

**Report of the
Working Group for Improving Access to Scientific Information in Developing Countries
To the Sciences Committee**

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Period under report: April 2009-April 2010

1. Background

UNESCO's strategic programme objectives reflect the importance of access to scientific and technical knowledge especially in developing countries. Enhancing scientific capacity in developing countries is greatly hampered by the inability to access scientific information, including journals, literature and data. Furthermore, science, engineering and technology development cannot be restricted to research and higher education institutions; the long-term development of scientific capacity also depends on a broader social understanding of and appreciation for the sciences.

2. Remit of the Improving Access To Scientific Information Working Group

- 2.1 The remit of the Working Group for Improving Access to Scientific Information in Developing Countries is to assist the Sciences Committee in fulfilling its responsibilities in respect to building scientific capacity through improving access to scientific information in developing countries.
- 2.2 To this end, the Working Group's objectives are : *to promote the provision of affordable and effective access to information through journal access programmes, open access initiatives, associated infrastructure, and other relevant means ; to promote avenues for developing country scientists to share their research in both regional, sub-regional and global contexts ; to explore current issues relating to the provision of data and information and encourage action as and where necessary ; to increase awareness of UNESCO by improving liaison with stakeholders in the C&I sector, for example publishers, learned societies, librarians and coordinators ; and to encourage the development of responsible science communication -- including science journalism – through both improving the channels through which information about science is communicated, and building the professional skills of science journalists and other communicators.*
- 2.3 The Working Group's mandate and objectives are laid out in its Terms of Reference, which were adopted by the Sciences Committee on 2 May 2007 with revisions approved by the Sciences Committee on 20 May 2009.

3. Meetings and Attendance

- 3.1. The Working Group held two meetings during the 12-month period covered by this report (15 May 2009 and 9 October 2009).
- 3.2. Working Group meetings are chaired by Roger Elliott, facilitated by the UK National Commission's Programme Secretary for Sciences (Natasha Bevan).
- 3.3. Attendance at meetings has been fairly consistent over the past year, with near full attendance at every meeting.
- 3.4. Julie Clayton and Ian Russell were invited to join the Group in September bringing with them particular expertise in publishing and science communication.
- 3.5. Robert Kirby-Harris tendered his resignation from the Working Group in May 2009.

4. Activity

4.1. Access To Scientific Research

4.1.1 Low Cost Journal Access Programmes

Journal access programmes play a key role in providing researchers, practitioners, and students in developing countries with essential access to up-to-date literature that they would otherwise be unable to afford. Between July-September 2009 a survey of 43 UK learned societies was undertaken as a follow-up to the UKNC report titled *Improving Access To Scientific Information for Developing Countries: UK Learned Societies and Journal Access Programmes* published the previous year. The combined results show that 33 UK scientific learned societies make their journal content available to developing country readers free of charge or at a reduced cost through international journal access programmes such as HINARI, AGORA, OARE, PERii, TEEAL, eJDS and eILF.

http://www.unesco.org.uk/access_to_research_outputs

The Group also explored whether there was any benefit and/or possibility of giving developing country science journalists access to journals through international journal access programmes. In addition to these collective programmes the Group also considered access to individual publisher online platforms such as Elsevier's Science Direct. Feedback from some international journal access programme providers suggested that it was too complicated to provide access to journalists. Discussion with some individual publishers indicated that access could be provided to journals, abstracts and/or news alerts on request from accredited journalists: details were subsequently obtained from Elsevier, Wiley Blackwell, Oxford University Press, Nature and Springer, and made available in a 'Top Sources' information sheet distributed at the 2009 World Conference of Science Journalists (see 4.3.1 below). The Group's discussions highlighted in particular the importance of usability, being fit-for-purpose and understanding content alongside access (see 4.3.2 below).

4.1.2 Open Access

The growing Open Access (OA) movement has important implications for scientists and academics capacity both to access and contribute to world science. The Group highlighted a number of initiatives looking at the impact of and capability for OA such as: the InterAcademy Panel (IAP) Programme on Digital Knowledge Resources and Infrastructure in Developing Countries report on institutional repository (IR) capabilities; the ongoing PEER (Publishing and the Ecology of European Research) project; the RCUK study on OA to research outputs; and DFID's report towards a DFID research policy on OA.

The Group recommended that the UK support a resolution at UNESCO's 35th General Conference (October 2009 – 35 C/COM CI/DR.1) for UNESCO further to explore its potential in promoting OA to scientific information. The Resolution – submitted by Norway, UK, Columbia, Denmark, Finland, Hungary, Iceland, Sweden and Tanzania - was endorsed by the General Conference.

4.1.3 Data

Issues surrounding the provision of and access to scientific and technical data include: infrastructure – including internet access and bandwidth; the usability of data portals; knowledge of databases; the issue of 'reproducible research' and importance of (open source) software to manipulate/analyse data; and restrictions on data with commercial or political significance. The Group considered OECD's White Paper on Data Discoverability Standards and kept a watching brief on CODATA activities through CODATA's task groups concerned with standards and availability of data in developing countries.

4.2. Access As A Human Right

The right to enjoy the benefits of scientific progress and its applications is included *inter alia* in Article 27 of the Universal Declaration of Human Rights and Article 15 of the International Covenant on Economic, Social and Cultural Rights. The Group continued to monitor activity on access to science and the benefits of scientific progress as a basic human right. It considered the following activity/initiatives in this area:

- A "Venice Statement on the Right to Enjoy the Benefits of Scientific Progress and its Applications (REBSP)" was the outcome of the third meeting on REBSP organised by UNESCO and the European Inter-University Centre for Human Rights and Democratisation in July 2009. The Statement was a product of experts' work and did not necessarily reflect the position and opinion of UNESCO or other organisations whose representatives participated in the meeting.
- The AAAS Science and Human Rights Programme's various activities.

4.3. Science Communication

The long-term development of scientific capacity also depends on a broader social understanding of and appreciation for the sciences. Science communication involves a range of players including journalists, scientists, press officers and parliamentary officers. The Group has focused its attention on science journalism and the importance of promoting best practice for media coverage of scientific issues.

4.3.1. Training Workshop on Reporting About Climate Change at 2009 WCSJ

The Group joined together with UNESCO to co-sponsor a skills workshop on “reporting about climate change” for developing country science journalists.

http://www.unesco.org.uk/reporting_on_climate_change_workshop_draws_participants_from_over_20_countries

The one-day training workshop was held in London in June 2009 as part of the 2009 World Conference of Science Journalists (2009 WCSJ). It was attended by over 50 journalists and media professionals from over 20 countries including Argentina, Pakistan, Jordan, Zambia, Nigeria, South Africa, Uganda, Kenya, Cameroon and Egypt. The workshop was run by media trainers Mike Shanahan (International Institute for the Environment and Development - IIED) and James Fahn (Internews), and expert speakers included Chris Rapley (Science Museum, ex-Director of the British Antarctic Survey), Bob Ward (Grantham Research Institute on Climate Change and the Environment, LSE) and Saleemul Huq (IIED).

Good climate change reporting means understanding the science of climate, the merits of proposed solutions, and the political and social context of the problem. This workshop aimed to cover all three areas with a focus on the needs of journalists in developing nations. Topics ranged from the impacts of climate change to whether geo-engineering approaches such as ocean iron fertilisation can mitigate them. Expert speakers also touched on adaptation to climate change, the IPCC and how it operates, forests as carbon stores, the Stern Review, and parallels between the credit crunch and the climate crunch. Participants had the opportunity to share their climate change questions, challenges (and solutions) with experts and with other participants.

As part of the workshop the UKNC contributed to the preparation of a resource pack which included a ‘Top Sources’ information sheet (see also 4.3.1 above).

"[The workshop] really showed me how important the issue is and how important it is to act." Participant from Mali

"I've attended a lot of trainings on the same topic but this one was really interesting. It covered a lot of relating issues and the choice of the speakers were perfect." Participant from Egypt

"I learned that climate change stories should focus on local conditions in order for people to relate with the subject. I also got advice on how to corroborate information from scientists and dealing with climate denialists." Participant from Botswana

"I have shared the experience gained at the conference with all our teaching staff here. We have incorporated some into our curricular at both undergraduate and postgraduate levels." Participant from Nigeria

4.3.2. Research News Service

The Group has begun to explore the possible need for an African research news service to assist the visibility and coverage of African research. A preliminary background paper based on initial web-based research into global/regional scientific research news services and other related products relevant to Africa was prepared and initial research suggested that there was no existing service dedicated to providing news on African research for reporting purposes.

4.3.3. International Conference on Broadcast Media and Climate Change: A Public Service Remit

The Group drew attention to UNESCO's International Conference on Broadcast Media and Climate Change, held in September 2009 at UNESCO HQ Paris, and assisted UNESCO in approaching UK experts/participants as and where was needed.

5. Networking and Engaging Others

5.1 Working Group membership was reviewed in 2009; a decision was made to invite Julie Clayton (Consultant) and Ian Russell (ALPSP) to provide additional expertise particularly in the areas of publishing and science communication.

5.2 The Group continues to liaise and collaborate with UNESCO (including with the Natural Sciences, Social and Human Sciences and C&I Sectors). The UKNC directly partnered with UNESCO on the climate change training workshop (see 4.3.1 above).

5.3 The Group has engaged with a number of other organisations including AlphaGalileo, CODATA/ICSU, DFID, IIED, INASP, SciDev.net, Research4Life, UK scientific learned societies and professional bodies, various publishers, WFSJ and 2009WCSJ.

6. Future Work Plan

The Group will contribute to the delivery of the UKNC Sciences Committee work plan for 2010-11.

Appendix: List of Working Group Membership

CHAIR: Professor Sir Roger Elliott

University of Oxford
Member, Sciences Committee

Dr Lloyd Anderson

British Council
Member, Sciences Committee

Dr Stephen Benn

Royal Society of Chemistry
Member, Sciences Committee

Robert Campbell

Wiley-Blackwell Publishing

Julie Clayton (*from September 2009*)

Consultant

Professor Clive Coen

Royal Institution of Great Britain / King's College London
Member, Sciences Committee

David Dickson

SciDev.Net

Professor Robert Kirby-Harris (*to May 2009*)

Institute of Physics
Member, Sciences Committee

Professor Richard Reece

Biochemical Society
Member, Sciences Committee

Ian Russell (*from September 2009*)

ALPSP