

Enhancing Access to Research Information in Developing Countries

**Report from a Mid-Term Review of the
Programme for the Enhancement of Research
Information (PERI)**

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Executive summary

Background

During 1999/2000 the International Network for the Availability of Scientific Publications (INASP) was asked by research partners and librarians from developing and transitional countries for assistance in information production, access and dissemination utilising information and communication technologies (ICTs). Following significant consultation, the Programme for the Enhancement of Research Information (PERI) was created. The immediate objectives of the programme are to:

- facilitate the acquisition of international information and knowledge;
- improve dissemination of national and regional research;
- provide awareness or training in the use, evaluation and management of electronic information and communication technologies;
- enhance skills in the preparation, production and management of journals.

These objectives are met through complementary activities including: delivering information, disseminating national and regional research, enhancing ICT skills, strengthening publishing, country collaboration and networking, and research and development. A pilot was in place from November 2000–December 2001 with the full programme beginning in January 2002.

After three years of activity a review has been undertaken. It was not intended to consider the *impact* of PERI, but rather to:

- document and assess progress towards goals and objectives and so learn from the implementation and management of the programme;
- establish appropriate data and indicators for future monitoring and evaluation;
- help identify appropriate priorities and directions for the next phase of the programme;
- share information and learning with PERI stakeholders, funders and other interested organisations or individuals.

The review took a participatory, capacity strengthening approach and was designed and implemented by key stakeholders, including those implementing the programme at country level, programme participants, programme funders and INASP staff.

Five areas were examined:

1. Relevance. Do PERI's current components meet the needs of the research community, and are they complementary, appropriate, relevant and effective?
2. Usage. Are PERI services and resources being used and why/how?
3. Management. Is PERI being managed and structured in an effective way? i.e. roles of and relationships among INASP, country programmes, stakeholders, funders, etc.
4. Sharing. Are experiences and lessons being shared and learned?
5. Sustainability. Are the activities currently supported by PERI becoming, or likely to become, sustainable within countries?

The review involved the collection and analysis of qualitative and quantitative data via email questionnaires, interviews, country visits, in-country stakeholder meetings, observation, analysis of existing documentation and feedback at a global stakeholders review meeting.

Results

Relevance

The overwhelming impression is that PERI is very relevant in addressing the needs of the various stakeholders.

The feedback from the **library community** was particularly positive. They see that PERI has helped them to provide valuable and valued services. It has also helped raise morale and in some cases given direction and a sense of purpose to libraries that were struggling to be relevant in an electronic age. An emerging need among many of the libraries is to take

the next steps in service provision and, using their newly strengthened influence, establish new and more demand-responsive roles in their research and scholarly environments.

As a group, the end-users—i.e. **the researchers**—tended to talk as if they were very satisfied. However, closer examination of information seeking and communication behaviour revealed that some individual needs were less well catered for. In a world where information is increasingly multi- and cross-disciplinary in its nature, the sheer scope and size of the inter-disciplinary resources of PERI become daunting. Whether PERI should endeavour to provide thematic guides or whether this is more properly a skill central to the research process requires further investigation. However, while PERI is fully at home in general multi-disciplinary environments, the subject-specific initiatives of AGORA (FAO) and HINARI (WHO) are complementary and address the needs of specific disciplinary communities.

The good visibility of local and national research through African Journals OnLine (AJOL) has yet to be matched by similar services within Asia and relatively speaking the areas of PERI targeted to local publishing are poorly known. The current approach in which publishing training activities are organised on a regional basis has resulted in lower in-country visibility and direct involvement than are demanded. However, if the breadth of interest in AJOL (including journal titles from 21 countries with document delivery spanning 83 countries across the globe) could be matched by deeper and more extensive interventions in national dissemination, the results in this area could be far more significant. The training facilitated via PERI and the mode of country travelling workshops was generally found to be very relevant to information managers and librarians. Everywhere, the request is for more and more training. There is an emerging and growing need to strengthen mechanisms to achieve locally led and sustainable local efforts, and many requests for support in basic research skills—scientific writing, information literacy, reading skills, presentation skills, and review techniques.

Usage

The review found that there have been significant successes in progress towards PERI's goals in terms of use, with researchers downloading hundreds of thousands of articles from scholarly journals, clear appreciation and use of the AJOL service, development and delivery of over 60 training modules in over 20 countries and marked improvement in the editing and publishing of locally produced journals.

There is no doubt that access to journals was problematic before PERI and similar access programmes. In most of the institutions surveyed, subscription to printed journals had stopped completely or had been reduced to a skeletal coverage of titles. Through PERI [and AGORA and HINARI] there is now almost total dependence on electronic journals and databases. Researchers observed the convenience of being able to access information from their offices or homes, and being able to search huge resources in a matter of minutes. Additionally, they reported that access to a wide range of up-to-date information enabled them to identify areas for further research and also to complete their work in a timely manner.

However, the use of the resources and services varied widely between and within countries and even within individual institutions and departments. It is also important to note that lack of capacity at a local level to monitor usage of resources makes it difficult to provide hard empirical evidence to support feedback suggesting either heavy or limited use. Researchers reported a degree of information overload, and, as information through PERI is not presented in clearly identifiable discipline-specific ways it is challenging to identify specialised information. This is a problem being faced by researchers globally and points to the need for greater service orientation in the information professions and a possible role for more sophisticated interfaces or electronic information finders.

A second area of concern in use is the continued unstable or limited infrastructure. Although the position is changing rapidly, many institutions have a limited number of computers and often slow and expensive bandwidth. This leads to unequal access possibilities within a country. 'Technophobia' and traditional thinking also play a part in researchers exerting limited demands on the use of e-resources and services, especially where a culture of research is underdeveloped. Several different ways of changing the

mind-set need to be employed concurrently, to include better marketing, clearer registration processes, enhanced training and familiarisation with content.

Management

The current management structure has allowed PERI to develop significantly over the first three years and has led to a great deal of activity in the countries involved. However, as the programme is still in its initial phase, several ideas and suggestions for change naturally emerged during the review. As a Director of Postgraduate Research observed: “Services emerged out of a genuine need, that need is there and it is being met. That must be made clear. But you have made a problem for yourselves by creating more demand.”

The key lessons that have emerged are:

- representative coordinating teams seem to be the most effective and favoured form of in-country management;
- ‘buy-in’ from senior management/policy makers in the countries enhances effectiveness;
- getting national-level awareness of PERI is a difficult but necessary task;
- currently most PERI activities and the people running them are embedded in the library community; wider participation, especially of end-users, could enhance use and sustainability;
- growth of the programme, especially to additional countries, is currently limited by the human resources available in INASP and in the coordinating teams.

One crucial area to be determined is a clearer strategy of how PERI will be managed and implemented in the future. There are difficult decisions to make: should the number of countries participating be limited to enable increased depth and intensity of interventions? If additional countries are added, more effort needs to be given to implementing clearer ‘exit’ strategies by INASP from existing countries.

Sharing

Although sharing of experiences and ideas isn’t a key objective of PERI, it was concluded to be an effective way of maximising the benefits of the programme and indeed to be a missed opportunity if it is not undertaken.

Feedback indicates that sharing of experience and knowledge is happening but in a mostly informal, unsystematic way and that this could be improved. The present channels of the coordinators mail list, the annual coordinators meetings, meetings of related/similar initiatives and professional associations, and the travelling workshop methodologies provide an ‘added value’ in terms of peer-to-peer exchange of views and experience and help to build personal and virtual networks among the countries. However, a more systematic approach to capturing knowledge and experience would be beneficial.

Sustainability

Although it is early days for PERI, some countries within the programme have made significant steps towards sustaining their access to the international resources and training activities. Collective purchase, with consortia being formed as a direct result of the drive to maintain access to resources currently enabled, resulted in 41% of the cost of resources and 25% of the cost of training being met in 2004 through in-country funds (albeit mostly through externally funded research or institution capacity-building projects).

However, as mentioned above, access to resources is just one part of the activity necessary for enhancing research information and there is still a long way to go before any of the countries becomes fully self-sustaining.

Conclusions

PERI was created in response to demands from researchers. The review has shown that the activities it supports continue to meet the needs of its stakeholders and that a great deal of progress has been made since its inception. The review set out to learn from experiences and has therefore generated recommendations for improving the management and implementation during the next phase (2005–2008). These recommendations fall broadly into five categories:

Effectively embedding PERI within its wider community

One key area is to situate the programme more effectively in its wider environment. It is recommended that PERI strengthens its links with:

Policy makers: working to ensure ‘buy-in’ and enhance the link between PERI activities and national and institutional research strategies, including help in identifying or mobilising the potential funding from government, institutions, faculty/departmental funded projects or sector-wide investments.

Enablers: working with information professionals to enhance nation-wide involvement and achieve greater sustainability in all areas. This could also include working with library schools to reinvigorate librarian education.

End users: investigate if PERI should also directly engage with communities who use research information (but who may not be university-based or do not use libraries, or are not researchers or scholars in the traditional sense.) For example, non-governmental organisations, government agencies and ministries, research networks, national academies, scientific associations.

Sister organisations: closer collaboration and cooperation between PERI and similar initiatives could increase complementarity among the initiatives, and could assist all the initiatives to meet demand by mobilising needed capacities and resources in more effective and efficient ways.

It is recommended that PERI should support the following opportunities:

- country coordination by teams which are more representative of the various stakeholder groups;
- regular in-country meetings of stakeholders to guide management of the programme;
- a portal to provide information on and links to all information access opportunities for developing and transitional countries;
- peer exchange visits, e.g., between new and existing ‘PERI countries’, allowing coordinators to learn from their colleagues and help the programme to be implemented more effectively;
- meetings between publishers, library staff, researcher and development agencies encouraging a better understanding of the varying perspectives of programme stakeholders issues and providing a forum for problem solving.

Improving programme documentation

Many of the challenges reported during the review could be resolved by the provision of clearer documentation on the planning, implementation and evaluation of the programme. It is recommended that the following steps should be taken:

- development of an updated strategy document for PERI to include: key objectives, statement of Programme elements, roles of country coordinators/coordinating teams, guidelines for participation of new countries, development of ‘exit’ strategies of INASP from existing countries;
- improvement and simplification of all existing process documentation including contracts, MOUs, financial arrangements;
- joint development of a ‘road map’ with each participating country setting out goals, milestones, log frame, standards of practice, commitments, moves toward self-sustainability, etc;
- sharing and archiving of case studies, best practice, ideas, etc, relevant to PERI activities.

Increasing use of PERI services and resources

Although there are areas of significant use of PERI activities and resources, there are many ways in which this uptake could be increased. Achieving this relies on two crucial factors. Firstly, better understanding of the actual needs and information-seeking behaviour of users and the reasons for under-utilisation of resources or services. Secondly, the capacities available to and within INASP and the country coordination teams and how these are best deployed.

It is recommended that the following key actions are undertaken:

- further study to investigate the reasons for under-utilisation of resources and services, in order to better understand how to overcome it;
- review options for managing or increasing staff capacity within INASP and within the countries.

In the meantime, the review also indicated some factors which have an impact on use and it is recommended that they are addressed by:

- supporting further promotion and awareness raising of activities, involving all stakeholders;
- minimising the impact of poor infrastructure by, e.g., encouraging optimum utilisation of the existing bandwidth;
- ensuring that recurring minor technical ('last click') problems such as changes in IP addresses and difficulties with passwords, do not prevent access to resources;
- building on existing local publishing/information dissemination and involve all countries in journal editor/publisher training through 'national' efforts, if possible adopting a training method that also build pools of trainers;
- investigating whether developing additional services to support better subject-navigation would meet more needs and improve use.

Development of evaluation and impact indicators

The need to enhance needs assessment, monitoring and evaluation, in order to gain better insight into the use and effectiveness of the services offered and to identify emerging new needs was clearly demonstrated during the review process. The following actions are recommended:

- constitute a multi-stakeholder team from the wide PERI community to formulate appropriate indicators and measurement tools;
- encourage and support country efforts to measure usage and uses of PERI-supported activities. As part of this, disseminate existing studies and their methodologies so that such 'research' can begin.

Supporting progress towards sustainability

PERI is intended to provide initial support for countries to enhance research information, with the objective that the activities eventually become locally sustainable. In order to achieve this it is recommended that PERI:

- involves the research and scientific communities more strongly in the planning, implementation and assessment of PERI activities to ensure that they take more ownership and become a strong voice for them;
- strengthens country capacities to develop a pool of local fund raisers, negotiators, advocates and trainers;
- where appropriate, PERI's current country-wide access policy is amended to accommodate a consortia paid access model.

Actions arising from the review

INASP will share the review report with the programme's stakeholders and consult with them in order to prioritise the recommendations. INASP and the country coordinating teams will then consider how these prioritised recommendations can best be addressed and will generate an action plan—including allocated responsibility for actions and implementation milestones—with the aim of maximising impact of the programme during its next phase.

Background to PERI

During 1999/2000 INASP was approached by research partners and librarians in Africa, Asia, Latin America and the New Independent States to assist them in the design and implementation of a programme of complementary activities to support information production, access and dissemination utilising ICTs. Following two brainstorming workshops and a large number of country-wide discussions, the Programme for the Enhancement of Research Information (PERI) was born.

The immediate objectives of the programme are to:

- facilitate the acquisition of international information and knowledge;
- improve dissemination of national and regional research;
- provide awareness or training in the use, evaluation and management of electronic information and communication technologies (ICTs);
- enhance skills in the preparation, production and management of journals.

The first phase of the programme ran as a pilot from November 2000–December 2001, with the full programme beginning in January 2002.

Today, these objectives are being met by interlinked and complementary activities:

Delivering information

In facilitating the acquisition of full-text online journals, current awareness databases and document delivery, INASP has been working with individual publishers, 'packagers' of information and consolidating subscription agents. The goal is for resources available through PERI to be affordable so that their acquisition is sustainable in the long term. INASP has been successful in negotiating preferentially priced country-wide access licenses for developing country researchers of around 90–98% discount.

PERI currently provides access to more than 17,000 full-text journals (of which over 8,700 are peer reviewed) and many of the world's leading bibliographic and reference databases via Blackwells, CAB International, Cochrane, EBSCO, Emerald, Gale, Institute of Physics Publishing, Mary Anne Leibert, Oxford University Press, Springer, the Royal Society of Chemistry, the Royal Society of London, Wiley InterScience, and Update Software. Negotiations with other publishers and content providers are ongoing.

In addition, document delivery is available through the British Library Document Supply Centre (BLDSC)—providing online searching and hard-copy document delivery of the full text of 20,000 journals—as well as African Journals Online (AJOL) with its 200 African titles. The programme has also identified and promotes a large number of resources which are available without cost to researchers in developing countries.

Since the programme's inception in 2002, over 700,000 articles have been downloaded by users in over 500 registered institutions in developing and transitional countries.

Disseminating national and regional research

Electronic publishing offers an important means of disseminating national and regional research findings. PERI assists in the establishment of institutional, national and regional online journal services to enable the results of research undertaken and published locally to become more widely known and accessible.

One successful model is African Journals Online (AJOL). As of December 2004, it includes 217 African-published journals. It provides information about each participating journal and tables of contents and abstracts (where available) for all articles published within these journals. In the future, some full-text articles will also be available. All the material on AJOL is free to view, search and browse and full-text documents can be ordered (with a payment for each document forwarded to the journal in question). Since the programme began, 1,749 articles have been obtained by developing country researchers using this facility.

Enhancing ICT skills

For university and research communities throughout the world, finding high quality, relevant information is becoming increasingly difficult and, at times, frustrating. The pilot phase of PERI confirmed the demands from librarians and researchers for access to high-quality, relevant training in using the Internet, exploiting information available to them to its full potential, and identifying and evaluating other information sources. Extensive experience with partner institutions has led to the adoption of a locally facilitated 'travelling' workshop methodology whenever possible for ICT training activities, and to date over 1000 people have been trained in national workshops with many hundreds more participating in further 'cascaded' training. The methodology used has the following key characteristics:

- in-country training: promotes training that reflects and responds to participants daily working environment;
- multi-participant/single-site: encourages peer-support via a critical mass of trained people in each location;
- national and regional facilitators: builds local skills and capacity both in the subject area and in the development and delivery of the training programme;
- national and regional 'cascades': supports networking, capacity building and extensive, cost-effective sharing of skills and training;
- modular training materials: generates an adaptable resource bank of high-quality training and support materials;
- on-going monitoring and evaluation: maintains high standards and on-going improvements and response to learning;
- participative: enhances learning and knowledge sharing through hands-on, practical exercises and activity-based group work.

The following workshop series are presently available through PERI:

- Introduction to "Using the Internet";
- Electronic Journals and Electronic Resources Library Management;
- Accessing Information in Developing Countries;
- Electronic Information Resources for Health Workers;
- Web Page Design and Authoring, leading to Library Web Pages;
- PC Troubleshooting for Library Personnel;
- Introducing the Internet for Public Libraries in Africa.

Strengthening publishing

This component provides training and support for researchers, publishers and editors to enhance publishing skills, and includes:

- facilitation of in-country or regional workshops to assist researchers and publishers to improve their publishing operations;
- a Publishing Partnership and 'Mentorship' Programme where PERI provides support for study visits and has arranged journal partnerships and 'mentoring' in collaboration with the Association of Learned and Professional Society Publishers (ALPSP);
- development of resource materials including handbooks and manuals

So far representatives from over 100 journals have been involved in this skills enhancement.

Country collaboration and networking

Organising and providing access to the increasing information and knowledge base is proving to be far beyond the capacity of any single organisation. At the country level, various kinds of networking and cooperation mechanisms are emerging, seeking to ensure that locally produced as well as 'imported' information is shared and used to its full potential. INASP operates a range of activities to promote and support country networking. Initiatives include the following.

- spaces for discussion and collaboration;
- connecting knowledge and expertise;
- negotiation and licensing skills for library networks.

Research and development

To support PERI and to address new needs and challenges, research projects to investigate new methodologies for accessing, managing and using information, and methods of improving existing systems are undertaken. Recent projects have included “Optimising bandwidth in research and higher education” and “Search tools for low bandwidth environments”.

Where and how PERI works

Countries are eligible to participate in the programme according to Human Development Index indicators and classification by the World Bank as low-income or lower middle-income¹. They begin participation in response to requests from the country. Currently, 20 countries are involved in all PERI activities and a further 22 taking part in at least one of PERI’s components (a full list is included in the appendices).

Within INASP, PERI is implemented on a component basis with the following staff:

- Senior management: INASP Director, Deputy Director, Finance Director;
- Delivering information: 1 Senior Programme Manager, 1 Programme Officer;
- Disseminating national research and strengthening publishing: 1 Senior Programme Manager, 1 Programme Officer;
- Enhancing ICT skills: 1 Senior Programme Manager and 1 Programme Manager;
- Country collaboration/networking, and research and development: managed on an ad hoc basis according to skills and capacity within the PERI team.

Of these, five full-time staff work almost exclusively on PERI, with the others working part time on the programme

Within each participating country, a country coordinator or country coordinating team undertakes the planning, implementation and review of the programme (currently totaling around 50 people). The precise structure varies from country to country and is discussed in more depth in Section 6: Management.

Background to the review

Review objectives

The review was not intended to consider the *impact* of PERI—which is difficult to assess so early in a programme—but rather to:

- document and assess progress towards PERI goals and objectives and so learn from the implementation and management of the first three years of the programme (January 2002–October 2004);
- establish appropriate data and indicators for future monitoring and evaluation;
- help identify appropriate priorities and directions for the next phase of the programme;
- share information and learning with PERI stakeholders, funders and other interested organisations or individuals.

Intended users and uses of the review

According to the IDRC, the primary intended users of any review should be those stakeholders who “...have a responsibility to do things differently (e.g., make decisions, change strategies, take action, change policies, etc)” as an outcome of the review process or findings. Using this definition, the *primary* intended users of the review are INASP staff, programme funders and PERI country coordinators or coordinating teams.

We intended to strengthen capacities by involving key stakeholders in the review process from the outset, thereby enhancing all of our abilities to design and implement future monitoring and evaluation processes. A separate report on the process of the review will be made available.

This report will be used to assess the current effectiveness of PERI and to facilitate improvements in the management and implementation of the programme.

¹ <http://www.worldbank.org/data/countryclass/classgroups.htm>

Although this review does not aim to assess impact, the outcomes of the review will also be used to develop the terms of reference, indicators and methodologies for assessing the impact of the PERI programme in 2007/8.

What questions did the review address?

The five areas of focus for the review are:

1. Relevance. Do PERI's current components meet the needs of the research community, and are they complementary, appropriate, relevant and effective?
2. Use. Are PERI services and resources being used and why/how?
3. Management. Is PERI being managed and structured in an effective way? i.e. roles of and relationships among INASP, country programmes, stakeholders, funders etc.
4. Sharing. Are experiences and lessons being shared and learned?
5. Sustainability. Are the activities currently supported by PERI becoming or likely to become sustainable within countries?

Each of these questions is addressed in detail in Sections 4–8 below.

Principles and approach

The key characteristics of the methodology chosen were that it would be open, participatory, capacity strengthening, cost-effective and that it would lead to action.

In line with these characteristics, the review was designed and implemented by key stakeholders, including those implementing the programme at country level, programme participants, programme funders and INASP staff. These people represented many roles including managers, funders, publishers, librarians, researchers, undergraduates, postgraduates and policy makers.

We believe that the participatory approach chosen improved ownership of the process, helped to ensure that the review is an asset for all those being reviewed, and helped to make the process itself capacity strengthening.

Methodology

The methodology needed to be consistent with getting answers to the review questions, and take account of costs, time, principles, etc. It involved the collection and analysis of both qualitative and quantitative data via email questionnaires, interviews, country visits, in-country stakeholder meetings, observation, analysis of existing documentation and feedback at a PERI stakeholders review meeting held in November 2004.

The review was led by a team consisting of (alphabetically):

- Mrs Helena Asamoah-Hassan (Kwame Nkrumah University of Science and Technology and PERI coordinator, Ghana)
- Mr Peter Ballantyne (INASP, UK)
- Mr Krishna Mani Bhandary (Tribhuvan University Central Library and PERI coordinator, Nepal)
- Ms Sara Gwynn (INASP, UK)
- Mr Paul Manda (University Dar es Salaam and PERI coordinator, Tanzania)
- Ms Yvonne Thomas (Department for International Development, UK)
- Mr Dylan Winder (Department for International Development, UK)

The team initially met in Dar es Salaam in September 2004 where the final Terms of Reference for the review were developed (these had been initially drafted with input from INASP staff and all PERI country coordinators). The methodology was also refined and decided at this meeting.

It was followed by a data gathering exercise involving visits to Tanzania, Nepal and Ghana by members of the review team. These visits involved meetings with stakeholders (library staff, researchers, policy makers, students), interviews with the country coordinators and visits to institutions outside the main centre of the country. A key aspect of the approach was to facilitate 'peer review' of different country experiences drawing on the knowledge of experience coordinators from other countries.

In an effort to focus data collection efforts and to identify key informants, the team also categorised the main stakeholders in PERI. Each was mapped against the five review questions to prioritise who to address through the review and the likely topics that each

group might be expected to comment upon. In the table below, the *primary* informants are identified with an asterisk.

Stakeholder:	Users ^a	CCs ^b	Promoters ^c	Policy	INASP	Non-users	Sister agencies ^d
Question:							
Relevance	*	*	*	*		*	
Usage	*	*	*			*	
Management		*	*		*		
Sharing		*	*		*		*
Sustainability		*	*	*			

^a Users include: researchers, academics, scholars and scientists whose capacities are aimed to be strengthened by PERI

^b CCs: PERI country coordinators or coordinating teams in each country

^c Promoters: typically editors, librarians, trainers, ‘gatekeeper’ users, and other advocates acting as intermediaries between INASP and the intended research end users.

^d Sister agencies: other organisations and initiatives working on issues of scientific information access, dissemination and training

Data was also collected via

- a questionnaire to PERI ‘promoters’;
- stakeholder meetings in Ethiopia, Kenya, Malawi, Zambia, Zimbabwe (without the presence of the review team);
- a ‘lesson learning workshop’ in the UK with representatives from over 20 countries and including funders, country coordinators, librarians, publishers, policy makers, INASP staff and sister organisations.

Review report overview

Sections 4–8 focus on the five areas the review addressed. Feedback on each of these areas is given as a narrative (with each narrative drafted by different members of the review team). Each section ends with a summary of the findings in terms of the review objectives, namely:

- progress towards PERI goals and objectives;
- lessons learnt during the first three years of implementation;
- priorities/directions for the next phase of PERI.

Challenges encountered during the review

One major challenge encountered was the sheer diversity of needs and situations at the individual level. For example, the team found examples of extremely high usage alongside extremely low levels of usage of some PERI activities. Determining whether the extent of this variation was due to a combination of factors associated with each individual and his or her situation (the demand side) or whether it was caused by some particular strength, weakness or a choice made by the PERI team (the supply side) is very difficult. It is particularly difficult to sort out whether the difference can be ascribed to levels of relevance as opposed to other factors—like format or presentation for example.

While one can infer that higher levels of usage indicate higher levels of satisfaction of needs, it is not possible to simply correlate high or low usage with corresponding high or low relevance or needs satisfaction. A low frequency user may have quickly discovered the answer to their question from a resource made available through PERI or indeed found that the answer is elsewhere (a ‘success’). A frequent user could even be a frustrated seeker looking over and again in the wrong place (a ‘failure’).

This introduction serves to indicate that determining factors such as the relevance of PERI is not at all straightforward and that measures of, for example, usage need to be employed very carefully. The team was frequently told by people who had never made any use of PERI services or resources that what it provided was extremely valuable and useful, presumably for other people! On the other hand many people thought they were not using PERI resources but further discussion indicated they were in fact doing so (but were not aware that PERI was the source).

Relevance of PERI

What questions were considered?

PERI was initiated in response to expressed need and so, before considering the implementation and management of the programme, the review team felt it necessary to assess the relevance of the activities in terms of their perceived usefulness in addressing the needs of the ‘target’ research communities.

Therefore, we asked the question: do PERI’s current components meet the needs of the research community and are they complementary, appropriate, relevant and effective? If the answer to this question is not positive, the whole programme will need to be reconsidered. It was not our intention to carry out an in-depth assessment of the information and communication needs of researchers in developing countries. However, for the question of relevance the review team needed to probe deeper so that we could assess the extent to which the original justifications of the need for PERI still apply and what emerging or new issues and concerns had arisen since the full programme was launched in 2002.

Thus, the review team used its opportunities to meet with end users to explore the types of information and communication needs they had and to try and assess how ‘satisfied’ they were with what was made available through PERI. Since the beneficiaries of PERI also include various kinds of information and communication intermediaries—like librarians and editors—the team also considered the extent to which PERI meets their information and communication ‘management’ needs.

What did the review team find?

There was a widely felt ‘higher level’ (and rather unquestioning) sense that the types of activities supported by PERI were a ‘good thing’, much valued and very relevant and deserving of more use and continued support. It was, however, much more difficult to isolate concrete examples where PERI-supported activities had positively addressed a specific organisational, societal, or research need. In most cases, the team relied on individual stories to show how individuals’ needs were being met.

Despite these challenges, the team found that the activities supported by PERI are, on the whole, fundamentally relevant in that they do meet the needs of many researchers and perhaps a great number of educators/scholars. They are certainly addressing many of the information management needs of the library community, particularly in higher education, although the needs of editors still remain relatively under-addressed. It is also clear that more can be done to enhance the relevance of the whole programme as well as specific components of it.

The relevance of PERI is of course closely tied to the needs of the people for whom it is designed, the interests and capacities of those who implement it, and indeed any groups whose needs are felt not to fall inside the scope of PERI.

As indicated above, we divided the people whose needs PERI was intended to address in two main groups: end users ‘researchers’, and intermediary information and communication managers or professionals who typically support the efforts of colleagues doing research and science.

In terms of **end-users**, researchers typically need access to international literature and other electronic resources so they can do effective research themselves. They also need access to publishing opportunities where the results of their work can be disseminated as widely as possible, including to whoever might be the ‘targets’ to make use of their results. In both these areas—‘accessing’ and ‘disseminating’—they need appropriate skills and support to make full use of the increasing possibilities.

In our discussions, we found the term ‘researcher’ to be very widely applied and that in fact the needs of higher education ‘teachers’ and lecturers were also being addressed. It was argued that many of these people are researchers as well as academics and thus there was a large crossover in their needs. There were cases where undergraduate students—whose

actual ‘research’ might be small— were also making use of the information access possibilities.

The end-user communities whose needs were most catered for in the current PERI are those located in academic environments—mainly universities. This may make the ‘international’ and multi-disciplinary science coverage and dimension of PERI particularly relevant.

We also encountered some scientists and researchers using PERI and located outside academic circles, in various types of public and semi-public research institutes. In general, these communities share the needs of the researchers mentioned above, with perhaps a greater requirement for information from in-country situations and applications. They tended to be less involved in the running and managing of PERI at the country level and generally seemed to be less heavy users of PERI e-resources. This may partly be a reflection of their greater disciplinary and subject specialisation and the availability of health and agriculture information resources through complementary initiatives—AGORA and HINARI.

In general, there seemed to be little attention and uptake of PERI among non-research communities. This reflects the orientation of the programme towards researchers as well as the greater connectivity of research and scholarly communities. However, it also means that the needs of people with a potential interest in research-based information but who are not researchers themselves have had relatively little attention.

In terms of the **information intermediaries**, the dominant groups encountered and involved were librarians and information professionals working primarily with information and literature and related metadata. Their mission to deliver various types of ICT-enabled services to end users has been the main focus of the training and other support provided through PERI. A second group of information intermediaries is mainly made up of editors of scientific journals published in developing countries—mainly in Africa—as well as other types of academic publisher, for example university presses.

In general, PERI has given highest priority to meeting the immediate and emerging information and communication management needs of these information communities. By addressing their needs for resources, skills, and the confidence needed to effectively support modern e-science, these information and communication enablers will be able to support the efforts of the researchers and scholars whom they serve. Like the end users, the concentration of effort has been on the needs of people working in higher education, reflecting also greater concentrations of expertise, connectivity and potential impact.

The needs of the groups discussed above are driving PERI activities at the country level. One other dimension worth highlighting concerns the **country-level management and coordination needs**. To date, this has been seen primarily as a task for the information professionals—mainly the librarians—whose established role as interpreter and articulator of information needs has been accepted within PERI. Currently, individual nominated librarians or, as is increasingly the case, teams of librarians from several institutions look at the needs of their country as a whole and aim to coordinate PERI activities to address these in a coherent manner.

Summary of findings relating to review objectives

Progress toward PERI goals and objectives

As was alluded to in the introduction, the overwhelming impression provided to the review team is that PERI is very relevant in addressing the needs of the various stakeholders. This overall statement, however, needs some elaboration as some needs or some groups were perhaps less satisfied.

Library community: The overwhelming feedback from the library community was positive. They especially see that PERI has provided them with the wherewithal to provide valuable and valued services. It has also helped to raise morale and helped in some cases to give direction and a sense of purpose to libraries that were struggling to be relevant in an electronic age (though there is a danger that PERI is merely helping to continue the existence of still irrelevant bodies that need more than just the addition of some e-resources to their services). An emerging need among many of the libraries is to take the next steps in

service provision and, using their newly strengthened influence, to begin to establish and carve out new and more demand-responsive roles in their research and scholarly environments.

End users: In the country stakeholder meetings, the end users as a group tended to talk as if they were very satisfied. However, once individuals began to talk about their individual information seeking and communication behaviour, it became clear that some individual needs were less well catered for. In relation to the e-resources, some end users felt that specific topics or searches gave no results. This may be in part due to imperfect familiarisation of the end users with the resources, which implies that greater efforts are needed to enhance local awareness and to provide necessary training.

In other cases, as is to be expected in a broad inter-disciplinary initiative, the topical or subject coverage of the e-resources is recognised to have gaps. For specialists in an area not covered, PERI will therefore not be felt to be relevant. In subject areas like health or agriculture, all that is often needed is for the end-users to be informed about HINARI or AGORA and how they can obtain local access (it was striking how often the initiatives are muddled up by the end users, and sometimes by librarians). In other subject areas, identified gaps are forwarded to INASP by country coordinators and efforts are made to recruit appropriate publishers to join the programme. Success or otherwise is very much dependent on the effort that INASP can put into this negotiation process and the willingness etc of the publisher concerned to participate. However, given the enormous range of research interests, there is also the question of whether and how PERI can address needs of very specialised areas.

Related to this issue of thematic coverage and scope, some end users said that they found it daunting to be faced with a massive multi-disciplinary PERI package, stating that they want some kind of thematic guide to accessing ‘their’ information. Here AGORA and HINARI were sometimes said to have an advantage in terms of relevance over PERI as they each target ‘their’ communities while PERI was perhaps only fully at home in general multi-disciplinary institutions.

Another need often raised by the end users—once they were made aware of what they were missing—was for **support for local journals and local publishing** generally. The parts of PERI targeted to local publishing seemed to be largely unknown except among a small number of people closely informed about INASP and PERI. It seems that the current approach in which activities are organised on a more regional basis leads to almost no in-country visibility and involvement for these activities. Further, the way in which these activities are managed (by INASP) as two separate but closely linked activities seems to cause much confusion among PERI country partners. In terms of the overall focus of the programme, the needs in this area have largely not been sufficiently addressed by PERI, and other initiatives are not making any significant efforts in these areas—except to promote open access publishing.

The exception to this discussion on local publishing was the relatively good visibility of AJOL—especially among the librarians and some end users and editors. Making African research, once published, more visible internationally was highly appreciated. The possibility to access research originating out of Africa was similarly applauded as being something that the researchers, librarians and editors all wanted.

Among the information managers/librarians, the **training** provided as well as the mode of country travelling workshops was generally felt to meet their needs and to be very relevant. The information and communication skill requirements identified by questionnaire respondents also indicated that the training currently being undertaken within PERI matches many of the stated needs.

So, in all the different review activities, the request was for more and more training; though much perhaps needs to be re-focused to meet emerging situations. There is an emerging and growing need for support—possibly more than just training—to strengthen country and perhaps regional mechanisms to manage progress towards locally led, sustainability for those activities currently supported via PERI. Requests for support in basic research skills—scientific writing, information literacy, reading skills, presentation skills, and review techniques—also came across clearly.

Lessons learnt

In summary, the lessons learnt regarding the relevance of PERI during the first three years of implementation are:

- all of the activities currently supported by PERI are considered relevant and are demanded by end users and intermediaries but
 - some researchers feel that their subject areas are not catered for within the current information delivery by PERI;
 - there are issues regarding how easy it is for end users to find the information they want within PERI;
 - there is unmet demand for support in strengthening local publishing;
 - there is confusion between the activities disseminating national and regional research and the activities that support strengthening publishing;
 - there is demand for more training support;
- African Journals Online activities are considered to be very useful and relevant;
- there is confusion over what activities are/are not supported by PERI.

So the answer to the review question ‘do PERI’s current components meet the needs of the research community and are they complementary, appropriate, relevant and effective?’ would seem to be, generally, yes. Evidence of this is given by stakeholders who expressed that the current components and activities are complementary, relevant and appropriate and by the fact that many organisations and countries who are not currently partners in the PERI programme are keen to become involved.

However, feedback during the review also suggests the current activities are not implemented as effectively as they could be and the following sections on usage, management, sharing and sustainability will address these issues in more detail. The issue of how well, if at all, we understand the need of the research community at which the programme is aimed will be addressed in the section on indicators.

Priorities and directions for next phase

The following actions are suggested to enhance the relevance of PERI:

- encourage and support ‘infomediaries’ in their moves to a more demand-driven, proactive service to end users;
- ensure that the needs of all research communities are understood and are being addressed (not necessarily by PERI itself);
- consider if/how PERI should be engaging people who might use research information but are not researchers/scholars themselves;
- investigate in more depth the reasons for the sense of lack of relevant information in some cases and consider whether/how to make more effort to extract/access/promote/advocate the content inside PERI (subjects, disciplines), working more deeply with the relevant subject communities. There seem to be many reasons for the sense that end users are not finding the information they require. It could be indicative of a need:
 1. to better raise awareness of what is available
 2. to support end users to search effectively
 3. for a wider subject coverage within PERI
 4. to develop a better subject focus of the resources (e.g. by supporting library staff to develop subject focused guides or by devising technical interfaces that provide much better thematic access).
- clarify the scope and focus of PERI so that end users and promoters know exactly what is available to them and how to exploit it. Instead of being ‘some things to most users’ it might be better to be ‘most things for some users’.

Use of PERI activities

What questions were considered?

The questions that are addressed in this section are whether PERI services and resources are used and if so why and how? The section considers all the PERI activities namely;

delivering information: disseminating national research, enhancing ICT skills and strengthening publishing.

The discussion also includes the challenges that might have hindered effective and efficient usage of PERI services and resources. The main interest in this question is whether researchers at the various stages of their research activities consult these resources and whether institutions have made use of the services provided in PERI.

What did the review team find?

Are PERI services and resources used?

Although there is significant use of the **electronic journals and databases** available via PERI, the review found that they are under-utilised in many institutions or not used at all in some institutions. Explanations put forward by stakeholders for this state of affairs include lack of effective marketing strategies; inadequate training; infrastructural problems; etc. These factors are not necessarily similar in all institutions—one institution might have a different set of challenges compared to the other.

Significant variations are also observed in terms of usage between institutions and among individual researchers within institutions (surprisingly even among researchers within a department in a same institution). On the whole, heavier usage is reported among postgraduate students than any other category of library user. It is, however, important to note that lack of capacity at local level to monitor usage of resources makes it difficult to have hard empirical evidence to support feedback suggesting either limited or heavy use of PERI resources. Although most publishers provide usage data this is often aggregated at national levels. This review has, however, revealed that in larger universities—with programmes that cut across most academic disciplines—multidisciplinary resources like EBSCO Host are frequently used.

Another component of PERI is to support and increase access and visibility of **locally produced research output** through the inclusion of academic journals in, for example, the AJOL database. The logic is simply that as local research is made visible to the world this will strengthen local research and also increase recognition of research output from this area.

This review has shown that generally countries are participating in this component although there are variations in the number of local journals that are on AJOL. A look at AJOL shows that few countries dominate the list of journals. This, however, is because there is simply more journal publishing taking place in those countries. Reports from INASP also show that the demand for photocopy of articles from journals in AJOL has been on the increase and that countries are also participating by subscribing to printed copies.

The third activity undertaken within PERI is **ICT skills capacity building** in the programme countries. The review indicates that training of librarians has been undertaken in most of the countries and is well received. In some institutions all middle- and higher-level library staff have participated in the INASP organised training and travelling workshops and follow-on workshops have been organised for end-users.

In many institutions the training of end-users is being conducted but the success and modalities of how this is done differs between institutions. In some institutions the training of end-users is on voluntary basis while in others it is integrated into the academic programmes for postgraduate students. There are again differences between countries on the nature and extensiveness of training. Differences are also observed between institutions within countries in the extent to which the skills acquired in the training workshops have cascaded down to the rest of library staff and end users. In some institutions this has taken place while in others it has not.

This review has shown that support through **training for journal editors and publishers** has not been fully utilised. The training workshops were conducted at regional levels and it appears that these have had little impact outside of the countries in which the training took place. During the discussions with the various stakeholders including journal editors the need to undertake this training was raised. Journal editors who participated in the meetings recognised the need to improve local journal quality so that they gain international recognition.

The responses to the questionnaire also indicated that all PERI activities were being used, and specifically mentioned: meeting the costs of access to peer-reviewed materials; providing relevant training in ICT and publishing skills; training of trainers; supporting document delivery; disseminating research results; providing country wide access; providing modular training materials for local adaptation; supporting development of library web pages.

However, not all activities were being used in each country and there was a varied response as to how much the training activities supported within PERI were being used. Several people reported finding them very useful but one stated that “Training in ICT is not vital as most of the researchers and academics now apply ICT skills in day-to-day work” whilst another felt that follow-on training (i.e. training run within their own institution) was “not very successful” and by another as not reaching enough people.

Finally on the issue of whether PERI activities are used, a significant number of the end users met by the team had no knowledge of PERI, which in itself may not be bad, but of more concern is the fact that they had no knowledge or experience with any of the resources made available through PERI and initiatives like PERI. Unless they are made aware and are able to assess what’s on offer, it is difficult to see how they can make full use of any activities that may be of use to them.

Questionnaire respondents were also asked about initiatives or projects that provided similar support to PERI and identified the following providers of information resources: AGORA; CTA Question and Answer Service; HINARI; ILLDD (through IFLA/DANIDA); KIT (abstracts sent from the Royal Tropical Institute); Latindex; local information gateways (e.g. Tanzania Online); TEEAL; Wilson Web. It was suggested that increased collaboration and cooperation with similar initiatives would strengthen the services offered via PERI.

Providers of similar training included local library associations; libraries and universities; local professional and academic organisations. Initiatives to support local information dissemination included local networks (HELLIS and AGRINET specifically).

Several respondents stated that there were no other sources or projects that provided similar support to PERI, with one saying “PERI is unique in its multifacetedness—I think it is an invaluable conceptualisation and is an ongoing success—when it aint broke don’t fix it!!” and another that PERI provided “a wider base from which to choose”.

Why and how are PERI resources and services used?

This review revealed that, in most of the study institutions, research was reported to be one of the core functions irrespective of limited research funds at institutional levels. In most of these institutions research and publishing are among criteria for staff promotion.

However, access to journal information before PERI has often been problematic. In most of the institutions surveyed, subscription to printed journals has stopped completely or reduced to only key titles in the recent years. As a result of this there is a total dependence on **electronic journals and databases** that are made available through PERI. Researchers observed that the convenience of getting access to journals from their offices via the internet and being able to search huge resources in matter of minutes on any research area is a factor that has motivated them to use electronic resources in general.

Additionally, researchers reported that because of this access they can easily identify areas for further research. This ability to access a wide range of information which is up-to-date is emphasised by researchers as a major strength of PERI resources and electronic journals in general. Furthermore, in disciplines such as medicine, Cochrane Library (which is subject specific) was heavily used.

It was also reported in the country visits and stakeholder meetings that access to PERI resources has enabled researchers to complete their work in time (whether it is research reports, journal articles, dissertations or theses). Supervisors have reported that electronic resources are being cited increasingly in many theses and dissertations submitted by graduate students. Researchers observed that the use of electronic resources has contributed to improving the quality of research output. This use has also led to the increased number of quality publications per research project. In some cases the use of PERI resources and

services generally has led to increased levels of interaction between librarians and users especially in smaller, subject-based libraries like those in medical schools.

Additionally, in institutions where technological changes are taking place in teaching and provision of services, a conducive environment and opportunity for the use of PERI-enabled access to resources is created. E-degree programmes using online teaching platforms and the automation of library services are examples of changes taking place that have made it possible for users to easily get into using PERI resources and services. This has been more effective where these technological changes are taking place within the broader institutional strategic framework and not as a one time project.

Most African countries participating in the PERI have journals that are listed on **AJOL** because they feel it is essential that research output from Africa is known to the entire world. This exposure and visibility created by AJOL has a positive impact on research in Africa. Participation in AJOL is also argued to increase networking between scholars in Africa relating to issues of research interest. The amount of requested photocopies and subscription to printed journals from AJOL has been on the rise and thus meeting real information needs. Inclusion on AJOL increases global visibility of African-published journals and will attract researchers from elsewhere to publish in these journals and thus increase quality and regularity of these journals (one questionnaire respondent stated that exposure via AJOL had led to an increase from two to three issues a year for their journal).

The **training and travelling workshops for ICT skills** component is the second most used service in the programme. The reasons for this success are: first, training priority areas were identified and agreed upon by all the participating countries and INASP at the beginning of the programme. The identified training areas thus addressed real training needs in the implementation of a new technology. Currently each country submits its own more nation-specific specific training needs. Second, the training methodology and the travelling workshop approach are being heralded as success stories in building local ICT capacities. Third, materials used in training were developed by INASP and are easy to follow according to most stakeholders and can be easily customised to meet specific local needs.

Summary of findings relating to the review objectives

Progress towards PERI goals and objectives

There have been significant successes in progress towards PERI's goals, with researchers downloading thousands of articles from scholarly journals, clear appreciation and use of the AJOL service, development and implementation of over 60 training modules in over 20 countries and marked improvement in the editing and publishing of locally produced journals.

However, although PERI resources and services are being used in many circumstances and places, the use of the resources and services varied widely, between and within countries and even within individual institutions and departments.

In many cases resources and services are under-utilised and action needs to be taken to ensure that the goal set out in the programme's log frame of "improved research and teaching in developing countries that contributes to poverty eradication" is achieved in the most timely and effective manner.

Factors which are impacting on progress include issues around content, infrastructure, attitudes, marketing and registration.

Lessons Learnt

Content: researchers reported a degree of information overload and, given that many of them are not well trained in searching electronic resources effectively, they find using PERI resources is a challenge. Second, discipline-specific resources to meet specialised information needs are few and far between in PERI resources. Some disciplines such as linguistics are reported to be not well covered. Other researchers noted that adequate information is not available in PERI on local research topics. One researcher said: "When I was doing my Masters on small scale dairy farming, resources in PERI provided

information on small-scale dairy farming in USA, Europe etc. It was a problem to get information on East Africa or on Africa at all". A researcher observed that he could not find much information in Cyber Law in PERI resources. Third, researchers expressed the view that core and renowned journals in some disciplines are not available in PERI and that a large percentage seem to have abstracts but no full-text.

Infrastructure: in a large number of institutions researchers are often unable to download information from PERI resources because of unstable IT infrastructure (inadequate bandwidth, slow connectivity; limited number of computers). Policy makers in some of the institutions visited explain away this problem in this manner: "In previous years you would spend, three, four, five hours looking for an article in the library. Now we complain about waiting for five minutes".

It is worth noting that institutions are taking initiatives to solve these infrastructural limitations through a variety of ways although significant variations exist among institutions in the level of investments made on ICT. The problem of infrastructure also includes limited access to PCs by students. Huge differences exist among institutions in terms of access to PCs. In some institutions all staff have PCs in their offices while in others they have to share. For example, in one institution we visited there was only one computer in the library that is connected to the internet dedicated to end users, and some institutions are yet to be connected to the internet or with very low bandwidth. However, some institutions reported clearly that access to resources via PERI has stimulated improvements in infrastructure.

A comment with regards to infrastructure by the questionnaire respondents was "Though we are very happy with PERI resources, PERI's abilities to satisfy our users' needs are mainly hampered by inadequate ICT resources in our institution. There is a critical shortage of computers in our institution. Internet connectivity is very poor and extremely slow. Consequently, PERI resources are grossly under-utilised". Another felt that "PERI should consider helping our institution with improving access to the Internet and establishment of an Internet facility for end-users in our Library. Currently, there only five PCs providing access to Internet to 6 000 students and over 500 researchers".

Attitudes: 'technophobia' and traditional thinking are also seen as major challenges to the effective use of PERI resources, resulting in many researchers and graduate students still relying on printed journals and books which are not current. As a consequence of this, researchers in some study areas were only exerting limited demands for the use of PERI resources and services. In institutions that are not fully fledged research institutions, where teaching is the core function, the culture of research (among individuals and institutions) and research programmes is underdeveloped.

There were cases of library staff that have been trained but have never used the resources or have not organised local training for staff and end users, in which case the skills have not cascaded down to the intended levels. It was also reported that the status and professional training of library staff had a profound effect on how effectively PERI could be implemented and used.

Marketing: in many cases PERI resources are not promoted at all and thus not well known, or marketing strategies are not effective. On the one hand, during one of the stakeholders meeting one participant observed "I have only heard of PERI yesterday". On the other, there were cases where the library has circulated to all academic staff the list of PERI resources and how to access them yet still academic staff were not aware of these resources. "Persistent ignorance on PERI" appears to be widespread (although clearly awareness does not always translate to use). Major marketing tools used are library websites; brochures; newsletters; word of mouth, posting information in the mail boxes, e-mails etc.

Registration: several stakeholders stated that they had had difficulties with the registration process with one saying "somehow it is not very clear what needs to be done in order to access information". Also, many researchers found that access through passwords is confusing as one can easily forget the passwords and interfaces are not user-friendly in some cases. However, it was also felt that passwords provided an advantage as they could be used from any internet connection and suggestions were made to promote PERI awareness in public libraries in order to increase availability.

Strengthening access to journals from developing countries: participation in JOLs depends on the regularity of journal publishing within the countries. This service is not utilised equally among the participating countries. There is a dominance of journals from some countries due to underlying differences in journal publishing.

Training and travelling workshops in ICT skills: first, training of end-users—especially teaching staff—is difficult because they feel that they have little time for this. Second, it was reported that because of the technical nature of the web authoring workshop, time was not adequate and as a result knowledge and skills for web page design and content development were not acquired by some participants. However, one could argue that the challenge is for libraries participating in the training to send someone who has appropriate qualifications, interest and ability to cascade skills gained to colleagues and end-users. In certain situations individual library staff have been to more than two training workshops yet they have done little or nothing to undertake training in their libraries. Third, the current training programme under PERI is not specialised and thus does not capture the training needs of users in specific sectors such as forestry, marine, architecture, etc. Most library users have not been trained formally in effective searching of PERI resources.

It was also stated that there was a need for ‘sustained’ training programme, increased or improved ‘training of trainers’ and that training need to be synchronised with other developments such as availability of adequate hardware and bandwidth in order to be fully effective.

Training for journal editors and publishers: one of the reasons that this component has not been as effective as it might could be because the workshops were conducted at regional rather than national levels. There also appears to be confusion as to who should initiate the request for training. Is it INASP or countries?

So, to answer the review question: are PERI services and resources used, and if so how and why? We can see that although there is widespread demand for and use of PERI resources and services with the users of PERI services and resources reporting many benefits including: wide and up-to-date information; convenience of use; opportunities for networking; increasing visibility of local research outputs, etc. However, they have not yet been adequately utilised with differences between the PERI components, institutions and individuals within institutions. Major challenges include: connectivity and infrastructure limitations; limited training and marketing (especially of the resources).

Also, use is difficult to understand because monitoring of the use of resources at local level is inadequate and consequently what is reported as limited or heavy use is not based on recorded data of usage but simply opinions, attitudes and individual researcher’s re-call of use.

Priorities and directions for the next phase of PERI

The following actions are suggested to enhance the use of PERI products and services:

- investigate in depth the reasons for low use;
- encourage and elicit support from policy makers within the country and institution so as to influence and support the use of resources and services;
- substantial promotion and awareness raising of activities, involving all stakeholders—policy makers, senior faculty staff, editors, researchers and lecturers—encouraging proactive approach and supporting via training in marketing and promotion;
- work to minimise the impact of poor infrastructure, e.g., by encouraging optimum utilisation of the existing bandwidth, influencing infrastructure decisions in country, negotiating with publishers for CD-ROM subscriptions or requesting publishers to grant permission for institutions to download resources on local servers;
- ensure that recurring minor technical (‘last click’) problems such as changes in IP addresses and difficulties with passwords, do not prevent access to resources;
- monitor training outcomes more closely and encourage and support follow-on, cascading training after initial workshops;
- build on existing local publishing/information dissemination and involve all countries in journal editor/publisher training;
- enhance needs assessment, monitoring, evaluation and impact assessment to give insights into the use and continued relevance of the services offered and to identify

emerging new needs. This could be supported by: sponsoring small ‘research’ on user needs and information service delivery; designing instruments to measure impact of the usage of PERI resources and services; training in monitoring and evaluation; the provision of better statistics by publishers.

Management

What questions were considered?

The question addressed in this section is whether PERI is being managed and structured in an effective way. This includes management within INASP, management within countries and the interaction between the two.

What did the review team find?

Feedback during the review indicates that the way in which PERI is managed in-country varies. Some countries have organised the coordination by subject area or with, for example, individual librarians assigned duties as co-ordinators for specific regions. In others all university librarians have formed a committee to manage the programme or the programme is managed via a wider consortium, and in some cases an individual takes responsibility for the whole programme. Some countries do not have an administrative structure at all as they only participate via, for example, a presence on AJOL, whilst in others the programme is led by the government.

However, the clear consensus of opinion throughout the review was that a team approach generally provides the most satisfactory way of managing activities. The benefits were seen to include:

- greater ownership;
- less burden on one individual/institution;
- inclusion of a range of viewpoint/types of institutions;
- less risk of loss of activity if one person leaves post;
- better preparation for collective efforts towards sustainability;
- easier to cover the sometimes vast geographical areas involved;
- more peer-support in-country;
- more effective feedback of needs, etc.

The disadvantages were:

- potential problems of poor communication;
- difficulties of arranging meetings for dispersed, busy groups of people.

For example, PERI in Ghana is structured along a team approach. There is a national coordinator and sub-coordinator, but no coordinating library. Under the sub-coordinators are six zonal co-coordinators who are responsible for a particular geographical region. There are two levels of meetings: one for the librarians (meet twice a year) and one for zonal coordinators (quarterly). Zonal coordinators visit institutions within their zones to oversee PERI activities.

In Ghana, the budget for these activities has been provided by INASP and the libraries in the institutions which also provide additional support (e.g., the librarian of Cape Coast University provides fuel for the library vehicle to enable the zonal coordinator to travel around). Generally, it was reported that the zonal coordinators spent a significant amount of time visiting areas but that, as the librarians in these areas become more conversant with PERI, the need to travel to these satellite areas has decreased. It was felt that this model of management of PERI in the country enables sharing of information at different levels of operation and is probably effective in this context.

One questionnaire respondent gave the following description of an ‘ideal’ coordination system:

“The ‘ideal’ system to coordinate such activities, in my opinion, are:

- a) Establish a country PERI Committee whose membership should be drawn from the key institutions of higher learning

- b) This PERI Committee should be drawn from the Library Consortium and should be a subcommittee
- c) PERI Committee must have well defined objectives and responsibilities
- d) A memorandum of understanding must be signed by heads of institutions of learning
- e) Member institutions should make adequate budgetary allocations to e-journal subscriptions
- f) An institution with resources, both human and technological, and in a position to provide professional guidance. The institution that closely works with the consortium.”

One key aspect identified by stakeholders during the review was the need for the coordinating teams who manage the programme to be representative, including people from, e.g., differing

- communities: librarians, researchers, editors, publishers, IT staff, policy makers, etc;
- geographical regions;
- types of institution.

and for these teams to have an appropriate and, crucially, national mandate.

Increasingly, the choice of e-resources that a country will purchase through PERI is made by a group of institutions that help to finance the purchase. Where institutes ‘receive’ access to a set of resources selected by others, there are bound to be issues of relevance when ‘their’ preferences are not included. It is important that representative mechanisms are devised by which participating institutions take ownership for their resources and help guide decisions so that the choices made are as relevant as possible to a country’s needs.

This collaborative purchase of resources also raises an issue that need to be discussed by all stakeholders, namely how to balance the conflicting interests of country-wide access for all with the necessarily more exclusive access requirement of a group who decide to purchase collaboratively. PERI currently negotiates for national licenses which allow anyone in an eligible institutions (generally any not-for-profit organisation) to access the resources. This provides the widest possible access to information (providing of course that people have the necessary infrastructure and skills).

However, even at the deeply discounted rates negotiated through PERI, very few institutions could afford to purchase these resources on their own and so, as they become in a position to contribute the costs, many institutions are joining together to purchase collectively (often through consortia). In order for people to join and contribute to these consortia they need to be able to see advantages of being ‘in’ rather than ‘out’. If all resources are available to everyone anyway, potential members might understandably ask why they should contribute. This aspect of PERI needs to be managed in such a way as to support moves towards collaborative purchase as one of the steps on the route to sustainability.

Another challenge which came across clearly during the review is the process of spreading and rooting PERI activities across an entire country. Where the programme is managed and championed by one key institution alone there is bound to be a difficulty in finding the time, funds and support for coordinators to involve other institutions. People are caught between the national remit of a country coordinator and their institutional responsibilities.

Attendance at a workshop is not usually enough on its own to empower a local champion to be able to transform his or her institutional situation. There needs to be more support in areas like change management, to help support people to introduce new ways of working. There may also be a case for other innovative ways and more political-level awareness raising, perhaps with the end users, in order to complement the usual technical skills training that potential institutional (library) champions receive as part of the spread of PERI. This challenge could also be tackled by managing via representative teams who, crucially, have a national level remit and by ensuring that PERI activities fit within the institutional or national strategy so that services are an integral part of the coordinators work rather than being an additional burden.

Coordinators also often have demands made on them from many sources, often working on several projects and required to report separately for each. This points to a need for coordination between the various funders/programmes in the field in order to ensure that management and implementation is effective with complementarity rather than overlapping or leaving neglected activities.

With regards to **management of PERI within INASP**, INASP itself has eight full time staff, six part time staff and one 50% FTE consultant. Of these, five full-time staff work almost exclusively on PERI, with five others working part time on the programme.

Internally, PERI is managed by activity with one or two staff having core responsibility for each of the main activities: delivering information, training, disseminating national research and strengthening publishing. The other activities—in country collaboration and research and development—are implemented in an ad hoc way by, for example, certain members of staff taking responsibility for ‘overseeing’ particular countries.

During the review, there were discussions amongst stakeholders about the component structure of PERI, with recognition that not all components of the programme would be relevant to all institutions. Whilst those stakeholders who had been involved in all components of the programme saw a clear and logical link between them, people who had only used e-resource or training activities were less clear of the links between these activities and those around disseminating national research and strengthening publishing. Although the need for these two distinct activities was clearly expressed during the initial design of the programme, in practice it seems that even those who had taken part in these two activities were unclear of the distinction between the two and some expressed the view that these areas of activity could be usefully managed as one.

Clearly, one of the significant limiting factors of PERI’s activities is the capacity of the INASP staff—in terms of time and skills. After the pilot (which was managed by one member of staff for six countries) PERI has grown from an ‘internal’ staff of four people who managed six countries to a staff of five full-time/five part-time who manage 20 countries involved in all PERI activities and a further 22 taking part in at least one of PERI’s components, with a network of around 50 country coordinators. Clearly, this represents a very significant increase in work load.

One crucial area is the need for a clear strategy on how PERI will be managed and implemented. Issues such as taking on ‘new’ countries, whether to work in more depth in those countries that are already involved, and when and how countries move towards and locally led, sustainable information use for the enhancement of research capacity would all need to be clearly articulated within such a strategy.

In terms of **financial management**, there is a sense of lack of clarity (and some belief that there is deliberate secrecy) over how PERI finances work. Stakeholders are not clear how the programme is funded, what funds are available to them in-country, and when external funding will be phased out. Early agreements between INASP and countries were not well documented and, despite efforts made in 2004 to streamline documentation and processes, there seems to be continued lack of clarity and confusion over contracts or ‘memoranda of understanding’ between INASP and the countries.

Although the review found that there is a need for better explanations from INASP to stakeholders regarding funding, some of the lack of clarity may be a consequence of the way in which the programme is financially supported. These include:

- some programme funders provide **financial support for specific countries** only. Although this reflects the current priorities of the funding organisation, it reduces INASP’s ability to respond to need and leads to a few countries receiving a disproportionate amount of attention. In some cases, single institutions receive substantial support from three separate funders.
- **Release of payments in arrears**—in some cases up to 50% of the programme grant—causes difficulties in managing cash flow and planning within PERI. This has at times been exacerbated by countries taking up to two years to pay invoices (at times leaving over £400,000 outstanding).
- Much of the funding for PERI comes from development agencies who are themselves supported by governments. These agencies therefore are bound by the **political priorities and changes** within their country (which has led in one case to an overnight loss of 25% of one agreed support grant).

Finally in this section, the **relationship between PERI staff and country coordinators**. This was reported by coordinators to be generally “good and cordial” with note made of the benefits of having named staff responsible for particular components or aspects of the programme. However, this is clearly an area where colleagues might be reticent to provide critical feedback and PERI staff should try to find ways of soliciting further feedback or carrying out critical analysis internally.

One area for improvement that did arise was the need for ‘operational’ communication between INASP staff and coordinators, for example, several coordinators commented that they did not have knowledge of which institutes in their country had registered as this information went directly from the institute to the publishers via INASP.

Overall, management of the programme was seen as having a ‘flexible, and transparent’ approach and as being adaptable and ‘responsive’.

Summary of findings relating to the review objectives

Progress towards PERI goals and objectives

The current management structure has allowed PERI to develop significantly over the first three years and led to a great deal of activity in the countries involved (as shown in the log frame and appendices). However, it is not at all surprising that we will have learnt a lot during these initial stages of the programme that will enable us to improve management for the coming phase.

Lessons learnt

The question addressed in this section is whether PERI is being managed and structured in an effective way and as with other sections the answer is that there are, naturally, ways in which the management of the programme could further develop in the light of experience over the last three years and changing circumstances for the programme. As a Director of Postgraduate Research said during one of the stakeholder meetings: “Services emerged out of a genuine need, that need is there and it is being met. That must be made clear. But you have made a problem for yourselves by creating more demand.”

The key lessons that have emerged from the last three years of experience are:

- representative coordinating teams seem to be the most effective and favoured form of in-country management;
- buy-in’ from senior management/policy makers in the countries enhances effectiveness;
- coordinators often have commitments/demands from several projects/funders (e.g. reporting);
- getting national level awareness of PERI is a difficult but necessary task;
- currently most PERI activities and the people running them are embedded in the library community; wider participation, especially of end-users, could enhance wider buy-in and sustainability;
- growth and development of the programme is currently limited by the capacity of INASP staff to undertake management and implementation;
- clear strategies about how/where PERI works could enhance effectiveness;
- clear documentation of how/where PERI works could enhance effectiveness;
- programme activity and country coordination structures need to adapt over time (e.g. to take account of moves towards collaborative purchase);
- non-prescriptive, flexible and responsive management approaches are appreciated by programme participants.

Priorities and directions for the next phase of PERI

The following actions are suggested to enhance the management of PERI

- develop and share clear criteria/strategy for PERI including, e.g., how new countries begin participation in the programme, key objectives for the programme;
- improve coordination between funders and agencies with similar programmes (e.g. eIFL, AGORA, SIST, HINARI) to minimise duplication of effort and make full use of similar and existing regional/national initiatives;

- investigate ways of overcoming the limitation on activities caused by internal INASP capacity (e.g. via increasing the efficiency of working practices, increasing the number of staff, or partnerships and collaborations with ‘sister’ organisations);
- strengthen the link between PERI activities and national and institutional research strategies;
- encourage in-country management by coordinating teams (rather than individuals) and work to ensure these teams have the appropriate mandate from stakeholders and are representative: geographically, type of institution, roles (management, librarians, researchers, editors, IT staff, finance officers) etc;
- improve and simplify all documentation e.g. processes within INASP/PERI, contracts, MOUs, financial arrangements;
- develop guidance and share experience on the coordinating teams role and ‘case studies’ about the various approaches to country coordination;
- work with partners to get ownership/buy-in from managers/policy makers in country as early in the programme as possible;
- develop a “business plan” with each participating country setting out milestones, log frame, standards of practice, moves toward sustainability, etc;
- encourage and support regular in-country meetings of stakeholders to guide management of the programme;
- improve follow-up on all aspects of PERI (e.g. evaluation of training impact after 6 months, whether institutions have registered and if not why not, etc);
- merge components on disseminating national research and strengthening publishing;
- maintain the flexible, responsive, adaptable, transparent approach to management;
- investigate if/how PERI can work effectively in non-Anglophone countries;
- ensure effective communication is maintained—in all directions—between INASP, country coordinators, institutional coordinators, local library staff and users.

Sharing

What questions were considered?

Clearly a great deal has been learnt about the process, implementation and day-to-day use of PERI in the last three years and we were interested in finding to what extent this learning was being shared with other stakeholders. Therefore, the question addressed in this part of the review was: are experiences and lessons being shared and learned?

Responses to this were found through all the various data collection tools mentioned previously, with additional input from two stakeholder meetings of librarians, publishers and representatives from programmes similar to PERI. These roundtables were held in Ghana and London and specifically considered the various journal access programmes that existed and ways in which they could be better coordinated. An infobrief focusing on the outcomes of these meetings will be published by INASP in 2005.

What did the review team find?

Stakeholders reported many different ways in which they interacted and exchanged ideas including:

- **PERI Country Coordinator email list:** the list is moderated by INASP and reaches the key coordinators for each country. Although it is possible for discussions to take place on the list, in reality it mainly consists of information being sent from INASP to coordinators. Stakeholders felt that although it was useful for this function, there was also room for a wider discussion forum. If this were to be encouraged, people felt that it might be necessary to have two lists, one for administrative information that was specifically of interest and use to coordinators, and one for a wider group of all those involved in implementing PERI activities. However, it was also recognised that active and useful email lists are not easily achieved and that people already had an overload of information. Stakeholder meetings in some countries also suggested that they should set up internal email lists for those working on PERI in their country.
- **Annual country coordinators meeting:** INASP has managed such a meeting for the last three years (in Oxford 2002, Ghana 2003, Oxford 2004) with coordinators from all PERI countries. Coordinators reported that they found the meetings useful, for

providing feedback to INASP regarding the programme, for catching up with administrative work directly with INASP colleagues, and for exchanging ideas with fellow coordinators.

- **Personal emails:** several stakeholders said that they exchange ideas and problem solve via personal emails to each other, having made initial contact at coordinators meetings or during PERI-enabled workshops.
- **Cascading workshops:** these were reported as being very helpful in the exchange of ideas and experience. Not only did participants come from different institutions within the country, but the methodology of the workshops meant that people who facilitated the workshops had an opportunity for sharing ideas and directly experiencing the programme in two other countries.
- **Meeting for other similar initiatives** (e.g. eIFL congress, IFLA, SCANUL-ECS): as mentioned in earlier sections, many of the PERI coordinators are also involved in other similar initiatives. Although this can result in a large workload it also means that people are able to meet in several different fora, rather than just those specifically focused on PERI activities
- **Sensitisation visits** (promotion and demonstration) to selected institutions by members of the coordinating institution. Those who had a team structure for country coordination reported that they had useful exchanges during visits to outlying institutions, etc.
- **Meetings of professional associations:** stakeholders reported that they also met each other during meetings of associations, etc, that were not directly aimed at PERI activities.

On the benefits of such exchanges one person said “I attended the editors workshop on e-publishing. I learnt and shared of others experiences and challenges. This has been useful in helping me address some of the issues that come my way in the journal. I have also built my network of colleagues in the same profession through the fora and interactions provided by PERI.”

One questionnaire respondent commented “Through the interactions we have reduced duplication of efforts since we are now aware of what each other is involved in, and we have better information products and services, enhanced through recognition of each others comparative advantage.”.

On the other hand, some coordinators reported having no interaction with others and it was recognised that there were a great many missed opportunities, with very little day-to-day interaction or learning and under-use of potentially helpful resources such as the email list.

It is also notable that all the interactions mentioned during feedback are via relatively informal exchange of ideas, etc, with no systematic collection, documenting or sharing of ideas and experience and that most of the sharing is between country coordinators, with little mention of journal editors or publishers, researchers, policy makers, or other stakeholders in the programme.

Overall, feedback suggests that—although it can involve extra work—a more systematic sharing of experiences would be a valuable and worthwhile practice because of the similarities in the challenges people are facing and the range of solutions and best practice that are being found. Suggestions for achieving this include peer visits (for example between newly participating and more PERI-experienced countries), support for writing of case studies and improvement of the Country Coordinator email group, maybe using time-limited thematic discussions or handing moderation to country coordinators.

With regards to who should take responsibility for ensuring effective sharing of ideas, stakeholders suggested: a group of those involved in the training activities; the coordinating institution, supported by INASP; co-coordinators and the University Librarians of the various institutions; all the partners within an agreed framework to standardise output and defined terms of references; the coordinator to play the lead role; a consortium; involve all librarians; “the person who has something to say”.

Finally, outcomes of the two roundtables of library staff, organisations supporting access to journals and publishers included two specific recommendation regarding the sharing of information. Firstly, it was felt that this roundtable provided a unique and useful forum for

discussion between programme providers, library staff and publishers and should be established as an annual event, probably based around an existing meeting that interested parties would already be attending (e.g. IFLA). They also felt that it would be useful to have a single portal containing information about all of the programmes and publishers involved in supporting access to academic information in developing and transitional countries.

Summary of findings relating to review objectives

Progress towards PERI goals and objectives

Although sharing of experiences and ideas isn't one of the key objectives of PERI, it would seem to be an effective way of maximising the benefits of the project and indeed will be a missed opportunity if it is not undertaken.

One of the basics of sharing is of course effective communication and previous sections have already touched upon ways in which this could be improved in the coming years. In this section we will focus on the systematic sharing of ideas and lesson learning that could arise from it.

Lessons learnt

The question posed in this section of the review was 'are experiences and lessons being shared and learnt?'. Feedback indicates that this is happening but in a mostly informal, unsystematic way and that this could be improved by implementing some processes and activities to support it. The key lessons emerging are:

- sharing ideas and experience is seen as a valuable tool for problem solving and learning, and could improve effectiveness of the programme;
- some tools for supporting the interchange of ideas and experience exist including:
 - the coordinators mail list
 - the annual coordinators meeting
 - personal contacts and informal meetings
 - meetings of related/similar initiatives and professional associations;
- travelling workshops provide an 'added value' in terms of peer-to-peer exchange of views and experience and help to build personal and virtual networks among the countries;
- a more systematic approach to capturing knowledge and experience would be beneficial;
- peer-to-peer exchange is a valued and valuable tool;
- lessons could usefully be learned from the experience of *all* the different stakeholders in PERI;
- email lists, case studies and other methods of exchanging ideas require resources (time, money, equipment, willingness).

Priorities and directions for the next phase

The following actions are suggested to ensure that lessons learned are shared by the PERI community:

- include the sharing of ideas within the remit of core PERI activities;
- investigate the feasibility of peer exchange visits, e.g., between new and existing 'PERI countries';
- enable documentation, sharing and archiving of case studies, best practice, etc;
- investigate if/how email lists could support effective sharing;
- support and encourage effective communication between all PERI stakeholders;
- take an active part in the organisation of the next meeting of the programme provider/librarian/publisher;
- support and enable development of a portal providing information about information access opportunities for developing and transitional countries.

Sustainability

What questions were considered?

The issue of sustainability cannot be down played in the PERI. In a review like this, one needs to find out the extent to which the activities initiated or supported by PERI will continue effectively without external support. PERI is run along the belief that external support, rather than being perpetual assistance, is useful to get projects started. After that governments and institutions should organise themselves to take over and run activities effectively.

Sustainability does not involve only funds. Trained personnel, appropriate infrastructure and equipment are also needed to ensure a continuous smooth running of services.

The team set out to ask a main question: are the activities currently supported by PERI becoming or likely to become sustainable?

Other sub-questions were: how do you intend sustaining PERI? Do you have any problems threatening self sustainability? What measures should be put in place to ensure self sustainability?

What did the review team find?

It is necessary to note here that most of the responses received on and discussions around sustainability were related to access to electronic resources which is the most visible component of PERI, followed by ICT training. Making local research available and support to journal editors were not given the same attention by all stakeholders.

The consensus was that dependence on external support for indefinite sustainability was not ideal and that the activities currently supported via PERI must be integrated into the learning and research processes of the country. National and institutional policies must be geared towards self-sustainability of the programme.

From all indications—meetings, discussions, answers to questionnaire—there seems to be a strong will by countries to contribute personnel and funds to sustain these activities. There is the desire to form country consortia for cost sharing, advocacy, lobbying, fund raising, training and to carry out research. The need to link with similar initiatives to maximise access to resources and eliminate duplications was also seen and efforts are planned to formalise these links.

The table below illustrates the relative level of funding in 2004 between external agencies and in-country remittance. It shows that the proportion of in-country contribution has now reached 41% for the 'Delivering Information' component and 25% of costs on ICT training. This builds on the 2003 figures and in 2005 there is a projection approaching a 50:50 ratio between external funds available through INASP and in-country funds remitted to INASP. This is considerably above expectations at this stage in the project. Although it should be noted that much of the in-country contribution is from externally funded projects rather than government or institutional funding, it does indicate that there may be sufficient funded research projects within most countries to meet costs, if the activities such as those currently supported by PERI are prioritised.

Almost all the institutions suggested that they are willing to sustain PERI activities but that they were often not in a position to do so financially on an individual institution basis, but in a cooperative venture.

Clearly, funding is a major ingredient in sustaining PERI. Suggestions have been made for increased awareness and publicity in-country as this is likely to increase usage. Measures will have to be introduced to monitor usage as this will help to demonstrate the value of PERI. Policy makers will (hopefully) then be convinced by the statistics as well as positive feedback from end users that the activities supported by PERI add value and deserve priority, with regular and long-term funding.

Funders allocation and in-country remittance (year end 2004)

Period	Funder	Specifics	Total Received	Total Allocated	C1	C2	C3	C4	C5	C6	C7	C8
2003 Income c/f			96,383	-97,533	50,501	67,128	13,283	14,505	17,700	18,638	12,161	
2004 Expense			1,363,366	587,338	105,408	181,829	30,303	69,342	53,258	15,203	320,685	
2004 Net Position			1,266,983	684,871	54,907	114,701	17,020	54,837	35,558	-3,435	308,524	
	DFID	INASP	421,021	421,021	229,023		25,000			33,742		133,256
	NORAD	INASP	120,273	120,273	15,000	42,905	40,000					22,368
	RDMFA	INASP	37,280	37,280		5,000		4,000		7,500		20,780
		B Faso	2,000	2,000						2,000		
		Nepal	45,000	45,000	20,000		25,000					
		Nicaragua	2,000	2,000						2,000		
		Vietnam	52,500	52,500	25,000		20,000			7,500		
	RDMFA	Multi Lat	72,715	72,715			72,715					
	Sida	INASP	244,295	244,295		47,905		30,000	69,550			96,840
		Bolivia	67,959	67,959	43,810		15,031			7,468	1,650	
	Countries	Country	733,792	733,792	642,481	1,614	55,572	965	19,452	3,000	4,774	5,934
		Sri Lanka	80,386	80,386	80,386							
Total 2004 Income			1,879,221	1,055,700	97,424	253,318	34,965	89,002	63,210	6,424	279,178	

The main issues for sustainability are as follows:

- lack of awareness of in-country sources of funds to sustain subscriptions to electronic resources and for regular training;
- some lack of equipment and infrastructure for internet access;
- the need for the resources available and selected to be of high quality and meet the known information needs of users;
- inadequate awareness of the resources available and their usefulness compromises usage and ultimately end-user support for these activities;
- lack of in-country capacity to negotiate licences with publishers is an emerging issue for a future in which countries negotiate directly with publishers;
- poor integration of activities that are currently supported via PERI into national and institutional activities reduces their perceived relevance and value and thus recognition as deserving support;
- institutional and government commitment is essential to validate activities and mobilise the necessary funds;
- the library 'base' for most PERI supported activities is a potential weakness given the lowly status and low priority often given to libraries in some places.

Summary of finding relating to the review objectives

Progress towards PERI goals and objectives

As the table above shows, although it is early days for PERI, some countries within the programme have made significant steps towards sustaining their access to international research sources and training activities. This currently is mainly in the form of collective purchase, with consortia being formed as a direct result of the drive to maintain access to resources currently enabled via PERI. However, as mentioned above, access to resources is just one part of the activity necessary for enhancing research information and there is still a long way to go before any of the countries becomes fully self sustaining.

Lessons learnt

The following lessons were learnt:

- it is important that sustainability is defined in terms of the local situations and what it is that local stakeholders want—and can—sustain;
- many institutions are currently ill prepared to take over the funding of activities from external sources as most cannot easily identify or introduce budgets for it;
- in many cases institutions do feel they have enough trained personnel to support certain aspects of the programme;
- good quality local research is necessary as proof of usefulness of available resources and to support funding requests;
- there are very few statistics or monitoring and evaluation available, to establish value of PERI which can be used as justification for funding.

Priorities for the next phase of PERI

The following actions are suggested to ensure the sustainability of activities supported by PERI:

- ensure that countries and institutions 'own' PERI by having a 'road map' and setting deadlines for activities towards self- sustainability and actually meeting such deadlines;
- integrate information services provision into the wider strategic plans and policies of the country/institution;
- set up consortia or similar collaborative efforts to share the costs of PERI-supported activities and to lobby government and authorities, carry out research and develop personnel;
- strengthen country capacities to develop a pool of local fund raisers, negotiators, advocates and trainers to sustain PERI-supported activities;
- encourage governments and institutions to budget for PERI activities, including potential funding from faculty/departmental funded projects or sector-wide investments;
- promote more transparent and open pricing discussions between publishers, consortia and INASP;
- encourage negotiations at both national and regional levels;

- address issues of archiving and long-term access;
- gather statistics and monitor use to support requests for funding;
- forge links with related initiatives for coherence and elimination of duplication, to ensure sustainability;
- amend PERI's current country-wide access policy to accommodate consortia paid access models;
- involve the research and scientific communities more strongly in the design and assessment of PERI activities to ensure that they also take ownership and become a strong voice for them.

Performance monitoring and impact assessment

The goal of PERI as expressed in the Log Frame is “Improved research and teaching in developing countries that contributes to poverty eradication”. Although the majority of stakeholders reported that PERI had contributed positively to research and academic activities in their institutions, very few of them provided any definitive evidence of this. A fairly typical response (from one of the questionnaire respondents) was “PERI resources included some of the core journal titles wanted by our users. We, however, have not documented this. But it is indisputable that without any current journal subscriptions, PERI has been providing a much needed service.”

If we are to be able to eventually understand the *impact* of PERI we need to know where we started from (what the needs were) and then monitor progress. Clearly, as well as hindering service development in the libraries and institutions concerned, without such assessments being in place it will be extremely difficult to evaluate progress or assess if and how programmes such as PERI are having an impact. Lack of such understanding will also hinder abilities to signal and track new and emerging needs.

During the review, the team did not come across any formal examples of user needs assessment, although one can assume that the librarians who have a major role in PERI in the countries are each tapping into and are responding to the needs of their own various user groups. It seems to be relatively rare for senior researchers or academics to actually visit libraries and thus to interact with the librarians. Such dialogues between librarians and end users seem to be less frequent than perhaps would be needed and dialogues among editors of journals, for example, seemed to be almost non-existent and actually much demanded. On the positive side, however, the country coordinators and teams seemed able to mobilise senior policy interest in these activities and the end users were very positive about the dialogues and stakeholder meetings that were organised. They showed much interest in these issues and suggests that there is much potential if it can be mobilised.

Other positive developments were the various one-off studies and surveys that have been conducted in some countries—these could be encouraged and replicated elsewhere, perhaps involving library school researchers and students and so encouraging local enquiry into these issues.

In terms of monitoring, many of the stakeholders mentioned the need for better statistics from the publishers but, whilst these would indeed be helpful, there is a risk of them being seen as the only necessary form of monitoring. Clearly, there is a need for better assessment than this with qualitative as well as quantitative data and for an understanding of more than just how many times an article has been downloaded or a journal accessed.

Questions of *quality* of use also need to be addressed. A large number of search hits may just demonstrate ineffective searching whilst the sole article downloaded from one journal in a year may have been crucial for a research project. We need to develop an understanding of if and how interventions such as PERI have actually ‘enhanced research’—not just in terms of articles downloaded, numbers trained or local journals online, but in terms of enabling improvement in research in a country and ultimately on poverty reduction.

The programme's log frame, with verifiable indicators for 2002–2004 is given below.

Narrative Summary	Verifiable Indicators	2002	2003	2004
Goal: Improved research and teaching in developing countries that contributes to poverty eradication				
Purpose: Researchers in developing countries get access to up-to-date scholarly information (IN) and the results of their research is more widely used (OUT)	"IN": 5000 journals referred to and articles accessed "OUT": 250 Tables of Contents/Abstracts journals available online, and subscriptions taken			
Access to journal articles online or by e-delivery	"IN" Monthly average target of 30,000 pages accessed		14,430 ²	31,230 ¹
Developing country journal Tables of Contents, abstracts online, and full-text available online or by e-delivery	"OUT" 250 Tables of Contents/Abstracts journals available online			
	250 subscriptions			
Negotiate country-wide online access licences to over 5000 journals with CD ROM	Each accessed an average of at least 3 x a year from developing countries ³	10,680	12,779	14,629
Provide email (and/or postal) document delivery	1000 copies		2837	1693
Place 250 developing country journals Table of Contents and Abstracts on the Internet	250 developing country journals on Internet	150	178	217
	Average 30,000 journal pages accessed per month			
Provide email or postal document delivery, with proceeds remitted to journal	250 copies made, and amount remitted	216	518	1749
Assist developing country journals to put full-text online	50 journals over 5 years			
Training for university librarians on using internet	300 university librarians trained	471	368	311
	5 workshops held subsequently in each country ⁴	9	5	17
Workshops for journal editors and managers	50 journals involved		70	

It can be seen that even so early in the project many of these indicators have been exceeded and some are not possible to monitor so that, as discussed above, we may need to think of better ways of 'measuring' PERI.

Indicators that were suggested during the review included increases in:

- demand for and usage of library services (e.g. reference enquiries, document delivery, training) from students, lecturers and researchers;

² this is the number of *articles* accessed, not the number of pages as suggested by the log frame.

³ INASP gathers statistics on a country-wide basis. Some publishers, e.g. EBSCO do compile reports on the usage of each journal, but, for INASP to be able to provide statistics on the use of each journal, we would need to add together the separate usage reports of all the countries for each journal. This would be a substantial task, given that we receive statistics for 20 countries and there are potentially over 15000 journals in the programme. It is information that is of greater interest to the institution (who can gather their own statistics) than to INASP, and is not information we plan to gather or hold

⁴ the number given is for those follow-on workshops for which INASP has provided support. Many others are run by facilitators trained during INASP enabled workshops and using INASP materials but using in-country funds. INASP is not systematically notified of these as there is no reason why organisers should do so

- quality of locally published journals (demonstrated by acceptance to AJOL/another service);
- number of articles published by developing/transitional country authors in international journals;
- number of articles submitted to local journals;
- number of successful research funding proposals;
- ability of library to satisfy user demands for specific articles;
- allocation of funds to research board;
- quality and use of up-to-date information in theses, report, funding proposals, etc;
- number of PhDs/reports/dissertations completed on time.

Priorities for the next phase of PERI

Overall, it is clear that current needs assessment, monitoring and evaluation is not sufficient to give a true picture of the use or impact of PERI. This is a significant gap in the programme with very little monitoring or evaluation information and data of any sort being collected at the 'front end' in the countries.

The data that INASP has is partial and provides quantitative data on numbers of journals, searches, trainees, workshops, article downloads, documents delivered, etc. It does not begin to systematically demonstrate and answer many questions of impact, especially the impact on the capacities of research workers.

There are very positive and useful examples where colleagues in some countries have conducted surveys and other user assessments and it would be valuable to further encourage and perhaps support these as part of a wider strategy to build a pool of lessons and evidence concerning the uses and usefulness of the activities being supported through PERI.

A particular opportunity may be to look more closely at the various aims and objectives that research and science managers set for themselves as performance and impact indicators and to work with them to devise 'research' indicators as opposed to 'information' indicators.

The following actions are suggested to address performance indicators and issues of impact:

- as a matter of urgency, constitute a multi-stakeholder team from the wider PERI community to formulate appropriate indicators and measurement tools;
- encourage and support country efforts to measure usage and uses of PERI-supported activities. As part of this, disseminate existing studies and their methodologies so that such 'research' can begin.

Conclusions and recommendations

PERI was created in response to demand from researchers. The review has shown that the activities it supports continue to meet the needs of its stakeholders and that a great deal of progress has been made since its inception. By 2004 PERI had enabled: over 700,000 article downloads by users in over 500 institutions in developing and transitional countries; the contents of over 200 African-published journals to be available to researchers across the world; over 1000 people to enhance their ICT skills to support their use of electronic information; and representatives from over 100 journals published in developing countries to strengthen their skills. It has also supported significant country collaboration and networking and undertaken research projects which have shed light on the challenges and new needs of its stakeholders.

However, as well as documenting progress, the review set out to learn from our experiences and so has generated recommendations for improving management and implementation during PERI's next phase. These recommendations fall broadly into five categories and are described in more detail below.

Effectively situating PERI within its wider community

One of the key areas identified for action during the review process was that of situating the programme more effectively in its wider environment. It seems that in order to ensure maximum impact of the activities that are undertaken we will need to focus more resources on what could be broadly called ‘networking’. It is recommended that PERI strengthens links with:

Policy makers: working to ensure ‘buy-in’ from policy makers would strengthen the link between PERI activities and national and institutional research strategies, encourage governments and institutions to budget for PERI activities (including potential funding from faculty/departmental funded projects or sector-wide investments) and provide influence and support in areas such as resource allocation and promotion of services.

Sister organisations: better collaboration and cooperation between PERI and similar initiatives would reduce duplication of effort, provide support for areas in which PERI is unable to meet demand, and enable full use of similar and existing regional/national initiatives.

End users: as well as strengthening links with the users with which the programme is currently most active (in universities and libraries), it would be useful to consider if/how PERI should be engaging people who might use research information but are not university-based or do not use libraries, or are not researchers or scholars in the traditional sense.

It is recommended that PERI aims to support the following networking opportunities:

- country coordination by teams which are representative of the various stakeholder groups;
- regular in-country meetings of stakeholders that would help to guide management of the programme;
- a portal providing information about information access opportunities for developing and transitional countries;
- peer exchange visits, e.g., between new and existing ‘PERI countries’, allowing coordinators to learn from their colleagues and help the programme to be implemented more effectively.
- meetings between publishers, library staff, researcher and development agencies encouraging a better understanding of the varying perspectives of programme stakeholders issues and providing a forum for problem solving;

Improving programme documentation

Many of the difficulties reported during the review could be resolved by the relatively simple step of providing clearer description of and guidance on how the programme works. This would clarify the scope and focus of PERI so that end users and promoters know exactly what is available to them and how to exploit it. It is therefore recommended that the following steps are taken:

- improve and simplify all existing documentation including descriptions of processes within INASP/PERI, contracts, MOUs, financial arrangements;
- develop and share a strategy for PERI including, e.g., how new countries begin participation in the programme, key objectives for the programme;
- develop guidance and share experience on the coordinating teams role, including ‘case studies’ about the various approaches to country coordination;
- develop a ‘road map’ with each participating country setting out milestones, log frame, standards of practice, moves toward self-sustainability, etc;
- include the sharing and archiving of case studies, best practice, ideas, etc, within the remit of core PERI activities.

Increasing use of PERI services and resources

Another key finding in the review is that although there are areas of significant use of PERI activities and resources, there are also many ways in which this uptake could be increased. Achieving this relies on two crucial factors. Firstly, we need to understand the reasons for low use of resources or services in order to effectively address them. Secondly, we need to review INASP staff capacity. The current staff of the PERI programme are working to

capacity and do not have the resources to take on work in new countries or new programme areas. If the uptake of programme activities is to expand in both existing and in new countries, this issue needs to be addressed. Possible solutions lie in increasing the efficiency of working practices, increasing the number of staff, or finding other sister organisations which are in a position to meet additional requests for support. It is therefore recommended that the following key actions are undertaken:

- investigate the reasons for lack of use of resources and services in more depth, in order to better understand how to overcome it;
- review options for managing staff capacity within INASP.

In the meantime, the review indicated some factors which have an impact on use and it is recommended that they are addressed by:

- supporting promotion and awareness raising of activities, involving all stakeholders—policy makers, senior faculty staff, editors, researchers and lecturers—encouraging a proactive approach by ‘infomediaries’;
- minimising the impact of poor infrastructure by, e.g., encouraging optimum utilisation of the existing bandwidth, influencing infrastructure decisions in country, negotiating with publishers for CD-ROM subscriptions or requesting publishers to grant permission for institutions to download resources on local servers;
- ensuring that recurring minor technical (‘last click’) problems such as changes in IP addresses and difficulties with passwords, do not prevent access to resources;
- building on existing local publishing/information dissemination and involve all countries in journal editor/publisher training through ‘national’ efforts, if possible adopting a training method that also build pools of trainers;
- investigating new ways of managing and implementing the programme which would allow PERI to work effectively in non-Anglophone countries;
- investigating whether supporting a subject-focused approach would meet more needs and improve use.

Improving understanding of if and how the programme is working

The need to enhance needs assessment, monitoring, evaluation and impact assessment, in order to gain insights into the use and effectiveness of the services offered and to identify emerging new needs was clearly demonstrated during the review process and the following actions are recommended:

- constitute a multi-stakeholder team from the wider PERI community to formulate appropriate indicators and measurement tools;
- encourage and support country efforts to measure usage and uses of PERI-supported activities. As part of this, disseminate existing studies and their methodologies so that such ‘research’ can begin.

Supporting progress towards sustainability

PERI is intended to provide initial support for countries to enhance research information, with the objective of the activities eventually becoming locally led and sustainable. In order to achieve this it is recommended that it:

- involve the research and scientific communities more strongly in the design and assessment of PERI activities to ensure that they also take ownership and become a strong voice for them.
- strengthens country capacities to develop a pool of local fund raisers, negotiators, advocates and trainers;
- promotes more transparent and open pricing discussions between publishers, consortia and INASP;
- amends PERI’s current country-wide access policy to accommodate consortia paid access models;

Actions arising from the review

Clearly, a review such as this is just a first step and INASP will now share the review report with the programme’s stakeholders and consult with them in order to prioritise the recommendations. INASP and the country coordinating teams will then consider how these prioritised recommendations can best be addressed and will generate an action plan—including allocated responsibility for actions and implementation milestones—with the aim of maximising impact of the programme during its next phase.

Annexes

The following materials are published in a separate volume of annexes:

Review Terms of Reference: terms of reference developed by stakeholders and finalised by the review team

Questionnaire: sent to PERI ‘promoters’

Questionnaire responses: excel sheets with the collated responses to the questionnaire

Stakeholder meetings: reports from Ethiopia, Kenya, Zambia, Zimbabwe and Malawi

Lesson Learning Workshop: report from the learning workshop held in Oxford in November 2004

Roundtable outcomes from the Ghana and London roundtables: document outlining the recommendations made as a result of roundtable discussions between library staff, publishers and programme providers.

Usage statistics: excel sheets with statistical summaries of PERI activities

List of the 20 full and 22 single-component countries