Recommendations for improving racial equality, diversity, and inclusion in the Department of Earth Sciences, University of Oxford

Ad hoc working group on BAME issues

February 2020

Executive summary

This report intends to highlight areas where the Department of Earth Sciences at the University of Oxford (‘the Department’) might make changes or improvements to its existing structures and procedures to improve the recruitment and retention of Black, Asian, and minority ethnic students and staff.

Contained herein are 42 recommendations (concatenated for ease of reference in the Appendix), covering issues relating to school teaching and the effectiveness of outreach; admissions; the structure and design of the undergraduate course and its field trips; and the culture within the Department.

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1 Principal authorship: Benjamin Fernando and Gwen Antell. We wish to acknowledge the contributions of many additional members of the Department, including the participants of three workshop meetings. Roberta Wilkinson and J.D. Dianala assisted in revising this report. Ritwika Sengupta proposed valuable ideas and direction for early drafts.
Report Contents

A. TERMINOLOGY
B. STRUCTURE
C. TIMELINE
D. MOTIVATION
E. SCOPE

1. RECUITMENT
   1.1 School teaching
   1.2 Familial/cultural expectations
   1.3 Cost and perception thereof
   1.4 Role models and outreach
   1.5 Department marketing materials
   1.6 Admissions

2. INCLUSION
   2.1 Fieldwork
   2.2 Alcohol
   2.3 Harassment support
   2.4 Outreach support
   2.5 Seminars
   2.6 Course Structure and modules
   2.7 Continuing action

3. GENERAL CONSIDERATIONS
   3.1 Intersectionality
   3.2 Monitoring and assessment
   3.3 Resource allocation

4. REFERENCES
5. APPENDIX
A. TERMINOLOGY

**Academic** – An employed researcher  
**AY** – Academic Year  
**BAME** – Black, Asian and Minority Ethnic  
**DTP** – The NERC Doctoral Training Partnership PhD program  
**HT** – Hilary Term (January – April)  
**OUGS** – Oxford University Geology Society (the department’s student club)  
**PG** – Postgraduate students: PhD students studying for a degree by research  
**Staff** – A member of the support or administrative teams  
**TT** – Trinity Term (May – September)  
**UG** – Undergraduate students, studying for a taught degree  
**UNIQ** – Oxford's one-week summer school for underrepresented Year 12 pupils  
**UNIQ+** – The two-month equivalent for UGs looking to do PG study

B. STRUCTURE

Within these two sections, where recommendations are made, they are presented in the following format:

<table>
<thead>
<tr>
<th>Consider/implement</th>
<th>Item</th>
<th>Timescale</th>
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The first column indicates whether the authors are of the opinion that this item is one which should be actioned, or one which should be given consideration. The last column indicates the time by which we suggest the department should undertake an action (for ‘implement’), or when a decision should have been made (for ‘consider’). We expect the four possible responses to be: **IN PROGRESS**, **ACCEPT**, **REJECT**, and **DEFER**, with an explanation for each item as to the rationale behind the response.

Items are colour-coded for ease of reference. Those relating to UGs only are given in red, those relating to PGs only are in blue, and those relating to the department as a whole are in orange.

C. TIMELINE

After consultation with the department, the following timeline has been set:

Wednesday 12 February (week 4 HT): report released to department management  
Tuesday 18 February (week 5 HT): internal release to all department members  
Wednesday 8 April (week 12 HT (-2 TT)): department responses requested  
Wednesday 22 April (week 14 HT (0 TT)): report and responses released publicly

D. MOTIVATION

There is a clear need to improve the recruitment and retention of BAME people in geoscience. Recent studies suggest that there has been little to no progress in this
area over the last 40 years in the United States, where most research is focussed (Bernard and Cooperdock 2018; Dutt 2019). Unfortunately, there is a distinct lack of data from the UK.

The University of Oxford has improved the racial and ethnic diversity of its staff, academic and student membership in recent years. However, the representation of BAME students is still disproportionately low, as evidenced by the University of Oxford Annual Admissions Statistical Report, 2019.

This report demonstrates that the Department of Earth Sciences admits the lowest proportion of Black/non-Asian ethnic minorities UG students (4.7% of total admitted UK students between 2016 and 2018, roughly half that of the next-lowest department) of any of the 25 subjects for which statistics are reported. This is less than the proportion of BAME individuals within the UK population, and significantly lower than the proportion of non-white individuals in the 18-25 UK age group (the largest contributor to the ‘home student’ category).

Upon arrival of BAME students at higher education institutions around the country, their commonly reported concerns include racism, discrimination, and ‘a pervading culture that struggles to welcome differences in race and ethnicity’ (Campaign for Racial Awareness and Equality, 2014).

The rationale for undertaking this report is that there does not appear to be a clear route to addressing these issues, either within the wider geosciences community or within our department in Oxford. The suggestions have been made in good faith, and with the hope that the department will thoughtfully consider the actions which might be taken to increase the proportion of BAME academics, students, and staff within the department, and to better support them.

E. SCOPE

We consider recruitment to cover engagement and outreach activities, pre-interview support, and the interviews themselves, at both UG and PG level. We consider inclusion to cover topics relating to the flourishing of BAME students as well as academics and staff within the department; we view inclusion as the precursor to retention.

Naturally, there is overlap between these categories, especially where inclusivity issues are known publicly and hence act as a barrier to recruitment. Affirmative measures taken on these topics will likely be of benefit to the entire community, not just BAME members of it (Powell, 2018).

Retention at PG level must first include retention at UG level, which will require considering long-term structural change. Thus, there are more recommendations in this report relating to the UG program as compared to the PG program.

Recruitment of staff and academics is not explicitly considered within this report, but we expect that the items relating to inclusion should create an atmosphere
which is more inclusive and hence attractive to staff and academics from minority groups. This is not a topic within the expertise of any of the report’s authors, but the department may wish to undertake an analysis similar to that below for staff/academic recruitment.

Should the department introduce taught PG programs in the future, it is likely that some of the recommendations currently in the UG section will also apply to at least some PG students.

This report is explicitly and deliberately qualitative rather than quantitative. In a department with so few BAME members, any individual data are immediately identifiable. Whilst this need for anonymity does make it challenging to ensure that the issues raised are representative of the concerns of the BAME community, the authors have taken steps informally to seek broad input. This has included focus group meetings, individual interviews, and discussions with experts in the topics of racial awareness and inclusion.

In addition to the named authors, a number of other individuals made valuable contributions to the recommendations included in the report. There are a variety of reasons why members of the department might not have wanted to be named as authors, however at least one contributor expressed a fear that this might affect their chances of internal career progression. Whilst this fear may have been unfounded, the department should ensure that a culture of openness and of constructive criticism about its policies exists such that no member of the department feels unable to speak out.

We do appreciate that whilst we have raised many concerns, we do not necessarily have the solutions to these problems; indeed, such solutions are likely to require input from the entire community and not just its BAME members.

This report neither carries nor seeks any official department endorsement or status, and has been undertaken by members of the department in their personal capacity. Nonetheless, we hope that both it and its recommendations will be taken in the good faith with which they have been compiled.

1. STUDENT RECRUITMENT

1.1 Teaching and recruitment

The prevalence of geology A-levels is not uniform across the UK, or indeed internationally. Students from wealthier schools often have a wider choice of available subjects and hence benefit from exposure to geoscience topics whilst in school, making these students more likely to apply to geoscience-related courses. This issue is particularly relevant to BAME school students, as certain ethnic minority groups experience higher levels of disadvantage and lower levels of school achievement than their white counterparts (Kirby and Cullinane, 2018).
1. IMPLEMENT Ensure that the diverse pathways from school to a geoscience degree are well-highlighted on the department website, with clear case studies from current students where appropriate. AY 19-20

2. IMPLEMENT Ensure that the department is engaged with efforts to improve the teaching of geoscience-related subjects (e.g. geology, geography) undertaken by the UK’s learned societies by establishing a designated point of contact, and sharing best practice. AY 19-20

3. CONSIDER Encourage each of the department’s research groups to produce a simple resource (talk, animation, video, slides, etc) on a topic of their choosing to showcase the diversity of research within geosciences, and link to this on the website under a ‘resources for teachers’ section. AY 20-21

4. CONSIDER Implement a one-day taster sessions targeted at BAME school students from younger demographics than may be reached by UNIQ (e.g. Year 8). AY 19-20

5. CONSIDER Assess whether the department can organise and resource day-long teacher information sessions, for school teachers interested in the geosciences and in a position to advertise the course to otherwise under-represented groups. AY 20-21

6. CONSIDER Explore how best to expand efforts to attract sixth-form students interested in allied disciplines (mathematics, materials, physics) to consider geosciences as an undergraduate course of study. AY 20-21

1.2 Familial/cultural expectations

Familial and cultural expectations exist for people of all backgrounds and the following suggestions will benefit all applicants. However, such expectations were highlighted as a particular barrier to entry into the geosciences by some of the students we interviewed. The reasons for this are discussed below.

Amongst members of some minority communities with historically low progression to higher education and with limited exposure to the geosciences, such a degree may seem to have several drawbacks as compared to a more common professional degree (e.g. medicine, law, engineering). Such minority communities might also have less exposure to ‘outdoor’ pursuits in a familial or vacation setting, and hence be intimidated by the course.
Common perceptions of Earth Sciences as a course include that it offers unclear pathways to a secure financial income, less formalised professional accreditation, and ‘niche’ rather than ‘transferrable’ academic skills may thus act as a barrier to participation, a perception which can in part be addressed through community engagement.

For some students from cultural or national backgrounds where natural resource extraction has historically been a source of environmental or societal injustice, the idea of studying a course in which this is a significant part may also be offputting. The perception that the career pathway from such a degree is predominantly oil and gas, or mining, focussed may be a further dissuading factor. Highlighting diverse paths out of the field, as well as into it, can counter this perception.

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<td><strong>7</strong></td>
<td><strong>IMPLEMENT</strong></td>
<td>Hold ‘parents-only’ and ‘students-only’ parallel sessions at the open day to ensure that both parties have a chance to freely ask questions about an unfamiliar subject without fear of embarrassment/conflict.</td>
<td>AY 19-20</td>
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<td><strong>8</strong></td>
<td><strong>IMPLEMENT</strong></td>
<td>Produce an application guide for parents, addressing common questions about the degree and especially doing fieldwork. See also section 2.1, Fieldwork.</td>
<td>AY 19-20</td>
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<tr>
<td><strong>9</strong></td>
<td><strong>CONSIDER</strong></td>
<td>Consider the best way in which to showcase the diversity of careers (other than oil/gas and mining) and potential security of income associated with a rigorous geosciences degree when advertising the course.</td>
<td>AY 20-21</td>
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<tr>
<td><strong>10</strong></td>
<td><strong>CONSIDER</strong></td>
<td>Explore how to best advertise the course with the issues above in mind, seeking input from current BAME students and academics.</td>
<td>AY 20-21</td>
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1.3 Cost

Given the prevalence of fieldwork within the geosciences, there appears to be a perception amongst prospective applicants (in discussions with them) that the degree is more expensive to undertake than other science degrees.

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<td><strong>11</strong></td>
<td><strong>IMPLEMENT</strong></td>
<td>Expand the section on the department website about fieldwork to give further details on funding for both UG travel (specifically the mapping project), including examples from past years.</td>
<td>AY 20-21</td>
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<td><strong>12</strong></td>
<td><strong>IMPLEMENT</strong></td>
<td>Give full support to internal University efforts to abolish the graduate application fee.</td>
<td>HT 20</td>
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1.4 Role models and outreach
Multiple surveys have documented lack of role-models as a leading deterrent to students from ethnic minorities entering higher education (UUK and NUS joint report, 2019).

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<th>IMPLEMENT</th>
<th>Encourage and nominate BAME members of the department for both showcase programs (e.g. the MPLS Beyond Boundaries initiative) and recognition awards where appropriate.</th>
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<tr>
<td>13</td>
<td>IMPLEMENT</td>
<td>Develop a PG-level outreach program designed to showcase students from ethnic minorities and encourage candidates from under-represented backgrounds to apply.</td>
<td>AY 20-21</td>
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<td>14</td>
<td>IMPLEMENT</td>
<td>Celebrate the diversity and successes of BAME department members specifically, for example during Black History Month (which may include all BAME people).</td>
<td>AY 19-20</td>
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<td>15</td>
<td>CONSIDER</td>
<td>Investigate how best to attract undergraduates from allied disciplines to consider geosciences as a postgraduate course of study.</td>
<td>AY 20-21</td>
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<td>16</td>
<td>CONSIDER</td>
<td>Ensure that when planning outreach activities only open to/targeting one particular under-represented groups, the full spectrum of potential intersectional issues is considered, such that no unintended biases are introduced. See also section 3.1, Intersectionality.</td>
<td>AY 19-20</td>
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1.5 Department marketing materials

Some of the older department marketing materials, especially for UGs, do not fully showcase the diversity of research or topics studied within the geosciences. Some appear to focus more on ‘fun’ field trips, often to locations in Europe or on skills which do not appear as transferrable (mapping versus coding for example).

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<th></th>
<th>IMPLEMENT</th>
<th>Extend the diversity of activities and fieldwork locations showcased in promotional materials to be more representative of both the topics and locales of study within the department, including computational or theoretical topics; and fieldwork being done by academics in non-European or developing countries.</th>
<th>AY 19-20</th>
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<td>18</td>
<td>CONSIDER</td>
<td>Consider holding a specific PG open day and/or ‘PG application advice day’, the latter targeted at students from non-geoscience UGs or underrepresented backgrounds</td>
<td>AY 19-20</td>
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</table>
1.6 Admissions

There is evidence of a ‘significant unexplained gap’ in Oxford’s undergraduate admissions process (ADEX Report 09(17)) which favours white candidates in the Mathematical, Physical, and Life Sciences division within which the Earth Sciences Department sits. Detailed data are not available at postgraduate level.

| 20 | IMPLEMENT | Build upon the commendable roll-out of unconscious/implicit bias training for all UG interviewers by also introducing specific racial awareness training (available through the University). | AY 19-20 |
| 21 | IMPLEMENT | Build upon the DTP’s introduction of unconscious bias training by mandating all PG interviewers to undertake it. | AY 19-20 |

2 INCLUSION

2.1 Fieldwork and field trips

It is important to explain the purpose and structure of fieldwork to all prospective students. Some candidates may have fears about this aspect of the course (e.g. assuming it means no contact with home for weeks on end), or may not previously have experienced the ways it could further their own intellectual and personal development.

In many ‘traditional’ fieldwork areas (e.g. rural Europe) BAME students are the only people of colour in the community, and hence are in a more vulnerable or uncomfortable position. As raised in our focus group, a wider range of potential locations may serve to address this. Care should be taken to ensure that students are never excluded from potential fieldwork locations on the basis of ethnicity (in one recent example, a member of staff suggested in good faith a UG mapping project in an area where only white students would ‘be able to go’ [quote]).

Further, all of the department’s undergraduate field trips are to ‘field’ locations – there are limited field trips involving applied geophysics, e.g. use of instrumental geophysical techniques. An urban setting or emphasis on applications may appeal to a broader spectrum of students who lack outdoor experience or with interdisciplinary interests.

| 22 | IMPLEMENT | Ensure that new students have the opportunity to take part in an ‘ask me anything’ about fieldwork before their first field trip, guided by | AY 19-20 |
older students and without staff present to discuss.

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<td>23</td>
<td>IMPLEMENT</td>
<td>Ensure that all students have the opportunity to take part in optional de-escalation training to deal with situations and/or experiences of racism which may occur in fieldwork.</td>
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<tr>
<td>24</td>
<td>IMPLEMENT</td>
<td>Ensure that there exists clear alternative provision for students unable or unwilling to undertake fieldwork for reasons of ethnicity or race (in addition to other reasons for which policies already exist); and that staff are aware of racial concerns when suggesting potential mapping project locations.</td>
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<tr>
<td>25</td>
<td>CONSIDER</td>
<td>Explore whether the repertoire of field trips can be expanded or modified to cover more diverse topics within the geosciences (e.g. relating more directly to natural hazards or populations), to emphasise that geosciences are relevant to modern, urbanised populations.</td>
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<tr>
<td>26</td>
<td>CONSIDER</td>
<td>Ensure that when fieldwork is discussed in an outreach context, care is taken to leave potential students reassured about what is required from them in terms of fieldwork.</td>
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2.2 Alcohol

‘Alcohol culture’ is prevalent in the geosciences (Guertin 2019), and can hinder inclusion at conferences, networking events, field courses, and socialising opportunities for those who do not drink (Miller 2018). Religious and cultural norms are such that these individuals are often from BAME backgrounds.

Within our department, the only ‘community service’ activities which graduate students are expected to undertake are the organisation of the weekly happy hour and the Christmas Party.

The authors welcome the department’s decision in 2019 to provide a non-alcoholic refreshment as well as prosecco for viva celebrations, which is a strong step forward in reducing the expectation that ‘celebration’ in the geosciences must include alcohol.

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<td>27</td>
<td>IMPLEMENT</td>
<td>Engage with the OUGS committee to discuss the inclusivity of their events, including the provision of non-alcoholic drinks and the existence of any kind of ‘initiation’, even an optional one, under pressure of alcohol consumption.</td>
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<td>28</td>
<td>IMPLEMENT</td>
<td>Diversify the opportunities which PG students have for undertaking ‘community service’ to</td>
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include events benefitting the wider community or events or events which do not include alcohol.

2.3 Harassment support

The department has made a clear effort to ensure that a female demonstrator or member of staff/an academic is available both internally and on field trips to discuss any issues relating to gender or gender-based harassment, which we recognise is an important and positive step.

This could be built on by offering similar structures for BAME members of the department, such as a named point-of-contact for harassment related issues. Given the extremely small number of trained BAME harassment advisors within the university, this may be better served by identifying an individual willing to be trained.

| 29 | IMPLEMENT | Seek a BAME member of staff or academic who is willing to receive training and be added to the list of department harassment advisors, or else seek someone from a nearby department and clearly advertise their contact details. | AY 19-20 |
| 30 | IMPLEMENT | Expand the department’s new UG peer support network to include PG students, and ensure if possible that at least one member at both PG and UG levels is BAME. | AY 19-20 |

2.4 Outreach support

Many students take part in access and widening participation activities within the department, with varying degrees of departmental support. Whilst this structure is flexible and is easy to manage, it does mean that oversight can be inconsistent.

| 31 | IMPLEMENT | Enable members of the department to easily log outreach activities that they have taken part in, and provide department-sponsored recognition for these efforts. | AY 19-20 |
| 32 | IMPLEMENT | Create regular forums through which students and staff engaged in outreach and widening participation may come together to share ideas and thoughts. Ensure that participants are empowered to choose areas of greatest need and activities of greatest effectiveness. | AY 20-21 |
| 33 | IMPLEMENT | Include in long-term financial planning a strategy for paying students to take part in some (or all) department-sponsored outreach activities, as is the case in other departments (e.g. Physics). | AY 20-21 |
2.5 Seminars

As the senior academic population in the geosciences is predominately white, it is unsurprising that the seminar series is delivered by mostly white individuals. The series could be developed to showcase issues relating to diversity and inclusion in addition to academic content, as well as efforts made to diversify the individuals invited to speak.

| 34 | IMPLEMENT | Consider how the academics invited to deliver the seminar series can be diversified, for example by inviting younger academics who tend to have better BAME representation; and require the organisers to report back to the department’s Equality and Diversity Committee on a termly basis outlining the steps taken toward these aims. | AY 19-20 |
| 35 | IMPLEMENT | Follow the lead of other departments in increasing the diversity of topics in the seminar series to include geoscience policy, societal implications and diversity/inclusion. | AY 20-21 |

2.6 Course structure and modules

Many BAME students identify curriculum design as a major contributor to ethnicity attainment gaps (UUK and NUS joint report, 2019). While humanities and social sciences subjects have begun to develop standard practices around de-colonising curricula, many of these action points (e.g. including works from diverse authors in reading lists) may not translate easily into STEM subjects.

Diversification of the geosciences curriculum will therefore require introspection and consideration, perhaps drawing on work in allied fields (e.g. in archaeology; Croucher and Romer, 2007).

In regards to student course selection (and hence recruitment), the department might like to consider the way in which the current UG streams are perceived by prospective BAME applicants. While it is important not to play to stereotypes, there is still scope to allow the anticipated interests of potential students to influence course content and hence to attract the most diverse range of incoming students. This could include creating different streams within the UG degree (e.g. geophysics, planetary science, and natural hazards, etc.).

| 36 | IMPLEMENT | Encourage lecturers to modify courses as appropriate such that students are made more aware of the historical, social, or cultural contexts in which presented scientific discoveries were found. This might include | Next course review |


2.7 Continuing action

In following up on these actions, the department should take care to ensure that initiatives are maintained and built upon in the coming years.

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<td>37</td>
<td>IMPLEMENT</td>
<td>Ensure that modern, translatable skills (e.g. coding) are as integrated into the UG degree as possible.</td>
<td>Next course review</td>
</tr>
<tr>
<td>38</td>
<td>CONSIDER</td>
<td>Consider whether the creation of different ‘streams’ within the undergraduate degree might attract students with a more diverse range of backgrounds who might not consider a course perceived to be pure ‘geology’.</td>
<td>Next course review</td>
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<tr>
<td>39</td>
<td>IMPLEMENT</td>
<td>Create a forum in which BAME members of the department are able to raise concerns and/or ideas, the setup of which can be decided by the relevant members of the department.</td>
<td>AY 19-20</td>
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<tr>
<td>40</td>
<td>IMPLEMENT</td>
<td>Ensure that channels exist for regular engagement with groups working on diversity and inclusion both within and outside the university, including student groups and initiatives within Oxford (e.g. Oxford Afro-Caribbean Society, Campaign for Racial Awareness and Equality).</td>
<td>AY 19-20</td>
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<td>41</td>
<td>IMPLEMENT</td>
<td>Ensure that appropriate resources are allocated to deal with the items within this report which the department chooses to address.</td>
<td>AY 19-20</td>
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<td>42</td>
<td>IMPLEMENT</td>
<td>Commission an external review of issues relating to BAME representation and inclusion to follow up from this report after the department has had sufficient opportunity to respond.</td>
<td>AY 21-22</td>
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3 GENERAL CONSIDERATIONS

3.1 Intersectionality

This report focuses on racial and ethnic diversity in isolation in order to narrow the scope of suggestions to an area of diversity that has seldom been discussed in the department. However, many of the issues presented in this report may affect members of other marginalised groups as well. For instance, people with disabilities may have overlapping concerns with BAME students in regards to the
perceived prominence of fieldwork in the course. The fact that barriers for separate minority groups overlap to some degree means that implementing the recommendations in this report could advance not only racial and ethnic diversity, but also diversity of gender, sexuality, socioeconomic status, religion, nationality, age, and disabled status.

It is also important to consider the ways that BAME people with multiple minority characteristics may face additional barriers to inclusion that have not been itemised in this report, a concept which is encapsulated in the idea of ‘intersectionality’.

The intersection of gender and racial categories, for instance, leads to an especially strong exclusion of women of colour from professorships in the UK (Rollock, 2019). Therefore, when engaged with diversity and inclusion initiatives for any single minority group, such as Athena Swan for gender equality, we encourage an intersectional perspective of how members of that group might face additional obstacles if they belong to additional minority groups. Likewise, for general diversity initiatives (e.g. UNIQ), we recommend that evaluation consider the outcome for multiple minority groups (e.g. gender and race together), rather than focusing on one aspect of diversity for which the programme may be particularly successful (e.g. gender irrespective of race). This broader focus will allow assessors to notice aspects of diversity for which the initiative’s contributions may be weak, and to strengthen the programme accordingly.

### 3.2 Monitoring and assessment

An important and time-consuming component of diversity and equality agendas is the regular evaluation of each initiative’s success. Choosing a metric of ‘success’ may be straightforward for some types of actions (e.g. tracking the application rate of BAME students in response to recruitment actions).

However, some aspects of inclusion, such as a feeling of belonging, may be difficult to quantify, and the number of BAME students in the department is currently so small that qualitative feedback might be identifiable. It would be good practice to monitor the outcomes of recommendations implemented from this report, but assessment may not be necessary for every recommendation.

### 3.3 Resource allocation

We suggest that the department undertake a prioritisation exercise on itself upon receipt of this report, to decide upon a timeline for progression in relation to these actions.

Alternatively or in addition, it might be helpful for the initiatives to select a subset of recommendations that span the categories in this report. Regardless of the order in which the department pursues recommendations in this report, it is essential to develop a long-term commitment and strategy to fulfilling in-progress changes.
and initiating new actions. A standing item in the Workplace and Equality Committee could be one way to ensure accountability to this agenda.

Any action will require some form of resource input, such as financial support or staff time. The authors recognise that in some cases, the thorough pursuit of racial and ethnic equality may seem to come at the cost of research, outreach, or engagement activities. We remain willing to assist with the work relating to the actions in this report, though it is crucial that the share of equality and diversity work being done by graduate students within the department does not increase substantially.

Recruiting and supporting students and staff from diverse backgrounds, including under-represented racial and ethnic groups, is indispensable to the mission of the department to advance the Earth Sciences. Given the current state of racial and ethnic diversity in geosciences (see ‘Motivation’), it is paramount to prioritise diversity and equality actions in the departmental agenda.

4 REFERENCES

ADEX 09(17): Undergraduate admissions and BAME Applications [eds. Khan, S. and Matthews, A.], University of Oxford


Miller, A. (2018) "In some disciplines, heavy drinking is part of the culture. That can be a problem." Science Magazine blog, doi:10.1126/science.caredit.aaw3020.


5 APPENDIX

A full list of suggested action items is given in the Appendix as a spreadsheet. This format allows the sorting of actions according to category, advised completion date, or group (UG, PG, or all department members). The spreadsheet could also be used as a base template for tracking in-progress and completed actions.