity of strategies that ensures greater student engagement in the courses. Timetables are prepared at the faculty level and made available to the students and venues are allocated well in time. The CGU has undertaken some programmes to improve the soft skills of students. Teachers encourage students to engage in research and to disseminate research findings. The usage of CAL for teaching was apparent. Course specifications are prepared and students are duly informed of the course structure and other important elements. The Faculty offers a well-structured orientation programme for all new students to prepare them for the university environment. Student retention, and completion/graduation rates are monitored. An appraisal system for research excellence of academic staff is in place and non-academic staff appraisal schemes are also in place.

Weaknesses:

Although feedback from stakeholders has been received, there is no evidence for taking remedial measures based on this feedback. Also, although feedback from staff and students is obtained and systematically analysed, the results have not been conveyed to the relevant parties through the proper channels. Hence there is no evidence of utilizing feedback for continuous development of the teaching and learning process. No proof was provided for the allocation of equitable workloads. No special methods were evident for addressing the teaching and learning needs of differently-abled students. An appraisal system for excellence in teaching is not in place.

Criteria 6: Learning Environment, Student Support and Progression**Healthy Practices and Strengths:**

The Faculty / Department has created a conducive and caring environment for both teaching and learning. The cordial interaction among students and staff is certainly a strength for the progression and smooth implementation of the programme and interactive links are maintained between staff and students through regular staff-student meetings. The Faculty/Department offers all incoming students an induction programme regarding the rules and regulations of the institution, student-centred learning, outcome-based education and technology-based learning. The Faculty guides the students to comply with the Code of Conduct for students (Student Charter). Students are led to optimally use the available student support services for their personal development. Permanent Assistant Student Counsellors (13) have been recruited for the university, who provide much-needed support for students and there are ready channels through which they can be approached when the need arises. Co-curricular activities such as sports and aesthetic programmes contribute to social and cultural dimensions of the university life and, cultural/religious harmony among students is facilitated through regular activities which are well-participated by both staff and the students. Community outreach programmes are conducted and the participation of students is satisfactory. The employability of students is promoted through internships/in-plant training. Counselling and mentoring to support choices in courses and career paths are offered through the CGU. The CGU conducts a Career Fair to increase students' awareness of career opportunities. Many other units, committees and societies – Kalana Mithuru Sevana, the Student Welfare Committee, have been established through which the mental and physical well-being of students is ensured. Student societies in the Faculty/Department (Environmental Society and the Aquatic Club) are encouraged, and these take a lead role in organizing activities that raise awareness of environmental consciousness. An opportunity is provided for students to make requests/appeals. The library liaises with the academic staff to ensure that the required reading resources are provided to the students to support

teaching. The Faculty/Institute has conducted training sessions with respect to the use of IT and CAL facilities particularly during the COVID period. Student/staff satisfaction surveys are conducted regularly. Alumni conduct awareness and training sessions for the students and have also donated items (e.g. electronic wheelchairs) that have been beneficial for students with disabilities. A university-level Coordinating Centre has been established to address disabilities. The Staff Development Centre is well established and offers courses to new recruits.

Weaknesses:

The progression of students from one year to the next is not systematically monitored to allow weaker students to be tracked and special attention to be paid to them. No mechanisms have been established for the identification and mentoring of academically weak students. Programmes facilitating guidance for early career academics are not sufficient. Facilities for students with special needs can be improved further. Survey data (satisfactory survey) is not used for the improvement of the study programmes. This is true both for student feedback and per review. No evidence was apparent with respect to monitoring student support services and using them as a basis for improvement. The Faculty/ Department at present does not have a fallback option for those who do not complete the programme successfully.

Criterion 7: Student Assessment and Awards

Healthy Practices and Strengths:

The Faculty has implemented a Course Unit System and the courses are tested using appropriate assessment strategies. The assessment strategies were fairly diversified and aligned to specified qualification/level descriptors of the SLQF 2015 requirements. Assessment strategies for student learning are included in curriculum development and programme design. It was observed that the evaluation procedures and credit values are communicated by faculty to the students at the time of enrolment. All staff members adhere to the formal guidelines of examinations. The Department has identified the importance of incorporating new assessment strategies for effective learning and hence training programmes are conducted through SDC to further develop the skills of the staff. Formal procedures for paper setting, moderation, first marking and second marking are followed. Furthermore, it was observed that formative assessments are conducted as a part of assessment procedures, and feedback for such assessments was communicated in a timely fashion to the students. Documentary evidence for such was not provided but the students divulged this during the interviews. Complete and adequately descriptive transcripts were made available for the students after graduation. The examination results are securely held, and confidentiality is maintained. The research output, and securing patents (products that can be commercialised) are at a satisfactory level, which is

admirable. Criteria for research excellence have been formulated and have been practised over the past few years.

Weaknesses:

A few key weaknesses were evident. The manual of examiners' procedures was not available; hence ToRs were not provided for external/second examiners. External input for assessments was severely lacking and often the assessment strategy and mark allocations are left to the discretion of the teacher. Further, a policy document for a pre-determined mechanism for weightage relating to different components of assessment was not evident. Therefore such information is not formally communicated to the students. Course specifications do not include a breakdown of assessment strategies, although this has been rectified in recent years. Recently developed course specifications and assessment strategies are on par with the SLQF, but the volume of learning has not been interpreted in notional hours. Uses of the feedback on course evaluation and teaching and learning activities for teacher improvement were not evident. Moreover, Faculty/Senate-approved policies for outcome-based programmes were not available. No evidence was provided for the use of special evaluation strategies for students with disabilities.

Criterion 8: Innovative and Healthy Practices

Healthy Practices and Strengths:

The degrees have adopted a range of good innovative healthy practices. The innovative and healthy practices in both degree programmes can be summarized as follows. The programmes have promoted the involvement of students and staff in co-curricular activities such as social, cultural and aesthetic activities. The Faculty has introduced Computer Assisted Learning (CAL) which is functionally similar to the Learning Management Systems (LMS), to facilitate effective multimode teaching, learning and assessments. Additionally, the Department is equipped with the necessary IT facilities, software and multimedia that are required for effective teaching and learning activities. Students are offered both the final-year research and industrial training components. Offering a mandatory internship programme which enriches practical experience as well as industrial exposure and thereby the quality of the programme is highly appreciated. The Department has entered into several MOUs with Government and private organizations to provide internships and conduct field visits and places of training to develop hands-on experience and industrial exposure. Additionally, to extend the knowledge and skills of the academic staff to the industry and the community, a "University-Industry-Community Interaction Cell", named "Environment & Development Consultants (EDCON)," has been established in the Faculty, which is highly commendable. Consultancy services, workshops, collaborative research,

advisory services, etc. are organized through this unit. The Research and Services Centre that has been established under the HETC also facilitates and promotes research and development activities of the Faculty, commercialization of research products and upgrading the research skills of the undergraduates and postgraduate students. It was observed that students are given opportunities to raise their issues at the Faculty Board meetings/Student and Staff meetings and they have been favourably considered on many occasions. Furthermore, the academic staff had friendly and cooperative relationships with students during their study period through the staff and student meetings. The Faculty encourages students to disseminate their findings at annual research conferences. The University/Faculty conducts several annual conferences that have created an opportunity for students to publish their research work. The support given by the library for research activities is commendable. An awarding system for research excellence (VC Award, Senate Award, etc.) was evidenced for academic and non-academic staff members. Getting industry stakeholders and alumni involved in the curriculum revision process was also witnessed.

Weaknesses:

A recently developed Open Educational Resources (OER) Policy is evident. However, this document has not been developed within the review period. A University-approved policy or guidelines for the fallback option were not evidenced. It is recommended that the Department/ Degree Programme strengthen its MOUs by incorporating the exchange of students and staff (MOUs with Universities), and establish business links and entrepreneurship. It was observed that a formal mechanism for the disbursement of generated funds was not available. A guideline or policy for Faculty/Department fund disbursement is recommended. Regular revision of the curriculum and close monitoring of its implementation must be exercised.

Section 5: Grading of overall performance of the programme

Based on the guidelines given in Chapter 3 of the PR manual, the Review Panel's evaluation of the performance of the study programme is given in Table 5.1

Table 5.1: Assessment Criteria and Score

No.	Criteria	Weighted minimum score*	Actual criteria wise score
01	Programme Management	75	130
02	Human and Physical Resources	50	86
03	Programme Design and Development	75	121
04	Course / Module Design and Development	75	124
05	Teaching and Learning	75	126
06	Learning Environment, Student Support and Progression	50	79
07	Student Assessment and Awards	75	121
08	Innovative and Healthy Practices	25	35
	Total on a thousand scale		822
	%		82.2

Grade: A

Section 6: Recommendations

The following key recommendations are made to increase the overall quality of the Bachelor of Science in Environmental Conservation and Management, and the Bachelor of Science Honours in Environmental Conservation and Management, offered by the Faculty of Science of the University of Kelaniya. Areas specific to the criteria are dealt with under each of them.

- Consider offering a four-year degree for students who are not selected for the honours degree. At present, a large proportion of the direct intake for the programme is compelled to take the three-year degree programme whereas only a handful are selected for the honours degree.
- Input of external stakeholders (for curriculum development and revision), and examiners (in terms of mark allocation and second marking), must be increased significantly.
- Better feedback mechanisms must be established to ensure anonymity. At present feedback is obtained from the lecturers. Peer review processes must be more transparent. Here it is necessary that the results of feedback are covered by the relevant parties and its use for developing the programme and addressing shortcomings are ensured.
- Fallback options must be introduced.
- The CGU could consider offering certificate courses to improve the soft skills of students.
- The role of the research unit can be enhanced through greater involvement of postgraduate students, the offering of standard courses for both undergraduates and postgraduates and by supporting research dissemination.
- The CAL system was being used but evidence for its usage must be documented more systematically.
- The offering of a continuous industrial training session rather than a 4 days per week session should be considered.
- A system for the follow-up on academically weak students must be put in place.
- The space issue must be addressed and must be considered a priority by the Faculty and University.
- The involvement of external examiners should be considered mandatory in the examination process.

Section 7: Summary

The review process of the Bachelor of Science in Environmental Conservation and Management, and the Bachelor of Science Honours in Environmental Conservation and Management offered by the Faculty of Science, the University of Kelaniya, was completed. The review process comprised desk evaluation based on the submitted SER, browsing of the documentary evidence uploaded for the relevant degree programmes, followed by an extensive stakeholder consultation on the 24 of June 2022 via Zoom and a short site visit on the 30th of September 2022. The site visit was restricted to key discussions with the Vice Chancellor, Dean, Heads, academic and some non-academic staff. Discussions with students of the study programme as well as with members of student-based societies provided the Review Panel with invaluable insight into the implementation of the study programme. The review panel also engaged in a physical inspection tour to observe available resources and processes, although this was limited owing to the short nature of the site visit.

The SER was fairly comprehensive and well-prepared and the documentary evidence was systematically organized to facilitate the review process. Overall, a high level of enthusiasm was shown by the academic staff and non-academic staff. The staff showed a high level of commitment towards students, in both teaching and carrying out administrative functions. The students, overall, were well informed about the study programme and the facilities available for them within the university. The level of English of the students that were interviewed was satisfactory. Internship / In-plant training was satisfactory. Efforts have been made to improve the soft skills of students. Staff are friendly and deliver academic programmes in a timely and organized manner. Participatory approaches were regularly followed, and the cohesiveness of the staff and students was apparent. The environment in the Department, Faculty and the University at large was safe, pleasant, clean and conducive to both teaching and learning.

Despite limitations, particularly in terms of space, the programme is performing well, and this is to be commended. Accordingly, based on the findings of the Review Panel on the stipulated requirements of the eight broad criteria, the Bachelor of Science in Environmental Conservation and Management and the Bachelor of Science Honours in Environmental Conservation and Management were awarded an A Grade, which implies a satisfactory level of accomplishment of the expected quality of the study programme. The healthy practices and strengths of the programme as well as the identified weaknesses have been detailed in Section 4 of this report. Recommendations for improvement are given in Section 6. We are certain that if these measures are duly addressed, and the mechanisms

that have been put in place are internalized to a greater extent, the two programmes under review, would become more popular and sought after.

The review team wishes to appreciate and acknowledge the cooperation and support extended by the Vice Chancellor, Dean, Heads of Departments, Heads of the Centers and Units, Director, IQAC, Chairperson IQAC, SER writing team and all academic and non-academic staff members and students, graduates and industrialists who extended their support and so facilitated the work of the Review Panel.

Annexure

Site visit schedule-Programme Review

Bachelor of Science in Environmental Conservation and Management and Bachelor of Science Honours in Environmental Conservation and Management Study Programmes, University of Kelaniya

29th & 30th September 2022

Date: 29.09.2022		
1	Reaching the Hotel	4.00 pm
2	Meeting with Director/CQA and Coordinator/IQAC	4.30-5.30 pm
3	Planning for the site visit (with dinner)	8.00 pm to 11.00 pm
Date: 30.09.2022		
SN.	Stakeholder meetings/Visits	Time
1	Departing the Hotel	8.00 am
2	Reaching the Vice Chancellor's Office	8.30 am
3	Meeting with Vice Chancellor, Registrar and Bursar	8.30-9.00 am
4	Meeting with the Dean (with Tea)	9.00 to 10.00 am
5	Visiting Teaching/Learning Facilities	10.00 to 12.30 pm
	IQAC	
	Academic Departments, Lecture halls. Laboratories	
	Library	
	Canteen	
	Laboratories	
	Health Centre	
	CGU	
	Hostel	
6	Lunch	12.30- 1.30 pm
7	Visiting staff - student welfare and other facilities (e.g. Canteens)	1.30 -3.30 pm
8	Discussion among three reviewers (Facilities such as a computer, printer and confidential room provided)	3.30-4.30 pm
9	Debriefing session (with evening tea)	4.30-5.15 pm
10	Leaving the university	5.30 pm