



NUI MAYNOOTH

Dlíacal na hÉireann Mhí Ríad

Quality Review of the Department of Geography

May 2009

Peer Review Report

Peer Review Group:

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Preface:

The external reviewers wish to thank the members of the Department of Geography including teaching and support staff, undergraduate and graduate students, and especially the Head of the Department, Professor Mark Boyle for their hospitality, openness, candour, and organization during our two day visit in October 2008. In preparing detailed, complete, thoughtful and useful materials in advance of the visit, the department expedited our review enormously. The arrangements for the external reviewers' visit were efficiently tended to by Ms. Marguerite Lohan.

We wish to stress our overwhelming positive impression of the Department of Geography's teaching and research activities. Though the department has nearly doubled in student numbers and more than doubled in teaching staff since the last Quality Review in 1996, it has maintained a strong spirit of collegiality, transparency, cooperation, and excellence. While being able to attract significant funding in its climate change and society-space initiatives, the department has maintained its long-standing and well-deserved reputation in the study of Irish historical and contemporary landscapes, and has added talented younger staff to its roster. Its undergraduate programme is heavily-enrolled, and its marks and scores indicate a programme of high-calibre and range of offerings, given the existing staff numbers. The post-graduate programme is growing in both numbers and choice of specialities. The department is well-regarded on the campus and amongst its peer departments in Ireland and abroad, and the reputation of the staff is growing commensurate with the ratio of publications in international journals and outlets. The undergraduate and postgraduate students are engaged in their studies and involved in departmental activities and satisfied with their programmes. The departmental leadership under Professor Mark Boyle is exemplary for its transparency, dedication, faculty and staff support, and professionalism. With increased but well-deserved support from the college, the department can continue to maintain its quality and character, and the staff can become even more productive, more visible in the discipline, and more effective teachers.

PROCEDURES

The external reviewers visited the college and the Department of Geography on 20th -22nd of October 2008 and met with individual academic and support staff members, undergraduate students and students from the taught and research post-graduate programmes, the Head of the Department, Mark Boyle, the Vice-president of the University, Professor James Walsh, and internal review members, Professors Tom Collins and Robert Galavan. The Director of the Quality Review Office, Dr. Richard Watson, briefed the external reviewers about procedures, assessment indicators, and scheduling. In advance of the visit, the external assessors were each provided with a copy of the lengthy self-assessment report compiled by staff of the Department, under the leadership of the Head, and during the visit to the department, they consulted the copious appendices referenced by the report. The Quality Promotions Office sent a copy of "Quality Review Guidelines" and the internal and external reports follows the format provided therein.

The external reviewer visit to NUIM followed the following format:

1. Initial meetings with the Director of Quality Review and the members of the Internal Review Team, during which the terms of reference of the exercise were clarified and questions answered about preliminary impressions of the self-assessment document.
2. A tour of the teaching and research facilities in the department, including GIS and physical geography labs, offices of the support staff, and a large classroom. Discussion on this tour focused on the antiquated and crowded facilities that are currently available for teaching and research.
3. An informal reception attended by all academic staff and the Vice-President.
4. An interview of at least 30 minutes duration with each academic staff and the Head. While the discussion varied according to the rank and research interests of the staff, matters such as teaching loads, support for research, student numbers, quality and achievement, teaching facilities, departmental leadership, college support, university procedures and overall satisfaction dominated the discussions.
5. An interview of at least 30 minutes duration with each member of the office and the support staff.
6. A meeting of at least 45 minutes duration each with groups of students (10-20) representing all undergraduates (including the geography society), PhD research students, and students in the taught postgraduate programmes.

7. A tour of the facilities and meetings with the directors of the research institutes (NCG, NIRSA, ICARUS) that have affiliations with the Geography Department.
8. An examination of supplementary materials for the departmental self-assessment including student evaluations, syllabi, examination papers and publications of the staff questionnaires.
9. Preparation of a preliminary report prior to departure.
10. A final meeting with the Vice-President and member of the Internal Review team, and later with all members of the teaching and support staff of the Department of Geography to present preliminary findings

Our report will be divided into five sections dealing with:

1. Teaching and Learning Provision
2. Teaching and Learning Challenges
3. Research Achievements
4. Research Challenges
5. General Recommendations

1. TEACHING AND LEARNING PROVISION

The Department offers both undergraduate and postgraduate taught programmes, as well as M.Litt and Ph.D. research programmes. The Department provision at undergraduate level may be taken up in one of three modes by students:

- As part of a two-subject double honours degree
- As a single honours degree
- As a minor subject in a range of specialist BA programmes.

All approaches involve a three-subject first year, so students have limited contact only with the Department during their first year in the university. Admission to all degree programmes is not under the control of the Department, and first year numbers are not settled until the end of October each year. At the time of the external reviewers' visit (mid-October 2008) it appeared that student numbers in first year would be in the region of 500, with 244 in second year and 225 in third year. (In the event, the final numbers totalled 522 in first year, 251 in second year, and 225 in Third Year).

Three postgraduate programmes are also offered:

- H.Dip/M.Sc. in GIS/Remote Sensing
- M.Sc. in Climate Change
- M.A. in Geographical Analysis.

Approximately 40 students are currently registered for these degrees; a further 36 students are registered for research degrees. **Consequently the staff:student ratio is in the region of 33:1.**

Comment: This is a very high staff student ratio, both by University standards and by comparison with institutions elsewhere in Ireland, and it has a clear impact on the day-to-day operation of the Department and on medium- to long-term strategic planning. Our comments below should be considered in the light of this enormous teaching burden. The implications of this high SSR for all aspects of the academic enterprise in the department are discussed further at various points in this report.

During our visit, we were impressed by the enthusiastic and engaged approach by staff to teaching provision – it is evident that teaching is a top priority of all staff involved in programme delivery, and considerable thought and effort is put into delivering a high quality programme which engages students and encourages further independent learning. The following points are particularly worthy of comment:

Staff and student interaction: It is clear that all members of the Department are dedicated to providing a welcoming and friendly experience for students. Our

meeting with undergraduate students made it clear that they thought that the staff are highly approachable and uniformly helpful. While the Department has encouraged students to regard face-to-face contact with staff as a last resort in problem-solving, it became clear that in practice, staff operate an open-door policy, in addition to the posted office hours. As a result, both undergraduate and postgraduate students are engaged and appear motivated and appreciative of staff effort. The undergraduate student survey strongly endorses this view. It is also obvious that feedback from students, including the survey responses, is taken seriously by staff and is used as a basis for redesigning module delivery.

The provision of pastoral care by the Department, both formal and informal, is excellent. Queries about mitigation are efficiently and rapidly dealt with and procedures for contacting the Department in relation to pastoral issues are clearly stated in the course handbook and on Moodle.

Curriculum Design: The undergraduate curriculum design is well designed, with a clear rationale for each year, good progression between years, and good alignment of modules provided with intended learning outcomes. Second and third year modules are clearly aligned with staff research interests and provide opportunities for meshing teaching and research. The undergraduate curriculum meshes well with postgraduate provision and the Department's intention to include "pathway modules" in the second and third year curriculum will assist significantly in integrating teaching and research.

Undergraduate Curriculum Delivery: The undergraduate programme is delivered through 44 modules. No choice is offered in Year 1, in order to ensure all students develop skills and knowledge that are considered foundational for a geography degree to similar levels. Nineteen modules are offered in Year 2, and twenty-one in Year 3. This represents a considerable range of choice for undergraduates; the provision is particularly impressive in human geography and compares favourably with course provision by larger Departments elsewhere (in the UK, for example). In many modules, staff are utilising a wide range of teaching methods, many highly innovative, in order to engage students and encourage learning. Small group teaching is used from first year onwards, despite very high student numbers. First year tutorial and practical modules are used to develop a range of subject-based and transferable knowledge and skills; considerable care has been taken to ensure consistency in delivery of this unit so that all students encounter a similar experience.

Good use is also made of Moodle, the University's Virtual Learning Environment, both as a repository to disseminate information, and more actively as a blended learning tool, for project group work and exam preparation. Again, the staff are using innovative approaches to encourage students to communicate about work and to provide rapid feedback at all levels.

Assessment and Feedback: Despite the very high numbers of students, feedback on assessments is both appropriate and rapid at the undergraduate and postgraduate levels and is a further reflection of staff's commitment to good teaching practice. This very commendable commitment to providing timely feedback places huge pressure on staff and is therefore a cause of considerable stress at certain times of the academic year.

Postgraduate Taught Provision: Postgraduate taught courses are well-designed and of high quality, particularly the H.Dip/M.Sc. in GIS/Remote Sensing, which recruits high quality students and produces highly employable graduates. There are good links between some of the taught courses and the research institutes, while new courses provided by research institutes have been carefully designed to avoid overlap with the existing department's courses. In our meeting with them, taught Masters students expressed a high level of satisfaction with their courses. New modules on research organisation and planning, information sourcing and management, writing and oral communication, thesis writing and personal and career development are also providing research postgraduates with the skills needed for research.

2. TEACHING AND LEARNING CHALLENGES

The two major issues facing the department and the University on teaching are the continued very high Student-Staff Ratios and the limited teaching resources and facilities, particularly for GIS and physical geography laboratories.

While the number of staff has doubled since the last review in 1996, the number of undergraduates has more than doubled so that the recommendations of the last external review team to reduce the ratio have not only been not implemented, but in fact, the situation has deteriorated. There is little/no restriction placed on entering numbers in 1st Year and as a result of both effective teaching and student interest, these large numbers (now 522 in 2008/9) roll over to 2nd and 3rd years.

The teaching laboratories in Rhetoric House have not kept pace with modern developments in undergraduate instruction in Geography. Students need ready access to computer and software facilities for technical instruction (GIS, remote sensing, cartography, statistics, spatial statistics) and for physical geography courses. Students noted in our meetings that the facilities were barely adequate and staff said that convenient access by students to updated facilities was necessary for effective instruction in core geographic methods. Frequent hardware and software updates are typical for labs in Geography departments and funding for such updates are needed.

High SSRs and poor facilities have unfortunately generated a number of less than satisfactory practices at undergraduate level:

Class size is excessive for many modules, particularly physical geography modules, but also some human geography modules, which limits both the range of teaching methods and also the range of assessments which can be implemented. As a result, 70-80% of most modules are assessed by written examination; alternative means of assessment which promote transferable skills, (for example, oral presentations and practical portfolios) cannot be used.

Fieldwork is not compulsory and opportunities to undertake fieldwork are limited to second year only. This deficit in undergraduate instruction was especially noted by undergraduates in our meeting with them and set against similar programs in Ireland and the UK, remains a particularly weak aspect of the Maynooth programme (though no fault of the staff who heroically offer an effective programme in other respects).

Opportunities to study physical geography are very limited; second and third year students cannot specialise in physical geography, but can do so in human geography. This difference reflects the specializations of the staff and the relatively smaller numbers in physical geography. A contemporary geography department will ideally have a good balance in course offerings between human, physical and technical classes.

There is limited training in physical geography laboratory techniques both because of limited staff time and inadequate laboratories. One of the essential elements of training in undergraduate physical geography is the integration of field work to collect samples and their subsequent analysis in the laboratory setting. Because of the numbers enrolled in physical geography classes and the paucity of field options, this kind of teaching is not readily available to NIUM Geography students.

GIS: Like physical geography teaching, access to GIS modules is limited by the sheer pressure of numbers and inadequate equipment; the majority of students cannot be effectively trained in the use of GIS software. Most departments of NIUM's size and stature would offer multiple sections of the same GIS classes, as well as more advanced training. While great strides have been made since 1996 due to the interest, dedication and persistence of the staff that teach these courses and maintain the equipment, a modern geography department needs better facilities.

Most staff have heavy marking loads which seem to be weighted to end of year examinations. Additionally, since all 3rd year students write an Honors research project (currently 225 students), the marking burden is unusually high. Furthermore, student numbers are unevenly distributed across modules, so some staff have exceptionally high marking and pastoral care loads; this is

particularly obvious for physical geography. This burden is severely restricting the opportunities of these staff for research and external activities, but the problem is shared to a lesser degree amongst all teaching staff.

Students receive very little training in statistical methods. In our meetings with the postgraduate and graduate students, we discussed the options for statistical training and the students noted that they were few and that they would like to see more classes at different levels. Most also recognized the value of these classes for a modern geography degree and for their careers as professional geographers.

Students have commented that tutorial quality is variable; postgraduate tutors commented on the limited opportunities for training. All tutors are briefed both at the start of courses and during weekly pre tutorial meetings held across the semester; the more formal preparation that was recently instituted was welcomed by the tutors and undergraduates. But there appears to be a haphazard system at the College level for preparing tutors for their duties. Like new lecturers, tutors do not automatically receive training in teaching and learning. While some attempt to enrol in preparatory courses outside the department, only a few are successful.

At the postgraduate level, our interviews with the research and taught degree students elicited a number of concerns. While they are generally enthusiastic about their degree programmes and highly laudatory of the staff teaching and mentoring efforts, they shared a general sense that they were not receiving enough “professionalization” instruction and development. When questioned, it appeared that both Masters and Ph.D. students have a limited vision of their position in the world of professional geography. Few had a clear idea of career options and the majority of postgraduates expressed an interest in gaining more guidance on career trajectories and options, both in academia and in other professions. Students are very aware that their supervisors are overworked and are cautious about approaching them. The students recognized that they have a significant personal responsibility for their own careers but they believe that more resources could be given to this aspect of their education.

Possible Solutions

As is indicated in the 1996 external report, the University should take steps to reduce the very high SSRs. We believe that the numbers are so high that the quality and range of education is being endangered, despite the best efforts of a dedicated teaching staff. There are two obvious ways to reduce SSRs, either fewer students admitted for the current staff numbers or increasing staff numbers while maintaining current enrolment levels, though some combination might be considered. The staff of the department expressed frustration at their inability to set maximum quotas on enrolment and while we are not privy to options to set such limits, the Faculty should consider some entrance examinations or other

similar requirement during the first year to limit the number of 2nd and 3rd year students. Fewer numbers in these years will ensure better access to field courses/trips and closer mentoring of Honours dissertations.

In terms of hiring, there is little doubt that the first priority is employing more physical geography lecturers, a matter of vital importance in allowing more physical geography classes in 2nd and 3rd years and broadening the field course options. Since there remains a need to staff technical (GIS, remote sensing) and statistics classes, one method to meet these multiple demands is to ensure that new staff hires can teach these statistics/technical classes as well as being qualified to meet necessary physical geography teaching needs.

While recognizing that new staff appointments take time to advertise and fill, one temporary solution is to consider more use of postgraduate teaching assistants (TAs) for both tutoring, classroom instruction, and particularly marking. In the American model, postgraduate students are given these roles in return for modest stipends. They are also provided training in educational methods, close mentoring of their activities, and TAs see these activities as an essential part of their professional development. In conversations with the postgraduates, they overwhelmingly expressed interest in this model and believe that it would be an improvement over the current tutoring system. Though there would be some increase in supervisory duties of the teaching staff, the benefits in reduced marking duties and other first year responsibilities would compensate for any additional time. There seems to be opportunities to work with university offices to improve provision of training for inexperienced lecturers and tutors that should be followed.

Given the size of the first year classes (unable to fit into the largest lecture hall on the campus, sometimes requiring double teaching) and their attendant marking requirements, we urge consideration of more team teaching, particularly in first year, to share the marking load. We applaud the dedication of the staff who are the instructors of these enormous classes but we believe that the burden can be shared through various shared teaching options. We believe that rotating first year teaching should be a principle that is accepted in the department, though we recognize that the ability to teach and manage the hundreds of students in these classes is not easy to acquire and is not to be underestimated. Despite the huge numbers of students, the fact that so many continue to a Geography degree speaks to the success of the staff in coping with the situation.

Because so many 1st year students continue in Geography, we urge consideration of dropping the second year modules of staff who teach in the first year. This would have two evident outcomes, by reducing the marking loads of these staff and stymieing the tendency of students to pick modules given by lecturers they know. A more equitable sharing of the student load should be a prime consideration for all staff. A further method of reducing enrolment in oversubscribed modules is to move them to unpopular time slots.

Despite some internal University and departmental control, the rise in student numbers remains a major problem in the day-to-day life of the department, which rolls over to every element of academic life. These elements include coping with student requests for dissertation supervision, dealing with the myriad of requests for advice and exemptions from undergraduates, balancing teaching demands with finding time for research, and deluging departmental resources, including support staff. If these numbers are not reduced significantly, even with the possible addition of teaching staff, the department needs an infusion of resources to provide more technician assistance for the computer software and hardware (both of which need upgrading), lab demonstrators, and more support staff in the office, including possibly more career advising and pastoral care that would reduce these demands on the teaching staff.

With respect to recent teaching staff hires, three points need a broad departmental discussion and general agreement/buy-in from all members of staff. First, since the student numbers demand is so high, new staff have little opportunity to establish themselves as independent researchers in the first couple of years. In the US and the UK, a partial release from teaching and service is often available for staff in the early stages of a career in order to allow a disproportionate time for research. This might be considered in the department and College but we recognize that it would put added pressure on other staff to cope with the student numbers. It is thus feasible only if these numbers are managed in a more satisfactory manner and/or a fair rotation system is developed to allow more research time. Second, the procedures for promotion and/or re-appointment need to be both transparent and readily understood by all staff members. In our conversations with the staff, it was evident that not all of them are clear about the benchmarks for promotion, the timing of reviews, how well the procedures in the department match those in the College as a whole, and the number of senior lecturership posts available at departmental or College levels. These issues should be dealt with in the document entitled *Procedures for Promotion to Senior Lecturer*, approved by Academic Council in December 2008. Third, many of the recent hires (3 in the past couple of years) are NIUM graduates and while not questioning their academic credentials or manner of appointment, we urge the department to try to maintain a job application process, including the widest possible period of application, that allows possible applicants from other institutions to be informed of the posts. In a small academic pool like Ireland's, it is natural that many staff will be appointed to the same institution from which they received their PhDs but in the interests of broadening the range of ideas, training, methods and backgrounds of staff, some attention should be given to these diversity considerations in the appointment process.

There seems to be a differential teaching load amongst the staff that is unrelated to any service activity. Related to this differentiation is the loss of teaching of staff that are seconded to the research institutes. It is natural and desirable that

not all staff have the same teaching responsibilities and student loads all the time since other academic demands will intrude periodically on teaching. However, what can be devastating to the morale of the department is a structural unevenness in teaching in which some staff consistently have a reduced load while others maintain a full load, regardless of their research productivity. It is possible to negotiate a differential workload with staff such as more classes in exchange for reduced research output but if the workload differentiation works on the other side (more research in exchange for less teaching), most staff would view this arrangement as privileging the research of certain staff, allowing them to pursue their research interests at the expense of the departmental commitment to teaching, thus setting in place an unfair system. For this reason, we believe that all staff should maintain some teaching even as they are seconded to the research institutes or other college appointments. Though the teaching of seconded staff has been replaced with temporary appointments in the department, the maintenance of good relations between the department and the institutes depends, in part, on the maintenance of a range of classes that responds to the large student demand. In this respect, the agreement of the staff in the National Centre for Geocomputation to offer classes in their expertise areas that complement the normal class offerings is a welcome development.

Our general recommendation for teaching and learning is to promote methods and strategies to reduce the existing and barely sustainable burden. Financial limitations will reduce the options to tackle these questions but the priority must be placed on resolving this problem, which has deteriorated since the 1996 review. The department is a victim of its own success and should not continually be penalized by increased SSRs.

3. RESEARCH ACHIEVEMENTS

The Department has achieved an impressive growth in both research income and publications since the last review, particularly in income which increased by 3200% between 2002 and 2007. This expansion has been assisted by the rationalisation and focussing of research since the last review in the Department on three thematic areas - Society and Space, Environment and Climate Change, and GIS and Remote Sensing. These thematic areas reflect the strong links between the Department and three research institutes - the National Institute for Regional and Spatial Analysis (NIRSA), the Irish Climate Analysis and Research Unit (ICARUS) and the National Centre for Geocomputation - and have also been an important consideration in appointing new staff. Several staff are involved in the management of NIRSA and ICARUS. The result of these conjoint developments is a dynamic research environment, despite very heavy teaching and administrative loads in the Department.

In particular, we believe that the following points worthy of particular comment about the research profile and trajectory:

1. All staff are active researchers and have contributed research articles to an impressive range of international and national publications. This research commitment is a considerable achievement in the context of the time demands of very high student numbers.
2. The Department's considerable success in attracting funding to expand research would be a notable achievement under any circumstances and is extraordinary given the very high teaching workloads.
3. Links between the Department and research institutes are strong. Department members have had considerable input in establishing and running the successful Research Institutes. This has clearly boosted research output in the University and has also benefited staff – those fully engaged with relevant institutes are clearly motivated, enthused and garnering research support by the connection while their research output has risen accordingly. The reputation of the Department has also benefited from the international reputation of the Research Institutes and the shared staff.
4. Some Departmental staff are of international standing and continue to enhance the international reputation of the Department and provide valuable services to the international research community. Department members have acted as evaluators and reviewers for European Union research programmes, as editor and reviewers for the Intergovernmental Panel on Climate Change, and as editors and reviewers for several important international journals.
5. The Department has a thriving, growing and engaged postgraduate research community. It is particularly impressive that the postgraduate programme is prospering at the same time as the boom in undergraduate numbers has taken place, further testimony to the dedication and commitment of the staff to instruction and student mentoring.

4. RESEARCH ISSUES

The staff of the department have been remarkably successful in obtaining large multi-year grants to support research and outreach activities. Such endorsements are tributes to the high regard of the staff within their peer groups and within the Irish academy. The department has appointed a number of energetic young and mid-career scholars who have enhanced the reputation of the department, brought new interests and approaches to Maynooth, and through their networks, developed closer contacts between the department and international constituencies along lines of mutual research interests.

While the volume of research output is impressive in a range of publications from international to national to local outlets and while there is a growing representation of the top internationally-recognized journals among the totals, a relatively large proportion of the work derives from contracts and consultancies of the staff. While publishing in the academic journals in addition to writing reports for the funding agencies is a beneficial and worthwhile activity, one must ask about the opportunity costs of such activities. In other words, if the research time devoted to the consultancy activities were devoted to research that was driven by other research interests (and perhaps less amenable to funding), would the research profile look different and would the relative proportions in the journals published outside Ireland be different? While we recognize the need for funding to support post-graduates and research activities, we also urge some greater attention and discussion about the nature and sources of funding relative to questions of the frontiers of geographic research and international attention.

Should the department wish to raise its international profile, not just within Europe but more broadly, then relatively more publications should be targeted to journals with international readerships and standing. There is a fine balance since such journals will not be likely to have substantial interests in local Irish subjects, for which *Irish Geography* is a long-standing and appropriate outlet. But if the nature of the work lends itself to these outlets (e.g. broader questions of physical or human geography) to which the Irish experience and/or field research can contribute, then such outlets should be considered. We recognize a significant shift towards more international publication over the past couple of decades and we applaud and encourage this shift that will help to gain the recognition that the work of the department staff fully deserves.

As we noted in the teaching section, postgraduate professionalization could be enhanced in both career opportunities and close mentoring in the publication process between staff and students. While such professionalization could take place in a seminar setting, undoubtedly most takes place in one-on-one interactions between staff and students. Many of staff have high-research profiles and lengthy experience in journal publication and we believe that this extensive familiarity with the research-publication process could be translated into working more closely with postgraduates on the research front as part of their training.

5. GENERAL RECOMMENDATIONS

1. The key recommendation in the 1996 external review viz. “it is our view that it would be unwise to allow the undergraduate programme to grow any further without first making good the resource deficits highlighted in this report. Indeed, we would suggest a rationalisation of the existing programme” has NOT been implemented. Instead, the SSRs have worsened despite a doubling of the staff in the department. In general, none of the issues brought

up in the last review have disappeared and many have shown a negative trend. To tackle the SSR issue, we recommend that the a) some limits be placed on the enrolment in the geography department in the 1st year through increasing the entrance requirement, passing an entrance examination, or simply a first-come, first-enrolled system (though we recognise that this proposal has extensive interdepartmental implications); b) at the same time, the number of staff should be increased with a priority given to hiring Physical Geography staff to offer a rounded undergraduate programme in the department, and c) the SSR be closely monitored by adjusting staff numbers to enrolment trends. As we noted at various points in this document, the stresses placed upon staff by the SSR are large enough that the whole structure of the department is under great strain.

2. Since a relatively large number of senior staff are nearing retirement (three of whom were appointed over 30 years ago), the department is on the verge of losing a significant amount of institutional memory, departmental reputation, and committed teaching and student supervision. While cost savings can be generated by replacing senior staff with beginning lecturers, we recommend that the department and college consider the appointment of mid-career replacements to at least some of the lines that become vacant. A departmental review of the overall profile, including research and teaching, would be warranted to plan for these replacements in a consensual manner.
3. The teaching equipment in the physical geography and GIS labs needs updating and more staff available for its maintenance and instruction for students. Currently, the teaching staff devote a significant amount of their time to these activities, and these efforts while commendable, are somewhat misplaced since they can be done by support staff. A modern geography department of Maynooth's size and stature needs significantly better equipment, teaching labs, and research spaces for physical geography.
4. The postgraduate programme, while well subscribed in both its taught and research components, seems to have developed in an *ad hoc* manner. Its size and character now needs a more considered approach to preparing the postgraduates for careers, both in academia and beyond, and in general professionalization. We recommend the creation of classes that would blend teaching and research activities with a view to preparing more postgraduates for greater classroom and marking involvement and to developing their knowledge of geographic methods, approaches, specialities, and traditions. While many of the postgraduates are part-time or commuter students, they would benefit from such a programme which might be offered in the week before the classes start in the Autumn as an orientation to postgraduate work in Geography. The progress made in incorporating these elements into structured graduate education programmes should be continued and expanded.

5. To allow new staff to set up a new research programme, we suggest that a differential workload plan be developed to allow them more time for research by reducing teaching loads in the first couple of years of appointment. It should be possible to move classes between semesters and instructors to permit flexible teaching arrangements so that all new staff could benefit from this planning.
6. Even though they are on secondment to the research institutes, all staff should offer some teaching modules, significantly reduced though they may be from the normal loads. Such commitment to teaching would reduce any resentment about privileged staff in the institutes and allow students to benefit from the knowledge and research of seconded staff.
7. Regarding future hires, we recommend that the department consider carefully the diversity of background and training of applicants to ensure that different perspectives are valued and considered.
8. In the longer term and as retirements and enrolments warrant, the department should consider appointing members of staff who specialize in Nature-Society relations. Such appointments can help bridge interests in physical and human geography and follow the trends in hiring in North America and the UK in top geography departments as a result of the growing demands in the job markets for individuals with this training.

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