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EVALUATION REPORT

by

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The Hague, November 1991



IRC International Water and Sanitation Centre
Project: Capacity Building in Information Management

503-10990

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SUMMARY OF CONCLUSIONS

1 Introduction

- 1.1 This report presents an evaluation of Phase 1 of the ENSICNET (Environmental Sanitation Information Network) project of the Asian Development Bank (ADB) and the Asian Institute of Technology (AIT). The evaluation was carried out by a consultant provided by the IRC International Water and Sanitation Centre.
- 1.2 The evaluation was conducted through visits to the ENSICNET project headquarters at AIT and to institutions participating in the network in China, Indonesia, Nepal, Pakistan, the Philippines and Vietnam. In addition, three questionnaires, designed to assess the opinions of participants on the development and operation of the network, were distributed in each country in advance of the consultant's visit.
- 1.3 This summary deals mainly with the general conclusions of the report and proposals for Phase 2.

2 Overview of ENSICNET

- 2.1 ENSICNET is a regional information network in environmental sanitation with its headquarters at the Environmental Sanitation Information Centre (ENSIC), located at the Library and Regional Documentation Centre (LRDC) of AIT in Bangkok, Thailand.
- 2.2 ENSICNET comprises six national information networks in China, Indonesia, Nepal, Pakistan, the Philippines and Vietnam, in each of which there is a national focal point and a number of other institutions, known as 'focal nodes'. Pakistan and Vietnam also have subsidiary regional focal points. China was planning to establish one in August 1991.

3 Objectives of ENSICNET

- 3.1 The general objective of ENSICNET is to strengthen national water and sanitation information systems in the six member countries. The specific objectives are not very clear. The basic project documents do not indicate clearly what kinds of information products and services the national networks are supposed to provide, nor how they are to be organized or financed. In particular, the task of creating a national database on water supply and sanitation in each country, though central to the concept of the network, is not clearly defined.
- 3.2 Completion by the national focal points of the tasks listed in the project documents has been uneven. Most participants feel that the objectives of ENSICNET are clear to them and are supported by their institutions but this is not always so in respect of specific objectives. If the objectives had been defined more precisely at the outset, misunderstandings might have been avoided.

4 Benefits of participation in ENSICNET

- 4.1 Most participants believe they will benefit from participation, but many are not clear as to what the benefits are meant to be or how far they are being realized.
- 4.2 Although many participants think that participation in ENSICNET helps them provide better services to their users, this does not seem, in fact, to be the case, since many of them do not use the bibliographical tools produced by ENSIC to identify new publications or to help them to provide services to users.
- 4.3 Some participants do not regard the benefits of participation as commensurate with the effort involved. Many of the anticipated benefits of the project have yet to be realised; the delays in doing so are partly due to the lack of well-defined objectives.

5 Project management and administration

- 5.1 A recently-published analysis of network characteristics emphasizes that, while each country has a distinct development character, many networks aim to establish national focal points in all member countries and expect the same level of participation from each. This approach has consistently led to failure.
- 5.2 The ENSICNET project aimed for flexibility and responsiveness to the local situation in selecting national focal points, but lacked flexibility in determining how many members each network should have.
- 5.3 Some national focal points feel that there has been, and still is, a 'top-down' approach on the part of the project staff to the establishment and management of the network. The project staff were apparently unaware of this due to poor communication between them and member institutions.
- 5.4 Project staff and network participants have different perceptions of their respective roles. Project staff commented that the project has supplied the 'basic components' or 'basic tools' to the national focal points and that it is now up to them to get on with the job, whereas national focal points feel they still need advice and assistance from ENSIC. This is now acknowledged by the project staff. The focal nodes also need advice and assistance from national focal points. This need is not being met.
- 5.5 Apart from China, none of the focal nodes in any of the national networks participates in its management and none of the national focal points participates in the management of ENSICNET as a whole.

6 ENSICNET membership

- 6.1 Participants may be divided into those who are able to contribute actively to enhancing the documentary resources of the network, and those whose participation must be essentially passive. The latter are essentially users of the facilities and services provided by the network, and it may be inappropriate to treat them as full participants.

7 The role of the national focal point

- 7.1 Many participants think that the staff of their national focal point are very cooperative, but not so many think the national focal point coordinates the national network effectively and even fewer think it provides them with adequate advice and assistance. The goodwill of national focal point staff appears to exceed their ability to organize the network effectively or to offer the advice and assistance they would like to provide. Some national focal points are not able to participate effectively in network activities because, for example, they do not produce many documents in water supply and sanitation.
- 7.2 The experience of many countries and many information systems with national focal points for information has not been very satisfactory. The reasons for this are discussed. Many of these apply to the national focal points in ENSICNET. One way of avoiding these problems is to support individual institutions in countries in ways which are appropriate to their capacity and willingness to contribute, rather than to establish national focal points as such.

8 Cooperation

- 8.1 Many participants think that their libraries can make an effective contribution to the network, but fewer think their libraries cooperate a lot with others in the network. It is difficult to see how a library can contribute effectively if it does not cooperate. Effective cooperation will be difficult to achieve as long as participants remain unclear as to what the specific objectives of the network, and the benefits to be derived from it, really are.

9 Information users and their needs

- 9.1 Little effort seems to have been by any of the national focal points to identify the information needs of users on a systematic basis. Most participants think their institutions have many potential users of water supply and sanitation information, but many fewer think that many people use their libraries to obtain such information. One reason for this may be that many libraries in participating institutions are not able to meet the information needs of their users, for example, because of poor document collections.

10 The supply of information

- 10.1 While many participants think they have many potential users of water supply and sanitation information, but many fewer say they produce many documents on these subjects. About one third of all participants thus participate in the network mainly as users of information generated elsewhere, not as producers of documentary information.
- 10.2 It is doubtful if any institution which does not produce a reasonable amount of documentation on water supply and sanitation, or does not consider its documents to be useful to others, is able to act as an effective national focal point for ENSICNET. The effectiveness in this respect of some of the existing national focal points calls for closer scrutiny.

11 Document collections

- 11.1 Library collections in many participating institutions are not adequate to meet the needs of users. The lack of current-periodicals is a serious problem.
- 11.2 Many participants do not know enough about the collections of other libraries in the network to be able to refer users to libraries which may be able to help them, or identify those which may be able to supply documents on interlibrary loan. This seems likely to be a major cause of the gap between the numbers of potential and actual users in many institutions.

12 Equipment

- 12.1 All the national focal points, and many of the focal nodes, felt they needed more equipment to be able to participate effectively in the network. Useful items might include basic library furniture--shelves, tables and chairs--and photocopiers.

13 Finance

- 13.1 The budgets of a significant proportion of focal nodes are so poor that they cannot meet the costs of participating in the network even though they do not think these costs are very great. Many of those who responded to the survey do not seem to be involved in budgetary matters and probably have little influence on the size of their library budget or how it is spent.
- 13.2 There seems to be limited scope for participating institutions to sell their information products and services because most users cannot afford to pay.
- 13.3 The ENSICNET budget for Phase 1 was not sufficient to ensure success. The lack of a specified local financial contribution may have encouraged some national focal points to think that their participation would not cost anything at all.

14 Staff and staff training

- 14.1 Lack of staff is a problem for many participating institutions, but a high proportion have enough staff to cope with users' demands for water supply and sanitation information. In some national focal points, the lack of trained staff may be due to the fact that those who were originally trained under the project are no longer employed, or have been assigned other duties.
- 14.2 Training was one of the benefits to be provided under the project, and has formed a significant part of network activities, but many participants do not think their library staff have been trained sufficiently to enable them to participate effectively.
- 14.3 Many participants do not think their library staff know enough about information sources in water supply and sanitation, but only five, all from Indonesia, identified a need for training in this field.
- 14.4 Although training in worksheet preparation has been provided under the project, staff in many participating institutions still have difficulty in completing the worksheets.

15 Identification of information sources

- 15.1 Some national focal points, even those producing few documents, have difficulty in identifying the documents they produce. Many participants think their countries produce many documents on water supply and sanitation, but many fewer think it is easy to find out what these documents are. A basic aim of the project was to make adequate records of national documentary production available to network participants. This has not yet been achieved as far as many of them are concerned.
- 15.2 While even more participants think that foreign documents on water supply and sanitation are useful in their countries, even less think it is easy to find out about them. The bibliographical tools produced by ENSIC, which are distributed to focal nodes, provide information on foreign documentary production, but many participants do not use them to identify new publications.

16 Preparing bibliographic records

- 16.1 Staff in many participating institutions still have difficulty in completing ENSICNET worksheets. In some countries, the national focal point's view of the difficulties experienced by the staff of focal nodes in completing the worksheets is at variance with the views of most participants.
- 16.2 It has been suggested that focal nodes should be paid for preparing worksheets. This seems to be at variance with the basic concept of the network as a cooperative activity, and is not an activity in which the project itself should become involved. One national focal point which made this suggestion seems not to realize that it is expected to supply information to focal nodes in return for their input.
- 16.3 Such misunderstandings may arise because the project documents do not state clearly what the focal points and focal nodes respectively were supposed to do, in terms of providing information products and services.

17 Creating a national database

- 17.1 The establishment and maintenance of a national bibliographical database on water supply and sanitation, and the operation of the regional ENSIC database, though central to the concept of the network, were not clearly spelled out in the project documents.
- 17.2 It is a matter of serious concern that several national focal points are still experiencing severe difficulties in carrying out these activities. National focal points will need technical advice and assistance in this regard from the project for some time to come, with a consequent need for a change in attitude towards providing such support on the part of project staff.

18 Access

- 18.1 The overall situation with regard to access is reasonably good, but it is a matter for concern that many respondents do not have up-to-date library catalogues, since this may reflect their ability to contribute to the national and regional databases.

19 Information products and services

- 19.1 It is a matter of serious concern that a high proportion of participating institutions are not very active in the provision of information products or services--and, in particular, that many of them either do not use ENSIC information products to help them provide services to their users, or do not know whether their institutions use these products or not.
- 19.2 It may be difficult to introduce better monitoring mechanisms where participation in ENSICNET is only part of the overall activity of an institution.

20 Promotion and user education

- 20.1 Promotional efforts cannot succeed if basic information resources, facilities and services are inadequate. Such efforts can be very time-consuming, creating the risk that national focal points might regard them as yet another task to be carried out without any concomitant return.
- 20.2 The basic problems of the management, financing, staffing and operation of the network must be resolved before making further efforts to promote it.

21 'Don't know' responses

- 21.1 The high proportion of 'don't know' responses to many statements on the survey questionnaires is a matter for concern, reflecting as it does a serious lack of knowledge among many participants of the capabilities and activities of their own libraries, of other members of their national networks, of the regional network and of ENSIC itself.
- 21.2 It might be expected that those who completed the questionnaires would be sufficiently well-informed as to be able to give more definite responses. The fact that many of them cannot do so suggests that, in some cases, either the wrong person has been chosen to represent the institution in ENSICNET, or communication between that person and the institution's library or information service needs to be improved.

22 General conclusions

- 22.1 The specific objectives of the project need to be spelled out much more clearly. It is essential that all involved should be clear as to how they can expect to benefit from the project--and what they have to do to receive the benefits.
- 22.2 The management of the project needs to be more democratic. The management responsibilities of different elements of the network need to be clearly defined, and the attitudes of project staff towards providing continuing advice and assistance to network members need to be reviewed.
- 22.3 Membership should be reviewed and non-producers either removed from membership or admitted on different terms from those able to participate fully.
- 22.4 If national focal points are to continue to constitute the basic mechanism for implementing the project, their ability to perform effectively in that role should be reviewed.

- 22.5 Participants need to be made aware of their obligations and those unable or unwilling to accept them encouraged to leave the network. Specific obligations of participants need to be spelled out in more detail.
- 22.6 Participating institutions should make greater efforts to identify information users and their needs and involve users in the design of information products and services.
- 22.7 Efforts must be made to identify participants who are not producing significant amounts of documentary information and review their membership of the network. Further efforts need to be made to identify major producers who are not yet members.
- 22.8 Document collections need to be improved, particularly in terms of current periodicals. The staff of participating institutions need to improve their knowledge of other collections.
- 22.9 The kinds of equipment needed should be reviewed, and consideration given to supplying more basic equipment to help them meet basic needs.
- 22.10 The respective financial responsibilities of the project and network members should be clearly defined.
- 22.11 The project should take a lead in providing staff training designed to raise awareness and improve knowledge of the aims, objectives and activities of all members of the network.
- 22.12 Participants need guidance on the kinds of information products and services needed, and on methods of providing them. Major promotional activities should be postponed until products and services are good enough to deserve to be promoted.

23 Assessment

- 23.1 The project has not yet achieved its basic objective of developing strong information systems in water supply and sanitation in the six member countries.
- 23.2 Membership of the network has not yet produced any significant improvement in the information products and services offered to users.
- 23.3 The main reasons for this are: the project was over-ambitious; the initiative came from the centre and not enough effort was made to involve the institutions at the periphery in the planning and management of the project; there is a fundamental ambiguity in the perception by project staff of what results they expect the project to produce, chiefly in respect of the submission of bibliographic records for inclusion in the regional database.
- 23.4 The success of the project must be assessed in relation to many different criteria, of which the numbers of records sent to ENSIC is probably the least important; the least useful activity in the network at the present stage of development is the creation of a regional database containing records relating to documents in languages which users in other member countries cannot read and which they cannot afford to have translated.

- 23.5 Until this ambiguity is resolved, it will constitute an obstacle to the development of a true team spirit among network participants in the pursuit of shared goals.

24 Proposals for action

- 24.1 The general aim of Phase 2 of the project, according to the ADB, is that ENSICNET should become self-sustaining and decentralized and maintain liaison officers in China, Vietnam and Indonesia. Its scope should be extended to cover information on environmental impact assessments. The project budget for Phase 2 would be twice as much as for Phase 1.
- 24.2 The idea of a liaison officer is not welcome in China or Vietnam, and has serious drawbacks in Indonesia.
- 24.3 The fact that these changes in the aims and scope of the project have already been provisionally approved by the ADB indicates that the 'top-down' approach to the project is in danger of being continued. There is no indication that any of the network members were consulted about the proposed changes.
- 24.4 A meeting of IRC and ENSICNET staff held at Loenen in the Netherlands in November 1991 considered that, while the study had identified problems and remedial actions in relation to ENSICNET itself, to take action only within the framework of ENSICNET would not produce lasting solutions.
- 24.5 It was felt that there is a need to coordinate the activities of the various information networks and services in the sector to avoid unnecessary duplication of effort and waste of resources.
- 24.6 It was recommended that AIT should convene a meeting of sectoral information network managers and funding agencies from the Asian region in March 1992, with the objectives of: increasing effective dissemination and utilization of information within the region; inventorizing the information activities of the various regional networks; and establishing a mechanism to increase collaboration and exchange of information activities.
- 24.7 It was agreed that ENSICNET national focal points should submit a brief report on the extent and nature of their collaboration with other national and international networks in this field, and the potential for increased cooperation between these networks at the country level.
- 24.8 Following the regional meeting, further meetings will need to be convened at the national level.
- 24.9 Issues and problems to be discussed at regional and national meetings may include: objectives and benefits of information networks; management and membership of information networks; role and effectiveness of national focal points; cooperation and coordination of network activities; identification of target groups of information users; the supply of information; staffing and staff training; resource requirements; cooperation in technical operations and information products and services; promotion of information network services.

0. PREFACE

0.1 This report presents the results of an evaluation of Phase 1 of the Asian Development Bank/Asian Institute of Technology project for the establishment of an Environmental Sanitation Information Network (ENSICNET), which is based at the Environmental Sanitation Information Centre (ENSIC) at the Asian Institute of Technology (AIT) in Bangkok, Thailand and which links six national networks (ENSICNETs) in China, Indonesia, Nepal, Pakistan, the Philippines and Vietnam.

0.2 The evaluation was carried out by the IRC International Water and Sanitation Centre in The Hague, Netherlands, who provided the consultant's services free of charge as a contribution to the development of information services in water supply and sanitation in the region, and who also paid most of the travelling and incidental expenses associated with the study. The ENSICNET project paid travelling and subsistence expenses in respect of the consultant's visit to Vietnam, and contributed to his expenses in Pakistan and Thailand.

0.3 The terms of reference for the study were as follows:

Phase 1 of the ENSICNET project is now coming to an end and the Asian Development Bank (ADB) has provisionally agreed to fund the further development of the network in Phase 2, which will run for two years from the end of August 1991. This will mainly involve intensifying activity in the six existing member countries. The possibility of additional funding from other sources, to extend ENSICNET to other countries in Asia, is being explored.

Before the final workplan for Phase 2 is prepared in September 1991, an external evaluation of Phase 1 is considered advisable. This will be carried out by a consultant, who will:

- review the existing situation and past performance of ENSICNET in Phase 1
- visit at least three of the six member countries (probably China, Vietnam and Indonesia) in company with the Project Manager, in each case visiting the ENSICNET focal point and selected member institutions and interviewing selected end users
- prepare an evaluation report including proposals for the implementation of Phase 2.

The data collection stage will be completed by the end of June 1991 and the evaluation report by mid-September at the latest. The total time required for such an assignment will be at least thirty days.

0.4 It appears that the actual starting date for Phase 2 has not yet been finalized, but that it will most probably begin in January 1992.

0.5 A preliminary draft of this report was submitted to the ENSICNET Project Office for comment at the end of June 1991. The comments received were taken into account in preparing a further draft, which was discussed at a meeting between ENSICNET and IRC staff held at Loenen in the Netherlands on 16 and 17 November 1991.

- 0.6 In submitting this report, IRC would like to express its thanks to the Asian Development Bank and the Asian Institute of Technology for providing the opportunity to carry out this study and for the help and support provided to the consultant by the Director of the AIT Library and Regional Documentation Centre, Mr. H. Arthur Vespry, the ENSIC Project Manager, Mr. Kiran Bhattarai, the Senior Information Scientist of ENSIC, Ms. Marta Miyashiro, and their colleagues.

1 METHODOLOGY OF THE EVALUATION

1.1 Introduction

- 1.1.1 In fulfilment of the requirements of the terms of reference for the assignment (see 0.3 above), the consultant visited the ENSICNET project headquarters in the ENSIC office at AIT on several occasions, and also paid visits to the national focal points of the national ENSICNETs, and to other institutions ('focal nodes') participating in these networks in China, Indonesia, Nepal, Pakistan, the Philippines and Vietnam.
- 1.1.2 In addition, three data collection instruments, designed to assess the opinions of ENSICNET participants on various aspects of the development and operation of the network, were distributed in each country in advance of the consultant's visit.

1.2 Visits and interviews

- 1.2.1 The first visit, to Pakistan, was very brief, and the consultant was only able to participate in the last session of the national ENSICNET workshop held at the national focal point in Islamabad, at which the questionnaires were distributed and completed, and to have discussions with the head of the national focal point. There was unfortunately no opportunity to visit any focal nodes in Pakistan, or to interview their staff or users.
- 1.2.2 In Nepal, transport problems restricted the programme of visits to the national focal point and only two focal nodes in Kathmandu. Discussions were held with the head of the national focal point and her administrative superiors.
- 1.2.3 In Vietnam, the consultant was able to participate in a national ENSICNET workshop attended by representatives of most of the focal nodes and to participate in separate technical meetings with them, the staff of the two national focal points, and project staff from AIT. He addressed the workshop on the subject of 'Information policies in the water and sanitation sector', and was also able to visit several focal nodes in and around Ho Chi Minh City. It was unfortunately not possible for him to visit the main national focal point in Hanoi.
- 1.2.4 In Indonesia, the programme of visits centred on the national focal point at the Bandung branch of the Centre for Scientific Documentation and Information (PDII) of the Indonesian Institute of Sciences (LIPI) where the consultant was able to have discussions with the head of the focal point and her staff, and to visit a number of focal nodes. He was also able to visit the headquarters of PDII/LIPI and that of the Water and Sanitation Information Network (WASIN) in Jakarta.
- 1.2.5 In China, the visit was based at the national focal point in the School of Environmental Engineering of Tongji University in Shanghai. The consultant was able to have extensive discussions with the head of the national focal point and representatives of some focal nodes, and visit two focal nodes in Shanghai.
- 1.2.6 The consultant had already visited the national focal point of ENSICNET-Philippines on two occasions, once in 1990 and in early 1991, in connection with its activities as the focal point for the United Nations Development Programme (UNDP)/World Bank International Training Network for Water and Waste Management (ITN) project for the Philippines (ITN-Philippines). He had already visited several ENSICNET focal nodes during his 1990 visit and the present visit

was therefore confined to discussions with the head and other staff of the national focal point.

- 1.2.7 Further round-up discussions were held with project staff at AIT at the end of the programme of visits.

1.3 The questionnaire survey

- 1.3.1 The first of the three data collection instruments, Questionnaire A, was intended to be completed by representatives of national focal points and focal nodes. The second, Questionnaire B, was addressed only to representatives of focal nodes, and the third, Questionnaire C, only to representatives of national focal points.

- 1.3.2 The questionnaires were translated into Vietnamese for distribution in Vietnam; in the other countries, the original English versions were used.

- 1.3.3 Questionnaire A asked for factual information on the respondent's name and title, place of work, own work in the field of information, and professional qualifications and experience.

- 1.3.4 Questionnaires B and C presented a series of statements about the operation of ENSICNET and their institution's ability to participate in it, and asked respondents to indicate the extent to which they agreed or disagreed with each statement by checking one of the following responses:

DEFINITELY YES!	(DY!)
YES	(Y)
DON'T KNOW	(D/K)
NO	(N)
DEFINITELY NOT!	(DN!)

- 1.3.5 While many statements appeared in both questionnaires, Questionnaire C included some additional statements specifically concerned with the operation of the national focal point. The numbering of some identical, or nearly identical, statements in the questionnaires was slightly different; the differences are explained at appropriate points in the text.

1.4 Summary of survey results

- 1.4.1 The total number of questionnaires returned from each country up to the end of August 1991 was as follows:

China	5
Indonesia	14
Nepal	21
Pakistan	9
Philippines	18
Vietnam	17

Total	84

- 1.4.2 It is not possible to estimate the response rates, since the questionnaires were distributed by the national focal points and the numbers distributed are not known. However, while from most countries the response appears to have been good, it is disappointing to note that only 11 percent of the total of 47 network members in China responded. The number of participants in the Philippines has been reduced from 20 to three since the survey was carried out. The responses from all the original participants have, however, been taken into account in this report.
- 1.4.3 Two questionnaires returned from Indonesia after 31 August are not included in the above, and have not been taken into account in preparing this report. Seven respondents in Vietnam returned only Questionnaire B, not Questionnaire A. In both Vietnam and Pakistan, separate responses were received from the main and the secondary national focal point.
- 1.4.4 The overall pattern of country responses to Questionnaires B and C (including the additional special statements for consideration by national focal points in Questionnaire C) is summarized in Tables 1.1 and 1.2 below. Table 1.1 records the numbers of responses received from each country, and from all countries, in each of the five response categories listed in 1.3.4 above. The numbers of non-responses (N/R) are also shown. Table 1.2 expresses these results as percentages of the total number of respondents in each case.

Table 1.1. All responses, by country. Quantities.

Country	N/R	DN!	NO	D/K	Y	DY!	Totals
China	19	0	43	22	140	5	229
Indonesia	4	3	130	109	352	36	634
Nepal	180	4	180	70	444	71	949
Pakistan	12	12	71	19	271	28	413
Philippines	1	2	198	178	398	37	814
Vietnam	5	7	198	127	328	108	773
Totals	221	28	820	525	1933	285	3812

Table 1.2. All responses, by country. Percentages.

Country	N/R	DN!	NO	D/K	Y	DY!	Totals
China	8	0	19	10	61	2	100
Indonesia	1	0	21	17	56	6	100
Nepal	19	0	19	7	47	7	100
Pakistan	3	3	17	5	66	7	100
Philippines	0	0	24	22	49	5	100
Vietnam	1	1	26	16	42	14	100
Totals	6	1	22	14	51	7	100

- 1.4.5 Table 1.2 shows that the highest proportion of non-responses to specific statements on the questionnaires came from Nepal, where 19 percent of all statements did not receive a reply. The highest proportion of 'don't know' responses--22 percent--came from the Philippines.
- 1.4.6 Respondents in Pakistan seemed to take a more positive view than their colleagues in other countries: the combined total of 'yes' and 'definitely yes!' responses amounted to 73 percent of the total from this country--well above the combined total of 58 percent for all countries.
- 1.4.7 The highest proportion of negative responses came from Vietnam, with a combined total of 27 percent for 'no' and 'definitely no!' responses, as compared with 23 percent for all countries; however, Vietnam also accounted for the highest proportion--14 percent--of 'definitely yes!' responses.
- 1.4.8 To simplify the analysis of the responses in the remainder of this report, the statements have been grouped under a number of collective headings, as follows:
- Objectives (statements 1 and 2)
 - Benefits (statements 24, 26)
 - Interaction (statements 25, 29, 30)
 - Cooperation (statements 21, 22, 23, 27, 28)
 - Users (statements 3, 35)
 - Information supply (statements 4, 5, 6, 7, 8)
 - Collections (statements 15, 16, 17)
 - Equipment (statement 18)
 - Finance (statements 19, 20)
 - Staff (statements 12, 13)
 - Training (statement 14)
 - Identification (statements 9, 10, 11, 31)
 - Worksheets (statement 33)
 - Access (statements 34, 36)
 - Current awareness (statement 37)
 - Literature searching (statement 38)
 - Document delivery (statements 32, 39)
 - Enquiries (statements 40, 41)
 - Promotion & education (statements 42, 43 44, 45)
- 1.4.9 The responses to these groups of statements are presented in summary tables in the body of the text. In each case, two complementary tables are provided. The first records the total responses received to each statement in the group, from all countries; the second records the total responses received from each country to the group of statements as a whole.
- 1.4.10 Where the same or similar statements were given different numbers in Questionnaires B and C, the Questionnaire B number has been used to identify the statement for purposes of analysis. Any differences in the numbering are explained in the introduction to each set of summary tables.
- 1.4.11 Complete records of the responses to all statements common to both questionnaires, received both from the national focal points and the focal nodes in each country, and from all countries, are presented in Tables A.1.1 to A.7.2, Appendix A.

- 1.4.12 The responses received from the national focal points only, to Questionnaire C, are summarized in Tables 2.1 and 2.2 below. These include responses both to statements in common with Questionnaire B and to the special additional statements in Questionnaire C. Tables 2.1. and 2.2 therefore overlap with Tables 1.1 and 1.2 to the extent that both include the responses of national focal points to the common questions.
- 1.4.13 Complete records of the responses received from the national focal points to Questionnaire C are presented in Table B.1. to B.8, Appendix B.

Table 2.1. NFP responses, by country. Quantities.

Country	N/R	DN!	NO	D/K	Y	DY!	Totals
China	5	0	9	3	32	0	49
Indonesia	0	0	7	2	37	3	49
Nepal	2	0	8	3	36	0	49
Pakistan	4	0	20	0	72	2	98
Philippines	0	0	10	1	37	1	49
Vietnam	0	2	20	11	38	27	98
Totals	11	2	74	20	252	33	392

Table 2.2. NFP responses, by country. Percentages.

Country	N/R	DN!	NO	D/K	Y	DY!	Totals
China	10	0	18	6	65	0	100
Indonesia	0	0	14	4	76	6	100
Nepal	4	0	16	6	73	0	100
Pakistan	4	0	20	0	73	2	100
Philippines	0	0	20	2	76	2	100
Vietnam	0	2	20	11	39	28	100
Totals	3	1	19	5	64	8	100

- 1.4.14 The various groups of responses to Questionnaires B and C, together with those to Questionnaire A, where appropriate, are discussed and analyzed in succeeding sections of this report, which also take account, where appropriate, of comments received from ENSIC and ENSICNET staff on the preliminary draft of the report which was submitted to them in June 1991.
- 1.4.15 There was unfortunately no time to analyze patterns of responses from individual respondents so as to establish, for example, how many responded 'yes' to one statement and 'no' to another, although in some cases this could provide useful further insights into the situation.

2 BACKGROUND

2.1 Introduction

2.1.1 The Environmental Sanitation Information Centre (ENSIC) was first established at AIT in 1978, with financial support from the International Development Research Centre (IDRC) of Canada.

2.1.2 In April 1987, a proposal for 'consolidating ENSIC's potential by outreach network activity in environmental sanitation and water management' was submitted to the Asian Development Bank (ADB). This was reviewed by ADB staff in June 1987 and, following a fact-finding mission in August and September of that year, was included for the first time in the ADB's Operational information on proposed projects in November 1987. The provision of technical assistance to AIT for 'strengthening information systems for environmental sanitation in selected developing member countries' was approved by the President of ADB in January 1988.

2.1.3 Discussing the need for the technical assistance, an ADB report on the subject stated that:

To enhance the effectiveness of environmental sanitation development in DMCs [developing member countries], an adequate information base is essential.

Although ENSIC has been actively involved in collating and disseminating information on environmental sanitation and thus serving as a key information source for the region, there is also a need to strengthen national environmental information systems to ensure the effectiveness of their information services. This need is recognized and can be effectively met by ENSIC as a specific project in addition to its routine information services. ENSIC ... is ready to strengthen its information support to the developing countries. ... An indirect benefit of the technical assistance is the opportunity for ENSIC to more widely disseminate its experience and resources and strengthen its capability.

2.1.4 The emphasis thus placed, in the technical assistance report, on the strengthening of national capabilities in providing environmental sanitation information, was repeated in the Inception Report on the project, which stated that:

to enhance the effectiveness of environmental sanitation development, an adequate information base in each DMC is essential. The rich experience of ENSIC should be disseminated to as many countries as possible so that each country could have its own National Information Center, a network of ENSIC (ENSICNET)...

2.2 Preliminary survey

2.2.1 One of the components of the technical assistance envisaged in the ADB Technical Assistance Report was a survey of information requirements and services in about six DMCs.

2.2.2 The objective of the survey would be to establish a basis for the planning of other components, and particularly for the identification and selection of national environmental sanitation information centres. A questionnaire was to be used to

collect information from the selected countries, and a team of experts would subsequently visit the countries to gather more information.

- 2.2.3 The criteria used in selecting the six countries to be included in the project were: the level of water supply development activities; the need for information services; socio-economic conditions; geographical representation; preparedness to continue the services which were to be strengthened under the technical assistance; and the adequacy of local support.
- 2.2.4 The results of the questionnaire survey are summarized in Table 3 below.

Table 3. Results of the initial survey.

Country	Distributed	Returned	Response %
China	20	8	40
Indonesia	16	4	20
Nepal	6	1	17
Pakistan	9	1	11
Philippines	27	6	22
Vietnam	1	1	100
Totals	79	21	27

- 2.2.5 It can be seen that, in three of the six countries, only a small number of questionnaires were distributed, and that in all countries except Vietnam (where the 100 percent response rate is of little significance since only one questionnaire was distributed) the response rate was low.
- 2.2.6 The information collected at this stage of the survey could therefore have provided only a limited picture of the existing water supply and sanitation information situation in each country.
- 2.2.7 According to the Inception Report, the subsequent country visits (which in some cases, such as that of Pakistan, included visits to institutions which had not been sent questionnaires) helped to establish the basis for the planning of the other components of the project, particularly the identification and selection of the national focal points, which were based on different criteria for each country.
- 2.2.8 The selections had in each case to be approved by the government of the country concerned, and in some cases this led to the substitution of other institutions for those originally selected.
- 2.2.9 It should be noted that two countries, Pakistan and Vietnam, each have a secondary national focal point in addition to the main one. Only the national focal points in Nepal and the Philippines are housed in institutions specifically

concerned with water supply and sanitation. The two in Pakistan are located in an institution concerned with water resources information in general, while that in China is in an institution concerned with environmental studies and that in Indonesia, and the two in Vietnam, are in the national scientific and technical information organization.

2.3 Overview of ENSICNET

- 2.3.1 ENSICNET is a regional information network in environmental sanitation with its headquarters at the Environmental Sanitation Information Centre (ENSIC), which is located at the Library and Regional Documentation Centre (LRDC) at the Asian Institute of Technology in Bangkok, Thailand.
- 2.3.2 The network comprises national focal points in six Asian countries, namely, China, Indonesia, Nepal, Pakistan, the Philippines and Vietnam, in each of which there are also a number of other institutions, known as 'focal nodes', which, together with the national focal point, make up the national ENSICNET network. Two countries, Pakistan and Vietnam, have subsidiary regional focal points, and a third, China, was planning to establish one in August 1991.
- 2.3.3 Under the terms of the Memorandum of Understanding between ENSIC and the national focal point in each country, (see 3.1.5 below) each national ENSICNET was to aim for an initial membership of 20 institutions. However, some now have more, and some have less.
- 2.3.4 A brief general overview of each of the national networks is provided below. More specific issues and concerns are discussed in more detail in subsequent sections of this report.

2.4 ENSICNET-China

- 2.4.1 In China, information exchange in the water and sanitation sector started in the mid-1960s. An Information Network in Water Supply and Sewage existed before the establishment of ENSICNET. This is part of the national information network. It is not a bibliographic network, but is concerned mainly with other methods of information exchange, especially through meetings and the publication of research papers. The focal point of this network is in the Ministry of Capital Construction.
- 2.4.2 There are also some local and regional networks of a similar character, for example the Shanghai Water Supply and Sewerage Technology Information Network, to some of which the national focal point and some of the focal nodes of ENSICNET-China also belong.
- 2.4.3 The establishment of ENSICNET-China was considered to be important in China because it introduced an international dimension, with the possibility of exchanging information with international sources. Exchange arrangements with other networks in China form the basis for the information holdings of the ENSICNET national focal point, which is located in the School of Environmental Engineering at Tongji University in Shanghai.
- 2.4.4 ENSICNET-China has 47 participants at present, some of which are focal points for other networks. A regional focal point for North East China was to be established in August 1991. It was envisaged that there would eventually be some

40 participating institutions in this regional sub-network, covering not only water supply and sanitation, but also a wide range of environmental pollution issues.

2.5 ENSICNET-Indonesia

- 2.5.1 In Indonesia, the national focal point is located at the Bandung branch of the Centre for Scientific Documentation and Information (PDII) of the Indonesian Institute of Sciences (LIPI). The Bandung branch is said to be more concerned with management information systems, scientific and technical information, and end users, whereas the headquarters in Jakarta is more concerned with library and documentation services.
- 2.5.2 There are more than 20 focal nodes in ENSICNET in Indonesia. The network is trying to involve producers of documents as well as librarians. The head of the national focal point considers it important not restrict the network to librarians or to library or bibliographic activities, and has identified several other groups of users or members of the network. These include planners, managers, researchers, educators, technical staff and computer personnel.
- 2.5.3 One of the members of ENSICNET-Indonesia is the Water and Sanitation Information Network (WASIN) established in 1987 with support from IDRC. The WASIN network comprises eight subcentres in the Ministry of Public Works and the Ministry of Health. Three of these are themselves members of ENSICNET.
- 2.5.4 One of the activities of WASIN is the preparation of microfiche copies of key documents. Three copies are made at PDII/LIPI in Jakarta. The network maintains two databases using CDS/ISIS, one at the Ministry of Public Works and one in the Ministry of Health. These are combined in a single database containing about 5,000 records which is maintained on behalf of WASIN at PDII/LIPI in Jakarta, using MINISIS software and an HP 3000 minicomputer.
- 2.5.5 There are two UNDP/World Bank International Training Network Centres in Indonesia, one of which is located in Bandung and is a member of ENSICNET. Unlike the ITN Centre in the Philippines (see 2.8.1 below), neither of these is maintaining a network, and the projects had no specific documentation component.

2.6 ENSICNET-Nepal

- 2.6.1 In Nepal, the national focal point is located in the Nepal Water Supply Corporation in Kathmandu. The network has 20 focal nodes, all of which are also located in Kathmandu.
- 2.6.2 Only about four or five of the focal nodes in Nepal are really active; the others help the national focal point when asked, otherwise not.
- 2.6.3 One active focal node of ENSICNET-Nepal, the Royal Nepal Academy for Science and Technology (RONAST) is the national focal point for many other international or regional networks and the headquarters of a Unesco project to establish a national scientific and technical documentation system.
- 2.6.4 The establishment of an ITN Centre in Nepal is being considered, though it is not known at present where it might be located. A separate World Health Organ-

ization (WHO) project to establish a training centre for water supply and sanitation is now under way.

2.7 ENSICNET-Pakistan

- 2.7.1 ENSICNET-Pakistan has fourteen members at present. The national focal point is located in the National Documentation Centre, Library and Information Network (Environment and Water Resources) (NADLIN), which was already the headquarters of a computerized information network in water resources, established in January 1987 under a United States Agency for International Development (USAID) project. This has 45 member institutions, not all of which have libraries.
- 2.7.2 NADLIN and the Pakistan Scientific and Technological Information Centre (PASTIC) are both units of the Ministry of Science and Technology in Pakistan, and PASTIC is a member of ENSICNET.
- 2.7.3 PASTIC is also the national focal point for the Environmental Health Regional Information Network (CEHANET), the coordinating centre for which is based in Jordan and which has very similar aims, objectives and activities to ENSICNET. According to a recent report in the ASTINFO Newsletter, PASTIC has identified about 20 institutions in Pakistan which are capable of serving as CEHANET collaborating centres.
- 2.7.4 NADLIN is also the national focal point for Unesco's International Hydrological Programme (IHP), which has an information component.

2.8 ENSICNET-Philippines

- 2.8.1 In the Philippines, the ENSICNET national focal point is located in the Training Centre of the Local Water Utilities Administration (LWUA), which is also the ITN Centre for the ITN-Philippines network of training institutions in water supply and sanitation. The ITN project also has a documentation component aimed at strengthening information support for the training activities of its member institutions.
- 2.8.2 The Documentalist-Trainer appointed under the ITN-Philippines project was also the person trained at AIT to take charge of ENSICNET-Philippines.
- 2.8.3 As noted above (1.4.2), while ENSICNET-Philippines originally had 20 focal nodes, as required under the Memorandum of Understanding, the number has recently been reduced to three. One of these is the national focal point itself, in its role as focal point for the documentation activities of ITN-Philippines, while another is the focal point for the Health Research and Education Network (HERDIN). ENSICNET-Philippines thus intends to reach individual institutions through their membership of these networks.
- 2.8.4 Six of the 20 institutions originally comprising ENSICNET-Philippines are also members of the ITN network in the Philippines. In two more cases, the parent institution is (or was) part of ENSICNET while a subsidiary unit is part of ITN-Philippines; in three other cases, the reverse is the case. Only one member of ITN-Philippines is not among the original members of ENSICNET-Philippines, whereas nine members of ENSICNET do not belong to ITN-Philippines.

- 2.8.5 In the assignment carried out by the present consultant on behalf of IRC at ITN-Philippines in 1990, most representatives of ITN-Philippines member institutions indicated through their responses to a questionnaire survey that,

:: :
as far as library and documentation activities are concerned, the ITN and ENSICNET are trying to do the same thing.

2.9 ENSICNET-Vietnam

- 2.9.1 The National Information-Documentation Centre for Science and Technology (NIDCST) in Hanoi is the main national focal point for Vietnam; the Centre for Scientific and Technical Information and Industrial Property (CSTI) in Ho Chi Minh City is a regional focal point. Both institutions cover all aspects of science and technology, and water and sanitation information has not so far had high priority.
- 2.9.2 IDRC is supporting a project to permit online searching of databases at the NIDCST in Hanoi, including external databases and databases on CD-ROM.
- 2.9.3 Maintaining contact and good relationships with the participating institutions in Vietnam is seen to be a problem by both the national focal points.

2.10 Analysis

- 2.10.1 Although the project aimed for flexibility and responsiveness to the local situation in the selection of the national focal points, it was less flexible in determining the size of the national networks.
- 2.10.2 The situation of each of the national ENSICNETs is completely different from the others, yet each of them, irrespective of the size of the country in which they were located, was expected to recruit the same initial number of focal nodes and, as indicated below (section 3.1.6), to perform similar tasks.

3 AIMS AND OBJECTIVES OF THE PROJECT

3.1 Introduction

- 3.1.1 The general aim of the technical assistance offered by the ADB to AIT was defined in the Technical Assistance Report of January 1988 as being:

to enhance the efforts of selected DMCs of the Bank to improve water supply and sanitation in rural and low income areas.

In order to achieve this,

the technical assistance will provide assistance to DMCs through ENSIC to strengthen their information systems and for training in information management and low-cost technologies.

- 3.1.2 According to the Inception Report on the project, its objective was

to strengthen information systems and data gathering capabilities and provide training in information management and low cost technologies in six DMCs to develop strong information systems in water supply and sanitation in countries.

- 3.1.3 This was to be achieved by linking national environmental sanitation centres and ENSIC to form a regional information network, with ENSIC serving as the focal point for exchanging information and providing technical and information support for water supply and sanitation development.

- 3.1.4 Each national focal point was also to receive basic library materials, ENSIC publications, one or more microfiche reader/printers, a microcomputer (if necessary), computer software, and training in the application of computers for information system operation and information management. In addition, an international workshop on information systems for water supply and sanitation development was to be organized by each information centre.

- 3.1.5 These conditions and considerations were embodied in a Memorandum of Understanding between AIT and the national focal point in each ENSICNET member country, which listed specific tasks to be carried out by the project. These included:

- shipping the equipment to each country
- providing ENSIC publications free to each focal node in each member country for a period of three years
- providing the information available in ENSIC free of charge
- bearing all the costs of training at AIT
- bearing the travelling and allowance costs [of national ENSICNET staff] when participating in national workshops in the other member countries
- providing some financial help (currently about USD 3,000) for each national workshop.

- 3.1.6 Each Memorandum of Understanding also specified tasks to be performed by the national focal point. These included:
- getting government clearance for the inauguration of the project
 - identifying 20 focal nodes and informing the project of the criteria used in selecting them
 - preparing an organization chart of the national network
 - preparing a work plan for the implementation of the national network
 - establishing an advisory board for the national network, to include representatives of the private sector, line agencies, academic institutions and the health sector
 - giving priority to identifying the information requirements of line agencies
 - recommending two permanent staff for training in AIT
 - clearing equipment and publications through Customs
 - marketing and promotion of ENSICNET
 - developing a national version of the ENSIC worksheet
 - collecting, repackaging and disseminating information
 - translating bibliographic records (including abstracts) from local languages into English and sending them to ENSIC and to other ENSICNETs as requested
 - translating foreign literature into the national language, if required
 - making the arrangements for a three-day workshop
 - sending participants to the other five national workshops
 - providing quarterly activity reports
 - preparing a newsletter.
- 3.1.7 A complementary objective of the project was to strengthen information support, particularly for DMCs not selected for participation in the network. Information generated by ENSIC was to be distributed to identified users and information centres in DMCs.
- 3.1.8 In addition, a training programme on low-cost technologies for water supply and sanitation was to be organized to complement the information dissemination activity. A five-day course on water supply and sanitation was held from 31 July to 4 August 1989 and attended by eleven participants from the six member countries.

3.2 Questionnaire responses

3.2.1 The first two statements in both questionnaires dealt with the objectives of the project, as follows:

- the objectives of ENSICNET are clear to me
(Questionnaires B and C, 1)
- my institution supports the objectives of ENSICNET
(Questionnaires B and C, 2)

3.2.2 The responses to these statements are summarized in Tables 4.1 and 4.2 below.

Table 4.1. Objectives, by statement. All countries.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
1. objs. clear	0	0	2	2	63	17	84
2. objs. supported	1	0	1	2	59	21	84
Total	1	0	3	4	122	38	168
Percentages	1	0	2	2	73	23	100

Table 4.2. Objectives, by country. All statements.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	1	0	0	0	6	3	10
Indonesia	0	0	1	0	22	5	28
Nepal	0	0	1	0	29	12	42
Pakistan	0	0	0	0	13	5	18
Philippines	0	0	0	3	32	1	36
Vietnam	0	0	1	1	20	12	34
Totals	1	0	3	4	122	38	168
Percentages	1	0	2	2	73	23	100

3.2.3 Tables 4.1 and 4.2 show, first, that the vast majority (96 percent) of respondents in all member countries consider that the objectives of ENSICNET are clear to them and secondly, that the objectives have widespread support. All the respondents from national focal points gave positive responses on this topic. The percentage of 'definitely yes!' responses with regard to understanding of, and support for, the objectives of ENSICNET (23 percent), was higher than for any other topic.

- 3.2.4 One respondent in Indonesia, and one in Vietnam, said the objectives were not clear, while one in Nepal said they were not supported. Two respondents in the Philippines did not know whether the objectives were clear or not, while another in the Philippines, and one in Vietnam, did not know whether or not they were supported.

3.3 Results of visits and interviews

- 3.3.1 More specific comments on the objectives and scope of the project were received in interviews with representatives of national focal points and focal nodes. These were often expressed in terms of the benefits which members expected to receive from the project, which are discussed in more detail in section 4 below.
- 3.3.2 In terms of the specific tasks to be performed by the project in accordance with the Memorandum of Understanding, representatives of national focal points in China, Indonesia and Vietnam commented on the need for more copies of ENSIC documents (see also section 9 below).
- 3.3.3 Both China and Indonesia needed extra copies for additional focal nodes which had been established, over and above the 20 originally planned. The Chinese representative complained that this need had been repeatedly emphasized to ENSIC, but so far no action had been taken. The national focal point in Indonesia was trying to make photocopies for distribution to additional focal nodes, but was hampered by lack of money. The national focal point in Ho Chi Minh City, Vietnam, had received some ENSIC publications, but not all.
- 3.3.4 Commenting on this point in the preliminary draft report, the Project Manager noted that additional copies of ENSIC publications had been sent for the extra focal nodes in China, but that

the countries do not seem to understand that it takes time to get money transferred from one [budget] line item to another and this can't be done immediately (see also section 11 below).

3.4 Analysis

- 3.4.1 Any information network comprises a number of individual information systems or services. It has been suggested that an information service can only be evaluated in relation to its stated objectives--although few such services do, in fact, state their objectives precisely.
- 3.4.2 In general terms, the ultimate objective of any information service must be to provide information products and services which will satisfy the needs of its users (and could satisfy those of potential users) in terms of:
- maintaining awareness of new developments in their fields of interest
 - identifying documents containing information of interest
 - locating and supplying copies of required documents
 - answering enquiries.

- 3.4.3 In order to achieve this objective, an information service must:
- know who its actual and potential users are
 - know what their information needs are
 - provide collections of information materials, and information products and services, capable of meeting those needs
 - ensure that actual and potential users are aware of these collections, products and services, and have access to them.
- 3.4.4 To fulfil these requirements, an information service must be able to perform a range of technical operations, including identifying and procuring documents and recording their existence in catalogues, indexes or databases.
- 3.4.5 This requires adequate resources, in terms of equipment, finance and staff, an appropriate organizational structure and the necessary legislative or administrative authority to undertake all these activities.
- 3.4.6 The general aim of an information network may be said to be to enhance the ability of its member institutions to perform the necessary technical operations and provide the desired information products and services, and so meet the information needs of their users more effectively. A network may thus be evaluated in terms of the extent to which it has, or is able to, achieve this aim.
- 3.4.7 The succeeding sections of this report will attempt to assess the effectiveness of ENSICNET in helping its constituent national networks and their member institutions to meet the needs of their users for information on water supply and sanitation--and, in particular, to fulfil the specific objectives of the project as stated in section 3.1 above.
- 3.4.8 It may be noted at this point that the stated objectives of ENSICNET are not very clear. The Technical Assistance Report defined the general aim in terms of improving water supply and sanitation as such, identifying the strengthening of information systems through ENSIC, and training in information management and low cost technologies, as the strategies by which this aim was to be achieved.
- 3.4.9 In the Inception Report, these strategies became the objectives of the project, again stated only in general terms. These new objectives were to be met by forming a regional information network, with ENSIC as the focal point for exchanging information and providing support for water supply and sanitation development.
- 3.4.10 Specific elements of this strategy, in terms of the respective responsibilities and tasks of ENSIC and the national focal points, were spelled out in more detail in each Memorandum of Understanding; but it is noticeable that, apart from brief references to:
- giving priority to identifying the information requirements of line agencies
 - consolidating, repackaging and disseminating information
 - translating bibliographic records and foreign literature

- preparing a newsletter

as tasks to be performed by national focal points, none of the basic documents referred to above provides a clear indication of what the national focal points and focal nodes were actually supposed to do, in terms of providing information products and services to meet the needs of their users and potential users, nor how they were to organize themselves or finance the network's activities.

- 3.4.11 As noted above (para. 3.2.3), most respondents to the questionnaire survey indicated that the objectives of ENSICNET are, in general, clear to them and are supported. However, in subsequent sections of this report it will be seen that this is not always the case where specific objectives are concerned.
- 3.4.12 In general, completion by the various national focal points of the tasks listed in 3.1.6 above has been uneven; while all of them prepared an initial work plan, for example, only China has established an advisory board, and none of them provides quarterly activity reports.
- 3.4.13 No special treatment has so far been given to non-member DMCs under the project.
- 3.4.14 As the final comment in this analysis of the objectives of the project, we may note the difference of opinion, or at least of perception, between the Project and one or more national focal points, on the question of the supply of extra copies of ENSIC documents for extra focal points. This is the first instance in this report, but by no means the last, of apparent difficulties in communication between the Project and the national focal points.

4 BENEFITS OF THE PROJECT

4.1 Introduction

4.1.1 According to the Inception Report, the advantages of establishing focal centres under the project would include:

- the sharing of hitherto unavailable knowledge with other individuals and institutions within the country and abroad
- the greater ease and speed of obtaining information from a focal centre rather than through visiting numerous institutions in search of information
- reduction in the unnecessary duplication of research work, as researchers become able to discover more easily what research has already been done elsewhere
- elimination of the language barrier, 'as the titles, abstracts and keywords will all be in English'
- savings in the foreign exchange needed to subscribe to international journals, because most of the relevant articles will be made available through the focal centre on microfiche.

4.2 Questionnaire responses

4.2.1 The two questionnaires included two statements dealing specifically with the expected benefits of the project, as follows:

- my library expects to benefit a lot from participating in ENSICNET

(Questionnaire B, 26, Questionnaire C, 28)

- participating in ENSICNET helps my library to give better service to its users

(Questionnaire B, 24, Questionnaire C, 26).

4.2.2 The responses to these statements are summarized in Tables 5.1 and 5.2 below.

Table 5.1. Benefits, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
26. expects benefit	8	0	0	4	61	11	84
24. partic helps serv	8	0	5	6	54	11	84
Total	16	0	5	10	115	22	168
Percentages	10	0	3	6	68	13	100

Table 5.2. Benefits, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	2	0	0	0	8	0	10
Indonesia	0	0	2	2	23	1	28
Nepal	11	0	2	0	24	5	42
Pakistan	0	0	0	0	15	3	18
Philippines	1	0	0	4	27	4	36
Vietnam	2	0	1	4	18	9	34
Totals	16	0	5	10	115	22	168
Percentages	10	0	3	6	68	13	100

4.2.3 The tables show that the overwhelming majority of respondents--a combined total of 86 percent for 'yes' and 'definitely yes!' responses--expect to benefit from the project, while 77 percent think that participation will help them give better service to their own users. Only 3 percent of respondents did not think that participation would help them to provide better service; one of these was the national focal point in Nepal.

4.2.4 One of the 6 percent of 'don't know' responses relating to the benefits of the project came from one of the two respondents from national focal points in Vietnam, which did not know whether or not it expected to benefit. The other national focal point respondent in Vietnam, however, replied 'definitely yes!' to the same statement, indicating some difference in the expectations of the two national focal points in this respect.

4.3 Results of visits and interviews

- 4.3.1 In Vietnam, the main benefits of the project referred to during interviews were seen to be related to the development of interinstitutional contacts within the country. Before the network was established, institutions in the sector were unaware of each others' work, resulting in unnecessary duplication of effort. Now they have better contacts with each other.
- 4.3.2 In Pakistan, one of the main benefits was seen to be the receipt of information from other member countries. This encourages an awareness of what others are doing and--as, for example, in the case of information received from China and passed on to ENSICNET Pakistan members--can lead to direct interinstitutional contacts.
- 4.3.3 The project head in Pakistan considered that the main aim of Phase 1 of the project should have been to raise awareness in this way.
- 4.3.4 In China, while the original objective of the project was thought to be to share information, it was considered more important to show the national networks how to share it, and how to develop their capabilities.
- 4.3.5 Also in China, a further degree of conflict or ambiguity in the objectives of ENSICNET, as between strengthening the national infrastructure, on the one hand, and supplying records to, or participating in, the regional or international network, on the other, was felt to be apparent.
- 4.3.6 Network participants in China felt that what ENSIC supplies, in general, is not what they need; they thought that project staff should analyze national requirements more carefully. What they supply is not always considered to be relevant.
- 4.3.7 Commenting on this point in the preliminary draft of the report, the Project Manager noted that
- the Project has never yet received any comments from China on this subject. It would have been helpful to know why the things supplied by ENSIC are not relevant and if so what would they like to have?*
- 4.3.8 As in Pakistan, participants in China placed strong emphasis on the international or regional exchange of information, in line with the first of the project benefits identified in 4.1.1 above. China is very committed to international information exchange through ENSICNET.
- 4.3.9 The benefits to China of participation in the project were seen largely in terms of the input to China of bibliographical information from abroad. At the same time, personal relationships with foreign colleagues are very important to China, which already has many contacts with other countries.
- 4.3.10 According to the project head in China, the main responsibility of a network is to exchange information. However, in China, both international exchange and the development of the national information system are considered to be important.
- 4.3.11 From discussions held with participants in ENSICNET China, it is apparent that the precise benefits which China can expect to receive from its participation are still not very clear. On the other hand, China feels it can contribute a lot to the network, and believes that Chinese technology in many fields is advanced. It has

been found that the technical level of China and many other countries is more or less equal; the problem in China is the poor quality of materials.

- 4.3.12 China hopes to solve real practical problems through its participation in ENSICNET; the country is said to be backward in printing, publishing, and information retrieval. The importance of ensuring the quality of the information provided through the network, rather than its quantity, was repeatedly emphasized by the project head in China.
- 4.3.13 It was thought in China that some of the research now being done in AIT had been carried out in China ten years ago. Commenting on this point in the preliminary draft of the report, the Project Manager noted that it would be very valuable to AIT to know exactly what research was involved.
- 4.3.14 Up to now, the national focal point in China is neither satisfied nor dissatisfied with the development of ENSICNET-China. The network is better developed than in some of the other member countries, because of help from friends who 'have helped us meet the demands of AIT'.
- 4.3.15 Frequent reference was made during the discussions in China to 'the demands of AIT', which was 'like a boss giving assignments'. It was felt that ENSICNET China participants were taking on a lot of extra work, especially in terms of translating abstracts into English, 'to meet the requirements of AIT'.
- 4.3.16 The production of abstracts in English was, indeed, one of the benefits foreseen in the Inception Report and listed in 4.1.1 above, though it was no doubt envisaged that this would benefit all participants in the network, including those in China.
- 4.3.17 There was a strong feeling in China that the relatively large amount of information supplied to ENSIC was out of proportion to the limited benefits received so far. The Project Manager, commenting on this point as it appeared in the preliminary draft, pointed out that it had often been explained to the Project Head in China that

the Project has given them the basic tools and it is up to them to strengthen their network for their own good first.

He noted also that expenditure on workshops and publications for China was very high compared to the other member countries.

4.4 Analysis

- 4.4.1 Although the general attitude to the benefits to be expected from participation in the project was very positive, it is clear from the examples quoted that not all respondents, even in national focal points, were really clear as to precisely what these benefits were supposed to be.
- 4.4.2 This point will be further reinforced in subsequent discussion of the extent to which participants in the various national networks are really able to provide adequate services to their users, or carry out the technical operations needed to support them--and particularly the extent to which the various tools supplied by the project, including equipment, software and publications, are actually being used.

- 4.4.3 The comment by the Project Manager on the provision of 'basic tools' (para. 4.3.19 above) echoes that made in an earlier progress report on the project and reported in 5.4.8 below, and provides another instance of apparent difficulties in communication, or at least, differences in perception, between the Project and the national focal points.
- 4.4.4 It is worth noting here that those respondents who did identify specific benefits to be expected from the project referred, in the main, only to aspects of the first and third benefits listed in 4.1.1 above--that is, to the sharing of information, particularly from abroad, and to finding out what others have been doing in the same field.
- 4.4.5 The 'elimination of the language barrier', particularly through the use of English-language abstracts, received only adverse comment, and only from one respondent, and other anticipated benefits, of 'greater ease and speed in obtaining information from a focal centre' and of 'savings in foreign exchange ... [through the use of] ... microfiche' were not mentioned at all. Some discussion of these aspects does, however, appear in subsequent sections of this report.
- 4.4.6 The suggestion by the project head in Pakistan that the main aim of Phase 1 of the project should have been to raise awareness of what others are doing overlooks the fact that this was, in fact, among the benefits of the project foreseen in the Inception Report and listed in 4.1.1 above.
- 4.4.7 This may indicate, perhaps, that the objectives of the project--at least as expressed in terms of the benefits to be derived from it--are not as clear as the responses to statement 1 of the questionnaires (see 3.2.3 above) might suggest.
- 4.4.8 The comment by the project head in China, with regard to the development of national capabilities (see 4.3.5 above), appears to be another case in which the objectives of ENSICNET are not completely clear, since in fact, as indicated in para 3.1.2 above, the Inception Report identified the main objective of the project as being 'to strengthen information systems', while the exchange of information was one means by which this was to be done.

5 PROJECT MANAGEMENT AND ADMINISTRATION

5.1 Introduction

- 5.1.1 It was originally envisaged that the project would be advised by an Advisory Technical Committee chaired by the Director of the AIT Library and Regional Documentation Centre (LRDC) and including a representative of the AIT Environmental Engineering Division, the Director of the AIT Regional Research and Development Centre, the Director of the AIT Continuing Education Centre and the Senior Information Scientist, ENSIC, with the Project Manager acting as Secretary.
- 5.1.2 It was intended that this committee would meet at least once a month. In the event, only four meetings were held, two in 1988 and two in 1989. It appears that monthly meetings of the committee were found to be unnecessary; it is supposed to meet when necessary, but has not met since 1989.
- 5.1.3 ENSICNET matters are, however, discussed at meetings of the management of ENSIC itself, which are held regularly. Four of the six members of the Advisory Technical Committee participate in all ENSIC meetings, and information on any matter of importance affecting the project is sent to other members through AIT campus mail for comment.
- 5.1.4 The minutes of the second meeting, held on 7 December 1988, record a comment by the Director, LRDC, to the effect that the evaluation of the national focal points would be very difficult due to financial constraints, while those dealing with the third meeting, on 14 March 1989, record that the Director had advised that the project should begin to think of its future plans, since some national ENSICNETs may find it difficult to operate satisfactorily without the support of ENSIC.
- 5.1.5 No minutes appear to have been prepared for the fourth meeting of the committee, held on 21 August 1989.
- 5.1.6 Provision was also made for the establishment of an International Board of Review for the project. This was to have no meetings, but would communicate through existing channels, and was meant to respond for requests for guidance. It is also referred to as the 'Advisory/Editorial Board'.
- 5.1.7 This Board is still in existence; it has a total of twenty-four members, nine of whom are from five developing countries (only two of which, China and Indonesia, are members of ENSICNET), and fifteen of whom are from six industrialized countries.
- 5.1.8 Management problems foreseen in the inception report included those of language (especially in China, Indonesia and Vietnam); the volume of information; the maintenance of equipment; evaluation; and delays. The problems of evaluation arose because it was

not possible for the Project to keep a very close watch on the ENSICNETs

while delays were foreseen because

most countries will be establishing information centres for the first time, [so] progress will be slow.

5.2 Questionnaire responses

5.2.1 Questionnaire B included two statements designed to obtain the views of the focal nodes in each national network on their relations with the national focal point, as follows:

- the staff of my library need advice and assistance from the ENSICNET national focal point in order to be able to participate effectively in ENSICNET

(Questionnaire B, 29)

- the ENSICNET national focal point provides adequate advice and assistance to the staff of my library to enable them to participate effectively in ENSICNET

(Questionnaire B, 30)

5.2.2 The first of these statements was meant to be modified for inclusion in Questionnaire C so as to find out whether or not the staff of the national focal point felt they needed advice and assistance from ENSIC. Due to a typing error, which was unfortunately not detected until after the completed questionnaires were returned, this actually appeared in Questionnaire C as

- the staff of my library need advice and assistance from the ENSICNET in order to be able to participate effectively in ENSICNET

(Questionnaire C, 31)

5.2.3 A further statement in Questionnaire C was intended to complement the intended statement 31 and parallel statement 30 in Questionnaire B. This was

- ENSIC provides adequate advice and assistance to the staff of my library to enable them to participate effectively in ENSICNET

(Questionnaire C, 32)

5.2.4 Because of the slight confusion which arose with the typing error in statement 31 of Questionnaire C, these two pairs of questions have been combined for the purpose of this analysis.

5.2.5 The first statement may thus be taken to indicate the perception of a need for advice and assistance from a higher level in the network--either from the national focal point or from ENSIC itself--while the second is concerned with the extent to which this need is being met.

5.2.6 The responses to these two amalgamated statements are presented in Tables 6.1 and 6.2 below, together with the responses to statement, 'my library is able to make an effective contribution to ENSICNET' (number 25 in Questionnaire B, 27 in Questionnaire C). The overall aim is to present at least a partial picture of respondents' perceptions of the need and capacity for interaction, in general terms, between the various components of the network.

- 5.2.7 The overall picture presented in Tables 6.1 and 6.2 reflects a positive view of all three aspects of interaction within the network, with positive responses accounting in all for 72 percent of the total.
- 5.2.8 However, the 14 percent of 'don't know' responses indicate that a number of respondents, mainly in Indonesia and the Philippines, are in some doubt on this matter--and particularly in respect of the extent to which they are themselves able to contribute to the network and are able to obtain advice from a higher level. More than half the negative responses also related to the adequacy of the advice provided from higher levels.
- 5.2.9 Some 90 percent of all respondents, including all but one from national focal points, considered that they needed advice and assistance in order to participate effectively in ENSICNET.

Table 6.1. Interaction, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
29. need advice	3	0	4	1	62	14	84
30. obtain advice	4	0	12	18	46	4	84
25. able contribute	8	1	5	16	45	9	84
Total on objectives	15	1	21	35	153	27	252
Percentages	6	0	8	14	61	11	100

Table 6.2. Interaction, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	4	0	1	1	9	0	15
Indonesia	0	0	4	12	24	2	42
Nepal	10	0	4	1	41	7	63
Pakistan	1	1	3	2	19	1	27
Philippines	0	0	5	13	33	3	54
Vietnam	0	0	4	6	27	14	51
Totals	15	1	21	35	153	27	252
Percentages	6	0	8	14	61	11	100

- 5.2.10 Despite the generally critical comments on the role and effectiveness of ENSIC made during interviews, (see 4.3.8 above) the national focal point in China did not respond on this topic. The two respondents from the national focal point in Pakistan were divided on this issue. One thought advice was needed, the other, that it was not.
- 5.2.11 A much smaller proportion of respondents (60 percent), including six from national focal points thought that they obtained adequate advice and assistance, while one of the two national focal point respondents from Pakistan was among

the 14 percent who did not think so. Some 21 percent of respondents did not know whether they received adequate advice and assistance or not. Again, the national focal point in China did not respond on this topic.

- 5.2.12 Nearly two-thirds of the respondents (64 percent), including all eight from national focal points, considered that their libraries were able to make an effective contribution to the network, as compared with only 7 percent who did not think so and 19 percent who did not know. One focal node respondent from Pakistan replied 'definitely not!' to this statement.

5.3 Results of visits and interviews

- 5.3.1 The head of the national focal point in Pakistan commented that he had advised AIT at the outset that growth would be slow, and that it was necessary to begin to think of the next phase from the start.
- 5.3.2 Commenting on the origins of the project, he remarked that, at least in relation to Pakistan, it had been thought up by AIT before any attempt had been made to discuss the need for it with those concerned at the national level.
- 5.3.3 Despite not having responded to the statements on the need for, and supply of, advice and assistance, the head of the national focal point in China considered that the project would be better managed if more responsibility were delegated to national focal points.
- 5.3.4 The head of the national focal point in Nepal commented that ENSIC staff gave her good support, including moral support.

5.4 Analysis

- 5.4.1 The arrangements for the project to be guided by an Advisory Technical Committee and an International Board of Review make no provision for the six national members of the network to participate in any way in the management of the project. Two member countries happen to be represented on the International Board of Review, but not in their capacities as members of the network.
- 5.4.2 At the national level, although the Memorandum of Understanding requires national focal points to establish a national advisory board (see 3.1.6 above) and indicates the kinds of agencies which should be represented thereon, it does not specifically state that they should be members of the network. In the event, as noted above (3.4.12) only China has established such a board so far.
- 5.4.3 With the sole exception of China, therefore, none of the focal nodes in any of the national networks is at present able to participate formally in the management of the national network, and none of the national focal points is able to participate in the management of the regional network.
- 5.4.4 The comment on the approach adopted by project staff at the outset of the project, at least in Pakistan (see 5.3.2 above), taken together with the references in China to AIT acting 'like a boss giving orders' (see 4.3.17 above), do suggest that there has been, and still is, a degree of 'top-down' approach to the establishment and management of the network, deriving in part from the conviction of people at the centre that such national networks were a good thing, rather than from a demand by those at the national level for assistance in establishing them.

- 5.4.5 Commenting on this point in the preliminary draft report, the Director of the LRDC at AIT said:

The last thing we had in mind was a top-down concept, but it is obvious that this has not communicated well.

- 5.4.6 The Senior Information Scientist at ENSIC remarked

It seems to me that the focal point has the feeling that the idea of ENSICNET has been imposed. To avoid this feeling or other misunderstandings, before starting the second phase we should make some kind of statement where responsibilities, commitments and benefits are clearly expressed and agreed.

- 5.4.7 The ENSICNET Project Manager commented

If it was felt by one country that the Project was a top-down project, it could have been discussed at the beginning of the Project when a survey was made by Project staff in each country to locate the focal centre. The focal centre was not forced to accept the concept.

- 5.4.8 In keeping with the comment in the Inception Report with regard to the difficulty of keeping a close watch on the ENSICNETs for the purpose of evaluation (see 5.1.8 above), the progress report on the project for 1 Oct 1989 stated that:

The basic components to set up an information centre in the countries involved (materials and trainings) have been provided to the ENSICNETs and now it is up to the ENSICNETs involved to start and sustain the information centres.

- 5.4.9 As noted above, (para 4.4.3), this statement is echoed by a more recent one made by the Project Manager, both of which seem to provide further instances of apparent differences in perception, if not of difficulties in communication, between the Project and the national focal points.

- 5.4.10 The suggestion in the Inception Report (see 5.1.8 above) that delays in the implementation of the project might be due to the fact that most countries would be establishing information centres for the first time, does not seem to be borne out by the facts.

- 5.4.11 The national focal points in Indonesia, Pakistan and Vietnam were all established in existing national information centres, while those in China and the Philippines were set up in existing libraries. Only the national focal point in Nepal could be said to have been started virtually from scratch.

- 5.4.12 Despite this background of experience in information and library service provision, several of the national focal points clearly still see themselves as in need of advice and assistance from ENSIC, and this view is shared by the project staff at AIT.

- 5.4.13 There is clearly also a great need for the focal nodes to receive advice and assistance from national focal points; a need which at present does not seem to be being met in most cases. Many focal nodes feel they can contribute to the

network; it is incumbent on the national focal points to help them to do so effectively--and incumbent on ENSIC to do the same for the national focal points.

- 5.4.14 The areas in which advice and assistance seem to be most urgently needed are identified in subsequent sections of this report.
- 5.4.15 The relatively high proportions of respondents (mainly from Indonesia and the Philippines) who did not know, first, whether or not their institutions were able to obtain adequate advice and assistance from higher levels (21 percent), and secondly, whether or not their institutions were capable of participating effectively in the network (19 percent), must give some cause for concern.
- 5.4.16 Even allowing for the fact that some respondents were scientific, technical or administrative staff not directly involved on a day-to-day basis with the running of their institutions' libraries or information centres, it might be expected that those who are sufficiently involved to be asked to complete the questionnaires for their institution would also be sufficiently well-informed about such basic issues as to be able to give a more definite response.
- 5.4.17 Their apparent inability to do so suggests that, in a number of participating institutions, either the wrong person has been chosen to represent the institution in ENSICNET, or communication between that person and those directly responsible for running the institution's library or information service needs to be greatly improved.
- 5.4.18 As will be seen in subsequent sections of this report, significantly high proportions of 'don't know' responses were also received to some other key questions.

6 COOPERATION

6.1 Introduction

6.1.1 An information network is, by definition, a cooperative activity:

Simply put, information networks constitute groups of individuals or organizations who share common interests and exchange information in various forms on a regular or organized basis. This sharing of resources is a practical way of utilizing available resources to meet the increasing demands for further information. ¹

6.1.2 The attitudes of network members to cooperation with other member institutions, and their ability to engage in cooperative activities, are crucial elements in the success or failure of a network.

6.2 Questionnaire responses

6.2.1 Five statements in the two questionnaires dealt with aspects of cooperation and coordination, as follows:

- the ENSICNET national focal point coordinates ENSICNET in this country effectively

(Questionnaire B, 21, Questionnaire C, 23)

- the staff of the ENSICNET national focal point are very cooperative

(Questionnaire B, 28, Questionnaire C, 30)

- my library cooperates a lot with other libraries which participate in ENSICNET

(Questionnaire B, 22, Questionnaire C, 24)

- the staff of other libraries participating in ENSICNET are very cooperative

(Questionnaire B, 27, Questionnaire C, 29)

- participating in ENSICNET creates extra work for the staff of my library

(Questionnaire B, 23, Questionnaire C, 25)

6.2.2 Questionnaire C included the following statement addressed only to national focal points

- the staff of ENSICNET are very cooperative

(Questionnaire C, 22)

- 6.2.3 The responses to the five statements appearing in both questionnaires are summarized in Tables 7.1 and 7.2 below. The response to statement 22 in Questionnaire C is noted in paragraph 6.2.8 below.

Table 7.1. Cooperation, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
21. NFP coordinates	6	0	4	18	48	8	84
28. NFP cooperates	2	0	2	8	59	13	84
22. lib cooperates	5	2	24	9	42	2	84
27. others cooperate	5	0	4	36	33	6	84
23. partic = work	6	1	24	10	39	4	84
Total	24	3	58	81	221	33	420
Percentages	6	1	14	19	53	8	100

Table 7.2. Cooperation, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	4	0	2	1	18	0	25
Indonesia	0	0	11	20	37	2	70
Nepal	18	0	15	4	56	12	105
Pakistan	2	1	0	2	34	6	45
Philippines	0	0	15	27	43	5	90
Vietnam	0	2	15	27	33	8	85
Totals	24	3	58	81	221	33	420
Percentage	6	1	14	19	53	8	100

- 6.2.4 A positive reply to the statement, 'participating in ENSICNET creates extra work for the staff of my library' (statement 23) may have a negative connotation in terms of the respondent's willingness or ability to participate in the network. This makes it difficult to assess how far the overall response on cooperation in general reflects positive and negative attitudes to the subject. However, it may be noted that most of the 'don't know' responses came from Indonesia, the Philippines and Vietnam, while most of those who did not respond were from Nepal.
- 6.2.5 A study of the responses to the individual statements recorded in Table 7.1 shows that 67 percent of respondents, including six from national points, agreed that the ENSICNET national focal point coordinates ENSICNET effectively in their countries. Only 5 percent of respondents did not think so, while 21 percent, including the national focal point in Indonesia, did not know whether the focal point was effective in this respect or not.
- 6.2.6 Although the national focal point in China had stated in interview that the project would be better managed if more responsibility were delegated to the national focal points (see 5.3.3 above) it did not respond to this statement.

- 6.2.7 The great majority of respondents (86 percent), including all eight from national focal points, considered the staff of the national focal point to be very cooperative, while only 2 percent did not think so, and 10 percent did not know whether they were cooperative or not.
- 6.2.8 In response to the special statement addressed only to national focal points 'the staff of ENSICNET are very cooperative' (Questionnaire C, statement 22), all eight respondents from national focal points replied 'yes'.
- 6.2.9 Although 52 percent of respondents, including all those from national focal points, considered that their own libraries cooperate a lot with others which participate in ENSICNET (statement 22), a substantial proportion (30 percent) did not think so, and 11 percent did not know whether their libraries cooperated a lot or not. The extent to which participants cooperated with others in specific aspects of technical operations and user services is discussed in the appropriate sections below.
- 6.2.10 While 46 percent of respondents, including all those from national focal points, thought that the staff of other libraries participating in ENSICNET were very cooperative (statement 27) almost as many (43 percent) did not know whether they were or not, and 5 percent thought they were not.
- 6.2.11 More than half of the respondents (51 percent), including seven from national focal points, considered that participation in ENSICNET does create extra work (statement 23), while about 30 percent took the opposite view. The national focal point in Nepal was one of those who did not respond on this topic.

6.3 Results of visits and interviews

- 6.3.1 One point of interest which emerged from the discussions in China was that the concept of an information network shared by at least some participants in ENSICNET-China is different from that which provides the foundation for ENSICNET itself (see 2.4.1 above).
- 6.3.2 Several of those interviewed appeared to share a perception of an information network as a fairly loose grouping of institutions concerned to exchange information mainly through conferences, seminars and other meetings, and through the published proceedings of such events.
- 6.3.3 The concept of a bibliographical information network did not appear to be fully understood or appreciated by these participants. This must inevitably affect their perception of the nature and extent of the cooperative activities of an information network.
- 6.3.4 The head of the national focal point in China commented that it is not easy to mobilize enthusiasm for participation in a large information network.

6.4 Analysis

- 6.4.1 While 86 percent of respondents felt that the staff of their national focal point were very cooperative (see 6.2.7 above), only 67 percent thought the national focal point coordinated the network effectively (see 6.2.5 above) and an even smaller proportion (60 percent) thought their national focal point provided them with adequate advice and assistance (see 5.2.11 above).

- 6.4.2 This suggests that, in general, the goodwill of national focal point staff exceeds their ability to organize the network effectively or to offer the advice and assistance they would like to provide.
- 6.4.3 Only 52 percent of respondents thought their libraries cooperated a lot with others (see 6.2.9 above), as compared with 64 percent who felt their libraries could make an effective contribution to the network (see 5.2.12 above). Even more noteworthy is the comparison between the 30 percent who said they did not cooperate and the mere 7 percent who did not feel they could contribute.
- 6.4.4 It is difficult to see how respondents thought they could make an effective contribution if they were not in a position to cooperate a lot with other network members.
- 6.4.5 The high proportions of 'don't know' responses to some statements in this group again give cause for concern.
- 6.4.6 As noted above, (6.2.5) the national focal point in Indonesia was among the 21 percent of respondents who did not know whether or not the national focal point coordinated the network effectively.
- 6.4.7 The lack of a definite response in this case may be due to modesty on the part of the national focal point, but more likely, perhaps, to a lack of criteria by which to assess the effectiveness of its efforts at coordination--which may also be the reason for many of the other 'don't know' responses to this statement.
- 6.4.8 The fact that 43 percent of respondents did not know whether the staff of other libraries participating in ENSICNET were cooperative or not (see 6.2.10 above) indicates an alarming degree of ignorance of their fellow network members, and suggests that there is a serious lack of contact and communication among network members, particularly in Indonesia, the Philippines and Vietnam, where 'don't know' responses to this statement accounted for 64, 67 and 76 percent respectively.
- 6.4.9 Another possible explanation is that the level of activity in these networks has been so low that it has not yet been possible for these respondents to judge how cooperative their partners in the network really are.
- 6.4.10 Cooperation may be defined as: 'working together to the same end, purpose or effect': and effective cooperation thus requires, among other things, a broad measure of agreement on the objectives of the cooperative activity. This will be difficult to achieve, in the case of ENSICNET, as long as participants remain unclear, as indicated above, and despite the overwhelmingly positive response to statement 1, as to what the objectives of the network, and the benefits to be received from participating in its activities, really are.

References

1. Akhtar, Shahid. Regional information networks: some lessons from Latin America. Information Development, vol. 6, no. 1, January 1990, 35-42.

7 INFORMATION USERS AND THEIR NEEDS

7.1 Introduction

7.1.1 The potential users of information in specific fields are often widely scattered and sometimes difficult to identify, especially in an interdisciplinary field such as water supply and sanitation. A thorough knowledge of the characteristics, size and distribution of the estimated potential user population (EPUP) is, however, fundamental to the successful provision of information to meet its needs.

7.1.2 The general aim of the project, as defined in the ADB Technical Assistance Report, was to help improve water supply and sanitation in rural areas of selected member countries. The main users of the facilities and services provided under the project may therefore be expected to be those working in the field of rural water supply and sanitation.

7.2 Questionnaire responses

7.2.1 Two statements in the two questionnaires were concerned with information users, as follows:

- many people in my institution are interested in water supply and sanitation

(Questionnaires B and C, 3)

- many people use my library to obtain information on water supply and sanitation

(Questionnaire B, 35, Questionnaire C, 39)

7.2.2 The first statement was thus concerned with the potential user population, while the second referred to the actual users of water supply and sanitation information.

7.2.3 The responses to these two statements are summarized in Tables 8.1 and 8.2 below.

7.2.4 A comparison of the responses to statements 3 and 35 respectively suggests that, in general, there are more potential than actual users for water supply and sanitation information in the participating institutions.

Table 8.1. Users, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
3. many interested	1	0	6	7	55	15	84
35. many users	8	2	13	6	52	3	84
Total on objectives	9	2	19	13	107	18	168
Percentages	5	1	11	8	64	11	100

Table 8.2. Users, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	0	0	0	0	10	0	10
Indonesia	1	0	2	1	18	6	28
Nepal	6	1	3	3	26	3	42
Pakistan	2	1	3	1	11	0	18
Philippines	0	0	7	5	21	3	36
Vietnam	0	0	4	3	21	6	34
Totals	9	2	19	13	107	18	168
Percentages	5	1	11	8	64	11	100

7.2.5 While 83 percent of respondents, including six national focal points, thought that many people in their institutions were interested in water supply and sanitation, only 65 percent, again including six national focal points, thought that many people used their library to obtain information on these topics.

7.2.6 Only 7 percent of respondents, including one of the two from the national focal point in Pakistan, did not think many people were interested, whereas 18 percent, again including one of the two from the Pakistan national focal point, indicated clearly that not many people used their library for water and sanitation information.

7.2.7 The divergence of views between the respondents from the two national focal points in Pakistan and Vietnam respectively was again in evidence in the responses on this topic. The second national focal point respondent from Pakistan did not reply to the first statement, but replied 'yes' to the second, while in Vietnam, one of the two respondents from a national focal point replied 'don't know' to the second question, while the other replied 'yes'.

7.2.8 The relationship between, on the one hand, the responses on actual and potential users for water supply and sanitation information in participating institutions and, on the other, the responses dealing with the production of documents on water supply and sanitation in these institutions, is discussed in section 8.2.4 below. Some indicators of the level of demand for specific types of user services in the participating institutions are discussed in section 18.

7.3 Results of visits and interviews

7.3.1 On the basis of the visits made by the consultant, it seems clear that users in many of the focal nodes are interested in a much broader range of environmental issues than just water supply and sanitation, and that, in most cases, both the libraries of the focal nodes themselves, and those of the national focal points, are trying, often with severely limited resources and facilities, to meet this need.

7.4 Analysis

- 7.4.1 Although the Memorandum of Understanding between the project and the national focal point in each country had specified that one of the tasks to be performed by the national focal point should be to identify the information requirements of the line agencies (see 3.1.6 above), there is no indication that any of the national focal points has done so.
- 7.4.2 Apart from distributing the initial ENSICNET questionnaire (see 2.2.2 above), little effort seems to have been made so far, by any of the national focal points, to identify the information needs of any group of users on a systematic basis.
- 7.4.3 Although most respondents think there are many potential users for water supply and sanitation information in their institutions, many fewer think that many people actually use their libraries to obtain such information.
- 7.4.4 One reason for this may be that many libraries in participating institutions are unable to meet the needs of their users for water supply and sanitation information, for example, in terms of document collections (see 9.4.3 below).
- 7.4.5 Consideration of other aspects of library provision in subsequent sections of this report will attempt to establish whether or not this is so and, if so, where the major weaknesses lie.

8 THE SUPPLY OF INFORMATION

8.1 Introduction

- 8.1.1 It is impossible to meet the information needs of a particular group of users unless the required information already exists and is available at the right levels of presentation and in the right formats and languages, and is appropriate, in terms of timeliness and of the means by which it is communicated, to the needs of the users.

8.2 Questionnaire responses

- 8.2.1 Five statements in the two questionnaires dealt with the supply and usefulness of information on water supply and sanitation, as follows:

- my institution produces many documents on water supply and sanitation

(Questionnaires B and C, 4)

- many of the documents on water supply and sanitation produced by my institution are likely to be useful to people working in other institutions in this country

(Questionnaires B and C, 5)

- many of the documents on water supply and sanitation produced by my institution are likely to be useful to people working in other countries

(Questionnaires B and C, 6)

- many documents on water supply and sanitation are produced in this country

(Questionnaires B and C, 7)

- information on water supply and sanitation produced in other countries is useful in this country

(Questionnaires B and C, 8)

8.2.2 The responses to these statements are summarized in Tables 9.1 and 9.2 below.

Table 9.1. Information supply, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
4. docs in inst	4	1	33	3	36	7	84
5. useful in country	7	0	11	11	41	14	84
6. useful overseas	6	0	13	27	31	7	84
7. docs in country	3	3	10	15	51	2	84
8. foreign info	3	0	1	4	60	16	84
Totals	23	4	68	60	219	46	420
Percentages	5	1	16	14	52	11	100

Table 9.2. Information supply, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	0	0	1	0	22	2	25
Indonesia	0	1	5	9	46	9	70
Nepal	20	0	20	14	42	9	105
Pakistan	3	1	14	1	24	2	45
Philippines	0	2	17	23	43	5	90
Vietnam	0	0	11	13	42	19	85
Totals	23	4	68	60	219	46	420
Percentages	5	1	16	14	52	11	100

8.2.3 While the overall response to this group of statements was generally positive, there were marked differences in the patterns of response to the individual statements.

8.2.4 While slightly more than half of the respondents (51 percent), including four national focal points, thought that their institutions produced many documents on water supply and sanitation, a substantial proportion (40 percent), including three national focal points, did not think so.

8.2.5 Both the respondents from national focal points in Vietnam, and one of the two from Pakistan, said their institutions did not produce many documents in this field. The other national focal point respondent from Pakistan did not reply to this statement. Most of the negative responses came from the Philippines and Nepal.

8.2.6 The ease with which respondents were able to identify the documents produced in their own institutions is discussed in section 14.2.4 below.

8.2.7 Although only 51 percent of respondents indicated that many documents on water supply and sanitation were produced in their institutions, 65 percent, including

four from national focal points, thought that many of the documents they did produce were likely to be useful to people working in other institutions in the country.

8.2.8 This suggests that at least 14 percent of respondents, if not producing 'many' documents as specified in statement 4, are producing some--and many of those included in even this limited production are considered likely to be useful to colleagues working elsewhere in the country.

8.2.9 The 13 percent of respondents who did not think that many of their documents would be useful to others in the country included three from national focal points in Indonesia, Pakistan and Vietnam. The second national focal point respondent from Pakistan did not reply to this statement, while the second from Vietnam replied 'yes'--thus demonstrating yet again the frequent divergence of views between national focal point representatives in these two countries.

8.2.10 Respondents were even less positive as to whether or not many of the documents on water supply and sanitation produced by their institutions were likely to be useful to people working in other countries.

8.2.11 While 45 percent of respondents, including three from national focal points, thought their documents would be useful to those working abroad, 15 percent, also including three from national focal points, did not think so, and a substantial proportion (32 percent), including one from a national focal point, did not know whether their documents would be useful abroad or not. One national focal point did not respond to this statement.

8.2.12 The two respondents from national focal points in Pakistan, and the two from Vietnam, again responded differently to this statement. One from each country did not think their own documents would be useful abroad, while the second one from Vietnam did not know whether they would be useful or not, and the second from Pakistan did not respond. The national focal point in Indonesia also did not think its own documents would be useful abroad.

8.2.13 Most of the respondents (63 percent), including seven from national focal points, thought that many documents on water supply and sanitation were produced in their countries. One of the two respondents from national focal points in Vietnam was among the 15 percent who did not think so. A fairly substantial proportion (18 percent) did not know whether many such documents were produced in their countries or not.

8.2.14 An overwhelming majority of respondents (90 percent), including all eight from national focal points, considered that information on water supply and sanitation produced in other countries was useful in their own country. The only negative response received came from Nepal. Four respondents (5 percent) did not know whether foreign information was useful or not.

8.2.15 The ease with which respondents were able to identify water and sanitation documents produced in other countries is discussed in paragraph 14.2.8 below.

8.3 Results of visits and interviews

8.3.1 The visits and interviews did not produce any results or comments specifically concerned with the question of the supply of information as such. Points relating to the state of document collections are discussed in section 9.3 below.

8.4 Analysis

- 8.4.1 The responses to the statements on information supply reveal some fundamental characteristics of network participants which may help to guide the future development of the network.
- 8.4.2 If, as indicated in paragraph 7.2.5 above, 83 percent of participating institutions have many potential users of water supply and sanitation information, whereas only 51 percent produce many documents on water supply and sanitation (see 8.2.4 above), some 32 percent of the existing participants would appear to be able to participate in the network mainly, or even solely, as users of information generated in other institutions, and not as producers of documentary information.
- 8.4.3 This echoes the findings of a similar survey of participants in the ITN-Philippines network, carried out by the consultant on behalf of IRC in 1990. It was found that participants in that network, also, could be divided into those who were able to contribute actively in various ways, and those whose participation was essentially passive.
- 8.4.4 The latter group are essentially users of the facilities and services provided by the network, and it may be inappropriate to treat them as full participants, either in terms of the inputs expected of them or of the outputs they may expect to receive--or the terms on which those outputs are provided to them.
- 8.4.5 It may be questioned whether any institution which does not produce a reasonable amount of documentation on water supply and sanitation, or which does not consider its documents to be useful to others, either in the same country or abroad, or both, is in a position to act as an effective national focal point for ENSICNET.
- 8.4.6 The effectiveness in this respect of at least one of the two national focal points in both Pakistan and Vietnam, and of that in Indonesia, may deserve closer scrutiny.
- 8.4.7 As noted above, both focal point respondents from Vietnam said their institution did not produce many documents, while one said not many of those which were produced were useful, either in the country or abroad. (The other thought many of the documents produced were useful in country, but did not know whether or not they were useful abroad).
- 8.4.8 One of the two focal point respondents from Pakistan gave negative replies to all three statements, while the other did not respond to any of them.
- 8.4.9 The focal point in Indonesia said it did produce many documents on water supply and sanitation, but that not many of these were thought to be useful, either elsewhere in the country or abroad.
- 8.4.10 The national focal point, which should be best equipped to participate in the network because of the equipment and training it has received, will tend to be, at least in the early stages, the main contributor of information to the network at both the national and the international levels; and its effectiveness in this respect may have a strong influence on the way in which other participants perceive the network and the benefits to be derived from membership.
- 8.4.11 A national focal point which does not itself produce many documents in water supply and sanitation, or which produces documents which are not useful to

others, cannot be expected to be able to exert much influence in this respect, and the development of the network, at both the national and the regional levels will thus inevitably be retarded.

9 DOCUMENT COLLECTIONS

9.1 Introduction

- 9.1.1 According to the Inception Report, the benefits to be derived from the establishment of 'focal centres' under the project were expected to include the sharing of knowledge with others, both in the country and abroad, and the greater ease and speed of obtaining information from such a centre.
- 9.1.2 Although some participants in various national networks have expressed interest in extending the scope of ENSICNET to include non-bibliographical information (for example, directories of researchers, or registers of research in progress), the network was initially, and remains up to now, essentially a bibliographic network, concerned with exchanging information in documentary form.
- 9.1.3 This being so, the condition of document collections in the participating institutions, and particularly in the national focal points, is a matter of vital importance for the success or failure of the network.
- 9.1.4 An institution whose document collections are inadequate even to meet the needs of its own users is unlikely to be able to participate effectively in networking activities which necessarily require that these collections also be made accessible to users in other institutions.
- 9.1.5 According to the Inception Report, each national focal point was to receive under the project, amongst other things, basic library materials and ENSIC publications. Under the Memorandum of Understanding between the project and the various national focal points, provision was made for the supply of ENSIC publications to each focal node for a period of three years.
- 9.1.6 The Memorandum of Understanding made no mention of the supply of any other 'basic library materials', though it was presumably intended that these should include the 'relevant articles' to be made available on microfiche as one of the benefits of the project cited in the Inception Report.

9.2 Questionnaire responses

- 9.2.1 Three statements in the two questionnaires dealt with document collections, as follows:
- the collection of documents in my library is adequate to meet the needs of its users for information on water supply and sanitation
(Questionnaires B and C, 15)
 - other libraries in ENSICNET have good collections of documents on water supply and sanitation
(Questionnaires B and C, 16)
 - the collection of ENSIC documents on microfiche contains many items of potential interest to users of my library
(Questionnaires B and C, 17).

9.2.2 The responses to these statements are summarized in Tables 10.1 and 10.2 below.

Table 10.1. Collections, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
15. coll adequate	5	2	47	4	25	1	84
16. others adequate	5	0	9	43	25	2	84
17. microfiche	5	0	10	36	29	4	84
Totals	15	2	66	83	79	7	252
Percentages	6	1	26	33	31	3	100

Table 10.2. Collections, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	0	0	5	5	5	0	15
Indonesia	0	0	11	16	13	2	42
Nepal	14	0	23	14	11	1	63
Pakistan	1	2	4	2	16	2	27
Philippines	0	0	15	23	15	1	54
Vietnam	0	0	8	23	19	1	51
Totals	15	2	66	83	79	7	252
Percentages	6	1	26	33	31	3	100

- 9.2.3 The general situation with regard to document collections, as shown by the overall pattern of responses in these tables, is not encouraging. Only 34 percent of respondents gave positive replies on this topic, while an almost equal proportion (33 percent) gave 'don't know' responses and 27 percent replied in the negative.
- 9.2.4 The responses to statement 15 indicated that most respondents (58 percent), including four from national focal points, did not consider their library's document collections to be adequate. Only 31 percent, again including four from national focal points, thought their collections were satisfactory. This was a topic on which most respondents clearly had definite opinions, since only 5 percent did not know whether their collections were adequate or not.
- 9.2.5 In Pakistan and Vietnam, the two respondents from the national focal points were divided on this issue; in each case, one said its collections were adequate and one that they were not. The national focal points in Nepal and the Philippines, both said their collections were inadequate.
- 9.2.6 The high level of 'don't know' responses to statement 16 (51 percent) showed that many respondents, including three from national focal points, knew little or nothing about the contents of other libraries in their national networks. The other

five respondents from national focal points were among the 32 percent who thought other libraries did have good collections. Only 11 percent of respondents thought other libraries did not have good collections.

- 9.2.7 The two respondents from national focal points in Vietnam again responded differently on this topic, one responding 'don't know' and the other, 'yes'. The other 'don't know' responses from national focal points came from China and Nepal.
- 9.2.8 Lack of knowledge of other collections was most marked in the Philippines and Vietnam; respondents in Pakistan, on the other hand, seemed to have a better knowledge of other collections than those in the other countries, since seven of the nine respondents from Pakistan, including both those from the national focal point, considered that other libraries in the network did have good collections.
- 9.2.9 Most of the responses relating to the ENSIC microfiche collection (statement 17) were almost equally divided between those (including the national focal point in Nepal) who did not know whether the collection contained items of interest or not (42 percent), and the 40 percent, including six from national focal points, who thought that it did. Only 12 percent of respondents--but including one of the two from national focal points in Pakistan--thought the collection did not contain anything of potential interest to their users.

9.3 Results of visits and interviews

- 9.3.1 The consultant did not attempt a systematic evaluation of library collections in the institutions visited during the assignment.
- 9.3.2 The best national focal point collections on water supply and sanitation as such appear to be those in Pakistan and the Philippines (both located in specialist water sector institutions), though respondents from both focal points had indicated in response to statement 15 that they did not consider their collections to be adequate.
- 9.3.3 The collection in China covers environmental issues in general, while that in Indonesia covers a wide range of scientific and technical subjects, and its special ENSICNET collection on water supply and sanitation is very small indeed.
- 9.3.4 The collection at the national focal point in Ho Chi Minh City, Vietnam, also covers many aspects of science and technology, and includes much old material (including large collections of patents) in Eastern European languages--especially Russian.
- 9.3.5 In Vietnam, some focal nodes had many useful documents, especially reports, which they were unable or unwilling to supply to the national focal point. They felt that money was needed to pay for making photocopies of such items.
- 9.3.6 In Nepal, the library of the institution housing the national focal point--a specialist water sector institution--contains only a small number of reports, mainly multi-volume project documents. Many documents, especially reports, had disappeared from this library, where the staff were trying to bring the situation under control.
- 9.3.7 A common problem in most of the institutions visited was the lack of current periodicals. Although the number of periodicals specifically concerned with water supply and sanitation is not very large, few of the institutions visited had more

than one or two titles. Most institutions were unable to maintain current periodical subscriptions due to lack of foreign exchange or an inadequate or non-existent library budget in general.

- 9.3.8 In China, one of the main obstacles to the development of the network was seen to be the lack of suitable information sources; it was considered necessary to give a high quality service to encourage use. Few of the libraries visited in China were able to maintain current subscriptions to abstracting and indexing sources.

9.4 Analysis

- 9.4.1 No matter how effective an information network may be in transferring documents, or copies of documents, from one member institution to another in response to users' demands (see 18.4 below), for most users the first requirement is to be able to find as many as possible of the documents they need, when they need them, in the collections of their own library. In many ENSICNET participating institutions, however, library collections are not adequate to meet the needs of users.
- 9.4.2 Even if users cannot find the documents they need in their own libraries, their needs can often be met by other libraries. In many ENSICNET participating institutions, however, the widespread lack of knowledge of the contents of other libraries' collections means that staff are unable either to refer users to other libraries which may be able to help them, or to identify libraries which may be able to supply copies of required documents on interlibrary loan.
- 9.4.3 The inability of many participating institutions, either to provide adequate document collections of their own, or to identify other libraries which may be able to supply required documents, seems likely to be a major cause of the gap between the numbers of potential and actual users in many institutions (see 7.2.5 above).
- 9.4.4 Despite the obvious need for improvements in document collections in many participating institutions, the supply of extra copies of ENSIC publications for additional participating institutions in some countries is causing some difficulty at present (see 3.3.3 above).
- 9.4.5 The supply to national focal points of the ENSIC microfiche collection does not appear to have produced the anticipated benefit of saving foreign exchange on periodical subscriptions by making relevant articles available on microfiche (see 4.1.1 above), since a high proportion of respondents do not know whether or not the collection contains anything useful, and many institutions still see the lack of current periodicals--often due, indeed, to a lack of foreign exchange--as a problem.
- 9.4.6 The fact that so many respondents, including three from national focal points, did not know whether other libraries in the network had good document collections or not, is in itself a matter of concern, and indicates an urgent need for better information about network participants to be made available to others--clearly a task for national focal points.

10 EQUIPMENT

10.1 Introduction

- 10.1.1 According to the Inception Report, each national focal point was to be supplied by the project with, among other things, one or more microfiche reader printers, a microcomputer and computer software. Under the Memorandum of Understanding between the project and the national focal point in each case, the project was to be responsible for shipping the equipment, and the focal point for clearing it through customs (see 3.1 above).
- 10.1.2 All the national focal points have been supplied with the promised equipment; the use made of it is discussed below.

10.2 Questionnaire responses

- 10.2.1 One statement relating to equipment was included in both questionnaires: this was,
- my library needs more equipment to be able to participate effectively in ENSICNET
- (Questionnaire B, 18, Questionnaire C, 20)
- 10.2.2 In addition, Questionnaire C contained two statements on equipment addressed only to national focal points. These were:
- my library has received useful items of equipment from ENSIC
- (Questionnaire C, 18)
- the equipment my library has received from ENSIC is used frequently
- (Questionnaire C, 19)
- 10.2.3 The responses to the first of these three statements are presented in Tables 11.1 and 11.2 below. Those to the second and third statements are discussed separately in paragraph 10.2.6 below.
- 10.2.4 More than three-quarters of all respondents (78 percent), including all those from national focal points, considered that their libraries needed more equipment to be able to participate effectively in ENSICNET, as compared with only 17 percent who did not think so and one respondent who did not know whether more equipment was needed or not.

Table 11.1. Equipment, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
18. more needed	4	0	14	1	51	14	84
Totals	4	0	14	1	51	14	84
Percentages	5	0	17	1	61	17	100

Table 11.2. Equipment, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	0	0	0	0	5	0	5
Indonesia	1	0	1	0	11	1	14
Nepal	3	0	10	0	6	2	21
Pakistan	0	0	2	0	6	1	9
Philippines	0	0	0	1	13	4	18
Vietnam	0	0	1	0	10	6	17
Totals	4	0	14	1	51	14	84
Percentages	5	0	17	1	61	17	100

10.2.5 Nepal accounted for almost all the negative responses to this statement, with ten respondents indicating that they did not need more equipment and only eight (including the national focal point) saying that they did. The only 'don't know' response came from the Philippines.

10.2.6 In response to the first of the two additional statements about equipment included in Questionnaire C and addressed only to national focal points, respondents from the national focal points in China, Indonesia, Pakistan, the Philippines and Vietnam all considered that they had received useful items of equipment from ENSIC.

10.2.7 The two respondents from the national focal point in Vietnam were again divided on this question; one replied 'definitely yes', the other, 'definitely no'. The national focal point from Nepal also replied 'no'. The pattern of responses to the statement 'the equipment my library has received from ENSIC is used frequently' were similar except that the national focal point in Nepal did not reply.

10.3 Results of visits and interviews

10.3.1 While many focal nodes in all six countries appear to be using computers for various purposes, only a few are using them for library and bibliographical work. In Nepal, a much more basic need is for the rehabilitation of a room set aside for the library in the National Water and Sewerage Corporation, and the purchase of shelving, tables and chairs to furnish it.

10.3.2 One or two focal nodes, for example, the Ministry of Industry in Nepal, are using CD-ROM, but in China even the national focal point does not have a photocopier in the library where it is located. Apart from the microfiche reader/printers supplied under the project, few focal nodes appear to have microform reading equipment. The members of the WASIN network in Indonesia are an exception to this rule; each has a microfiche reader.

10.3.3 Some national focal points have been supplied with modems under the ENSICNET project, apparently to facilitate online access either by the focal point to external databases at AIT and elsewhere, or by focal nodes to the ENSICNET

database at the national focal point. Most of the focal points which have received modems do not have the necessary telephone lines to make use of them, and in any case cannot afford to pay the costs involved.

- 10.3.4 Commenting on this observation in the preliminary draft report, the Project Manager noted that

The national focal points had informed us that they would 'soon' be getting direct dialling telephone lines.

- 10.3.5 Although one of the management problems foreseen in the Inception Report was that of equipment maintenance (see 5.1.8 above), little seems to have been done to help national focal points to overcome this problem, at least in China, where no local maintenance facilities are available for the make of microfiche reader/printer supplied, many of the keys on the keyboard of the microcomputer jam every time they are used, and one of the floppy disk drives on the computer does not work.

- 10.3.6 Commenting on this point in the preliminary draft report, the Project Manager noted that

One set of computer (same brand) each was supplied to China, Pakistan and Nepal and two sets to Vietnam from the same company in Hong Kong. Only China has complained recently of keyboard jamming. We have advised Tongji what to do as it could be due to dust and cleaning is necessary. I think the centres should try to get help from their own local experts and only if they can't do anything, should they start complaining. As far as I know, I have not been informed that the floppy disk drive on the computer does not work.

- 10.3.7 Although most of the microfiche in the ENSIC collection are positives, the microfiche reader/printer supplied to China lacks an optional positive/negative switch to enable these fiche to be printed as normal black-on-white images. Instead, they print white-on-black, which is not only very difficult to read, but also extremely wasteful of toner--which is not available in China.

- 10.3.8 When the national focal point pointed this out to the project staff, they were apparently told to analyze the chemical formula of the toner and make their own. It is apparently possible to print positive fiche as black-on-white images by changing the toner cartridge, but this is extremely inconvenient.

- 10.3.9 Commenting on this situation, as recorded in the preliminary draft report, the Project Manager noted

I think the third sentence is too much of an exaggeration. When the Project requests the focal centres to send statistics on the amount of hard copies made (from the microfiche printer), the Project never gets replies. So I do not know how much use is made of the equipment.

10.4 Analysis

- 10.4.1 Although all but two of the respondents from national focal points thought that they had obtained useful items of equipment from ENSIC and that it was used frequently, all of them felt they needed more equipment to be able to participate effectively in the network--as did a substantial proportion of the respondents from focal nodes.

- 10.4.2 Some of the responses to these statements were rather difficult to interpret; for example, while ten focal nodes in Nepal felt they did not need any more equipment, the national focal point--which has received essentially the same equipment as all the others--felt it had not received useful items of equipment from the project, and did not reply as to whether or not the equipment was used frequently.
- 10.4.3 The two respondents from the national focal points in Vietnam again recorded completely opposite views as to whether or not they had received useful equipment, while that in China, despite the many problems with both the computer and the microfiche reader/printer described in interview, indicated that it had received useful items and that they were used frequently.
- 10.4.4 The visits to China and Nepal suggested other types of equipment which might be useful if the general need for more equipment is able to be met. These are, basic library furniture--shelves, tables and chairs--and photocopiers.
- 10.4.5 The explanation given by the Project Manager as to why it was decided to supply modems to the national focal points does not, of itself, explain what they were meant to be used for; and none of the national focal point representatives with whom this was discussed seem to have any clear idea on the matter.
- 10.4.6 Even if the necessary telephone lines were available, it seems likely that few, if any, of the participating institutions could afford to pay the telecommunications costs involved in online searching, certainly at the international level; and it is doubtful if more than one or two of the national focal points are yet in a position to be able to provide online access to their own databases at the national level.
- 10.4.7 The uncertainty over the purpose of, and need for, the modems, and the responses from the Project Manager to the problems being experienced in China, again seem to indicate a lack of effective communication between the project and some, at least, of the national focal points.

11 FINANCE

11.1 Introduction

- 11.1.1 The total budget for the project was USD 300,000. The consultant was not invited to examine the project finances in detail, and therefore received no information on how the budget was allocated among the various elements and activities.
- 11.1.2 As noted above (para. 3.4.10), neither the Technical Assistance Report nor the Inception Report provided any guidance to national focal points on how they were to finance the network's activities.
- 11.1.3 The only reference to finance in the Inception Report was in the suggestion that one of the benefits of the project would be the savings in foreign exchange needed to subscribe to international journals (see 4.1.1 above).

11.2 Questionnaire responses

- 11.2.1 Two statements on finance were included in Questionnaire B; only the first of these was also included in Questionnaire C. The statements were:

- participation in ENSICNET costs a lot of money
(Questionnaire B, 19, Questionnaire C, 21)
- my library's budget is adequate to meet the costs of its participation in ENSICNET
(Questionnaire B, 20).

- 11.2.2 The responses to these statements are summarized in Tables 12.1 and 12.2 below.

Table 12.1. Finance, by statement.

Statement	N/R DN!		NO D/K		Y DY!		Totals
19. costs money	5	2	36	16	22	3	84
20. budget adequate	4	2	31	20	17	2	76
Totals	9	4	67	36	39	5	160
Percentages	6	3	42	23	24	3	100

Table 12.2. Finance, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	1	0	2	1	5	0	9
Indonesia	0	0	11	9	7	0	27
Nepal	8	2	22	3	5	1	41
Pakistan	0	0	6	2	8	0	16
Philippines	0	0	9	14	9	3	35
Vietnam	0	2	17	7	5	1	32
Totals	9	4	67	36	39	5	160
Percentages	6	3	42	23	24	3	100

- 11.2.3 As in the case of statement 23 above, a positive reply to the statement, 'participation in ENSICNET costs a lot of money' (statement 19) may have a negative connotation in terms of the respondent's willingness or ability to participate in the network.
- 11.2.4 This makes it difficult to assess the overall response on finance in terms of positive and negative attitudes. However, it may be noted that most of the negative responses came from Indonesia, Nepal and Vietnam, while most of the 'don't know' responses came from the Philippines.
- 11.2.5 On the whole, most respondents who expressed an opinion on the matter did not agree that participation in ENSICNET costs a lot of money. A total of 45 percent of respondents, including three from national focal points, replied 'no' or 'definitely no!' to this statement, as compared with 30 percent, including five from national focal points, who considered that participation did cost money, and 19 percent who did not know whether it cost a lot of money or not.
- 11.2.6 The two respondents from national focal points in both Pakistan and Vietnam were again divided in their responses to this statement. In both cases, one respondent replied 'yes' and the other, 'no'. The national focal point in Nepal also replied 'no' on this topic, while those from China and the Philippines replied 'yes' and that from Indonesia, 'definitely yes!'.
- 11.2.7 The next statement, regarding the adequacy of library budgets to meet the costs of participation in ENSICNET, was not put to the national focal points. The total number of respondents in this case was therefore only 76, of whom 43 percent indicated that their library's budget was inadequate to meet the costs of participation, as compared with only 25 percent who thought their budgets were adequate and 26 percent who did not know if their budget was adequate or not.

11.3 Results of visits and interviews

- 11.3.1 Comments on specific aspects of finance and budgeting were received from several national focal points and focal nodes. The national focal point in Nepal had no regular operating budget from which to meet its share of the costs of the forthcoming national workshop, or those of producing a brochure; however, there seems to be some possibility of assistance from WaterAid.

- 11.3.2 The head of the national focal point in China noted that, although it was very useful for network members to have a rough idea of the overall project budget for ENSICNET, they had been given no information on this during Phase 1. In the next phase, funding should be proportionate to the size of the country and the amount of work being done.
- 11.3.3 It was suggested in China that the project headquarters expenses, together with those for China, Vietnam and Indonesia, should together account for 70 percent of the total budget for Phase 2. China also proposed that the national focal points should be given more control over the expenditure of project funds in Phase 2. A problem in China was the lack of money for travel by project personnel in the country.
- 11.3.4 This was also a problem in Indonesia, where, as noted above (para. 3.3.3), the national focal point found it difficult to supply photocopies of ENSIC documents for additional focal nodes because of lack of money. The lack of money generally was a serious problem in Indonesia, and the national focal point was trying to find ways of financing its activities through various 'unofficial' channels.
- 11.3.5 The idea of allocating a fixed proportion of the budget of general water supply and sanitation projects to information support activities, which has been suggested both by IRC and by the ENSICNET Project Manager, is already being tried out in Indonesia.
- 11.3.6 Financial cutbacks in the Philippines had delayed the recruitment of additional staff for the library of the institution housing the national focal point.
- 11.3.7 In discussions between the project staff and representatives of participating institutions during the workshop in Vietnam, project staff suggested that the information products and services provided by focal points and focal nodes should be made available to users at a price, to enable the institutions to recover at least part of the costs involved.

11.4 Analysis

- 11.4.1 If, for the purposes of comparison, the national focal points are eliminated from the responses to statement 19 above, we can see that, while only 26 percent of focal nodes considered that participation in the network cost a lot of money, 43 percent said their budgets were inadequate to meet that cost.
- 11.4.2 This suggests that the budgets of some 17 percent of focal nodes are so poor that they cannot meet the costs of participation even though these are not considered to be very great.
- 11.4.3 The fact that 19 percent of respondents did not know whether participation in ENSICNET cost a lot of money or not, and that 26 percent did not know whether or not their library budget was adequate to meet the cost of participation, suggests that a substantial proportion of respondents have little or no involvement in budgetary matters, and thus, quite probably, little or no influence on the size of their library's budget or on how it is spent.

- 11.4.4 The scope for selling the information products and services produced by participating institutions, even at cost, appears likely to be limited, in most member countries, by users' inability to afford them. As noted in a later section of this report (18.4.9), users in Indonesia often cancel requests for hard copies of ENSIC microfiche when they find out how much they cost.
- 11.4.5 Although, as noted above (para. 11.1.1), the consultant was not required to analyze in detail the allocation of the project budget among the various elements and activities, some general observations on this topic may be relevant at this point.
- 11.4.6 If the total project budget had simply been shared between the six member countries, each would have received a grant of USD 50,000, or USD 25,000 a year for each year of the project. It is clear, however, that project headquarters costs, including travelling to visit member countries, must have absorbed a substantial proportion of the budget, while training costs, including both the cost of bringing focal point staff to AIT for the initial training and the contribution of around USD 3,000 made to each national workshop, must have accounted for a further significant amount.
- 11.4.7 It seems quite possible that these costs together will have accounted for at least 50 percent of the project budget, leaving at the most some USD 150,000 for non-training interventions aimed at strengthening the national networks--an average of USD 25,000 for each country, or USD 12,500 per year.
- 11.4.8 This modest amount may be compared with the sums allocated in recent years by the International Development Research Centre (IDRC) to two water supply and sanitation information projects in the region.
- 11.4.9 In Sri Lanka, IDRC provided a total grant of CAD 142,550 (about USD 123,000) over a period of three years to develop the Water Supply and Sanitation Documentation Centre (WASSDOC) at the National Water Supply and Drainage Board. The total contribution to be made by the Board over the same period amounted to the equivalent of about USD 44,000. (The IDRC contribution included a subscription to ENSIC).
- 11.4.10 In Indonesia, the IDRC contribution to the establishment of WASIN (which is a member of ENSICNET Indonesia) amounted to CAD 306,225 (about USD 263,000) over a three-year period, with local contributions from the Ministry of Public Works and the Ministry of Health amounting to the equivalent of some USD 133,000 over the same period.
- 11.4.11 The average annual external contribution to the WASSDOC project was thus about USD 41,000, and the total annual project budget (including the local contribution) about USD 55,700. The average annual IDRC contribution to WASIN was about USD 88,000 and the total annual budget about USD 132,000.
- 11.4.12 The annual external project budget for WASSDOC exceeded the estimated average of USD 25,000 for each ENSICNET member country by about 64 percent, while that for WASIN exceeded the ENSICNET average by more than 250 percent.
- 11.4.13 The objectives of the two IDRC projects and those of ENSICNET are very similar; to establish or strengthen national water and sanitation information centres as focal points of national networks, creating computerized databases and providing a similar range of services to users.

- 11.4.14 The resources provided--including local resources--to help achieve these objectives are, however, very different; and given that even the two IDRC projects are experiencing some difficulty in achieving all their goals, it seems clear that the amounts of money provided under the ENSICNET project are not sufficient to ensure success.
- 11.4.15 In particular, the fact that neither the external nor the local contribution to each of the national ENSICNETs is expressed in financial terms makes it difficult to assess the relative importance of the two contributions, while the lack of a specified local financial contribution may have encouraged some of the national focal points to think that their participation would not cost them anything at all.

12 STAFF

12.1 Introduction

- 12.1.1 No information network can function without an adequate supply of suitably-trained and qualified manpower. Creating and maintaining a cadre of competent, highly-motivated and well-qualified personnel is therefore one of the most crucial tasks to be undertaken in developing an efficient and effective information network.
- 12.1.2 The only references to staff in the basic project documents are to staff training, which is dealt with separately in section 13 below.

12.2 Questionnaire responses

- 12.2.1 Both questionnaires included two questions related to staffing, as follows:

- my library has enough staff to deal with users' demands for information on water supply and sanitation

(Questionnaires B and C, 12)

- the staff of my library know as much as they need to know about information sources on water supply and sanitation

(Questionnaires B and C, 13).

- 12.2.2 The responses to these two statements are summarized in Tables 13.1 and 13.2 below.

- 12.2.3 Negative responses on staffing predominate slightly over positive ones, with negative replies accounting for 46 percent of the total and positive for 43 percent.

Table 13.1. Staff, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
12. enough staff	4	1	41	2	34	2	84
13. know sources	3	1	35	9	35	1	84
Totals	7	2	76	11	69	3	168
Percentages	4	1	45	7	41	2	100

Table 13.2. Staff, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	0	0	2	3	5	0	10
Indonesia	0	0	14	0	13	1	28
Nepal	7	0	20	0	15	0	42
Pakistan	0	2	5	0	11	0	18
Philippines	0	0	20	4	12	0	36
Vietnam	0	0	15	4	13	2	34
Totals	7	2	76	11	69	3	168
Percentages	4	1	45	7	41	2	100

- 12.2.4 In response to the first of the two statements on staffing, 50 percent of respondents, including those from the national focal points in China, Nepal and the Philippines, said they did not have enough staff to deal with users' demands, while 43 percent, including five from national focal points, said that they did. Only 2 percent did not know whether they had enough staff or not.
- 12.2.5 Positive and negative responses each accounted for 43 percent of replies to the second statement, on the extent of staff knowledge of information sources in water supply and sanitation. Five respondents from national focal points said their staff knew as much as they needed to know about information sources, while three said they did not. A further 11 percent of respondents did not know whether or not their staff knew as much as they needed to in this respect.
- 12.2.6 The three respondents from national focal points who did not think their staff had enough knowledge were from China, the Philippines and Vietnam. The second respondent from a national focal point in Vietnam replied 'definitely yes!' to this statement.

12.3 Results of visits and interviews

- 12.3.1 Some of the national focal point institutions, for example, those in Pakistan and Vietnam, have as many as 25 professional information staff--though these deal with many other subjects besides water supply and sanitation. At the other extreme, the head of the national focal point in Nepal, who is not an information professional, works alone, and has no authority over, or responsibility for, the three library staff working in the library of the institution housing the focal point.
- 12.3.2 The wide disparities in the professional levels of ENSICNET staff in different countries were seen by the staff of the national focal point in China as one obstacle to the effective exchange of information and experience among the member countries. Some are operating at the technical level, while others are at the managerial level.
- 12.3.3 One problem is that several of the staff who have been trained at AIT specifically to work in the national focal points are no longer occupying their original positions.

- 12.3.4 In some cases, for example in China and Pakistan, this seems to have resulted in their expertise, both in information work in general and in water and sanitation information in particular, no longer being applied on the project--at least in the manner intended. In others, for example in the Philippines, the staff concerned are still able to contribute to the development of ENSICNET even though their status in relation to the project has changed.

12.4 Analysis

- 12.4.1 Lack of staff is clearly a problem for a substantial proportion of participating institutions, though a surprisingly high proportion (43 percent) appear to have enough staff to cope with users' demands for water supply and sanitation information.
- 12.4.2 It may well be that these include the 18 percent of respondents who consider that not many people use their libraries to obtain such information (see 7.2.6 above), but if this is so, it still suggests that perhaps 25 percent of respondents think they have enough staff even though they are well-used.
- 12.4.3 While 43 percent of respondents think their library staff do not know enough about information sources in water supply and sanitation (see 12.2.5 above), the only demand for training in this area, as noted in section 13.4 below, came from Indonesia.

13 STAFF TRAINING

13.1 Introduction

- 13.1.1 Under the Technical Assistance component, 'strengthening of national environmental sanitation information centres' the project would provide 'training in the application of computers for information system operation and information management'.
- 13.1.2 In addition, a 'national workshop on information system for water supply and sanitation development' would be organized by each network information centre. Under the component, 'strengthening information support', a training programme on low-cost technologies for water supply and sanitation would be organized to complement the information dissemination activity.
- 13.1.3 Under the Memorandum of Understanding between the project and the national focal points, the project would bear all costs of training at AIT and the travel and allowance costs [of local project staff] when participating in national workshops in other countries, as well as providing some financial help--currently around USD 3,000--for each national workshop.
- 13.1.4 The national focal points would be responsible for recommending two permanent staff for training in AIT, make all the arrangements for a three-day national workshop, and make arrangements to send participants to the other five national workshops.
- 13.1.5 This last provision has since been changed, partly because several staff who were trained under the project have been removed from their positions (see 12.3.3 above and 16.2.3 below), in some cases, it is thought, to enable participation in the foreign workshops to be offered as a 'perk' to other staff.
- 13.1.6 This defeats the object of this provision, which was that those who were trained at the outset would go on to participate in an ongoing and developing exchange of experience in successive workshops, thus helping to enhance the effectiveness of the whole network.
- 13.1.7 The head of the national focal point in Pakistan commented that participants in national workshops in that country have to be compelled to bring information (sample bibliographic records or documents produced by their institutions) to the workshops.
- 13.1.8 Commenting on this point in the preliminary draft report, the Project Manager noted that
- The statement is surprising as the Project has so far not received any information as agreed. If the participants were forced to bring information the two workshops held in Pakistan should have collected some information already. They should have sent them to the Project.*
- 13.1.9 No formal evaluation of the training activities in Pakistan was carried out, but minutes or records of the proceedings were kept, and follow-up on the extent to which trainees applied their new knowledge is done within one month through on-site visits by national focal point staff.

13.2 Training: general aspects

13.2.1 Only one statement relating to training was included in Questionnaires B and C. This was :

- the staff of my library have received the training they need to participate effectively in ENSICNET

(Questionnaires B and C, 14).

13.2.2 The responses to this statement are presented in Tables 14.1 and 14.2 below.

13.2.3 The great majority of respondents (72 percent), including six from national focal points, do not consider that their library staff have been trained sufficiently to enable them to participate effectively in the network. Only 17 percent, including both those from the national focal points in Pakistan, thought their staff had received adequate training, while 6 percent did not know whether their staff had received the training they needed or not.

13.2.4 Most of the questions relating to training were included in Questionnaire A. Under the heading 'Your professional qualifications and experience', Questionnaire A sought to obtain information from respondents on the kinds of training they thought they needed for themselves, and the kinds they thought other members of their library staff should have. (This questionnaire was not completed by seven late respondents from Vietnam).

Table 14.1. Training, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
14. staff rec trg	5	3	57	5	13	1	84
Totals	5	3	57	5	13	1	84
Percentages	6	4	68	6	15	1	100

Table 14.2. Training, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	0	0	5	0	0	0	5
Indonesia	0	0	10	1	3	0	14
Nepal	5	1	12	0	3	0	21
Pakistan	0	1	4	0	3	1	9
Philippines	0	0	11	3	4	0	18
Vietnam	0	1	15	1	0	0	17
Totals	5	3	57	5	13	1	84
Percentages	6	4	68	6	15	1	100

- 13.2.5 In most countries, many of those completing Questionnaire A had neither training nor qualifications in library or information science. Many of those who had received such training had attended only short courses, including those organized by AIT and courses in the CDS/ISIS software. Almost every such respondent thought that he or she needed more training to be able to perform effectively.
- 13.2.6 The responses to Questionnaire A regarding training are summarized, by topic and country, in Table 15 below.
- 13.2.7 Most of the responses expressing interest in general training in information work (52 percent) came from Nepal, while the only country to show interest in training in water supply and sanitation information was Indonesia.
- 13.2.8 Indonesia also accounted for 49 percent of the responses calling for training in management aspects of information work, while Nepal and the Philippines each accounted for 27 percent of the interest expressed in training in technological aspects.

Table 15. Training, by topic and country.

Statement	Ch	In	Ne	Pa	Ph	Vn	Total	%
General	1	3	12	3	4	0	23	11
WSS information	0	5	0	0	0	0	5	2
Management	2	19	8	2	8	0	39	18
Technology	3	7	17	12	17	7	63	29
Technical operations	0	9	2	7	8	0	26	12
Services, promotion	2	9	0	4	7	0	22	10
Types of training	0	1	4	2	0	22	29	13
Miscellaneous	0	2	3	0	3	2	10	5
Total	8	55	46	30	47	31	217	100
Percentages	4	25	21	14	22	14	100	

- 13.2.9 Indonesia accounted for 41 percent of the responses relating to information products and services, and the promotion of information services, while 76 percent of the responses requesting particular types of training came from Vietnam.
- 13.2.10 Overall, the biggest demand was for training in technological aspects (29 percent), with management aspects in second place (18 percent). Most of the responses relating to training came from Indonesia (25 percent), followed by the Philippines (22 percent) and Nepal (21 percent).
- 13.2.11 The responses are discussed in more detail in sections 12.3 to 12.11 below.

13.3 General training in information work

- 13.3.1 Proposals for training in general aspects of information work, either for the respondents themselves or for other staff, from all countries except Vietnam, accounted for 11 percent of all responses to Questionnaire A concerned with training.
- 13.3.2 More than half of these responses (52 percent) came from Nepal, accounting for 26 percent of all responses from that country.
- 13.3.3 Specific topics mentioned included:
- information sciences
 - library and information science
 - theory and practice in information
 - information skills and awareness
 - information flow planning
 - information planning and implementation
 - privatisation of information flow
 - information sharing
 - the role of information
 - increased understanding of information systems
 - distribution of information.
 - library science
 - documentation.
- 13.3.4 Comments on the need for general training in information work were made during the visits to member institutions. In Vietnam, the need for training in basic techniques for the staff of both focal points and focal nodes was emphasized; it was pointed out that only one person from each of the two focal points had received training at AIT. There was a special need to train the staff of focal nodes where none of the staff were information professionals.

13.4 Training in water supply and sanitation information

- 13.4.1 Only 2 percent of responses proposed training in this field, either for the respondents themselves, or for other staff. All of them came from Indonesia, where the national focal point is not a specialist water and sanitation institution.

13.5 Training: management aspects

13.5.1 Responses proposing training in various aspects of management, either for the respondents themselves or for others, came from all countries except Vietnam, and accounted for 18 percent of the total. Nearly half of these (49 percent) came from Indonesia, where they accounted for 35 percent of all responses to Questionnaire A on training.

13.5.2 The following management topics were specifically mentioned:

- management
- management principles
- advanced management
- how to coordinate
- information management
- organization of information services
- strengthening linkages in response to information needs
- library management
- records management
- networking
- resource sharing
- orientation on the objectives of ENSICNET
- library planning (through visits abroad)
- facts and figures
- conduct of user studies
- management information
- management information systems
- management information systems for libraries
- management information systems for science and technology.

13.5.3 The need for training in information management was also referred to during the meeting with representatives of focal nodes in Vietnam, which also identified a need for the training of trainers. In Indonesia, the representative of one focal node referred to the need for training in the management of training.

13.6 Training: technological aspects

13.6.1 Proposals for training, either for the respondents or for others, in various aspects of information technology, accounted for 29 percent of all responses to Questionnaire A on training. Nepal and the Philippines each accounted for 27 percent of these, and Pakistan for 19 percent.

13.6.2 In Nepal, proposals for technological training accounted for 37 percent of all responses, while in the Philippines they accounted for 36 percent and in Pakistan for 40 percent.

13.6.3 The following topics were specifically mentioned:

- new information technologies
- advanced PASCAL
- CD-ROM
- WORM technology
- DIALOG
- communications technology
- handling and using modern information technologies in information management
- bar-coding circulation systems
- general computer training
- higher level microcomputer training
- data processing and output training (preferably abroad)
- application of computers to library, information and documentation services
- library automation
- CDS/ISIS
- database management
- electronic mail
- systems analysis.

13.6.4 In addition to the above responses, the need for training in information technology was mentioned during the meeting with representatives of the focal nodes in Vietnam.

13.7 Training: technical operations

13.7.1 Some 12 percent of responses, from Indonesia, Nepal, Pakistan and the Philippines, proposed training, either for the respondents or for others, in various aspects of technical operations. Indonesia accounted for 35 percent of these responses, the Philippines for 31 percent, and Pakistan for 27 percent.

13.7.2 The following topics were specifically mentioned:

- sources for the preparation of bibliographies
- bibliographic recording
- preparation of worksheets
- cataloguing
- classification
- indexing
- thesaurus building
- abstracting
- information storage
- filing
- techniques of data gathering and storing
- analysis of socio-economic information
- document preservation
- using the accession number on the recto of the book.

13.8 Training: products and services, promotion

13.8.1 Proposals for training, either for the respondents or for others, in various aspects of information products and services, including the promotion of information services and their use, accounted for 10 percent of the total and came from China, Indonesia, Pakistan and the Philippines. Indonesia accounted for 41 percent of these responses, and the Philippines for 32 percent.

13.8.2 The following topics were specifically mentioned:

- information retrieval or searching
- techniques of data gathering
- literature searching
- provision of library and information services to rural communities and small-scale enterprises
- dissemination of information
- marketing of information products and services
- report writing
- proposal writing
- newsletter writing
- repackaging information
- publishing information to rural people
- promotion of information.

13.8.3 During the consultant's visit to a focal node in Indonesia, the need for training in making literature reviews, repackaging of information, preparation of project proposals and report writing was also mentioned.

13.9 Training: types of training

13.9.1 Responses indicating specific kinds of training, rather than the subjects in which training was needed, accounted for 13 percent of the total. While some of these responses came from Indonesia, Nepal and Pakistan, 76 percent came from Vietnam, where they accounted for 71 percent of all responses.

13.9.2 The following types of training were specifically mentioned:

- regular training
- postgraduate training
- PhD level training
- continuing study
- periodic upgrading of advanced training
- further training
- on-the-job training
- hands-on training
- job-based training
- short training courses
- workshop for decision-makers and administrators
- study tours
- conferences
- foreign training, especially in ASEAN countries
- excursions
- local training.

13.10 Training needed - miscellaneous

13.10.1 A small proportion of responses (5 percent) dealt with aspects of training which did not fall clearly into any of the above categories. The included the following topics:

- information and documentation equipment and material
- microfiche
- English language
- translating from Nepalese to English
- mass communications.

13.11 No response

13.11.1 Eight respondents in Nepal, two each in Pakistan and Indonesia, one in China, and one in the Philippines failed to respond on training for other staff, while two in China failed to respond on their own training needs. A total of sixteen respondents (of those who returned Questionnaire A) thus failed to reply on this question.

13.12 Analysis

13.12.1 Despite the emphasis placed on training in the Technical Assistance Report, the Inception Report and the Memorandum of Understanding for each national network, it is a matter of concern that some 72 percent of respondents, including six from national focal points, still do not consider that their library staff have been trained sufficiently to enable them to participate effectively in the network (see 13.2.3 above).

13.12.2 In some national focal points, at least, this may be due to the fact that staff who have been trained under the project are no longer employed, or have been assigned other duties (see 13.1.5 above).

13.12.3 The Inception Report specifically referred to the provision by the project of training in the application of computers, yet 29 percent of the respondents to Questionnaire A still identify aspects of information technology as topics on which training is required (see 13.6.1 above).

13.12.4 Although 43 percent of respondents, including three from national focal points, think their library staff do not know enough about information sources in water supply and sanitation (see 12.2.5 above), only five responses to Questionnaire A, all from Indonesia, proposed training in this field, either for the respondents themselves, or for other staff.

13.12.5 The provision of adequate training for network staff, in the subjects in which they feel they most need to be trained, is fundamental to the successful development of the network in every country, and an area in which the project should take a strong lead--if not necessarily in organizing all the training required, then at least in helping participants to identify suitable training opportunities and obtain the necessary financial support to enable them to participate.

14 IDENTIFICATION AND PROCUREMENT

14.1 Introduction

- 14.1.1 The ability to identify information sources--particularly documents--relevant to the needs of its users, and then to procure these documents for its collections, are fundamental requirements of an effective library or documentation centre.

14.2 Questionnaire responses

- 14.2.1 Four statements in the two questionnaires dealt with aspects of the identification of information sources, as follows:

- it is easy to find out what documents on water supply and sanitation have been produced by my institution

(Questionnaires B and C, 9)

- it is easy to find out what documents on water supply and sanitation have been produced in this country

(Questionnaires B and C, 10)

- it is easy to find out what documents on water supply and sanitation have been produced in other countries

(Questionnaires B and C, 11)

- my library frequently uses the bibliographical tools produced by ENSIC to identify new publications on water supply and sanitation

(Questionnaire B, 31, Questionnaire C, 33)

- 14.2.2 The responses to these statements are summarized in Tables 16.1 and 16.2 below.

- 14.2.3 While the overall picture presented by these responses is positive, with positive replies accounting for nearly half (49 percent) of the total, and negative replies for only 28 percent, there are some significant differences in the patterns of responses to each of the four statements which call for further analysis.

- 14.2.4 While 69 percent of respondents, including five from national focal points, thought it was easy to find out what documents on water supply and sanitation had been produced by their own institutions, 19 percent--including three from national focal points--did not think so--and these included three respondents from national focal points, who should be in a better position than most to identify their own documentary production. Only 6 percent did not know whether it was easy to identify their own documents or not.

Table 16.1. Identification, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
9. inst prod	5	0	16	5	49	9	84
10. nat prod	3	1	24	23	31	2	84
11. foreign prod	2	0	33	22	23	4	84
31. bibliog tools	8	0	21	9	44	2	84
Totals	18	1	94	59	147	17	336
Percentages	5	0	28	18	44	5	100

Table 16.2. Identification, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	1	0	4	1	14	0	20
Indonesia	0	0	22	13	20	1	56
Nepal	17	0	20	20	22	5	84
Pakistan	0	1	9	0	24	2	36
Philippines	0	0	26	12	33	1	72
Vietnam	0	0	13	13	34	8	68
Totals	18	1	94	59	147	17	336
Percentages	5	0	28	18	44	5	100

- 14.2.5 The three respondents from national focal points who did not find it easy to identify their own documents included both those from Pakistan. The other was one from the two from national focal points in Vietnam; however, the other one replied 'definitely yes' to this statement, demonstrating yet again the frequent divergence of opinion between different branches of the same institution in this country.
- 14.2.6 Respondents were less sure as to whether it was easy to find out what documents were being produced in the country as a whole. Only 39 percent, including two national focal points, thought it was easy to find this out, while 30 percent, including three from national focal points, did not agree and 27 percent, including two from national focal points, did not know whether it was easy or not.
- 14.2.7 The three national focal points which did not think it was easy to find out about national documentary production were those in China and the Philippines and one of those in Pakistan. The other respondent from a national focal point in Pakistan replied 'yes' to this statement. The two respondents from national focal points in Vietnam also gave different responses: one replied 'yes' and the other, 'don't know'. The second 'don't know' response from a national focal point came from Nepal.

- 14.2.8 Respondents were still more doubtful as to whether it was easy to find out what documents on water supply and sanitation have been produced in other countries. Only 32 percent, including five from national focal points, thought it was easy to find out about foreign documents, whereas 39 percent, including two from national focal points, did not think so, and 26 percent, including one from a national focal point, did not know whether it was easy or not.
- 14.2.9 The two respondents from national focal points who did not think it was easy to find out about foreign documents were those from Indonesia and Nepal. The one who did not know whether it was easy to find out or not was one of the two from Vietnam; the other from Vietnam replied 'definitely yes!' to this statement.
- 14.2.10 While more than half of the respondents (55 percent), including seven from national focal points, claimed that their libraries used ENSIC bibliographical tools as a means of identifying new publications on water supply and sanitation, a significant proportion (25 percent) did not, while 11 percent, including the national focal point in China, did not know whether their libraries used these tools or not.

14.3 Results of visits and interviews

- 14.3.1 While the questionnaires did not include any statements specifically concerned with procurement, the topic did arise during some of the visits and interviews.
- 14.3.2 Apart from the widespread difficulty experienced by many participating institutions in acquiring commercially published material--particularly from abroad--due to financial constraints, most of the national focal points appear to have difficulty in collecting documents issued by the focal nodes of their own networks.
- 14.3.3 In Nepal, for example, while the focal nodes sometimes send documents to the focal point, the head of the focal point sometimes has to visit the nodes to collect them herself. In Vietnam, also, the focal points reported difficulty in this regard because the staff of the focal nodes were not familiar with information methodology.

14.4 Analysis

- 14.4.1 Despite the fact that both respondents from national focal points in Vietnam, and one from Pakistan, said that their institutions did not produce many documents on water supply and sanitation (see 8.2.5 above), one of the two from Vietnam, and both from Pakistan, said it was not easy to identify these documents. It might be expected that respondents from national focal points, especially those which produce few documents, would be in a better position to identify their own documentary production than those from most other institutions.
- 14.4.2 While only 39 percent of respondents thought it was easy to find out what documents were being produced in their country, 63 percent had indicated (see 8.2.13 above) that they thought many such documents were being produced.
- 14.4.3 This emphasizes the need for records of national documentary production in water supply and sanitation to be made more widely available to network participants--one of the basic aims of the project, but one which has clearly still to be achieved as far as many network participants (including three from national focal points) are concerned.

- 14.4.4 Although 90 percent of respondents had indicated (see 8.2.14 above) that they thought foreign documents on water supply and sanitation were useful in their own countries, only 32 percent thought it was easy to find out about foreign production.
- 14.4.5 This indicates a need for adequate information on foreign documentary production to be made available to network participants. Such information is provided by the bibliographical tools produced by ENSIC, including both the ENSIC database and published lists of documents.
- 14.4.6 The latter are distributed to all focal nodes, though problems have been experienced in getting enough copies in some countries, as noted in 3.3.3 above. Despite this, as indicated in 14.2.10 above, 25 percent of respondents said they did not use these tools to identify new publications.
- 14.4.7 The receipt of these tools is one of the concrete benefits to be derived from participation in the project, but although 77 percent of respondents believe that participation helps them to provide better services to their users (see 4.2.3 above), only 55 percent take advantage of this particular facility.
- 14.4.8 The responses to several statements in this section again indicated divergences of opinion between the different respondents from the national focal points in Pakistan and Vietnam.

15 PREPARING BIBLIOGRAPHIC RECORDS

15.1 Introduction

- 15.1.1 The preparation of bibliographic records of documents produced by their own or other institutions in the country, and the incorporation of these records, first in a national database and secondly in the ENSIC database, is a basic activity of the project, though one not spelled out very precisely in the Memorandum of Understanding (see 3.1.6 above).
- 15.1.2 The national focal points are also supposed to translate these records (including abstracts) into English before sending them to ENSIC or other ENSICNETs, and develop a national version of the ENSIC worksheet. This action to 'eliminate the language barrier' was one of the anticipated benefits of the project (see 4.1.1 above).
- 15.1.3 The Memorandum of Understanding does not state that the focal nodes in each national network should also prepare such records, but it is implicitly assumed that this will be done.

15.2 Questionnaire responses

- 15.2.1 One statement in both questionnaires dealt with the preparation of ENSICNET worksheets by the staff of the respondents' own libraries, as follows:
 - my library staff have difficulty in completing ENSICNET worksheets(Questionnaire B, 33, Questionnaire C, 36).
- 15.2.2 A complementary question addressed only to national focal points aimed to obtain their views on the difficulty experienced by the staff of the other participating institutions in this regard, as follows:
 - library staff in many of the ENSICNET participating institutions have difficulty in completing ENSICNET worksheets(Questionnaire C, 37).
- 15.2.3 The responses to the first of these statements are presented in Tables 17.1 and 17.2 below, and those to the second, in Tables 17.3 and 17.4.

Table 17.1. Worksheets (own), by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
33. worksheets	8	0	26	14	35	1	84
Totals	8	0	26	14	35	1	84
Percentages	10	0	31	17	42	1	100

Table 17.2. Worksheets (own), by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	1	0	1	1	2	0	5
Indonesia	0	0	3	3	7	1	14
Nepal	6	0	6	2	7	0	21
Pakistan	0	0	5	1	3	0	9
Philippines	0	0	9	4	5	0	18
Vietnam	1	0	2	3	11	0	17
Totals	8	0	26	14	35	1	84
Percentages	10	0	31	17	42	1	100

Table 17.3. Worksheets, (others) by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
37. worksheets	0	0	2	1	4	1	8
Totals	0	0	2	1	4	1	8
Percentages	0	0	25	13	50	13	100

Table 17.4. Worksheets, (others) by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	0	0	0	0	1	0	1
Indonesia	0	0	0	1	0	0	1
Nepal	0	0	1	0	0	0	1
Pakistan	0	0	1	0	1	0	2
Philippines	0	0	0	0	1	0	1
Vietnam	0	0	0	0	1	1	2
Totals	0	0	2	1	4	1	8
Percentages	0	0	25	13	50	13	100

- 15.2.4 Most of those who gave a definite response to the first of these two statements indicated that their staff did have difficulty in completing the worksheets.
- 15.2.5 In all, 43 percent of respondents, including two from national focal points, expressed this view, while 31 percent, including six from national focal points, said they had no difficulties in this regard. Respondents who did not know whether their staff had difficulty with the worksheets or not accounted for 17 percent of the total.
- 15.2.6 One of the two respondents from national focal points whose own staff had difficulty in completing the worksheets was that in Nepal, which felt, however, that the staff of other institutions did not experience this difficulty. In fact, the biggest group of Nepalese respondents (33 percent) said they did have difficulty with the worksheets.
- 15.2.7 The two respondents from national focal points in Vietnam again had divergent views as to whether or not their own staff had problems with the worksheets. One felt that they did, while the other thought they did not.
- 15.2.8 Respondents from both Vietnamese focal points thought that the staff of other institutions experienced difficulty with the worksheets; this was in line with the response from Vietnam as a whole, where 65 percent of respondents said they had difficulty in this regard.
- 15.2.9 The two respondents from the national focal points in Pakistan also expressed different opinions about the ability of other staff to complete the worksheets; one thought they did, the other, that they did not. In Pakistan as a whole, 56 percent of respondents said they did not have difficulty, while 33 percent said they did.
- 15.2.10 Both national focal point respondents from Pakistan agreed that their own staff did not have any difficulties with the worksheets.

- 15.2.11 The national focal points in China and the Philippines took the opposite view from that in Nepal, indicating that, while their own staff had no difficulty with the worksheets, those of other institutions did.
- 15.2.12 In China as a whole, two of the five respondents (40 percent) did indeed indicate that they had difficulty; one of the remaining three did not have difficulty, one did not know, and one did not reply to this statement. In the Philippines, however, contrary to the feeling in the national focal point, the biggest group of respondents (50 percent) said they had no difficulty with the worksheets, while only 28 percent said they did.
- 15.2.13 The national focal point in Indonesia reported that its own staff had no problems with the worksheets, but did not know whether the staff of other institutions had such problems or not. In fact, 57 percent of Indonesian respondents said they did have difficulty.

15.3 Results of visits and interviews

- 15.3.1 By the end of April 1991, a total of 824 bibliographic records had been submitted to ENSIC by national focal points. These were distributed as follows: China 406 (49 percent); Indonesia 142 (17 percent); Nepal 89 (11 percent); Pakistan nil; Philippines 65 (8 percent); and Vietnam 122 (15 percent). More records have since been submitted by the Philippines (see 16.3.8 below).
- 15.3.2 Pakistan had submitted a number of records from its existing database in SciMate software format, which was incompatible with the CDS/ISIS format used by ENSIC and other ENSICNET members.
- 15.3.3 During the consultant's visit to Pakistan, a staff member from AIT installed a conversion program at the national focal point to enable SciMate records to be converted to CDS/ISIS and thus facilitate the submission of records from Pakistan. Up to the end of June 1991, however, no converted records had been supplied.
- 15.3.4 Several comments on the problems of completing the worksheets were made during the consultant's meetings with representatives of participating institutions.
- 15.3.5 In most countries, most or all of the worksheets are at present being completed by the staff of the national focal point itself. In the Philippines, for example, about 95 percent of the documents added to the database are acquired by the library housing the national focal point, and only 5 percent by the libraries of the focal nodes. The national focal point prepares the worksheets for all these documents.
- 15.3.6 The problem of getting focal nodes to prepare worksheets gave rise to discussion, particularly in China, of the question of payment for the submission of completed worksheets. One focal node in China admitted that it had previously submitted data using the ENSICNET worksheet, but no longer did so because the national focal point could not pay for this.

- 15.3.7 The head of the national focal point in China said that this problem arose only in connection with ENSICNET, not with other internal Chinese information networks, and arose because of the extra difficulty of having to use English in completing the ENSICNET worksheets. If payment were to be avoided, the national focal point needed to be in a position to supply information to the focal nodes in return.
- 15.3.8 In Vietnam, too, this problem arose. There, other kinds of reward for the submission of completed worksheets were being considered, including the organization of scientific seminars for the staff of focal nodes, payment for the publication of focal node publications, updating of the database, and the provision of staff or equipment.
- 15.3.9 Also in Vietnam, the comment was made that such subject specialists as are available in participating institutions do not want to fill in worksheets.
- 15.3.10 No statement concerning the preparation of abstracts for ENSICNET records was included in either of the questionnaires, but this activity clearly creates problems for participating institutions in several countries.
- 15.3.11 In China, the preparation of English abstracts of Chinese language documents is found to be a time-consuming and costly exercise, but one which is generally felt to be worthwhile as a means of disseminating information on Chinese achievements to other countries.
- 15.3.12 At one focal node in China, the Shanghai Research Institute of Environmental Protection, the Information Service is already abstracting all journal articles on environmental topics published in Chinese in the Shanghai area; these could clearly provide a good source of material ready for translation and inclusion in the ENSIC database.
- 15.3.13 The national focal point in Indonesia has set a target of at least two records with abstracts per month to be submitted by each focal node. Some do better than this, while some do not send any at all, but it is felt that at least a start has been made. The focal point in Indonesia does not accept records from WASIN because WASIN records do not include abstracts.
- 15.3.14 In the Philippines, the person who was recently appointed to prepare abstracts is able to do an average of five per day.

15.4 Analysis

- 15.4.1 It would appear from the analysis of questionnaire responses above that, despite the training in worksheet preparation which has been provided in the initial training at AIT and in the national workshops, library staff in a substantial proportion of participating institutions, particularly in Indonesia and Vietnam, and including the staff of the national focal point in Nepal and one of the two in Vietnam, still have difficulty in completing the worksheets.

- 15.4.2 It is worth noting that the preparation of worksheets was suggested as a topic for training in the responses to Questionnaire A (see 13.7.2 above).
- 15.4.3 Respondents from some national focal points seem not to be very well aware of the situation in their own countries. In Nepal and the Philippines, the national focal point's view of the difficulties experienced by the staff of focal nodes in completing ENSICNET worksheets were at variance with the views of the majority of respondents in those two countries, while in Indonesia, the national focal point admitted that it did not know whether the staff of other institutions had such difficulties or not.
- 15.4.4 The suggestion in China and Vietnam that focal nodes should receive payment for preparing worksheets seems to be at variance with the basic concept of the network as a cooperative activity. While the preparation of records in English is quite likely to prove more difficult for Chinese and Vietnamese participants than for those from the other member countries, the need for the focal points, at least, to do this was clearly spelled out in the Memorandum of Understanding.
- 15.4.5 The national focal point in China appears not to appreciate that it is, indeed, expected to supply information to the focal nodes in return for their input. In Vietnam, at least, consideration is being given to making payment in kind rather than cash, which is closer to the cooperative spirit in which the network is supposed to operate.
- 15.4.6 These misunderstandings about the relationship between the national focal points and the focal nodes may well arise because, as indicated in 3.4.10 above, none of the basic project documents states clearly what the two types of institution were actually supposed to do, in terms of providing information products and services, nor how the national networks should be organized or financed.
- 15.4.7 The fact that, in Indonesia, the WASIN bibliographical records do not include abstracts does not seem sufficient justification for the national focal point to exclude such a potentially fruitful source of records.
- 15.4.8 The production rate of five abstracts per day reported by the national focal point in the Philippines seems rather low in comparison with the more generally-accepted maximum of fifteen per day. If it represents a realistic level of achievement, however, it is clear that the inclusion of abstracts, desirable though it may be, could become a considerable burden throughout the network if the number of records being created reaches an acceptable level.
- 15.4.9 These considerations, as expressed in the preliminary draft report, drew the following comment from the Senior Information Scientist of ENSIC:

Personally, I think that the concept of networking means participation and contribution while receiving benefits. One of the ways to contribute is through worksheets, but it seems that in some countries they need a monetary incentive to encourage the input of information. If we accept it, then we have to establish a rate based on local tariffs. At this point, the provision of abstracts is not a requisite.

- 15.4.10 The problem seems to be that, in China and Vietnam at least, the focal nodes (and to some extent, the national focal points) do not appear to regard the benefits they receive from participation as being commensurate with the effort involved.
- 15.4.11 Given that the national focal point in China, and one of the two national focal point respondents in Vietnam, already consider that participation in the network costs a lot of money (see 11.2.6 above), it seems unlikely that they could or would pay for the preparation of worksheets by focal nodes from their own resources; but this does not seem to be an activity in which the project itself should become involved--certainly not to the extent of 'establishing a rate based on local tariffs'.

16 CREATING A NATIONAL DATABASE

16.1 Introduction

- 16.1.1 The only reference to the creation of a national bibliographic database in the basic project documentation appears in the Memorandum of Understanding between AIT and Vietnam. However, all the national focal points are trying to create a national database using the Mini-micro CDS/ISIS software, and using--or trying to use--the existing ENSIC database, both of which were supplied to them under the project.
- 16.1.2 No statements relating to either the use of the software or the creation of a national database as such were included in either Questionnaire B or Questionnaire C. The following assessment of the situation is based mainly on the visits and interviews.

16.2 Use of CDS/ISIS

- 16.2.1 Despite the comment by the Project Manager, reported in 4.3.19 above, to the effect that the Project has given participants the basic tools and it is now up to them to get on with the job, the staff of several national focal points continue to experience difficulty in using the CDS/ISIS software.
- 16.2.2 The most serious problems were encountered in China. Although the information is in Chinese, the software is in English, and for domestic use they need it in Chinese. A Chinese version of CDS/ISIS is available from the Institute of Scientific and Technical Information of China (ISTIC) in Beijing, but is said to be very expensive. The staff of the national focal point wondered if it were possible to add a title in Chinese characters to an English CDS/ISIS record.
- 16.2.3 The main problem with the software in the national focal point in China is that the person who had been trained in its use at AIT was no longer working on the ENSICNET project, though she was still working in the institution housing the national focal point, and spent some time with the consultant during his visit.
- 16.2.4 This person had trained a replacement who did not have a thorough knowledge of either CDS/ISIS or the MS-DOS operating system. The directories and files on the hard disk were very badly organized; the consultant was not able to find the complete CDS/ISIS, although some parts of it, e.g. SYSPAR.PAR appeared in various directories and subdirectories.
- 16.2.5 Focal nodes were also using CDS/ISIS in some countries; at the Bandung Institute of Technology in Indonesia, for example, the Central Library is using CDS/ISIS for acquisitions and cataloguing and is trying to develop a circulation module also.

16.3 Setting up the database

- 16.3.1 Most national focal points seemed to be experiencing, or to have recently experienced, difficulties in setting up, operating and maintaining the database. A systems analyst from AIT had to visit Pakistan and Nepal in company with the consultant to help sort out problems with the database in those two countries, and his help is needed also in China and Indonesia.
- 16.3.2 In China, staff of the national focal point at first insisted to the consultant that they did not have the database; indeed, the question arose because they said they were thinking of creating a database of the microfiche collection themselves. (Most of the titles of the microfiche have been translated into Chinese, and the national focal point is considering publishing them to help users identify documents).
- 16.3.3 When the consultant insisted that the database must have been received, a search was made and the original floppy disks were found in a cupboard. Apart from the national database and the contents of one update diskette, nothing of the database appeared to be on the hard disk of the focal point's computer.
- 16.3.4 It subsequently transpired that, as mentioned above, the person who had been trained at AIT for work in the national focal point had been assigned other duties since October 1990. She had attempted to train another staff member as a replacement, but this did not appear to have been very successful.
- 16.3.5 The original trainee had deleted the database from the hard disk because no one ever used it. During the visit, she reloaded the database on to the hard disk and was able to demonstrate it--though not without some difficulty, due to lack of practice.
- 16.3.6 At one focal node in China which claimed to have its own bibliographic database, neither the library staff nor any of the staff of the computer department were able to demonstrate the database because they did not know the password. This database was said to contain some 2,000 records, and had been created using commercial relational database software.
- 16.3.7 In Indonesia, only 2,707 ENSIC records were accessible because the original floppy disks were stolen before the loading of the database had been completed. There were many spelling errors in the Indonesian records.
- 16.3.8 In the Philippines, earlier problems had now been overcome and the complete database, including the records from ENSICNET member countries, was now accessible. The local records were kept on a separate diskette. A further 120 records (all with abstracts) had been sent to ENSIC since the end of April 1991 (see 15.3.1 above), bringing the total number of records submitted to 944, of which 185 (20 percent) have been submitted by the Philippines.

16.4 Content of the ENSIC database

- 16.4.1 The head of the national focal point in China commented that the ENSIC database contained a lot of old material, some dating from as long ago as 1911. However, the focal point in the Philippines was able to produce an analysis of the database which showed that only 41 records, of the 6,359 included in the database, dated from before 1950. Serial analytics accounted for 69 percent of the database contents.
- 16.4.2 The contents of the database were also analyzed by some other characteristics; the results are presented in Tables 18.1 to 18.4 below.

Table 18.1. ENSIC database, by date of publication

Date	Number	Percent
Not known	15	0.24
Pre-1950	41	0.64
1950-59	25	0.39
1960-69	72	1.13
1970-79	1361	21.40
1980-89	4732	74.41
1990-	113	1.78
Totals	6359	100.00

Table 18.2. ENSIC database. By language of origin

Language	Number	Percent
English	5736	90.20
Chinese	388	6.10
Indonesian	101	1.59
Vietnamese	44	0.69
German	53	0.83
French	51	0.80
Totals	6373	100.00

**Table 18.3. ENSIC database. By geographical keyword
(partial data)**

Keyword	Number	Percent
India	420	6.60
China	449	7.06
Thailand	62	4.12
Indonesia	117	1.84
Philippines	83	1.31
Nepal	117	1.84
Pakistan	33	0.52
Australia	87	1.34
UK	233	3.66
Netherlands	83	1.31
Totals	1884	29.6

16.5 Analysis

- 16.5.1 Although not clearly spelled out in the basic project documents, the activities of establishing and maintaining a national bibliographical database on water supply and sanitation, and of operating the regional ENSIC database, are central to the whole concept of the network. It is therefore a matter of serious concern that several of the national focal points are still experiencing severe difficulties in carrying out these activities.

Table 18.4. ENSIC database. By place of publication (partial data)

Place	Number	Percent
USA	1146	18.02
UK	430	6.76
Netherlands	148	2.33
Canada	68	1.07
Finland	13	0.20
Austria	6	0.09
Italy	19	0.02
Switzerland	30	0.47
Australia	23	0.36
Developed countries	1883	29.60
Thailand	168	2.64
India	47	0.74
China	55	0.86
Nepal	51	0.80
Indonesia	29	0.46
Philippines	24	0.38
Pakistan	18	0.28
Vietnam	4	0.06
Singapore	7	0.11
Developing countries	403	6.34
TOTALS	2286	35.95

- 16.5.2 In China, for example, because of the problems described above, it is clear that the national focal point cannot have been able to offer any information services based on the use of the database since October 1990. In Indonesia, only a partial service is possible because part of the database has been lost.
- 16.5.3 While the CDS/ISIS user groups which now exist in most, if not all, the six member countries should be useful alternative sources of advice and assistance in this respect, there will clearly be a need for continuing technical advice and support from the project for some time to come, with a consequent need for a change in attitude towards providing such support on the part of project staff.

17 ACCESS

17.1 Introduction

- 17.1.1 One of the main functions of a documentary information network is to provide access to documents, both indirectly, by means of lists of new acquisitions, catalogues, indexes, etc.; and directly, through various arrangements for access to the system and its collections.
- 17.1.2 The basic objectives of ENSICNET, its anticipated benefits and the tasks to be performed by the project and the national focal points--though expressed in different terms--are all essentially concerned with providing better access to information on water supply and sanitation to users in ENSICNET participating institutions
- 17.1.3 The library catalogue provides an essential means of indirect access to the contents of the collections, and must be kept up-to-date if it is to perform this function effectively.
- 17.1.4 If information users are to derive full benefit from the participation of their own institutions in an information network, other member institutions must also allow them access to their document collections, both directly and through interlibrary loan and the supply of copies.
- 17.1.5 This section of the report deals with library catalogues and direct access; the receipt and supply of documents through interlibrary loan or photocopying is discussed in section 18 below.

17.2 Questionnaire responses

- 17.2.1 Two statements in the two questionnaires dealt with aspects of access to the libraries of participating institutions and their collections. These were:
 - my library catalogue is up-to-date
(Questionnaire B, 34, Questionnaire C, 38)
 - users from other ENSICNET participating institutions are welcome to use my library
(Questionnaire B, 36, Questionnaire C, 40)

17.2.2 The responses to these statements are summarized in Tables 19.1 and 19.2 below.

Table 19.1. Access, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
34. catalogue	8	2	24	3	44	3	84
36. other users	4	0	2	9	55	14	84
Totals	12	2	26	12	99	17	168
Percentages	7	1	15	7	59	10	100

Table 19.2. Access, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	0	0	3	2	5	0	10
Indonesia	1	1	2	3	20	1	28
Nepal	11	0	2	1	23	5	42
Pakistan	0	1	1	1	13	2	18
Philippines	0	0	7	2	24	3	36
Vietnam	0	0	11	3	14	6	34
Totals	12	2	26	12	99	17	168
Percentages	7	1	15	7	59	10	100

- 17.2.3 The general picture with regard to access to the libraries of participating institutions and to their document collections is encouraging, with positive responses accounting in total for 79 percent of all responses on this topic, and negative ones for only 16 percent. Only 7 percent gave 'don't know' responses; three quarters of these were in respect of access to users from other institutions. Vietnam accounted for more negative responses than any other country.
- 17.2.4 While 56 percent of respondents, including five from national focal points, considered that their library catalogues were up to date, 31 percent, including those from the national focal points in China and the Philippines, did not. Only 4 percent did not know whether their catalogue was up to date or not.
- 17.2.5 Only two respondents, both in Vietnam, said that other users were not welcome to use their libraries. All the respondents from national focal points said that other users were welcome.

17.3 Results of visits and interviews

- 17.3.1 Another aspect of access was raised during discussions in Vietnam, when representatives of some participating institutions commented on the politico-legal problems they faced in obtaining access to foreign databases. They considered it essential to have some bibliographical sources on hand, since the cost of access to external sources was very high.

17.4 Analysis

- 17.4.1 While the overall picture with regard to access is reasonably good, it is a matter for concern that nearly one third of respondents, including two from national focal points, do not have up-to-date library catalogues.
- 17.4.2 A library's ability to maintain its conventional catalogue up to date may also reflect its ability to contribute regularly and promptly to a bibliographic database, and participating institutions, particularly national focal points, which cannot keep their catalogues up to date may also be expected to experience difficulty in contributing bibliographic records promptly to the network.

18 INFORMATION PRODUCTS AND SERVICES

18.1 Introduction

18.1.1 The ultimate objective of any documentary information system must be to provide information products and services that will satisfy the information needs of its users (and be capable also of satisfying those of potential users), in terms of:

- **current awareness**

of general developments in the sector, organized events, research and development projects and their results, new technical products and services and new information materials, sources, products and services
- **literature searching**

of published and unpublished records of documentary production, to identify specific documents or sets of documents with specific characteristics
- **document delivery**

of originals or copies of complete documents or parts of documents held by the information system or available from elsewhere
- **answering enquiries**

ranging from quick reference services designed to provide immediate answers to simple enquiries, to research services designed to investigate complex problems, often in conjunction with technical assistance from subject specialists.

18.1.2 In certain circumstances, other services, such as translation services, may also need to be provided.

18.1.3 Among the tasks related to the provision of information products and services which the national focal points are supposed to carry out in accordance with the Memorandum of Understanding are: repackaging and disseminating information; translating foreign literature into the national language; and preparing a newsletter.

18.2 Current awareness

18.2.1 One statement in the two questionnaires dealt with the provision of current awareness services by participating institutions. This was:

- my library uses ENSIC information products to provide current awareness services to its users

(Questionnaire B, 37, Questionnaire C, 41)

18.2.2 Tables 20.1 and 20.2 below present the responses to this statement.

Table 20.1. Current awareness, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
37. products used	7	0	24	8	43	2	84
Totals	7	0	24	8	43	2	84
Percentages	8	0	29	10	51	2	100

Table 20.2. Current awareness, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	1	0	3	1	0	0	5
Indonesia	0	0	1	2	11	0	14
Nepal	5	0	1	2	12	1	21
Pakistan	0	0	1	0	8	0	9
Philippines	0	0	7	3	8	0	18
Vietnam	1	0	11	0	4	1	17
Totals	7	0	24	8	43	2	84
Percentages	8	0	29	10	51	2	100

18.2.3 While 53 percent of respondents, including six from national focal points, indicated that their libraries do use ENSIC information products to provide current awareness services, a substantial proportion (29 percent), including two from national focal points, said they do not do so, and 10 percent did not know.

18.2.4 The two respondents from national focal points who said they did not use ENSIC products in this way were from China and Vietnam. In the latter case, the second respondent from a national focal point gave a positive response to this statement. Vietnam accounted for more negative responses than any other country.

- 18.2.5 One national focal point which offers a Selective Dissemination of Information (SDI) service is that in Indonesia. The service covers scientific and technical information in general, and has 79 subscribers.

18.3 Literature searching

- 18.3.1 One statement in the two questionnaires dealt with the provision of literature searching services by participating institutions. This was:

- my library frequently uses the bibliographical tools produced by ENSIC to perform literature searches for users

(Questionnaire B, 38, Questionnaire C, 42)

- 18.3.2 Tables 21.1 and 21.2 below present the responses to this statement.

- 18.3.3 Only 44 percent of respondents, including seven from national focal points, reported that their libraries used ENSIC tools to perform literature searches, while 33 percent, including one from a national focal point, said they did not. A further 14 percent did not know whether their libraries used ENSIC tools for this purpose or not.

- 18.3.4 Vietnam again accounted for more negative responses than any other country. One of these came from one of the two respondents from national focal points; the second such respondent gave a positive reply to this statement.

Table 21.1. Literature searching, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
38. products used	6	0	28	13	34	3	84
Totals	6	0	28	13	34	3	84
Percentages	7	0	33	15	40	4	100

Table 21.2. Literature searching, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	0	0	4	0	1	0	5
Indonesia	0	0	1	7	6	0	14
Nepal	6	0	2	1	12	0	21
Pakistan	0	0	1	2	5	1	9
Philippines	0	0	8	3	7	0	18
Vietnam	0	0	12	0	3	2	17
Totals	6	0	28	13	34	3	84
Percentages	7	0	33	15	40	4	100

18.4 Document delivery

18.4.1 Two statements in the two questionnaires dealt with aspects of document delivery in the libraries of participating institutions. These were:

- my library frequently obtains originals or copies of documents on water supply and sanitation from other ENSICNET member institutions to help it to satisfy members' requests

(Questionnaire B, 32, Questionnaire C, 34)

- my library frequently supplies originals or copies of documents in its collections to users of other ENSICNET member institutions on request

(Questionnaire B, 39, Questionnaire C, 43)

18.4.2 The responses to these statements are summarized in Tables 22.1 and 22.2 below.

Table 22.1. Document delivery, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
32. receives docs	6	0	32	9	37	0	84
39. supplies docs	7	0	27	13	36	1	84
Totals	13	0	59	22	73	1	168
Percentages	8	0	35	13	43	1	100

Table 22.2. Document delivery, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	0	0	3	1	6	0	10
Indonesia	0	0	12	2	14	0	28
Nepal	11	0	6	1	24	0	42
Pakistan	1	0	5	2	10	0	18
Philippines	0	0	16	10	10	0	36
Vietnam	1	0	17	6	9	1	34
Totals	13	0	59	22	73	1	168
Percentages	8	0	35	13	43	1	100

- 18.4.3 While the subject of document delivery as a whole received the same proportion of positive responses (44 percent) as that of literature searching, the proportion of negative responses was slightly higher--35 percent for document delivery as compared with 33 percent for literature searching--and the proportion of 'don't know' responses slightly lower. Most of the negative responses came from Indonesia, the Philippines and Vietnam.
- 18.4.4 The numbers and percentages of respondents who received documents from other institutions and supplied their documents to other institutions were the same (44 percent). However, 38 percent of respondents, including four from national focal points, indicated that they did not often receive documents, while only 32 percent said they did not supply them.
- 18.4.5 The respondents from national focal points in China and Indonesia, and one each of the two in both Pakistan and Vietnam, said they did not receive documents from other ENSICNET institutions, while the national focal point in the

Philippines replied both 'yes' and 'no' to this statement--a response which was recorded as 'don't know'.

- 18.4.6 One of the two respondents from national focal points in Vietnam did not know whether the library supplied documents to users in other ENSICNET member institutions or not. The other seven national focal point respondents all indicated that they did.
- 18.4.7 On the basis of the consultant's visits and interviews, the use made of existing document delivery services in most focal points and focal nodes appears to be very limited.
- 18.4.8 In Indonesia, only 27 requests for documents on water supply and sanitation had been received through the general science and technology SDI service (see 18.2.5 above) since the inception of ENSICNET.
- 18.4.9 The national focal point in Indonesia reported that it frequently received requests for hard copies of the ENSIC microfiche, but that these were often cancelled when users were informed of the cost, which was six times that of a normal photocopy.
- 18.4.10 In Nepal, only four or five of the focal nodes are active in requesting copies of the ENSIC microfiche; 50 or 60 such requests were received by the focal point in the past year.
- 18.4.11 The national focal point in the Philippines maintains a record of such requests which shows that, in the eleven months from 2 July 1990 to 20 May 1991, sixteen requests were made by eight different users in three institutions, including that housing the national focal point.
- 18.4.12 A total of 47 fiche were supplied in response to these requests. Three of the requests dealt with hazardous wastes, three with solid waste, two with water pollution, two with community participation, and one each with water supply, diseases and disinfection, water and wastewater, water quality, sanitation and wells.
- 18.4.13 The focal point in the Philippines appears to be the only one to maintain such a detailed record of user requests, which is very necessary if the use made of the facilities provided through ENSICNET is to be properly monitored.
- 18.4.14 The Documentation Department of the national focal point in Ho Chi Minh City, Vietnam, receives between 100 and 200 requests a year for items from its collection of (mainly Russian) patents. These deal with all subjects, not only water supply and sanitation.

18.5 Answering enquiries

18.5.1 Two statements in the two questionnaires dealt with the answering of users' enquiries by the libraries of participating institutions. These were:

- my library frequently obtains answers to users' enquiries from other ENSICNET member institutions

(Questionnaire B, 40, Questionnaire C, 44)

- my library frequently answers enquiries from users of other ENSICNET member institutions

(Questionnaire B, 41, Questionnaire C, 45)

18.5.2 Questionnaire C contained the following complementary statement addressed only to national focal points:

- my library frequently obtains answers to users' enquiries from ENSIC

(Questionnaire C, 46).

18.5.3 The responses to the first two statements are presented in Tables 23.1 and 23.2 below, and those to the third, in Tables 23.3 and 23.4.

Table 23.1. Enquiries, by statement.

Statement	N/R DN!		NO D/K		Y DY!		Totals
40. RQ answers	7	0	33	12	30	2	84
41. answers RQs	8	1	31	9	34	1	84
Totals	15	1	64	21	64	3	168
Percentages	9	1	38	13	38	2	100

Table 23.2. Enquiries, by country.

Statement	N/R DN!		NO D/K		Y DY!		Totals
China	1	0	4	3	2	0	10
Indonesia	1	1	7	2	17	0	28
Nepal	12	0	7	1	21	1	42
Pakistan	1	0	3	3	10	1	18
Philippines	0	0	15	9	12	0	36
Vietnam	0	0	28	3	2	1	34
Totals	15	1	64	21	64	3	168
Percentages	9	1	38	13	38	2	100

- 18.5.4 The overall pattern of responses in both pairs of tables is very similar, with negative and positive responses being almost equally balanced in almost the same proportions.

Table 23.3. ENSIC enquiries, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
46. ENSIC answers	1	0	3	1	3	0	8
Totals	1	0	3	1	3	0	8
Percentages	13	0	38	13	38	0	100

Table 23.4. ENSIC enquiries, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	1	0	0	0	0	0	1
Indonesia	0	0	0	0	1	0	1
Nepal	0	0	0	0	1	0	1
Pakistan	0	0	1	0	1	0	1
Philippines	0	0	1	0	0	0	1
Vietnam	0	0	1	1	0	0	1
Totals	1	0	3	1	3	0	8
Percentages	13	0	38	13	38	0	100

- 18.5.5 Among the 39 percent of respondents who said their libraries did not often obtain answers to users' enquiries from other participating institutions were four from national points. Another four were among the 40 percent who said they did use other institutions in this way. Some 13 percent of respondents did not know whether they obtained help from other institutions in this respect or not.
- 18.5.6 The national focal points who did not obtain answers to enquiries from other network members were those in Vietnam, the Philippines, and one of the two in Pakistan. The other national focal point respondent from Pakistan indicated that it did obtain help in this way, as did those from China, Indonesia and Nepal.
- 18.5.7 Two respondents from national focal points were among the 38 percent of respondents who indicated that they did not often answer enquiries for users from other participating institutions. Five others were among the 42 percent who said that they did, while one was included in the 11 percent who did not know whether they provided this service or not.
- 18.5.8 One each of the two national focal point respondents in Pakistan and Vietnam said they did not often answer enquiries for other users, while the other from Pakistan said that it did, and the other from Vietnam did not know whether it did or not.

- 18.5.9 A substantial proportion of all negative responses to the two statements concerned with answering enquiries (44 percent) came from Vietnam, where they accounted for 82 percent of all Vietnamese responses. The highest proportion of positive responses was recorded in Nepal, where they accounted for 52 percent of all responses from that country.
- 18.5.10 Responses from the national focal points to the separate statement about their use of ENSIC as a source of answers to users enquiries showed them to be almost equally divided on this point.
- 18.5.11 Three respondents, from Pakistan, the Philippines and Vietnam, said they did not often use ENSIC for this purpose, while three more, including the second one from Pakistan and those from Indonesia and Nepal, said that they did. The second respondent from Vietnam replied 'don't know' to this statement, and the national focal point in China did not reply at all.
- 18.5.12 The Information Dissemination Department of the national focal point in Ho Chi Minh City, Vietnam, which distributes information only to decision makers and research projects in Ho Chi Minh City itself, received a total of 98 requests for information in 1990. These were concerned mainly with manufacturing processes or prices. About half these requests were answered satisfactorily after all available sources had been consulted. A charge is made for dealing with such requests.
- 18.5.13 The Technological Information Department of the same institution, which serves users other than those served by the Information Dissemination Department, receives about 300 requests a year from enterprises, factories, etc. on industrial topics.
- 18.5.14 In China, although several users in the north east of the country had expressed interest in obtaining information through ENSICNET, no actual requests for information had so far been received.

18.6 Other services

- 18.6.1 Other kinds of services are being offered or contemplated by some national focal points and focal nodes.
- 18.6.2 The only example of information repackaging encountered during the consultant's visits was in the Regional Development Planning Board of West Java (BAPPEDA), which is a focal node of ENSICNET Indonesia and which repackages information for use by the Governor of West Java.
- 18.6.3 In China, technology transfer is considered very important, and it was suggested that the ENSIC newsletter, ENFO, might include a list of countries' technological problems which others could help to solve. The staff of the national focal point did not appear to be familiar with existing sources of such information, such as the TechnoNet Asia and Approtech Asia networks, the UNIDO Newsletter or the

TIPS project, and it would be helpful if the Library and Regional Documentation Centre at AIT could supply them with information on such sources.

- 18.6.4 The question of whether or not a database of research in progress could be established under ENSICNET was raised by Chinese colleagues.

18.7 Analysis

- 18.7.1 As noted above (para. 18.1.1), the ultimate aim of a documentary information system is to provide information products and services able to satisfy the needs of users and potential users. It is therefore a matter of some concern to see, from the foregoing examination of service provision in ENSICNET, that about one third or more of participating institutions are not very active in this respect.
- 18.7.2 A matter of particular concern is the fact that substantial proportions of respondents do not make much, if any, use of ENSIC information products to provide either current awareness or literature searching services for their users, while a further significant proportion do not know whether their institutions use these products for these purposes or not.
- 18.7.3 Taken in conjunction with the fact that 25 percent of respondents do not use these tools for identifying new publications on water supply and sanitation (see 14.4.6 above), this seems to indicate that one of the basic activities of the project, the supply of ENSIC publications, is not having the desired effect in a significant proportion of participating institutions.
- 18.7.4 The situation appears to be particularly bad in Vietnam, which accounted for a substantial proportion of the negative responses on information products and services, and where one or both of the respondents from national focal points gave negative replies to all the statements on this topic.
- 18.7.5 It seems clear that, although 77 percent of respondents may think that participation in ENSICNET helps them provide better services to users in general (see 4.2.3 above), this is not in fact happening, as yet, in many cases and in respect of specific types of information service.
- 18.7.6 While it may appear desirable, from the point of view of the project, to introduce better monitoring mechanisms to try to assess the use made of ENSICNET in general, and of ENSIC information products and services in particular, the practical difficulties in the way of achieving this, in a situation where the ENSICNET activity is only part of the overall activity of the library or documentation unit housing the focal point, and where that unit may also be a member of several other networks, cannot be ignored.

19 PROMOTION AND USER EDUCATION

19.1 Introduction

- 19.1.1 According to the Memorandum of Understanding between AIT and each member country, one of the tasks of the national focal point was to market and promote ENSICNET. Another was to prepare a newsletter. All the national focal points except that in Pakistan now produce a newsletter of some kind.

19.2 Questionnaire responses

- 19.2.1 Five statements in the two questionnaires dealt with the promotion of ENSICNET and the education of information users, as follows:

- my library is active in promoting ENSICNET among potential users of information on water supply and sanitation

(Questionnaires B, 42, Questionnaire C, 47)

- the ENSICNET national focal point is active in promoting ENSICNET within the country

(in Questionnaire C, addressed to the national focal points, the words 'my library' were substituted for 'ENSICNET national focal point')

(Questionnaire B, 43, Questionnaire C, 48)

- my library is effective in educating users in how to use its facilities and services

(Questionnaire B, 44, Questionnaire C, 50)

- the ENSICNET national focal point is effective in educating users in how to use information sources in water supply and sanitation

(Questionnaire B, 45)

- my library is effective in helping ENSICNET participating institutions to educate their users in how to use information sources in water supply and sanitation

(Questionnaire C, 51).

19.2.2 For the purposes of this analysis, the responses to these last two statements have been amalgamated to give a general picture of the perceived effectiveness of the national focal points in educating users on information sources.

19.2.3 The responses to these statements are summarized in Tables 24.1 and 24.2 below.

Table 24.1. Promotion & education, by statement.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
42. lib promoting	3	0	15	6	53	7	84
43. NFP promoting	2	0	3	10	63	6	84
44. lib educ	6	1	13	5	53	6	84
45. NFP educ	0	0	8	14	57	5	84
Totals	11	1	39	35	226	24	336
Percentages	3	0	12	10	67	7	100

Table 24.2. Promotion & education, by country.

Statement	N/R	DN!	NO	D/K	Y	DY!	Totals
China	1	0	3	2	14	0	20
Indonesia	0	0	10	6	36	4	56
Nepal	9	0	2	3	63	7	84
Pakistan	1	1	3	0	30	1	36
Philippines	0	0	10	15	43	4	72
Vietnam	0	0	11	9	40	8	68
Totals	11	1	39	35	226	24	336
Percentages	3	0	12	10	67	7	100

19.2.4 These results show that a substantial majority of respondents (74 percent in total) take a positive view of the promotional and educational activities of their own libraries and of their national focal points. Only 12 percent, mainly located in Indonesia, the Philippines and Vietnam, take a negative view. Most of the negative responses (73 percent) refer to the activities of the respondents' own libraries, whereas most of the 'don't know' responses (69 percent) refer to those of the national focal points.

19.2.5 The 71 percent of respondents who considered that their libraries were active in promoting ENSICNET, and the 82 percent who thought the national focal point was also active in this field, included all eight from the national focal points.

However, only five respondents from national focal points thought their libraries were effective in educating users to use their own facilities and services, while the same number thought they were effective in helping to educate users in information sources.

- 19.2.6 The respondent from the national focal point in China did not think its library was effective in teaching users to use its facilities, while the two from Vietnam did not know whether their libraries were effective in this respect or not. One of these did not think that the national focal point was effective in educating users on information sources, while the other thought that it was. The respondent from the national focal point in the Philippines also took a negative view of this statement, while the one from China did not know whether the focal point was effective or not in this regard.

19.3 Results of visits and interviews

- 19.3.1 The visits and interviews did not produce any results or comments specifically concerned with promotion and user education as such.

19.4 Analysis

- 19.4.1 Commenting on the preliminary draft of the report, the Senior Information Scientist of ENSIC noted that

Many questions answered 'I do not know' and the questions without reply, make me think that the respondents are not aware of the information activities in their own institutions nor ENSICNET. This evidence shows us that we need a systematic promotion. I consider that a promotional package--made by graphic professionals--including posters, audiovisuals and different brochures directed to users, information people and decision makers, should be prepared. With this material, a short presentation of one hour in every focal node and related institutions, as well as in meetings could gain users and supporters.

- 19.4.2 It should be noted that a certain amount of promotional material, particularly posters and brochures, has already been prepared and distributed during the first phase of the project.
- 19.4.3 While more direct presentations of the kind referred to may be more effective in raising awareness of the potential benefits of the project for information users, two important considerations must be taken into account in this respect.
- 19.4.4 First, and most important, no amount of promotional activity can create enthusiastic users if the basic information resources, facilities and services are inadequate. If respondents to the questionnaire survey are correct, and there are many potential users for water supply and sanitation information in their institutions, they will only become actual users if the information they need can be supplied promptly and in the language and format they require.

- 19.4.5 Secondly, the kind of presentation programme envisaged would be quite a time-consuming activity, involving visits to all focal nodes and participation in meetings of various kinds. It seems unlikely that this could be carried out by the staff of the project itself, while for the staff of the national focal points it would constitute yet another task to be carried out without any concomitant return.
- 19.4.6 It is important to resolve the basic problems of the management, financing, staffing and operation of the network before making further efforts to promote it.

20 SUMMARY OF FINDINGS

20.1 Introduction

- 20.1.1 This section of the report summarizes the main findings of the various analyses presented in the main body of the text, taking account also of more comments by members of the project staff. The next section (section 21), attempts to draw some general conclusions which will guide the further development of ENSICNET, while the final section (section 22) discusses proposals for the next stage in that development, ENSICNET Phase 2.
- 20.1.2 Reference will be made, at appropriate points in the analysis, to an account of recent IDRC experience in establishing and maintaining similar regional information networks in Latin America, which identifies and discusses eighteen characteristics which any network should reflect in its legal structure, governance, membership and operations. ¹ Where appropriate, the existing situation of ENSICNET will be analyzed in relation to these characteristics.
- 20.1.3 The IDRC analysis makes the following general point with regard to the success or failure of networking, which might serve as a starting point for the overall analysis of ENSICNET:

The success of resource sharing, the fundamental premise of information networking, depends not only on having appropriate goals and objectives, but also on creating and operating a service within the right legal, administrative and fiscal framework. Legal structure, membership and governance are the foundations upon which networks are built.

20.2 General objectives of information networks

- 20.2.1 It may be useful, at this point, to briefly summarize the general objectives of information networks as identified in section 3.4 above.
- 20.2.2 In general terms, the ultimate objective of any information service must be to provide information products and services which will satisfy the needs of its users. In order to achieve this objective, an information service must know its actual and potential users and their information needs, provide collections of information materials and information products and services capable of meeting those needs, and ensure that actual and potential users are aware of these facilities and have access to them. To fulfil these requirements, an information service must be able to perform a range of technical operations, which requires the provision of adequate resources, an appropriate organizational structure and the necessary authority to undertake these activities.
- 20.2.3 The general aim of an information network is to enhance the ability of its member institutions to perform these operations and provide the desired products and services, so as to meet the information needs of their users more effectively.

A network may be evaluated in relation to the extent to which it achieves this aim.

20.2.4 The IDRC analysis suggests that

Any evaluation should consider at least the following aspects: management and organization; operational effectiveness; training and human resources capabilities; technological innovation and adaptation; service and product quality; user satisfaction; network sustainability.

20.2.5 The present evaluation has attempted to cover these aspects, though not necessarily under these headings.

20.3 Objectives of ENSICNET

20.3.1 The specific objectives of ENSICNET, as stated in the basic project documents, are not very clear. None of them provides a clear indication of what the national focal points and focal nodes are actually meant to do, in terms of providing information products and services to meet the needs of their users and potential users, nor how they were to organize themselves or finance the network's activities--although the Memorandum of Understanding briefly identifies some of the tasks which the national focal points (but not the focal nodes) should perform.

20.3.2 In particular, the tasks of establishing and maintaining a national database on water supply and sanitation, and of contributing to and operating the regional ENSIC database, though central to the whole concept of the network, are not clearly spelled out. In general, completion by the various national focal points of the tasks listed in the Memorandum of Understanding has been uneven.

20.3.3 While most respondents to the survey on which this study was, in part, based, indicated that the objectives of ENSICNET are, in general, clear to them and are supported by their institutions, this is not always the case where specific objectives are concerned. Had the objectives of the project been defined more precisely and in more detail at the outset, some of the misunderstandings which have arisen might have been avoided.

20.4 Benefits of participation in ENSICNET

20.4.1 The general attitude of survey respondents to the benefits to be expected from participation in the project was very positive, but it is clear that not all respondents, even in national focal points, are really clear as to precisely what these benefits are supposed to be, nor to what extent they are actually being realized.

20.4.2 This is true particularly in terms of the extent to which network participants are able to provide adequate services to their users, or carry out the technical operations needed to support them, and the extent to which the various tools sup-

plied by the project, including equipment, software and publications, are actually being used.

- 20.4.3 Respondents who identified specific benefits referred, in the main, only to the sharing of information, particularly from abroad, and to finding out what others have been doing in the same field. Other potential benefits identified in the basic project documents either received only adverse comment or were not mentioned at all.
- 20.4.4 Although a high proportion of respondents may think that participation in ENSICNET helps them provide better services to their users in general, this does not seem, in fact, to be happening in many cases and in respect of specific information services.
- 20.4.5 In some countries, the focal nodes (and to some extent, the national focal points) do not appear to regard the benefits they receive from participation as being commensurate with the effort involved. Many of the anticipated benefits of the project have yet to be realized; the delays in doing so are due at least in part to the lack of well-defined objectives at the outset.

20.5 Project management and administration

- 20.5.1 Although the project aimed for flexibility and responsiveness to the local situation in the selection of the national focal points, it lacked flexibility in determining how many members each national network should have.
- 20.5.2 Comments from some national focal points suggest that there has been, and still is, a degree of 'top-down' approach to the establishment and management of the network. This was clearly not the intention of the project staff, but the fact that they were unaware of the existence of this view among national focal points is an indication of important differences in perception, apparently caused by lack of adequate communication, between the project and its members.
- 20.5.3 Several instances of differences of opinion or perception, or of poor communication and lack of understanding between the project and the participating institutions, particularly the national focal points, may be noted. In general, these tend to confirm, if not exactly a 'top-down', at least a laissez-faire approach on the part of the project to some issues.
- 20.5.4 This is exemplified in comments in project progress reports and on the preliminary draft of the present report, to the effect that the project has supplied the national focal points with the 'basic components' or 'basic tools' and that it is now up to them to get on with the job of setting up and running the national networks--with the implication that the project has done its bit and now the national focal points are to be left alone to get on with it.
- 20.5.5 There seems to be some uncertainty, on the part of the project, as to whether focal points like that in China should inform the project about their problems--for example, that the floppy disk drive does not work--or deal with them themselves--for example, in the case of the jamming keyboard.

- 20.5.6 Despite the fact that most of the national focal points have a background of experience in information and library service provision, all of them still feel the need for advice and assistance from ENSIC, particularly in respect of the maintenance and operation of the national and regional bibliographical databases.
- 20.5.7 There is also a great need for the focal nodes to receive advice and assistance from national focal points; a need which at present does not seem to be being met in most cases. Many focal nodes feel they can contribute to the network; it is incumbent on the national focal points to help them to do so effectively--and incumbent on ENSIC to do the same for the national focal points.
- 20.5.8 Although the project staff have indicated that they recognize the continuing need for advice and assistance to be provided, if this is to be done willingly, some change in attitude on their part would seem to be required.
- 20.5.9 The IDRC analysis identifies two network characteristics which are relevant in this respect:

- **Two-way communication and accountability between members and governance regarding the needs and resources of the network.**

Each member of the network, simply by agreeing to participate, assumes a number of obligations with respect to the management and financing of the network's operations. Members also have certain rights, namely, to receive the results of joint work and to benefit by the services designed for the network.

- **Authority and power to enforce membership in accordance with the purpose of the network.**

Informally-structured network initiatives may be easier to set up, but they also tend to decline quite rapidly because of the lack of continuity among personnel, a weak sense of obligation or reliability amongst members, or the disappearance of participating organizations without alternative arrangements.

The establishment of a regional information network should not be approached by simultaneously attempting to undertake or encourage the same level of participation by each country.

Each country has a distinct development character, yet

many networks start out aiming to establish national focal points in all member countries and expect the same level of participation from each. This approach has consistently led to failure [IRC emphasis]

a costly and disillusioning experience for those networks that did not adjust to the heterogeneous circumstances before them.

20.5.10 With the sole exception of China, none of the focal nodes in any of the national networks is at present able to participate formally in the management of the national network, while none of the national focal points is able to participate in the management of the regional network or the project as a whole.

20.5.11 Participation by members in the management of the network is identified by IDRC as a key characteristic:

- **Balanced representation of diverse members in the governance, either directly or indirectly.**

One major element of networking involves coordinating mechanisms consisting of consulting/technical committees, representing not only network members but also end-users.

These committees ensure equal participation by all members by involving them in decision-making on policy and technical matters.

20.5.12 Two further important characteristics relating to the overall management of the network are identified as:

- **Ability to balance centrality of control and direction with the diverse needs of the members, avoiding over-distribution of power while rendering the governance responsive to the members.**

An information network requires an explicit organizational structure defining the responsibilities, obligations and rights of each participating entity in regard to provision and dissemination of data, as well as managerial and administrative collaboration.

A coordinating centre must also be accountable to network members, for only mutual trust provides it with the authority to maintain the purpose of the network in spite of occasional differences.

- **Ability to communicate with and direct management, ensure continuity of internal control and direction and generate correct and intelligent decisions quickly and under pressure.**

The management of a network must be essentially democratic if the participants are to see themselves as equals.

20.5.13 Commenting on these issues as raised in the preliminary draft report, the Director of LRDC noted that

Your point ... demonstrates to me the need for much closer links between the focal points and ENSIC. ... In many cases we found that projects were seen as sources of extra revenue for favoured staff and seldom were their long term developmental benefits identified. This may explain why ENSICNET was seen as extra work and imposed. Having a liaison officer might have prevented this. ... Personally I see the major problem as one of communication. There is need for improvement in this area. ... There is definite need for real hard

discussion BEFORE we launch the Phase II. What ENSIC will do and what the focal nodes will do must be clarified. ... We cannot continue with so much misunderstanding and hence lack of trust in the future. That is detrimental to a network.

20.5.14 The Senior Information Scientist of ENSIC commented:

I think that our working relationship with the focal points has been based on assumptions that did not materialize and expectations that did not come true. To remedy this, a close interaction is needed; a personal follow-up of the activities in each country should be monitored. Frequent visits to the focal points and the focal nodes would create a strong communication link that will ease on time the natural difficulties involved in the development of a network in developing countries.

20.6 ENSICNET membership

20.6.1 The responses to the statements on information supply (see 20.10 below) reveal some fundamental characteristics of network participants which may help to guide the future development of the network.

20.6.2 While a large number of participating institutions say they have many potential users of water supply and sanitation information, many fewer say they produce many documents on these subjects.

20.6.3 Participants may thus be divided into those who are able to contribute actively to enhancing the documentary resources of the network, and those whose participation must be essentially passive.

20.6.4 The latter group are essentially users of the facilities and services provided by the network, and it may be inappropriate to treat them as full participants, either in terms of the inputs expected of them or of the outputs they may expect to receive--or the terms on which those outputs are provided to them.

20.6.5 IDRC identified the following characteristic with regard to network membership:

- **Flexibility to assume participation in or with various other government or private entities and programmes, both today and as they may change over time.**

Clear and consistent policies regarding participation are critical both to the efficient operation and further development of the network, and experience suggests that they can also assist individual member units when appealing for funding to national authorities in order to meet their respective obligations.

Mechanisms to ensure balanced participation for diverse members and flexibility are key contributing factors to successful networking.

20.7 The role of the national focal point

- 20.7.1 A high proportion of respondents to the survey considered the staff of their national focal point to be very cooperative, but many fewer thought that it coordinated the national network effectively and an even smaller proportion thought they received adequate advice and assistance from their focal point.
- 20.7.2 This suggests that, in general, the goodwill of national focal point staff exceeds their ability to organize the network effectively or to offer the advice and assistance they would like to provide.
- 20.7.3 The national focal point should be the institution best equipped to participate in the network because of the equipment and training it has received, and its effectiveness may have a strong influence on the way in which other participants perceive the network and the benefits to be derived from membership.
- 20.7.4 A national focal point which is itself unable to participate effectively in network activities--for example, because it does not produce many documents in water supply and sanitation--will not be able to exert much influence, and the development of the network will thus inevitably be retarded.
- 20.7.5 Some general observations on the role and effectiveness of national focal points for information networks may be relevant to a consideration of the problems of achieving such effectiveness in ENSICNET.
- 20.7.6 Although the idea of the national focal point may seem attractive from the administrative or organizational point of view, in terms of operational effectiveness, the experience of many countries and many information systems has not been very satisfactory.
- 20.7.7 There are various reasons for this, including:
- the value of the information received from the national or international system is often not sufficient to compensate institutions for the effort of supplying information to the system (for example in the preparation of input sheets containing bibliographical data)
 - the institution where the national focal point is located may not have, or may be unwilling to allocate, sufficient resources to the national focal point for it to function effectively
 - the institution where the national focal point is located may not have the legal authority, the administrative competence or the political or professional status to enable it to perform its role properly
 - the function of acting as national focal point may be only a minor one in terms of the institution's own objectives, and may thus receive an inadequate share of attention and resources

- especially in smaller and poorer countries, one institution may act as national focal point for several different international and national information systems, each using different procedures and having different requirements and thus collectively placing a heavy burden on the often already overburdened staff
- institutional, professional and personal rivalries which lead different organizations to compete for the title or role of national focal point
- institutional or personal self-interest, leading institutions to seek to be nominated as national focal points in order to attract extra funding, foreign aid, scholarships or opportunities for foreign travel, rather than because of a genuine interest in, or capacity to fulfil, the role.

20.7.8 Most, if not all, of these problems are encountered among the national focal points in ENSICNET. One way ENSICNET might avoid these problems--though it may bring problems of its own--is not to establish national focal points for water supply and sanitation information per se, but rather to support individual institutions in countries in ways which are appropriate to their capacity and willingness to contribute to cooperative efforts to develop and maintain information systems and services in a particular country or locality.

20.7.9 Thus, for example, technical advice on database design might be offered to one institution, while another is helped to develop training courses and a third to produce an inventory of information sources. Such an approach has already proved its effectiveness in some other countries, and seems likely to create better prospects for success while minimizing the consequences of failure.

20.8 Cooperation

20.8.1 While about two thirds of respondents to the survey thought their libraries could make an effective contribution to the network, only about half said their libraries cooperated a lot with other network members. It is difficult to see how a library could make an effective contribution to the network if it were not able to cooperate with other members.

20.8.2 The IDRC analysis identified the following network characteristic relating to this topic:

- **Ability to foster interdependent interaction and mutual trust.**

In a network of diverse membership, each partner accepts certain obligations to the other partners. Specifically, a network's function is 'to marshal resources from its environment to accomplish results beyond the ability of any one of its members'. Network members are, therefore, not passive clients but active participants in the gathering, processing and dissemination of information.

- 20.8.3 Effective cooperation requires agreement on the objectives of the cooperative activity. This will be difficult to achieve, in the case of ENSICNET, as long as participants remain unclear as to what the specific objectives of the network, and the benefits to be derived from it, really are.

20.9 Information users and their needs

- 20.9.1 Little effort seems to have been made so far, by any of the national focal points, to identify the information needs of any group of users on a systematic basis.

- 20.9.2 While most respondents think there are many potential users for water supply and sanitation information in their institutions, many fewer think that many people actually use their libraries to obtain such information. One reason for this may be that many libraries in participating institutions are unable to meet the needs of their users for such information, for example, because they have poor document collections.

- 20.9.3 The following network characteristic relating to users was identified by IDRC:

- **Ability to respond to end-user needs through initial involvement in the feasibility study and design stages and, eventually, feedback.**

A network is enhanced only by its utilization by the many information seekers involved in implementing development. Potential users of network services and products should be directly involved in their design...User confidence in the network depends on the quality and speed of information access in relation to their own specific needs.

20.10 The supply of information

- 20.10.1 While a large number of participating institutions say they have many potential users of water supply and sanitation information, many fewer say they produce many documents on these subjects.

- 20.10.2 About one third of all participants thus appear to be able to participate in the network mainly, or even solely, as users of information generated in other institutions, and not as producers of documentary information themselves.

- 20.10.3 In this connection, it may be questioned whether any institution which does not produce a reasonable amount of documentation on water supply and sanitation, or which does not consider its documents to be useful to others, either in the same country or abroad, or both, is in a position to act as an effective national focal point for ENSICNET. The effectiveness in this respect of some of the existing national focal points calls for closer scrutiny.

- 20.10.4 The national focal point, which should be best equipped to participate in the network because of the equipment and training it has received, will tend to be, at least in the early stages, the main contributor of information to the network

at both the national and the international levels; and its effectiveness in this respect may have a strong influence on the way in which other participants perceive the network and the benefits to be derived from membership.

- 20.10.5 A national focal point which does not itself produce many documents in water supply and sanitation, or which produces documents which are not useful to others, cannot be expected to be able to exert much influence in this respect, and the development of the network, at both the national and the regional levels will thus inevitably be retarded.

20.11 Document collections

- 20.11.1 In many ENSICNET participating institutions, library collections are not adequate to meet the needs of users. The supply of extra copies of ENSIC publications for additional participating institutions in some countries is causing some difficulty at present. The lack of current periodicals is a serious problem in many participating institutions.
- 20.11.2 Even if users cannot find the documents they need in their own libraries, their needs can often be met by other libraries. In many ENSICNET participating institutions, however, the widespread lack of knowledge of the contents of other libraries' collections means that staff are unable either to refer users to other libraries which may be able to help them, or to identify libraries which may be able to supply copies of required documents on interlibrary loan.
- 20.11.3 The inability of many participating institutions, either to provide adequate document collections of their own, or to identify other libraries which may be able to supply required documents, seems likely to be a major cause of the gap between the numbers of potential and actual users in many institutions.

20.12 Equipment

- 20.12.1 All the national focal points, and many of the focal nodes, felt they needed more equipment to be able to participate effectively in the network. Types of equipment which might be useful include basic library furniture--shelves, tables and chairs--and photocopiers.
- 20.12.2 None of the national focal points seems to have a clear idea as to why they have been supplied with modems at this stage in the development of the network, since even if telephone lines were available, few, if any, of the participating institutions could afford to pay the telecommunications costs involved in online searching at the international level, and few, if any, of the national focal points are able to provide online access to their own databases at the national level.

20.13 Finance

- 20.13.1 Responses to the survey suggests that the budgets of about 17 percent of focal nodes are so poor that they cannot meet the costs of participating in the network even though they do not think these costs are very great.
- 20.13.2 The numbers of respondents who do not know whether participation in ENSICNET cost a lot of money or not, or whether or not their library's budget is adequate to meet the cost of participation, suggests that many of them are not involved in budgetary matters and probably have little influence on the size of their library's budget or on how it is spent.
- 20.13.3 There seems to be limited scope for participating institutions to sell their information products and services due to the inability of users to afford to pay for them.
- 20.13.4 A comparison of the project budget for the first phase of ENSICNET with the budgets for projects with similar objectives which have recently been undertaken by other institutions in the region indicates that the ENSICNET budget for Phase 1 was not sufficient to ensure success.
- 20.13.5 The fact that neither the external nor the local contribution to the project was expressed in the basic project documents in financial terms makes it difficult to assess the relative importance of these two contributions. The lack of a specified local financial contribution may have encouraged some national focal points to think that their participation would not cost anything at all.
- 20.13.6 IDRC identified the following network characteristic relating to finance:

- **Ability to attract funding on a general cooperative basis to ensure financial stability and, hence, self-reliance.**

A key element in the successful establishment and maintenance of a network is the provision of assured and adequate funding. ... As with any 'public good'. information networks should not be expected to become self-financing on a commercial basis.

20.14 Staff and staff training

- 20.14.1 Although lack of staff is a problem for many participating institutions, a high proportion have enough staff to cope with users' demands for water supply and sanitation information.
- 20.14.2 In some national focal points, at least, the lack of trained staff may be due to the fact that those who were originally trained under the project are no longer employed, or have been assigned other duties.

- 20.14.3 Although training was identified as one of the benefits to be provided under the project, and training activities of various kinds have formed a significant part of the network's activities, a high proportion of respondents do not think their library staff have been trained sufficiently to enable them to participate effectively in the network.
- 20.14.4 While a substantial proportion of respondents do not think their library staff know enough about information sources in water supply and sanitation, only five respondents, all from Indonesia, identified a need for training in this field.
- 20.14.5 Despite the training in worksheet preparation which has been provided under the project, staff in a substantial proportion of participating institutions still have difficulty in completing the worksheets.

20.15 Identification of information sources

- 20.15.1 It might be expected that respondents from national focal points, especially those which produce few documents, would be in a better position to identify their own documentary production than those from most other institutions, but this does not seem always to be the case.
- 20.15.2 While a substantial proportion of respondents thought that many documents on water supply and sanitation were being produced in their countries, a much smaller proportion thought it was easy to find out what documents were being produced.
- 20.15.3 This indicates a need for adequate records of national documentary production in water supply and sanitation to be made available to network participants. This was, in fact, a basic aim of the project, but it has clearly not yet been achieved as far as many network participants are concerned.
- 20.15.4 While an even larger proportion of respondents thought that foreign documents on water supply and sanitation were useful in their countries, an even smaller proportion thought it was easy to find out about foreign production.
- 20.15.5 This indicates a need for adequate information on foreign documentary production to be made available to network participants. This is, in fact, provided, at least to some extent, by the bibliographical tools produced by ENSIC, which are distributed to all focal nodes. Despite this, many respondents said they did not use these tools to identify new publications.

20.16 Preparing bibliographic records

- 20.16.1 Staff in a substantial proportion of participating institutions still have difficulty in completing ENSICNET worksheets.
- 20.16.2 In some countries, the national focal point's view of the difficulties experienced by the staff of focal nodes in completing the worksheets is at variance with the views of the majority of respondents.

20.16.3 It has been suggested that focal nodes should be paid for preparing worksheets, but this seems to be at variance with the basic concept of the network as a cooperative activity, and is not an activity in which the project itself should become involved--certainly not to the extent of 'establishing a rate based on local tariffs'.

20.16.4 One of the national focal points which made this suggestion seems not to realize that it is expected to supply information to the focal nodes in return for their input.

20.16.5 Such misunderstandings may arise because the basic project documents do not state clearly what the focal points and focal nodes respectively were supposed to do, in terms of providing information products and services.

20.17 Creating a national database

20.17.1 The activities of establishing and maintaining a national bibliographical database on water supply and sanitation, and of operating the regional ENSIC database, though central to the whole concept of the network, were not clearly spelled out in the basic project documents.

20.17.2 It is a matter of serious concern that several national focal points are still experiencing severe difficulties in carrying out these activities. As a result, one country has not been able to offer information services based on the database since 1990, while in another, only a partial service is possible.

20.17.3 National focal points will clearly continue to need technical advice and assistance in this regard from the project for some time to come, with a consequent need for a change in attitude towards providing such support on the part of project staff.

20.18 Access

20.18.1 While the overall situation with regard to access is reasonably good, it is a matter for concern that many respondents do not have up-to-date library catalogues, since this may reflect their ability to contribute to the national and regional ENSICNET databases.

20.19 Information products and services

20.19.1 It is a matter of serious concern that a high proportion of participating institutions are not very active in the provision of information products or services--and, in particular, that many of them either do not use ENSIC information products to help them to provide services to their users, or do not know whether their institutions use these products for this purpose or not.

20.19.2 The IDRC analysis identified the following network characteristic in relation to information products and services:

- **Ease of implementation and operation and provision of information services.**

The responsibility for delivering products and services to users should normally rest with each of the participating entities in a network, rather than with the coordinating centre of the network itself.

20.19.3 There may be practical difficulties in the way of introducing better monitoring mechanisms to try to assess the use made of ENSICNET and ENSIC information products and services in situations where this activity is only part of the overall activity of the national focal point or focal node.

20.20 Promotion and user education

20.20.1 Promotional efforts cannot succeed if basic information resources, facilities and services are inadequate. Such efforts can be very time-consuming, creating the risk that national focal points might regard them as yet another task to be carried out without any concomitant return.

20.20.2 The basic problems of the management, financing, staffing and operation of the network must be resolved before making further efforts to promote it.

20.21 'Don't know' responses

20.21.1 The high proportion of 'don't know' responses to many statements on the survey questionnaires is a matter for concern, reflecting as it does a serious lack of knowledge among many participants of the capabilities and activities of their own libraries, of other members of their national networks, of the regional network and of ENSIC itself.

20.21.2 For example, a high proportions of respondents did not know, first, whether or not their institutions were able to obtain adequate advice and assistance from higher levels and secondly, whether or not they were capable of participating effectively in the network.

20.21.3 Even though some respondents were not directly involved with the running of their institutions' libraries or information centres, it might be expected that, if they are sufficiently involved in ENSICNET to be asked to complete the questionnaires, they should also be sufficiently well-informed about such basic issues as to be able to give a more definite response.

20.21.4 Their inability to do so suggests that, in some participating institutions, either the wrong person has been chosen to represent the institution in ENSICNET, or communication between that person and those directly responsible for the institution's library or information service needs to be greatly improved.

- 20.21.5 Significantly high proportions of 'don't know' responses were also received to other key questions.
- 20.21.6 The fact that one national focal point did not know whether or not it was effective in coordinating the national network may be due to modesty, or, perhaps, to a lack of criteria by which to assess the effectiveness of its efforts at coordination--which may also be the reason for many of the other 'don't know' responses on this topic.
- 20.21.7 The high proportion of respondents who did not know whether the staff of other libraries participating in ENSICNET were cooperative or not indicates an alarming degree of ignorance of their fellow participants, and suggests that there is a serious lack of contact and communication among network members. Another explanation may be that the level of activity in these networks has been so low that it has not yet been possible to judge how cooperative other members of the network really are.
- 20.21.8 A high proportion of respondents do not know whether or not the ENSIC microfiche collection contains anything useful, while many also do not know whether other libraries in the network have good document collections or not. This indicates an urgent need for better information about network facilities and participants to be made available.
- 20.21.9 Nearly 20 percent of respondents do not know whether participation in ENSICNET costs a lot of money or not, and more than 25 percent do not know whether or not their library budget is adequate to meet the cost.
- 20.21.10 In some countries, the national focal point's perception of the difficulties experienced by the staff of focal nodes in completing ENSICNET worksheets is quite different from that of the focal nodes themselves.
- 20.21.11 Many participants do not know whether their institutions use ENSIC information products to help them provide services to their own users or not.

20.22 Other network characteristics

20.22.1 Other characteristic of information networks identified by IDRC are listed below for the sake of completeness:

- **Authority and power to execute the purpose of the network.**
- **Ability to set network norms, standards, procedures and guidelines for action by members and by management.**
- **Ability to assess and utilize new information and telecommunication technologies.**
- **Ability to act on behalf of, protect and shield network members.**

- **Ability to avoid political obstacles to performance.**
- **Ability to measure impact, self-criticize and evaluate the performance of the network.**

21 GENERAL CONCLUSIONS:

21.1 Introduction

- 21.1.1 The overall conclusions regarding the establishment, development and operation of ENSICNET during its first phase are presented below.

21.2 Objectives and benefits of ENSICNET

- 21.2.1 The **specific objectives** of the project are not well-defined; they need to be spelled out much more clearly.
- 21.2.2 Many of the anticipated **benefits** have not been realized, due in part to poorly-defined objectives. It is essential that all involved should be clear as to how they can expect to benefit from the project--and what they have to do to receive the benefits.

21.3 Project management

- 21.3.1 The **management** of the project has been insufficiently participative, at both regional and national levels. It needs to be much more democratic, involving network members at both levels. The management responsibilities of different elements of the network need to be clearly defined.
- 21.3.2 The attitudes of project staff towards providing continuing **advice and assistance** to network members need to be reviewed. It may not be unreasonable to ask, if the project is not to provide continuing advice and assistance to the national networks in this way, what is the justification for its existence?

21.4 Membership and cooperation

- 21.4.1 Many of the existing **members** of the network are not able to participate fully as both users and producers of information. Membership should be reviewed and non-producers either removed from membership or admitted on different terms from those able to participate fully.
- 21.4.2 All the **national focal points** experience some difficulties in participating in the network. Some may be unsuitable as focal points due to their inability to participate fully as indicated above. It will be necessary
- to decide whether national focal points should continue to constitute the basic mechanism for implementing the project in future
 - if so, to review specific cases among the existing national focal points to assess their ability to perform effectively in that role.

- 21.4.3 With regard to **cooperation**, participants need to be made more aware of their obligations to each other, and those who are unable or unwilling to accept them should be encouraged to leave the network. The specific obligations of participants need to be spelled out in more detail.

21.5 Information users and the supply of information

- 21.5.1 Participating institutions should make greater efforts to identify and characterize their **information users and their needs** and involve users in the design of information products and services.
- 21.5.2 With regard to the **supply of information**, efforts must be made to identify participants who are not producing significant amounts of documentary information and review their membership of the network as suggested above. Further efforts also need to be made to identify major producers who are not yet members of the network.

21.6 Document collections, equipment and finance

- 21.6.1 **Document collections** need to be improved, particularly in terms of current periodicals. The staff of participating institutions need to be encouraged and helped to improve their knowledge of the collections of other member institutions.
- 21.6.2 The kinds of **equipment** needed by network members should be carefully reviewed, and consideration given to supplying more basic equipment to help them meet basic needs.
- 21.6.3 As regards **finance**, the poor budgets of many participating institutions inevitably increase their dependence on support from the project; but the project budget itself was inadequate in Phase 1. The respective financial responsibilities of the project and the network members should be clearly spelled out in project documentation.

21.7 Staff training

- 21.7.1 The provision of adequate **staff training** is fundamental to the successful development of the network in every country, and this is an area in which the project should take a strong lead.
- 21.7.2 One area in which more training is needed is in the **identification of information sources**, particularly through the use of ENSICNET bibliographical tools.
- 21.7.3 Training is also still needed in the **preparation of bibliographical records** and the **creation of national databases**. The benefits to be derived from these activities need to be spelled out more clearly.

21.8 Information products and services and promotion

- 21.8.1 The inadequacies in the delivery of **information products and services** are a serious reflection on the effectiveness of the project's efforts in Phase 1, since the provision of products and services able to meet the needs of users constitutes the ultimate aim of the networking activity. Participants need to be given more detailed guidance on the kinds of products and services needed, and on methods of providing them.
- 21.8.2 Major activities in relation to the **promotion** of the network or its information products and services should be postponed until these are of a good enough quality to deserve to be promoted.

21.9 'Don't know' responses

- 21.9.1 The many **'don't know' responses**, covering most aspects of the activities of the network, indicate an urgent need for a more intensive programme of education and training for network staff, designed to raise their awareness and improve their knowledge of the aims, objectives and activities of all members of the network.

21.10 Assessment

- 21.10.1 The IDRC analysis discusses one general characteristic of an information network which has several elements and which is very relevant to these general conclusions:

- **Provision for proper network conceptualization and design.**

[There are several] constraints or difficulties that should be kept in mind at the network design stage.

First, lack of adequate preparatory analysis may lead to inaccurate objectives which would conceal fundamental weaknesses in structure.

Second, lack of good planning, of a continuing education programme for staff and of a well-conceived organizational structure may prevent effective resource-sharing.

Third, inadequate monitoring services would render feedback mechanisms useless.

Fourth, there may be a lack of recognition that the operation of resource-sharing arrangements usually costs money and that benefits may not be seen immediately, but only become apparent in the medium and long term.

Fifth, poor transport and communication facilities may inhibit the development of satisfactory networking schemes.

Finally, lack of momentum or commitment may arise through changes of personnel, leading to unresponsiveness to new initiatives.

- 21.10.2 It is clear that many of these considerations apply to the design, development and operation of ENSICNET.
- 21.10.3 In the light of the foregoing analysis, it is clear that the project has not yet, in any real sense, achieved its basic objective of developing strong information systems in water supply and sanitation in the six member countries.
- 21.10.4 Although some documents (including microfiche), bibliographical tools, equipment and software have been supplied, they are often not being properly used or not used at all. Some staff have been trained, but not all of them are still working on the project and there is a strongly-felt need for more training.
- 21.10.5 Network members are not able to participate in the management of the network at any level, and there are important differences in the way in which the focal nodes, the focal points and the project staff perceive their own and each others' roles and responsibilities.
- 21.10.6 Most importantly of all, there is little or no evidence that membership of the network, for most if not all participants, has so far produced any significant improvement in the volume, range and quality of information products and services offered to users.
- 21.10.7 The main reasons for these problems in ENSICNET are summarized below.
- 21.10.8 First, and perhaps most important, the project was over-ambitious in trying to establish national information networks with 20 members each in six countries simultaneously within a period of two years, particularly in relation to its limited budget and staff.
- 21.10.9 Secondly, the initiative for the project came from the centre (or the 'top') and not from the periphery, and not enough effort was made to involve the institutions at the periphery in the planning and management of the project.
- 21.10.10 Thirdly, there is a fundamental ambiguity in the perception by the project staff themselves of what they expect the project to produce by way of results. This manifests itself in the form of lip-service to the idea that the real aim is to develop national capabilities, while attaching considerable importance--and, at the same time, denying it--to the submission by the focal points of bibliographic records for inclusion in the regional ENSIC database.
- 21.10.11 There can be no doubt that many of the national focal points also regard the submission of records as their main obligation--at least to AIT--under the project; and it is the inability of some focal points to submit what project staff regard as adequate numbers of records that has led to

- the suggestion that liaison officers should be appointed to some countries in Phase 2 to be directly responsible for this task
- doubts, until fairly recently, as to whether the Philippines should be allowed to continue in membership because for a long time it submitted hardly any records
- a suggestion by the Senior Information Scientist of ENSIC that Pakistan should be 'dropped' in Phase 2 for the same reason.

21.10.12 The attraction of relying on the numbers of records submitted as a measure of the degree of commitment of the network members and thus, at least to some extent, of the project's success, is obvious; they are easily quantifiable. However, it is clear that, first, the success of the project, in terms of the extent to which it has achieved its basic objective, must be assessed in relation to many different criteria, of which the numbers of records sent to ENSIC is probably the least important; and secondly, that, at least at this stage in the development of the network, the least useful activity in which it could engage is the creation of a regional database containing records--with or without abstracts, whether in English or not--relating to documents in languages which information users in other member countries cannot read and which they can certainly not afford to have translated.

21.10.13 It is this ambiguity with regard to the importance of the bibliographical records which seems to have been the main cause of the lack of clear thinking among the project staff as to the real objectives of the network, and, in particular, to the differences in perception between them and the other network participants. Until this ambiguity is resolved, it will continue to constitute an obstacle to the development of a true team spirit among network participants in the pursuit of shared goals.

21.10.14 While present thinking on the nature of Phase 2 suggests that the problem of trying to do too much, in too many countries, too soon, may be avoided, or at least reduced, the problem of planning from the top down is still in evidence. It is hoped that this evaluation of Phase 1 will have emphasized the dangers of this approach.

References

1. Akhtar, Shahid. Regional information networks: some lessons from Latin America. Information Development, vol. 6, no. 1, January 1990, 35-42.

22 PROPOSALS FOR ACTION

22.1 Introduction

22.1.1 Under the terms of reference for this assignment, the evaluation report should include proposals for the implementation of Phase 2 (see 0.3 above).

22.1.2 In fact, when the evaluation was commissioned, negotiations between AIT and the Asian Development Bank (ADB) for a second phase of the project had already reached an advanced stage, and funding for an extension of the project seemed already to be assured.

22.1.3 These negotiations inevitably required that some proposals for the extension be put forward; and to that extent, the presentation of further proposals in this report might seem to be superfluous.

22.1.4 The project staff, and the responsible officer at ADB indicated, however, that it would still be possible to modify the original proposals in the light of this report; and the comment by the Director of LRDC (who has overall responsibility for the project within AIT), reported above, confirms that, even in the light of the preliminary draft report, the findings of the present assignment may have a considerable bearing on the final shape of Phase 2 of the project.

22.1.5 This section of the report therefore considers:

- comments and suggestions concerning the original Phase 2 proposals made by the responsible officer at ADB
- comments and suggestions made by project staff
- comments and suggestions received from existing network participants during the visits and interviews carried out during the present assignment
- the consultant's own comments and suggestions.

22.2 Comments and suggestions by ADB

22.2.1 The general aim of Phase 2 of the project, according to the ADB, was that ENSICNET should become self-sustaining, at least in the sense that bilateral and other donor agencies would be willing to support its further development within countries; it was not expected that national governments would be able or willing to do this entirely from their own resources.

22.2.2 A further aim of Phase 2 would be to decentralize ENSICNET as much as possible. The Phase 2 project would provide for the payment of specialist staff in the national focal points in China, Vietnam and Indonesia; in China there would also be links with other ADB projects concerned with environmental impact assessment.

22.2.3 The scope of ENSICNET would be extended in Phase 2 to cover information on environmental impact assessments, particularly in China, Vietnam and Indonesia; this was the only reason why the project had been located in the office now responsible for it.

22.2.4 The project budget for Phase 2 would be about USD 600,000 for two years--double the amount provided in Phase 1. There would be no further funding for a Phase 3 of the project from ADB.

22.3 Comments from project staff

22.3.1 An early comment from the project staff suggested that--even before any formal evaluation had been carried out--Phase 1 could already be judged to have been successful because the ADB had agreed to fund Phase 2. It had been hoped to extend the network to other Asian countries in Phase 2, but it had not been possible to secure the necessary funding.

22.3.2 The main idea put forward by the project staff, and apparently already accepted in principle by ADB, was for the appointment of a project liaison officer in each of the three countries in which effort was to be concentrated in Phase 2, namely, China, Vietnam and Indonesia. This person would be responsible for maintaining contact with the focal nodes in each country, establish contact with researchers and document producers, prepare records for input to the ENSIC database and organize local training courses, among other duties.

22.3.3 This idea was put by the Director of LRDC to the meeting of focal nodes in Vietnam, and by the consultant to the heads of the national focal points in China and Indonesia. Their reactions and comments are summarized below.

22.3.4 Commenting on the preliminary draft of this report, the Director of LRDC noted that

there is definite need for hard discussion BEFORE we launch the Phase II.

22.3.5 The Senior Information Scientist at ENSIC noted the need to prepare practical guidelines, not only for focal points, but also for focal nodes, as well as forms to record statistics for ENSICNET. She felt that

For the next phase, an allocation of funds should be made to provide training to the staff in the focal points and focal nodes ... [and also that] ... an operational budget ... should be provided to every focal point so that they can use that fund to pay for photocopies, ... etc.

22.3.6 The Senior Information Scientist noted that every focal point was going to prepare a national plan for the next phase, which should

provide us the necessary insight to detect their national needs and their particular perception of ENSICNET.

22.4 Comments from network participants

- 22.4.1 The head of the national focal point in China suggested that China, Indonesia and Vietnam, together with AIT, should be allocated 70 percent of the Phase 2 project budget. The funds should be distributed directly to the member countries as well as to AIT. National focal points should have some control over the budget.
- 22.4.2 The idea of a liaison officer was not welcome in China, nor was it possible to make such an appointment, because an individual could not go around member institutions asking for copies of their documents. Such an activity could only be done through the Environmental Protection Agency.
- 22.4.3 Similar considerations applied to environmental impact assessments; these could only be carried out under licence. ENSICNET-China could do all that was necessary without the need for an extra person if enough money were provided.
- 22.4.4 In the opinion of the head of the national focal point in China, the next phase of the project should emphasize the use of all available information through repackaging, abstracting and computerization, including links with information networks in China and elsewhere, the organization of symposia, publicizing all new information available from all sources, the transfer of technology to manufacturers and decision makers, and the provision of information services to users.
- 22.4.5 The head of the focal point in China suggested comparing the progress made by the various member countries at the end of Phase 2, and giving a reward to the best one. He requested a more detailed programme 'so we can know better what we are supposed to do'.
- 22.4.6 The view in China was that if the network was considered by AIT or ADB to be useful, it needed a development mechanism to make it work smoothly. The focal point did not expect to earn money from it, but, on the other hand, could not afford to support it alone.
- 22.4.7 China thought that two years was too short a time to develop an international network, and was concerned that after the next two years, external support--and the network--might come to an end. ENSICNET should become more of a development support activity in the next two years, to help national networks to prepare for the future.
- 22.4.8 In the opinion of the national focal point in China, registers of research in progress should become one of the main products of ENSICNET in the future, together with the publication of directories. As regards equipment, China needed a more powerful computer, a photocopier, microfilming equipment and desktop publishing facilities.
- 22.4.9 In Indonesia, LIPI planned to seek other funding for the extension of the project, in addition to that likely to be provided by the ADB. It was thought important not to restrict the scope of the project to bibliographic activities in Phase 2.

- 22.4.10 Initial reaction to the idea of a liaison officer from the national focal point in Indonesia was favourable, but after further consideration, the drawbacks began to emerge; for example, the high cost of travelling within the country to collect documents or bibliographic records. A single visit to Irian Jaya costs USD 700 in air fares alone; it was considered that it would be better to spend the money on improving the existing arrangements.
- 22.4.11 The head of the national focal point in Nepal thought that Phase 2 should provide more practical, down-to-earth assistance in the form of books and journals, furniture and equipment, and more support for training.
- 22.4.12 There was a need to improve contact with the focal nodes in Nepal in Phase 2, and to organize workshops for potential information users in rural areas.
- 22.4.13 The national focal point in Pakistan hoped that Phase 2 would strengthen the central infrastructure of ENSICNET, and suggested that Pakistan might cooperate with AIT in implementing Phase 2 at the regional level. The Government of Pakistan had already approved this if AIT agreed.
- 22.4.14 Pakistan felt that Phase 2 should cover factual information on current activities and the budgets of water supply and sanitation organizations, as well as bibliographic data. It was planned to extend the NADLIN network to the provincial level through a further large USAID project.
- 22.4.15 The staff of the national focal point in the Philippines commented that, although the Director of LRDC and the Project Manager had visited the focal point shortly before the consultant's visit, when they were making a visit to the ADB in Manila to discuss Phase 2, the focal point had not been asked for their suggestions with regard to Phase 2, which had not been discussed by the project staff during their visit.
- 22.4.16 A draft proposal for a national water and sanitation information centre in the Philippines had been prepared by the national focal point and commented on by project staff from AIT.
- 22.4.17 The idea of a liaison officer was also put forward by the Director of LRDC at the national workshop in Vietnam, but met with a cool reception. There were many bureaucratic obstacles in the way of implementing such an idea, and the staff of the national focal points felt that the people best able to do the work were those who had already been involved in Phase 1. As in China, only people authorized by the government could work for ENSICNET.

22.5 Comments by the consultant

- 22.5.1 The declared intentions of the ADB with regard to aims and scope of Phase 2, and the proposal by the project staff to appoint liaison officers in three countries in Phase 2, indicate that the 'top-down' approach to the project is in grave danger of being continued into the next phase. There is no indication that any of the network members were consulted about the intention to concentrate activity in

only three of the six member countries and to extend the scope of the network to cover environmental impact assessments.

- 22.5.2 Despite some differences in the performance of the various national focal points in terms of the rather doubtful criterion of the numbers of records submitted for inclusion in the regional database, these alone do not seem to justify the proposal to concentrate attention on only half the original network members in Phase 2. If two years was, indeed, too short a time to achieve meaningful results from the project as a whole, it must surely also be too short to assess the performance of individual network members.

22.6 Proposals for action

- 22.6.1 A meeting of IRC and ENSICNET staff held at Loenen in the Netherlands on 16 and 17 November 1991 discussed the findings of this study and identified a number of actions to be taken in the immediate future.
- 22.6.2 The meeting considered that, while the study had identified a number of specific problems and remedial actions in relation to ENSICNET itself, to take action only within the framework of ENSICNET itself would not produce lasting solutions.
- 22.6.3 It was felt that there is a more general need to achieve effective coordination and cooperation between the various information networks and services in the sector to avoid unnecessary duplications of effort and waste or misuse of scarce resources.
- 22.6.4 The meeting noted that AIT, as the host institution of both ENSIC and ENSICNET, had a regional mandate to inventorize the contribution to information management in the sector and to promote the discussion of possibilities for cooperation at the national and regional level.
- 22.6.5 It was therefore recommended that AIT should convene a meeting of sectoral information network managers and funding agencies from within the Asian region in March 1992. The objectives of this meeting would be to:
- increase effective dissemination and utilization of information on water, sanitation and environment within the Asian region
 - inventorize the information management development efforts of the various regional networks
 - establish a mechanism to increase collaboration and exchange of information activities.
- 22.6.6 It was further agreed that participants in the meeting should be asked to submit, in advance of the meeting, short position papers describing the objectives, scope, membership and activities of the networks with which they were involved. A digest of this information should be prepared by AIT and distributed to participants as a working document for discussion at the meeting.

- 22.6.7 It was noted that the outcome of the regional meeting may have an influence of the strategy to be adopted with respect to the further development of ENSICNET at the regional level and in each of the member countries. It was therefore agreed that ENSICNET national focal points should be asked to submit a brief report on the extent and nature of their collaboration with other national and international networks in this field, and the potential for increased cooperation between these networks at the country level. This information would also be summarized by AIT in a second working document for the proposed regional meeting.
- 22.6.8 It was foreseen that, following the regional meeting, and depending on its outcome, further meetings would need to be convened at the national level in various countries in the region to inventorize sectoral information network resources at the country level and explore the potential for increased collaboration and sharing.
- 22.6.9 It was envisaged that the issues and problems that may need to be discussed at the regional and national meetings may include:
- objectives and benefits of information networks
 - management and membership of information networks
 - role and effectiveness of national focal points
 - cooperation and coordination of network activities
 - identification of target groups of information users
 - the supply of information
 - staffing and staff training
 - resource requirements
 - cooperation in technical operations
 - cooperation in information products and services
 - promotion of information network services
- 22.6.10 It was further recommended that the results of the Loenen meeting and of the ENSICNET evaluation itself should be communicated to ADB as soon as possible. The outcome of the proposed regional meeting would be influential in the task of preparing the inception report on Phase 2 of the ENSICNET project in April 1992.