



UNIVERSITY OF ICELAND

Interdisciplinary Graduate Programme

ENVIRONMENT AND NATURAL RESOURCES

SELF-REVIEW REPORT



March 2019





UNIVERSITY OF ICELAND

Introduction

This report is an abstract of the Self-Review Report of the Environment and Natural Resources (ENR) Graduate Programme, University of Iceland (UI) and is intended for public disclosure at the University's website. The ENR Programme is an Interdisciplinary programme based on an agreement between all five schools within the University. It is taught in English and attracts students from all over the world.

In accordance with the Icelandic Quality Enhancement Framework at the University level in Iceland and the University of Iceland's Guidelines for the organization, schedule and process of institution-led review of faculties and interdisciplinary programs, the Environment and Natural Resources Graduate Programme (ENR) carried out a self-evaluation during the spring and autumn semesters of 2018. The results are presented in this report. A self-evaluation committee was established in March 2018. The committee members were:

1. Sveinn Agnarsson, Associate Professor, Chair of the ENR Programme board, Chair-person of the self-evaluation committee.
2. Brynhildur Davíðsdóttir, Professor and Academic Director of the ENR Programme, tenured lecturers' representative.
3. Lára Jóhannsdóttir, Professor, tenured lecturers' representative.
4. Ingunn Gunnarsdóttir, PhD student, students' representative.
5. Jóhann Helgi Stefánsson, Master's student, students' representative.
6. Anna Margrét Kornelíusdóttir, researcher at Icelandic New Energy, former students' representative and society representative (graduated with MS in 2014).
7. Reynir Smári Atlason, Assistant Professor at University of Southern Denmark, former students' representative and civil society representative (graduated with MS in 2012 and PhD in 2015).
8. Kristín Linda Árnadóttir, General Director at The Environment Agency of Iceland, civil society representative.
9. Bjargey Anna Guðbrandsdóttir, Programme Coordinator of the ENR Programme, secretary of the committee, and other employees' representative.

In the spring of 2018, the committee completed a time schedule for the review, and arranged meetings with experts from the Centre for Teaching and Learning and from the Social Science Research Institute. The Centre for Teaching and Learning provided expert assistance in the revision of learning outcomes. The Social Science Research Institute provided the committee with results from student satisfaction surveys and arranged focus group meetings with the assistance of the student representatives on the committee.

Leslie King, Professor at The School of Environment and Sustainability, Royal Roads University, Canada, Director at the Canadian Centre for Environmental Education, acted as an international external expert. She visited the Programme and consulted with the committee as well as with other members of staff and students in September 2018.

The Self-Review Report is divided into three main chapters, a description of the faculty, a description of the study programme, and summary of the main conclusions. The review was conducted from spring 2018 to January 2019.

Summary and Main Conclusions for the Faculty

Lessons Learned from QEF1

An earlier self-evaluation report was submitted in February 2013. Key issues for improvement were recognized as having high, medium or lower priority, whereas issues recognized as having high priority required immediate attention. **Please note that the earlier report only reviewed the master's Programme as the PhD Programme was only formally established in 2012.** Overall, numerous positive developments have taken place since the last review as most of the issues identified have been addressed, at least partially. The position of the ENR Programme within UI has been - to some extent - clarified, more faculty members and staff have been hired, positive developments have taken place in the curriculum with new mandatory courses added and more effective supervision of ENR Master's students with, for instance, a mentoring programme and an annual students colloquium. Below, we review the main issues identified in the earlier report and the actions taken to address them. The review is organized according to the section headings from the follow-up to the earlier self-evaluation report.

1. **Professional vision and policy in an international context.** No specific issues were identified in this section that required action beyond what already was being done, i.e. to continue conducting high quality research, to provide competitive education, to ensure sufficient course selection in English and to continue to attract a diverse student body.
2. **Introduction to the ENR Programme and position within UI.** Several issues were identified that needed attention. These included the following; to more clearly organize the Programme into study lines instead of linking the Programme to specific faculties, to ensure methodological proficiency of ENR students, to increase the visibility of the Programme throughout the University, to continue close collaboration with firms and institutions both in Iceland and abroad, to ensure a strong alumni network of ENR alumni and to facilitate a formal relationship with the Institute of Sustainability Studies. Formal actions have been taken to address most of these points, including the formalization of five study lines (I. kjörsvið), mandate that all ENR students complete a methods course in addition to the development of a thesis writing course, the creation of an internship programme to further collaboration with firms and institutions and steps have been taken in the attempt to formalize a collaborative relationship with the Institute of Sustainability Studies. An agreement has been developed, but has waited for confirmation by University administration for the last five years. An alumni network has not formally been constructed beyond the creation of an alumni Facebook group.
3. **Internal quality assurance.** Three main issues were identified; to enhance the quality of research conducted by ENR Master's students, to facilitate coordination of thesis rules for ENR students, to continue enhancing the quality of the ENR Programme, e.g. by facilitating access to teaching evaluations of courses not taught by ENR Faculty as well as conduct exit survey, and surveys sent to alumni. The first issue has been addressed by mandating ENR students to complete a methods course, by creating a mandatory thesis writing course, a mandatory thesis description to be submitted and presented during the second semester of study and by the creation of a mentor system where ENR Faculty members mentor the ENR students throughout their studies. The second issue has been addressed through making the different faculties rules more transparent to students. The quality of ENR courses and other courses ENR students complete is monitored both through teaching evaluation (ENR courses), and through in-person student interviews. Exit survey's or alumni surveys have not been conducted.

4. **Domestic and international cooperation.** Several low-priority issues were identified including; to expand domestic research collaboration, to facilitate international collaboration by offering courses by international visiting faculty and to enable students to participate in international policy making, to encourage students to present their work at conferences, and to encourage students to publish their research. All issues have been addressed by e.g. enhanced efforts in seeking domestic grants, organizing courses in collaboration with international renowned faculty as well as offering master classes with visitors to University of Iceland (e.g. Jane Goodall, Bill McKibben, Robert Costanza). PhD students have been encouraged to present and publish their research, however, lack of funding prevents Master's students to follow suit.
5. **Student services.** Three issues were highlighted; ensure that welcoming reception is held for all incoming students, both Master's and PhD students, facilitate closer linkages to Institute for Sustainability Studies, and housing. The first issue has been addressed partially by the creation of a mandatory 1 credit orientation course for all Master's students which includes a reception. A welcoming reception has not been held for PhD students as they begin their studies at different times throughout the year. Steps have been taken towards facilitating closer linkages to the Institute of Sustainability Studies. ENR students and the Programme, however, still lack a common space.
6. **Teaching and teaching methods.** Two issues were highlighted; to develop contracts between students and advisers, and to continue providing high quality education for ENR students that relies on diverse methods of teaching and evaluation. The first issue has not been acted on directly as another action was chosen – to create a mentoring system and a formal thesis description process. The second issue is constantly being reviewed as the faculty reviews the entire curriculum in August each year and collectively works towards improving the courses offered. For example, in August 2017, the faculty reviewed all mandatory courses within the Master's programme.
7. **Research and coordination of teaching and research; professional development.** The issues highlighted were: the need to hire more faculty members, to enable enhanced research activities and further coordination of teaching and research. Permission was given to hire two new faculty members in 2014, however, only one was hired due to lack of qualified candidates. Unfortunately, the quest to advertise that position again has been rejected despite sufficient funds. Another issue highlighted was to link more closely thesis advisers to the programme. This action is still being discussed and has not been implemented yet.

As can be seen from the above review, many of the actions deemed necessary in the earlier self-evaluation report have been implemented. The **main obstacles** identified in the previous report to further improvements can be categorized into four categories:

Organizational. As students within the ENR Programme graduate from different faculties of the University they will, unavoidably, have to fulfil different requirements for their thesis and some will receive grades and others not, i.e. pass/fail. This obstacle is due to the nature of the organizational structure of the Programme and is difficult to overcome. The ENR Programme is “housed” within the School of Engineering and Natural Sciences (SENS), the board of which takes executive decisions that for example have prevented the ENR Programme from hiring new faculty members due to non-transparent reasons. This is creating enormous strain on the ENR Faculty and is slowly eroding the ability of Programme staff to bring in additional funds.

Lack of funding. The ENR Programme is well funded as defined by the University funding rules. However, due to the financial strain of other faculties within SENS the ENR Programme has not received for years the funding it should receive according to the University financial allocation rules.

Lack of faculty and staff. According to a new study carried out by the Dean of Social Sciences, the ENR Programme is seriously understaffed, or by 50%. In fact, the study illustrates that ENR is the most understaffed entity of the University.¹ This puts strains on the faculty to implement curriculum improvements and to seek new funding for research in addition to simply providing students with the learning environment they deserve. This fact underscores the drawbacks associated with the organizational position of the Programme and its impact on the future of the Programme.

Lack of a common location. The lack of a common location makes the Programme less visible within the University and hinders further development of a strong common identity of the students in the Programme, as well as a closer link between Master's and PhD students.

Faculty Characteristics

The organisation of the ENR Programme is detailed in an agreement between all five schools within the University. According to the agreement, the Programme is financially and academically independent and considered a “faculty-equivalent”. The ENR Programme Board includes representatives from all the five schools within the University of Iceland, while the Academic Director of the Programme has a role equivalent to the role of Head of Faculty. The ENR Programme is housed within the School of Engineering and Natural Sciences (SENS) where it is placed under the Faculty of Life and Environmental Sciences. The Academic Director regularly attends meetings with the board of SENS as an observer, but does not have voting rights. The SENS Board approves financial allocation to the Programme as well as any new hires to the ENR Programme. Currently, the ENR Programme has three tenured and full-time faculty members, with one of them acting as the Academic Director of the Programme, and two part-time faculty members, for a total of 3.7 full-time equivalents.

The present structure of the ENR Programme creates several difficulties which reduces the visibility of the Programme within the University, and hamper the current operation and future development of the ENR Programme. Due to the organizational structure of the University and despite being defined as “faculty equivalent”, the Programme is not represented as such within the organizational chart of the University nor within SENS. Instead, it is placed within the Faculty of Life and Environmental Sciences where it appears as one of several study programmes housed within the Faculty of Life and Environmental Sciences. The Programme is, therefore, not represented as “real” and on par with the other faculties within the University.

Although the Programme Agreement explicitly stresses that the ENR Programme is financially independent and the all annual operating profit of the Programme shall be spent on further enhancements of the ENR Programme, the financial allocations of the SENS Board have in recent years not been in accordance with the Programme Agreement. The lack of funds has had a detrimental impact on the Programme. Furthermore, by thus redistributing the revenue generated by the ENR Programme to other faculties within SENS which are in a more fragile financial position, the SENS Board creates serious disincentives for ENR Faculty to seek grants. Insufficient funds for supervision may also delay the graduation of students from the ENR Masters Programme.

¹ Deililíkan – ráðningaráætlun.

The ENR Programme is currently seriously understaffed but frictions within SENS have prevented approval of advertising of new academic positions, with the Faculty of Life and Environmental Sciences maintaining that new hires should not go to the ENR Programme but to the faculties albeit funded by the ENR Programme.

Owing to the interdisciplinary nature of the ENR Programme, faculty members are located in different “home faculties”. Graduate students, post-docs and other researchers likewise lack a common location. This contributes to making the Programme less visible within the University, prevents the Programme from developing a strong identity and retards social and academic interaction within the Programme. Finding a suitable common location is therefore essential for the future development of the Programme.

These deficiencies are all addressed in Appendix 2, which lists the action items for faculty and structure. While most of these actions are the responsibility of the Programme Board, Academic Director and Programme Coordinator, some can only be carried through in conjunction with the Centre Administration of the University.

Among the actions to be undertaken in the medium run (3-5 years) are two that require special mention. The first refers to the need to establish a formal relationship with the Institute of Sustainability Studies, which could then become a focal point for all research within the ENR Programme. The second concerns the need to evaluate the opportunity costs of not allowing the ENR Programme to grow. There is considerable risk that by limiting financial allocations and hindering new hires, the ENR Programme will be damaged leading to declining quality of the Programme, disillusion among faculty and lower attendance rates. Such a development would have a detrimental impact on the whole of SENS and the University, and would be in clear violation of the current policy of the University (HÍ21). As noted in Appendix 2, there is also a clear need to articulate a vision for ENR. However, such a vision cannot be developed without addressing the structural difficulties facing the ENR Programme, lack of funding and faculty.

At the final meeting of the External Examiner and the self-evaluation committee, the External Examiner initiated a SWOT analysis. The analysis both reflects the views of the External Examiner, as put forward in her report, and reflects many of her recommendations, but also the views of members of self-evaluation committee. The part of the SWOT analysis dealing with the faculty and structure of the ENR Programme is presented below. The strengths of the Programme rest mainly on the high standing of the University, the international competitiveness of ENR and the high level of research and policy impacts of academic faculty. The weaknesses identified correspond precisely to those mentioned earlier, which also represent the main threats to the ENR Programme.

Teaching and Learning

The Programme includes two study programmes, a Master’s Programme and a PhD Programme. Due to the interdisciplinary structure of the Programme and the fact that the Programme is not an independent faculty, students graduate from the faculty where their main adviser resides.

The ENR Programme was established in 2005. Since its beginning, over 190 candidates have graduated with a Master’s degree in Environment and Natural Resources from 17 different faculties within the

University of Iceland. Seven candidates have graduated with a PhD in Environment and Natural Resources from five different faculties within the University.

The Programme is ambitious and of high quality and fully comparable to similar programmes at other universities in North America and Europe. The educational experience students gain is positive but challenging and provides students with a solid base for employment or further studies in the field, equally in Iceland as abroad. As the ENR Programme is only at the graduate level, high impact research and the involvement of students in research is a defining element of the Programme.

To further improve the Programme, it is important to continue developing the current study lines, especially the non-natural science aspect, and add new study lines. A visiting scholar program should be established and an alumni network established and activated. Formal ties between the Masters' and the PhD programmes should also be set up to enhance cohesiveness and collaboration. The structure of the PhD program needs to be improved, not least the inconsistency of supervisors and reliance on a single PhD supervisor.

SWOT Analysis for teaching and learning

| Strengths | Weaknesses |
|---|---|
| Dedication of staff | Inconsistency of Master's supervisors |
| High number of sessional teachers | High number of sessional teachers (variable quality) |
| Orientation course for Master's | Internship programme too short |
| Thesis writing course | Lack of structure for PhD programme |
| Mentorship programme | Inconsistency of PhD supervisors |
| ENR colloquium | PhD students too reliant on a single supervisor |
| High quality of students | Lack of social life for PhD students |
| Employability of graduates | Teaching in English |
| Flexibility of the Programme and variety of courses | |
| Number of PhD students | |
| Innovative student experience | |
| Teaching in English | |
| Opportunities | Threats |
| Recruiting more Icelandic and international students | Lack of operational funding |
| Have a point person for PhD students | ENR is vulnerable and unsustainable in terms of number of staff |
| Handbook for graduate students | |
| Handbook for supervisors | |
| More ties between the Master's and PhD programmes | |
| PhD course introductory | |
| PhD seminars/colloquium | |
| Lengthen the internship program | |
| Add study lines and develop current study lines further | |
| Develop non-natural science aspect of ENR further | |
| ENR graduates contribution to the programme | |
| Implement a student exit survey | |
| Improve social life for PhD students | |

Outcomes of SWOT analysis for teaching and learning are presented above. The main strengths related to the dedication of the faculty, support offered to Master's students (e.g. thesis writing course, mentorship and colloquium), but the weaknesses mainly related to the structure of the PhD programme. Most of these weaknesses can be turned into opportunities, but threats facing teaching and learning concern lack of operational funding and small number of faculty which make the ENR Programme vulnerable and unsustainable, and preventing the programme from seeking these opportunities.

Management of Research

ENR Faculty and students are active researchers and the research conducted is of high quality. ENR Faculty is currently involved in more than 20 research projects, both domestic and international and the average research output of faculty members has in recent years far exceeded that of others in SENS and the University. Publications in academic peer-reviewed journals are emphasized and participation in international research projects encouraged. Research that has significance for Iceland and is important internationally is encouraged. Coordination between research and learning is emphasized.

However, ENR does not have a research plan or strategy, nor does it publish a report on programme research. This is at least in part a function of the University but the Programme should have its own research priorities and plan.

The ENR programme could also capitalize better on national strengths by employing Iceland as a living research laboratory. Lack of funding and faculty prohibits dissemination of findings, e.g. by hosting specific ENR lecture series.

Lack of common research affiliation and incomplete research plans are regarded as the main weaknesses of the ENR Programme.

SWOT Analysis for management of research

| Strengths | Weaknesses |
|--|--------------------------------------|
| Research grants | Lack of common research affiliations |
| Publications | Incomplete research plan |
| Employment of PhD students and post docs | |
| Cutting edge research presented in classroom | |
| Opportunities | Threats |
| Develop a research plan for ENR | |

Follow-up Processes

Responsible parties defined in the report are PC = Programme Coordinator. AD = Academic Director. AF = All faculty of the ENR Programme. PB = Programme Board. Each responsible party reports progress to the Programme board and the implementation of the Action Plan will be a standing item on meetings of the Programme Board. Chair of the Board reports formally to the Dean of the School of Engineering and Natural Sciences (SENS) on the status of the implementation and plans for next year together with other relevant quality assurance matters no later than 1 December. The School Dean will subsequently make use of this report in a status report for all Faculties in the School, which will be submitted to the Quality Committee no later than 15 January. The Quality Committee writes a short report to the Rector no later than 1 February, which will subsequently be discussed in a meeting between the Chair of the Quality Committee, the Director of Quality Management and Rector, Vice-Rectors. Deans of Schools and the Managing Director of the Central Administration.

Appendix 1. Key Figures.

Table 1. Overview of present Study Programmes

| Name of Study Programme | Cycle ¹ | Degree | Credits (ECTS) |
|--|--------------------|--------|----------------|
| UAU441 Environment and Natural Resources | 2.2 | MA/MS | 120 |
| UAU561 Environment and Natural Resources | 3 | PhD | 180 |

¹ See National Qualification Framework for Higher Education No. 530/2011.

Table 2. Faculty members as of 1 January 2018, and sessional teachers during 2016, number (No.) and full time-equivalent (FTE).

| | Male | | Female | | Total | |
|-------------------------------|------|-----|--------|-----|-------|-----|
| | No. | FTE | No. | FTE | No. | FTE |
| Professors | 1 | 1.0 | 1 | 1.0 | 2 | 2.0 |
| Associate Professors | 1 | 0.2 | 1 | 1.0 | 2 | 1.2 |
| Assistant Professors | | | 1 | 0.5 | 1 | 0.5 |
| Adjunct Lectures | | | | | | |
| Total | 2 | 1.2 | 3 | 2.5 | 5 | 3.7 |
| Other UI faculty ¹ | - | - | - | - | - | 1.1 |
| Sessional teachers | 17 | 1.2 | 12 | 0.2 | 29 | 1.4 |

¹ Professors, Associate Professors, Assistant Professors and Adjunct Lectures within other faculties at University of Iceland.

Table 3. Total number of registered students 15 October 2017 (all study years), of which full time (>22.5 ECTS completed) and part time (1-22 ECTS completed), number of entrants, retention rate (%) for first year, number of graduates and completion rate (%) (4-year mean)

| Programme | No. of students | | | No. of entrants ³ | Retention rate | No. of graduates | Completion rate ⁴ |
|-----------|-----------------|------------------------|------------------------|------------------------------|----------------|------------------|------------------------------|
| | Total no. | Full time ¹ | Part time ² | | | | |
| UAU441 | 87 | 45 | 29 | 30 | 76 | 18 | 78 |
| UAU561 | 9 | 7 | 1 | 1.5 | 75 | 1.25 | 100 |

¹ > 22.5 ECTS completed. For PhD students > 1 ECTS completed.

² 1-22 ECTS completed.

³ For all programmes except PhD, no. of students completing at least one examination in first term.

⁴ 2-year rate for diploma, 4-year rate for BA/BS, 3-year rate for MA/MS, 5-year rate for PhD.

Table 4. Research output of Faculty members, based on the Evaluation System for the Public Universities in Iceland, expressed by mean research points (A) and research points from peer-reviewed publications (B).

| | 2014 | | 2015 | | 2016 | | 2017 | | Mean | |
|---------------------|------|------|------|------|------|------|------|------|------|------|
| | A | B | A | B | A | B | A | B | A | B |
| Programme | 32.2 | 22.2 | 79.4 | 67.1 | 87.3 | 73.7 | 49.0 | 42.0 | 62.0 | 51.2 |
| School ¹ | 36.5 | 25.4 | 39.6 | 29.9 | 40.6 | 30.3 | 36.4 | 27.7 | 38.3 | 28.3 |
| University | 29.1 | 18.6 | 32.8 | 21.4 | 32.0 | 20.9 | 31.4 | 32.2 | 31.3 | 23.3 |

¹ School of Engineering and Natural Sciences

Appendix 2. Action Plan for Teaching and Learning, and Management of Research in QEF2

| | Actions | How | Deadlines | Responsible party |
|--|---------|-----|-----------|-------------------|
|--|---------|-----|-----------|-------------------|

1. FACULTY LEVEL

| Ch. 1.2 | Faculty Characteristics | | | |
|---------|--|------------|--------|----------|
| 1 | Clarify the budget allocation for ENR to comply with ENR agreement | Agreement | 1/2020 | PB/AD |
| 2 | Secure proper placement of ENR in University structure | Agreement | 1/2020 | PB |
| 3 | Representation at University and School decision-making bodies, e.g ensure voting rights | Agreement | 1/2020 | PB |
| 4 | Develop a new ENR agreement between all schools of the University | Agreement | 1/2020 | PB |
| 5 | Hire new full-time faculty | Hiring | 2/2020 | PB/AD |
| 6 | Develop a succession plan for the academic director | Plan | 1/2020 | PB |
| 7 | Align Programme promotion with the marketing and international office of the University | Plan | 2/2020 | PC |
| 8 | Evaluate the opportunity cost of not allowing ENR to grow | Report | 2/2020 | PB |
| 9 | Finalise agreements between faculty members and home faculty | Agreement | 2/2019 | PB |
| 10 | Increase sense of ownership of ENR for all five schools | Agreement | 2/2020 | AD/PC/PB |
| 11 | Increase visibility within the University | Agreement | 2/2020 | AD/PC/PB |
| 12 | Establish ENR facilities for researchers and common area | Facilities | 2/2022 | PB |
| 13 | Develop a handbook for advisers | Handbook | 2/2020 | AD/PC/PB |
| 14 | Establish an affiliate scholar program for non-ENR advisers | Program | 2/2021 | AD/PC/PB |
| 15 | Establish a visiting scholar program, by formalizing positions for visiting professors from abroad | Program | 2/2022 | PB/AF/AD |
| Ch. 1.3 | Academic Vision | | | |
| 1 | Establish a formal relationship with the Institute for Sustainability Studies | Agreement | 2/2021 | PB |

| | | | | |
|----------------|---|---------------------|--------|----------|
| 2 | Articulate a vision for ENR | Report | 1/2020 | PB/AF/AD |
| 3 | ENR lecture series | Plan | 2/2020 | AF |
| 4 | Develop the non-natural science aspect of ENR further | Courses/study lines | 2/2020 | PB/AF |
| Ch. 1.4 | Student Support | | | |
| 1 | Establish and activate an Alumni network | Plan/Network | 1/2020 | PC/AD |

2. STUDY PROGRAMMES

2.1 UAU441 Environment and Natural Resources (M.A./M.Sc. 120 ECTS)

| | | | | |
|------------------|--|----------------------------------|--------|----------|
| Ch. 2.1.1 | Students | | | |
| 1 | Discuss the outcome of teaching and course evaluations with students | Discussions | 2/2020 | AF |
| 2 | Handbooks for Masters students | Handbook | 2/2020 | PC/AD |
| 3 | Increase Icelandic student recruitment | Number of Icelandic students | 2/2020 | PC/AD/AF |
| 4 | Increase international student recruitment | Number of international students | 2/2021 | AD/AF |
| 5 | Implement an exit survey | Survey | 2/2019 | PC |
| Ch. 2.1.2 | Teaching and Learning | | | |
| 1 | Re-package the internship programme – spread over longer time | Programme | 1/2020 | PC/AD |
| 2 | Further development of current study lines | Courses/study lines | 2/2020 | AD/AF |
| 3 | Develop a curriculum plan | Plan | 2/2020 | AD/AF/PB |
| 4 | Add study lines, e.g. business related; Arctic, climate change | Courses/study lines | 2/2020 | AD/AF/PB |
| Ch. 2.1.3 | Collaboration between teaching and research | | | |
| 1 | Establish formal ties between the masters and the PhD programs to enhance cohesiveness and collaboration | Programme | 1/2020 | AD/AF/PB |

2.2 UAU561 Environment and Natural Resources (Ph.D. 180 ECTS)

| | | | | |
|------------------|--|----------------------------------|--------|----------|
| Ch. 2.2.1 | Students | | | |
| 1 | Establish PhD orientation | Orientation course | 2/2019 | PC/AD |
| 2 | Clarify a point person for PhD students | Plan | 2/2019 | PC/AD |
| 3 | Assemble a handbook for PhD students | Plan | 2/2019 | PC/AD |
| 4 | Increase Icelandic student recruitment | Number of Icelandic students | 2/2020 | PC/AD/AF |
| 5 | Increase international student recruitment | Number of international students | 2/2020 | AD/AF |
| 6 | Implement an exit survey | Survey | 2/2019 | PC |
| Ch. 2.2.2 | Teaching and Learning | | | |

| | | | | |
|---|----------------------------------|-----------|--------|-------|
| 1 | Improve structure of PhD program | Structure | 2/2020 | AD/AF |
|---|----------------------------------|-----------|--------|-------|

3. Management of Research

| Ch. 3.3 | | | | |
|---------|--|-------------|--------|----|
| 1 | Develop a research plan for ENR | Plan | 1/2020 | AF |
| 2 | Provide funds for proposal writing | Funds/Plan | 2/2020 | AD |
| 3 | Iceland as living research laboratory in terms of capitalizing on national strengths | Plan/Report | 2/2021 | AF |

¹ (immediate), M (medium term 2-4 years), L (long term 5-7 years)

² PC = Programme Coordinator. AD = Academic Director. AF = All faculty of the ENR Programme. PB = Programme Board.