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THEMATIC EVALUATION
ELECTRONIC NETWORKING FOR RURAL ASIA/PACIFIC
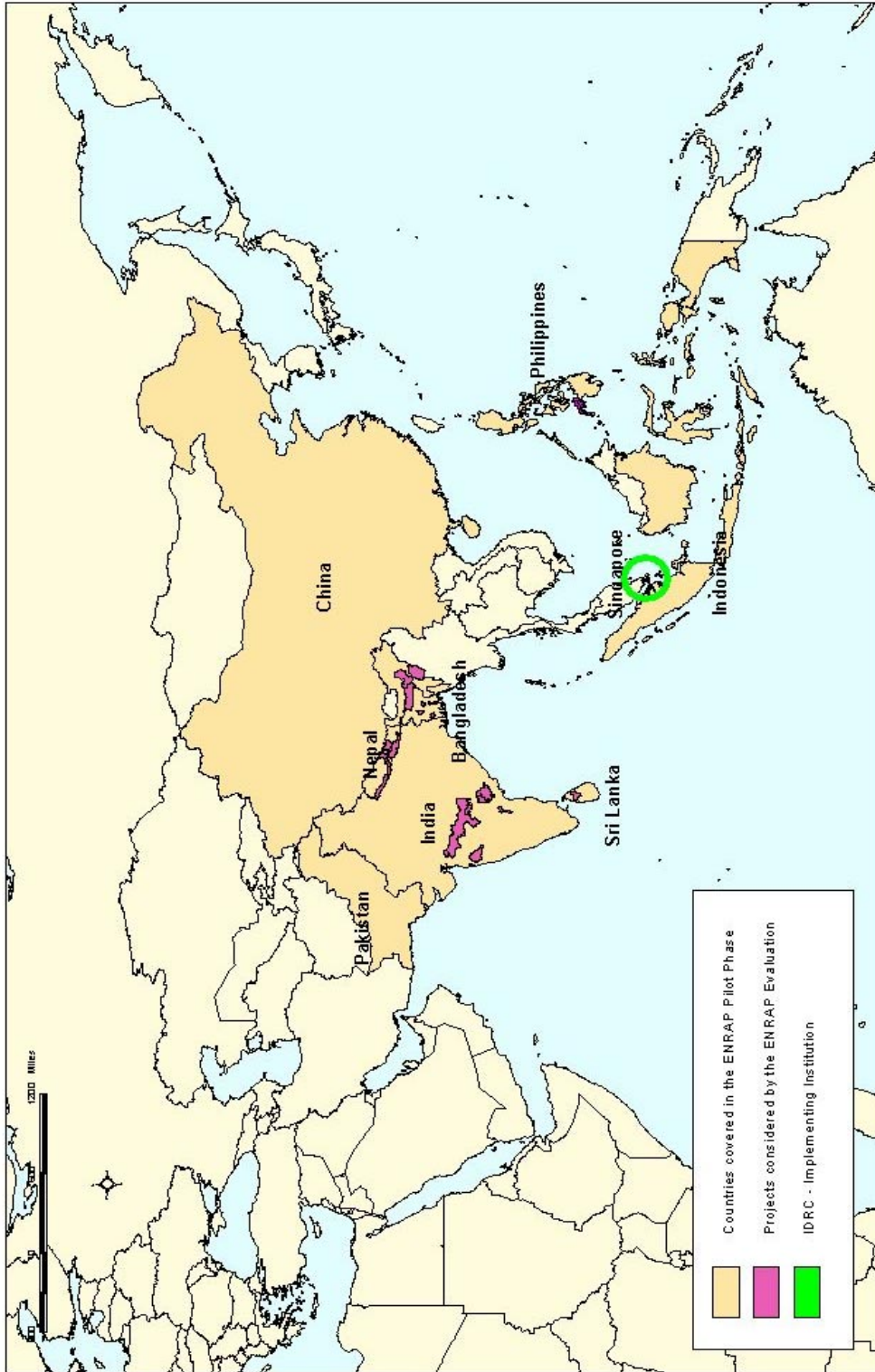**(ENRAP)**

EXECUTIVE SUMMARY

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ABBREVIATIONS AND ACRONYMS

ENRAP Electronic Networking for Rural Asia/Pacific

ICT   Information and Communication Technology

IDRC International Development Research Centre

ISP   Internet Service-Provider

IT   Information Technology

NEDA National Economic Development Authority

PMU   Project Management Unit

MAP

THEMATIC EVALUATION ENRAP

China

Philippines

Singapore

Indonesia

Nepal

Bangladesh

India

Sri Lanka

Pakistan

1200 Miles

Countries covered in the ENRAP Pilot Phase

Projects considered by the ENRAP Evaluation

IDRC - Implementing Institution

Source: IFAD
The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

THEMATIC EVALUATION

ELECTRONIC NETWORKING FOR RURAL ASIA/PACIFIC

(ENRAP)

I. INTRODUCTION

1.   The Electronic Networking for Rural Asia/Pacific (ENRAP) is an IFAD-funded initiative to support Internet use among its rural development projects in the Asia and the Pacific region. Its ultimate aim is to enhance the efficiency and effectiveness of the agricultural sector in the pursuit of sustainable human development. Its method is the strategic introduction and application of information and communication technologies. ENRAP was launched in 1998 as a three-year pilot project, running until May 2001, with total funding of USD 750 000.

2.   The exchange of information was expected to be horizontal among projects and their environments, and more interactive in enabling genuine dialogue. Electronic networking, especially the open-ended low-cost Internet, was thought to be ideally suited to such horizontal communication, while also serving the continuing need for a vertical flow of information. The ENRAP project was created to fulfil this broad mandate.

II. PROJECT OBJECTIVES

3.   During the pilot phase, selected IFAD-financed projects in Bangladesh, China, India, Indonesia, Nepal, Pakistan, The Philippines and Sri Lanka participated in ENRAP.

4.   The objectives focused on: developing horizontal communication; supporting documentation of local knowledge; improving access to technical research from local environments; and improving vertical communication for administration and reporting among projects, supporting organizations and IFAD. In summary, the project aimed to create a base for the sustained building of Internet-based networks by projects within their local, regional, national and international milieu, and it aimed to fulfill these objectives through three distinct but interrelated chronological components.

   (a)   **Connectivity and electronic communication** – this component would facilitate: access to the Internet, attainment of proficiency in basic and intermediate use of information and communication technologies (ICTs), and sharing of project management, monitoring and related information.

   (b)   **Knowledge networking among IFAD projects** – this would include the identification and documentation of best practices and knowledge generated by IFAD projects, and the exchange of this information among projects. This work would form the basis for a knowledge network and develop pilot solutions for replication elsewhere.

   (c)   **Local applications development** – under this component, various activities would be conducted to ensure a sustainable use of the Internet in support of project activities and wider networking at the local level.

III. EVALUATION OBJECTIVES AND PROCESS

5.   The ENRAP evaluation reviewed the project with a two-fold purpose: (a) to assess its achievements against the stated objectives; and (b) to understand which information and knowledge needs of ENRAP project managers, field implementers and client communities might be met through the second phase. The evaluation reviewed ENRAP inputs into the various IFAD projects (hardware, software, training and participation in workshops). The level of electronic communication activity was also assessed, including the establishment of e-mail, web browsing, documentation of best practices, the uploading of information onto the ENRAP website and the development of project websites. The review also focused on understanding the critical tasks involved in implementing IFAD projects, and the linkages between ENRAP activities and the performance of these tasks. Thus a balance was to be maintained in the evaluation between assessing the achievements of the pilot phase and understanding the information and knowledge needs that could be served in the design of the next phase.

6.   The overall evaluation framework was captured in an approach paper formulated at the beginning of the exercise. A draft was discussed by the Office of Evaluation and Studies at an ENRAP workshop held in Singapore in February 2001. Field work was undertaken in June and July. The evaluation was driven by a "core learning partnership" (CLP)[1] that met at critical stages to reflect on the ENRAP experience and discuss the approach paper, the mission's terms of reference and the draft evaluation report.

7.   As part of its analysis, the evaluation team reviewed numerous reports and documents related to ENRAP activities. A two-member evaluation team travelled to nine projects in India, Nepal, The Philippines and Sri Lanka to record the opinions and perceptions of stakeholders and partners. Discussions were held with project management units (PMUs) at the country level, staff at field sites, partners involved in implementing the IFAD projects and representatives of the communities in which ENRAP was being implemented. A one-person mission visited the Employment-Generation Project for the Rural Poor in Bangladesh, which was part of the ENRAP pilot phase. The conclusions of the Bangladesh mission have been included in the final evaluation report. Thus this evaluation draws upon the experiences of ten of the fifteen IFAD-supported projects participating in the ENRAP pilot phase. Finally, the evaluation team held discussions with the International Development Research Centre (IDRC) in New Delhi and the project office of IDRC in Singapore. The discussions with IDRC, the key implementing institution of ENRAP, were expected to help identify an appropriate mechanism/organization for implementing the second phase.

IV. PROJECT PERFORMANCE

8.   The ENRAP implementation team concentrated on the achievement of basic connectivity, training/workshops, central website development, local Internet application development and knowledge-networking pilot activities. A project management structure was established and coordinators designated for all participating projects. Five workshops/meetings were organized that brought participants together to learn about the Internet and networking and to plan future networking activities. Four small-scale training courses were given during visits of ENRAP team members to India, Nepal and Sri Lanka. Some small equipment (laptops and digital cameras), software and literature were provided to the projects.

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[1]   Members included: IFAD (represented by the Office of Evaluation and Studies, Asia and the Pacific Division, Management Information Systems Division, Latin America and the Caribbean Division, Africa I Division and Knowledge-Management Facilitation Unit), the International Development Research Centre, Nexus and TeleCommons Development Group.

9.   Following a Mindanao workshop in May 1999, two proposals for local application development with the National Economic Development Authority (NEDA) were supported. One of these was the publication of a print newsletter by the Zamboanga Del Norte (ZN) Centre for Social Concerns and Development. The newsletter has been well received by the community. The second project with NEDA was support for the creation of a project database and the use of a geographic information system (GIS) for planning purposes. Currently, there is little use being made of the database by NEDA or outside planners.

10.   The activities in Sri Lanka resulted in several technical reports and the documentation of local innovations. Participants of the workshops in Pune in January and Singapore in August 2000 (training in website design) felt that they had been useful. The main outcome of the Pune workshop was a plan for knowledge networking (KN) among IFAD projects in India. Three KN teams focusing on different thematic areas were formed. However the intended follow up among the communities formed in Pune did not take place.

11.   Use of e-mail was studied. The content of the ENRAP website as well as data generated from the website log regarding its use were also analysed.

Use of E-Mail

12.   Analysis revealed that PMUs and, in a few cases, field units were beginning to use e-mail. However the use was sporadic, for ad hoc purposes and special events. For example, organization of the international workshop in Pune was completely facilitated by e-mail. Notices of regular meetings, on the other hand, often were not conveyed through e-mail, even though many of the participating organizations have the facility. Maximal benefits from e-mail can be derived if it is used regularly for communication among PMUs and all or most of the implementing partners.

13.   In terms of Internet use, the ENRAP website was visited by project staff once in two to three weeks. The prohibitive cost of Internet connectivity in these countries restricts its use.

Content on the Website

14.   A critical look at content on the ENRAP website revealed that most of the documents posted were appropriate to ENRAP goals. However the random assortment of documents did not clearly bring out the rich range of activities undertaken by the project, and the website lacked adequate documentation of the field experiences contributed by ENRAP partners. The content emphasized knowledge management and ENRAP project-related issues; documents providing learning for IFAD's poverty-related work were fewer.

Use of the Website

15.   Analysis of the ENRAP website log revealed a reasonable level of use (data collected during April-June 2001). Though there were 5000-7000 hits per month, 55% of the users were based in the United States. In contrast, visitors from ENRAP countries accounted for a mere 17 user sessions during the three-month period, and developing countries accounted for only 3% of the total sessions. It would appear that the ENRAP website is being used by researchers in the developed world and is not frequently accessed by the IFAD project personnel who are presumed to be the main beneficiaries.

16.   There is a need for a more dynamic and interactive website carrying practical and useful content to support poverty-alleviation work, effectively facilitated online discussions, purposefully moderated list servers and face-to-face interactive events.

Overall Assessment

17.   The major gains of the ENRAP project were in raising awareness and in capacity-building. Projects recognized the need to capture and share local knowledge and best practices. Some key players benefited from technical training and began to share these skills with colleagues and partners. Local capacity in Internet use, design of websites and use of tools for managing information was developed. Communication between projects improved marginally.

18.   While ENRAP partially met the specific objective of enabling projects to develop horizontal, self-sustaining communication, the objective of improving communication between projects and the Fund was yet to be realized. Perhaps a foundation was laid for sustained building of Internet networks by projects, but further inputs would be required to develop that sustainability. The objective of instigating and supporting the documentation of local knowledge and relevant experience was not met on an extensive scale.

V.   PROJECT IMPACT: SUSTAINING COMMUNICATION AND KNOWLEDGE NETWORKING

19.   Measurement of benefits gained by deploying ICT has always been a challenge, even in profit-oriented enterprises. The nature of ICT use and its impact is highly contextual, and isolating the impact of a single factor on increased programme effectiveness is difficult. If several concomitant conditions are satisfied, of which ICT deployment is just one, programmes may become more effective. Well-run organizations are known to extract greater value from their ICT investments.

20.   Many of the IFAD projects visited by the team had just begun their poverty-alleviation work. In places where significant successes had been achieved, the role of ENRAP in those successes was not evident. Project managers were unable to cite instances in which ENRAP had helped them solve problems of design or implementation.

21.   The formally stated objectives of the first phase of ENRAP were perhaps ambitious. The project was formulated at a time when there was much euphoria about knowledge management. Experience seems to indicate that it is easier to systematize documentation of knowledge, indexing, storage and the provision of access to such databases. Large bandwidths have made it possible to store and transport documents in a variety of forms and formats covering all types of media. However utilization of this knowledge for more effective organizational functioning seems to be far more difficult. Few organizations claim to have done it successfully.

22.   Access to knowledge can impact effectiveness when individuals feel enriched (new ideas, solutions to problems) and are able to seek information at the time and place it is needed. Individuals need to trust the information before the distilled knowledge is applied to a specific action. Projects like ENRAP can at best hope to create large electronic networks, which will then support the emergence of human networks eager to consult each other and beginning to value and trust the information/knowledge that is pooled and disseminated.

23.   There appears to be a consistent pattern in the use of new information technology (IT). People begin to use computers for simple tasks such as document preparation or organizing presentations. Some graduate to its use as a tool for analysis and decision support. E-mail is used fairly widely but can lead to information overload. There are only a few who use the Internet extensively. For the rest, Internet browsing is helpful if a specific need for information is identified. Perhaps the users of ENRAP will also have to be supported through this process of IT use before they can become

involved in knowledge-management activities. However this process can be lengthy, as an attitudinal/behavioural change is involved.

24.   The evaluation concludes that the success of the next phase of ENRAP will depend on the following premises:

- many key actors involved in the implementation of IFAD projects have convenient and reliable e-mail and Internet connectivity;
- those who can access the Internet have the time and necessary computer skills to do so and are aware of the potential benefits of seeking information and knowledge from external sources;
- budgetary allocations are available to pay for Internet service-provider (ISP) and local telephone charges to cover a reasonable amount of Internet use;
- the information available through the ENRAP website or in list-server exchanges is useful to their day-to-day work (e.g. solving operational problems);
- project staff are eager to share knowledge and information with other projects, have the skills to document knowledge in a form useful to others and the resources for documentation work.

25.   Since the actual documentation and sharing of knowledge and the use of e-mail and the Internet are on a very limited scale, some of the key preconditions identified above need to be significantly strengthened.

26.   Thus the next phase of ENRAP could focus on promoting the use of electronic communication on a more extensive scale and on creating a culture of information-sharing before embarking on the more ambitious goal of knowledge-sharing.

VI. LESSONS AND RECOMMENDATIONS

27.   Based on interactions with ENRAP project managers, the IFAD evaluation team proposes several lessons and recommendations for the design and implementation of the next phase.

Increase Internet Access

28.   Access of PMUs to the Internet was limited. Many implementing partners had PCs but did not have operational budgets for an Internet connection. Even at the PMUs, use of the Internet was restricted because of inadequate operational budgets for ISP and telephone charges. ENRAP incurred very limited expenditures for procurement of hardware or providing operational budgets for Internet use.

29.   ENRAP should consolidate activities in the area of basic ICT access and institutional capacity-building before taking up ambitious plans for knowledge-sharing. Strategic injection of capital for improving basic connectivity and ICT use and provision of operational funds for a limited duration could make a significant difference.

Coordinate ENRAP at the Project Level

30.   In many ways, ENRAP was truly a pilot project. There was significant variation in the way ENRAP was coordinated in different projects and different countries. Activity levels and approaches in electronic connectivity, documenting and sharing of knowledge – and the impact of these activities on the effectiveness of poverty-alleviation programmes – were also different across projects. Varying

models of implementation were used in different projects and countries. Some of the more successful implementation arrangements in specific contexts are described below.

31. In Nepal, for example, an external agency, World Link, succeeded in creating the necessary connectivity infrastructure and in building the technical capacity of project-level staff to use Internet resources. In Shillong the ENRAP coordinator, who is one of the key managers involved in implementing the IFAD project, ensured that ENRAP was integrated into the basic IFAD project.

32. In Pune, ENRAP coordination was done by an IT-knowledgable mainline functionary. This resulted in greater awareness of the ENRAP potential among project partners. Some documentation of best practices also took place. At the Matale project in Sri Lanka, ENRAP coordination involved teamwork, with both the project director and his assistant involved in the activities. The project made good use of external information sources, even though use of the Internet was restricted because of inadequate budget resources for local telephone charges.

33. In the project in The Philippines, key ENRAP activities were actually being carried out by project partners rather than the PMU itself. ENRAP's support to the *CESCODE Newsletter* by a non-governmental organization (NGO) implementation partner perhaps resulted in a more direct impact on the poverty-alleviation programme. In contrast, in projects where the responsibility of coordinating ENRAP was entrusted to a computer programmer, ENRAP was used merely as a facility, rather than as a process for knowledge-sharing.

34. ENRAP coordinators should be mainline functionaries with experience and responsibility in implementing aspects of poverty-alleviation programmes. They should have an interest in using technology and building networks. This should not be seen as a technical job. The technical work of creating web pages or uploading files can be handled by a trained administrative assistant.

35. Thus the standard procedure of designating the project director as coordinator may not be effective. An appropriate candidate will have to be identified in each project. In countries and regions where project staff lack the capacity or the motivation, outsourcing coordination work to an NGO/ISP should be explored.

Network at the National Level

36. The potential benefits of intraregional sharing notwithstanding, the primary focus of networking should be at national and subnational levels in order to ensure usefulness and applicability to local interventions.

37. The pilot model of ENRAP was based on each project being directly connected to the implementing agency, IDRC, in Singapore, and via Singapore being connected to each other. ENRAP should be reconfigured to a network-of-networks configuration. Within this new configuration, ENRAP would comprise a national, or several subnational, networks within each country. Local IFAD-supported projects would form these networks. It may be useful to consider extending these local networks beyond IFAD projects to include like-minded projects and organizations working on the same development problems or with the same communities.

38. The national networks could be connected to each other and might be connected to the South Asian Association for Regional Cooperation (SAARC) or the Association of South East Asian Nations (ASEAN) and East Asian Countries networks, thus forming the regional ENRAP network. This decentralized configuration would emphasize national and subregional developmental areas.

Integrate ENRAP with Core IFAD Projects

39.   An important lesson was that many project personnel perceived ENRAP as a separate entity unrelated to IFAD project activities, which weakened its scope. The following steps need to be taken to integrate ENRAP into core IFAD projects.

40.   ENRAP should address the full range of computer applications, in addition to the connectivity aspects required by the projects, and contribute to building the technical capacity of project teams in IT and related areas**.** This would lead to convergence of the management of information within projects and contribute towards effective information exchange within ENRAP.

41.   It should communicate project objectives clearly. Although many documents have defined ENRAP objectives, the perception among project directors and field staff was varied. In the field, ENRAP was seen as a technical project, less integrated with the basic poverty-alleviation projects.

42.   Country focal points for IFAD programmes and project directors are key functionaries; they must buy into the concept of promoting knowledge-sharing. One possible way of building this sense of ownership is to view ENRAP as a core component of the IFAD project, rather than as a separate project in itself. If it is to be treated as a separate project, the above-mentioned functionaries must be involved in the initial discussions to define project scope and activities.

43.   In some cases, the project is seen as a laboratory/testing ground for researching new methods and approaches in managing knowledge and information within a rural development context. This is quite different from the forthright statement indicating that ENRAP is to facilitate the deployment of ICT in IFAD-supported projects and should be used for a variety of purposes, including sharing of knowledge to make the implementation of poverty-alleviation programmes more effective. The next phase should clearly communicate project objectives.

44.   The role of the implementing agency is crucial in conveying the objectives with clarity. The implementers must understand and be sympathetic to the core objective of poverty alleviation. Knowledge management should be seen as a means and not an end.

Empower Communities through Relevant Information in the Local Language

45.   To a great extent, the rural populace in project countries lacks the skills required to filter through the vast information available on the Internet and identify information relevant to them. Thus ENRAP would need to facilitate filtering of information, testing of solutions offered to their specific problems and their adaptation, until the villagers themselves acquire the skills needed to access this information.

46.   The evaluation recommends that ENRAP build the capacity of grass-roots workers to receive and process feedback, ideas and needs from the communities. These workers should be provided the opportunity to access information through the Internet and interpret it for the use of rural communities. Once extensive connectivity is established, reaching most local partners, it can be used for the training of grass-roots workers. Greater communication between these workers and their immediate supervisors can significantly motivate the workers. Greater interactivity among project staff would lead to the nurturing of knowledge formation.

47.   ENRAP should experiment with telecentres. Bearing in mind the reality of the short supply of Internet connections and electricity in developing countries, the practical approach is to provide Internet connectivity to communities through multifunction public access points or telecentres that offer a variety of services. There may already be experimental telecentres established by

governmental or other agencies with which partnerships could be established to deliver relevant content.

48.   Finally, in promoting electronic communication among project staff, field workers and client communities, use of the local language should be emphasized and supported.

Combine Digital Media with Other Approaches

49.   Care needs to be taken that new technologies do not replace interpersonal methods in the field. Successful coupling of the new digital media with other tested approaches for communication and knowledge-sharing should be a strategy for the next phase of the project. For instance, publication of a newsletter in the local language has been very successful in some locations. Electronic versions of such newsletters can be distributed to many more stakeholders. Thus ENRAP should continue to support the production of development communications in a variety of media.

Capacity-Building: Build a Culture of Sharing and Learning

50.   In many projects, the motivation to learn from the experience of others was not strong. Project staff felt that new ideas might be picked up through sharing, but there was often little immediate usability of the information/knowledge picked up. The documentation of best practices needs to focus on process rather than outcomes, so that others can learn how projects could be successfully implemented. In some projects, the culture of sharing information is weak. Most projects were eager to use the ENRAP platform to project their own achievements but not necessarily to learn from the experience of others.

51.   ENRAP should also work to identify and consolidate existing grass-roots information and knowledge networks (informal learning, community advisers) with deployment of and training and user support for appropriate, robust, low-cost ICTs. Experiments can be undertaken to document local knowledge, such as the development of a dedicated website to capture and disseminate this knowledge and its innovations.

Redesign the ENRAP Website

52.   The website can be redesigned in consultation with participating projects**.** The content should be indexed to clearly identify sections dealing with ENRAP; general issues of ICT in development; managerial and technical material relating to IFAD's poverty-alleviation projects; and best practices contributed by different projects. The topics that appear to be of most interest and relevance to IFAD projects are: microcredit, self-help groups, community mobilization, natural resource management, land use and entitlements, and participatory impact monitoring. The content has to be practical and useful – something that could also emerge from discussions among the communities of field workers and/or clients once they begin to use e-mail actively.

53.   During the content analysis of the website, it was found that ENRAP permits partners to upload contributions in a wide variety of formats, including tabular material. However interactive features to share information in a manner leading to the formation of knowledge were missing.

54.   Many projects have created their own websites, hosted on servers of ISPs or other free service providers. ENRAP training has enabled project staff to develop these sites, but access is slow and free space is limited. The ENRAP website should consider providing a hosting service for participating projects.

55.   It was also felt that interaction within the ENRAP network needs to be facilitated by a moderator, or a team of facilitators, so that networking can catalyse the greatest developmental impact

and the formation of knowledge. This special skill of 'e-facilitation' should be inculcated in the members of ENRAP.

Reinforce Communication between IFAD and Project Staff

56.   There is a felt need to strengthen communication links between IFAD staff and project personnel and stakeholders. If the regional nature of ENRAP reaches a national level, then close involvement of national decision-makers is desirable and in some cases even vital.

Facilitate Understanding through Project Documentation and Analysis

57.   It is suggested that, in addition to sharing success stories, an organizational culture of sharing problems should be brought about in the next phase of the project in order to enable a broader understanding of project implementation and related issues. The site should not only reflect the work procedures involved in project implementation, but should also post reflections on and analysis of the results produced by project interventions.

VII. ORGANIZATIONAL MECHANISM FOR ENRAP – PHASE II

58.   As with ENRAP Phase I, a multitude of implementing agencies are unlikely to have a common understanding of the objectives. Coordination problems will arise as they did in the first phase. Organizations do exist that have technical competence in knowledge management and understand the domain of poverty alleviation. Any of these organizations, if selected as an implementer, could help integrate ENRAP – Phase II into the core activities of IFAD-supported projects.

59.   The evaluation envisions that national ENRAP coordinators in a reconfigured ENRAP network would fulfil the following responsibilities, among others: (a) build a community of professionals around a few key themes, relevant at the national level; (b) organize capacity-building activities and promote information exchange on project execution; (c) coordinate budgetary allocations to projects; and (d) run discussion lists in specific thematic areas and moderate the publication of project material on the ENRAP website.

60.   In the new structure, the central implementing agency will maintain the ENRAP website, provide tools for uploading and downloading files and provide hosting services for project websites. To facilitate access, hosting of the project website on a server with a reasonable bandwidth is recommended.