An External Review of SciDev.Net:

the company and its website

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by

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Contents

Summary

S1. This report describes the findings of a review of SciDev.Net that was commissioned by the organisation's trustees with funds from the Department For International Development.

S2. The review is based on evidence gathered from actual and potential users of the website, www.SciDev.Net and from interviews and documents from key informants including funders, staff of the organisation[1], and trustees.

S3. The review shows that SciDev.Net provides a very useful service to a wide range of people in both developed and developing countries. It is highly valued by those who use it, particularly for news about science and development. SciDev.Net remains an innovative idea, with few direct competitors, and the team has done well to build the readership and a reputation for quality and reliability. There is a strong demand for that service should continue. Those development agencies who took the risk of funding the SciDev.Net at the initial experimental stage should feel well satisfied with what has been achieved. The results achieved so far provide strong justification for continued funding in future.

S4. During the next phase SciDev.Net will need to expand its readership considerably, both in terms of absolute numbers but also in terms of the characteristics and diversity of the audience This will require expanding the audience in Africa (and the poorer parts of South and South East Asia), and expanding the particular audience segment comprising with policy makers and analysts.

S5. There is a strong demand from the actual and potential audience for more 'interactivity' both within 'communities of practice' and with SciDev.Net itself. There is also a demand for more local content, both in terms of material from the readers and material about their particular countries and interests.

S6. SciDev.Net's 'news products' are highly valued. This is less so for the more in-depth material, such as the 'dossiers'. Products for the audience segment associated with policy makers and analysts have yet to develop a form that meets their needs in large numbers. This market segment and the products associated with it need to be thought through from first principles.

S7. The expansion of SciDev.Net during the next phase is likely to require a more 'distributed' model with responsibilities delegated away from the central office in London, while at the same time strengthening systems to assure quality.

S8. Expansion is also likely to require closer cooperation with other organisations, possibly in the form of 'strategic alliances' both to share the burden of the many tasks that need to be performed, and to enhance the credibility of SciDev.Net by association with other credible organisations.

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[1] The author would like to thank the assistance of many people who helped to make this review possible, including the staff at SciDev.Net who provided a great deal of material and answered large numbers of questions. Gareth Williams provided major contributions to the report through the telephone interviews and analysis of the on-line questionnaire. Any errors that remain are of course the responsibility of the author alone.

S9. The findings of this review suggest that SciDev.Net's track record and the importance of the services it provides form a strong justification for future funding and continued support by funding agencies and other sponsors.

1 Introduction

Terms of Reference

1. This report was commissioned by the trustees to review the Science and Development Network (SciDev.Net). The review is to cover the company and its website, www.SciDev.Net. Funds were provided by the UK Department for International Development.

2. In summary the main purposes of the review are :

- *To evaluate whether the grants awarded to SciDev.Net since 2001 been used effectively and for the purposes for which they were awarded;*
- *To assess how far the organisation has achieved the broad objectives identified in its original business plan and in its Strategic Plan for 2004-2008;*
- *To indicate actions that may be required to increase the prospects for SciDev.Net's financial sustainability;*
- *To identify SciDev.Net's opportunities for future growth and for increasing its contribution to development goals*[2].

3. The report seeks to provide the trustees of the organisation with a broad overview of its current strengths and weakness, as well as potential opportunities for growth and development, as a basis for planning future strategy;

4. The trustees identified a long list of questions that they would like answered, and from this they compiled a shorter list of approximately 50 'Key Questions'. In this report these key questions are grouped appropriately into five chapters, based on four themes identified in the terms of reference and a fifth concerned with management and governance. The full terms of reference and list of key questions are provided at Annex 1.

What is SciDev.Net? – the essential features

5. SciDev.Net's strategic plan for 2004-2008 states that

- *The aim of SciDev.Net is to enhance the provision of reliable and authoritative information on issues related to science and science-based technology that impact on economic and social development, in order to help both individuals and organisations in the developing world to make informed decisions on these issues and their impact on society.*
- *[SciDev.Net seeks] to achieve this primarily by operating a free-access website (www.SciDev.Net) that provides news, views and information on science, technology and the developing world. The website includes policy-oriented 'dossiers' on key issues at the interface between science, technology and development, as well as regional 'gateways' that provide regional news and perspectives on these issues.*

[2] See Annex 1.

6. SciDev.Net was the idea of its current Director, the award-winning science writer David Dickson previously with 'Nature'. It was started in 2001. Support was provided at the outset from the subscription-only scientific journals, Science and Nature. These two journals provide SciDev.Net with free access to relevant articles[3]. Support was also provided at the outset by TWAS, The Academy of Sciences for the Developing World (http://www.twas.org).

7. SciDev.Net now has a staff of ten in an office in London and a further three regional co-ordinators working part time (supported by a further four regional consultants, also part time). In addition each of the 12 "dossiers" is managed by six free-lance individuals working part-time, and approximately 131 freelance "stringers" from around the developing world (who are paid only if their material is used). Currently, SciDev.Net carries between 45 and 65 news articles (including brief news items) each month. About 90 per cent of these are original items prepared by staff members or the freelance journalists, the remaining being reproduced from other sources (in particular Nature and Science). The site now provides region-specific information through six 'Regional Gateways', which also provides some text (particularly headlines) in Spanish, Portuguese, and Chinese, although most of the text is in English. The number of people who have ever registered on the web site is approximately 25,500, of whom over 60% are from developing countries (16% of the total from Sub Saharan Africa).

8. SciDev.Net is core funded by four donors (DFID, IDRC, Sida, The Rockefeller Foundation) and currently has an annual expenditure of £735,000. Small amounts of additional finance are provided by organisations that fund specific tasks, such as a workshop or a dossier. The approximate contributions for 2006 in sterling are as shown in the following table. Currently SciDev.net faces a considerable short-fall for 2007.

	2006	*%*
Sida	£260,000	*35*
Dfid	£250,000	*33*
IDRC	£119,000	*16*
Rockefeller	£119,000	*16*
Approx Total	£748,000	*100*

9. SciDev.Net is a charity registered in the UK, and is governed by a board of twelve trustees (2 from UK, 7 from developing countries including two from Africa) that meets once a year. Executive powers are delegated to the Director, and an executive committee made up of trustees which convenes quarterly (if necessary electronically).

The methods used for the review

10. The approach adopted by the reviewers was largely specified by the client. These included

[3] While mention of this link is made in the section of the web concerned with donors and supporters, somewhat surprisingly it is no longer flagged prominently on the Home Page of the site.

- *An online questionnaire of users of the SciDev.Net website* ***(henceforth OQ)***. This questionnaire was largely prepared and run by the staff of SciDev.Net, with comments on the questions provided by The Policy Practice. The analysis of the questionnaire was undertaken by Gareth Williams of the Policy Practice and the summary report is provided at Annex 5. The questionnaire was answered by 2,213 respondents, in some cases partially, but in most instances nearly all the questions were completed. In addition to quantitative information derived from multiple choice questions, the questionnaire produced over 200 pages of text in answer to the large number of open ended questions.

- *A series of key informant interviews* ***(henceforth KI)***. Some thirty-two face to face or telephone interviews were carried out with key staff at SciDev.Net, a sample of trustees, donors, and other key informants such as key policy analysts (particularly in Africa) and knowledge brokers in the development sector. A full list of interviewees is provided at annex 3. The interviews were conducted by Andrew Barnett, the team leader.

- *A series of "focus groups"* ***(henceforth FG)***. Fifteen to thirty people were brought together for a day long meeting in South Africa, Uganda (2), India, China and Ecuador (2). The participants were selected to reflect both actual users and potential users, and a variety of audiences (scientists, policy analysts, NGO, the private sector etc). The groups were organised by local specialists not previously associated with SciDev.Net, except in the case of China where the group was organised and facilitated by SciDev.Net's regional co-ordinator. Summaries of the results are provided at Annexes 7-11.

- *A series of telephone interviews* ***(henceforth TI)***. Thirty interviews were undertaken by telephone, drawn from a sample of users and 'potential' users of the site from both developed and developing countries and were selected to complement the results of the focus groups. They were carried out by Gareth Williams. A summary report is provided at Annex 6.

- *A review of documents supplied by SciDev.Net and other organisations.* The most important of these are listed at Annex 4.

11. The Policy Practice also convened an internal Advisory Group. This group met at the outset of the review to advise on the issues and the approach, and provided comments on the first draft report. The Advisory Group consists of

- Dr Erik Arnold, founding director of Technopolis Limited, one of Europe's leading analysts of research impact and policy.

- Carol Priestley, former Director of the International Network for the Availability of Scientific Publications (INASP), which provides capacity building and improve access to scientific and scholarly information to emerging and developing countries.).

- Professor Alex Duncan, development political economist specialising in Africa.

Caveat – difficulties of interpretation

12. The normal caveats apply to the interpretation of these data. While the samples were selected to provide the greatest insight, and were balanced in terms of geographical area and type of audience, they were relatively small in relation to the actual readership of SciDev.Net. The online questionnaire sample represented 10% of users and the results are therefore statistically significant. The telephone interviews and focus groups were also broadly indicative. The focus groups provide user opinions rather than incontrovertible evidence but are useful in raising issues for the staff to consider. There were examples of conflicting opinions (particularly about the value of SciDev.Net news and about the usefulness of the dossiers). But the high degree of convergence in many of the views expressed gives us considerable confidence in our findings.

13. Nonetheless the data do have to be treated with care. For instance, although the number of people responding to the on-line questionnaire was high relative to questionnaires of this type, those that responded are a self selecting group (for instance, highly motivated readers, or people with time on their hands). But more importantly, it appears that many respondents, even users of the SciDev.Net services, did not know the service very well and the opinion of a significant number of respondents appeared to be based on their impression or expectations rather than the reality of the site's content. This and other issues of interpretation are discussed more fully in the appropriate section.

14. The objective of this report is to identify and summarise the main clusters and trends in the evidence, rather than to report every nuance of it. This is inevitably a subjective process. All the evidence is contained in the annexes, except the key informant information and evidence taken from the document review. Few readers will wish to trawl through all the evidence contained, but it is recommended that SciDev.Net staff do read all the reports and draw on the many details that are likely to be useful in guiding and improving their future activities.

2 A broad overview of SciDev.Net's current strengths, weakness and opportunities for growth and development.

Overall Impressions

15. SciDev.Net provides a very useful service to a wide range people in both developed and developing countries. It is highly valued by those who use it, particularly for news about science and development[4]. SciDev.Net remains an innovative idea, with few direct competitors, and the team has done well to build the readership and a reputation for quality and reliability. There is a strong demand that the service should continue. Those donors that took the risk of funding the SciDev.Net at the experimental stage should feel well satisfied with what has been achieved. And the results achieved so far provide strong justification for continued funding.

16. Issues of science, technology and development appear again to be rising up the policy agenda, even in Africa. And it seems likely that SciDev.Net has contributed to the raising the profile of these issues. Certainly the scientific and technological context in which developing countries operated is changing rapidly. This means that there is a lot more to do, many more actors are becoming involved, both as competitors to SciDev.Net but also as allies. DFID's latest White Paper foresees a doubling in funding for S&T research. The donors, and many Africans, stressed the importance of SciDev.Net adapting to this new and changing situation.

17. There is a widespread impression that now that SciDev.Net is well established it needs to 'move up into the next gear' and expand the readership, particularly in key segments of the audience, and to improve the quality[5] (and possibly the range) of services it provides to them. During the next phase the original idea needs to evolve into a more sustainable organisation.

18. Much of this report and many of the opinions provided to the reviewers, are about how to make a good service better. Many areas of concern are already well known to SciDev.Net's management and trustees. In most cases the question is what to do about them, and in some cases why have they not been tackled sooner. Part of the answer is undoubtedly that SciDev is a small and young organisation and cannot be expected to do everything at once. This in turn means that SciDev.Net management, trustees and funders need to develop a common set of objectives about where they want the organisation to go in the next phase, and to take a strategic view as to where to place its limited resources and future investment to achieve these objectives.

19. The review attempted to canvass a wide range of opinions from the users, potential users and supporters of SciDev.Net. There was a considerable clustering of opinions.

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[4] The terms 'science', technology, innovation, and development are used interchangeably throughout this report as a short-hand to describe the area of SciDev.Net's focus. There is of course a danger in this, particularly as a number of respondents wanted greater clarity on these terms and most certainly wanted more than just 'science' or even specific sub-sets of 'science'.

[5]. Evidence on this and other points in this over view chapter are provided in subsequent chapters.

These clusters will be identified and elaborated in more detail in the subsequent chapters. But the top five issues would appear to be:

- SciDev.Net is a highly and widely valued as a source of news about science, technology and development[6], and numbers continue to increase;
- Concerns about the value of the dossiers' and, more generally, SciDev.Net's ability to meet the needs of that segment of the audience made up of policy makers and policy analysts;
- An impression of excessive "northern dominance" ;
- A desire for more 'interaction' with people from developing countries and the coverage of the 'local' issues that concern them;
- A widespread ignorance of SciDev.Net and the services that it can offer – suggesting a need for a much more vigorous marketing effort to the key audiences (probably in Africa and amongst policy analysts).

20. An important finding of the review was that views about SciDev.Net often were based more on impressions and expectations rather than on the actual content. Frequently critics appeared to make their judgements before they had examined the content. In particular while most of the audience felt that SciDev.Net was credible as a source of news, a significant proportion felt that it was "unlikely" to be a credible source of information for policy makers and analysts. There is clearly much that SciDev.Net must and can do to bridge this credibility gap.

21. It was also found that a great many people accessed the website solely through the e-mail "alerts". They valued this service, but a consequence is that they rarely visited those parts of the site that are not frequently referred to in the weekly email, and rarely entered it through the Regional Gateways. Many of the features of the site were therefore not known to users, particularly the quality assurance mechanisms (such as advisory groups) that had been put in place.

Strengths

22. The overwhelming majority of respondents was delighted with the 'news' elements of SciDev.Net The combination of short news pieces, and longer features, editorials and opinion pieces makes the website interesting. Respondents regarded the site as innovative, and having played an important role in raising the visibility of science, technology and development generally. As one key informant remarked, "this is not an easy job and they do it very well indeed".

23. It would appear that SciDev.Net has developed a Unique Selling Point associated with its brand and the ability of its staff and stringers to write clearly about science in a way that is both popular and authoritative. This is a major asset that can be exploited in future to achieve greater impact and as the basis for forming strategic alliances with scientific and other organisations.

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[6] The only exception to this was apparently in India where the focus group saw SciDev.Net's news as a competitor rather than a source.

24. Despite the rising competition, SciDev.Net appears to be one of the few news media, perhaps the only one, to occupy this area of science, technology and the interaction with 'development'. It is well on the way to being the site of first choice for this type of information in some parts of the world. As one potential competitor, also supported by DFID, said "SciDev.Net gets to places that we do not".

25. Visitor numbers are building up steadily, with nearly two thirds being in developing countries.

26. SciDev.Net has a young and enthusiastic staff, and has developed a network of advisors, consultants and stringers spread across the developing world. This is a considerable asset and provides a firm platform on which to build.

Weaknesses

27. One of the main concerns clusters around the need to deal more effectively with the science and technology policy audience in general and the role of dossiers in particular. Concerns about the dossiers were by no means universally held, and there was strong support for the dossiers from some quarters. But this is an area that Management has already identified as an area for improvement and re-focussing and it has taken action in recent months in this direction.

28. It may be thought that if SciDev.Net deals so effectively with 'science news' why should it be concerned with other products for this segment of the audience – even policy makers and analysts already benefit from SciDev.Net's news products. Added to this is the view that the world is already over crowded with large numbers of other organisations providing communications products targeted at policy makers and analysts in both developed and developing countries.

29. These issues will be addressed more fully in the next chapter. But two points need to be made at the outset. First, that while there may appear to be many actors in this field, it seems that SciDev.Net's association with 'credible science' and the interface with 'development' gives it a distinct angle not shared by its competitors[7]. And second, policy makers and analysts are one important segment of the audience through which SciDev.Net can most easily demonstrate to its financial supporters that it has a "development impact" [8].

30. The second widely expressed concern was that SciDev.Net gives the impression of being a 'northern-dominated' organisation[9]. This view was expressed in a number of different ways both by key informants (including donors) and by the focus groups. As one person said, "I am disappointed that SciDev.Net has not taken root in Africa". Although stories from the developing world might be said to dominate the website, the editorials and many of the opinion pieces were perceived to be by predominantly 'northern' writers[10].

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[7] A dossier on HIV produced by SciDev.Net, can be (and probably is) perceived as being quite different from one produced by ELDIS at IDS, and indeed one produced by WHO.

[8] In principle a similar issue arises with producing communications products that meet the needs of teachers and school children. These are all part of a more general issue of providing specific communications products that best meet the needs of particular segments of the audience.

[9] These views were expressed in many ways but focussed on the need for much more "local content" and more delegated responsibilities (see paragraphs 104 and following).

[10] While this view was widely held, Scidev.net point out that currently about two thirds of opinion piece authors are from developing countries.

There was a strong 'user need' for more 'southern' voices and opinions. Part of this concern was manifested by the many respondents who felt that SciDev.Net's communication was "largely one way". Respondents seemed largely unsatisfied by, or were largely unaware of, mechanisms that have already been put in place to counter this impression, such as the regional advisory groups, regional gateways, and in-country stringers.

31. The apparent lack of 'interactivity', locally generated content and local ownership was also seen as part of a wider lack of willingness for "genuine collaboration" and partnership. SciDev.Net has, however, made many attempts to establish partnerships. Some have been successful, such as those with Nature and Science. But it appears that many others have not yet come to full fruition. Some of these approaches for partnership were interpreted as "selling the SciDev.Net idea" rather than seeking areas of mutual interest. One key informant said in this context that while "SciDev.Net was concerned with capacity development, it is not networking".

32. But at the heart of the issues of partnership, interaction, local content, and 'Southern ownership' would appear to be the issues of 'control', editorial independence and quality assurance. These are important issues for SciDev.Net and the future credibility of its brand. As one experienced key informant explained "Partnerships add complexity and undermine quality".

33. These issues need to be addressed as a matter of priority as Scidev.Net proceeds to the next stage of development. SciDev.Net cannot do everything, and will need to share the burden through the formation of 'strategic alliances[11]' with other people and organisations to achieve their common interests. In some cases these alliances will be required to increase depth and substance and overcome the credibility gap that SciDev.Net is experiencing with certain audiences. Suggestions are also made in the subsequent chapters about ways of delegating certain responsibilities without jeopardising the quality of the SciDev.Net "brand".

34. While the size of SciDev.Net's audience can be seen as a strength, there is nonetheless widespread ignorance of SciDev.Net and the services that it can offer. Most of the focus groups felt that much more needed to be done to market the site. The funders also felt that the problem now was less about increasing absolute numbers of readers, but in focussing on specific audiences, particularly in Africa and amongst policy makers and analysts more generally.

Opportunities for growth and development

35. There appear to be a wide range of opportunities for growth and development of SciDev.Net. Critical choices now face SciDev.Net and these are identified and explored in subsequent chapters.

36. Donor funding appears to be the most promising source of future funding, but it will be important to demonstrate to donors that other avenues of funding are being explored,

[11] The term "partnership" is given so many interpretations to be almost meaningless. Originally the term implied or assumed a degree of equality between the partners. Probably a better word in this context is a "coalition" which the Concise Oxford Dictionary defines as "a temporary alliance for combined action". An alternative phrase with the same meaning is a "strategic alliance".

particularly web based advertising and the expansion of sponsorship of particular services (dossiers, workshop etc).

37. In addition there would appear to be a number of steps that SciDev.Net could take to make it easier for donors to fund it. This does not necessarily mean changing policy ("becoming donor driven"), but providing donors with more information, properly packaged in the way that they need, and at the right time.

38. Strong opinions were also expressed by some respondents about getting the richer parts of the audience to pay for SciDev.Net's services. Certainly the donors remain convinced of the importance of delivering a free service to people and organisations who cannot pay. But at the same time, they are reluctant to see 'their funds' being used to subsidise those with an ability to pay. Although differentiating the services between payers and non-payers would appear relatively simple with a web-based product, other sources of finance are likely to be more cost effective[12]. However, SciDev.Net needs to be able to show these stakeholders that this market has been explored seriously.

39. There would appear to be opportunities to increase specific parts of the audience significantly. Certainly there is still a largely untapped audience that wants the services associated with news and comment within SciDev.Net's operational space (science, technology, innovation that 'that impact on economic and social development'). The main point is that the cost per registrant (currently about £30 per year) would appear to be far too high and it needs to be reduced by getting many more users.

40. It would also appear that there is a considerable opportunity to market SciDev.Net services to the audience of policy makers and analysts. This will involve finding out who these people are (for instance through data mining on the web and through identification of the existing "communities of practice") and providing them with the communications products that they want.

41. An 'evolutionary' approach to product development (testing new communication products and services and adapting them in the light of experience and feed back) is likely to be required. Such expansion is also likely to require new strategic alliances. These are likely to build on SciDev.Net's ability to supply well written communications products on science and technology to those organisations that need these services and already are regarded as credible to the target audience.

[12] See paragraph 215 for a concrete example of how this country level authentication has been achieved.

3 Assess whether the grants have been used effectively.

Reach and users

Who uses SciDev.Net?

42. The current breakdown of registered users by profession is shown in the following table together with the somewhat similar breakdown of the people who participated in the online survey.

	Registrants		Online Survey	
Profession	As of 17-Jul-06	Percentage	Percentage	Rank
Researcher (science)	4348	18.24	19.20%	1
Other	3328	13.96	10.40%	3
University teacher	2730	11.46	15.00%	2
Consultant	1638	6.87	5.60%	6
University student	1607	6.74	4.00%	11
Journalist	1482	6.22	6.30%	5
Graduate student	1452	6.09	4.10%	10
Government official	1285	5.39	6.30%	4
NGO official	1171	4.91	5.30%	7
Researcher (policy)	891	3.74	5.00%	8
Physician	812	3.41	2.80%	12
Research administrator	614	2.58	2.40%	13
Science communicator	609	2.56	5.00%	9
Librarian	493	2.07	2.20%	14
Industrial manager	396	1.66	0.90%	18
School teacher	335	1.41	1.40%	17
Aid agency official	322	1.35	1.70%	16
School student	319	1.34	0.50%	19
Sub Total	23832	100		
No profession stated	182		1.90%	15
Total Registrant	24014		(N=2213)	

43. The number of registrants probably overstates the actual membership as the process for removing lapsed users or duplicates from the registrants data base is limited[13]. Perhaps more importantly for what follows, it is clear from the focus group and other interviews that a number of these categories overlap[14], and that individuals may well perform many different tasks, for instance sciences researchers may well provide policy analysis for ministers from time to time, will teach, may work for an NGO, act as a consultant and so on.

44. However the readership is probably higher than the number of registrants as anyone can access the website without being registered. For instance about 10% of the questionnaire respondents were not registered. Many readers come to particular articles

[13] However the monthly reports do have a figure for “unregistrations”, but these are usually quite low – 50 a month or so.

[14] While many individuals certainly perform many roles, SciDev.Net’s registration form (rightly) only allows registrants to tick one box for professional category.

from web searchers such as Google[15] . Furthermore the telephone interviews made it clear that numerous interviewees reported that they forward the weekly email alerts or particular stories widely amongst colleagues[16]. And again many organisations reported that their organisations draw on materials from the SciDev.Net website and disseminate in their own media and publications.

45. Although readership data are notoriously unreliable and difficult to interpret, SciDev.Net's current readership is indicated by the following table:

Visitor Summary	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**April 2006**
Number of visits	97,422	74,860	92,779	98,776	104,279	**93,493**
Number of page views	245,991	199,950	242,972	258,776	274,913	**247,020**
Page views per visit	2.53	2.67	2.62	2.61	2.64	**2.64**
Data supplied by SciDev.Net						

46. Other institutions compile their readership data in slightly different ways, but the following usage data from two other British-based communication services who are targeting policy makers and analysts are provided for comparison. However it must be stressed that *these data are not directly comparable and should be treated as indicative*.

ODI Visitor Summary[17]	
Number of visits (Monthly average 2005/6)	**81,813**
Number of downloads per month (June 2006)	163,250.

IDS Visitor Summary[18]						
Id21 Visitor Summary	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**April**
Number of visits	28,953	22,788	27,391	29,153	31,466	29,684
Number of page views	88,781	65,081	70,141	71,958	95,668	76,602
Page views per visit	3.07	2.86	2.56	2.47	3.04	2.58

[15] In March 2006 for instance some 42,594 visits to the site came via Google, with a further 23,334 coming directly to the site. Considerably fewer visitors came through the third most frequently used source, namely Yahoo at 5,806.

[16] In the World Bank for example the weekly email is circulated to around 500 staff members including around 100 at senior level.

[17] ODI, personal communication

[18] IDS personal communication. IDS stress that these are very rough numbers and should not be used for direct comparisons as the method of counting is unlikely to be identical across the three sources of information.

Eldis Visitor Summary	Nov	Dec	Jan	Feb	Mar	April
Number of visits (140,000 "visitors" in March 2006)	241,342	184,409	217,385	224,044	250,112	201,672
Number of page views	660,576	501,758	618,187	595,589	709,893	570,152
Page views per visit	2.74	2.72	2.84	2.66	2.84	2.83

47. Although there is some question about their validity, SciDev.Net does particularly well in terms of the Google Web 'PageRank' system with a score of 8/10[19]. This is the same as DFID, but better than IDS and ODI (at 7/10). The World Bank site scores 9/10.

48. This suggests that SciDev.Net has made major achievements and it is getting broadly similar results to those of ODI, but considerably less than those of IDS. However neither of these organisations aspire to communicate to as wide an audience as SciDev.Net. In this context SciDev.Net's 25,000 registered users appears to be modest and represents a cost per registrant of about £30 per user per year. Currently registrations are creeping up by 500-600 a month. However the overall target was set to increase by only 3,000 additional registrants a year in the 2004-2008 Strategic Plan[20].

49. The next phase is likely to require a stepped change, with targets in the tens, if not hundreds, of thousands so as to become known globally as a source of news on science and development[21].

Are the actual users the target users?

50. SciDev.Net's Strategic Plan states that

> *Our target audience is the broad range of individuals with a professional or personal interest in the interaction between science, science-based technology and development. These include those working in universities and other training institutions, research laboratories, government and aid agencies, the media, diplomatic missions, the private sector, civil society and policy research organisations…… We are, however, principally interested in reaching users in the developing world. (see paragraph 2.1 and 2.2.*

51. The idea of a "target audience" is complex. SciDev.Net's longstanding view is that they in effect face "a single audience", with a number of separate components (such as those listed in paragraph 40). The director states that " *I look at 'the audience' as the total readership of SciDev.Net, and therefore as a community of users that is more than just the sum of its component parts*". For instance, he argues that "*Science journalists and policy makers are not two independent target groups; we target journalists partly in order to*

[19] "In essence, Google interprets a link from page A to page B as a vote, by page A, for page B. But, Google looks at more than the sheer volume of votes, or links a page receives; it also analyzes the page that casts the vote. Votes cast by pages that are themselves "important" weigh more heavily and help to make other pages "important." http://www.google.com/technology/

[20] It has been pointed out that these targets have now been revised and are currently set at 7,500 additional registrants per year.

[21] The New Scientist on-line services states that it has 1.6 million unique readers. – personal communication Lara Schonberger, New Scientist On-line account manger.

access policy makers, on the grounds that many policy makers learn as much about science through what they read in the press as they do from experts' reports".

52. It may be seen as a quibble to distinguish between a component of a single audience and different audience segments. But it becomes critically important when it leads to the view that the same communications product, such as the dossier, is useful to the 'junior government advisor' and to the 'University Teacher'. SciDev.Net aspires *to provide a 'single product' that appeals in different ways to a range of audiences – in the same way that the New Scientist or the Economist does. It is 'peer to non-peer' communication that both 'educates politicians' and acts as a source of information for researchers and science communicators. The purpose is to 'embed science in the development discourse'"*.

53. While there may be justification in these arguments, it would appear from the focus groups and other evidence that some of the products produced by SciDev.Net do not adequately meet the needs of some segments of the audience. This theme runs through much of the evidence and therefore much of the rest of this report.

54. This leads to an initial hypothesis that will be explored and supported in subsequent sections of the report. This is that clearer "segmentation" of the audience, and more effective generation of products that meet the specific needs of these different segments would provide the analytical basis of an effective strategy as SciDev.Net moves into its next phase. In particular such segmentation would simplify the task of "engaging" (interacting) more effectively with one or more of the different audiences. Failure to do this sufficiently is the past provides a plausible explanation for a cluster of user concerns.

55. These issues of market segmentation are common in communication strategies and similar issues were raised by the earlier review of the dossiers. For instance, this earlier report noted that

> *The interviewees were asked whether SciDev.Net should continue with its current strategy of providing content in the same fashion for all audience segments (such as policy makers, journalists, and academics) or whether it would be more appropriate to tailor the material for different audiences.*
>
> *Users are divided on the issue of 'one-size-fits-all' versus a stratified approach to presenting content for different audiences. Some interviewees (13) feel that a general, topic-based approach is best, as this is how they would seek information. But an almost equal number of interviewees (10) expressed a strong view that it would be better to have separate sections.*[22]

56. The idea of segmentation was also raised in all of the focus groups. For instance the convenor of the focus group in China said that if he had to sum up his experience of the Focus group in one sentence, "I'd say much more efforts should be made to distinguish the different target readers (journalists, scientists, and policy researchers)"[23].

57. SciDev.Net has already begun to segment its audience by geographical areas through the Regional Gateways). Although the evidence suggests that the gateways are not much used, and most users like to see the whole website. The issue is probably less about

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[22] Grové Steyn, Tamar Kahn, and Alister Scott SciDev.Net Dossier Consultation, Final Report, 5 May 2003, paragraph 4.3.5.

[23] Personal communication.

splitting up the site for different audiences, and more about being clearer about the targets for particular products (such as dossiers).

58. The issues of "engagement" between the suppliers of knowledge and the users of knowledge (in this case the audience) is also a long standing theme in the literature both on communication and on innovation[24], particularly with regard to the audience of policy makers. For instance DFID's Research Policy Paper of 2002 noted that

> *'User engagement',[is important] both to determine research needs, but also to facilitate up-take. Locating 'research' in the wider context of 'knowledge systems' makes clear the necessity for the 'supply side' of the system to engage continuously with 'users' of research in order to understand who they are, how they are differentiated, and what their needs are. Paragraph 254 Nov 2002.*

59. At the time of that report it is was probably fair to describe the situation as one key informant did that

> *research institutes generally have an extraordinarily vague notion of who those users are, and how they regard and deploy research. There is a great deal of loose talk about 'reaching policy makers', but how it actually happens in practice is for most a distinctly grey area.*

60. But since then a considerable amount of research has emerged on the way that research-based knowledge influences the policy process. When asked to summarise the conclusions of this research, one leading specialist said "The key to linking research to policy is to 'engage' with policy makers".

61. While such research focuses on the engagement between researchers and policy makers, there is strong reason to believe that the same applies to those that seek to facilitate communication between the former and the latter.

62. At a brainstorming session with the Dossier Coordinators the idea emerged that SciDev.Net's audiences and products could usefully be considered as Rubik cube (see next page). While all segments of the audience might find elements of each product of some value, it seems likely that each audience segments has different skill levels and different information needs.

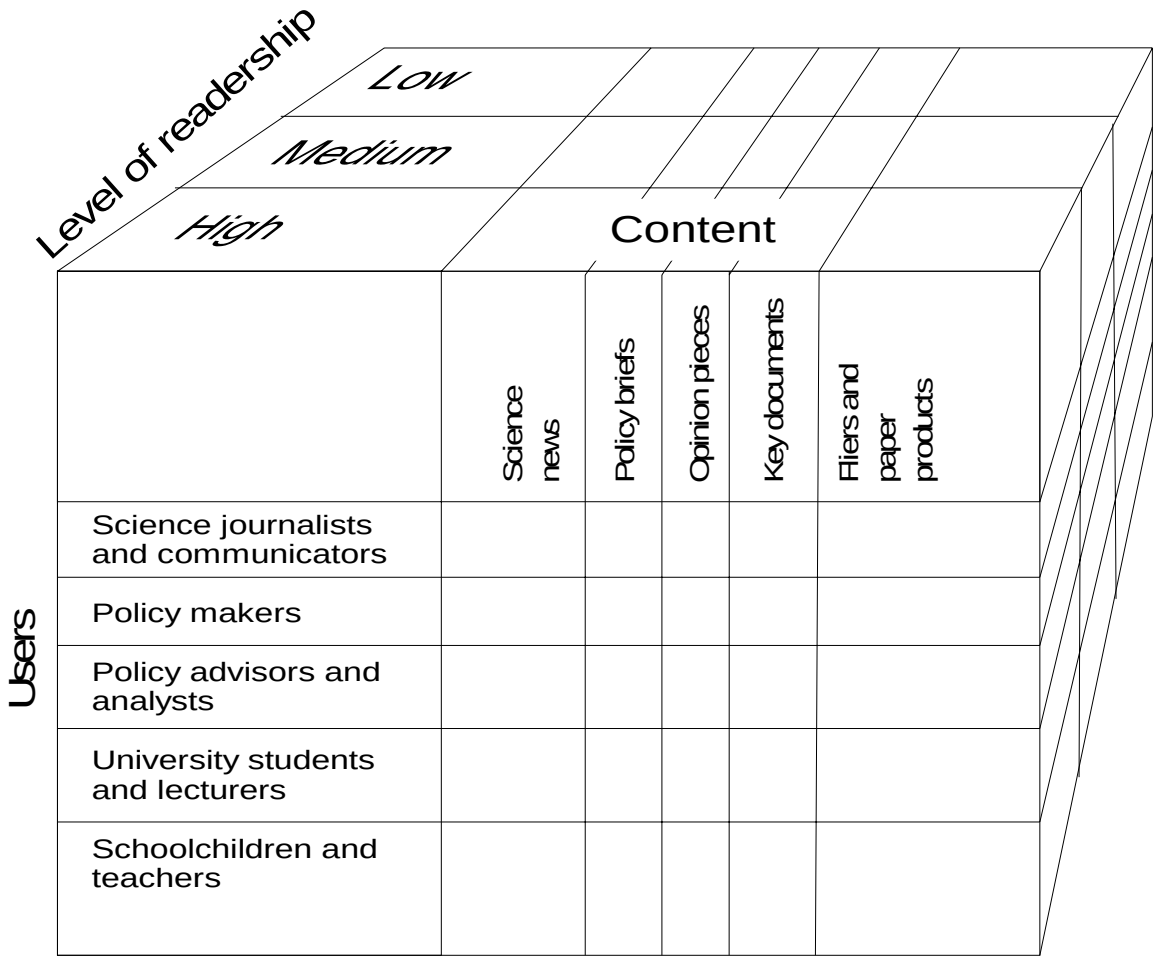
Has SciDev.Net reached its target users?

63. The evidence provided by the user data, on-line survey and the focus groups suggest that SciDev.Net has indeed reached an increasingly large audience, and has established a good reputation as a key site, and possibly *the* key site, for news about science and development. It is also a major achievement that over 60% of SciDev.Net's registrants are from developing countries.

64. However as suggested earlier, the numbers are still modest relative to other services (see paragraph 48). Some key informants (including a trustee) suggested that web-based products often show dramatic and exponential growth and anything less than this is disappointing. It is certainly the case the numbers of people in developing countries who fall into each of the market segments is vast (for instance India alone has more than 250

[24] These ideas are summarised in the recent publication of the Danish Ministry of Foreign Affairs: **Partnership at the Leading Edge: A Danish Vision for Knowledge, Research and Development** (April 2001), particularly page 279 *Some New Ideas About Research for Development*, by Erik Arnold and Martin Bell.

universities which catered last year for more than 3.2 million science students, though India only awarded 5,000 PhD in Science each year[25]. This is not to mention the numbers in China, or the number of English reading science students at school and university in the wider developing world)[26].



65. But in addition to concerns about the absolute numbers of readers, there is also a concern about the characteristics of the readership. This has two forms: first is the concern, expressed by two of the donors to SciDev.Net, about the geographical distribution of the readership and their socio-economic status. While the donors agree that it has been important for SciDev.Net to build up its user numbers, they support SciDev.Net because of its ability to communicate with people who could not afford to obtain this type of information at the full commercial price. In particular they are concerned to increase the readership in sub-Saharan Africa.

[25] New Scientist Special Issue February 2005.

[26] Few respondents in the telephone interviews were able to estimate the potential market size, but one stated that *there were around 250,000 scientific researchers in Latin America, of which around 20% are interested in policy. On the basis of the number of registered users of SciDev.Net in Latin America, this may represent about 10% of the potential audience in Latin America*.

66. Again these issues of audience are complex. There are of course more people in poverty in India and China than in Africa. And, as any discussion of the impact of infrastructural services concludes, it is difficult to differentiate between trying to impact poor people directly and the need to impact those people who may be relatively rich but whose actions can contribute indirectly to poverty reduction such as through economic growth and the redistribution of resources through taxation.

67. Some 16% of the total readership is from Sub Saharan Africa and this is an achievement. But the expansion of the readership in particular geographical areas will remain an area for strategic focus (see below).

68. The second concern is related to SciDev.Net's objectives and its ability to reach that segment of the audience involved with the analysis of science, technology and innovation policy and those that make decisions about such policies.

69. There is considerable force to the argument that a website like this is perhaps more suited to getting mass readership than targeting key individuals. And this line of argument suggests that the best way to increase SciDev.Net's influence is through getting greater readership, The mechanisms of influence may be indirect and intangible (i.e. increasing general knowledge and awareness of S&T) but may be more important. The number of readers should remain a major indicator of success.

70. Nonetheless, given SciDev.Net's objectives it should also do more to target specific audiences. It was evident from the answers to the On-line questionnaire that only a small minority of respondents held positions where they are able to influence policy directly. The majority of respondents who answered question 21 (on 'how has our material been of value to you in policy making?') were only loosely connected to policy making, and included for example science communicators NGO lobbyists and researchers who judged their outputs to be relevant to the policy debate[27]. About 20% of the respondents to question 21 (equivalent to about 5% of the user base of SciDev.Net) held positions where they are able to influence policy directly. Amongst this small group the main policy roles that were evident from the questionnaire responses included science funding, setting research priorities for research institutes, and contributing to the policy making within governments, donor and international organisations on science topics.

71. Unsurprisingly the proportion of each category of respondent who answered positively were policy researchers (61%), followed by research administrators (48%), consultants (43%) , Aid agency officials (40%) and NGO officials (39%)[28].

72. It could be argued that current users might well be a relatively high proportion of the total population of this category – the number of science and technology policy analysts in Africa cannot be very large. However, as part of this review an attempt was made through Internet searches to find people who were highly likely to have an interest in such policy analysis. This was used to generate sample populations for the focus groups and phone interviews This 'data mining' generated a large number of people who were not registered

[27] Only a quarter of respondents answered this open-ended question, which corresponds to the same percentage of respondents who stated that they are actively involved in developing policy in question 20.

[28] 33% of School students also said that they were involved in policy analysis, the absolute number was small (four respondents)

at the website[29] and provided prima facie evidence of the large potential for increasing this segment of SciDev.Net readership.

73. So despite considerable success in reaching its target users in a relatively short time frame, there is clearly very much more to be done.

If not, why not?

74. Significant parts of the audience are well served by some of SciDev.Net's products. But surveys of potential users show that there are very large numbers of potential users who are unaware of the existence of SciDev.Net and the services they offer. This suggests that a much more imaginative marketing strategy needs to be properly resourced and implemented as described in more detail in subsequent sections.

75. Many of the Focus groups concur with the view that SciDev.Net and the services it provides are largely invisible to large segments of the potential market. The South African focus groups noted that

> *SciDev is relatively unknown to many of the target audience. This may be attributed to the low visibility of SciDev and a marketing and communications strategy that can be best described as "passive".*

76. Similarly, the Indian focus group described SciDev.Net as having "*grossly inadequate publicity. Most potential users unaware of the existence of the site"*. In addition all participants in Quito and Guayaquil, Ecuador also suggested *"implementing a marketing strategy in order to widely promote the portal and its services"…. " Most of them remarked on the lack of publicity about the SciDev site as the likely main reason for more people not using the site"*.

77. But perhaps one of the most important findings from the surveys has been that many users and potential users, particularly of the policy analysts and policy makers, have formed an impression that SciDev.Net is not likely to be a credible source of information of the type of information they think they want. A number of respondents admitted on probing that they had not read the dossiers and were not aware of any of the quality assurance mechanisms that had been put in place (such as the Advisory Groups etc)[30].

78. One reason for this emerged from the telephone interviews which noted that:

> *"almost all users reported that their primary route to the website is through links in the weekly email, and they rarely visited SciDev.Net without the email prompt….The weekly email appears to have a strong influence on which sections of the website are regularly consulted by users. Articles that are highlighted in the weekly email (mainly news stories, editorials and opinion pieces) receive most visits"*.

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[29] Although it must be said that a very high proportion of the people so identified did not reply to e-mail approaches.

[30] Reviewers of an earlier draft have wondered whether such "erroneous evidence" should carry such weight in the conclusions of this report. The point being made here is about the need to deal with "perceptions" about the credibility of SciDev.net for some types of information. This view was expressed by a number of key informants who said that they did not use the dossiers. But this view is also echoed both in the On-line questionnaire and the focus groups in relation to the limitations of the dossiers in their current form.

79. By using the links provided[31], users do not actually see any of the other content of the site unless they take the extra steps to following other lines on the stories they read. This is presumably also the case for those readers that get to an article via web searches using Google or other systems. Some 47% of visits appear to originate from Google alone.

80. This suggests that while there may be a need to modify the products themselves, there is certainly a need to overcome this credibility perception barrier.

How do they use it?

81. All of the evidence gathered suggests that users use the site primarily for news about science in the context of developing countries. The telephone interviews perhaps best encapsulate this by saying that

> *SciDev.Net appears to be most valued by users as a means to brief themselves on topics about which they are less knowledgeable, but need to gain a rapid understanding. Users would typically consult SciDev.Net if embarking a new research subject or to find out about a topic that was connected to their primary interest, including cross-cutting issues such as HIV/AIDS or climate change[32]. Many users stated that they use the website to get a quick sense of the debate surrounding particular topics. Editorials are seen as being particularly useful in this regard.*

82. The On-line Survey also confirms this conclusion. By far the largest proportion of users (nearly 70%), use it for the news. This was followed some way behind by Features (43%), with editorials, opinion pieces, notices, dossier and quick guides at just under 30% each. Sixteen percent did not reply and 4% said they did not consult any section regularly. The Regional Gateways were used regularly by only 13% of the respondents[33].

News	1538	69.5%
Features	964	43.6%
Opinions	642	29.0%
Editorials	660	29.8%
Dossiers and quick guides	618	27.9%
Regional gateways	292	13.2%
E-guide to science communication	424	19.2%
Notices of jobs, events, etc.	624	28.2%
Book reviews	293	13.2%
Letters to the editor	166	7.5%
Links	394	17.8%
I do not consult any of these sections regularly	81	3.7%
No response	346	15.6%

83. The telephone interviews also found that many users said that they return to the site regularly, typically once a week following the e-mail prompts.

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[31] Users value the e-mail alerts highly. Of the 1580 people who replied to question 31 in the online questionnaire over 70% said that they wanted the e-mail alerts to continue.

[32] For example a trade policy researcher reported that the site was useful as a quick source of information on scientific topics that are relevant to trade, including IPRs and GMOs . Another user mentioned that she used the website to get up to speed on new topics, for example the drafting of a research proposal on biological control of malaria carrying mosquitoes.

[33] While 2213 replies were received to the questionnaire, many respondents consulted more than one section regularly, so there were 7,042 responses to this question.

How do they value it?

84. The results of the on-line questionnaire suggest that nearly 80% of the respondents rated the site Good or Excellent. These views were held equally between respondents in developed and developing countries. This is an impressive result. Only three of the 2213 people who bothered to respond said that the website was poor.

Excellent	869	39.3%
Good	857	38.7%
Of mixed quality	138	6.2%
Poor	3	0.1%
No response	346	15.6%

85. The five categories that ranked SciDev.Net most positively (excellent + good ratings) were: Researcher (policy), NGO official, graduate student, Consultant, and Physician. While the five categories ranking SciDev.Net least positively were School students, University students, Aid agency officials, Librarians, and Industrial managers.

86. The most commonly mentioned strengths of the website relate to its news function. In rough order of frequency the following points were mentioned:

- The breadth, comprehensiveness of the website and the diversity of content. The ability to get a quick overview of current science and development issues.
- The timeliness, topicality and relevance of articles. Engaging with frontier issues.
- The quality of journalism – objective, balanced and accurate reports written in a clear, concise, punchy style using plain English and explaining science in simple terms
- The user-friendliness of the website – good design and easy navigation
- The global coverage of stories covering all developing countries
- The use of materials from scientific journals (Science and Nature) and links to other sources
- The usefulness of weekly emails and RSS feed

87. A few respondents identified non-news features as strengths of the website, including announcements, dossiers and opinions. It is striking that the South African focus group valued the dossiers particularly highly, but their report does not say why. This is in contrast to the views of other focus groups which are dealt with in paragraph 115 below.

How can value be increased for users?

88. The focus groups, telephone interviews and online questionnaire have all generated numerous suggestions on what new things SciDev.Net should do to increase the value of the site. These should be reviewed by management. But it will be important for SciDev.Net to be quite selective in which of these suggestions its takes up as there is a danger of losing focus and spreading resources too thinly.

89. SciDev.Net needs to concentrate on doing what it does best (reporting news) and bringing more users to the site. Resources need to continue to be put first of all into good

quality journalism and feeding in more local content onto the site. If new features are added there is a risk of doing things in a half hearted way. The non-English language support is a good example of this. It would appear to be only limited value to readers for SciDev to translate only headlines and the first few sentences of articles. The focus groups strongly argue that the translations should be more extensive. If this is not possible then money should be saved by not doing it at all.

90. As suggested earlier probably the most effective approach to making the material more useful to the policy audience is likely to be through "engagement" with this particular segment to determine their needs and to determine how well particular SciDev.Net products and services meet their needs (see paragraph 138).

91. While these ideas are illustrated mainly in the context of policy analysis (as this is a part of SciDev.Net's aims and was commented upon in the surveys), similar arguments could be made about other segments of the audience. For instance it might be argued that SciDev.Net could have the greatest impact on poverty reduction in aiming at least part of its services to school children and their teachers – both in terms of the popularisation of science and in terms of innovations in the teaching of science and technology for development. SciDev.Net may wish to consider developing communications products that meet the needs of this segment.

92. There was considerable clustering of opinions in the focus groups that users of SciDev.Net services wanted more "interaction" both with other members of their "community of practice" and with SciDev.Net itself. The evidence from these sources suggests that an opportunity has been missed to use the technology of the internet to enhance user involvement in the website. As reported in the telephone interviews:

> *In discussing the functionality of the website many users commented on the limited interactivity of the website. It was noted that SciDev.Net operates much like an online newspaper rather than an interactive website that invites user input. Many users stated that this format is well suited to their needs. However, about half of the participants in the telephone interviews considered that SciDev.Net should do more to use the technology of the internet to provide more interactive features*

93. Similar views were expressed in the South African focus group:

> *Many respondents were of the view that the interaction with SciDev was "one-way". However, they acknowledged that they had to take responsibility for this since they were unaware that "two-way communication" was possible*[34]*. One way of circumventing this misconception in the future is to engage in workshops which outline the attributes of the site.*

94. In the Chinese focus groups:

> *The majority of respondents who were current users concurred that communications with persons having similar interests was not pursued.*

[34] SciDev.Net has recently invited comments on the design of the African Science and Innovation Facility (See news item posted on 14 August 2006).

95. The Uganda group concluded that *interaction and networking between local Users of SciDev is poor*[35].

96. There was also a strong desire for more local content. This is explored further in the next section.

Overall Content

Is the content of the website seen as authoritative, relevant, useful, "the best" by users and key stakeholders (donors, sponsors, scientists?)

97. The evidence from the various surveys indicates that SciDev.Net has effectively established itself as one of, if not the primary source of news about science and international development. This is a major achievement. This 'news' is seen as authoritative and very well written by those that use it. It has even been suggested that the UK's Minister for international development considered that SciDev.Net was the site of first choice if you want to communicate to scientists

98. Many key informants made it clear that to achieve, and continuously maintain, this status and this reputation is extremely difficult. One competitor remarked "Do not underestimate this achievement when suggesting improvements"!

99. The surveys provide a large number of suggestions about how SciDev news services could be improved. These include covering a wider range of "sciences", more on "technology", "innovation" and associated "policies", more on science being undertaken in developing countries, and more local content more generally (there is "not enough news about what science is going on in Africa").

100. But, as suggested earlier, there is a clustering of evidence that suggests that a significant proportion of actual and potential readers (particularly policy analysts and decision makers) do not yet perceive the SciDev.Net dossiers as an authoritative source of information. This would appear to be for three reasons: preconceptions about the source; the depth of the analysis they contain; and lack of evidence over the authoritativeness of the content. Each of these will be dealt with in more detail in subsequent sections.

Is content from the developing world increasing as planned?

101. The number of news stories produced by freelance writers based in developing countries has risen sharply: from about 15 per month in January 2002; to about 17 a month in May-Jun 2004; and between 30 and 49 and month so far in 2006.. All but one of the 809 articles commissioned from freelance writers were from writers in (and from) developing countries. Of the 445 articles appearing so far this year, some 64% were produced by freelance staff in developing countries[36].

102. In a number of cases the commissioned articles are intended to be "localised" responses to science events or articles produced in OECD countries, but an increasing number are initiated and originated by the freelance writers themselves. Substantial sub-editing in London is said to be required to maintain the high standard of science writing that SciDev.Net requires.

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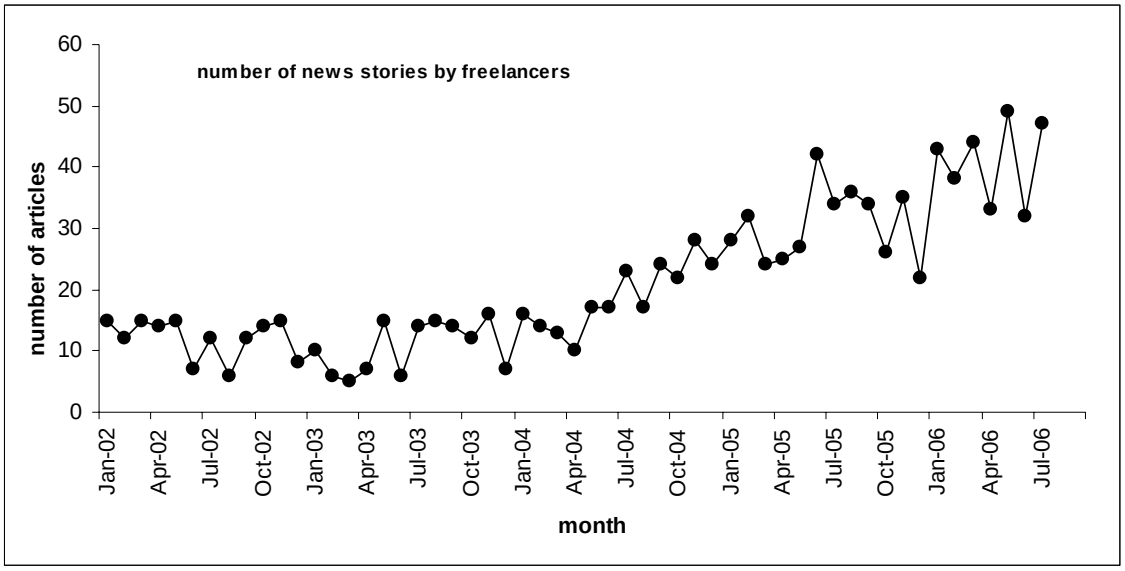
[35] Although the Uganda focus group did suggest the need for local chapters, such interaction could be facilitated on-line.

[36] This type of information could usefully be given greater emphasis on the site and in SciDev.Net's marketing messages.

103. The total number of freelancers that have ever written news for SciDev.Net is currently 131, increasing from 69 at the end of July 2004. Of the 131 freelancers 30% are from sub-Saharan Africa, 37% from Latin America, 10% from China, 17% from South Asia and 6% from South East Asia.



How can content be made more relevant to development goals?

104. The DFID report on Research Policy and other more recent sources have examined the difficulties of demonstrating the impact on development goals of specific items of research. More will be said about this in the sections below on Impact and Outcomes.

105. But the evidence from the focus groups does indicate that readers want content that is more related to their particular development goals. That is, they want more local content about their particular circumstances and they want to be able to contribute more of their own local content themselves. However the On-line questionnaire suggested that nearly half of the respondents were broadly satisfied with the balance of the content between international and regional news and country specific news was about right (46.7%). There are many possible explanations for this apparent divergence. Not least being that readers want more of both types of news (international and local) rather than in a shift in the balance.

106. All the focus groups expressed strong views on this point. For instance, the focus group in China said that

> *It is also suggested that a mechanism be designed to ensure the website truly reflects the views and needs of developing countries about concrete issues, instead of merely reflecting the views and needs that the London editors believe will be of interest to developing countries.*

107. In the case of the Indian focus group their report stressed that the

> *low spatial resolution of information limits its usefulness for potential users among policy analysts. Information should be as detailed as is technologically possible and should go down to as micro a level as required - country, province, district, sub-district, village cluster, village .*

108. Similarly the Ugandans reported that

> *Too much emphasis is placed on latest news and discoveries and too little on older science and technology, which would be more relevant to practitioners in Africa.…… The conclusion of the discussion was that including more region and country specific information and policy issues would greatly improve the use of dossiers.*

109. The Ugandan also linked the idea of more local content to wanting to know more about how articles and other input to the site was commissioned*:*

> *The other issue that emerged during the discussions was most Users are unaware of SciDev's procedures for sourcing information/ people contributing information. Therefore their ability to contribute to SciDev is limited.*

110. The focus group in Ecuador expressed similar views

> *From a users' viewpoint, they think that the information on the web site is interesting, but at the same time, they feel it does not adequately reflect Latin American information.*

111. Many of the possibilities for increasing local content appear to be tied up with concerns about editorial control and quality assurance. While there are clearly strong reasons to protect the quality of SciDev.Net content, one way forward would be for the site to clearly separate 'quality assured' content from content that was not so assured. As suggested below in relation to dossiers there is already a concern over the authoritativeness of some of SciDev content, particularly where the originating source is not clear. This suggests that a virtue could be made from such a necessity, by clearly differentiating the content according to its known authoritativeness. Similarly there may be opportunities for separating editorial control from other management tasks which are more easily delegated.

112. The focus group in India felt that SciDev.Net should

> *Decentralize content production such that groups in the developing countries became partners in 'uploading' of content as much as in 'downloading'. Such content would, of course, be subject to rigorous validation and quality control processes. Quality Control over decentralized content production could be achieved regionally. An independent panel of external referees would be easily available and The Regional Coordinator could arrange for such peer review locally.*

113. Interestingly the Ecuadorian focus group came to broadly similar conclusions, namely

> *Most of participants felt that in order for scidev.net to become more effective and to achieve more beneficial impacts of scientific information in their relevant jobs, a validation Editorial Committee should be appointed in each country to select what should be published. Such a committee would ensure reliability and, additionally, would broaden sharing of scientific information"*

114. In summary it would appear that there is considerable room for SciDev.Net to make its content more relevant to development goals, but this is likely to require greater 'engagement' with practitioners in developing countries to understand better their needs,

more local 'ownership', and still more content provided by developing countries themselves. These three issues are developed further below.

What are the dossiers?

'Dossiers' are essentially a 'filing cabinet' into which are put a number of communications products on a particular topic. SciDev.Net describes dossiers as being

> *intended to provide a diverse but structured set of material that will act as:*
>
> - *a readable and authoritative introduction to a key issue at the science / technology / sustainable development interface;*
> - *a source of up-to-date information and comment about events and developments at that interface; and*
> - *a resource guide to other relevant material, organisations and discussion groups available on the Internet.*
>
> *With these goals in mind, each dossier has a clearly-labelled set of elements, including:*

1. A concise **introduction**.
2. A collection of recent **news** stories on the topic of the dossier;
3. A series of **'policy briefs'**
4. A series of **opinion articles,**
5. A **'glossary'**
6. Annotated links to key **international or regional organisations**,
7. Annotated links to the **main reports, scientific papers or other publications**
8. Annotated links to relevant **discussion groups**
9. Opportunities for **reader feedback**
10. A search facility.

Not all dossiers contain all these elements, and it is not immediately clear to readers of the website just what to expect from a dossier.

Dossiers

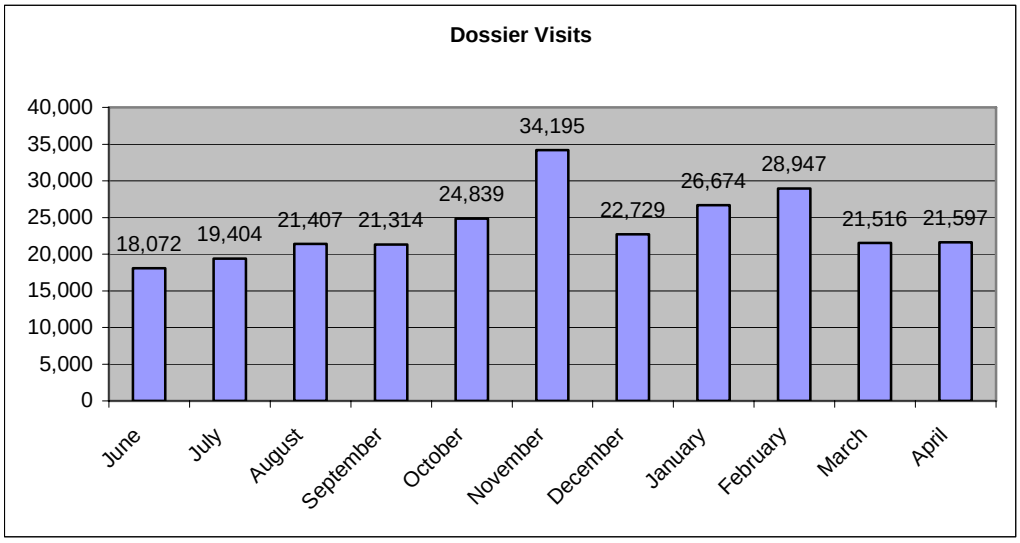
Who uses the dossiers?

115. The on-line survey shows that the dossiers are used by a range of different types of user. Some 40% of policy researchers said they consulted the dossiers and quick guides regularly, while about one third of the main other groups consulted the dossiers and quick guides.

116. Statistics are available on "visits" to dossiers and quick guides, but understandably there no data available on how many were read. The dossiers are not downloadable as such[37] and so there are also no data on downloads.

[37] Although some elements such as the policy briefs and many articles do have a "printer friendly version".

Dossier & Quick Guide Visits

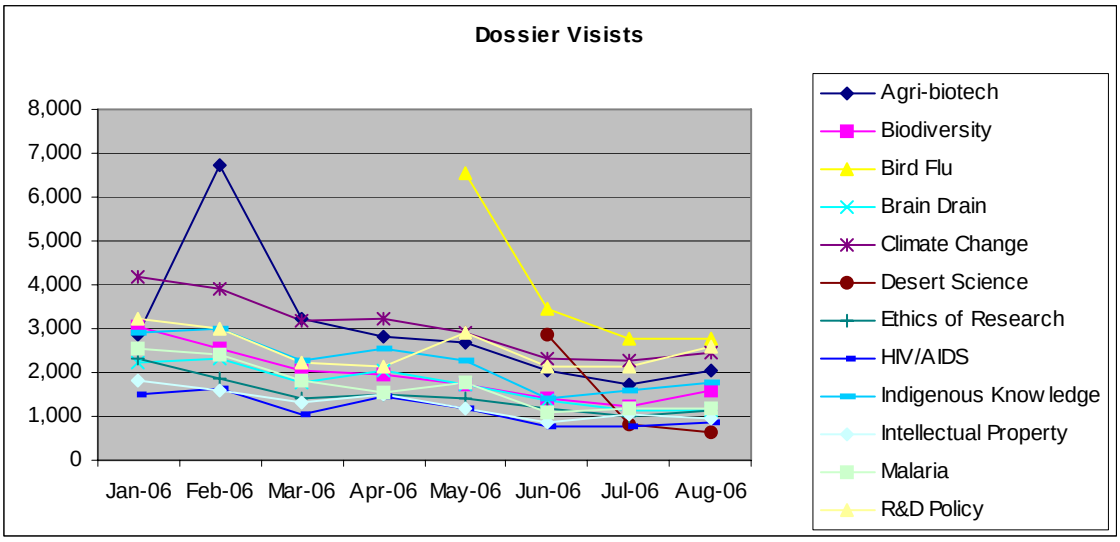


Which ones are most used and valued?

117. Visits to the dossier area of the web site vary considerably from month to month, topic to topic and visits to specific dossiers degrade over time. For instance the Agri-Biotech dossier saw a peak in February 2006 that was double the preceding and subsequent months. Similarly the Malaria dossier saw a considerable spike in November 2005.

Dossier	Monthly Av[38]
Agri-biotech	3,014
Biodiversity	1,937
Bird Flu	3,895
Brain Drain	1,710
Climate Change	3,058
Desert Science	1,437
Ethics of Research	1,474
HIV/AIDS	1,154
Indigenous Knowledge	2,234
Intellectual Property	1,280
Malaria	1,694
R&D Policy	2,543

[38] Over the period since January 2006. Note that bird flu has been available for 5 months and Desert science 4 months.



Is their content seen as relevant to users?

118. Some users certainly found the dossiers relevant, but it would appear from the interview and focus groups that more could be done to improve the relevance of the dossiers to particular segments of the audience. The relatively small number of topics covered (13) relative to the range of possible issues also limits their usefulness to the broad spectrum of possible users.

119. While some 79% of respondents replied to the On-line questionnaire concerning the use they had made of the dossiers (question 24), only 53% replied to the question identifying which elements of the dossiers that they used. This may well be evidence that many readers were not aware of the various elements within the dossier.

Q 24: Which of the following elements from dossiers have you used?		
Policy briefs	555	25%
Opinion articles	674	30%
Key documents	667	30%
Glossary	140	6%
Links	383	17%
Spotlights	165	7%

120. Some 22% of respondents (N=2213) had not used material from the dossiers, but about a quarter had used them in their research (26%), to write a report or article (28%), in teaching (18%) and as an inputs to a policy decision (13%).

Is content seen as high quality?

121. Many key informants (and focus group participants) said that while SciDev.Net was authoritative when it comes to news, it is not authoritative in relation to dossiers.

122. Typical of these views are the following quotations from key informant interviews and focus groups:

> *"Dossiers are often too hyped up so as to make a news story", "SciDev.Net gets material from authoritative sources but dossier is not itself authoritative", "many other organisations do dossiers more credibly", "dossiers are not sufficiently marketed to policy makers".*

123. The telephone survey also found that:

> *The interviewees who did make regular use of the dossiers held rather mixed views on their quality. Several users stated that the dossiers were one of the main strengths of the website and were generally well produced. Many interviewees found the dossiers to provide a useful synthesis and convenient source of information on new topics. However, it was generally considered that the dossiers were rather introductory, and while this served an important purpose and would be of use to a general audience, specialists would not learn much. Some respondents stated that they found the dossiers most useful to inform themselves about issues on the edge of their professional responsibilities. A few interviewees stated that the dossiers added little value to the website, and that in many cases they provided only a brief overview linked to content that appears elsewhere on the website. It was also suggested that there was a lack of consistency in the format and level of detail of different dossiers.*

124. In India

> *Both policy analysts and science journalists agreed that 'dossiers' were the most useful parts especially for getting competent and well written background information on subjects outside their own spheres of specialization. But the usefulness of dossiers for policy analysts in their own areas of focus could be realized only if the reports were substantially more exhaustive and in-depth and if links and sub-links could lead to web libraries, digitized research reports / documents and all allied knowledge resources available on the web through the SciDev window. The dossiers could then serve as centralized 'meta-data' through which users could access all the peer reviewed web based research material on the subject.*

125. Many key informants who also shared some of these negative views of dossiers, but when pressed admitted that they had not read any of the dossiers at all. Furthermore they did not recognise or accept the idea that dossier were backed by advisory groups see below. Those informants that had clicked on the dossier button remarked that the first thing one saw was the "news" that they had already seen in the main body of the site.

126. One part of the problem of credibility may be associated with the web design, in that it may not be obvious to some readers what role the people listed down the right hand side of the page actually play in quality assurance. Another part of the problem may be that the "full introduction" are usually, but not always, signed off by the dossier co-ordinator. It is generally not possible for the reader to assess the competence of the co-ordinator from the web site. In some cases they are experienced journalists, and in others they seem to be young scientists with specialist knowledge of the area of the dossier.

127. The message from the audience seems to be that they want to know that the material is credible, and that it comes from quality assured sources. While there a sense in which the SciDev.Net brand seems to have high credibility when reporting the news, it does not seem to carry sufficient weight in relation to assuring the quality of the dossiers. This greater credibility may well be achieved by clearly signposting on the web page, greater clarity on the extent to which the content is quality assured and by whom, and greater prominence to highly credible sources (such as Nature and Science). It has been noted earlier that there appears to be no mention of the association with Science and Nature on the home page.

128. Another part of the problem of credibility stems from the existence of many actors providing communications products to this market segment. Many of the topics covered by dossiers are also covered by similar "policy briefing products" from other organisation. Many of these are produced by organisation that are particularly well identified with the topic and are already seen as very credible by the intended audience. A case in point is HIV/AIDS where dossiers have been produced by many organisations including IDS, the HIV/Aids Alliance, WHO, and The New Scientist.

129. With so many other actors in this field, a number of key informants have asked why SciDev.Net bothers to target this type of product to this market segment. The main reason would appear to be that policy makers and analysts are one important segment of the audience through which SciDev.Net can most easily demonstrate to its financial supporters that it has a "development impact" [39] .

130. Furthermore it would also appear that SciDev does have a role in providing a particularly "scientific perspective" to issues that are not addressed by these other organisations But it seems likely that that SciDev.Net needs to make clearer to both potential writers and to the audience just what its perspective is: namely the interface between 'credible science' and 'development'. This angle should give Scidev.Net a unique selling point relative to their competitors. For instance, a dossier on HIV produced by SciDev.Net should be clearly perceived as being quite different from one produced by ELDIS at IDS, or indeed one produced by WHO. This distinction is not currently apparent.

Is the current format right?

131. The evidence from the focus groups is somewhat confused, with some suggesting the format and depth of the analysis is satisfactory (SA) and others wanted a more in depth analyses. The guidance notes provided to authors of dossier elements are clear and well written and currently suggest that "Authors of Policy Briefs should remember that they are writing for an essentially non-technical audience, and adjust their language accordingly. In other words, knowledge of technical terms beyond a certain level should not be assumed[40]". But the dilemma facing SciDev.net is clearly demonstrated by potential users in the focus group in China who state that

> *The contents of SciDev.Net are the middle level between academic and the public. Scientists would not read it because it is unprofessional, and average public would not read because it is too scientific for them.*

132. The guidance suggests that policy briefs can contain up to 10 references, and should refer to the principal sources of information that have been drawn on, particularly where the source is available electronically. A number of focus groups wanted more links to key documents, particularly if they could be down loaded electronically.

133. More importantly there was a concern that SciDev.Net should be clearer about the sources and references to the material in the Dossier. For instance

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[39] While teachers and school children are not currently target audiences for SciDev.net in principle they could be, in which case similar issue would arise about producing communications products that specifically meet their needs. These are all part of a more general issue of providing specific communications products that best meet the needs of particular segments of the audience.

[40] More specifically they advise that "An article on genetics, for example, could assume knowledge of the concept of a gene, and even of the process of gene expression and the relationship between genes and proteins. But concepts such as SNPs (single nucleotide polymorphisms – the variation of a single nucleotide within a sequence of DNA) should be explained".

> *No indication of validation/quality control processes followed and how and why the content should be treated as authoritative and reliable* (India FG).

> *"Sourcing of information such as articles to put on the website was not clear to the participants. For people trying to quote SciDev.Net contents, they seem less reliable, at least at first sight"* (China FG).

134. A number of key informants also remarked that the audience of policy makers is mostly influenced and informed by "paper". It is suggested that civil servants and advisors want to be able to put a short piece of paper in the minister's brief case. If true (and only further engagement will tell), this suggests that the main components of each dossier (and not just elements of it[41]) need to be more easily downloaded and printed, possibly with a single mouse click.

What improvements could be made?

135. The dossiers are expensive to produce[42] (though not more so than at other comparable institutions) and required both time and care to get them right and keep up them to date. This considerable effort together with the weight of evidence that the dossiers are not working well suggests that they, and other communications products intended to reach policy makers and analysts, need to be fundamentally re-thought, and not just re-launched.

136. Throughout this report it is suggested that such improvements will require forms of 'market research' in which new communication products and services are tested with their targeted audience segment and adapted in the light of experience and feed back. This is often referred to as an 'evolutionary' approach.

137. Increasing the credibility of the dossiers, or particularly the perception of credibility, will also form part of the improvement process. The current perception may be improved in part by making SciDev.Net's existing quality assurance procedures more visible to the audience. Credibility is also likely to require associating the output more closely with writers and organisations that are deemed credible to the audience. In addition the demand for more local content mentioned above applies with equal force to the dossiers.

138. The need to increase the credibility and the need to spread the burden of producing this type of output but suggest that serious consideration should be given to co-producing the dossiers in association with other organisations. This is likely to be most successful where it is possible to combine SciDev.Net's Unique Selling Point (namely, the ability to communicate science and technology to a non-specialist audience) with inputs from organisations that lack these writing skills but are already are regarded as credible to the target audience.

139. These ideas are developed further in what follows. But it is worth noting at this stage that the need to spread cost through forming partnerships was suggested in the China focus group.

> *Participants understand the limits of what SciDev.Net can do with its limited resources. They suggested that more partnerships with local organisations might help remove these constraints. In particular they mentioned getting partners to*

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[41] The policy briefs do have printer friendly versions.

[42] Costing approximately £12,000 each, Karen Lewen, SciDev.net interview 31 May 2006.

> *post their information directly on SciDev.Net and joint efforts to undertake and pay for translations. They argued that the Regional coordinator of SciDev.Net should not work mainly as a reporter/editor, but rather he or she should be coordinating others' work and seeking to develop more partnerships.*

140. The need to meet the needs of a large number (and wider range) of policy analysts also provides a strong argument for considering the production of more policy briefs possibly more tightly defined to cover a narrower set of issues. This is not necessarily a proposal to spend more or less on dossiers (though consideration of this aspect of the budget will be important), but it is an argument for seeing what sort of product could be developed if say 12 communications were produced a year for the amount of money currently spent of far fewer more elaborate dossiers.

141. This approach is in keeping with the key informants who suggested that SciDev.Net might do better by trying to be more 'newsy' rather trying to produce a comprehensive source. If this approach were pursed dossiers might become six monthly updates on what is new say on a topic such as HIV/AIDS or climate change. It would be a matter of market research to determine whether there was sufficient demand for this type of information.

142. It was also suggested in this context that dossiers (including those that might be described as 'dossier-lite') might also be considered more useful by policy makers and analysts if the were linked more closely to upcoming events (such as the African Union's S and T summit) and efforts were made to ensure that they appeared on the web in advance of the time when the policy analysts are doing their work to help prepare government policy.

How can the range of users be increased?

143. Increasing the range of users will require targeting the marketing efforts to those segments of the market that are identified as important either to the trustees or to other stakeholders, such as the donors.

144. As suggested earlier this could be achieved through more concerted efforts at "data mining" (possibly using interns or locally contracted temporary staff) and working more closely with (even nurturing) existing "communities of practice" [43] that already interact with a particular market segment. The Indian focus group specifically raised the idea of developing communities of practice:

> *Unless a much bigger role is envisaged for knowledge production and interaction in the regions and the regional Co-coordinator empowered to establish 'communities of practice' the possibilities of SciDev emerging as an active and lively network are probably limited.*

145. In Africa, for instance, the S and T policy audience segment already appears to contain a number of overlapping communities of practice, such as the alumni of IDRC's S and Technology funding programmes, NEPAD's Science and Technology Group and the African Ministerial Council on Science and Technology. The South African focus group

[43] An epistemic community may consist of those who accept one version of a story, or one version of validating a story. In philosophy of science and systems science the process of forming a self-maintaining epistemic community is sometimes called a mindset. In politics, a tendency or faction is usually described in very similar terms. See for instance http://www.ewenger.com/theory.

also identified a number of communities of practice with which their participants were involved:

> *Many respondents (current and potential users) were well connected, electronically, with other user groups within their professions, e.g., Crop Biotech, IAIA (International Association for Impact Assessment), AfricaBio, IWSA (Institute for Waste Management in South Africa), etc.*

146. While these and other communities are no doubt well known to SciDev.net already, much more could be done (possibly by a locally delegated person or through a strategic alliance) to increase the communication between the community participants, and between the community and SciDev.net.

Are the dossier advisory panels working?

147. Of the 13 dossiers currently on the site, all but two have advisory panels. The brainstorm with dossier co-ordinators suggested that the advisory panels have been of mixed success, with most probably not working effectively. In most cases the Advisory Panels were said to have provided very little input, although some individuals had made a significant input from time to time. In selecting panel members there appears to be a delicate balance to be struck between involving the worlds leading (but busy) experts on the topic, and individuals who are less well known but who have more time to contribute to the work.

148. The aim of the advisory panels is not only to ensure that the dossier contain appropriate information, but to 'quality assure' and even 'sign off on' the content. While this may well happen in some cases, the evidence from the interviews and focus groups suggest that the audience is not aware of this process, even if it were working effectively. At the very least these processes need to be more transparent and visible to the reader at an early stage of their visit to the site.

Outcomes and Impacts

What is the evidence of outcomes/impact

149. Science and technology, and communications about them present a particular paradox. At the macro level these is strong evidence of the hugely positive impact of scientific and other research on economic performance, international competitiveness, and 'development' more generally. At the same time there is little evidence to draw robust conclusions about the impact of *individual* scientific research activities and communications associated with it. The innovation systems literature tells us that change of any kind in many developing countries is going to be difficult with existing framework conditions and lack of infrastructure facing developing countries. It is unlikely that individual programmes, let alone projects, can buck international trends that are operating against poor people in developing countries. Aid agencies and other sponsors not aware of this evidence tend to have unrealistic expectations of the "impact" that a particular communications product should have.

150. However, the evidence from 'communications research' that does exist suggests that effective impact is likely to be a function of

- The credibility of the source (as perceived by the audience)
- Communication in a format that the audience prefers

- timeliness[44].

151. In relation to SciDev.Net there is evidence that important knowledge is being communicated to a significant number of appropriate people in the developed and developing world. What they do with this knowledge is more difficult to establish, though attempts were made to find out through the qualitative surveys. SciDev.Net itself has recently started to routinely collect anecdotes about impact. It will be important for SciDev.Net to continue to collect this type of information. Some useful anecdotes resulted through the Telephone Interviews[45]. However, some of the focus groups reported that they were not able to assess impact.

152. Question 18 of the On-line survey shows that readers did feel that the site had had an impact on the way they do their jobs. Most of these impacts resulted from increased awareness and background knowledge on science and technology. It was striking just how few people felt that it "it helps me inform the decision making of others" (16%), though this inevitably follows the relatively small number of readers who perform this type of role.

It keeps me up-to-date with relevant news	1519	68.6%
It provides valuable comment and insight	874	39.5%
It brings my attention to important issues	1210	54.7%
It provides valuable background information on key issues	1042	47.1%
It is a good source of relevant reports and contacts	910	41.1%
It helps me inform the decision-making of others	362	16.4%
Other (please specify)	103	4.7%
No response	457	20.7%

Improved decision-making related to S&T?

153. Again the evidence is difficult to obtain. But at one end of the spectrum some 13% of respondents to the On-line survey stated that they have used the material from the dossiers as input into a "policy decision" (question 24). At another, it was suggested that a SciDev.Net Editorial seems to have resulted in a higher profile being attached to science and technology in the recent DFID White Paper[46].

154. However, overall the evidence from the dossiers suggests that SciDev.Net has aspirations to achieve impacts in this area, and that this impact could be greatly improved in the years to come.

Awareness and education of users – enhanced access to knowledge, better understanding of issues, etc.

155. As suggested earlier the site is particularly highly valued for its ability to raise awareness and keep the reader informed. Answers to question 23 of the On-line

[44] The innovation literature also suggests that even with effective communication, the ability of the "audience" to act effectively to produce favourable impacts is itself highly constrained. This literature has been summarised in many places (see Andrew Barnett, **From 'research' to poverty reducing 'innovation'**, a policy brief from SRA Ltd, January 2004. Downloaded from: http://www.cphp.uk.com/uploads/disseminations/NSIPolicyBriefbrochure23feb04.pdf .and including the ODI Rapid web site. http://www.odi.org.uk/RAPID .

[45] These include the design of an African Science and Innovation Facility, the formulation of Kenya's recent environment policy and the drafting of a climate change strategy for a nature conservation body in southern Africa. However, these cases are relatively few in number, and it is difficult to demonstrate a clear impact of SciDev.Net in shaping policy.

[46] DFID, personal communication.

questionnaire suggest that over half of the respondents felt that the material they had read on the site had allowed them to expand their professional knowledge and skills (52%). Nearly two fifths of the respondents felt that it had increased their awareness of the importance of science and technology and it had helped nearly a third to raise the awareness of others. This is broadly similar to the answers to question 18 concerning the usefulness of the site, referred to before.

Impact/influence on public policy

156. There is no specific evidence that SciDev.Net has a particular impact on public policies other than those mentioned previously, concerning science and technology policy and general awareness of readers some of whom are policy makers. But SciDev.Net's hypothesis does seem credible that policy makers learn about science at least in part through what they read in the press. If awareness of policy makers is raised this may well have an impact on public policy. However the impact is currently limited by the relatively modest numbers of policy makers who access the site.

Improved science journalism in developing countries

157. The training provided by ScviDev.Net is highly valued. But it has also provided valued interaction and mentoring with its stringers. This subject is dealt with below in the context of capacity strengthening.

Getting S&T4D onto donor agendas

158. Again the evidence is difficult to obtain. However, one key informant from Africa strongly asserted that SciDev.Net had contributed significantly to raising the profile of science and technology for development in Africa. There seems little doubt that "S&T4D" is back on donor agendas, and that such developments have many 'parents'. Similarly these events add to the likelihood of future funding for SciDev.Net and add to the potential audience.

Overall contribution to development goals

159. 'Development' has been plagued by abruptly changing fashions. The history of both IDRC and DFID, together with the World Bank and other donors has exhibited a turbulent attitude to science, technology and development. Investing heavily at some times and almost not investing at all at others. In recent years the focus has been on achieving direct poverty reduction to the exclusion of any support for so-called infrastructural services, including scientific and technological infrastructure. So primary education was favoured over tertiary education. And 'research' was regarded as if it was the opposite of 'action'.

160. This has been in marked contrast to OECD government's behaviour in their domestic markets. There investment in science and technology has been seen for some long time as an essential driver of international competitiveness and therefore economic development.

161. The pendulum has begun to swing back again so that science, technology, research are again valued as critically important to development. But this time the arguments are somewhat different and justification is sought in terms of 'poverty impact' rather than knowledge per se, or the culture of the 'scientific approach'.

162. All this has implications for SciDev.Net, and particularly a shift from knowledge creation to the processes of innovation[47]. It means that many respondents are keen to see

[47] These issues are addressed in SciDev.Net Policy brief on "Building science, technology and innovation policies" by Joachim Ahrens, May 2005

more about "technology" rather than just science, and they are keen to see technologies that are relevant to their context. Typical of this concern are the views of the Uganda focus group that:

> *Too much emphasis is placed on latest news and discoveries and too little on older science and technology, which would be more relevant to practitioners in Africa.*

Networking

Are there regional/country networks that are stimulated by SciDev.Net?

163. The overwhelming impression gained from the respondents was that SciDev.Net had not been effective in building networks, but there was considerable demand, particularly for "local chapters". For instance the focus group in Uganda stated that

> *Interaction and networking between local Users of SciDev is poor.* [The web site needs to] … *Increase interaction between regional and national SciDev users by introducing and facilitating networks, country chapters, chart forums and public discussion forums*

164. In the South African focus group

> *Many respondents were of the view that the interaction with SciDev was "one-way". However, they acknowledged that they had to take responsibility for this since they were unaware that "two-way communication" was possible.*

165. In China

> *Neither users nor non-users felt that they were part of a network initiated by SciDev.Net.*

166. In India the focus group report suggested that

> *The presence of SciDev as a network and as a stimulator, catalyst of interaction, collaboration and sharing has yet to be felt even among the registered users. In fact, the focus group meeting was found to be the first useful interaction among the fraternity of those concerned with science and development related matters: Presently Scidev is largely a one way communication exercise with some undercurrents of "us" (the developing world) and "them" (the developed world)*[48].

167. The Online survey found that over 50% of respondents would be interested in being put in contact with others in their country or region that share an interest in science and technology communication (question 39), and in attending events organised by SciDev.Net (Question 38[49]).

168. One key informant concluded that "they will only achieve networking if there is something for the network members to do together".

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http://www.scidev.net/dossiers/index.cfm?fuseaction=policybrief&dossier=13&policy=62

[48] See also paragraph *144*.

[49] "Would you be interested in attending events organised by SciDev.Net on contentious issues at the interface between science, technology and public policy?"

Regional gateways

Who uses the regional gateways?

169. The Online survey suggested that the regional gateways were not used by many respondents (Question 11, 13%). As suggested earlier this may partly due to the fact that most readers come to the site via stories in the weekly e-mail alerts or through web searches[50]. The main users of the gateways were policy researchers (22%), and consultants (20%). Of the total number of respondents slightly more users of the Gateways were from developing countries (14.6%) than from developed countries (11.4%).

170. Data from Google Analytics provides a similar picture showing that of total number of visits to the site some 8% visited the Regional gateways[51].

Is their content seen as relevant to users?

171. Text on the site states that "*Regional gateways bring together articles and information relevant to different parts of the developing world. Most items appear elsewhere on the website, although those that are primarily of regional interest may only appear in the relevant gateway".*

172. The relative lack of use suggests that the content is not yet relevant to users[52]. Given that most of the information is on the main web-site, and most readers want to know what is going on in the world, there may be little incentive to go to the Gateways. But as noted earlier there is a strong demand for more local knowledge and more local inputs[53]. Regional Gateways could play a greater role in localising the content and getting more local ownership. As the South African focus group noted that "*from the user group, there was limited use made of the "Regional Gateways". However, potential users indicated that they considered this as an important window to learning about developments in other countries".*

173. Similarly the Telephone Interviewees reported that "*Regional gateways could be further subdivided. For example, several users in Southern Africa stated that it would be useful to highlight Southern Africa related news rather than to have to browse through all of the content relating to Sub-Saharan Africa".*

Is content seen as high quality?

174. The quality of the content of the Regional Gateways was not raised by respondents, but is anyway largely the material available elsewhere on the site.

Role of Regional Advisory Committees

175. The Regional Advisory committees were not visible on the website and were not mentioned by respondents.

176. Regional or even National Advisory Committees could provide the site a greater sense of local ownership, counter the "northern-ness" that many respondents noted and increase the local content. But to do this they would have to be given considerably more visibility

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[50] See paragraph 78.

[51] Personal communication from Jemma Tonks, 25th September 2006.

[52] SciDev.Net point out that other interpretations are possible, but did not specify what they might be.

[53] See paragraph 106.

and probably more responsibility for vetting content, and proposing areas to be covered by the site.

Role of Regional Coordinators

177. The regional co-ordinators do appear to be playing an important role in the development of SciDev.Net.

178. Some difficulty has been experienced, apparently in finding and keeping relevant people in Sub-Saharan Africa outside South Africa. It was not clear why this was. But insofar as it is a function of the scarcity of appropriately trained people, this may well be an area that could be covered through a strategic alliance with organisations in Africa that might benefit from the services and visibility offered by SciDev.Net.

179. A number of the focus groups saw an increased role for the Regional Co-ordinators, particularly in leading the way to more local content and greater delegated responsibilities. This is apparently already happening to some extent in Latin America.

180. In the China focus group (where the report was written by the Regional Coordinator)

> *They argued that the Regional coordinator of SciDev.Net should not work mainly as a reporter/editor, but rather he or she should be coordinating others' work and seeking to develop more partnerships* …[and enabling] *partners to post their information directly on SciDev.Net*

181. Similarly in India the focus group[54] saw the regional coordinator playing a much larger role:

> *A strong case was argued by many participants for strengthening the role of the Regional Coordinator, especially in commissioning content production at the regional/country level and for facilitating greater uploading of information from the developing countries. It was also suggested that the Regional Co-coordinator or a Regional Advisory Group could also play a bigger role in the choice of thematic/subject area priorities of specific relevance to the region.*

Capacity development

Training workshops – effectiveness

182. The journalists at the focus groups were particularly enthusiastic about the courses for journalists. For instance the Chinese focus group reported that

> *All participants, including those having attended SciDev.Net's science journalism/communication training workshops and those who just learned of these activities at the focus group, were highly appreciative of this service and work. None of them have ever heard of similar activities in China before. The participating journalists hope that SciDev.Net can offer more of these services and spread the results from the workshop among non-workshop participants. Compared with to some of the negative attitudes to the SciDev.Net website, it was striking that no one has any negative comments on the science communication workshops initialized by SciDev.Net in China.*

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[54] In this case the report was written up by an experienced external consultant but with the Regional Coordinator present at the focus group.

183. One trustee and one donor asked whether it was an appropriate function for SciDev.Net to run courses. It was argued that SciDev.Net did not have the resources to undertake training courses on a one-off basis. It was explained however that the staff very much liked these events and were good for their motivation. Certainly this would appear to be another area in which it would be appropriate to form a strategic alliance with a provider of such services that had the capacity to capture economies of scale and was able to provide the necessary support and follow up. Both IDRC and DFID intend to provide substantial support to science journalism training in some parts of the developing world through the World Federation of Science Journalists (WFSJ)[55]. SciDev.Net clearly can help in this process by providing a market for the services of the trained journalists.

Training/mentoring science journalists in developing countries

184. Some 44% of respondents said that they would make use of a short online training course on science journalism (question 36), and a similar percentage would make use of a short online training course on how to interact with science journalists and other science communicators (question 37).

185. One key informant suggested that the high reputation of the SciDev.Net' Director and his team in London provided a strong incentive for young journalists in the UK and stringers more generally in developing countries to work for SciDev.Net.

Technical/ infrastructure

Website architecture

186. In terms of the focus groups and other sources of evidence there appeared to be general agreement that the web site was broadly satisfactory in appearance and functionality. In many ways the site appears similar to (and faces the same problems as those of) the Economist, and the New Scientist. Typical of the these views were those expressed in the telephone survey which said that

> *The large majority of users commented favourably on the design, usability and functionality of the website, which was generally considered to be simple to navigate, fast to download, and attractive in appearance. However, several interviewees commented that the website was rather traditional in appearance and pages were somewhat overloaded in textual content and lacking in graphics. Several users commented that the search function is not very effective and precise, and is not prominently displayed on the homepage. Many complained that it was particularly difficult to find archived articles.*

187. Many aspects of the design have been considered in terms of the site's content, interactivity, and local ownership. But perhaps the most important to stress here is the need improve the credibility of the site as perceived by the audience before they actually get to see the content of the dossiers. This would complement the already high reputation the site has for science news. This would probably involve giving more prominence to the association with Nature and Science, to named credible authors, and the quality assurance processes. The focus groups also appeared to attach considerable importance to making

[55] The WFSJ is creating a three-year Peer-to-Peer Development and Support of Science Journalism in the Developing World. The project will pair 60 science journalists from Africa and the Middle East with Northern and Southern science journalists. This network of peers builds on the contributions of WFSJ members, both journalists and associations, and will strengthen science journalism in developing countries. IDRC is providing initial funding of CA$800 000.

more transparent the processes by which material is commissioned and validated. In the words of the Indian focus group:

> *Establishing brand equity for the content by making transparent the validation, peer-reviewing, quality control processes and by providing details of authors / contributors and their standing in the field*[56].

188. In terms of meeting the various needs for future development consideration may need to be given to an architecture that facilitates the separation of the more quality assured content from less quality assured inputs. The BBC website appears to be adopting a variety of techniques to achieve this separation as it strives to increase user participation without compromising the brand image for quality and balance.

Inputs about the new web re-design/restructure

189. For reasons given above any new design probably needs to be able to cope with

- the possible introduction of advertisements (of a type and in a form that will not undermine credibility),
- the segmentation of users by country of location (possibly through an 'authentication' system) to provide the possibility of charging fees to certain clients, if this should prove necessary and feasible.
- Greater interactivity, such as through moderated blogs and specialist interest group discussions and fora.

Access and ease of use in different parts of world

190. Access seems to be less of a problem than might have been expected as access is increasing rapidly throughout much of the developing world. However there are still many research institutes in Africa that do not have fast internet access.

191. In Ecuador it was noted that

> *Several participants stated that when they visited the site, they were not able to see graphics and photographs and that several times access took too much time.*

192. Similarly the Chinese focus group noted that the

> *Website speed is slower than many domestic websites, and ….The Chinese email alerts are often illegible and contain a jumble of code*[57].

Interactivity – future developments

193. A number of suggestions were made by respondents about the rapidly developing technology for group interactions, such as those associated with MySpace, and Podcasting[58].

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[56] The report's author explained where "Articles/Reports/Documents etc are presently anonymous and as Scidev itself is unknown there is no value associated with the name. An article appearing in Science or Nature ,for example, has a strong brand equity carrying a guarantee of conformity to the highest standards of scientific writing. While it will take a long time to achieve such brand equity, it should be possible that if the SciDev authors have a standing in the field then carrying a Byline will spell a measure of quality. This would eventually help SciDev build a strong 'Brand Equity'. SciDev.Net has pointed out that articles are not anonymous.

[57] It has been suggested that SciDev.net might consider mirror sites with overnight refresh to overcome this problem.

[58] Podcasting is a method of publishing audio and video files via the Internet. Users are able to subscribe via RSS feeds which can be downloaded onto your mp3 player or computer desktop, where you can listen via a media player. For instance see the New Scientist podcasts: http://www.newscientist.com/podcast.ns

4 SciDev.Net's opportunities for future growth, and in particular its potential contribution to the social and economic development of developing countries;

The Competitive Environment

What is the competition?

194. There would appear to have been a considerable increase in interest about science, technology and development since SciDev.Net started. And with this increase in interest has been an increase in number of organisations that are already actively 'communicating' on these or related topics. However, for the time being it would appear that SciDev.net still occupies a unique position. The respondents to the telephone interviews were not aware of another website or journal that covers the same breadth of science news as SciDev.Net and was focused on developing countries. However, most users do consult a large number of other websites and journals that cover narrower and more specialist topics.

195. But if no one is occupying precisely the same turf as SciDev.net there are many players occupying parts of the territory. More than half of the respondents (1103) to the Online survey answered question 26 concerning other specific online sources that they used. Their responses were very diverse and exhibited a long-tail distribution. In other words there were relatively few online sources that were mentioned by a large number of users, and a large number of specialist sites that were each mentioned by only a few users. The most common responses were identified using keyword analysis. This indicates that the most frequent alternative sources of science news that SciDev.Net users refer to are the BBC, Science, Nature, The New Scientist, The New York Times and Scientific American.

196. In the South African focus group also noted competition from a number of sources:

> *"Science in Africa" was found to be similar but lacked the depth of information which SciDev provided. ….Many indicated that ScienceDirect is an excellent website for similar information and covers a wide range of topical issues. CabDirect was found to contain more depth of information but neither is available free of charge*[59].

197. The very recent emergence of "Research-Africa.net" poses a particular competitive threat to SciDev.Net not only because it covers some of the same topics in a strategically important part of the world, but because it is testing a cost recovering business model. If they are even partially successful this is likely to mean that donors such as DFID, who are currently investing in this venture, will expect similar cost recovery for SciDev.Net. It will therefore be important for SciDev.Net to explore these options, and start the process of compiling evidence that it has done so seriously.

[59] While these sources would appear to be costly subscription only sources, it is important to note that a significant segment of the audience appears able to obtain access to these sources. This appeared to be the case for instance for participants in the Chinese focus groups as well as in South Africa.

198. In journalist training, it has already been mentioned that there is major competition from the World Federation of Science Journalists (WFSJ). However SciDev.Net is already "actively partnering them in some respects"[60].

199. Similarly reference has already been made to the many of the major institutions in the development business appear to have recognised the need for communications products to meet the particular needs of policy makers and policy analysts. These range from the ODI and IDS, to the various departments of the World Bank and DFID, to the 'advocacy departments' of the proliferation of NGO working on development.

200. So SciDev.Net faces significant competition for both audience and for funds. But it does have a lead, particular competences and a clear niche in which to operate. These will need to be emphasised and sharpened, but they do provide a strong base on which to build its strategy for the next phase of development

Who are the strategic partners for SciDev.Net?

201. During the course of this review it has become increasingly apparent that new strategic partners, or strategic allies, will become an essential component of SciDev.Net's future development. Two principal reasons have been put forward for this. First SciDev.Net does not have the resources to do all it wants to do and needs to share the burden with others; and second, SciDev.Net needs allies to provide inputs that it cannot easily do. As suggested earlier the need for strategic alliances are likely to cluster around overcoming the credibility gap that SciDev.Net is experiencing with certain audiences, particularly in the policy area, and in providing more local 'ownership' and local content (see paragraphs 105 and 138). Precisely who these partners are will depend on the strategic direction SciDev.net chooses to take[61].

202. SciDev.Net has already made many attempts to establish partnerships. Some have been successful, such as those with Nature and Science. But it appears that many others have not yet come to full fruition. Some of these approaches for partnership were interpreted as "selling the SciDev.Net idea" rather than seeking areas of mutual interest. One key informant said in this context that while "SciDev.Net is seriously concerned with capacity development, it is not networking". A number of key informants felt that an impression has developed that SciDev.Net lacks the willingness for 'genuine collaboration' and partnership.

203. Part of this impression is that at the heart of the problem of partnership for SciDev.Net is the issue of loss of 'control', editorial independence and quality assurance. These are important issues for SciDev.Net and the future credibility of its brand. As one experienced key informant explained "Partnerships add complexity and undermine quality".

204. But it would appear that SciDev.Net has little option but to work more extensively with others if it is to expand rapidly and achieve its objectives. Finding new ways of

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[60] SciDev.Net comments on earlier drafts.

[61] one reviewer suggested that synergy could be gained for SciDev.Net is through alliances with like-minded complementary activities such as the provision of full-text online policy & research information. These include the Directory of Open Access Journals (DOAJ) http://www.doaj.org and: INASP Directory of Free and Open Access Online Resources http://www.inasp.info/peri/free.shtml In the area of health http://www.healthinternetwork.net would also appear to be important. INASPs' Programme for the Enhancement of Research Information (PERI), includes full-text online journals for major science publishers http://www.inasp.info/peri/resources.shtml.

forming these relationships, without undermining SciDev.Net's reputation for quality is likely to be a strategic priority for both Management and trustees.

205. One possible way forward would be to abandon the term "partnership" as it is given so many interpretations to be almost meaningless. But at its centre the term implied or assumed a degree of equality between the partners. It is this feature that seems to have posed the stumbling block for SciDev.Net in the past. In this context, probably a more workable solution in this context is the formation of "coalitions" which the Concise Oxford Dictionary defines as "a temporary alliance for combined action". An alternative phrase with the same meaning is a "strategic alliance".

206. This approach takes as its starting point that potential allies want different things from each other, and that by forming a temporary output-based relationship they can achieve more together than separately. It was suggested in relation to the dossiers, that alliances in this area would enable SciDev.Net to cover more topics and gain greater credibility.

Sustainability

Sustainability of current growth pattern

207. The evidence from this review suggests that considerably more effort will have to be put into increasing both the 'quality'[62] and quantity of the audience. Greater quantity is required to increase SciDev.Net's reputation as the place to go for news about science, technology and development. And greater quality is required in order to meet its strategic objectives to meet the needs of particular geographic areas (such as Africa) and particular audiences (such as policy makers). The focus groups conclude that SciDev.Net and the services that it offers are still largely invisible to many potential users (see paragraph 75). This implies that at the very least reaching audience figures in the hundreds of thousands, rather than tens of thousands that has currently been achieved, and raising the targets substantially above the levels currently set at 3000 extra per year (paragraph 51).

208. Scidev.Net does have a recently revised marketing plan. Regional marketing consultants have been employed on a temporary basis in Latin America, South Asia and Sub-Saharan Africa. Furthermore all regional co-ordinators have marketing in their terms of reference.

209. But the results of this review suggest that SciDev.Net needs to be more creative and ambitious in its marketing. This inevitably calls for a more extensive and expensive approach to marketing. Many suggestions about how this might be achieved have been mentioned and these include: data mining, targeted marketing, developing "communities of interest" and forming strategic alliances. The focus groups also suggest linking to other sites and mailing lists, advertising in other media, running promotions, competitions, getting high profile backers, and using more well-known scientists to write for the website etc.

Sustainability of current financing model

210. Donor funding appears to be the most promising source of future funding, but it will be important to demonstrate to donors that other avenues of funding are being explored, particularly web based advertising and the expansion of sponsorship of particular services (dossiers, workshop etc).

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[62] Meaning geographic and group characteristics.

211. However there is a danger that some forms of web base advertising would bring in little revenue but would clutter the site and generally cheapen it. Even this option needs to be examined and lessons learned from those such as the New Scientist and similar newspapers which offer advertising on their on-line services[63].

212. But if donors remain the most promising source of funds in future, a strong message came through that it will be important for SciDev.Net to "make it easier for donors to fund them". This does not necessarily mean changing policy ("becoming donor driven"), but providing them with more information, properly packaged in the way that they need, and at the right time. One donor felt that "SciDev.Net is not meeting [our] mandate".

213. A number of steps could be taken to make SciDev.Net easier to fund. These might include:

a. Accepting that donors themselves are being held more accountable for the funds they disburse. This means that programme managers need SciDev.Net to give them the 'ammunition' to make the case to their superiors who control the purse strings. For some donors this process will be helped by summarising SciDev.Net's next strategy in the form of a Logical Framework, showing outputs, indicators of achievement by date and the assumptions underlying the choices being made.
b. Providing clear justification for all actions and expenditures in terms of their strategic purpose. For instance this might involve demonstrating why spending money on China is justified in terms of SciDev.Net's strategy and is not at the expense of taking funds away from Africa
c. Demonstration that SciDev.Net is contributing to meeting the donors' objectives. This may well involve making more explicit the model (or hypothesis) describing how SciDev.Net believes its activities contribute to poverty reduction, and meet the needs of poor people[64]. Difficult as it may be to demonstrate impact on these types of objective, those implementing agencies that can do it are likely to be more easily funded by accountable donors in future.
d. Investigate whether more 'news stories' can be generated from DFID funded research in the country in which the research takes place[65].
e. Keeping the donors informed of activities and developments before they happen.
f. Recognise that donors do talk to each other and resent being played off one against the other.
g. Demonstrate that serious attempts are being made to investigate and where feasible generate additional revenue streams to cover costs (this might involve the feasibility of selling advertising, or obtaining sponsorship of particular activities.

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[63] http://www.newscientist.com/home.ns. An example of sponsored web page with adds from Google is provided by http://www.innovations-report.com/html/reports/studies/report-42380.html -

[64] Where the donor is interested in research output, it may be possible to show that certain activities of SciDev.Net is essentially research – for instance research to find out what sorts of information policy analysts and decision takers want.

[65] Reference is made here to DFID as this is an area mentioned by them, but it presumably applies to the activities of other donors who finance scientific and technological activities for development.

Sustainability and free access

214. Strong opinions were also expressed by parts of the respondent sample (including some trustees and some donors) about the need to increases audiences that were able to pay subscriptions – particularly the richer sections of Latin America, South Africa, India and China. The donors stressed these views too, but at the same time they remain convinced of the importance of delivering a free service to people and organisations who cannot afford the expensive subscription services of scientific journals and other services. Donors' concern seemed to focus on their reluctance to see 'their funds' being used to subsidise those with an ability to pay[66].

215. At first sight differentiating the site's users between payers and non-payers would appear difficult not least because significant numbers of people on the register of users are located in developing countries but use northern based service providers, or are 'northern people' located in the 'south'. However many publishers already use systems of Internet Provider recognition and authentication to differentiate between different categories of user. For instance the Programme for the Enhancement of Research Information (PERI) controls access by means of IP address ranges of each country. In their case all developing country ranges have automatic recognition and access, whilst those from 'developed countries' are 'barred'.

216. But it will be essential for SciDev.Net to be able to show its donors that these techniques have been explored seriously and the feasibility assessed of generating an additional cash flow by differentiating between audiences that pay and those that do not[67]. Even so, it may be concluded that other sources of finance for SciDev.net are easier to obtain relatively to their cost.

Organizational sustainability

217. The prospects of SciDev.Net continuing sustainably into the future appear good. The need is there, SciDev.net has developed many of the capacities to meet that need, and the prospects of future funding are promising. While it is likely that SciDev.Net will change shape as it grows, there would seem little advantaging in merging with any other organisation (or indeed prospect of it being taken over by one).

218. Two aspects of organisational stability have emerged during the review. First is the concern with "succession planning", and the second is about the tension between delegation and quality. Both of these issues will be discussed further in Chapter 6, but neither is insurmountable and neither seems likely to threaten the long term sustainability of SciDev.Net.

Prospects for alternative financing models (service fees for some services, some users; publications; advertisements).

219. While it will be important for SciDev.Net to actively pursue a financial model that increases revenue streams from sources other than the main aid donors, this review

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[66] This point is given more credence by the fact that the focus group in China reported that "natural science-related participants say they do not use or will not use the full-text Science or Nature papers available through SciDev.Net, because they can access the two journals easily when they want to read their papers".

[67] This concern to show that other all sources of finance have been explored was raised by one of the donors and one of the trustees. It also arose in the context of competitors being willing to explore cost recovery models of finance.

concludes that this will not be easy. Certainly Scidev.Net might in future seek the services of more individuals who are commercially orientated in order to obtain a new perspective.

220. Discussions suggested that the most promising area for additional financing would appear to through seeking sponsorship of particular activities, or particular communication products (such as dossiers on a particular topic, workshops or conferences). Additional funds of this type are also likely to flow from strategic allies who are willing to provide co-financing or fees for particular SciDev.Net services.

221. SciDev.Net has already embarked on this process with the sponsorship of one Dossier by Schlumberger, and an association with the CGIAR.

Long term development

How will SciDev.Net adapt to changing technology?

222. By its nature changes in technology are difficult to predict. But it is certain that even over the next five years there are likely to be many changes to the technology that SciDev.Net uses or could use. The key, as always, remains being alert and being flexible.

223. From the very partial evidence of this review it seems likely that the technology for all forms of "interactivity" will improve and fall in price. Similarly there is a clearly observable trend of rapidly falling costs associated with the creation and dissemination of moving images and sound broadcasts (podcasts). These, as with all other technical change, will prose both opportunities and threats for SciDev.Net. They offer the opportunity for decentralised and 'distributed' operations (much material, such as key lectures and discussions, is now made accessible on the web within minutes of having taken place). But they constitute a threat in that many organisations are already producing this type of material in ways that make it very accessible to others.

How will external environment and competition change?

224. Again it is difficult to say more about the long term development of the external environment than has been said already in other sections of this report. There is every reason to believe that competition will intensify, and the 'information overload' will rise exponentially. Such changes suggest that SciDev.Net role as a quality assured gateway to certain types of information will become more valued, as will be the need for SciDev.Net to define and occupy its own particular niche.

How will user needs change?

225. Probably the surest indicators of the changing needs of users are provided by the Focus groups. As development occurs a large part of the audience will want to control its own destiny and will resent the imposition of values from 'overseas' as expressed in the Indian focus group. But at the same time, populations are likely to polarise, with one part of the population adopting "global norms and values" while others experience greater exclusion and poverty. The needs and aspirations of the latter group are likely to be location specific, and require knowledge that is well 'behind' the technological frontier (as exemplified, in a somewhat different context) by the focus group in Uganda asking for more information "*on older science and technology, which would be more relevant to practitioners in Africa*".

How will donor environment change?

226. It is almost certain that in the next 5-10 years that the aid business will change dramatically, both in terms or architecture and in terms of priorities (and fashions). It

seems probable that aid architecture will move towards a greater role for multilateral aid, rather than bilateral aid. And this in turn will result in more budgetary assistance to 'good governments', rather than projects. In the shorter run it is to be expected that donor agencies are likely to work more closely together. Although this has been promised for over thirty years, there does seem to be a recurrence of interest in these issues, not least as aid budgets rise while agency staff numbers fall. For SciDev.Net it seems likely that the funding round after next is likely to require satisfying a number of bilateral agencies working in concert, possibly through organisations such as IFORD (the international forum of research donors).

227. But many of these trends in official assistance will be countered by a rapid increase in large scale philanthropy from both wealthy individuals and the "social investment" of corporations.

228. Funding will probably be no more difficult in future than it has been in the past.

5 Achievements relative to the objectives listed in both its original business plan and in its Strategic Plan for 2004-2008

Summary

229. SciDev.Net's Strategic Plan for 2004-2008 took forward most of the ideas that were contained in the original business plan[68]. While neither document contained so-called SMART objectives (specific, measurable, achievable, realistic and time bound), it was possible to construct a matrix based on the Strategic Plan showing Proposed Outputs, Quantitative targets (if any), targets dates, and achievements to date.

230. This is shown in the table in Annex 2. The senior staff at SciDev.Net agreed that the proposed outputs did indeed reflect all the commitments made in the strategic plan, and then they did their best to describe achievements to date in the appropriate column[69]. Clearly as SciDev.Net is currently only halfway through the period, it is to be expected that some of the targets will not yet be met.

231. While there is valuable information in all the boxes of the table, the overall impression is that most of the objectives have been achieved or are well on target to be achieved. Some targets, such as targets for new registrants appear very modest. While some others appear to have been met in 2003, before the start of the Strategic Plan[70]. Interestingly those areas that appear not to have been achieved were also identified as weaknesses in the focus groups (even though they would not have been aware of the plans or targets).

232. Progress has been less than expected in the following areas:

- Partnerships, while partnerships have been established with Nature and Science, and SciDev.Net also benefits from the active support of the a number of institutions including the Academy of Sciences for the Developing World, (TWAS), based in Trieste, Italy. Collaborations (strategic alliances?) have also been formed with the CGIAR and WFSJ. No other partnerships have been formed[71].

- No targets were set for increasing the voice of the developing world in key debates, by increasing engagement with scientists, policy experts and others in developing countries. Progress has been made with most commissioned articles being from scientists, policy makers and others in the developing world[72]. However no measurements were available of the proportion of developing country authors on the website. The target for developing country membership of the advisory panels

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[68] SciDev.Net Five-year Strategic Plan (2004–-2008) September October 2003.

[69] The "evidence" on which the conclusions of this chapter are based on the responses provided by SciDev.Net to the matrix in Annex 2.

[70] The Kampala workshop (on HIV/AIDS reporting) was repeated in India as planned in November 2003.

[71] See paragraph 205.

[72] See paragraph 101.

is now set at 50%, though again there was no data in the matrix to demonstrate whether or not this target had been met.

- No national chapters have been created, and the trustees have "decided not to take any action for the time being on creating national chapters"[73]..
- Although the plan states that Editorial responsibilities "may" be devolved, this has not yet happened to any significant extent.
- Targets for new dossiers are more or less on target with 13 being produced by the end of 2006, rather than the 14 that were targeted.
- Three additional "quick-guides" were planned each year. A total of four have been created so far but the lack of other guides is said to have been compensated for by "news focuses".
- The number of news items on the site has slowed after 2004. SciDev.net management now regard the 2005 target as "excessive" in the context of available resources[74].
- Plans were made for additional functionality of the web site including "electronic resource areas". There has been limited progress (one achieved and others under discussion). Although a permanent facility on the website for informing senior policy makers has not yet been introduced, several "micro-sites" addressing these issues have been launched around specific events. These included a meeting on science policy in Africa in London in February 2005, and a subsequent meeting Dakar, Senegal, of African ministers of science and technology. A similar micro-site is being prepared to cover the African Union summit meeting due to be held in January 2007 with the topic "science, technology and innovation".
- With Fund raising, external sponsorship has been obtained for one dossier, but no policy has been reached on paid announcements, no action has been taken on paid subscriptions, external sponsorship has been raised for some events and professional advice has been taken on fund-raising.

233. It is clear from discussions with DFID at least that the targets and indicators used in the matrix will not be sufficiently detailed to give comfort in future to donors such as themselves who are increasingly being held to account for their grants to organisations such as SciDev.Net. As discussed in Chapter 6, there would be considerable advantage to SciDev.Net to summarise its strategic plan in terms of a "logical framework" not only for trustees and management to monitor progress, but also to provide donors with the level of accountability that they increasingly want.

[73] See annex 2, item 6.3.

[74] See annex 2, item 7.1

6 Improvements in the internal governance of SciDev.Net

Management

234. The evidence from the donors, the focus groups and on-line questionnaire give a widespread impression that SciDev.Net is now well established. But there is an equally widespread impression that there is much more that could and should be done. In the words of DFID there is a need to 'move up into the next gear'. The innovative idea of one person now needs to evolve into a more mature and sustainable organisation. This will require a number of changes, all of which have been anticipated by the trustees in the questions they pose in this chapter.

235. In terms of management it would appear that the expansion of the organisation in the next phase will a greater degree of delegation both to "departments" in the head office, and to various parts of the wider network. This process needs to evolve over time, but a clear time line needs to be developed so that progress can be monitored and a sense of forward movement achieved.

236. The issue of delegation of responsibility raises some of the issues of 'control' and quality assurance raised previously in relation to partnerships and alliances. Again these are valid concerns, but reputational risks arise both from delegation and from failure to delegate. As suggested earlier the impression of northern dominance is currently a major risk to the reputation of the organisation.

237. While there is no value in being too prescriptive at this stage, the evidence from this review would suggest that management should evolve towards the creation of a Senior Management Team made up of the Director and four department heads, covering topics such as Science and Technology News, in-depth policy products ("dossiers") and the associated communities of practice, marketing, and operations. Given past difficulties in creating partnerships consideration might be given to obtaining the additional skills necessary to identify, negotiate and manage strategic alliances – that is an 'external relations' manager.

Organizational assessment

Efficiency and effectiveness of secretariat

238. In the time available it has been difficult to investigate the efficiency and effectiveness of the staff in London with any thoroughness. The staff is enthusiastic and the evidence of this review demonstrates that it has achieved a great deal in terms of building SciDev.Net's reputation and in building the infrastructure of stringers and consultants across the world. Those areas of weakness that have been identified, such with the dossiers and marketing, are less to do with the individuals involved and more to do with changes in staff or lack of funds.

239. SciDev.Net, like any other small organisation is likely to suffer from a relatively small staff having to do too much. The staff of such organisations often seek a period of consolidation and a rest from the inevitable process of change and new initiatives. Furthermore the pressure of day to day work also makes it difficult to find the time to

consult and plan together. These issues will need to be addressed in terms of work load, clarity of function and delegated responsibilities.

Leadership

240. The success of SciDev.Net has been due in very large part to the drive, enthusiasm and vision of the Director. This will need to continue, but expansion and growth is likely to require a different form of leadership. This will be more strategic and will involve managing others rather than writing and reporting.

241. Leadership will also be required from department managers and staff (now exclusively part-time consultants) in the regions. This will require conscious efforts to develop the managerial skills of those already in these posts or the recruitment of people with the necessary skills and experience.

242. An important characteristic of some of these posts is that people involved need to have the skills and experience to earn the respect of the various client groups with whom they interact.

Network management

243. Much of the evidence from the various surveys indicates important issues about the management of the various networks that need to be considered by trustees and management. These include how to manage and achieve:

- Greater interactivity
- Greater local 'ownership'
- Greater local content.

244. As the organisation expands such tasks are likely only to be achieved through greater delegation, clarification of roles and responsibilities, and either more full time staff or greater collaboration with other organisations.

245. Some of these procedures are already in place or are being developed. These include the procedures under which quality assurance is delegated to staff in the network (for instance to cover materials produced in Chinese – which no one in the Head Office staff can read). Similarly a start has already been made for clarifying the procedures for commissioning work so that it too can be delegated to Regional Co-ordinators (for instance within Latin America). It is likely that a timetable to roll out these procedures in other regions needs to set out and implemented.

Is the current organizational structure optimal and how can it be improved?

246. The current organisational structure appears to have worked well. But it is unlikely to remain optimal as the organisation expands and evolves. A major element of the next strategic plan will the design and implementation a new organisational structure that can cope with the delegation of responsibilities to the regions but at the same time keep the reputational risks to SciDev.Net within acceptable limits.

247. The elements of such a structure are implicit in what has been said before: a head office with a properly functioning Senior Management Team, and adequately resourced Regional Coordinators, with clear functions, sufficiently delegated power, and effective quality assurance processes.

Sustainability

248. Sustainability of the management system will be in large part be a function of adequate funding. This is dealt with elsewhere. It will also be a function of successful 'succession management'. Certainly the current operation is highly dependent on the efforts and skills of the Director.

249. The issue of succession management has understandably been raised by both donors and a number of key informants. The trustees believe that if the Director or any of the other senior staff were unable to perform their work, the existing staff, strengthened by temporary staff would be able to run the business in the short run (even though it would be a struggle). In the longer term, a recruitment process would be put in place and relevant staff hired.

250. But in addition to this it seems likely that both trustees and donors would like to see a system put in place, as described above, in which the skills of other staff are developed so that certain key tasks currently undertaken by the director can be delegated to them. This implies that the director should increasingly focus on strategic concerns and managing others, with other people taking on more of the hands on editorial and writing functions.

Governance

Effectiveness of current governance structure

251. The current governance structure is consistent with and similar to the structures used by most British Charities, namely a board of trustees who have ultimate responsibility for the operation of the charity in accordance with its objectives (as set out in the charity's Memorandum and Articles of Association. This board delegates certain functions to a chief executive or director, and to an executive committee made up of trustees which convenes electronically with the Director as required (usually quarterly).

252. The International nature of SciDev.Net means that most of the board members are not resident in the UK, and this in turn means that the Board meets far less frequently than would be usual for a UK charity, namely quarterly.

253. A number of key informants suggested that the role of trustees and management had not always been entirely clear at SciDev.Net and this may have resulted in some decisions of the Board being delayed or not implemented.

254. This is quite common and in most British Charities there is frequently a tension between the role of the trustees, and the Management. Although the trustees are alone responsible for the Charity, they perform the role of "critical friend" to the Director, to whom the Board delegates responsibility for the management of the charity. In order for this to work properly, the roles and responsibilities that are delegated by the trustees to the Director should be set out in writing. This conventionally includes the task of implementing a detailed (annual) work plan within the confines of a detailed budget both of which are agreed in advance by the trustees.

255. Under these arrangements it is important for the trustees (and executive committee) to make clear when it is issuing an instruction to the Director, and when it is offering more general comments or 'things to think about' (which he/she can take or leave). It is considered good practice for instructions, and actions agreed by the Board to be recorded in formal minutes (usually drafted by a clerk or secretary, and agreed first by the Chair, and then by all the trustees).

256. Sub committees of the Board, such as the Executive committee, should have clear written delegated powers, but in all other cases they are advisory to the main board of trustees.

257. The Executive sub-Committee of the trustees should not be confused with the Senior Management Team: the first governs and the second manages.

258. Although donors may be members of the Board of a charity, it is increasingly the case that they are not (DFID now does not allow its staff to be members of Boards of entities that it supports financially though project finance – this clearly does not apply to the World Bank or other international agencies). This means that special arrangements have to be put in place to ensure that donors are able to feed their views both to the board and to the management. Both IDRC and DFID mentioned that the previous consultation mechanisms were not entirely satisfactory. It may be that all that is required is a more explicit timetable for consultation from time to time, and a process that sets out the challenges and how they are being deal with rather than a demonstration of achievement. This appears to have taken place successfully in recent discussions with DFID.

259. This relationship is often difficult because the recipient of funding often believes that they must impress the donor, whereas the donor usually wants a realistic assessment of what is going on, and if there are problems, to know how they are being dealt with.

Governance relationships between HQ and regional coordinators

260. There was little evidence during the review of the existence and functions of the Regional advisory groups. They are not visible on the web site, but do appear to offer advice both to the Regional coordinators, the trustees and the management.

261. From what has been said so far, the Regional Advisory Groups could play an important role in increasing the sense of ownership of SciDev.Net in the Regions and forming part of the delegated quality assurance function.

How can the various parts of the organization be better linked?

262. At various points in this review points have been made about the communication between the Centre (London) and the periphery, and the delegation of responsibilities between the centre and the regional co-ordinators. Until now most of these systems have centred on the Director. It is the essence of this chapter to suggest that as the organisation matures, it will have to evolve to a more distributed model, with decisions delegated first to a senior management team and second to the regions. A major challenge of such a distributed model will, however, be to set up systems to facilitate effective communication between all the elements of the system so that synergies can be exploited. For instance, the generation of dossiers (particularly if there were 12 ‘dossier-lite’ per year) needs to be linked both to the marketing strategy, and to events in the regions. Similarly it is likely that the knowledge and experience of the various advisory groups (at the level of both regions and dossiers) will need to inform both marketing and quality assurance across the whole canvass of Scidev.Net.

7 Conclusions

Overall Conclusions

263. Throughout this report the aim has been to let the evidence speak for itself. But on the way a few strategic options have emerged. The purpose of this chapter is to draw out these conclusions and list more assertively that the trustees and management need to address.

264. Science, Technology and Development are back on the development agenda, and SciDev.Net has harnessed modern technology to effective communicate about them.

265. In future it will be important for SciDev.Net to maintain and further develop the reputation it has already established for reporting science news relevant to development that is both high quality and accessible to non-specialists. This is SciDev.Net's niche which should remain un-compromised at the core of the next strategic plan.

266. SciDev.Net has done well to establish its reader base, but the need in the next phase will be to increase the readership substantially through a larger scale and more active and intensive marketing strategy. Absolute numbers need to be increased to enable Scidev.Net to occupy its territory more visibly and become the site of first choice for science, technology and development. But at the same time it will need to improve the 'quality' (or characteristics) of it audience. This will require expanding its readership in particularly difficult areas, such as in Africa, and to particular audience segments, such as policy makers and analysts.

267. This report concludes that there are seven key areas of action that need to be addressed.

Segment the audience

268. The report argues that SciDev.Net will be able to achieve greater clarity of purpose by dividing up the potential audience into separate segments and determine the communications products that best meet the needs of each segment. Such segmentation will make it easier to allocate resources strategically and to monitor performance.

"Engage"

269. There is a strong demand on the part of the audience for greater engagement. At one level this is a desire on the part of the audience for greater interactivity with each other and with SciDev.Net. But above all else it is a need for SciDev.Net to become more engaged with a number of these audience segments to understand more fully what issues concern them and what their communication needs are.

Take an "evolutionary approach" – test and amend

270. A central approach to finding out which communications products suit a particular audience should be a more explicit process of testing a range of possible products, investing to find out the extend that they meet the needs of the audience, and then improving them in the light of this experience. Such an approach will be particularly important in the area of dossiers which are currently not meeting the needs of the policy segment effectively.

Form "strategic alliances"

271. In order to expand, to cover the ground, and to increase credibility with policy makers and analysts SciDev.Net will need to cooperate with other organisations, particularly those that are already seen to credible by the market segment. While there will be genuine issues of maintaining quality standards, forming 'strategic alliances' to carry out specific tasks jointly may be a more effective approach than the formation of 'partnerships', which have been associated in the past with losing control of important quality assurance processes.

'Localise'

272. There is a strong demand from the audience for more localised material about their own concerns and areas of interest, including the individual circumstances of their own countries. In future this will require a more 'distributed' model for SciDev.Net and a delegation of responsibilities to staff and other organisations in the regions. The current model is threatened by the perception that it is a centralised organisation run from London that is telling developing countries what they need to know[75].

Reconsider Communications Products for Policy Audience

273. The dossiers remain a problem. SciDev.Net has not yet found communications products that best meet the needs of the audience segment associated with policy makers and analysts. This remains an important audience that SciDev.Net should address. But rather than re-launching the dossiers, it is recommended that this range of activities is re-considered from first principles. The following suggestions emerge from the evidence:

1. Define the market segment more clearly and invest in understanding their needs for communication products
2. Consider a larger number of 'lighter' products (possibly with a more precise / narrower focus), so that at least one can be launched every month in association with a marketing effort (so that this area of the site has something new to say every month).
3. Link some of the dossier to upcoming events and at the appropriate time
4. Consider periodic, rather than continuous up-dating, and only if demanded by audience
5. Consider re-emphasising SciDev.Net's strengths relative to other producers of 'policy briefings', by focussing on recent scientific and technological news, and by emphasising the 'scientific and technological' angle
6. Form alliances with organisation who are already considered credible by the target audience to jointly produce and finance dossiers (retaining responsibility for final drafting, style and production)
7. Seek sponsorship for some or all of these products
8. Give more prominence on the site to the quality assurance processes involved with these products to reassure the potential reader on arrival at the site/document – if necessary reform the advisory groups and ensure that they are seen to sign off dossier content.
9. Make the sources of material more explicit and emphasise the credibility of sources
10. Make the commissioning processes clearer to the audience and potential contributors.

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[75] Even in an international organisation based on communication, it is likely to remain the case for the next few years at least that many tasks are more easily performed from a location in 'the north'.

11. Increase the local content in part by separating (and clearly labelling) fully quality assured material for less assured material
12. Make the dossiers easier to print out.

Make SciDev.net easier to support.

274. There are a number of actions that SciDev.Net can take to make it easier for donors to support them, but without compromising SciDev.Net's strategic focus. These range from generating the evidence that the donors need to justify their expenditures, to doing things that more explicitly respond to the donor's mandate. This particularly applies to activities and audiences that are more directly linked to poverty reduction (such as providing communications products for school teachers and children).

Be Strategic

275. In the next phase it will not be possible for Scidev.Net to do everything. This requires more explicit linking of possible expenditures to the achievement of SciDev.Net's central strategic objectives. This in turn will require a more explicit 'programme logic' that specifies the model (or hypothesis) describing how SciDev.Net believes its activities contribute to changing behaviour, and ultimately reduce poverty and meet the needs of poor people.

276. While much criticised, the Logical Framework used by many donors does provide an effective way to summarise these strategic objectives, and to make explicit the timing of specific actions required to achieve them.

277. Defining the specific Logframe 'outputs' in terms of SciDev.Net's principal audiences is likely to facilitate this process and add clarity to allocation of financial and other resources to strategically essential activities. In this context outputs should be defined in terms of

- the general public (who of course do put pressure on policy makers);
- the scientific community,
- policy makers and policy analysts, and

278. Other outputs may need to be clustered round a fourth output related to capacity building, both for Scidev.Net as an organisation and for segments of the audience.

279. More sophisticated output based approaches have recently been developed by DFID, IDRC and others under the label of "Output Mapping". This makes the programme logic clearer by focussing on 'behaviour changes' and the organisation's contribution to change[76].

Future Funding

280. The overall conclusion is that SciDev.Net's past performance and the rising need for communications about science, technology and development are likely to justify future support from the donor community and from other possible sponsors.

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[76] A 4-page summary and supporting materials is available at http://web.idrc.ca/en/ev-26586-201-1-DO_TOPIC.html .