SKAT's Documentation-Information-Communication Activities

Evaluation Report

August 1995

SKAT Ref: F9314-EVALUATION-EB

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

The evaluation of SKAT's Documentation-Information-Communication activities comes at a time of great opportunity for SKAT. SDC will be demanding greater accountability than in the past but SKAT is well placed to respond to these and other external pressures.

1 Nature, Extent and Cost

Over the past decade, SKAT staff have undertaken a wide variety of Documentation-Information-Communication activities, from writing detailed specifications to chairing network discussions. The common theme has been technology, usually of an "*appropriate*" nature.

In the last few years, SKAT has moved away from consulting in the field of general appropriate technology. Instead, SKAT has deepened its technical and managerial knowledge base in discrete technologies. It is now one of the world's leading development agencies in its fields of expertise.

The cost of SKAT's Documentation-Information-Communication activities (SFr 440,000 during 1994), whilst high, must be judged against the benefits that have accrued. During the last year, SKAT published 15 technical books - a good achievement for such a small team. The documentation service acquired just over 320 new titles, maintained some 6,200 books and assisted with the preparation of answers to some 400 written technical enquiries. The SKAT Bookshop sold SFr 110,000 worth of books.

We found it difficult to assess the real cost of SKAT's Documentation-Information-Communication activities at the individual or functional level. For instance, SKAT does not track the inputs required to produce each book. Similarly, it does not track the time spent answering each technical enquiry. This is an issue that SKAT should address.

2 Impact

We conclude that the impact of SKAT's Documentation-Information-Communication activities has been positive. SKAT's publications have built a solid reputation in the market. Its technical enquiry service has provided valuable support to the South (particularly the BASIN activities) and the documentation centre offers a professional library service.

The SKAT Bookshop activities could be marketed in a more assertive manner. But the customer is treated well and the books themselves have had a good impact in the field.

We must point out that we have used casual logic to come to these conclusions. There was insufficient time to undertake detailed market research as part of the evaluation and little existing data to assess. However,

the data that does exist is consistent. It points to SKAT achieving a reasonable return from the funds invested in it by the SDC.

With so few firm figures against which to validate our observations, much is taken for granted. We would encourage SKAT to collect monitoring information on a regular basis so that it can be used to judge the validity of our comments. It will provide SDC with meaningful statistics against which to evaluate the services provided.

SKAT's documentation services are under-utilised by SDC and the SKAT member organisations. However, this is a function of the clients' changed needs, rather than a failure of service by SKAT. The documentation centre provides a good internal service to SKAT and it is highly valued by SKAT employees.

In the creation of a continuous information exchange on an international level (the basic long term goal), SKAT has been successful both at a project and programme level. The BASIN and Hydronet networks provide good examples of SKAT's successful information dissemination through topical groups. Much of the detailed technical work is now being carried out in the South.

SKAT has been less successful in the creation of a continuous information exchange outside these topical networks. We believe this failure is due in part to SKAT's reliance on out-dated forms of communication, 'closed' networks and inadequate information systems. It is also due to a lack of basic marketing of its core Documentation-Information-Communication activities. SKAT's Bookshop, for instance, would benefit from the development of a marketing strategy. The skills exist within SKAT to undertake this task but it has not been accorded sufficient priority.

The world is moving towards an environment where on-line information services will be the norm, rather than the exception. SKAT already recognises the improvements in service levels that could be achieved by publishing its documents, and facilitating a wider information exchange, on a global network. We make a strong recommendation that SKAT pursues this route as one of the ways it can overcome traditional information dissemination problems.

3 Information Server Concept

Working with SKAT staff we have developed a 5-10 year "*information server*" concept. This envisages the creation of an information partnership between SKAT's Documentation-Information-Communication staff, technical professionals and the wider development community - in Switzerland, the rest of the North and the South. Working within this partnership, and assisted by external specialists, SKAT's staff will create an information management strategy to provide SKAT with a defined, yet flexible plan of operation for the next few years.

SKAT must move to a position where its information systems will no longer merely provide the tools to manipulate data for the provision of information products, they will *become* the information products.

The information server will provide substantial gains for SKAT, its partners, and the SDC. Selected information will be accessible by all, regardless of physical location, time zone and computer set-up. The information server will allow SKAT to cut several months from the production cycle-time of its information products and services. It will provide information that is readily accessible, focused and dynamic. In time, many of the information server services can be automated.

4 Potential Markets, Methods of Work and Technologies

We believe that SKAT has developed a strong niche market presence in the not-for-profit sector as a specialist provider of technical information that is of high quality, meets the needs of the users and makes a significant impact in terms of the importance of the problems solved.

We recommend that SKAT strengthens its position in the fields in which it has developed specialisms; that it deepens its involvement. We suggest that SKAT provides clear and strong signals to the market that it is a serious processor and disseminator of publicly-funded information. We believe that SKAT should reinforce the message that it intends to remain the leading technical publisher in its field.

We anticipate that SKAT can become one of the best agencies in the world turning development experience into useable information and facilitating the acquisition of knowledge on a world-wide basis.

To do so, SKAT must take advantage of new forms of communication and information exchange. It should develop generic capabilities in the field of information exchange that are attractive not only in the dissemination of technical information, but have applications in a wide range of dissemination activities.

SKAT must start planning its own Internet presence. All the core Documentation-Information-Communication services it currently provides can be presented in on-line form - often at lower cost and with better service levels than SKAT can currently offer.

SKAT's staff need to improve their understanding of information systems in the broadest sense. SKAT must strengthen its skills base commit itself as an organisation to the creation of the information partnership identified above.

As the number of SKAT technical publications increases, so too does the need for consistency and the potential for efficiency gains within the publishing process. We recommend that SKAT purchases desktop publishing software that has been designed to produce long, complex technical documents and manage them throughout their life-cycle.

We also recommend that SKAT starts to publish all long life-cycle documents to SGML, an international standard that ensures platform independence and allows documents to be published with minimal further work either to paper, CD-ROM or the Internet.

In order to maintain effective control over electronic information, SKAT must invest in electronic document (object) management software. This is an essential supporting system that will ensure the integrity of SKAT's electronic information.

5 Improving Output and Cost Effectiveness

We recognise that SKAT has been in a high growth phase for the last few years. We observe a tendency towards an "*achievement at any cost*" corporate culture. We propose that the management team needs to set aside sufficient time to plan, review and learn at the corporate, rather than project and programme level. This time will be well spent.

Documentation-Information-Communication output can be improved as follows:

- SKAT can ensure managers make more explicit the responsibilities of their staff, particularly those employed on non-project activities.
- SKAT can encourage staff to take up the headroom made available to them as the organisation grows.
- SKAT can train staff in new tools and techniques for information management and dissemination.
- SKAT can plan and organised its activities in more effective ways.
- SKAT can make increased use of modern office automation tools.
- SKAT can eliminate the root causes of process failures.

Greater cost effectiveness of Documentation-Information-Communication activities can be achieved as follows:

- SKAT can rationalise its Bookshop operation.
- SKAT can improve the marketing of its published information.
- SKAT can seek new ways and means of disseminating its information.
- SKAT can put in place better forms of internal communication.
- SKAT can eliminate desktop publishing bottleneck problems.
- SKAT can support its activities with better information systems.

The main recommendation we make about operational efficiency is that SKAT should define and document its major operational processes and manage them in accordance with agreed procedures. We welcome SKAT's decision to implement an ISO9001-compliant quality management system. We propose that SKAT will benefit markedly from this investment.

6 Goals and Targets

At the highest level, we recommend that SKAT formulates a mission for its Documentation-Information-Communication activities. We suggest that "*the world's leading technical information provider for sustainable development*" could be an appropriate starting point for the creation of a mission statement.

We propose a series of long-term goals. We believe that SKAT should aim:

- To become a leading facilitator of information exchange in its defined subject areas.
- To take a lead in the application of new means of information exchange and to propagate their use in appropriate circumstances.
- To embrace communication techniques that both broaden and deepen the flows of information.
- To become expert in the processes of knowledge acquisition, information processing, document creation and information dissemination.
- To overcome the barriers to information exchange that currently exist.

By achieving these goals SKAT will be able to:

- Gain a leading role in the dissemination of technical information for sustainable development world-wide.
- Develop a sustainable competitive advantage in the field of information management.
- Assist the SDC, its partners and other development organisations to benefit from the skills it has acquired.
- Turn the knowledge it gains in this field into a new opportunity for consulting and project activity.

Moving to the plan of operations, we recognise that SKAT is short of specialised information management skills. We recommend that SKAT accepts, as a corporate goal, the early acquisition of those skills - through the appointment of an experienced information management specialist and a series of training courses for existing staff.

We have developed an initial costing on a three year programme of work to implement and manage a SKAT information server. We estimate one-off costs of SFr 222,000 and annual running costs of SFr 179,000. We believe that the benefits of the SKAT information server will outweigh these figures by some considerable margin.

SKAT should continue to shift its project and consulting activities away from the delivery of discrete technology transfer projects in-country towards the facilitation of global, information-intensive networks. SKAT's long-term future does not lie as a manager of information dissemination *projects*. Its cost base precludes it competing at this level. Rather, SKAT should aim to become a leading facilitator of information dissemination *processes*.

1 INTRODUCTION

This document is the final report of an evaluation of SKAT's Documentation-Information-Communication activities undertaken in July and August 1995.

1.1 Background

SKAT, the Swiss Centre for Development Co-operation in Technology and Management, is an information and documentation centre and a consultancy group engaged in promoting and implementing technological solutions for developing countries world-wide.

SKAT is engaged in the following activities:

- Documentation and information.
- Consulting services and project assistance.
- Publishing.
- Technical enquiry service.
- Mail order bookshop operations.

In addition to general technical questions, SKAT provides in-depth and comprehensive consulting services and project assistance in its main fields of activities:

- Construction and Building materials (especially roofing materials).
- Energy (especially hydropower).
- Handpumps.
- Water and Sanitation.
- Evaluation, backstopping, managerial organisational and institutional issues related to the above subjects.

The evaluation of SKAT's Documentation-Information-Communication activities was proposed in response to a desire by the Swiss Development Co-operation (SDC) to formulate clearly defined performance contracts ("*Leistungsaufträge*") in the future.

1.2 Evaluation Objectives

In addition to a review of past performance, the evaluation places emphasis on technical and conceptual support as well as utilisation of new technologies for communication and information dissemination.

More specifically, the evaluation:

- Analyses the nature, extent and cost of the work that has been undertaken by the Documentation-Information-Communication department since 1982.
- Assesses the impact of that work, or the impact that can reasonably be expected, in terms of utilisation of these services through the SDC and the SKAT member organisations and, internationally, through the networking activities and (the basic long term goal) the creation of a continuous information exchange on an international level.
- Initiates a process in which SKAT will conceive a Documentation-Information-Communication concept for the next 5-10 years.
- Identifies the potential markets, methods of work and technologies which are the most conducive to effective Documentation-Information-Communication work.
- Suggests steps likely to improve the output and cost-effectiveness of Documentation-Information-Communication.
- Formulates tangible goals and targets for Documentation-Information-Communication.

The full terms of reference for the evaluation are given in Appendix 1.

1.3 Evaluation Activities

The evaluation was carried out in three phases:

- A fact finding phase (03 - 07 July 1995).
- An intermediate phase (10 July - 04 August 1995).
- A concept planning phase (07 - 11 August 1995).

Details of the evaluation activities are given in Appendix 2.

1.4 Evaluation Team

A team of three people undertook the evaluation:

- Silvia Ndiaye, SKAT's documentalist.
- Michel Piguet, a documentation and information specialist from Trialog AG, Zurich, Switzerland.
- Greg Wishart, a management consultant from Ashton Court Consultants Ltd, Northampton, the United Kingdom.

2 THE EVALUATION IN CONTEXT

The evaluation comes at a time of rapid change for SKAT. SKAT's relationship with SDC has to be redefined for the next period, its role within the development field is changing and rapid advances in information systems and communications technologies are opening up new opportunities for information dissemination world wide.

2.1 Changes in Swiss Development Policy

The total Swiss budget for development aid is frozen. By joining the World Bank, the SDC share for multinational co-operation rises from 27% to 34% of the total budget.[1]

2.1.1 Overall Policies

The Swiss government has approved a new "*North-South policy paper*" which tries to formulate a coherent political attitude towards third world countries. SDC is asked to act more as a policy maker than a project realising agency. This reinforces the tendency to shift from external expert-based projects to policy-based activities where implementation is carried out by country-based organisations or under the auspices of multilateral agencies.

SDC has made clear statements that it will not grow any further. Therefore, to meet its goals, it is expected to rely even more on project organising and facilitating organisations. A quest for a higher degree of specialisation is also underway.

SDC is a slow, but steady mover. New issues emerge, but at a pace that agencies like SKAT can prepare for. For example, gender issues are taken more seriously now than in the past, similarly environmental issues. The SDC policy states that it should not accept projects where these questions are not considered.

2.1.2 Documentation Policies

SDC has adopted a documentation policy that outsources technical documentation services to Swiss organisations. For the co-ordination of these outside services it created an internal steering group ("*groupe de pilotage*"). Its work on policies is in progress. The main issue is currently the development of indicators for comparing the outcome of information services. Other issues are the models for fee-based services.

SDC has started to build up external documentation centres for different subjects ("*Fachdokumentationsstellen*"). Five centres exist already, others will follow. SDC has only recently put these centres in a tighter context of information and documentation service organisations for better co-ordination. SKAT is regarded now as one of them. SDC can place these centres in a form of competition if it so wishes.

2.2 Changes in SKAT's Mandates

In the past, SKAT's mandates from SDC have been loose in terms of their requirements, especially for subject delimitation, user fees, services quality and measurable outcomes. Under pressure from within and externally, SDC has adopted a new policy in mandating external organisations. This will result in tighter requirements that will have an impact on SKAT.

2.2.1 SDC's Existing Mandate

The biggest share of SKAT's income comes from SDC through a mandate that defines the tasks to be undertaken by SKAT on behalf of SDC. The last funding was given on a two year basis (1994/95)*. It contained three parts (per year):

SFr 255,000	Financial input to SKAT's basic infrastructure; including management, administration and maintaining and updating the computing system (funded up to 60%)
SFr 440,000	Mandate for documentation, bookshop, publications and information dissemination (funded 100%)
SFr 405,000	Technical mandates (funded up to 55%)

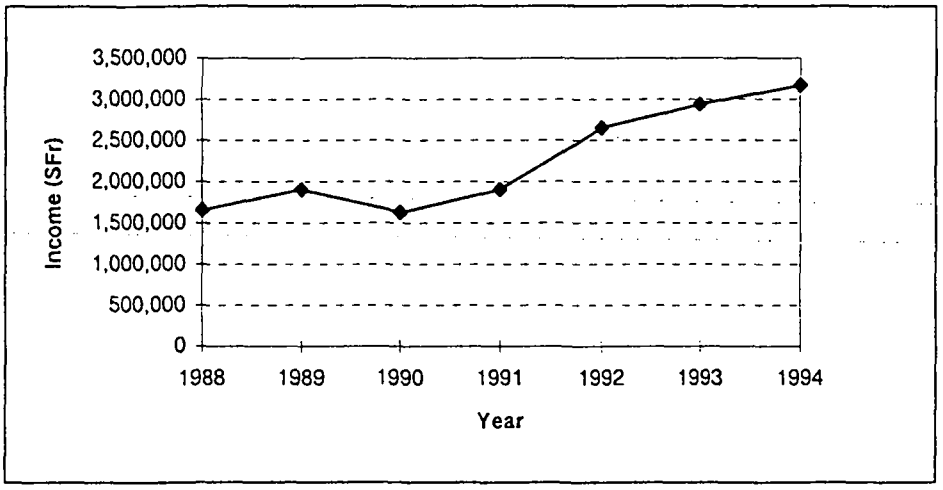
The mandate was mainly formulated by SKAT itself. SDC has endorsed the mandate and the funding stipulates a partial funding in the range of 55% to 100%.

* The 1994/95 mandate was the only mandate available to the evaluation team.

2.2.2 *SKAT's Reliance on SDC*

SKAT started it's activities in 1979 as part of the Institute for Latin-American Research and for Development Co-operation (ILE) of the University of St. Gallen. It became independent in 1990.

Figure 2.1
SKAT Income (1988-94)



Under strong leadership, SKAT has evolved rapidly in the last few years. The total budget has grown from SFr 257,000 in 1979 to more than twelve times this amount in 1994. There are now 22 people on the staff.

From its beginnings, SKAT has been only partly funded by SDC. In 1994, 53% of its income was received from SDC directly. Other single mandates have been financed directly by individual contractors and other development agencies.

Over the years, SKAT has begun to reduce its dependence on SDC. However, SDC mandates form a core part of SKAT's funding and some of the activities SKAT undertakes must be funded by SDC for their continuation. This is because these activities form a service to the third world and other development organisations that is not economic for SKAT to run without SDC assistance.

2.2.3 *SDC's New Mandates*

The mandates of the past have been rather loose in their construction. Often they have not adequately defined the measurable outcomes of the activities being funded. SDC has indicated a desire to tighten up the mandates with SKAT, place more emphasis on deliverables and assign more accountability for defined outcomes. We perceive that this trend will continue.

This has implications on the way SKAT plans and implements the work it carries out on behalf of the SDC and reports on its outcomes. It will demand of SKAT a more business-like approach and transparent recording and reporting. We project a greater need for project planning and identification of defined information flows.

2.3 Changes in SKAT's Goals

One of the strengths emphasised by SKAT is the close link between information gathering and dissemination and the experience gained from consultancy and other project activities such as workshops, seminars and training programmes.

2.3.1 SKAT's Raison D'être

SKAT has no explicit mission statement. Taken from the SKAT brochure, "*SKAT means Networking*"; or as suggested in the Annual Report, SKAT places emphasis on the facilitation of an exchange of information world-wide.

In all its documentation SKAT presents itself as a facilitator of information flows: documentor, communicator, experience organiser, trainer, etc. The concept of providing an open exchange centre for development information runs deep.

2.3.2 SKAT's Main Activities

SKAT's main activities are described as follows:*

- Gathering information (working it out, gaining a competent overview of the state of the art, observing the professional field for problems, and identifying new trends and working to gain experience).
- Assessing new technologies, preparing and developing research and implementation projects.
- Responding to enquiries and helping visitors.
- Answering written technical enquiries.
- Providing a clearing house function for professional contacts and literature.
- Maintaining a documentation service.

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* Taken from the SDC mandate 1994/95.

- Contributing in professional groups and networks, participating and co-ordinating working experience within professional groups and between single persons.
- Maintaining contacts with industry.
- Undertaking public relations (authoring publications and speeches).

These activities have remained at the core of SKAT's operation for many years.

2.3.3 SKAT's Target Groups

There are clearly two different target groups perceived by SKAT. The first is the final addressee of SKAT's activities. The other group is important for funding and therefore for mandate negotiation. Here SDC is the primary target, followed by GTZ and others.

2.3.4 SKAT's New Directions

SKAT has as one of its objectives to stay at the forefront of development activities. Therefore, whilst many of its primary goals have remained constant over the years, SKAT recognises the need for change. In the most recent annual report the following observations are made:

- There is still no overall model for development; therefore we have to learn from others.
- There is a great need to plan for the inclusion of all humanity into the emerging information society.
- Partnership offers a more sustainable method of development learning and management than Parentship.
- The breaking up of the barriers and deconstruction of the image of the "*enemy*" brings new chances for development.
- There is a need for continuity in development co-operation for sustainability to be achieved.

In 1988 SKAT believed that it could cope with changes better than others.[2] Out of the 1988 evaluation, user-centred services, concentration on main technical points, professionality of the work, and flexibility of development work were raised as main issues. SKAT staff believe that they responded well to the changing needs at that time. They have a similar belief today.

2.4 Changes in SKAT's Market

SKAT's market is undergoing continuous change. The change is driven by factors within the development field and by issues operating on a broader, global scale.

2.4.1 The Issue of Sustainability

At the time of SKAT's origination, the development market was influenced by the following attitudes:

- Sell foreign technology (make them dependent).
- Initiate large, complex projects.
- Staff development projects with foreign experts.

A strong contra-development movement arose in the North, using the view that alternative (low-cost) technology (AT) would be a better answer for third world countries. Although concepts of sustainability were raised at this point, the practical application of AT was not successful. Failure was largely attributable to a product, rather than systems or process, orientation by the main protagonists of AT.

> ***"Give a man a fish and you are helping him a little but for a very short while; teach him the art of fishing, and he can help himself all his life"***
>
> [E F Schumacher]

Failure of AT to deliver on its promise has seen the rise of a more balanced view; that development (in both the North and the South) needs to be undertaken under sustainable conditions. The need for sustainable development is now an accepted fact. The application of technology has become very much a systems approach, rather than a technology-led approach.

2.4.2 From General to Specific Information

In its earliest days, SKAT provided information of a general nature. Now, the need for general information is not so important as provision of high quality specialised technical information. SKAT has shifted with this move in market requirements.

The role of technical experts has also changed. High quality specialists are necessary to provide the information required of technical development projects, rather than the AT generalists of yesterday.

2.4.3 *The Growth of International Networks*

North-North communications is still increasing (including intra-European Union co-operation). A greater part of the world's development funds are distributed through the international agencies.

In the past institutional co-operation *('to know each other')* was most important, because there was no co-ordination between NGOs and few organisations with a high profile. Now there are less AT organisations and their work is highly specific and technical. Partnerships - driven by a number of factors including the growth in funding sources that require cross-border co-operation - have flourished.

The greater internationalisation implies a reinforced presence on the world market of technical and managerial consultancy. Simple 'how-to' handbooks have been replaced by documents that take account of complex technical problems and their context.

North-South communications are increasing in importance, as are South-South transfers of knowledge. There is a greater need for communication between experts. Through the increase of short term missions the communication remains limited to expert exchange. Communication remains restricted to specific areas of knowledge and lack of communication with the basic population.

SKAT plays an important role as a network constructor and facilitator in topical networks that don't work institutionally, but work on the resolution of problems at a subject level.

2.4.4 *Emergence of A Global Economy*

There has always been a global economy. However, now more than ever before, a country or region cannot fail to recognise the importance of integration into the global economy.

For many years third world countries could trade on the fact that one of the world powers would assist them when the other refused. For the last decade, this opportunity has been reduced, thereby ensuring that very few countries can support unsuccessful economic policies with development aid. Hence the realisation of a global economy and the benefits it brings.

In recent years one of the most important development aims has become the integration of the third world into the emerging information society. This is seen as a major issue. Without integration into the information society, countries cannot become successful in the global economy.

2.4.5 Towards Management of Technology

Whilst it started as a disseminator of technical information, SKAT has been repositioning itself as a facilitator in the management of technology. An example of this is its growing facilitation of North-North and North-South networks.

Management of technology demands shifts in emphases:

- From inventing new models to learning from the models that exist.
- From R&D based activities to product and process development.
- From 'expert' consultancy to 'process' consultancy.

2.4.6 Emergence of Urban Issues

Over recent years urban issues in the third world have begun to gain in significance. Large-scale migration from rural areas to cities has made imperative appropriate solutions to urban problems. SKAT has begun to play a role in helping to solve urban development issues.

3 DOCUMENTATION-INFORMATION-COMMUNICATION

The changing form of documentation, rapidly improving methods of communication and rising value of information make SKAT's Documentation-Information-Communication activities of critical importance.

3.1 The Increasing Value of Information

3.1.1 The Information Age

Information has long been recognised as a factor in the creation of wealth. However, it is gaining an increasingly significant role in the facilitation of economic development. Certainly inputs such as land, capital and labour will retain some weight, but in today's world, information is becoming the key to growth and competitiveness - so much so that many commentators are labelling this as the 'Information Age'.

> ***"The information society is upon us now, and concrete actions must be taken to take advantage of it and, in so doing, to drive economic growth and technological change...."***
>
> [Neil Deighton, Research Director, Gartner Group]

Information is increasingly being sold, leased or used for competitive advantage. In some organisations it is being viewed as a critical asset, of more importance than brands, patents, reputation, buildings and even people. Whilst there is a growing recognition of the value of information, few organisations treat it as a genuine asset. Few have information policies, add information to the balance sheet or insure information.[3]

Table 3.1
The Shifting Focus of Information

From	*To*
ñ Access to capital	ñ Access to information
ñ More information	ñ Focused information
ñ Static information	ñ Dynamic information
ñ Automation and support	ñ Integration and co-ordination
ñ Focus on new technology	ñ Focus on new applications of technology

3.1.2 Data-Information-Knowledge

In order to understand the significance of information to SKAT, it is important to recognise the difference between data and information. It is also helpful to review the role played by information in the acquisition of knowledge.

Data has been defined as "*unorganised facts, statistics, and predictions concerning people, objects, events and ideas*".[4] Most organisations, and SKAT is no exception, have more data than they can use. In SKAT's case, this data takes the form of contact data, survey results, project records, visit reports, etc. However, data must be organised for it to become useful information; without structure and management, data cannot be used for successful decision-making.

Information is data that has been organised and processed. Information allows the user to make intelligent decisions. Data, on the other hand, often confuses decision making, rather than enlightening it. Information can be used to increase knowledge, data cannot.

Knowledge is acquired from information. It is the fuel of modern economic development. Organisations, and increasingly whole countries, receive their added value from the knowledge and creativity they put into their products and services.

> ***"Real knowledge is knowing the extent of one's ignorance"***
>
> [Confucius]

The next phase of technology has been identified as one focused on helping human thinking.[5] Organisations need business intelligence to get at hidden, though meaningful, information.[6] The quality and availability of data at the disposal an organisation will determine its *opportunities* for success; its systems for translating data into meaningful information will determine its *potential* for success; and its methods of converting this information into knowledge will determine the *extent* of its success.

3.1.3 Attributes of Useful Information

Not all information is appropriate, or useful. The attributes of useful information are presented in Table 3.2.

SKAT may find it difficult to meet these rigorous requirements. However, the attribute list provides a very useful framework against which to evaluate SKAT's performance. Accordingly, it has been used throughout this report to assess SKAT's performance and to make recommendations for improvement.

Table 3.2
Attributes of Useful Information

Attribute	*Understanding*
Accessible	Information can be obtained easily and quickly
Timely	Information is available when needed
Relevant	Managers need the information to make a particular decision
Accurate	Information is error-free
Verifiable	Information is confirmed
Complete	All details needed are available.
Clear	Information is stated in such a way that no facts are misunderstood.

3.1.4 The Role of Information Technology

The industrial age was driven by fundamental technological improvements in mechanical propulsion technologies and materials science. Likewise, the information age is being driven by advances in and a merger between computer and communication technologies.

However, access to the technology itself is fast disappearing as a source of competitive advantage. Merely owning computers or communications devices will not ensure satisfactory information flows. The potential for information technology (IT) to transform business lies in its capacity to connect people within and outside organisations and to facilitate the transfer. Yet, according to Jane Bird, writing in Management Today, few organisations make the most of their now readily accessible pools of information.[7]

Fewer people communicate adequately outside their own organisation. In the past technical limitations restricted the exchange to verbal or paper-based methods. However, this situation is changing. In 1993, the average company spent 85% of its IT budget on automating internally, 15% or less on connecting to customers or business partners. By the year 2000, communications outside organisations are expected to account for 60% of IT expenditure.

IT is allowing organisations to become less location-oriented; in many cases it no longer matters where the physical elements of an organisation are located. IT allows virtual corporations and team-work

to thrive. The emerging information superhighway will serve the interests not only of large corporates, but small companies as well. From the customers' viewpoint, it will not matter how many sub-contractors or business partners are involved behind the scenes. What will matter is getting individualised products and services that meet their requirements. This has important implications for SKAT and other organisations that assist in the transfer of technology and management skills to the third world.

The key to successful exploitation of IT lies in an organisation's application of the systems enabled by advances in IT. Information systems (IS) link the business needs with the enabling technologies. Interest is shifting away from the devices themselves to the applied use of computer and communication technologies that genuinely enables creative decision-making.

3.1.5 Improvements in Information Systems

In the past two decades advances in computer and telecommunications technologies have brought to the fore new forms of media for communication and the transfer of information. The modern computer interface has reached an apparent degree of maturity. It begins to have a generalised and common look and feel for interaction, has increasing graphical capabilities, and allows sound and video integration. Computers have become networked, rather than stand-alone productivity tools.

Some of the key factors for this development are:

- **Miniaturisation:** The extreme miniaturisation allows massive storage of information and the construction of cheap, powerful and reliable computer devices.
- **Lossless copying:** The electronic copy process doesn't deteriorate the original any more (dissimilar to paper or fax).
- **Telecomputing** (= computer + electronic communication): The fast or even 'immediate' transport of data around the globe allows the use of e-mail right from the desktop, globalising of information access, and building of new highly integrated communication devices.
- **Highspeed networking:** Communication lines with high bandwidth exist in urban areas all over the globe. These 'highways' provide today a cheap and reliable service.
- **Client/Server-Technology:** The modularisation of software allows flexible use of dissimilar computers. The same services can be accessed by a PC, a Macintosh or any other type of computer.

Computer applications can be distributed over different remote machines.

- **Standardisation:** Data communication is efficient through the use of open and common data formats. This is achieved by a high degree of international standardisation or by dominating industry solutions.

These technological factors revolutionise the delivery system of information products and services and radically alter the way we communicate.

3.1.6 Methods of Information Dissemination

Companies of all sizes face problems when they attempt to disseminate information, both within and outside their organisation. The methods of work and supporting technologies they choose have an important bearing on their potential for success.

There are a number of equally important functions:

- Selection
- Acquisition
- Classification
- Storage
- Retrieval
- Repackaging
- Extraction
- Dissemination
- Value-addition.

Development organisations such as SKAT have as one of their primary goals the successful dissemination of information to their third world partners. Their ways of achieving this goal differ, but they all face similar obstacles such as physical remoteness from their direct customers, cultural and language differences and limited access to, and feedback from, the ultimate recipients of the information. In commercial terms, their supply chains are both long and complex.

Given the importance of information dissemination to these organisations and the complexity of their chosen markets it is, therefore, somewhat surprising to find that in many cases, the methods of work and the systems used to support this process and manage the functions fall well short of optimal. This is because most organisations recognise 'product' rather than 'process': they define and manage individual activities and outputs rather than the information dissemination process itself.

3.2 The Changing Form of Documentation

3.2.1 The New Document

The document as we know it - a paper-based record and source of information - has not changed fundamentally for centuries. We have seen improvements in production (from hand produced to machine produced), an increase in the speed with which it can be developed (from typesetting to desktop publishing (DTP) and rapid advances in the methods of its distribution (from the posted letter to the facsimile). However, the basic concept of a document has not changed. It has traditionally been static: a memo, a book, or a photograph. Computers are now used to produce the document, but the finished paper item is still seen as the document and the computer files treated as a means of getting to the finished item.

The emerging definition is more dynamic. At least 80% of corporate electronic information is now in the form of documents, as opposed to structured database records.[8] Computer-based documentation lends itself to publication in a wide range of output formats: paper, CD-ROM, multimedia products, on-line services to name a few. In many cases, the information contained within the document need not be outputted to paper for the information to be disseminated. The new document facilitates a change in the way people work, allowing them to interchange information electronically, both within and outside their organisation. New documents can carry with them information about their origin and identity, as well as executable code that knows how to manipulate or render them on screen.

3.2.2 Management of Electronic Documents

In the past, electronic documents were typically owned by a given application and stored in a unique format. These files usually belonged to only one user and were passed from one person to another in the printed form. In simplistic terms, documents were dumb, knew little about themselves and could not interact with other objects. Today, electronic documents are no longer single files, but rather books of pointers to text objects, data objects, images and other forms of information. The rise of networking has led to an increase in shared ownership and electronic exchange of these files.

According to Andy Reinhardt, "*new documents are also multi-dimensional. In the temporal domain, their component parts can be linked back to other documents and updated with fresh content. In the spatial domain, work-flow software can automatically route documents, some with built-in intelligence, around a network and present themselves through a variety of forms. Taken together, these attributes define virtual documents, which exist only at the time you*

view them and via the lens through which you are able (or allowed) to do so."[9]

The tools available to manage these virtual documents have not kept pace with the increasingly complex requirements placed on them. As in SKAT's case, many organisations are still using the operating system to manage their electronic documents. The result is an information overload. Few people can remember where their own files are saved, even less so the files of their colleagues. Even the introduction of strict file and directory naming conventions cannot hide the fundamental flaws of electronic document management systems based on present day operating systems. Whilst the '8.3' naming convention of DOS will be replaced by a long file name in Windows 95, a full document management system is still necessary to overcome these fundamental constraints.

3.3 The Role of Communication

3.3.1 Communication Supports Knowledge Acquisition

Communication - the written and oral transmission of information for the development of common understanding - is critical to success in every field. It is crucial in SKAT's case, where the ability to help people understand detailed technical issues means the difference between success and failure.

Successful communication requires the communicator to ensure that the information being presented is correctly absorbed by the end user. Therefore, communication must be situational, that is specific to an occasion, event and/or location. The method of communicating verbally to an audience of one will differ immeasurably from the method of presenting to a large group of people. A wide range of skills are required, skills that involve the ability to:

- Assess correct media.
- Select appropriate methods.
- Introduce feedback to ensure proper acquisition of the knowledge.
- Communicate in different ways at different times to many different recipients.

3.3.2 Sharing Information Means Gaining Knowledge

Professionals have a deep-seated reluctance to share information, rather they hoard it.[10] This problem exists because professionals treat knowledge gained from information as a personal asset - it is their

career passport. They get very worried about losing their power base if they share information. This applies to sharing information within an organisation as much as it does to sharing it outside the organisation.

> ***"It's much more interesting not knowing, than to have answers that might be wrong"***
>
> [The American physicist, Professor Richard Feymann]

Development professions are not immune from this fear and for all the talk of information dissemination, many become apprehensive when asked to document their personal experiences and information. They fear a loss of control and lack of future prospects should they devolve the lessons of their past experience.

To truly meet their organisational goals, professionals in the development field must apply themselves with vigour to growing out of their job. This is a deeply worrying prospect for many people. However, it should be a challenge. Increased knowledge should bring increased opportunity, if the individual is sufficiently motivated to move onto a new sphere of activity.

3.3.3 Information Systems Support Communication

In creating systems for professionals to share information, one must first build tools that professionals themselves find attractive. Therefore, the best information sharing systems tend to develop and enhance the thinking abilities of the professionals within an organisation, they provide them with immediate operational benefits.

Improvements in IS can assist in these factors: time, costs, service quality, service differentiation, etc. IS starts to change the way an organisation communicates internally and between its partners, allowing fast interaction. Data sharing within widespread organisations becomes possible, as does immediate access to 'published' information. Information need not be replicated if all have access to it in electronic form. The technology for global technical communication is now available. It's not a question of how to use it, but how to use it for benefit.

3.3.4 Rise of the Networked Organisation

Changing communications is facilitating the rise of a new form of organisational structure that is changing the way professionals work. The networked organisation is one description; several other terms are used:

- Spider webs

- Shamrock companies
- Virtual organisations.

The networked organisation can be implemented most effectively where the work of the organisation is information-based and involves a high level of 'thinking' (repackaging). A key characteristic of 'thinking' organisations is that they will not work in isolation - they need to collaborate with others. Hence the value of advances in information systems and the development of the 'information superhighway'.

3.3.5 Development Global Networks

Several global information networks have been built up during the last decade. Among others the Internet, CompuServe, America Online, Prodigy, and IBMnet vie for dominance. They are called the 'Information Superhighway' to emphasise the analogy of the impact of the massive spread of cars during the present century.

The Internet is today by far the most populated network in the world (see Appendix 3). Connecting to the Internet is getting easier all the time; direct access was available in 90 countries in January 1995. Whilst it may take some years for Internet providers to service remote parts of the world, many of SKAT's partners are using the Internet already, or have the potential to connect to it. Others use CompuServe or will perhaps use the soon-to-be-available MicrosoftNet.

SKAT would gain numerous advantages by dealing with clients, partners and customers on electronic networks. It could:

- Reach out to a world-wide audience at a lower cost than by using the current, traditional dissemination methods.
- Automate parts of its business by processing technical enquiries and orders easily, accurately, and efficiently within minutes.
- Communicate with people or companies anywhere in the world without spending on long distance phone charges.
- Mail letters, reports, brochures, or any other type of communication to any country in the world at very low cost.

4 ORGANISATION OF DOCUMENTATION-INFORMATION-COMMUNICATION

The compilation and documentation of field experience, acquiring and appropriating management technology concepts and strategies and relaying the results to policy makers and other partners are the main tasks of SKAT in the area of information and dissemination.

4.1 SKAT's Documentation-Information-Communication Activities

SKAT's defined Documentation-Communication-Information activities are presented below. In addition to these services, SKAT provides a wide range of informal documentation, information and communications services from within projects.

4.1.1 Publications

SKAT produces manuals, project reports, working papers and a range of books on technical, economic and social aspects of development co-operation. Publishing activities concentrate on the documentation of experiences gained during the implementation of SKAT's main activities. The resulting documents include:

- Books on harnessing water power on a small-scale.
- Tools for the production of fibre and micro concrete roofing.
- Manuals on rural water supply and sanitation.
- International standard specifications for Afridev and MAYA-Yaku Handpumps.

A number of SKAT's publications are issued as co-productions and joint productions with organisations that include Intercooperation, Helvetas and SDC. This approach is designed to ensure a wide dissemination of the available information.

SKAT is a member of the network of International Development Publishers. Together with other member organisations, SKAT is actively searching for new forms of distribution for publications in the South to ensure that information is made available to local partners.

4.1.2 Documentation

The SKAT Documentation Unit contains approximately 6000 publications focusing on the main areas of SKAT activities, as well as books relating to more general aspects of development, technology

transfer and technology management. The library is supplemented by a database with information on companies, products and contact addresses of experts.

SKAT's computerised information management system facilitates information retrievable as required at any time.

The documentation facilities are an important aid for the question and answer service and for consultancies. Literature searches or lists of classified information are a standard service provided through SKAT's enquiry service.

4.1.3 Bookshop

SKAT runs a specialised bookshop, which makes available 'hard-to-get' literature to interested people world-wide from it's stock of over 350 books.

The bookshop co-ordinates the sales of SKAT publications as well as a range of pertinent publications produced in other publishing houses. SKAT co-operates with a commercial book dealer to make available a line of books related to SKAT's main activities.

4.1.4 Information

SKAT produces a quarterly newsletter, the "*SKAT Doppelpunkt*", which provides regular updates about on-going project activities as well as making recommendations on new publications. Each issue has a main article which covers an aspect of development activities in more depth.

SKAT is co-editor of some of the leading topical magazines and publications; some of which are produced in SKAT's offices. The co-production publications are:

- Hydronet
- BASIN News
- Waterlines.

SKAT is also represented regularly by its employees at international and national seminars, workshops and exhibitions.

4.1.5 Technical Enquiry Service

SKAT's Technical Enquiry Service (TES) covers technology implementation in development, co-operation in general and, in particular, SKAT's specialist areas.

This question and answer service is open to everybody - mainly from developing countries but also from developed countries - including

responding to enquiries on the utilisation of technologies from Asian, African and Latin American countries.

Enquiries not relating to any of SKAT's fields of concentrated activities are handled by a pool of external experts. This service of information collection is provided free to SKAT's partners in third world countries up to a certain amount of time to reply to each query. However, the application and adaptation of the information to local needs and conditions are the responsibility of the third world partners, whose feedback is important to SKAT enabling it to make it's consultancy work more specific and focused.

4.2 SKAT's Role in Documentation-Information-Communication

4.2.1 Importance of Documentation-Information-Communication to SKAT

SKAT's information and dissemination activities can be categorised according to whether they are undertaken at a *corporate* or *department* level.

Corporate information and dissemination activities fall under the remit of a department managed by Erich Baumann that controls the delivery of Publications, Documentation, and Bookshop services; manages the corporate Information resource and co-ordinates the supply of answers to questions directed at the Technical Enquiry Service. SKAT's corporate information and dissemination activities have been introduced above and a detailed assessment of these activities is presented in Sections 6 to 10.

In addition to these formal, corporate activities, SKAT undertakes a wide range of information and dissemination activities at the department level; answering detailed technical enquiries, preparing and managing workshops, seminars and conferences, authoring publications, and networking with partners world-wide.

SKAT maintains in its literature that Documentation-Information-Communication activities form a central part of its services. It is clear to us that SKAT undertakes a wide range of Documentation-Information-Communication activities, however we are not convinced that all staff hold to the view that these activities are the primary reason for SKAT's existence.

4.2.2 Comparison with Network Partners

The evaluation team has been able to compare and contrast SKAT's Documentation-Information-Communication activities with those of GATE and ITDG. During our visits to these organisations we were also able to explore their understanding of the need, and plans for the

utilisation of new methods for communication and information dissemination. The details of our findings are provided in Appendix 5.

4.3 Situation Overview

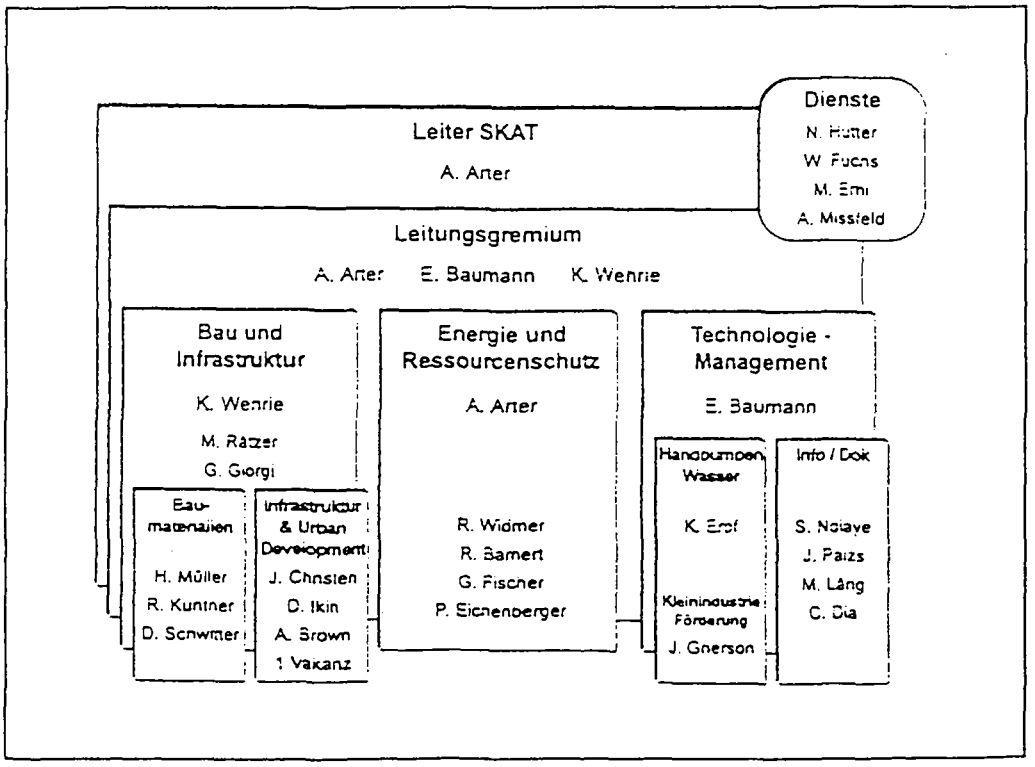
Our focus within this evaluation has been the Documentation-Information-communication activities identified above. It has not been within the Terms of Reference to assess the organisation of SKAT as a whole. Therefore, our perspective will remain partial.

4.3.1 Organisation Structure

SKAT has gone through a considerable growth in terms of personnel and budget. The staff has more than doubled within the last 10 years.

SKAT's department structures show a continuous change over the last few years. This reflects both the growth and a shift in the main activities of SKAT. The first chart ever appears in the 1989 Annual Report [11] (after the 1988 evaluation) and shows a "*1 person = 1 subdivision*"-organisational operation with a non-hierarchical structure. It progresses to a "*1-4 persons = 1 subdivision*"-structure in 1990 when Alex Arter followed Ueli Meier as a director.

Figure 4.1
Organisational Structure 1994



The first explicit hierarchical chart appears in the annual report of 1993. The tendency to hierarchical structures has a steering in the opposite direction with a directorial board ("*Leitungsgremium*") comprising the department heads. This seems to be one outcome of the profit-centre discussion. After Werner Fuchs' reduction in time to 20% during the Summer of 1994, Erich Baumann took over the documentation and information unit.

4.3.2 Management

SKAT's formal structure is not carried through to its management style which can be described as 'informal' and characterised by a high degree of interpersonal and one-to-one contacts. Formal weekly meetings attended by all staff were a feature of the early years but these have been replaced by less frequent staff meetings and project-specific dialogues.

Management style is relaxed and staff are expected to define their own inputs to activities and to liaise at a peer-to-peer level to determine priorities and allocate resources. During our evaluation, some staff members expressed an unease about their place within SKAT and their ability to work efficiently in the present environment.

Communication and decision making within SKAT seems to work within poorly defined channels. We feel that this stems from a lack of management time and the fact that little attention has been paid to the definition of paths for communication and responsibility for operational decisions. This seems to be one of the symptoms of the hectic nature of SKAT's recent growth rather than a deliberate action on the part of the management team. We believe that the option to adhere to ISO9001 requirements will help to build open but defined communication channels between management and staff and the support structures necessary to underpin additional growth.

4.3.3 Personnel

The personnel in SKAT consist of two 'generations'. Three leading people belong to the long-standing SKAT staff and have experience of the pioneering years; Karl Wehrli, Erich Baumann and Alex Arter, who joined SKAT in 1987.* With the exception of Werner Fuchs, all other staff started in 1990 or later.

SKAT staff are highly motivated. They define their roles mostly themselves and participate in determining their own duties, often selling projects to funders on behalf of SKAT. Depending on the

* Alex Arter had worked beforehand for Helevetas in the same technical field.

contracted commissions, some people may be independent consultants who use SKAT as an organisational background for their professional consulting activities.

SKAT management pride themselves on being tough employers and the organisation has a history of parting company with non-performing staff. This has positive benefits. Everyone in SKAT understands that they must perform to stay within the organisation.

However, there are some downsides. SKAT staff are independent, particularly project staff. They owe their allegiance to projects and not to SKAT. Because of this they are not always 'radiating' SKAT. They can be stubborn, and resistant to change, particularly in their use of IS and communications technology.

For the Publications and Documentation areas this is different. These staff wish to see better use made of IS. As service functions, the work in these areas is impinged upon more by internal constraints than external issues. This makes these functions and the staff in them more vulnerable to failures and delays by professional staff, causing some frustration.

5 INFRASTRUCTURE FOR DOCUMENTATION-INFORMATION-COMMUNICATION

Over the years SKAT has invested in a modern infrastructure to support its Documentation-Information-Communication activities.

5.1 SKAT's Physical Infrastructure

5.1.1 Office Environment

SKAT's office is located close to the main railway station of St. Gallen. It spreads across two sites; the smaller site contains the energy section; the larger site houses the rest of the organisation. The communication problems that one normally encounters in a multi-site office are largely discounted (in Summer at least) by the close proximity of the two buildings.

The office environment is pleasantly decorated and, from the point of view of Documentation-Information-Communication activities, there is enough desk space, sufficient storage facilities and adequate meeting space.

5.1.2 Information Technology

At the current stage SKAT is well served with the technology chosen to support its Documentation-Information-Communication activities. Computers are mostly 486 IBM-PCs with enough memory to be used with modern desktop applications. The computers are linked together using Novell network software.

SKAT has standardised on Microsoft products on the desktop. Word for Windows is the corporate word processor. Most of the standard software is mounted on the network server.

Printers are connected to, and a modem can be accessed from, the network. The DTP system is linked to a scanner. There are sufficient terminals for every person to gain access to the computer system.

Looking at the technical side of communication, SKAT has been moving forward by introducing e-mail to exchange information with its partners. At the present time, though, an internal e-mail system is not in use.

5.2 SKAT's Systems Infrastructure

5.2.1 Information Systems

SKAT's information systems are less impressive than the supporting information technology. As discussed in the relevant sections below, the library and address database software is dated and in need of replacement. Significant improvements in office efficiency could be gained by migrating to an all-Windows application environment.

There is a need to improve the communications software and put in place an internal e-mail system. This could support workflow software, for distribution and management of the responses to technical enquiries for instance.

SKAT has no strategy for its information systems, a factor we find disconcerting given the importance to SKAT of information and its role at the centre of information-intensive networks. In the past, Werner was responsible for defining system requirements, and for programming existing database software. For the past year he has been working on a 20% basis for SKAT and cannot devote enough time to driving the SKAT systems forward. His skills are best used in the maintenance of existing systems.

SKAT must respond to the change in Werner Fuchs' employment circumstances and define a long-term information systems strategy. We believe that a programme of work to define the way forward with respect to information systems should be implemented as soon as possible. We also believe that an on-going monitoring programme to test the effects of system changes should be implemented.

5.2.1 Management Systems

SKAT's management systems are rudimentary. Most instructions are verbal; few procedures are written down. We could find little evidence of formal management reviews taking place in SKAT, although informal reviews are carried out on a regular basis.

We did not test financial systems during this evaluation so cannot comment on their efficacy. However, we did explore some of SKAT's business systems by tracking processes throughout the organisation. We encountered a range of issues that suggest SKAT's management systems are under considerable pressure:

- Some of SKAT's critical business processes are poorly documented.
- SKAT sets few operational targets. As a general rule, when it does, it does not put in place monitoring systems that allow its staff to capture sufficient data for an accurate assessment of outcomes.

SKAT has introduced a number of changes in the last few months to overcome some of these issues:

- Every job is now allocated a job file number. This job file number is used throughout the organisation for tracking the job documents, including electronic documents on the computer.

- Erich is taking greater interest and a stronger management role in the activities of the Documentation-Information-Communication team.

- SKAT has commenced a programme of work to document its procedures so that it can register against the International Standard for Quality Management Systems (ISO9001).

We anticipate that these actions, and those we recommend at the rear of this report, will assist SKAT to improve its efficiency and effectiveness.

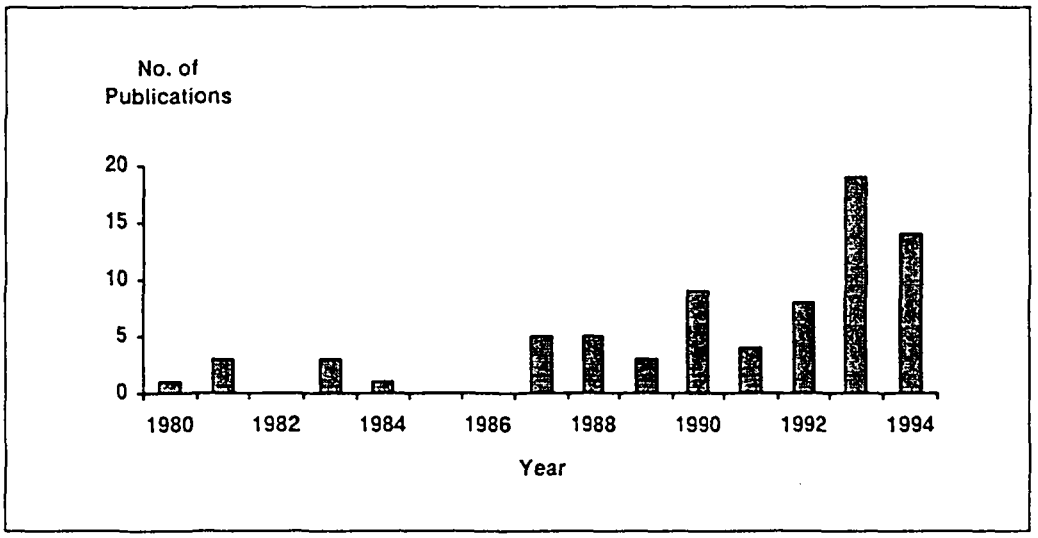
6 PUBLICATIONS

SKAT has a long history of publication, dating back to its earliest days. Its publications are unashamedly technical in content and practical in nature and reflect the expertise that its staff have developed over the years.

6.1 Overview of Activities

The current catalogue lists a total of 75 SKAT publications.[12] Of these, ten are co- or joint-publications with partner organisations. SKAT has been increasing its publication activities in recent years. The age profile of SKAT publications is shown in Figure 6.1.

Figure 6.1
SKAT Publications by Publishing Date



The main language of publication is English. SKAT also publishes in German, French, Spanish and Indonesian. The profile of SKAT publications by language is shown in Figure 6.2.

SKAT staff prepare most publications in word processed format. The manuscript is converted to camera-ready copy stage by Martin Läng on an in-house DTP publishing system, using Adobe Pagemaker V4.

The topics covered by SKAT publications reflect the focus and skills areas covered by SKAT staff. The issues addressed by SKAT publications are shown in Figure 6.3.

Figure 6.2
SKAT Publications by Language

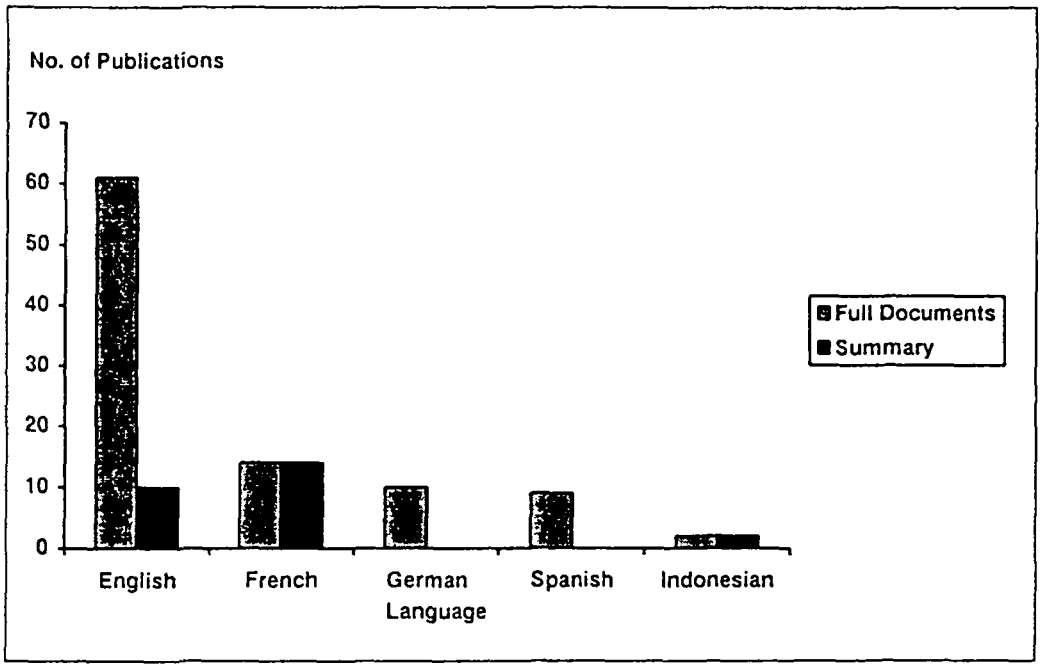
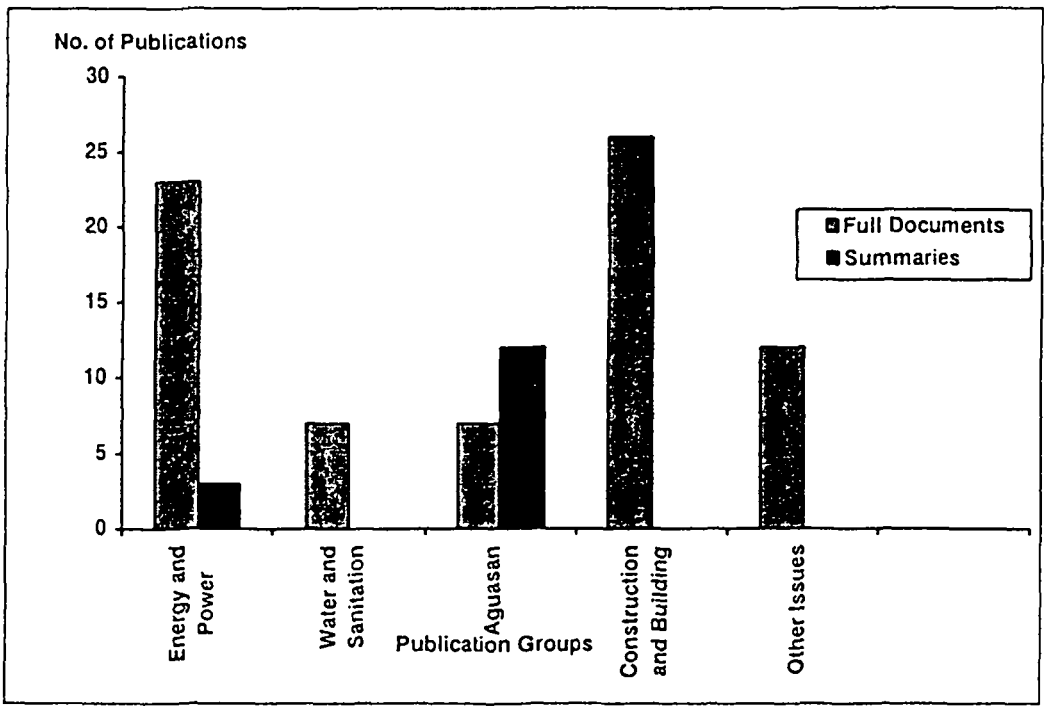


Figure 6.3
SKAT Publications by Issue



6.2 Cost

6.2.1 Cost of Authoring

SKAT's project staff have authored many of the SKAT publications using time allocated from within project budgets. In the case of outside authors, SKAT has either contracted them using project funds or the authors have presented themselves with sufficient project funds to prepare their manuscripts to text-ready stage. Therefore, many publication costs are hidden from, and within SKAT. The evaluation team was unable to calculate the full cost of publication to SKAT from the figures available to it during the evaluation.

Depending on the manuscript in question, full publication costs (including authoring time charges) can run as high as SFr 250,000 for a single book. This may appear excessive considering the very small market for SKAT publications, but donor agencies fund this work on the basis that significant benefits can accrue from putting accumulated knowledge into a published form.

6.2.2 Cost of Production Activities

In 1994, SKAT recorded 686 hours (SFr 57,500) against the production of books. The DTP time input to each document was not recorded. This has made it difficult to evaluate the cost effectiveness SKAT's publication system.

At a global level, (assuming the 14 books published during 1994 were produced during that year) the cost per book runs to around 50 hours or just over SFr 4,000. We have calculated the cost per page at 0.8 hours or SFr 66. These figures would appear to be within reasonable limits, but following our discussions with Martin and other staff, we believe that there is considerable room for improvement in efficiency in the publication process. We came across a number of instances where books had been processed through the DTP system a number of times before textual matter was properly completed and signed off. This cavalier use of the in-house DTP resource by authors with unfinished manuscripts adds unnecessarily to the cost of SKAT publications. We explore in Section 6.4 below opportunities for making more efficient the publication process.

6.2.3 Pre-press Activities and Printing

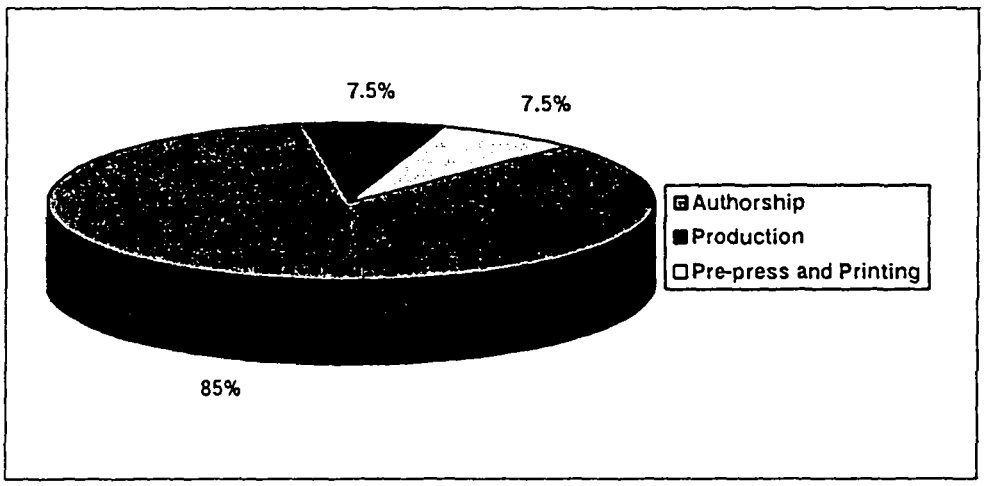
The visible costs of SKAT's publications relate to pre-press activities and printing. These range between SFr 5 and SFr 20 per 100 pages of finished product. The cost of pre-press activities varies considerably depending on the type of document, its complexity, the use of colour, the number of photographs used, etc.

Whilst Swiss printing costs are high, the quality of printing is good, a matter of some pride to SKAT staff. As the cost of printing is but a small percentage of the total cost of publication, a reduction in this component of the cost would not seem justified, except as part of a wider process of decentralisation. The additional management inputs required, courier charges and distribution costs incurred in printing abroad can easily cancel out the print cost reductions (eg production of the Afridev Quality Guidelines in India).

6.2.4 Product Pricing

Depending on the type of publication, the gross margin on the full selling price of SKAT's publications runs at about 50% of the pre-production and printing costs.

Figure 6.4
Cost breakdown of a Typical SKAT Publication



This means that on a typical publication, SKAT has to sell about half the total print run before it recovers its direct outgoings. Depending on the discounts given, the number of free copies handed out and the mix of customers, this figure can rise to over 70%.

Figure 6.4 is based on the assumption of SFr 85,000 authorship costs for 100 page document with 1000 copy print run.

6.3 Impact

The impact of SKAT's publications has not been assessed in detail as we were unable to undertake a formal customer/user survey within the scope of this evaluation.

6.3.1 *Results of Informal User Survey*

We did ask a number of users on an informal basis, for their perceptions of SKAT publications. The feedback included the following comments:

- "*Good technical content*"
- "*Thorough, well researched manuals*"
- "*High quality publications*"
- "*Useful material*"
- "*Practical and helpful*".

Within development circles, SKAT publications are held in high regard.

On the other hand, SKAT publications are also considered to be:

- "*Expensive*" (from a third world perspective)
- "*Late*"
- "*Over-budget*"
- "*Rolls Royce product - we only need a Ford*"
- "*Over-engineered for their purpose*".

6.3.2 *Major Achievements*

One of SKAT's major publishing accomplishments over recent years has been the MHPG series: *Harnessing Water Power on a Small Scale.* The MHPG (Mini Hydro Power Group) is an international group of leading institutions in the field of mini hydropower implementation and development co-operation world-wide. The documented experiences and lessons learned from hundreds of successful and unsuccessful project implementations comprise a major knowledge base. To date the MHPG series runs to eleven volumes, nine of which are SKAT publications or joint publications. Bahasa Indonesian translations of two volumes are available and others are planned.

The BASIN series of books is another example of a major publishing achievement by SKAT; these books cover a wide range of low-cost construction issues. In the case of both the MHPG and BASIN series, the books are considered to be the most comprehensive reference source matter of its type in the world. These series publications provide a good example of how SKAT can leverage its position within topical networks by acting as the publication house for the books produced within the networks.

6.3.2 *Valuing the Information*

SKAT publications that take a very practical approach (handbooks and manuals) sell better than others, indicating that these are the type of documents that customers find useful. On the other hand, some of the

high value items such as the detailed technical publications do not sell in large numbers, but solve large problems, thereby proving their worth in this manner.

The real impact of SKAT's publications should be assessed from the basis of how well they meet targeted needs, and to what extent there are more effective, efficient and economic means of disseminating the information contained within the documents. These internal reviews have not been undertaken on a regular, formal basis within SKAT. We believe that this is a matter that needs to be addressed.

6.4 Analysis of Issues

We have not assessed in depth SKAT's decision to act as a publisher. To do so we would have had to examine the *raison d'être* of the organisation itself. In discussing this matter with SKAT, and other development organisations, we were struck by the strongly held conviction that information dissemination is the 'reason for being'. We limit ourselves, therefore, to a review which accepts that one of SKAT's primary goals is to disseminate information.

6.4.1 Printed Media

We wish to probe the idea that publishing books and other printed materials is the best way to disseminate information. This idea holds fast, not only in SKAT, but also in ITDG and GATE. We believe that this time-constrained view of information dissemination forms a major barrier to the development of more effective and efficient means of dissemination to the third world.

We found that whilst individual staff within these organisations are beginning to make themselves aware of alternative methods of document publication, none of the organisations has embraced new methods, or even undertaken adequate pilot projects to determine the efficacy of new technologies. This is surprising given their promotion of technological innovation in the third world.

6.4.2 Target Market

One of the fundamental issues that SKAT needs to address is the marketing of its publications. Current marketing activities could be enhanced in many ways. As a minimum, SKAT should define the markets at which its publications are aimed, both on a product-by-product basis and for the publication activities as a whole. Almost all staff believed that the market was self evident. To some extent it is: the development practitioner working in certain technological areas. However, we are not sure that this issue has been sufficiently discussed and a common view elaborated.

It is clear that SKAT's existing and potential markets are:

- Highly focused in terms of their needs
- Technically inclined
- Geographically dispersed
- Small in size.

The main problems faced by SKAT in the dissemination of information to this market are endemic; it is both difficult and costly to reach using traditional publishing and distribution methods. However, a clearly elaborated marketing plan should facilitate a better return on SKAT's investment and improve the scope for dissemination.

6.4.3 Product Pricing

The common view is that books for the third world need to be cheap. However, almost all of SKAT's customers are intermediary organisations and many could pay more for the information if SKAT introduced differentiated pricing policies.

SKAT has no formal product pricing policies. We believe that SKAT would benefit from a formal review of its product pricing within a programme of developing a formal marketing plan for its publications.

6.4.4 Appearance and Content

SKAT's documents suffer from an identity crisis. On the one hand content appears acceptable and, in most cases, individual documents show acceptable layout and style. On the other hand, taken as a whole, SKAT publications lack an overall consistency and SKAT has not taken the opportunity to develop a strong corporate identity through its publications.

The inconsistent use of and the many, albeit slight, variations on the SKAT logo is evidence of poor product management. We propose that SKAT is using too many styles, types and layouts of documents. We could find no evidence of consistency (except within series) and a house-style, while emerging, appears to be in a state of constant flux.

6.4.5 Publication Process

SKAT's publication process, from definition of a need to publish through to completion of a finished product, lacks definition. There are few process controls, and inadequate sign-off and hand-over procedures.

The inadequate process control presents itself in the form of:

- Poor forward planning of titles and development of series concepts

- No management controls over day-to-day activities
- Limited knowledge in advance of required work inputs
- Inadequate notice of schedule changes
- No formal sign-off mechanisms on textual/graphical inputs
- A lack of clarity with respect to roles, responsibilities and authority levels.

The resulting system of production is inefficient. Symptoms of the inefficiencies include:

- Multiple re-working of documents at the DTP stage
- Failure by authors to maintain deadlines
- Upstream failures impinging upon efficiency of DTP activities
- Relatively high cost of the DTP activities.

Given the importance to SKAT of its publication activities, formal process controls need to be developed as a matter of urgency.

6.4.6 Production Bottleneck

SKAT's investment in an in-house DTP resource provides it with a potential competitive advantage - it can produce well-presented documents to tight deadlines in-house without incurring high design and typesetting charges. However, SKAT's existing DTP set-up results in a significant publication production bottleneck. One comment from a SKAT staff member sums up the situation: "*DTP resource in-house is great but underfunded, under-exploited and understaffed*".

SKAT is heavily dependent upon Martin to run the DTP system and he has limited training in DTP. This places SKAT in a position of some risk.

The DTP production bottleneck can be eliminated through a combination of:

- Additional training for the current DTP operator
- Removal of re-work from the document production system
- Allocation of additional trained resources to the DTP function.

As in the case of all production bottlenecks, elimination of root cause problems will be the most cost effective means of dealing with the problem.

6.4.7 Editorial Control

We perceive a lack of editorial control over SKAT's documents. Since Werner Fuchs' departure no-one has taken formal editing control. This gap needs to be filled.

There is no formal publication planning mechanism - at project level, or SKAT level. An editor/publisher could be charged with this responsibility.

6.4.8 *Alternative DTP Applications*

Pagemaker is the logical choice of internal DTP application - but only for some of the documents created by SKAT. Pagemaker is a package well suited to the creation of design-intensive layouts. It is not best suited to the design of complex technical documents, which make up the bulk of SKAT's production schedule. It lacks the advanced indexing, cross-referencing, multiple master page and document versioning capabilities of DTP applications developed specifically for this purpose. It provides only for output to printed media.

Some of these concerns can be eliminated by upgrading from Pagemaker V4 to V6 but there is a need for SKAT to consider the use of alternative applications. In particular, FrameMaker V5 is more adept at the creation and control of long and complicated documents. It is not as easy to use as Pagemaker, but it is more than a DTP: It is ideal for the creation of on-line guides and tutorials, and its advanced hypertext capabilities make it a natural for publishing on the Web.[13]

6.4.9 *Production of Alternative Media*

Printing to paper-based documents is not the best form of presenting information in all cases. Some of the problems faced by SKAT include:

- Maintenance of stock
- Issue of wastage/disposal
- High cost of printing low print-run documents
- Cost of mailing/shipping to third world customers
- Problems in third world countries of accessing foreign currency
- Delays in sending physical documents across the world
- Problem and cost of revising paper-based documents.

SKAT should investigate alternative forms of delivering information to its client groups. This could include on-line delivery of existing documents, replication over wide area networks and production of CD-ROMs.

7 DOCUMENTATION

The development of a documentation centre has been one of SKAT's core activities right from its beginnings in 1979. Within two years of its establishment, SKAT decided to hire a professional documentalist to oversee this work.[14] As early as 1985, SKAT introduced computers to support its operations; the documentation centre was one of the first areas to profit from this new technology.

The maintenance of documentation within SKAT has as its main goals, in this order, the provision of:

1. A reference source for professional work.
2. A source of help in answering some of the questions asked of the Technical Enquiry Service.
3. An attractive and accessible resource for external users.

The library has been given a central place in SKAT's main building. The presentation of the material is very good but, because of space limitations, the energy and resource protection part of the documentation has been moved to the annex building, where the respective staff have their offices.

The documentation consists of a library with books, brochures and periodicals, files with organisation and product information, and a document and address database.

7.1 Overview of Activities

One of the key features of SKAT's documentation activity is the close link between documentation and internal knowledge. Every professional staff member has a responsibility to contribute directly to the maintenance and upgrading of the documentation (document selection, quality assessment, abstracting, keyword assignment). In planning for this activity, SKAT schedules 40 hours per year for nearly everyone on the staff.

All documentation services are provided centrally.

7.1.1 The Library

Currently, the library contains 6,192 books presented on freely accessible shelves. The collection has been continuously developed and is a good information basis for AT and related subjects.

Figure 7.1
Age Distribution of Documents

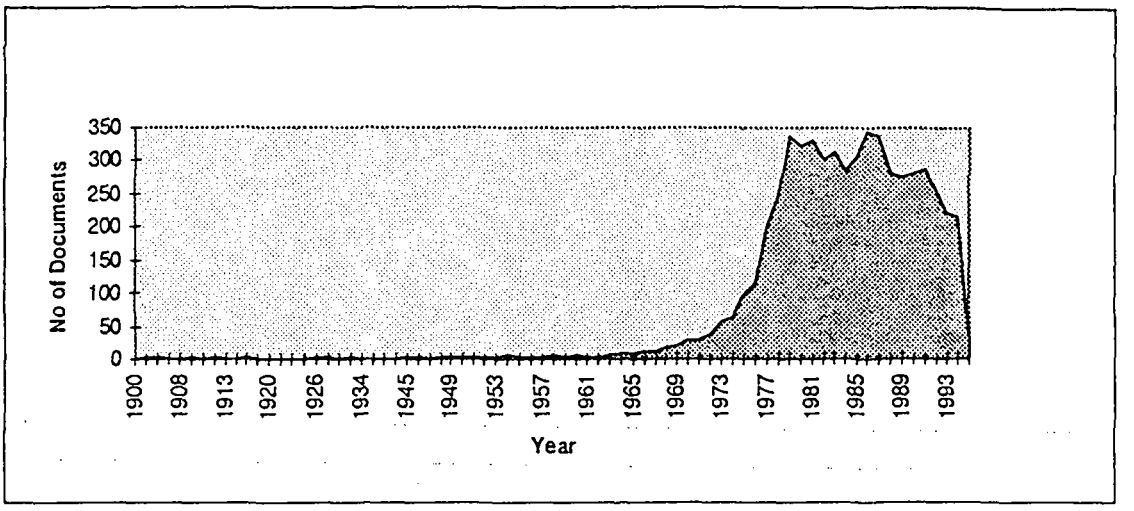
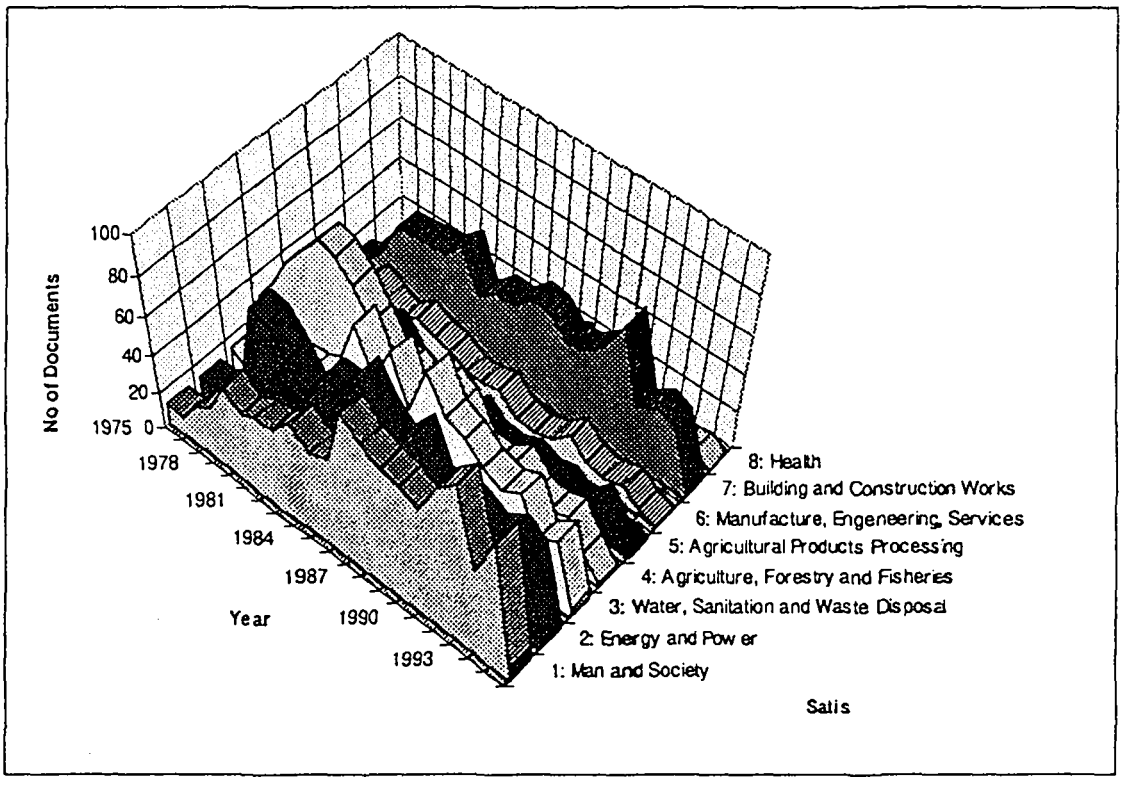


Figure 7.2
Age of Documents in Each SATIS group

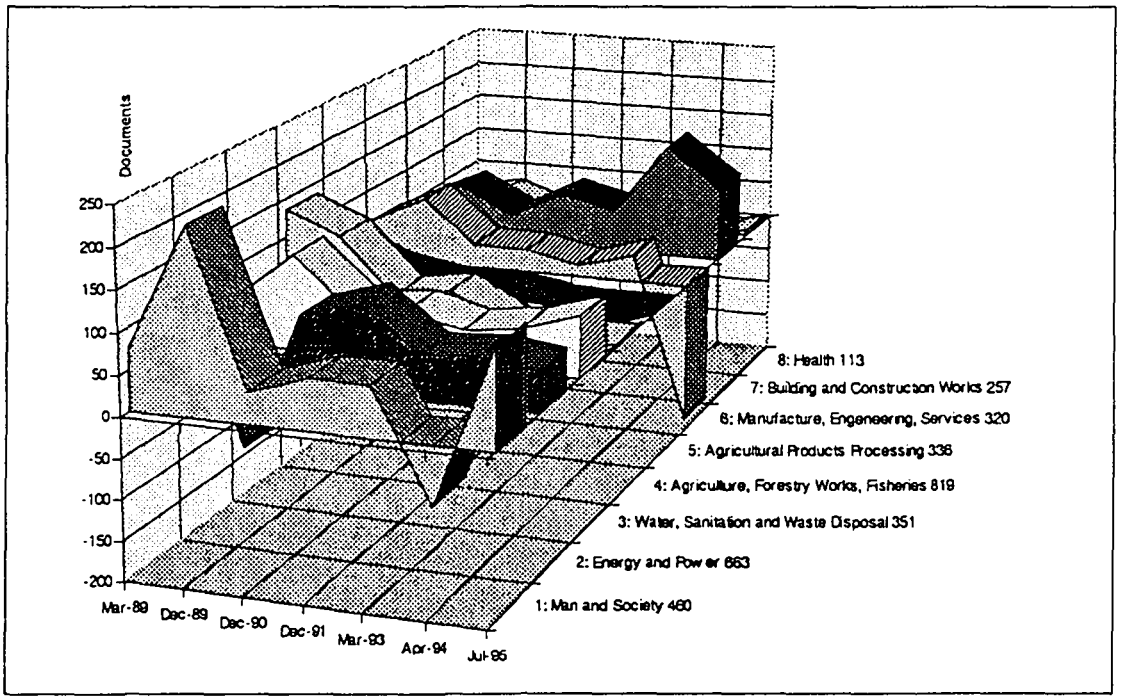


All items are catalogued within a central documentation database.

The acquisition policy is analysed in the following chart. The acquisition of documents on core subjects has remained high throughout the years, whereas spending on 'lateral competence' categories has been curtailed. For example, acquisition of "*Agriculture, Forestry Works, Fisheries*" (SATIS Group 4) documents

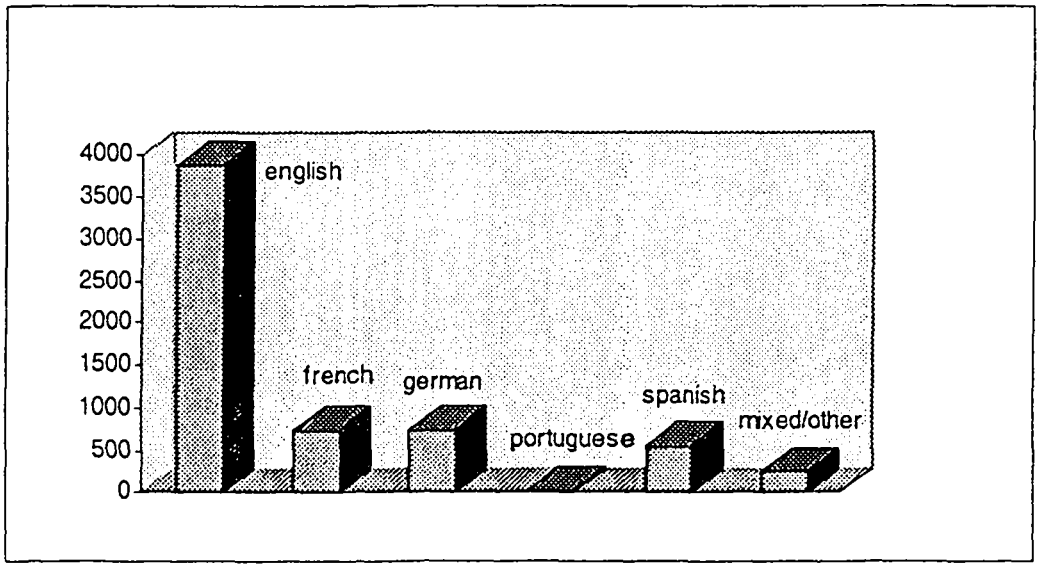
has reduced from 80 items in 1979 to 13 items in 1994. SKAT continues to purchase a few documents outside its mandated areas, to put all documents into context.

Figure 7.3
Growth of Collection in Each SATIS Group



The language distribution reflects the concentration on English speaking countries, but maintains for visitors (and other purposes) a reasonable selection of works in other languages.

Figure 7.4
Language Distribution



SKAT receives some 260 periodicals relevant to its work. Many of these documents are provided free of charge by their publishers, in exchange for no-cost copies of SKAT's publications.

7.1.2 Product and Organisation Files

SKAT maintains a selection of information on products and organisations that have some relevance to its activities. More than 1000 folders are used to store printed material. This number has remained constant over recent years. The folders are stored in suspension files and are tracked using a unique number that is stored within a database.

The files are accurate. The aim is to have a fast and tight information access point for the subject. A file provides, in nearly every case, valid information about an organisation, their activities or a product and its manufacturer. The material is selected with care, with obsolete material being replaced in turn.

7.1.3 The Services

Two people work mainly in the documentation section (Silvia Ndiaye and Catherine Dia-Ndiaye). The following services are provided:

- Book and periodical ordering and handling
- Cataloguing and abstracting
- Periodicals circulation
- Helping inside and outside visitors
- Compiling bibliographies
- Other work and services

The document and address database is accessible to everybody through the local area network (LAN). It is a menu-driven, ASCII-oriented database system, built in-house but written for DOS and not for Windows.

The documentalists also answer general questions for the technical enquiry service. The documentation work is coupled with a telephone service handling incoming calls, as well as the distribution of in-coming mail.

7.2 Cost

7.2.1 Recorded Costs

Silvia Ndiaye and Catherine Dia-Ndiaye's internal charge rates work out at 650 hr and 520 hr respectively, with additional work from Werner Fuchs (computing; 15 hr), John Grierson (abstracting, 39 hr) and Erich

Baumann (management, 38 hr). According to SKAT's book-keeping records together they used 1262 hours in 1994.

On a simple analysis this figure seems to be excessive, but we fear the main reason is inaccurate figures coming from an unrealistic time allocation.

7.2.2 Projected Costs

By making a sample calculation for the work of Silvia and Catherine (totally 1170 h) we can project the cost of running the documentation centre:[15]

Ordering and cataloguing[16] (320 x 0.5 h)	160 h
Periodical circulation (we assume ...)	40 h
Renewing documents in organisation files	50 h
Helping outside visitors (126 x 2h)	252 h
Helping internal users (100 x 1h)	100 h
Compiling bibliographies	50 h
Other works and services	300 h
TOTAL	**952 h**

With the service provided for as above, such a documentation centre could be run for approximately SFr 85,000 (staff costs only).

7.2.3 Comparison of Costs

It is difficult to compare SKAT's documentation service to similar documentation centres in other organisations, because factors influencing the resources needed vary so much. Factors are:

Input factors:

- Dynamics of information exchange in the documented field
- Organisational level of the information in the field
- Complexity of the documents or information or document type.

Processing factors:

- Size of the collection
- Outfit, location, type of storage
- Extent of content description
- Integration into the organisation
- Services provided
- Techniques used.

Output factors:

- Type and behaviour of users

- Services provided
- Techniques used.

When comparing similar libraries in the public sector and the private sector, the resources used for documentation at SKAT are within reasonable limits. Another characteristic figure exists for research organisations: typically they use 2-5% of the total budget for documentation (and publication).

7.2.4 Acquisition Costs

The accession budget is not limited but set within reasonable limits. It floats from about SFr 15,000 to SFr 20,000 per annum. The book stock shows an average growth of 321 volumes per year. If we assume that SKAT will be getting around 20% of its new books free of charge, we calculate an average purchase price of SFr 58 to SFr 78 per book. This is a reasonable average for the type of books held by SKAT.

SKAT acquires about 260 running periodical titles of which 200 are free. The other titles are thought to be necessary as they supplement the books in areas of topical interest.

7.3 Impact

Without undertaking a detailed user survey it has been difficult to assess the real impact of the documentation. SKAT has no, or rather poor and not very accurate, figures available upon which to comment. The same applies for the other documentation centres we visited during the evaluation.

7.3.1 External Users

We have no data to assess the impact of SKAT Documentation on external users in Switzerland or visitors from abroad. However, we perceive that outside visitors place a high value on finding a lot of AT-relevant documents in a single place. The SKAT Documentation is unique for Switzerland, but most titles can be found at GATE and ITDG; although, in the case of ITDG, the information is less readily available to outside visitors.

7.3.2 Internal Users

In the eyes of the SKAT project staff with whom we had the opportunity to speak, all agree fully that the documentation centre provides a useful service. Everybody is pleased that a library exists, but they all admit that their use of the documentation has diminished in the past

years. This is due in part to their accumulation of personal libraries that are used as day-to-day reference sources.

The library is considered useful for answering general questions in areas not covered by technical staff. Complicated questions in non-core activities are forwarded to a partner organisation.

7.4 Analysis of Issues

SKAT is achieving its goal in collecting basic, relevant information that reflects the internal know-how (see Figure 7.1). A budget of around SFr 20,000 appears adequate for this task.

7.4.1 Documentation Service

We recognise that documentation staff undertake good work, despite evidently conflicting requirements within SKAT (telephone service, secretarial duties, document translation, and much more). The documentation shows no signs of neglect, although it could have been very easy to invest time in other areas at the expense of the library. This is a good result, the staff are very engaged and flexible, even in tough periods.

7.4.2 Abstracting Activities

The collaboration between the library and the project staff has diminished as project work has increased over the years. Most project staff indicated that the work allocated for the documentation (40 hours/year) has not been fully used for the documentation. Over time, this task has been accorded a low priority and is often neglected in favour of project activity. As a consequence, therefore, we found in some areas of the documentation a change in direction; literature was not up-to-date and abstracting back-logs have developed.

7.4.3 Place of the Documentation

The documentation is well placed within the organisation. As the need for central access is not a big issue any more, the library could be better served by being distributed around the different departments. The Energy and Resource Protection part has already moved to the offices of that department. Only the general and the small non-core areas need to remain in a central place. This would have advantages:

- Better access for technical staff
- More room for other purposes.

A disadvantage would be the slightly more time-consuming administration of the collection. A modern distributed documentation

system would present information on-line. We understand that such a change would disturb the image of SKAT's library display window but is consequent in the view of SKAT's development from a general AT documentation centre to a highly specialised project-based organisation.

7.4.4 Use of External Resources

The documentation centre is not prepared to access external information resources (library OPACs, international databases) or CD-ROMs. If technical staff need to find information that is unavailable in the library, they have to look for themselves. This requirement for external information seems to be rare at the moment. The documentation centre would fulfil its function better if it were able to act as a research library that knows where to find all useful information for the benefit of staff and external visitors.

7.4.5 External Use of the Resource

The use of the documentation from external visitors has never been high.[18] Visits have decreased during the last year. The reason given during the evaluation was a reduction in the number of long-term experts that SDC is sending out to the field. We would add some hypotheses:

- External users are more and more expecting to use documentation and libraries remotely (for example the Swiss polytechnical library).
- AT-related books can be found more often in general libraries these days.
- Time constraints on most people make the journey to St Gallen an inhibiting factor.

7.4.6 Non-paper Documents

Until today only paper-based documents (and a few slides) have found their way into the documentation catalogue. Other information materials are not recorded as part of SKAT's holdings. Slides, videotapes, data files and diskettes exist, but these are stored in individual offices out of reach. Without knowledge of their existence and a personal contact, little information exchange can take place. Most information of this nature has not been catalogued in any form, even by its 'owner'. This represents a gap in SKAT's information resource. For example, various photographs could be usefully employed in SKAT's publications - if they were known to exist and easily locatable.

7.4.7 Documentation Database

The documentation database is an important instrument in making information on holdings available to all. The data in the system is up to date and of good quality. The database technique was good until 5 years ago. However, the system is now inadequate for SKAT's present and future needs, especially in the area of its user interface and consequent ease of use.

The problem arises not so much with use of the system, but with the not using of it. The lack of an intuitive graphical user interface (GUI) limits access to information in the system, and knowledge of a range of function key commands is required to drive the system. There are perhaps four people in SKAT who can use the system without support. Most staff, therefore, cannot use the system unaided and look at alternative means (personal contacts, external libraries, etc.) to find the information they seek. Additional training would help, but as most people need to use the system on an irregular basis, the skills learned would soon atrophy.

The existing documentation database places a serious constraint on SKAT's ability to access its own information resource. It is severely limiting SKAT's progress towards better integration of all information sources. The integration of documentation within the organisation is at the moment poor. Even the central place accorded to the documentation does not really help. The main obstacles to improvement seem to be work overload and a lack of information systems skills.

8 BOOKSHOP

SKAT runs a specialised postal-order bookshop which it established to make available 'hard-to-get literature', and to distribute its own publications.

8.1 Overview of Activities

Bookshop activities are managed by Jlona Paizs, who is employed by SKAT on an 80% basis. The bookshop sells SKAT titles and a range of other development literature, including titles from IT Publications, GATE, World Bank, ILO and TOOL.

Bookshop sales have remained steady at just over SFr 100,000 per annum for the last three years. During this time, the ratio of SKAT to non-SKAT title sales has increased and in 1994 reached just over 4:1 by sales value.

Table 8.1
Bookshop Sales

Year	SKAT Title Sales (SFr)	Non-SKAT title Sales (SFr)	Total Sales (SFr)
1991	67,000	18,500	85,500
1992	69,000	36,800	105,800
1993	82,000	26,100	108,100
1994	87,000	21,000	108,000

Bookshop finances are maintained on a simple book-keeping system (Der PC Kaufmann by KHK Software). Jlona submits accounting information on a quarterly basis for entry to SKAT's main accounting system.

SKAT markets its books though Publications and Bookshop catalogues, fliers, book reviews, word of mouth, attendance at the Frankfurt Book Fair, etc. In 1991, the database of 4000 previous customers was culled to 2000 live contacts. The contacts list has now grown again to some 3000 names.

8.1.1 SKAT Titles

SKAT publications have been reviewed in Section 4. In this section we examine the methods of distributing the publications once they have been printed.

SKAT operates a postal-order distribution system to both its trade and retail customers. In any one year it raises about 600 invoices and approximately 100 pro-forma invoices.

Table 8.2
Invoices Raised by SKAT

Year	Invoices	Pro-forma Invoices
1991	662	none
1992	607	77
1993	671	112
1994	569	105

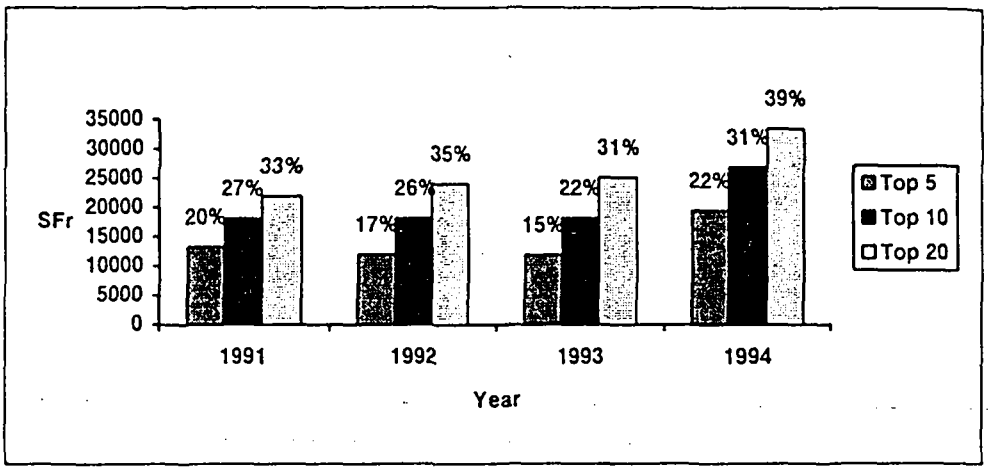
The bookshop discounts SKAT publications on the following bases:

- Purchase of 5 or more copies of the same publication 5%
- Purchase by booksellers 30%
- Purchase by members of the SKAT association 25%

The customer profile has remained fairly constant over the past few years. The largest customers are development organisations or re-sellers of SKAT's publications. It is interesting to note the absence of large customers from the third world; almost all of SKAT's publications are sold to Northern institutions.

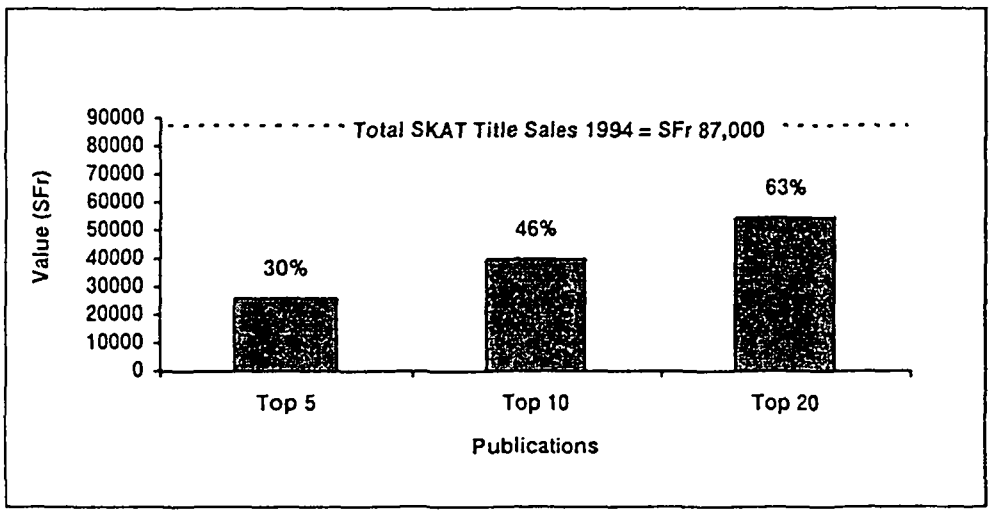
IT Publications is a consistently large purchaser of SKAT publications, taking the top position in the last two years. Other large customers include Helvetas and TOOL. A table of the top 10 SKAT customers (by value), their position and sales value in the years 1991 to 1994 is given in Table 8.3. Figure 8.1 shows sales to the top 5, 10 and 20 customers as a percentage of the total sales of SKAT titles during 1994.

Figure 8.1
Sales of Publications to top 20 SKAT Customers 1991-1994



Handbooks and practical reference books are the best selling SKAT titles. Sales performance shows an interesting trend: SKAT titles tend to sell well in the first few years and then performance tails off as the market saturates or the information in the publications becomes outdated. A few books such as Vulgarisation Agricole and Agricultural Extension, that have broader appeal, are consistently strong sellers.

Figure 8.2
Sales of Top 20 SKAT Titles as a Percentage of Year's Sales (1994)



A table of the top 10 SKAT titles (by value), their position, the number of units sold and sales value in the years 1991 to 1994 is given in Table 8.4. Figure 8.2 shows sales of the top 5, 10 and 20 SKAT titles as a percentage of the total sales in 1994.

Table 8.3
Top 10 SKAT Customers (by value) in the Years 1991-94

Customer	Location	1991 Position	1991 Value	1992 Position	1992 Value	1993 Position	1993 Value	1994 Position	1994 Value
Action International Contre la Faim	Paris, France			5	1,445				
AGRECOL	Langenbruck, Switzerland					8	1,273		
Bauer Eberhard	Berlin, Germany					9	1,269		
Craterre	Villefontaine, France	6	1,240					5	2,118
Deutsche Stiftung	Feldafing, Germany			8	1,348	3	1,940		
FAKT	Furtwangen, Germany			7	1,471				
GTZ	Eschborn, Germany	3	2,311	9	1,086			4	2,975
ILO	Genf, Switzerland	7	1,040						
Helvetas	Zürich, Switzerland	9	830	1	2,783			2	4,815
Intermediate Technology	London, UK	4	1,993	2	2,126	1	4,875	1	6,513
IRC	The Hagh, The Netherlands	8	938						
Kinderheim Verein Salem	Pfungen, Switzerland							10	924
KODIS	Winterthur, Switzerland	1	4,094	4	1,747				
KOLPING	Köln, Germany							8	1,366
LBL	Lindau, Switzerland	2	3,544	3	1,828	2	2,137		
Luck Uwe	Witzenhausen, Germany							7	2,078
Münstergass Buchhandlung	Bern, Switzerland					10	1,057	3	3,056
NRTI	Thimpu, Bhutan			10	872				
Pädagogische Hochschule	Flensburg, Germany	10	827						
S Karger India	New Delhi, India			5	1,507				
TOOL	Amsterdam, The Netherlands	5	1,314	6	1,423	7	1,302	6	2,101
Toeche Mittler GmbH	Darmstadt, Germany					6	1,405	9	979
UNICEF	Coponhagen, Denmark					4	1,507		
Total Sales From Top 10 Customers			18,131		17,636		16,675		26,925

Table 8.4
Top 10 SKAT Publications (by value) in the Years 1991-94

Publications	1991			1992			1993			1994		
	Place	Units	Value	Place	Units	Value	Place	Units	Value	Place	Units	Value
Agricultural Extension				1	234	8,080	2	183	6,271	3	154	5,266
Appropriate Building Materials	2	205	4,782	7	94	2,322				2	231	6,248
Climate Responsive Building							5	75	4,780	4	67	4,023
Cross Flow Turbine Design and Equipment Engineering, Drawings							1	16	7,575	6	8	3,350
Cross Flow Turbine Fabrication							7	58	2,517			
Development of Enterprises	10	89	1,452									
Environmental Limits to Motorisation							4	145	4,833	8	106	2,957
Extension Agricola							3	135	4,947	1	210	7,037
Governor Product Information	8	63	2,583									
Hydraulics Engineering Manual	9	52	1,737	5	83	2,356						
Landwirtschaftliche Beratung	5	159	3,636							9	92	2,549
Manual for Rural Water Supply	1	171	5,076	9	75	2,029						
Micro Pelton Turbines				4	127	4,819						
Pedoman Rekayasa Tenaga Air	7	85	2,975							7	80	3,040
Production Guide				8	109	2,222						
Quality Control Guidelines	3	238	4,449	10	100	1,905						
Road Projects Manggarai	6	104	3,318									
Roof Cover Guide							9	91	2,192			
Roof Structure Guide							8	71	2,390			
Standards Guidelines				6	100	2,390						
Survey, Design and Construction , Volume. A							10	42	2,070			
Survey, Design and Construction, Volume B										10	53	2,025
Village Electrification				3	140	5,212						
Vulgarisation Agricole	4	116	3,996	2	220	8,068	6	88	3,264	5	104	3,462
Total Sales From Top 10 Products			34,004			37,013			40,839			39,957

8.1.2 Non-SKAT Titles

SKAT maintains approximately 350 books on its bookshop list. Of these, some 275 are non-SKAT titles. In 1994, non-SKAT titles accounted for 19% of bookshop turnover.

Since 1991, a local St Gallen bookseller, Comedia Bookshop, has managed sales of non-SKAT titles on SKAT's behalf.

8.2 Cost

8.2.1 Cost of Operations

A cost of SFr 110,000 was recorded for personnel working on Bookshop activities in 1994.

SKAT provided Comedia Bookshop with a SFr 20,000 stock float to take over the non-SKAT titles operation and pays an annual subsidy of SFr 5,000 to Comedia to maintain it.

Some of the operational costs are hidden in SKAT overheads and it would be fair to say that the total cost to SKAT of running the Bookshop activities approaches SFr 150,000 per year.

8.2.2 Cost of Promotion

The pre-press and printing costs for the 1995/96 SKAT Bookshop and Publications catalogue were approximately SFr 1.- and SFr 2.- per copy. Postage runs to about SFr 1.- per copy respectively.

Further costs are incurred by SKAT, such as communication with its partners, attendance at book fairs, etc.

8.2.3 Cost of Stock

The last stocktake was undertaken during February 1995, at which time SKAT's inventory ran to 17,530 books. Assuming printing costs at SFr 10.- per book, SKAT has close to SFr 200,000 in unsold publications (valued at cost). Assuming an internal cost of capital of 12%, this stock is costing SKAT SFr 24,000 per year to maintain.

We believe that stock levels could be reduced through effective marketing campaigns. Of particular importance is the need to:

- Identify the sales profiles of slow-sellers.
- Assess the likelihood of exhausting stocks at current prices.

- Introduce incentives to shift stock before the information dates and makes the product unsaleable.

8.3 Impact

8.3.1 SKAT Titles

SKAT has not undertaken formal evaluations of the impact of its Bookshop activities. We believe that a formal review of this function would find the following:

- Bookshop sales support activities are undertaken in an efficient manner.
- Customers are serviced in a professional way.
- SKAT titles have delivered positive benefits to the target groups.
- SKAT titles add to the profile of SKAT as an organisation.

However, on the other hand:

- Impact has not been as great as it could have been, because of the pre-occupation with production of books and sales order-processing, rather than marketing.
- There is limited understanding within SKAT of who buys SKAT Publications and why.
- Consequently, Bookshop marketing lacks direction and information dissemination has not been as widespread as it could have been.
- There have been few attempts to enhance the SKAT Bookshop service beyond a simple book selling operation.
- Foreign customers are inconvenienced by the present double invoice arrangement (one from SKAT, one from Comedia) when they order both SKAT and non-SKAT titles from the SKAT Bookshop.

8.3.2 Non-SKAT Titles

The original reason for stocking non-SKAT titles (that the books were 'hard to get') seems to be no longer relevant as a reason for maintaining this service. SKAT has reduced its Bookshop catalogue to include only 'fast-sellers' and a large number of suppliers now provide books to the third world. Therefore, SKAT must question its continuing support for a service that sells no more than SFr 20,000 worth of books that can be obtained fairly easily elsewhere, incurs a charge of SFr

5,000 in addition to the management and catalogue production overheads and provides SKAT with no income and little in the way of non-fiscal benefits.

8.4 Analysis of Issues

8.4.1 Planning

There have been occasions in the past when Jlona has not known in advance which books were coming off the press. This is a symptom of the lack of process control within the SKAT Publications section. The poor communication between those producing SKAT Publications and those selling them hinders Bookshop planning activities.

There are a number of questions that should be answered:

- SKAT produces two catalogues. Couldn't the Publications catalogue be made a sub-set of the Bookshop catalogue?
- Martin places print shop orders. How does he decide the number of books to order and should not Jlona have some input into these decisions?
- Books are produced without supporting sales literature. Couldn't a product surround package be developed at the same time as the book?

8.4.2 Marketing

To date SKAT has not built a marketing plan for its publications. We recognise the limited time available for this task, but believe that if Jlona pays more attention to marketing in addition to selling it will pay dividends over the medium and longer-term.

Opportunities for SKAT to increase the take-up of its publications include:

- Mailings to existing customers.
- Purchase of lists for targeted mailings
- Special offers to libraries, special interest groups, etc.
- Use of magazine inserts
- Greater use of press releases
- Teaser campaigns in SKAT Doppelpunkt.

There is a need for Jlona to acquire additional skills and to work under closer supervision.

8.4.3 *Non-SKAT Titles*

Provision of non-SKAT titles through the SKAT Bookshop is a loss-making venture. Non-SKAT titles now make up less that 20% of SKAT Bookshop turnover and rather than being 'hard to get', all the non-SKAT titles can be purchased elsewhere. We understand that SKAT continues this service under the direction of its board members. We recommend that SKAT revisits this issue, because we do not think the benefits attributable to SKAT justify the cost of maintaining the service.

Should SKAT decide to maintain the non-SKAT title business, we believe that improvements can be made. SKAT should:

- Contract out the entire book fulfilment process to Comedia (both SKAT and non-SKAT titles), and use internal resources to undertake marketing activities. Another option would have SKAT raising all invoices and Comedia in charge of shipping.
- Maintain very low or no non-SKAT title stocks, fulfilling orders from the publishers as necessary.
- In party with the above, work with non-SKAT title publishers to develop a system whereby SKAT continues to promote these titles through its catalogue, but product is held and shipped by the individual publisher.

It is important that the order system and invoicing paperwork is linked to the name SKAT. But we are sure that SKAT can develop more cost-effective means of book fulfilment.

8.4.4 *Logistics*

SKAT Publications stock take up a reasonable amount of space that could be used for other purposes. SKAT could look to a system of printing on demand to reduce the need for storage space for its books.

8.4.5 *Book-keeping System*

The SKAT Bookshop uses a stand-alone book-keeping application, with quarterly transfers to the main accounts system. Management reporting has been kept to a minimum. We believe that better analysis of the figures would allow SKAT to:

- Look for selling trends
- Build 'top ten' seller lists
- Understand buying habits
- Focus on emerging demands.

In order to develop a Bookshop reporting and planning system of sufficient power and flexibility, Jlona may have to switch to a more powerful accounting package. Alternatively, the Bookshop accounts could be held on the main accounts computer.

8.4.6 User-friendly Service

Many foreign customers face major problems in accessing foreign currency. SKAT makes it doubly difficult for purchasers who wish to buy SKAT and non-SKAT titles at the same time by issuing them with two invoices; this doubles the problems with the foreign currency transactions.

SKAT could look to more user-friendly ways of providing the Bookshop service including the provision of a single invoice, accepting payment with order, credit card purchase, etc.

9 INFORMATION

SKAT maintains and processes a vast amount of information. Its core activities all demand that information is collected from and made available to a wide variety of individuals and institutions. Therefore, the information activities undertaken by SKAT and the systems that support the information flows through it, are critical to SKAT's success as an organisation.

9.1 Overview of Activities

SKAT produces or co-produces a wide range of information in the form of periodicals, annuals and short documents. It also produces a range of literature to support its marketing activities and to inform stakeholders of its activities.

SKAT's main information products are listed below:

- SKAT Doppelpunkt, a newsletter, mainly in German, that is distributed quarterly to about 600 interested parties.
- SKAT Annual Report.
- BASIN News, co-ordinated, complied and produced by SKAT on behalf of the BASIN network twice a year.
- HydroNet News, and since 1994, a 4 page supplement in Hydro Power and Dams, to which SKAT contributes every two months. Before HydroNet News was produced by the network, now it is compiled by ITDG in Sri Lanka. SKAT takes an active role in the editorial comment of HydroNet News.
- Individual publishing of literature in refereed and unrefereed journals.
- Project literature for seminars, training courses, workshops, project activities, etc.
- Fliers, catalogues, book reviews, and other bookshop marketing literature.
- Corporate information for the purposes of marketing SKAT and its services (brochure, statement of expertise, cvs, etc.).

The targets for most of these documents are organisations and people working in technical development, concerned with the question of technology transfer and management of funding institutions.

9.2 Cost

The cost of information services has been recorded in 1994 as SFr 21,424. This figure has been built up from inputs of 168 hours. The main people involved were Werner Fuchs and Silvia Ndiaye.

The actual cost is likely to be much higher than these figures, but we were unable to assess this matter in any detail during the time available for the evaluation.

9.3 Impact

We have investigated the impact of some of SKAT's information according to product categories:

9.3.1 SKAT Doppelpunkt

It is hard to assess the impact of this magazine. A number of people from SDC indicated that they found it a useful way of keeping in touch with SKAT's activities. For some, "*it's the only way (they) get to read about what SKAT's doing*!"

9.3.2 SKAT Annual Report

For distant people the SKAT Annual Report is - together with Doppelpunkt - the only way to get an overall view of SKAT's activities, but we were not able to assess the impact of the SKAT Annual Report.

9.3.3 BASIN News and HydroNet News

These documents reach a specialised audience, they are the main sources of new information world-wide on the topical issues presented from a practitioner's perspective. Our view is that they do SKAT a lot of good and meet or exceed their objectives.

9.3.4 Individual Publishing

It has been argued that individual publishing does more for the staff member than for SKAT. However, we believe that SKAT benefits from its staff's contributions, particularly to refereed journals.

9.4 Analysis of Issues

9.4.1 Audience and Content

We observe that SKAT's information products are not always clearly targeted to certain audiences, rather *"who's known to SKAT can have it"*.

The content seems sometimes rushed; last minute productions taken from elsewhere, just to fill a gap. This is due to poor planning and inadequate controls. Content is not measured against SKAT's mission and messages are not well targeted to the audience.

9.4.2 Language

SKAT undertakes a tough task in attempting to produce many of its information products in a variety of languages. The cost of authoring in more than one language starts to become prohibitive, especially when the number of recipients is quite low. The language mix (as in the Doppelpunkt) helps little to communicate efficiently. Therefore this should be reviewed.

9.4.3 SKAT *Doppelpunkt*

There is no loyalty within SKAT to the name 'SKAT Doppelpunkt'; in fact, many of the staff loathe the title (no-one inside SKAT seems to know why it's being kept and no-one outside SKAT understands the play on words). SKAT would be well advised to introduce a title that could translate well over a range of languages.

'Ownership' for each edition of SKAT Doppelpunkt is not clear. SKAT could look at the GATE approach where they assign an external reporter, an internal manager and an assigned professional to each edition.

9.4.4 SKAT Annual Report

The SKAT Annual Report is a necessary but not an interesting document; it is not an assessment of SKAT's activities, merely a collection of facts and figures, with little commentary. It has been badly mauled by some of SKAT's supporters. We recommend that additional time and attention is paid to its production.

9.4.5 Corporate Literature

SKAT has no good introductory brochures. There are old ones or a big new one, but nothing adequate for handing out at a first contact meeting.

Consistency of corporate image varies. Even the logo appears different; its placing and background (esp. raster points) varying. Colour is used heavily but very inconsistently. An exception is the logo, that remains black (or in the colour of the text).

Covers of publications change quite often. Colour should be changed only when the layout has striking consistency.

The message at a corporate level is not powerful and persuasive (in general). The literature appears to be targeted at funders and members only. In its marketing, SKAT presents information about 'features' rather than 'benefits'.

We recommend that SKAT avails itself of a corporate image consultant (graphics, logos, etc.) to help it build a strong and consitent corporate image.

9.4.6 Lessons Learned

SKAT does not appear to be driving out 'lessons learned' information at a cross sector (above project or topic) level. This information would provide pointers to experience learned, analyses of methodologies used, management tips, etc.

We believe that SKAT staff have many lessons that they would be in a position to pass on to the wider development community. The challenge for SKAT is to find ways of unlocking the knowledge and getting it into a distributable form.

10 TECHNICAL ENQUIRY SERVICE

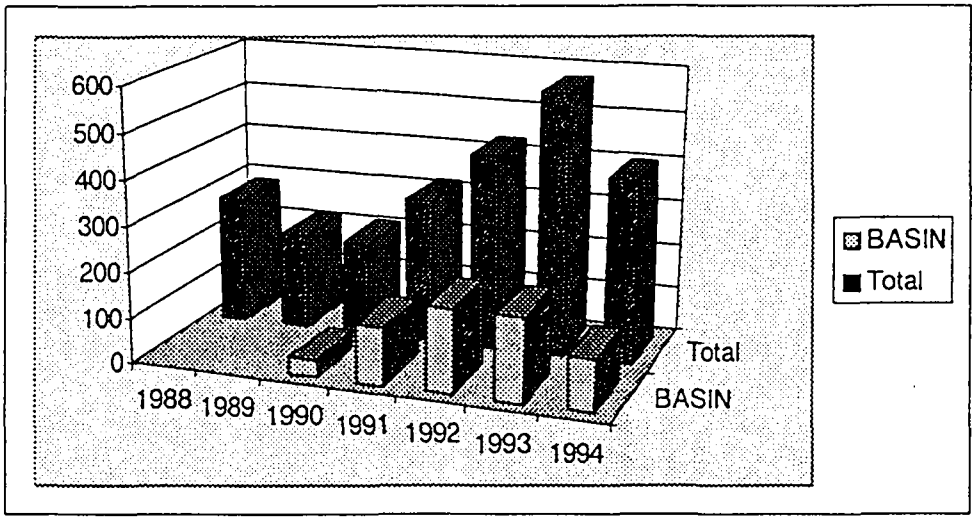
The Technical Inquiry Service (TES) was one of the first and principal tasks when SKAT began in 1979. It is a free service for developing countries. "*Each response is tailored to the individual needs of the enquirers, whether they are single entrepreneurs, community organisations or research institutes.*"[19]

10.1 Overview of Activities

The number of enquiries doubled from the end of the 1980's to nearly 600 in 1993. SKAT has never counted the short telephone enquiries, but has estimated that it receives about 500 phone calls per year.

In the last year the total number of written enquiries dropped by 172 to 400 enquiries.

Figure 10.1
Technical Enquiries 1988-1993 (Total and BASIN Part Compared)



The answers to enquiries were written by technical staff. With Silvia's commencement in 1990, considerably more general enquiries (now nearly half of the enquiries) have been answered directly, without recourse to technical staff.

10.1.1 Enquiries within BASIN[20]

The evaluation team analysed the BASIN service in a more defined way since an interview partner was present and because the enquiry processing is more sophisticated than that used for the normal TES.

All members within the BASIN network use a common database system for logging incoming enquiries and outgoing answers. The results of our analysis are as follows:

- The delay for answering (i.e. internal turn-around time) is about one month (with some exceptions).
- Nearly 50% of the enquiries were classified as general, introductory, basic, for beginners, etc.
- The principal communication is by letter exchange (both incoming and outgoing). Only a few faxes (approx. 2-3%) come in or are sent out (approx. 1%).

10.2 Cost

In 1994, 1688 hours were invested in total in providing the TES. 660 hours were devoted by the documentation staff, the other enquiries were handed over to the technical staff:

Energy	226h
General / other	557h
Handpumps	151h
Small-scale enterprise	110h
Water and Sanitation	372h
Building and Infrastructure	272h
TOTAL	**1688h**

The total cost of manpower (at market rates) is SFr 191,320 used for answering 400 enquiries, making the average for an answer SFr 478. For BASIN the average time used per enquiry is 1 hour 20 minutes, much less than the average. The expenses then are SFr 187 per answer.

10.3 Impact

We were not in a position to assess the enquirer's satisfaction within the time of the reporting. As there is no monitoring or a recent user survey,[21] we cannot judge the direct impact of the TES.

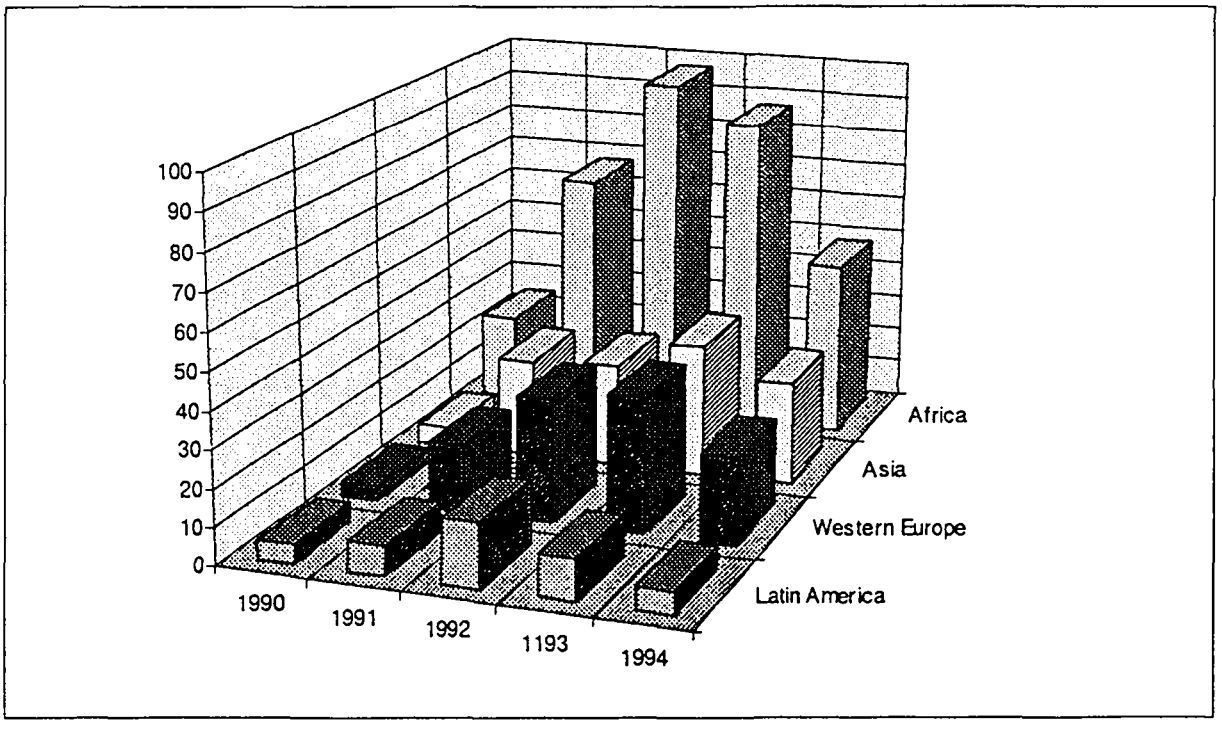
The TES is thought to be an effective instrument to assess what is going on in the field: tendencies, major problems, future demands, etc. BASIN recently undertook an internal assessment of the enquiry service. The draft report[22] argues that the demands are rather a mirror of SKAT's activity in the field and are not the appropriate instruments for assessing current needs.

There are benefits for SKAT itself:

- Through the enquiries, SKAT is receiving contact addresses and other additional contact information.
- It emphases SKAT's important role within the different networks.

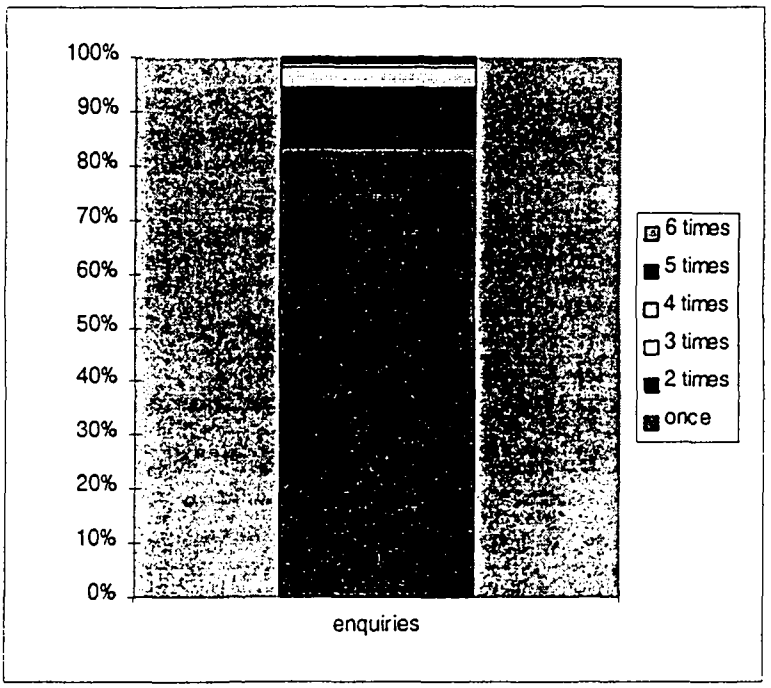
The enquiries decreased last year. This issue should be analysed in more detail. One part of the drop is due to BASIN (declined by 70 enquiries from 1993). SKAT understands this clearly as one of the successes of BASIN networking. More and more questions are going to the regional centres. For example, no more questions are coming from India because the regional centre there is able to respond. But the decrease is a general phenomenon touching Africa even more. The feeling among the staff is that a greater effort invested in timely and in-depth answering provokes a bigger request for the service (and the same in the opposite direction).

Figure 10.2
Geographical Distribution of BASIN Enquiries 1990-1994



One indicator of the enquirer's satisfaction is the frequency an enquirer continues asking for assistance. This rate is at about 17%. This frequency rate has to be put in context with the analysis of the need for multiple letter exchange (clarification, succeeding questions, thank-yous, etc.)[23]

Figure 10.3
Frequency of Exchanging Letters (BASIN 1990-1994)



10.4 Analysis of Issues

10.4.1 Data logging

Logging data for statistics at the entry is a good start for monitoring. But SKAT needs a uniform system for enquiry logging. This will allow the organisation-wide use of contact information. The different data needs for internal use and exchange with network partners can be achieved by differentiating between data format and content.

Looking at the BASIN database, the quality of the data is acceptable but not good enough to produce sound statistics. This could be improved by automatically entering data control through authority lists (country name, type of enquirer, etc.).

10.4.2 Monitoring

Except for BASIN, no data is systematically logged. The logging of each enquiry within the BASIN service is a good start for building the basis for monitoring. But it is not enough for assessing the user's satisfaction or the impact in the field. This can only be done by more cost intensive techniques, such as telephone surveys or mailshots.

10.4.3 Rationalising

Every enquiry is processed in a serious manner. Enquirers may contact SKAT in a variety of formats and media. The style of answers is very informal; left up to the individual. The touch of personal contact is thought to be worth maintaining, but there is a need to put more structure in to the knowledge database. A better synthesising of the general question into 'frequently asked questions' (FAQs), some special area or country information sheets, for example, is required.

We believe that the time invested by technical staff could be reduced, without losing the personal touch, by developing pre-formulated text blocks. Data should be logged by secretaries, with technical staff to write only the core answer, leaving the remainder for secretaries to complete.

The data entered is automatically integrated into the answering letter (contact address). The functionality, speed and presentation of the data (for example co-occurrence of fields) could nevertheless be improved.

We sense a danger that pressure of project work will cause core services to deteriorate. Correct planning and management of resource requirements should alleviate this problem.

11 CONCLUSIONS

We present below the conclusions of our evaluation of SKAT's Documentation-Information-Communication activities. In the following sections we develop a 5-10 year perspective of where SKAT could take its Documentation-Information-Communication activities (Section 12), present detailed recommendations (Section 13) and propose a plan of operations (Section 14).

11.1 SKAT's Overall Achievements

We conclude that SKAT has been doing a good job in disseminating technical information to a global audience. It has maintained a high standard of output, developed a sound strategy to deepen, rather than broaden its knowledge base and produced benefits that, on the information available to us, seem to outweigh the costs. However, SKAT is not in a position to become complacent. It must address issues of cost effectiveness and management control and develop new means of communicating with, and disseminating information to, its client groups. SKAT's cost base exceeds those of similar organisations (largely as a result of high Swiss labour and social costs). Therefore, in order to provide cost effective services, SKAT must continually push the barriers of what is possible: technically, managerially, and conceptually.

SKAT has been doing a good job in disseminating technical information to a global audience.

11.1.1 Documentation-Information-Communication Outputs

SKAT needs to be proud of what it has achieved to date. Despite being a relatively small organisation, it has made a significant contribution to development co-operation world-wide. This achievement has been made despite the lack of specific priorities and defined deliverables in the mandates it has received from SDC. Under different management, one can envisage that SKAT may have achieved far less, given the flexibility inherent in existing funding arrangements.

Despite its not-for-profit status, SKAT maintains a strong professional and business-like attitude to its activities. SKAT staff impressed us with their commitment to the delivery of a quality service and/or product. There is a sense of pride within the organisation that results in an attitude that "*second best is not good enough*" and that all work

sponsored by SKAT will be "*produced to a minimum standard of quality, or not at all*". This organisational culture will stand SKAT in good stead when it faces the task of responding to the proposed changes in mandating proposed by the SDC.

SKAT's emphasis in recent years on deepening its technical and managerial knowledge base in a few, specific areas of AT has produced a positive return. SKAT is one of the few development organisations that can justifiably claim to be a world-leading agency in its fields of expertise. This produces positive benefits, both to SKAT and its funders; SKAT is not just another development organisation that happens to be based in Switzerland, it is the world's leading disseminator of technical information in the fields of low cost building and construction, small-scale hydro power, rural water supply and sanitation, etc. For the SDC this has beneficial consequences. SKAT is now a partner of choice for certain development funders outside Switzerland. We propose that SKAT must be offering a good service if it can maintain external support while operating with a cost base that is one of the highest in the world.

SKAT's central role in publishing on behalf of a number of world-class development networks has brought it significant non-financial returns. SKAT's name has become associated with the production of high quality publications that solve specific, technical needs in relatively small, but important, sectors of the development community.

SKAT's books are thematically good, well made, and of a high finished quality. They provide users with a positive impression of SKAT in particular and Switzerland in general. SKAT's position as the only not-for-profit publisher based in Switzerland, disseminating information in the technical arena of third world development, has positive benefits that reach far wider than a simple cost/benefit analysis.

11.1.2 Documentation-Information-Communication Processes

On the other hand, we conclude that the processes employed by SKAT to undertake its Documentation-Information-Communication activities lack definition, clarity, and internal control. In general, the processes are not co-ordinated to any great extent and, where management controls have been exercised, they reflect individualistic personal desires, rather than defined corporate policies.

To a certain extent, the evaluation has come at a time of inconvenience to SKAT. The departure of Werner Fuchs, who has had the main influence over Documentation-Information-Communication activities over the past few years, has shown up SKAT's vulnerability. Its process control systems are people-based and rather than transcending individual priorities and needs, seem to highlight them.

In Werner's absence from a full-time position, inadequate controls have been maintained and operational processes have been allowed to deteriorate. In particular, the production processes employed by SKAT to prepare its books are inefficient, largely because SKAT has given inadequate consideration to the overall planning of this operation and the organisation and management of its logistics.

The departure of Werner has exacerbated a situation where the DTP function is not accorded relevant status. It is a major production bottleneck and must be run at maximum efficiency for the entire Publications operation to remain productive. Poor management of upstream tasks has had a detrimental effect on DTP throughput. The inputs from authors have not been managed to any great extent.

The process of turning project knowledge into information for dissemination is poorly controlled. For instance, with the development of each issue of Doppelpunkt, SKAT faces a resource and logistical crisis. Staff that are contractually obligated to prepare information for dissemination seem to find numerous reasons why they cannot find the time to contribute to the forthcoming issue.

Publication processes are poorly defined for most of SKAT's information products. Its corporate image, for instance, shows little consistency outside of individual document series. Whilst not immediately obvious, this has an impact on the perceptions of clients and funders.

The TES activities suffer from a lack of visibility. The answers to simple questions are provided in an efficient manner, but more difficult questions can take too long to answer. Better reporting systems would highlight slippage and allow SKAT to increase resource allocation when problems emerge, rather than allowing its turn-around times to deteriorate.

Bookshop activities are transaction-led, rather than market-focused. We believe that SKAT could sell more books, but would need to take a pro-active stance in the marketplace for this to occur. It should use more innovative ways of presenting its message and providing information to better inform potential purchasers. The operation would benefit from better marketing planning and Jlona should be encouraged to improve her skills in the area of marketing and selling.

A lack of time, insufficient training, inadequate management attention and conflicting objectives seem to be the main causes of the problems with operational processes in SKAT. We conclude that SKAT's rapid growth has been one of the major influencing factors over recent years. We would encourage SKAT to plan more carefully its growth activities so that 'cracks in the fabric' do not become institutionalised.

We welcome SKAT's decision to implement an ISO9001-compliant quality management system. The act of documenting its internal processes will, in our opinion, provide SKAT with the stimulus it needs to sort out many of the process control problems we have highlighted above.

We welcome SKAT's decision to implement an ISO9001-compliant quality management system.

11.1.3 Documentation-Information-Communication Management

SKAT's communication with its outside partners appears to be acceptable but internal communication is at times inadequate. Conflicting time schedules and too much work conspire to make SKAT's internal communications systems ineffective. We feel that the installation of an internal e-mail system would facilitate a better exchange of information around the organisation, as would regular team and staff briefings. SKAT is a natural candidate for adoption of a groupware application such as Lotus Notes. Similar sized organisations have gained tremendous benefits from the introduction of business solutions based on this product and others of the like.

We perceive that SKAT has yet to address the management transition from a small group of dedicated development specialists (10-12 in number) to a professional service organisation (20-25 in number). In a service-based organisation, growth through the mid-high teens tends to highlight administrative control problems. We conclude that the problems faced by SKAT are no more or less difficult that those faced by any high growth consultancy or project management company. However, they are made more significant by the fact that all three senior managers undertake project missions and have little time to address the growing pains.

11.2 Documentation/Publication

This section investigates SKAT's documentation in the broad sense of frozen or stored information.

We believe that SKAT's final products are good; its publications are held in high regard. As mentioned above, the processes whereby SKAT produces these end products must be improved.

The documentation is an invaluable in-house information resource, even if it isn't used extensively at the moment. It is well maintained and mostly up-to-date for SKAT's core subjects.

11.2.1 Documentation/Publication Products

We conclude that SKAT produces well written technical books. These books are perceived as an integral part of SKAT's information dissemination remit. The pride of SKAT staff in the books is evident and external support for what SKAT has done is forthcoming from third parties.

In general, the books are of an appropriate quality for the defined markets, but in some cases over-engineered and therefore perceived as being expensive.

There are a number of issues that SKAT should consider:

- It should define more thoroughly the type and layout of each document and standardise wherever possible.
- It should attempt to use the books as a corporate branding exercise.
- It should increase the number of people trained in the production of books.
- It should address issues of marketing, rather than merely selling.
- It should set up an explicit pricing policy, that indicates the extent of subsidy or otherwise on the publication.
- It should pro-actively plan the publications profile it wishes to build and actively work towards creating it.

We conclude that publishing on the Internet presents SKAT with a viable alternative and complementary medium for distributing its information. A number of issues, such as copyright restrictions need to be addressed, and SKAT should invest time and effort in sorting these out so that it adds to its internal knowledge base.

The documentation is well prepared for in-house use. This invaluable asset should be much more integrated into the organisation, but also within SKAT's circle of experts and networks. This can only be achieved with better electronic network-oriented tools. The placement of the physical documents should be reassessed. Abstracting must be adapted to meet the assessed and future planned needs.

11.2.2 Documentation/Publication Process

The document publication process is inadequately controlled. We have addressed the general issues above. We propose that the work on ISO9001 process definition begins with the publication process. We believe that this will eliminate one of SKAT's major inefficiencies in a relatively short space of time.

The documentation management process is under good control but lacks regular feedback from, and integration with the technical staff for collection development and abstracting. The delivery side is left to the individual user and is not part of a delivery process. These parts have to be better defined.

11.3 Information

11.3.1 Information Systems

It is our assessment that SKAT is a highly information-intensive organisation. The product it markets (information) has been hard-won over many years and, properly disseminated, contains a wealth of knowledge to assist in the development of the third world. The value chains in which SKAT operates are also information-intensive. SKAT co-operates with many organisations from the North and the South. Each one of these partners adds further information to the repositories managed by SKAT.

We believe it imperative that SKAT invests in and maintains IS tools and techniques that are appropriate to the running of an information-intensive organisation. This evaluation concludes that, in the past, SKAT has not recognised the importance of investment in IS as opposed to IT. Therefore, in terms of its information management systems, SKAT is 2-3 years behind best practice. This hindering its information dissemination activities.

11.3.2 Information Management

Given the importance of information to SKAT, we are surprised to find that SKAT has no formal IS strategy. This is a major weakness and should be addressed as soon as possible.

We are surprised to find that SKAT has no formal IS strategy.

We also conclude that SKAT has suffered from not having a defined IS or information management (IM) resource. We propose that SKAT fills this resource gap with the appointment of a qualified and experienced IM specialist. SKAT should also enhance the general IT/IS skills-base of all its staff, and provide for additional DTP resource through training of further staff.

SKAT needs to keep constantly up to date. We believe that a formal process to periodically review that the objectives, tools and technologies are still current (drawing upon external expertise where required) will be necessary to build and maintain an edge.

11.3.3 Information Dissemination

We believe that SKAT's information, in general, is accurate, verifiable, complete and clear. These are output related attributes of useful information. SKAT's information activities should take more account of some additional attributes of useful information, particularly the issues of access, timeliness and relevance. The whole organisation should be encouraged to search out better forms of information dissemination, test them and transfer the knowledge back through SKAT for the benefit of others.

SKAT faces problems in this regard. Its staff recognise and manage operational activities. They see information dissemination in terms of activities (technical enquiries, workshops, publications, evaluations, networking, etc.) rather than a process, leading to a result.

We believe that it stems from a fundamental clash of objectives. On the one hand, SKAT's Professionals are trying to turn knowledge into information products. On the other hand, SKAT's Documentalists are trying to turn information products into knowledge. These are still two different worlds. This causes most of the problems between the two groups with regard to allocation of resources, focus on goals, etc. Additional training will assist staff to re-orientate their thinking so that they can gain a 'big picture' perspective of information dissemination.

SKAT's tendency towards perfectionism may not be appropriate for all forms of information dissemination. SKAT needs to investigate less perfectionist forms of information dissemination, that make the information available quicker and at lower cost. Fifteen years ago, it was difficult to get information to the field, now things have changed; customers have changed, needs have changed. To facilitate this change, SKAT will require additional resources in the form of editorial and journalistic skills.

11.4 Communication

We identified above that SKAT's internal communication systems need to be strengthened. In this section we conclude on the wider aspects of communication.

11.4.1 SKAT's Role in the Information Age

SKAT is better placed than many organisations to recognise the importance and value of communication. Indeed its mandates reflect its knowledge of, and contributions to information exchange at a global level. However, SKAT's role in the emerging information age is less well defined. The rapidity of change, dynamism of global markets and seemingly endless technological innovations require information

strategies underpinned by rapidly responding objective-setting mechanisms.

SKAT, along with other development organisations, is attempting to re-conceptualise its role in the information age. To neglect present opportunities and future potential would be a unfortunate waste of all the good work of the past.

SKAT's primary role is to turn data into information and to facilitate the appropriation of knowledge. Therefore, SKAT's success in the information age will depend upon its use of superior systems for converting data into useful information and development of better methods of disseminating information for the acquisition of knowledge.

11.4.2 SKAT's role in Global Networks

The use of 'closed' networks in the development community have facilitated the exchange of information between the collaborating organisations. However, they have had a detrimental effect on the development of open channels of communication between all interested parties.

In the past, open forms of electronic networking were not possible. Now there are no technical constraints to open North-North dialogue and few to North-South and South-South communication.

We conclude that SKAT has an opportunity to extend the scope of its vision and take a major role in the facilitation of open global networks, for the communication and dissemination of information on development issues of a technical nature.

11.5 Appropriateness of Tools and Technologies

11.5.1 Physical Infrastructure

In general, SKAT has provided an adequate physical infrastructure to support its Documentation-Information-Communication activities. There are sufficient computing resources of adequate power to undertake the tasks required of the organisation.

11.5.2 Information Systems

SKAT has an enormous amount of information at its disposal, but the tools and technologies for cataloguing, accessing, repackaging and distributing it must be improved.

SKAT's ability to move forward as an information disseminator is being hindered by a reliance on core information systems that no longer

provide adequate support to its Documentation-Information-Communication activities. We judge the Concept 16-based address and documentation databases as inadequate for present and future needs. These systems are not covered by satisfactory long-term support arrangements which poses SKAT with a serious business risk. They should be replaced as soon as possible.

On the DTP front, SKAT will benefit from adding a new application to its portfolio, using the document creation tools in the following way:

- Pagemaker for the creation of short, design-intensive documents.
- Word for general word processing functions.
- FrameMaker for the creation of long technical documents.

In the medium-term, SKAT should provide tools and technologies for the management of all information objects, whether on or off the computer. Further detailed conclusions and recommendations on tools and technologies are given in Appendix 6.

SKAT's ability to move forward as an information disseminator is being hindered by a reliance on core information systems that no longer provide adequate support

11.6 Cost Effectiveness

11.6.1 Assessment of Costs

We found it very difficult to assess the cost effectiveness of SKAT's activities. To some extent we were hindered by the time constraints placed on the team. However, other factors also played a part:

- Because of its not-for-profit status and the flexibility of its mandates in the past, SKAT has been placed under minimal external pressure to account for the cost effectiveness of individual Documentation-Information-Communication activities.
- SKAT's management has not always accorded the Documentation-Information-Communication activities a high priority status within the organisation.

- Therefore, SKAT has undertaken few internal evaluations of cost effectiveness in these functions.

- Many of SKAT's Documentation-Information-Communication activities interact with project activities, thus blurring the distinction between the work funded by one mandate and that funded by another.

Specifically, using the data, and given the time available, we were unable to determine a final view on the cost effectiveness of SKAT's Documentation-Information-Communication activities. However, we believe, based on the information we were able to analyse, that the costs are within reasonable limits.

11.6.2 Significant Issues

We have been able to draw the following conclusions:

- SKAT has achieved a satisfactory result in terms of information dissemination.

- SKAT has achieved this success with a relatively small team of highly dedicated personnel.

- SKAT's budget for Documentation-Information-Communication activities, whilst adequate, cannot be reduced significantly without collapsing the entire operation.

- SKAT cannot compete on an equal cost footing with other Northern development institutions (in the European Union for instance) because of its higher labour and social costs.

- SKAT can, however, continue to achieve a cost-effective result if it continually innovates and strives hard to improve the management and delivery of its products and services.

- It can do this by streamlining its operational processes and underpinning them with enhanced information systems that will allow it to compete through efficiency and effectiveness gains, rather than through lower costs.

- The knowledge and skills acquired by SKAT are world-class and therefore sought-after on the open market.

- This fact is acknowledged by funders other than SDC through the award of open tender contracts to SKAT in its areas of competence.

Swiss wage levels are amongst the highest in the world. Therefore, SKAT's costs will always look bad compared to its competitors. SKAT can never hope to be the cheapest, but it can aim to be the best.

Being the best means that SKAT must continually stretch the boundaries of what is possible, create new markets for itself, move away from competing and towards the creation of competitive advantage.

11.6.3 Future Publications and Bookshop Activities

Looking to the future, we question the long-term cost-effectiveness of SKAT's Publication and Bookshop activities as opposed to dissemination of information through alternative media. We believe that paper-based products will continue to play a role, but that SKAT should seek to reduce the capital it has tied up in stock and move towards the provision of its information in new and more convenient forms that eliminate the need for transferring paper across the world.

12 DEVELOPING A 5-10 YEAR PERSPECTIVE

We believe strongly that information is an asset and, as such, it should be managed. To do this, all staff within SKAT have to take 'information responsibility' - be concerned with the purposeful use of information as a resource. They must take individual responsibility, while working towards a collective goal.[24]

12.1 Towards an Information Partnership

There is a need in SKAT to develop an information management (IM) partnership where all parties (both internal and external parties) are heading in the same direction and at the same speed. At the present time there is a tendency for project staff to undertake discrete project activities (to write a book for instance) and Documentation-Information-Communication staff to undertake the support activities without regard for the corporate 'big picture'.

A key requirement for SKAT to consider in developing this information partnership is to define a formal IM strategy, so that all staff can be confident of where their particular activity or process interfaces, and supports the corporate strategy as a whole.

12.1.1 Information Management Strategy

We believe that the world of development will go through major changes in the next decade. The extent of the changes and their impact on development organisations such as SKAT is unknown, but we are certain that the strategies employed today will not be relevant in 10 years time.

Therefore, SKAT should prepare an IM strategy that is updated on a regular basis. We propose that SKAT adopts a two year rolling cycle of reviews as follows:

- Annual internal assessment of Documentation-Information-Communication achievements against plans and acceptance by customers of technologies and means of communication used to date.

- Bi-annual externally-assisted assessment of similar scope, but with the additional objective of exploring the role of new tools and technologies.

We believe that the main challenge for SKAT in planning its Documentation-Information-Communication strategy for the next 5-10 years is to decide where IT's opportunities and limitations lie, both

within and outside the organisation. We believe that external assistance will be required to support the decision-making tasks.

SKAT should decide internally whether it wishes to dominate the development market for technical publications. We believe that it has a good chance to do so. However, to become and remain a leading facilitator of information exchange in its defined subject areas, SKAT must take a lead in the application of new means of information exchange and to propagate their use in appropriate circumstances.

Business strategy: "Searching for the new rules of the game; then finding a way to win".

[Professor Bernard Taylor, Henley Management College]

To develop sustainable competitive advantage, SKAT must be regularly creating new ways to disseminate information; ways that meet defined market needs, but that demand a high degree of process knowledge to successfully exploit.

Its business strategy must also reflect the underlying objective that its primary business function is to do itself out of business - not in the literal sense, but in terms of particular activities. It must be willing to hand over and move on. Encouragement of an innovative, IM strategy should eliminate the natural tendency to hang onto activities when they could be usefully passed over to a Southern partner for instance.

11.1.2 Setting Concrete Objectives

We believe that SKAT can justifiably claim that its mission is to turn development experience (data) into useable (useful) information and to facilitate the acquisition of knowledge on a world-wide basis. We believe that SKAT should be actively seeking to broadcast this message on all relevant media and to all appropriate recipients.

It is very important for SKAT to set clear objectives, goals and their priorities. The following general objectives for the next 5-10 years are proposed:

- To provide clear and strong signals that SKAT is a serious processor and disseminator of publicly-funded information.
- To reinforce the message that SKAT intends to remain the leading technical publisher in its field.
- To develop generic capabilities in the field of information exchange that are attractive not only in the dissemination of technical information, but have application in a wide range of dissemination activities.

- To make greater use of electronic communications networks.
- To make SKAT's information resource available to a larger audience in forms of media that can be distributed at lower cost than books and faster than traditional methods.

12.2 Creating a Concept

There is a need for SKAT to create a concept that all staff can recognise as their 'own' and all users recognise as world-class.

12.2.1 The Information Server

We need to redefine the way that SKAT will work to meet its mission. This will require a shift in conceptual thinking; information systems no longer provide tools to manipulate data for the provision of an information product, the information systems *become* the information product. The information systems, collectively, *become* the "*information server*".

We propose that SKAT moves quickly to a stage where all relevant information is available on-line, for internal use and, where appropriate, for external consumption. This will have a major impact in terms of SKAT's:

- Efficiency - reducing the cost of providing information.
- Effectiveness - improving the returns available from information.
- Competitive Edge - using information as a strategic asset.

We believe that to remain effective in the 5-10 year horizon, SKAT must introduce its own domain ('skat.ch' for example) on the Internet or similar global network. The information server would be attached to this global network and would be accessible by all clients with local access to the World Wide Web. We believe that this will account for the vast majority of SKAT's clients inside three years.

We have used the name "*information server*", because the client is more in control of what information they take and when - hence the concept of service. The information server helps to develop an information partnership with a broad range of people. The information partnership can include parties from outside the traditional SKAT networks.

12.2.2 On-line Methods of Information Dissemination

The following methods of information dissemination will become increasingly important over the next 5-10 years in supporting the information server concept. There will be other methods that have not yet reached commercial maturity. The ongoing strategic reviews will identify the efficacy of new methods and their relevance to SKAT's work.

Table 12.1
Methods of Using the Internet

Method	Application
WWW	To provide an appealing entry point to SKAT's on-line services
Gopher	To provide simplified access to SKAT's on-line services (through ASCII terminals)
List server	To maintain open discussion on topical subjects using e-mail
E-mail	To facilitate fast communication and exchange of documents world-wide

12.2.3 SKAT Information On-line

We propose that the SKAT bookshop should be put on-line within the next two years. According to Unipalm PIPEX, one of the UK's leading Internet providers, "*certain businesses have a natural affinity for the way the Internet operates: and the book business is plainly one of them, judging by the huge number of stores that are rushing to get on-line.*"[25]

We do not anticipate that SKAT will do away with paper publishing by going on-line; indeed an Internet presence may have the reverse effect and increase the demand for SKAT's books. However, SKAT should provide its information in electronic format for those who wish to access it in this form.

Other SKAT information that can be put on-line includes:

- Frequently asked questions (FAQs)
- Short topical papers

- Information on courses, workshops, seminars, etc.
- Reports on experience.

An information server can be used to rationalise and optimise network activities. At the moment networking within the development field could be argued to be 'tribalism'. Common groupware systems (e.g. Lotus Notes solutions for the networks (private) or forums (public and private)) can be used to open up the development debate. SKAT could take a strong lead in the sponsorship of best practice in networking.

Internally, SKAT would be in a position to provide the following information on-line:

- Electronic diary management system
- Electronic forms/routing system
- Logging system for telephone messages, notes, etc.
- Internal e-mail, for tracking events and exchange of memos, reports, etc.

The benefits to SKAT would include:

- All communications in a similar form
- Development of a central archive
- The ability to search and retrieve
- The ability to track progress
- The ability to capture data for management reports.

12.3 Implementing the Concept

12.3.1 First Things First

We believe that SKAT can develop for itself an integrated on-line environment over the next few years using industry standard applications. However, SKAT will be hindered by legacies of the past. SKAT is not in a position to move rapidly to the implementation of an Information Server. We propose a phased approach, in which SKAT first addresses its own internal needs, then starts to roll out the server for use by others.

The concept we propose takes account of what is technically possible today, without the need for SKAT to acquire leading-edge support skills. Additional skills will be required but many of these can be bought in as and when required. However, we have identified the appointment of an information manager as a key step in the process. This person, in co-operation with SKAT's management and staff, needs to own, develop and implement the information server concept.

The Plan of Operations in Section 14 provides a detailed overview of the requirements.

12.3.2 Investment in Supporting Tools and Technologies

It is the use of the technology that is the most important issue - not the technology itself. Over the next 5-10 years SKAT should become proficient in a wider range of information dissemination technologies. This will give it the ability to match message and audience to means.

SKAT needs to provide a technical infrastructure that allows the long-term electronic storage of objects of information. The system must allow the attributes of useful information described above to be manifested.

The technologies to manage all forms of information in one integrated information system are still emerging. However, we believe that within 2-3 years the market will be sufficiently mature for SKAT to invest in the appropriate document management systems without major risk.

We propose that SKAT starts to produce all long life-cycle documents to the international SGML standard. This will ensure that documents originally created for paper output, say, can be quickly and inexpensively republished to CD-ROM or the Internet. Likewise, documents originally created for on-line viewing can be quickly and inexpensively printed to paper. For further information on SGML (Standard Generalised Mark-up Language - a platform and media independent document construction standard) see Appendix 4.

We propose that SKAT starts to produce all long life-cycle documents to the international SGML standard.

There is a need for all staff in SKAT to understand in a broad and general way the profound technological changes that are underway. All staff will need to use the tools. No matter how complex and specific the technology may appear to be, it is a tool to be mastered. With the

new tools come new rules that determine how institutions and individuals function effectively.

12.3.3 Getting Started

SKAT should set the following as targets for the next three years:

- SKAT should invest in effective tools to maintain highly structured and media independent documents.
- SKAT should choose document management software that can be integrated into on-line systems.
- SKAT should review content of its documents and anticipate future needs.
- SKAT staff, through training and experience, should become expert in the processes of knowledge acquisition.
- SKAT should embrace tools and techniques that both broaden and deepen the flows of information.
- SKAT should work pro-actively to overcome the barriers to information exchange that currently exist.
- SKAT's project staff need to assess the information content of their products and processes and plan its dissemination accordingly.

12.3.4 Creation of a New Consulting Competency

We envisage that SKAT's technology consulting work will begin to assume less significance as the necessary skills are transferred to in-country specialists and partner organisations. This leaves SKAT in a quandary; by achieving its job, it does itself out of a job.

We propose that consulting activities in the management of technology will assume greater significance in the future. It is in the application and management of technology that SKAT can play an important role in the coming 5-10 years.

By building its skills in the area of on-line communications, electronic publishing, information systems, etc. SKAT will create another distinct competence that can be developed into a marketable service. We anticipate that within 2-3 years SKAT could be generating significant revenue from activities such as the following:

- Assisting North and South organisations to create and maintain an Internet presence.

- Providing support to network partners in all forms of communication and information dissemination methods.
- Advising organisations on their document production strategies.
- Consulting and training on the methods for converting development knowledge into information products and services.
- Establishing and maintaining information servers on behalf of other organisations.

These are services that SKAT has not yet seen as lying within its scope of consulting activities. However, they fit well within the overall framework of an organisation dedicated to development co-operation in the fields of technology and management. The market is young; there are few competitors. We project immense opportunities for organisations willing to take an early stand. We propose, therefore, that SKAT builds a presence in this market, with the objective of creating a new arm to its consulting and project activities.

13 RECOMMENDATIONS

In this section we propose a series of detailed recommendations. These were reviewed in a general way at the presentation/action planning meeting on 09 August 1995.

13.1 Overall Strategy

13.1.1 Vision

SKAT's initial vision was to promote AT for a broad group of potential users and to publish valuable information on development issues. The 1988 evaluation of SKAT initiated a process in a new direction. SKAT has since defined itself in whole as "*an information and documentation centre which informs in a qualified manner and provides contacts*"[26]. This main activity has now been paralleled with consultancy. "*Consultancy is part of the information activity*".

SKAT is now specialising and deepening information flows to, and for a few people. The means are information and communication work, documentation, bookshop, editorial work, publications and networking. A major shift from *doing* to *managing* has occurred in SKAT's thinking and behaviour.

Today SKAT is an organisation with a highly specialised knowledge base and a wide working arena, but focused on a tightly defined client group. It acts as a facilitator and manager of technology projects and as a disseminator of information about development technologies. We recommend that SKAT maintains and enhances that vision.

13.1.2 Mission

It is our assessment that SKAT lacks a clear mission statement and we recommend that it takes steps to develop one. We believe strongly that SKAT has a mission (for example "*The leading Swiss agency for development co-operation in [appropriate] technology and management*"), but the actual words haven't been clearly formulated.

We believe that SKAT's mission is to turn development experience (data) into useable (useful) information and to facilitate the acquisition of knowledge on a world-wide basis. As an example of a mission statement that could be appropriate for SKAT, we propose "*the world's leading technical information provider for sustainable development*".

As a consequence of a clear mission statement, SKAT needs to redefine the way that it will work to meet this mission.

"The world's leading technical information provider for sustainable development".

13.1.3 Goals

We are aware that SKAT has a large number of goals, some operating at a project level, others at the corporate. We believe that SKAT should set itself the following long-term goals:

- To become a leading facilitator of information exchange in its defined subject areas.
- To take a lead in the application of new means of information exchange and to propagate their use in appropriate circumstances.
- To embrace communication techniques that both broaden and deepen the flows of information.
- To become expert in the processes of knowledge acquisition, information processing, document creation and information dissemination.
- To overcome the barriers to information exchange that currently exist.

By achieving these goals SKAT will be able to:

- Gain a leading role in the dissemination of technical information for sustainable development world-wide.
- Develop a sustainable competitive advantage in the field of information management.
- Assist the SDC, its partners and other development organisations to benefit from the skills it has acquired.
- Turn the knowledge it gains in this field into a new opportunity for consulting and project activity.

13.2 General Documentation-Information-Communication Objectives

It is very important to set clear objectives for SKAT's Documentation-Information-Communication activities. We proposed the following general objectives in Section 12 and repeat them here:

- To provide clear and strong signals that SKAT is a serious processor and disseminator of publicly-funded information.
- To reinforce the message that SKAT intends to remain the leading technical publisher in its field.
- To develop generic capabilities in the field of information exchange that are attractive not only in the dissemination of technical information, but have applications in a wide range of dissemination activities.
- To make greater use of electronic communications networks.
- To make SKAT's information resource available to a larger audience in forms of media that can be distributed at lower cost than books and faster than traditional methods.

13.2.1 SKAT's Corporate Identity

At the corporate level, SKAT should instruct a corporate image specialist to help define SKAT's corporate profile. It may be time to consider a change of name and/or logo to reflect the increasing importance of 'management' in the SKAT title.

13.2.2 Organisation of Documentation-Information-Communication Activities

SKAT's management should reinforce the importance Documentation-Information-Communication activities to SKAT staff, emphasising the synergy between project work and Documentation-Information-Communication activities. SKAT should:

- Provide clear direction and better process control to the Documentation-Information-Communication activities.
- Re-organise the Documentation-Information-Communication department to ensure greater clarity of job roles and responsibilities. Embed responsibilities into formal job descriptions.
- Strengthen the Documentation-Information-Communication department through appointment of an information management specialist.
- Create a management structure within the Documentation-Information-Communication department with the information manager taking line responsibility for Jlona and Martin.
- Improve the skills of the Documentation-Information-Communication team through coaching, mentoring and training.

- Involve the Documentation-Information-Communication team in project decisions with respect to Documentation-Information-Communication activities.

SKAT should use the introduction of ISO9001 to define key business processes, in the order of:

- Publication cycle
- Project definition and management
- Information processing.

Other business processes should be defined as part of an on-going programme of efficiency improvements.

13.2.2 Infrastructure for Documentation-Information-Communication Activities

Before proceeding with any major programme of information systems improvement, SKAT should develop a formal information management strategy. Involve SKAT staff in specifying elements of the strategy. Specific actions should be undertaken to train SKAT staff to use the existing Documentation-Information-Communication infrastructure and to understand the concepts of on-line documents.

The recommendations below are supported by specific actions identified under the individual Documentation-Information-Communication activities:

- Produce templates for books (especially serials publications), implemented by using a document management tool.

- Invest in a Windows client management/tracking system (e.g. a database of contact names & addresses).

- Integrate this into other applications, for example into Word for letters, faxes etc.

- Invest in a Windows client documentation logging application.

- Integrate this into other applications, for example into Word for letters, faxes etc.

We believe that SKAT can take a lead in the development of a world-wide communication system to provide technical development experience on-line. Therefore, it should:

- Define a network technology and information server concept.

- Make greater use of electronic communication tools, both internal and external to SKAT.

- Invest in global network access, using its own domain ('skat.ch').
- Provide the basis for an on-going on-line presence.
- Develop two information servers for internal and external information storage and access.
- Invest in and integrate all types of document into one document (object) management system.
- Regularly assess SKAT's information systems and communications infrastructure and compare to advancements in the field. Adjust strategy accordingly.

13.3 Publications

13.3.1 General

SKAT has created a good position in the market for technical publications and should consolidate this lead to become a world leading publisher of technically-oriented development literature. It should review its mix of products, spend more time preparing short, but highly targeted documents, and make them available initially on-line for comment and feedback. Offer this service to a wide range of development authors.

SKAT should invest in tools and techniques that allow it to manage long life-cycle electronic documents.

SKAT needs to prepare a rolling two year strategic plan for publications, defining, in advance, the target market for each publication or series and price.

13.3.2 Short-term Actions

- Prepare a strategy for SKAT publications.
- Task Jlona with managing inputs to the publication process and ensuring its efficiency (process management role).
- Task Silvia with signing-off the outputs of the publication process (quality assurance role).
- Improve DTP efficiency and reduce re-work by introducing formal, documented procedures (ISO9001).
- Upgrade to Pagemaker V6, but limit its use to the creation of short, design-intensive documents.

- Purchase FrameMaker V5 and use it to prepare templates for series publications of long technical documents.
- Add further resource capacity to the DTP function by training Catherine in Pagemaker and FrameMaker and Martin in FrameMaker.
- Resolve copyright issues for electronic publishing.

13.3.3 Longer-term Actions

- Appoint a publications editor/manager.
- Build a consistent, overall approach for all the different publications.
- Publish all documents intended for external publication to SGML.
- Invest in new forms of document distribution where appropriate (on-line publishing, Adobe Acrobat distribution, CD-ROM, etc.).
- Produce more information on-line in order to shorten the production and dissemination cycle and to make the publications available to a potentially wider audience.

13.4 Documentation

13.4.1 General

The documentation at SKAT should be better integrated into the organisation. SKAT should make the documentation centre a research tool through the provision of external search mechanisms and invest in training the documentation centre staff to operate these tools.

SKAT should streamline the collection to the assessed use and improve information access to the collection.

13.4.2 Short-term Actions

- Choose and implement an *intermediate* user-friendly documentation system.
- Catalogue all forms of documentation (slides, tapes, video, data files, etc.).
- Set targets and monitor the input of technical staff, providing feedback and corrective action where targets are not met.
- Introduce a system of classifying internally-produced documents (public access, limited circulation, SKAT-only, etc.).

- Reduce content descriptions to a minimum *OR* make the data entry process more efficient (better abstracting, table of contents, scanning, etc.).

- Refine the SATIS classification and define a manageable set of keywords.

13.4.3 Longer-term Actions

- Provide remote access to the document management system (e.g. off-site queries).

- Provide a rapid abstraction and photocopying service, fee-based beyond an initial threshold level.

- Invest in a full document (object) management system to manage all information objects including electronic documents.

- Incorporate project reports, semi-publications and other interim documents into the system.

13.5 Bookshop

13.5.1 General

SKAT needs to decide whether it wishes to continue as a retailer of development publications. We recommend that it rationalises its order taking and fulfilment process in any case.

The bookshop activities should be redefined to take account of emerging opportunities for non-paper forms of publication. The name "bookshop" could be dropped and "information service" used in its place.

SKAT's pricing policies need to be defined and made explicit. Should SKAT sell or distribute free of charge? This question must be answered in the context of emerging opportunities for on-line distribution of information.

13.5.2 Short-term Actions

- Develop a marketing plan for SKAT publications.

- Reduce specific titles of unsold stock through a sale (half price; buy two get one free, etc.) or give away ageing stock.

- If SKAT decides to continue retailing development publications, then it should handle all customer communications, sub-contracting

logistics of delivery to Comedia or another bookshop that specialises in postal delivery services.

- If not, SKAT should arrange for another organisation to distribute these books in Switzerland.
- Provide information about SKAT publications and an ordering system on the SKAT information server.
- Promote new methods of purchasing SKAT's publications.

13.5.3 Longer-term Actions

- Move away from a focus on bookshop activities to a focus on information dissemination activities, using paper-based documents as one product in a wider portfolio.
- Introduce publishing on demand and/or publishing arrangements in third world countries.

Move away from a focus on bookshop activities to a focus on information dissemination activities.

- Move away from a focus on bookshop activities to a focus on information dissemination activities, using paper-based documents as one product in a wider portfolio.
- Introduce publishing on demand and/or publishing arrangements in third world countries.
- As paper-based products mature (2-3 years after initial publication) make them available to third world publishers/printers for low cost distribution.

13.6 Information

13.6.1 General

SKAT's mission needs to be expounded as discussed above. We recommend that the management and staff clearly define the messages that SKAT wishes to communicate, the target audiences and the methods to be used.

At the corporate level, SKAT should publicise more the ways that it can help rather than what it does. For each information product SKAT

SKAT should publicise more the ways that it can help rather than what it does.

should use the appropriate language(s) and dissemination vehicle(s).

SKAT should develop a consistent overall corporate image for its information products, using external assistance where necessary.

13.6.2 Short-term Actions

- Implement corporate image within publications.
- Define one main external communication language.
- Produce new corporate flier and brochure and revised SKAT experience documents that take account of this new profile.
- Produce standard templates for a range of frequently used document types (letters, faxes, reports, etc.) and sample documents for a range of commonly undertaken tasks (sending a book, answering a query, etc.).
- Sponsor an internal competition to come up with a new name and concept for the SKAT network newsletter (SKAT Doppelpunkt).
- Introduce tripartite ownership of each edition of SKAT's network newsletter (manager-technical expert-journalist).
- Produce SKAT's network newsletter in English (with German and French abstracts).

13.6.3 Longer-term Actions

- Continuously refine SKAT's profile in the market place but maintain the corporate image.
- Motivate SKAT's customers to learn more about SKAT activities on-line.

13.7 Technical Enquiry Service

13.7.1 General

The TES should be continued. It provides contact information and can help to show the needs of SKAT's customers in the field.

SKAT should improve the efficiency with which this service is provided, reducing the time spent on each response without sacrificing the personal touch. It should also spend more time analysing trends and needs as a basis for planning its information server activities.

13.7.2 Short-term Actions

- Use the same contact database for all activities.
- Create templates for answering requests, linking them into the contact database.
- Provide facilities for direct faxing from the desktop.
- Convert general background information into a range of standard responses (FAQ, bulletins, etc.).
- Provide an overview of TES issues in SKAT's network newsletter.
- Analyse on-going activities regularly.

13.7.3 Longer-term Actions

- Promote e-mail as the preferred method of communication.
- Promote and help develop a world-wide technical enquiry service network, partnering with organisations such as GATE and ITDG.
- Provide forum services, perhaps through CompuServe or another provider.
- Invest more time and effort into converting the TES into a self-sufficient service.
- Make more information available in FAQ format for viewing by SKAT's customers.
- Make the most frequently requested documents available in electronic and/or fax-back format.

14 PLAN OF OPERATIONS

14.1 General

The plan of operations has been put together to assist SKAT in the task of implementing the recommendations of this evaluation. The initial phase should last at least 3 years.

14.1.1 Institutional Co-operation

We propose that SKAT moves from project co-operation with its partner organisations to full business co-operation with them. A key change will be the merger of all the different information activities into one overall information and communication structure.

A key change will be the merger of all the different information activities into one overall information and communication structure.

14.1.2 Co-operation with Swiss partners

SKAT will begin to raise awareness of the value of information and the importance of using new techniques for communication and information dissemination.

SKAT should define example core data for Swiss development work and prepare and stipulate an electronic publication programme.

14.1.3 Co-operation with International Partners

Many organisations will take new communication technologies into consideration over the next few years. International partners are looking for a lead in acquiring and transferring knowledge, which SKAT is able to provide.

14.2 Personnel Issues

The Documentation-Information-Communication department needs reorganisation, with additional resource committed.

Responsibility needs to be defined for publication management.

A training programme needs to be developed.

14.2.1 Integration of Discussion Forum

Develop a plan to create (or participate in) a worldwide discussion group (Internet Listserver activity or Newsnet, CompuServe Forum, etc.)

14.3 Action plan

Phase 0: Define the details of the action plan

09.95-03.96

1. Define a sound project. Write the credit proposal.
2. Recruit an information manager with the following profile:
   - ñ information specialist with good understanding of information dissemination
   - excellent information process management skills
   - staff management skills
   - internal training capabilities
   - good DTP understanding
   - prepared to contribute to SKAT's mission
   - good English skills
   - not just an electronic data processing specialist.
3. Define SKAT's internal hardware and software strategy (information server concept, type of global network access, etc.)

Phase 1: Internal information provision

03.96-12.96

1. Implement an internal information server.
2. Integrate existing internal information sources (intermediate document database system, contact address system).
3. Define marketing strategy for on-line **and** paper-based information dissemination.
4. Contact partners/clients.
5. Prepare small-scale pilot on electronic (re)publishing. Agree co-operation on electronic publishing with partners and SDC.
6. Extract and build-up knowledge about information concepts. Gain insight into communication structuring needs.
7. Develop a sample training course
8. Start republishing programme.
9. Define external information server/network communication.

Phase 2: External information provision

01.97-12.97

1. Implement an external information server
2. Take a lead in the ongoing international discussion for electronic information dissemination in the field.
3. Prepare and agree implementation plan for large-scale electronic publishing.
4. Choose internal document management system.

Phase 3: Consolidation phase

01.98-06.98

1. Implement internal document management system.
2. Get new projects on board.
3. Hire another person for broadening the internal knowledge-basis.

Phase 4: Knowledge transfer

07.98-02.99

1. Transfer knowledge to the external partners.
2. Evaluation and Reporting.

SKAT should plan enough external support for:

- Server maintenance, software installation
- Electronic document preparing and publishing capacity
- Marketing consultancy
- Training.

14.4 Project Level

As the decision has already been taken by SKAT to step up to the next strategic path of information dissemination and networking activities, we have formulated the plan of operation in a project proposal.

A project in the field of electronic information dissemination is unlikely to be able to cover all SKAT's internal needs for its own progression but will start things moving in the right direction.

14.4.1 Introduction (Credit Proposal, Ch.2)

The description below follows SDC's guidelines for credit proposals.

Background

Better integration of the Developing Countries into the Information Society is a great need. The technology to distribute information by more efficient means has been proven by the rapid growth of different global networks and new widely accepted information presentation tools.

SKAT is producing high standard publications, maintains a specialised internal documentation centre, and is engaged in global information exchange. It has recognised the limited distribution possibilities of a paper-based information system.

Many networking partners in the North and South already use electronic network-based communication techniques such as e-mail, file transfer, electronic forum participation, etc.

Definition

Efficient information dissemination needs efficient communication channels for a widespread absorption of the relevant information. Corporate and personal networking today requires adequate technical means and structures. Developing and making effective use of such communication channels exceeds traditional documentation services by far and thus will have to be faced as a new opportunity.

14.4.2 Aims and Strategies (Ch.3)

Overall goals

- Development of content and structure for effective communication and information dissemination in the technical field.
- Development of the market for electronic technical information and publication.
- Development of the behaviour for using electronic information internally and externally.

Objectives

- Develop an information server concept for networking in a technical environment that, with development aid, can be adapted to similar situations.
- Develop a marketing strategy for effective information dissemination (information target groups, content and product differentiation, dynamic documents, on-line-discussion, copyright issues, etc.)
- Publish a series of existing documents in electronic form.

- Develop a training course in electronic form.
- Gain a deep understanding of how technical information dissemination has to be structured, and what the necessary conditions are for good information absorption.
- Deliver results and experiences through working papers, on-line discussion forums and publication and/or through workshops and interactive on-line-training.
- Take a leading role in the ongoing international discussion of the subject and acquire the skills required to master it.

Strategy

The elements that follow show the conceptual and technical framework and describe the operational path which has to be followed to achieve the above objectives:

- Use of techniques that are proven to be simple, cost effective and already widely used.
- Use of complementary and synergistic activities and functions within SKAT.
- Close collaboration with key partners in the North and the South.

14.4.3 Actors and Partners (Ch.4)

The following target groups will be involved:

- Network partners in the North and South: BASIN, MHPG, HTN, and others.
- Partners in Switzerland: SDC (especially the technical services and the SDC documentation centre), different information services subsidised by SDC (FDS), SKAT member organisations, other NGOs.
- International Organisations: World Bank, UNDP, ILO, UNICEF, etc.
- Other clients.

Initially, the target group will be a limited circle of partners.

14.4.4 Activities and Expected Results (Ch.6)

Building up the Knowledge Base

- Implementation of an internal information server.
- Integration of valuable internal information (documentation, addresses of experts, organisations, etc.).
- Assessment, evaluation and interpretation of experience gained in other fields (education, libraries, etc.).
- Development of the knowledge to formulate information dissemination concepts from internal staff and external experts.
- Contact with partners/clients to assess and define the conditions for information delivery.
- Definition of an external information server/network communication.

Implementation of an Information Server

- Implementation of an external information server.
- Leading the ongoing international discussion on the scope of electronic information dissemination.
- Definition and implementation of an electronic (re)publishing programme.
- Definition and implementation of a sample training course on a technical issue.
- Selection of an internal document management system.

Building the Internal and External Bases for Continuous Information Dissemination

- Implementation of an internal document management system.
- Transfer of knowledge to the outside.
- Evaluation and reporting through publication of experience.

Expected Results

The documentation/information/publications will be valued more highly because of the ability to access it externally to SKAT.

Benefits for the target group will be:

- Easier access to SKAT's information and documentation centre.
- Quicker publication of relevant technical documents.
- A faster communication process.
- A more efficient technical enquiry service.

The benefits for the SDC will be:

- The ability to access SKAT's information and the documentation department as easily as to *Fachdoumentationsstelle* (FDS) at any time and from anywhere.
- Making a bigger impact on the development arena through omnipresent delivery of high quality information from a sponsored institution.
- Better integration of SKAT's documentation within SDC's own information services.
- Better overview and control of SKAT as a subsidised external information centre.

The benefits for SKAT will be:

- More efficient processes for the production of publications and information re-packaging.
- Better management of the information dissemination process.
- More efficiency through automation of parts of the information dissemination process.
- Greater impact on partners, policy makers, clients, etc.

14.4.5 Organisation of the Mandate (Ch.7)

The roles and responsibilities are summarised as:

Actor	*Role / Responsibility*
Network Partners / SDC / Organisations in Switzerland	Will use the delivery and communication services and comment on their on-going development.
Executing Agency	Will realise the mandate according to the terms of reference and the respective yearly plans of operations. Monitoring and evaluation follows as planned.
Resource Persons / Organisations	Will be called in for special or selected issues related to the mandate, especially people/institutions with relevant knowledge concerning: - state of the art - important experts in the field - relevant key experience.
Consultants / Computer Specialists	Will be called in for specific tasks when needed. Needs may arise in the following fields: - Network tools and techniques - DTP, Electronic Publishing - Software selection - System integration - Marketing, Communication

14.4.6 Means (Ch.8)

Personnel

Staff	*Use / Remark*
Additional Staff (100%)	Full time position

Technical

The following is a rough cost estimation:

Hardware	*Use / Remarks*
Server (pre-configured as an Internet-Server)	Used for building up the in-house information system.
Scanner	Part of the document management system.

Software	*Use / Remarks*
Client software (TCP/IP for Windows 95, Information Browsers, etc.)	Connection between internal server, network and the desktop computer / Desktop-Software for using the Information Services.
Server Database Management System (Oracle or other)	Main database system (all information, even the library).
Contact Address Management System	Information System for handling the corporate personal and institutional addresses.
Document Management Tool for electronic publishing	Used for publishing on-line documents.
Data conversion tools	Used for incoming data conversion.

Services	*Use / Remarks*
Network-Access	Offered by different local network provider.
Leased Line (ISDN)	Offered only by Swiss Telecom.
System integration	Offered by organisation providing systems development and administration.
Server maintenance	Same as above.
External consultancy (network techniques, DTP techniques, software, marketing, etc.)	Provided by different companies and experts.

Financial

The following is a rough cost estimation:

Personnel	*One-off* *SFr*	*Annual* *SFr*
Additional Staff (100%)		150,000
Hardware		
Server (pre-configured as an Internet-Server)	30,000	
Scanner	10,000	
Software		
Client software (TCP/IP for Windows 95, Information Browsers, etc.)	20,000	
Server Database Management System (Oracle or other)	50,000	
Contact Address Management System	10,000	
Document Management Tool for electronic publishing	10,000	
Data conversion tools	2,000	
Services		
Network-Access		20,000
Leased Line (ISDN)		5,000
System integration	50,000	
Server maintenance		4,000
External consultancy (networks techniques, DTP techniques, software, marketing, etc.)	40,000	
GRAND TOTAL	*222,000*	*179,000*

14.4.7 Overall Assessment (Ch.9)

The project is based upon techniques that are becoming widely used all over the world. It helps to maximise the dissemination potential and make cost efficient use of the information SKAT provides by putting it in electronically consumable form and offering it in an on-line environment. The project strengthens a Swiss organisation that is able to take this strategically important knowledge on board. This experience will be of high value to SDC and its partners for future activities.

Electronic information dissemination needs partners and clients that have the technical means to use it. This does not happen in every case, especially in Africa, but also countries in other continents still lack communication techniques.

Although most of SKAT's partners are using electronic communication techniques, some may be slow in integrating it into their daily working environment. It is likely that some of them can make use of only part of the benefits SKAT offers during the initial stages of the project.

However, growth in the number of users of electronic communications is not likely to slow down. By the end of this project we anticipate that every one of SKAT's partners will be benefiting from the information server that SKAT has developed.

ABBREVIATIONS

AT	Appropriate Technology
BASIN	Building Advisory Service and Information Network
FAQ	Frequently asked (answered) questions
GATE	German Appropriate Technology Exchange, Eschborn
GTZ	Gesellschaft für Technische Zusammenarbeit (German Agency for Technical Cooperation)
HTN	Handpump Technology Network
ILE	Institute for Latin-American Research, University Saint-Gall
ILO	International Labour Organisation
ISAT	Information and Advisory Service on Appropriate Technology
IT	Information Technology Intermediate Technology Development Group. Rugby
KODIS	Koordinations-, Dokumentations- und Informationsstelle für Berufsbildung in Entwicklungsländern
LBL	Landwirtschaftliche Beratungsstelle Lindau
ITDG	Intermediate Technology Development Group, Rugby
MCR	Micro Contrete Roofing
MHPG	Mini Hydropower Group
NGO	Non-Governmental Organisation
ODA	Overseas Development Administration, London
RAS	Roofing Advisory Service
SATIS	Socially Appt. Technology International Information Service
SDC	Swiss Development Cooperation, Bern
SGML	Structured Generalized Markup Language
TES	Technical Enquiry Service

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[SKAT 86] SKAT: Die Tätigkeit der SKAT 1986 (= annual report)

[SKAT 87] SKAT: Die Tätigkeit der SKAT 1987 (= annual report)

[SKAT 88] SKAT: Die Tätigkeit der SKAT 1988 (= annual report)

[SKAT 89] SKAT: Jahresbericht 1989 (= annual report)

[SKAT 90] SKAT: Jahresbericht 1990 (= annual report)

[SKAT 91] SKAT: Jahresbericht 1991 (= annual report)

[SKAT 92] SKAT: Jahresbericht 1992 (= annual report)

[SKAT 93] SKAT: Jahresbericht 1993 (= annual report)

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[15]We operate with figures coming out of Trialog's analyses.

[16] The average per year is 321 books.

[17] According to the annual report 1994 (draft), page 55, it was SFr 32'838, but the bookkeeping records show for "Anschaffungen Dokumentation" only SFr 15'550.

[18] A start has been made.

[19] BASIN: [Promotional brochure], 1994, page 4

[20] Differences in figures are due to inconsistencies in data..

[21] For BASIN TES has to be a questionnaire.

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APPENDIX 1

Terms of Reference for an Evaluation of SKAT's Documentation-Information-Communication Activities

INTRODUCTION AND BACKGROUND

The collection and documentation of field experience, acquiring and appropriating management-technology concepts and strategies, relaying the results to policy makers and other partners are the main tasks of SKAT in the area of information and dissemination.

Documentation

The SKAT Documentation contains thousands of publications focusing on the main areas of SKAT activities as well as many books relating to more general aspects of development, technology transfer and technology management. The SKAT Documentation is a working instrument which allows SKAT to compile information of experiences in its main fields of activities, to review them and to make them available to others. The documentation is an important tool in the consultancy work and the project support.

The SKAT question and answer service responds to enquiries on the utilisation of technologies. SKAT provides this service of information collection free to its partners in Third world countries.

Bookshop

SKAT's partners in Third world countries found it often difficult to get hold of literature and specific technical issues. The SKAT Bookshop was created to facilitate access to such information.

After having managed its Bookshop alone until 1991. SKAT has since then been co-operating with a commercial book dealer. SKAT still sells its own publications directly whereas books published by other publishing houses are sold by the associate dealer. A comprehensive catalogue published each year informs on the various publications sold.

Publications

SKAT's Publishing Department produces manuals, project reports, working papers and a comprehensive range of books on technical, economic and

social aspects of development co-operation. SKAT's own areas of concentration are covered in a series of modules related to the activities.

A number of the publications are issued as co-productions and joint publications in co-operation with partner-organisations in the field of development co-operation (e.g. LBL, Intercooperation, Heivetas, SDC).

Together with the network of International Development Publishers SKAT is actively searching for new forms of distribution of publications in the South to make sure that publications are available to local partners.

Information

Apart from trying to reach local grass-root partners, the information activities of SKAT are focused more and more towards the national and international decision-makers. This requires a high level of quality of the information activities. SKAT is engaged in several international networks. The SKAT Doppelpunkt, a quarterly newsletter, informs about on-going project activities, gives recommendations on new publications. SKAT is co-editor of some of the leading topical magazines and publications.

OBJECTIVES OF THE EVALUATION

The overall objective of the evaluation is to assess the changes needed for the SKAT Documentation-Information-Communication activities in view of the adjustments that will be necessary by the requirement to formulate clearly defined performance contracts (Leistungsaufträdge) with SDC in the future. Particular emphasis shall be given on technical and conceptual support as well as the aspects of utilising new technologies for communication and information dissemination.

More specifically, the evaluation will:

- Analyse the nature, extent and cost of the work that has been undertaken by the Documentation-Information-Communication department since 1982.
- Assess the impact of that work, or the impact that can reasonably be expected, in terms of utilisation of these services through the Swiss Development Cooperation and the SKAT member organisations as well as on an international level through the networking activities and - the basic long term goal - the creation of a continuous information exchange on an international level.
- Initiate a process in which SKAT will conceive a Documentation-Information-Communication concept for the next 5-10 years.

- Identify the potential markets, methods of work, technologies which are most conducive to effective Documentation-Information-Communication work.
- Suggest steps likely to improve the output and cost-effectiveness of Documentation-Information-Communication.
- Formulate tangible goals and targets for Documentation-Information-Communication.

METHODOLOGY

In order to carry out the above mentioned activities and to obtain the necessary information and insights, the following method will be applied:

The evaluation will be carried out in three phases:

Fact Finding Phase

In order to gain the necessary insight concerning the requirements of SKAT partners and the ongoing activities the Evaluation Team will during the fact finding phase hold meetings and discussions with key personnel of SKAT at all levels and particularly with the Documentation-Information-Communication department. This will provide the Evaluation Team with essential background information of past activities. Contacts with external institutions/persons (Comedia Bookshop, SDC Documentation Centre, Sector Documentation Centres, international organisations involved in information exchange, etc.) relevant for the Evaluation Team will be arranged by SKAT.

Intermediary Phase

Relevant new information/findings compiled in existing literature, particularly progress reports and plans of operations of other organisations in the field, will be studied by the Evaluation Team. Desk research will mainly be done individually during the intermediary phase between the fact finding part and the concept preparation phase. The Evaluation Team will decide on the specific tasks for each member at the end of the fact finding phase.

Concept Planning Phase

The Evaluation Team will get together again for the final phase. The results from the individual studies will be compiled into recommendations and a plan of action for future Documentation-Information-Communication work.

TERMS OF REFERENCE

In order to achieve the aforementioned aim the Evaluation Team shall carry out the following activities:

Assessment of Present Situation, Needs and Demands

Within the framework of the overall context of SKAT, the present situation as well as the needs and demands regarding Documentation-Information-Communication have to be studied. This will involve:

- Analysis and assessment of the current form of SKAT's Documentation-Information-Communication activities, their objectives, potential market and target groups.
- Analysis and assessment of the appropriateness of the tools and technologies used for Documentation-Information-Communication activities.
- Analysis and assessment of the cost effectiveness of present Documentation-Information-Communication activities.

Formulation of a Conceptual Framework and Implementation Plan

The conceptual framework and implementation plan on the Documentation-Information-Communication department has to be formulated including the aims and objectives, strategies, results and activities as well as required means. Particular emphasis shall be given to:

- The formulation the overall strategy and general objectives.
- The formulation of a set of criteria based on which SKAT's Documentation-Information-Communication department can improve the quality of the information available.
- The determination of possibilities for the utilisation of new communication technologies for the exchange of experience and know-how.
- The elaboration of a proposal for a concept for institutional co-operation between SKAT and other relevant institutions/organisations.
- A plan of operations specifying the activities to be carried out by the Documentation-Information-Communication department as well as the financial inputs and human resources required.
- The determination of human resource development, skills upgrading requirements for SKAT personnel.

EVALUATION SCHEDULE

The Fact Finding Phase is taking place from July 3rd to July 7th, 1995. This phase consists of 5 working days.

The Intermediary Phase shall be utilised for desk research and the preliminary formulation of the recommendations. 4 working days are planned for this task.

The Concept Planning Phase will take place from August 7th to 11th, 1995. Five working days are foreseen for the work.

Reporting

At the end of the evaluation the Evaluation Team will present a summary report of main findings and recommendations to SKAT and to relevant persons from SDC. This presentation will be done in form of a half day seminar. The conclusions from this seminar will be reflected in the final report.

A final draft of the evaluation report shall be submitted by the end of the evaluation.

Personnel

In order to meet the set objectives of the mission the following personnel will be required:

- Ms. Silvia Ndiaye, SKAT, St. Gallen
- Mr. Michel Piguet, Trialog AG, Zurich
- Mr. Greg Wishart, Ashton Court Consultants, Northampton

APPENDIX 2

Evaluation Activities

The evaluation of SKAT's Documentation-Information-Communication activities was carried out in three phases.

A2.1 Fact Finding Phase (03 - 07 July 1995)

The fact finding phase was undertaken in order to gain essential background information on past activities, and the necessary insight concerning the requirements of SKAT's staff and representatives of it's partner organisations. Activities during this phase included:

- Discussions with key personnel of SKAT at all levels and particularly with staff from the Documentation-Information-Communication department.
- Visits to, and discussions with representatives of SKAT's primary funding institution (SDC).
- Visits to, and discussions with representatives of organisations that have similar information and dissemination aims and objectives to, and collaborate on network activities with SKAT (GATE and ITDG).
- Visits to, and discussions with representatives of organisations that manage international documentation centres (GTZ, GATE and ITDG).
- A visit to, and discussion with a representative of SKAT's outsourcing bookshop partner (Comedia Bookshop).

A2.2 Intermediate Phase (10 July - 04 August 1995)

This phase was used to assess the information gathered during the fact finding phase and to undertake further research on the Documentation-Information-Communication opportunities that present themselves to SKAT. Work included:

- Analysis of information gathered during the fact finding phase.
- Research on information dissemination processes and on the utilisation of emerging methods for improving information dissemination.
- Research on tools and technologies appropriate to Documentation-Information-Communication activities at SKAT.
- Further communication with representatives of SKAT, GATE and ITDG.

- Formulation of preliminary conclusions and recommendations.
- Preparation of a draft report.

A2.3 Concept Planning Phase (07 - 11 August 1995)

This phase represented the feedback and action planning phase of the project. The key activities undertaken were:

- Presentation to and participatory planning with SKAT employees and representatives of SKAT's partner organisations.
- Preparation of recommendations and a plan of action for future Documentation-Information-Communication work.
- Finalisation of this report.

APPENDIX 3

Global Computer Networks

Using Computer Networks had until recently the touch of being expensive and complicated to use. This is beginning to change radically. Network access will be, in one or two year's time, a standard feature of a normal PC.

The participation within a global network gives the ability to gain advantage of using digital information:

Telecommunication + Computer = Telecomputing

- Data can be searched fast and easily with the computer.
- Data can be changed and reused.
- The exchange of digital information can bridge continents within a second.
- Digitally copied information cannot deteriorate.

Global computer networks have big advantages over traditional means:

- Allow both immediate and time delayed information access.
- Connect all different brands of computers without difference.
- A global network can integrate all the different methods of communication with clients and all techniques of information access.

Global networks are also available in most Developing Countries although a lot has to be done for a widespread use. E-mail has already become an important and often more reliable method for document exchange.

A major push in the next year is the release of Windows 95. This new operating system appears this month (August 95). It contains easy to use tools for accessing global networks (their own MS-Network but also the Internet). The company expects to sell between 25 to 65 million copies within the next twelve months.

There are somewhat similar networks like CompuServe, Microsoft Network (MSN), American Online (AOL), Prodigy, IBMnet, Europe Online, etc. that compete:

Figure A3.1:
Some global Networks in comparison

Name	Start	Users world-wide	Comment	Internet access
Internet	1973	30 mio.	all subjects, more science-oriented, many services	of course
CompuServe	1979	3 mio.	Information services, computer-oriented services, discussion forums; useful for travel people	yes
America Online (AOL)	1985	2.3 mio (USA)	consumer-oriented subjects, interactive periodicals and newspapers, discussion forums	yes
MS-Network (MSN)	Aug. 1995	expected: 5 to 15 mio users within next 4 months	not known yet	yes
Europe Online	Aug 1995	expected: ?	Newspapers, periodicals, teleshopping, homebanking, etc.	yes
E-World		65'000	Macintosh-oriented subjects, general US-oriented information	yes

A3.1 Types of Communication

The applications of a global network can be divided into five main groups:

Figure A3.2
Types of communication

Type	Remarks
Electronic mail	Electronic exchange of notes, letters, documents.
Information presentation and delivery systems	Presentation of information for advertising, product information, information retrieval, client support. Example: World Wide Web (WWW) on the Internet.
File transfer	Copying files from one computer to another.
Discussions	a) Discussion lists: E-mail-like information exchange (query & answer system).
	b) Newsgroups: Special system for exchanging news (Internet).
Accessing other computers	It is like working directly on a remote computer, for example for accessing information system (library OPAC's)
Team-based working	Preparing documents, on-line discussion, screen sharing, etc.

A3.2 The Internet

We take the Internet as an example because it has until now several advantages over others:

- open access (directly or from nearly every other commercial network)
- availability of a lot of different tools
- many network service providers offer Internet access all over the world
- cost effective

Disadvantages are:

- no secure money transaction for selling (but will arrive within next two years)
- service quality depends on local service provider.

Figure A3.3 shows that US hosts still dominate the Internet. However, strong growth is reported in all regions of the world. The fourth quarter 1994 growth figures taken from a survey of domain names carried out in late January 1995 were:

Figure A3.3
Regional Growth of the Internet

Region	Growth per quarter
North America	26%
Europe, West	22%
Europe, East	40%
Middle East	33%
Africa	29%
Asia	19%
Pacific	25%

Note: Fourth quarter 1994 growth of hosts in Latin America was not available.[i]

The Internet is used by people from all walks of life; sometimes they will not be aware of this fact. For instance, most global e-mail transactions use the Internet for at least part of their journey.

A3.3 Benefits of Networked Information

General:

- Seamless integration of information delivery and communication tools
- 24-hour presence
- Seamless integration of internal and external information access and delivery (information management system, email, fax, data file delivery, etc.).

For publication:

- Immediate publication, immediate delivery
- Cheap and massive delivery
- Lots of opportunities of product differentiation
- No stock

- Publications get never out of print.

For documentation:

- Remote access to information management systems
- Integration of external information
- Integration of on-line and live documents
- Automation of delivery services.

For Communication:

- Rapid exchange
- Providing dynamic information.

APPENDIX 4

SGML - Standard Generalised Markup Language

A4 SGML

Standardised General Markup Language (SGML) is a neutral coding format which forms links between diverse aspects of information handling and distribution. It provides flexible access to your information (actually creating a free-text database), allows you to control the structure, format and style of your information, and generally adds value to your information.

SGML is a text-based format, suitable for representing simple text structures, such as paragraphs and lists, as well as tables and mathematical formulae. An SGML format data file can also include embedded formats, perhaps to describe a picture. An SGML file can also contain "pointers" to other objects, including graphic files, sound clips and film clips.

The Markup Language adds style to the documentation, but as the instructions are standardised and embedded in the text of an electronic document, the transformation to output style becomes an automatic part of the pagination process.

SGML is the only internationally recognised standard for coding free-text documents. It is not proprietary and can work in conjunction with any SGML-product on the market; this allows you to pick and choose the most appropriate software and hardware for your organisation's needs.

HTML (HyperText Markup Language), used on the World Wide Web, is in fact a sub-set of SGML.

APPENDIX 5

Comparison with Network Partners

Within the scope of this evaluation we were able to explore the Documentation-Information-Communication activities of GATE and ITDG. We also investigated their understanding of the need, and plans for the utilisation of new methods for communication and information dissemination.

A5.1 GATE

Overview

GATE (German Appropriate Technology Exchange) was founded in 1978 by the German government. It is run as a special division of the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ).

With 15 people, GATE is of a similar size to SKAT. It has defined appropriate technologies as "*those which appear particularly apposite in the light of economic, social and cultural criteria*" and argues that "*depending on the case at hand a traditional intermediate or highly-developed technology can be the "appropriate" one*".

Documentation

GATE offers information in various forms:

- Technical books and leaflets on AT, methods and instruments.
- Journals discussing current problems and potential solutions.
- Films and other media which illustrate AT.

GATE publishes itself and in co-operation with other parties, including SKAT. The stimulus for GATE's publications comes from projects and question and answers. The quarterly GATE publication is free to the South and distributed to some 6000 persons. It is developed every three months by a team of three; a manager, a journalist and an assigned specialist.

GATE publishes most of its documents in English, although some publications are translated to Spanish and a few to French.

ISAT maintains a documentation and resource centre that stocks some 10,000 documents and books and 250 journals. These documents are made available to interested parties free of charge.

Information

The core of GATE is its Information and Advisory Service on Appropriate Technology (ISAT). ISAT makes use of some of the networks in which SKAT participates (BASIN and Hydronet in particular). The ISAT staff have shown considerable commitment to the development of international networks such as BASIN and are committed to their success.

GATE operates a TES that offers free information on appropriate technologies for all public and private development institutions dealing with development, adaptation, application and introduction of technology. GATE target a six week turnaround from receipt of letter and have been monitoring their service levels for the past 2.5 years. Enquiries range between 3,000 to 3,500 per year.

Communication

ISAT has always focused on the adaptation and dissemination of technologies and understands the importance of communication. It promotes a wide range of communication media, including the use of training, workshops, seminars and "*theatre*".

GATE has taken a lead in raising the level of understanding in the development community about the benefits of using e-mail for communication.[i] It sees a growing opportunity for NGOs to participate in the global information society.

GATE has a policy of providing information to the South free to the user. All GATE publications are sent to the third world free of charge for instance. This message is communicated in all its publications.

A5.2 ITDG

Overview

Intermediate Technology Development Group (ITDG) was established in 1967 and from 1976 has been supported by the British government's Overseas Development Administration (ODA). ITDG has reduced its dependence on ODA financing over the years to the point that in 1994 it relied on this source for around 30% of its income. ODA undertakes tri-annual evaluations of ITDG's performance.

With approaching 250 staff, ITDG is much bigger than SKAT. It has established 7 offices throughout the world and for the past decade has undertaken a concerted programme of work to internationalise its core activities.

Documentation

ITDG publishes a wide range of documents. It has established a name for itself in many development fields by documenting many of its experiences through 'not-for-sale' documents such as:

- Project reports.
- Semi-publications.
- Boiling Point.
- Food Chain.
- Many in-country publications.

ITDG's 'for-sale' publications are produced by a wholly owned subsidiary company, IT Publications Ltd. This provides ITDG with a mechanism to enhance the visibility of, and 'ring-fence' its publication costs (ITDG is a registered charity and under UK law is not allowed to generate a profit.). ITDG contributes an annual subsidy of £100,000 to IT Publications. It expects IT Publications to cover its costs beyond this sum.

IT Publications' products include:

- Appropriate Technology: a general AT journal
- Waterlines: a journal on AT for water supply and sanitation
- Small Enterprise Development: an refereed journal on business and management issues
- A comprehensive range of books on development issues.

ITDG has the benefit of size in its favour; it is perhaps the most prolific of development publishers. Its documents cover a broad spread of development literature.

Information

ITDG has spent considerable effort over the past decade defining its policies for and introducing mechanisms for information dissemination.

ITDG has operated a TES for many years. Like SKAT it operates at two levels:

- Simple enquiries are resolved by TES staff.
- Complex questions are passed onto project staff for resolution.

ITDG's information resource is much larger than that of SKAT. However, It suffers from a lack of adequate control and access to it is hindered by inadequate information systems. ITDG has spent many years accumulating information, but has paid less attention than SKAT to cataloguing it for easy retrieval.

Communication

According to ITDG, communication is a process, the parameters of which are defined by:

- The messages produced by ITDG.
- The audiences targeted.
- The ways and means of informing and influencing.

ITDG's growth and decentralisation has triggered a range of communication needs, including the requirement to define a global communications strategy.

Over the past few years ITDG has expended considerable time and energy preparing an International Communications Strategy. The work has been co-ordinated by Andrew Maskrey, Country Director, Peru. Now the strategy is being built into a plan of action.

The International Communications Plan recommends that "*ITDG adopts a range of common systems and procedures*".[8] To date, the plan has not been implemented because of the relatively large budgets required to complete the task.

A5.3 PLANS FOR NEW METHODS OF COMMUNICATION AND INFORMATION DISSEMINATION

Both GATE and ITDG have been searching for better ways of communicating with their stakeholders and disseminating information world-wide. Staff in both organisations have concluded that the Internet offers a major opportunity to eliminate many of the past difficulties.

ITDG has established a presence on the Internet, with a home page and simple information on some of its project activities and books on the BBC's One World server. One World is a not-for-profit group established by BBC journalists to assist development in the third world. ITDG has not yet put together a strategy of how it will use the Internet over the long-term but sees major opportunities in the provision of on-line information, running its TES and selling books. ITDG is actively seeking EC funds to fund a programme of work.

GATE has also investigated the use of the Internet and has concluded that "*we must do something, rather than continue talking about it*". GATE has not yet formulated a project to make large-scale use of the Internet, but some of its environmental information has been posted to the Internet by an outside contractor. It is planning a project to run from the middle of 1996 and hopes to have a proposal ready for presentation to GTZ by January. GTZ has plans to put some general information on the Internet and senior officers have been discussing whether to put official publications in on-line form so that they can be published to the Internet.

APPENDIX 6

Information System Requirements

Tool/Technology	*Product/Application in Current Use*	*Appropriateness of Current System*	*Recommendations*
Computer hardware	IBM PC type computers (no name) - 486 and above Some laptops Printers (lasers and others) Scanner for DTP applications	Fine for the present More powerful computer could improve speed of DTP operations	Build a plan for exchanging older machines, working on the basis of a 3 year useful life Invest in 17" screens and above with each new purchase Invest in UNIX server to hold all corporate database information that will be made available on the Internet Provide laptop computers for all travelling users, rather than desktop machines
Operating system	MS DOS V6.22 MS Windows V 3.11	Fine for the present A new version of Windows will be available in August 1995 that eliminates the need for DOS	Migrate to MS Windows 95 towards the end of 1995, early 1996 Put plans in place to phase out all DOS applications by the end of 1996
Network software	Novell V3.12	Fine for the present	Consider move to Novell V4.1 when resources are available to facilitate the move and make best use of new network software Consider a shift to MS Windows NT over the next two years, depending on the relative strength of Microsoft and Novell solutions in the field

Tool/Technology	*Product/Application in Current Use*	*Appropriateness of Current System*	*Recommendations*
Office productivity tools	MS Office V4.2/3	Fine for the present	Migrate to MS Office 95 towards the end of 1995, or in early 1996 if advantages outweigh costs and skills exist to facilitate the transfer and integration
Contact Database	In-house system developed on Concept 16 software	Dated in design Limiting because of the inability to easily link data into office productivity tools such as MS Word Poor user acceptance and consequent non-use because of high learning curve High training and maintenance costs	Collate user requirements, prepare specification and procure new database software as soon as possible Ensure integration with other information systems
External e-mail	CompuServe Account	Adequate, but could grow out of control if not properly planned	Invest in full Internet (own domain) address for St Gallen office with internal e-mail distribution system Provide individual CompuServe accounts for all staff who travel and route all Internet e-mail to CompuServe accounts when staff are travelling overseas
Internal e-mail	Under Novell Network Software	Not used at the present time	Introduce internal e-mail (MS Mail?) with gateway software to allow internal transfer of Internet and CompuServe messages System must be able to support the delivery of fax to the workstation
Electronic document management system	Directory structure rules and file naming conventions	Fraught with problems	Invest in full electronic document management software package (Open Docs, Soft Solutions, etc.) Add imaging software/hardware when budgets allow Build object management system

Tool/Technology	*Product/Application in Current Use*	*Appropriateness of Current System*	*Recommendations*
Library management system	In-house system developed on concept 16 software	Fixed field length is restrictive, no sub-field concept Problem with character set No free text index High learning curve, not suitable for casual users No GUI	Levels of integration and stages need to be defined. Define and purchae intermediate stage library management system Longer-term, integrate with document (object) management system
Groupware software	None	Not applicable	Look at Lotus Notes and similar packages to determine how they could be useful to assist internal and external communication and collaborative working
Desktop publishing system	Pagemaker V4	A good authoring system for short documents with high graphic content Better tools available for the generation of complex technical documents	Upgrade to PagemAker V6 Purchase FrameMaker V5 and use for all complex technical documents
Workflow software	None	Not applicable	Look at Novell Groupwise and similar packages to determine how they could be used to support process flow activities

ANNEX REFERENCES

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[i] Mark Lottor of Network Wizads, Domain Survey, (Internet Society, 06 February 1995).

[ii]Ferdinand Soethe, Participating in a Global Information Society: How NGOs Can Make the Best of E-mail (GATE 4/94)

[iii]Andrew Maskrey, International Communications Advisor, International Communications Plan - Draft (ITDG, November 16 1994)