

Sustainable Development Networking Programme (SDNP)

Bangladesh Institute of Development Studies

A Status Report

September 30, 2003

A. WHAT IS SDNBD

The Sustainable Development Networking Programme (SDNP) is a global catalytic initiative launched by the United Nations Development Programme (UNDP) in response to Agenda 21, which articulated the need for improved information dissemination to support sustainable development. The programme is geared towards facilitating communication between users and suppliers of sustainable development information in developing countries.

At the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil in June 1992, a global plan of action for sustainable development was endorsed by over 179 countries. This blueprint of action, more popularly known as AGENDA 21, emphasizes the importance of environmentally competent technologies, education, public awareness and training in achieving the goals of sustainable development. AGENDA 21 also recognizes the importance of capacity building especially in developing countries in order that strategies for sustainable development could be implemented. Capacity building refers to "cooperation with developing countries that encourages them to develop human and organizational resources to plan and implement sustainable development."

At the Earth Summit, the UNDP was given the leading role within the UN development system for capacity building. CAPACITY 21, an action plan to assist developing countries formulate economic, social and environmental goals, plans, programs and policies that would lead to sustainable development became UNDP's response to this challenge.

The Sustainable Development Networking Programme, or the SDNP is one of the concrete initiatives under the Global Agenda 21, specifically on Chapter 40 entitled "Information for Decision Making."

The SDNP is more than an information network. It embraces a whole spectrum of processes and events that ultimately contributes to the formulation and implementation of sustainable development strategies. In linking sources and users of information, the SDNP employs both face-to-face meetings, electronic and other means of communications. In this manner, the target population becomes more active for participating in the development processes.

The Government of Bangladesh put efforts to address these issues in collaboration with donors, policy initiators, NGOs and other advocacy groups. Among others it has approved the National Environment Management Action Plan (NEMAP) in 1996. NEMAP is in line with Agenda 21 and the Rio Earth Summit of 1992.

NEMAP was formulated through a massive consultative process involving grassroots workshops, regional workshops and professional and expert group workshops. In 1997, as a follow-up to NEMAP, the Government approved the UNDP-assisted Sustainable Environment Management Program (SEMP). The SDNP in Bangladesh falls under the Awareness and Advocacy Sub-Program of SEMP.

One of the strategies for promoting Awareness and Advocacy is enabling easy access to information and knowledge. To effectively implement such a strategy, the SDNBD aims to capitalize on the revolution in electronic communications and provide a new set of tools to achieve sustainable development through sharing of vital information, experience and expertise both within the country and globally.

Bangladesh Institute of Development Studies (BIDS) is the implementing agency for SDNBD. Established in October 1999, the project provides a meeting place that supports the sustainable development information needs of all sectors of society. The SDNBD is an information technology systems integrator with support services ranging from system design, email/Internet access, network (LAN, WAN, Intranet, Radio, DSL) installation, training, hosting (design, development and maintenance) of web sites, and establishment of relational databases.

SDNBD has been launched officially in early 1998, but implementation of the project has started from late 1999, with several revisions and adjustments in the strategies and implementation methodologies, as per recommendations of the missions, engaged in different time periods. Currently, SDNBD is implementing several pilots, as recommended by the UN HQ Technical Mission and Mid-term Technical Evaluation in early 2003.

B. VISION

To be a service provider for improved information networking among advocates of sustainable development at the local and national level.

C. MISSION

Facilitate easy access, linkage and dissemination of information on sustainable development through simple, cost effective and easily replicable information and communication technology processes.

D. OBJECTIVES

The objective of the SDNBD is to create an appropriate tool - the SDN - for achieving and facilitating exchange of information and knowledge regarding sustainable development (process, practice, ideas) among development practitioners (government, development agencies, partners, NGOs), academia, policy makers and the civil society, at local, regional, national and international level, in order to design and implement unique plans for sustainable development in Bangladesh.

Specific objectives are to:

- Provide easier, more affordable and rapid access of information to users in governmental, research and educational, non-governmental, and partner organizations.
- Develop simple, cost-effective and replicable information systems that would enhance the capacity for information networking of individuals and organizations in sustainable development.
- Introduce and connect public, private and non-government sector agencies to local and international sources of information on sustainable development utilizing the Internet, relational databases and other communication tools.
- Develop appropriate technical services to support the implementation of local and national development plans for sustainable development.

E. NATURE OF INFORMATION

Related to Environment:- The main concern of SDNBD is to provide a digital platform for all Sub-Implementing Agencies of SEMP.

Related to Sustainable Development:- Subjected to regular updates, SDNBD is maintaining 71 categories of information related to developmental issues in local, regional, national and international context.

F. METHODOLOGY OF SDNBD

The methodology for developing the SDN is to establish a non-profit internet service provider (ISP) with a central hub in Dhaka city at the Bangladesh Institute of Development Studies (BIDS), which is the implementing agency of SDNP. Upto five/six regional nodes will be established in Mymensingh, Chittagong, Khulna, Barisal, Sylhet, and Rajshahi, through a combination of systems that include Local Area Networking, Wide Area Networking, Radio/Microwave links, and VSAT Online networking.

The SDNBD primarily makes use of available information and communication technology (ICT) techniques. However, the use of conventional communication tools such as radio, television and the print media has also been promoted to reach greater number stakeholders who do not have access to computers and the Internet. The SDNBD facilitates access to its resources by collaborating with other information providers to establish electronic community access points (Public Internet Access Centres) in several locations around Dhaka and across the country.

To assist in the establishment of the SDN, UNDP is providing BIDS with a starter kit comprising computer hardware and software, management and training tools, decision support tools, and other resources to ensure long-term compatibility with SDNs operating in other developing countries.

A Steering Committee is providing advisory support to BIDS. The Committee comprises of IT specialists as well as representatives of the Government, of the SEMP partners, of the media, of academic/research institutions, of the private sector, and other stakeholders.

The SDNBD:

- maintains a central web portal
- collects, collates and posts information relevant to sustainable development
- observes national and international days on related issues through hosting of web folders
- establishes community telecentres/information centres and information networks
- conducts training and workshops in information management and computer mediated communication
- assists partners in establishing web sites, and sourcing and posting of relevant information
- provides technical assistance for establishing networking among partners
- hosts web sites for stakeholders and partners.

G. BENEFICIARIES OF SDNBD

While the project provide benefit to all sectors of the society, focus is placed primarily on the needs of community-based organisations (CBO's) in rural areas as well as farmers, women's groups, rural youths, small and medium entrepreneurs. Other primary beneficiaries include partners in development such as government agencies, the private sector, non-governmental organisations (NGOs), international donors, teachers and students, research institutions and persons who wish to acquire knowledge and information on general issues, research, markets and investment opportunities, environmental protection, pollution control and natural resources management, as well as sustainable development policy and programme information.

Subscribers to the SDN have been given access to standard Internet/Portal services as well as to a distributed database (under continuous update). The initial subscribers include ministries of the Government of Bangladesh and other agencies that are implementing the various components of SEMP. These agencies are also expected to contribute to the database, and/or through the SDN, set up web sites to disseminate information on their activities and achievements.

In addition the SDN caters to other users (corporate, groups, institutions) wishing to access the portal/database and to standard Internet services. Such users include national and regional press clubs, academic and research institutions, and public libraries. Furthermore, other civil society groups such as various professional associations, trade-unions, civic bodies including local government bodies are also expected to be brought into the network.

G. SUSTAINABILITY ISSUES

The project is operating under two separate windows with necessary adjustments and modifications with dynamic niche targeting. In one aspect it is an ISP providing services at not-for-profit basis. On the other hand, to reach out grass root level users, efforts are made to establish the regional hubs and community access centres. Furthermore, collaborational efforts are at hand to make the programme sustain beyond the project period with long-term exit strategy. The first regional node at Mymensingh is operating successfully since its inauguration in December 2002. During third quarter of 2003, a consultant may be recruited to develop the business plan in tune of the latest recommendations.

H. FORMATION OF THE PROJECT

1. **Letter of Agreement:** The Letter of Agreement was signed on 19.08.1998 by Mr. Abdur Rashid, NPD and Joint Secretary (Development), Ministry of Environment and Forest and Mr. A. Abu Abdullah, Director General, Bangladesh Institute of Development Studies.
2. **Steering Committee:** The Steering Committee was proposed as per recommendation of the UNDP Mission, through a letter dated June 24, 1999 by the Director General of BIDS and eventually delivered through letters by the PD through letters dated July 19, 1999 and August 04, 1999. It is a 13 members committee and chaired by Prof. Jamilur Reza Chowdhury of BUET.

The Steering Committee first met on August 19, 1999 where the PD submitted a working paper. Detailed discussion on the Project Implementation Plan has been done in the meeting. The Steering Committee met again on September 03, 2000 and approved many important resolutions, which have been put into the minutes of the meeting. Copies of all minutes have been sent to all concerned authorities.

Lately the Steering Committee met on July 23, 2001. The committee made several recommendations including approval of a tariff plan for Dhaka node operating at not-for-profit basis.

3. **UNDP Mission:** A request for UN SDN Mission was sent by the PD on March 22, 1999 and as a result a one-member UNDP Mission visited SDN project during July 1999.

To finalize the mid-term evaluation, an independent UN/SDN HQ mission should be engaged at an early date after approval of the NPD and UNDP. The mission will assist in evaluating the project performance, set up necessary guideline, preparing an exit strategy and the business plan consultant in preparing a business plan.

4. **Inception Workshop:**

The Inception workshop was held on July 4, 1999 and in the workshop the Project Director, SDNP presented a keynote paper on “Networking for Sustainable Human Development in Bangladesh”. A technical keynote paper was also presented by the team of consultants.

5. All subsequent activities of SDNP followed the guidelines of the UNDP Mission, recommendations made in the workshop and the decisions of the Steering Committee.

6. UNDP Mission (July 1999) Recommendations:

- i) **Recommendation 1:-** Connectivity for "mother node" at BIDS: For the pilot phase project (PPP): given cost considerations, still to be determined connectivity requirements of the target audience and concerns about the appropriateness of SDNP being an ISP, it is suggested that SDNP acquire a dial-up lease line (max \$ 1,000/month) from an appropriate ISP such as Bangladesh Online Ltd. (the selection is based on the ISPs the Mission visited), which appears to have a good reputation for support and is considered to be reliable. The mission was informed by many of the ISPs that telephone lines are in short supply and would be hard to obtain, nevertheless the project should have a few dial-up lines for important data contributors to connect to the main server at BIDS.

Activity:- Initially connected to BOL Online for email and Internet and later on BOL link is being used for email purpose and a 128/64Kbps (later on upgraded to 256/64Kbps) radio link is used for Internet and other purposes from Nexsus Ltd.

- ii) **Recommendation 2:-** Connectivity for Partners: This is urgent. SEMP and related partners should be queried as to their connectivity situation. This is to be achieved in the course of undertaking a Needs Assessment Survey of partners and related organisations as to their connectivity as well as their information resources (and details of the format that they are in).

Activity:- All the SEMP partners including the officials of the Ministry of Environment and Forest have been given email/Internet connectivity. As recommended by the Programme Management Unit (PMU) of SEMP the line ministries involved in activities on sustainable development have also be given dial-in connectivities.

- iii) **Recommendation 3:-** Connectivity for regional nodes: As the PPP is extended to the regions, beginning with Chittagong, it is recommended that the SDNP project proceed in the same way that SDNP has often proceeded and the way that the two other organisations that the Mission spoke to, i.e., University Grants Commission and the Open University are doing in the context of regional networking. Since X.25 is too slow and the railway operated fiber optic too expensive they have proceed along lines of offering email via dial-up as part of their first phase with the hope of getting independent VSATs for the regional nodes in the future. (In the case of Chittagong, aside from dialling into the mother node, the other option in to connect using one of the three local ISPs: Spectra Net, Spectra Solutions or AB Net). Given that UGC and Open University are planning to setup full Internet connectivity operations in the regions, there is a possibility of optimising resources by collaborating with these institutions. It is recommended that discussions for future collaboration be begun.

Activity:- The first regional node in Mymensingh has been established at the Bangladesh Agricultural University and this was launched on December 15, 2002. Using this facility, students, academics and researchers of BAU and nearby areas are availing the services of SDNBD.

- iv) **Recommendation 4:-** Bangladesh does not still have its own top level national domain, bd. The domain has not yet been assigned by IANA apparently because there has been no consensus on the entity to manage this. In various discussions on this issue, it has been suggested that a consortium be formed in which each of the BD Internet "stakeholders"; have an opportunity for input in the decisions on management of the BD domain. Stakeholders are ideally viewed as government, industry, and academic representatives, which SDNP does have in the form of its Steering Committee. This issue should immediately be raised once again in live ISP Forum and other bodies to check whether there could be consensus around SDNP. Should this happen, the hardware requirements etc. would change (as would the sustainability options). In 1997 CISCO offered to provide the main routing equipment and, in collaboration with APDIP the CISCO Academy offers training scholarships. Dr. Aminul Islam of UNDP has been actively involved in both of these discussions and might be the appropriate person to investigate these possibilities in collaboration with Prof. Jamilur Reza Choudhury of BUET who has been selected as the chair of SDNP's Steering Committee.

Activity:- SDNBD has been involved in ccTLD training, APNIC training and similar activities in Bangladesh. The project has taken initiative to implement the Internet Exchange in Bangladesh, which will be the first of its kind in the country.

- v) **Recommendation 5:-** Business Plan: A key recommendation of this mission is that a national management. Consultant be hired to come up with an SDNP Bangladesh business plan and sustainability strategy at the earliest. TORs for the consultant are attached as Annex 1 at the end of this report. In the course of this investigation, offer alternatives to selling connectivity and data such as: value added services; technical support to partners; training; application and project development for UNDP, the UN system and other partners; facilitation of reporting via IT for related national and sub-regional projects; and web page design, hosting and maintenance; research and information searches on related concerns; and advertising should be explored is should the conditions and cost of provision of such services by other suppliers. Except for the case of a few countries, where SDNP's entered in the initial stages of ISP development and established their niche (e.g. Honduras, Pakistan. Nicaragua), most others have not been able to be sustainable, as ISPs but have had to spread their portfolio over a range of value-added & technical services.

Activity:- A consultant will be recruited during the first quarter of 2004.

- vi) **Recommendation 6:-** BIDS Facilities Upgrade: This is urgent. Prior to the ordering of equipment and establishment of connectivity, the BIDS site needs to be upgraded and the server room facility secured (grill/bars where there are glass windows etc.); at least 5 telephone lines need to be procured for dial-up purposes; other necessary facilities such as greater access to electricity, a stand-by generator, appropriate UPS; a network diagram needs to be prepared for the BIDS LAN and quotations obtained for the laying down of the required CAT 5 cabling and patch panels.

Activity:- The site has been upgraded to the international standard with air-conditioning facility, and a major portion of the ground floor of BIDS has been given to SDNP to establish the server room, training room and places for the project personnel.

- vii) **Recommendation 7:-** Equipment: Various ISPs and Network integrators had been contacted and asked to submit proposals with costing for installation of the complete network setup.

Activity:- Necessary equipment were obtained through UNDP procurement in different phases as per the requisition sent from the project. The delivery status is attached in Annex-1.

- viii) **Recommendation 8:-** Software: There is basic agreement with the recommendation of the technical keynote paper for the Inception Workshop in its selection of Linux as the operating system for the PPP. In discussions with some ISPs, security issues relating to Linux were raised, but this is mostly a question of configuration. SDNP NY can help with securing appropriate software and pouching it to Bangladesh. Database software was not discussed in the technical keynote paper for the Inception Workshop and our suggestion is that it be Oracle for Linux or MySQL. SDNP NY can once again help with procurement and database design if required when the time comes.

Activity:- The project personnel were initially given training on Linux and later on personnel were recruited with adequate knowledge on Linux and other open source software. Keeping in mind about the gigantic size and diversity of the database, ORACLE has been used at the back end, while Java is being used at the front end. The demo version of the ORACLE was downloaded from their site. Due to nature of the requirement, the software will need to be either procured, or requested through SDNP/UNDP HQ (ORACLE being an official partner of SDNP) for a possible donation.

- ix) **Recommendation 9:-** Co-ordinator should be hired at the earliest: New Terms of Reference was drawn up for the SDNP Co-ordinator with a greater stress on the managerial and entrepreneurial qualities of the co-ordinator function. A co-ordinator should be recruited at the earliest possible time to co-ordinate tasks with partners, undertake responsibility for upgrading of facilities, and evaluate business plan for SDNP and prepare work plan for the current year. If possible, a visit should be arranged to a sister SDNP such as Pakistan or Jamaica. Contact should be established with SDNP NY, which can help with orienting the co-ordinator and providing technical backstopping.

Activity:- The project coordinator joined the project on December 15, 1999 and he made a initial visit to SDNP Headquarter in New York for some technical support in July 2000. However, the visit to other successful SDNP(s) will be made at a favorable time during the last quarter of 2003.

- x) **Recommendation 10:-** New Terms of Reference for SDNP Technical Staff: At keeping with the suggested operating system (Linux/Solaris) for the SDNP servers, the requirements of the portal nature of the SDNP/SEMP website (Development, Programming and Graphic Design), training and technical support that call be offered to partners, training of users, TORs have been provided in Annex- for the following: Database Programmer, Web & System Administrator, Assistant System Administrator, Web Developer, Web Designer and for a management consultant to prepare a Business Plan and carry out a needs and resources assessment of SDNP/SEMP partners and target data contributors. The TORs that formed the basis of the advertisement that was submitted for the post of Technical Advisor was not in keeping with the suggested operating system selected for the servers and with our experience of what is required in such circumstances. The CVs submitted were in most cases not suitable according to the new TORs. A selection has been kept aside for further consideration.

Activity:- New ToR have been prepared and manpower have been recruited in various positions. Their joining dates and details are given in Annex-2.

- xi) **Recommendation 11:-** Phasing for Hiring of Staff: The coordinator and the web developer should be hired to start with and then the rest of the technical personnel can hired following the upgrade of facilities, the procurement of equipment, and the results of the needs assessments are in.

Activity:- They have been hired and phasing of the project personnel has been done as per the recommendation of the SDNP HQ Mission and Mid Term Evaluation Mission and included in Annex-3.

- xii) **Recommendation 12:-** Training of Staff: Where appropriate the host unit's focal point and/or staff should be trained so as build up capacity for the institution and to facilitate their participation and contribution to the SEMP/SDNP, project especially in the context of BIDS databases. Training facilities here should be investigated toward this end.

Activity:- Regular training programmes have been conducted to train SDNP, SEMP and BIDS staffs including hands on training to the Ministry personnel.

- xiii) **Recommendation 13:-** Preparation for the Database Design should begin now: The databases while a crucial part software was not discussed in the technical keynote paper for the Inception Workshop although it is mentioned in the PIP prepared by BIDS. However even before we get to the technical aspects of the database design, a needs and resource assessment needs to be undertaken. TORs have been developed for a consultant to undertake such a survey over the next few months. Following this the task of database design and web integration can begin.

Activity:- The database has been designed and developed (<http://203.76.110.35/sdi/home.jsp>). This will be a geographically distributed database with mirroring facility and open source interface at the front end.

- xiv) **Recommendation 14:-** SDNP Portal for Sustainable Development and Content: Thus far the focus has been on the development of the main SD database and on linking to related sites, but not a comprehensive picture of what the whole site look like and what kinds of functionality should be built in. Further, various types of fresh/changing content need to be thought about in order to bring people back to the site such as the monitoring of news in the regular media (in collaboration with the media) on relevant topics, the sending it, or views from the regions by regional journalists and NGOs, and perhaps even a web magazine, and follow-up on on-going important issues: flood control, arsenic pollution etc. The site could also have multiple entry points catering to different profiles: government, NGOs, academics, and the general public. Academics, students and the general public could also send in material for a documents archive.

Activity:- SDNP has launched its web site in April 2000 (www.sdnbd.org) which includes all the information related to sustainable development in Bangladesh, including hosting of many other web folders with contents relevant to the mandate of SDNP. Currently the web site has crossed 7000 hits per day.

- xv) **Recommendation 15:-** Related Regional Initiatives: In the context of the regional nodes, attempts should be made to co-ordinate with similar initiatives such as BERNET (Bangladesh Education and Research Network, a computer network setup to connect the 11 universities in the country to the Bangladesh's UGC [currently setup with a radio modem connection to an ISP, Proshika, BUET and DU and dial-up connections for the rest] and the Open University's network connecting it to its resource centres in the regions. Both plan to get satellite connections for their second phase programs in the regions.

Activity:- Initiations are in progress to form a common platform of information exchange among these communities.

- xvi) **Recommendation 16:-** Provision for demonstration Multi-Purpose Public Access Centres, at Pilot phase: Even in the pilot phase of the project it is desirable to begin with at least one of the following:

Multi-Purpose Public Access Centres: As per the PIP, SDNP would also cater to other users wishing to access the database and to standard Internet services. Such users might include people in the national and regional press clubs, academic and research institutions and public libraries. A pilot phase could begin with some public access computers in BIDS itself (where development data and information could also be made available in other media, such as CD-ROM.). Such Multi-Purpose centres could be setup in a variety of environments (libraries [the British Council has some terminals available for else at a charge] to cyclone relief shelters) and serve a variety of constituencies. In urban and rural environments, in addition to providing access, such centres could serve as training centres, provide access to email, fax and other services to individuals and small business, have a focus on a particular type of content on CD-ROM and attempt to reach particular constituencies. For an example of such a project from the case of the Jamaican SDNP to be setup in six parishes. [The focal points will be provided with computers connected to the Internet, and will function as information centres for issues ranging from environment to health and sustainable businesses. In addition, information committees at the locations will collate information of interest in their respective areas for placement on the JSDNP web site.] Such centres could be contracted out either to the host institution concerned or to another organisation, which could apply for a grant to run such a centre. The SDNP budget for equipment needs to be adjusted to reflect this kind of commitment. For the public access centres there should be a standard package: 2-5 computers with network cards, a LCD projector, a laser printer, a scanner, a digital camera, a 8 port hub and Ethernet cabling which should be provided.

Pilot/Demo Activities: Which demonstrate the use of Information Technology for sustainable development (tele-medicine in rural health care centres (project in collaboration with People's Health Centres),

school net projects with educational content on sustainable development and for use of student projects etc.). Similar to the public access centres, such pilots would serve new constituencies and demonstrate particular substantive themes of the SEMP and related partners. Such projects could be contracted out either to organisations/institutions, which could apply for seed funding or a fuller commitment. The SDNP budget for equipment needs to be adjusted to reflect this kind of commitment.

Activity:- SDNBD has established three cyber centres in Dhaka (BIDS, National Press Club, ICMS), four cyber centres for the journalists (Mymensingh Press Club, Rajshahi City Press Club, Dinajpur Press Club and Jessore Press Club) and three more cyber centres (Barisal, Joypurhat and Cox's Bazar Press Clubs) are awaiting distribution at an earlier date. Detail activities of SDNBD (upto September 2003) are being attached in Annex-4.

7. SDNP HQ Mission Report, December 2002:

Overall, this Project is ambitious, dynamic, capable and could potentially make a significant contribution to sustainable development, using ICTs, in Bangladesh. As SDNP Project's go, it is very well funded, but it expends these resources in a responsible and well directed manner. If anything, it risks taking on too much, to the extent that its management can barely stay on top of developments. The solution at this point is not to scale back on activities, but to redefine and refocus them, improve the monitoring and management information systems, provide additional management support, and design and implement a meaningful and robust sustainability plan. As well as successes and great potential, there are shortcomings, and limitations.

SEMP Activities

The Project has not progressed as well as it might in relation to its SEMP role, for reasons tentatively presented above.

Recommendation 1: Refocus SEMP Activities

There is an urgent requirement to reassess SIA needs, through a Workshop and other means. This could be followed up by:

- Small-scale, targeted, qualitative research in SIAs around networking needs at this stage of their activities;
- Capacity building in networking where this has proved to be a blockage;
- Support for content analysis and development as well as for technical needs.

There may be opportunities for working in collaboration with several SIAs, in areas of contiguity or overlap within SEMP.

Clearly, this work must be planned and executed in close consultation with, and with the full support of, the PMU.

Activity:- More emphasis has been given to make regular interactions with SIAs through workshops and training programmes.

Non SEMP Activities

Connectivity and Web services

SDNP's connectivity and Web services, including the community access centres, are valuable activities, very much in line with global SDNP activities. Although the Internet, as everywhere, is expanding, this does not always bring it within reach of important sustainable development stakeholders. As a market driven activity, businesses, urban areas and wealthy users are the first to gain access, and the rate of affordable dissemination to more marginalised groups, is often slow. In many areas, it is virtually at a standstill.

SDNPs activities here (the regional nodes are considered separately below) provide a useful service to stakeholders such as students, NGOs and agencies, one otherwise largely unavailable to them, that is also more geared towards development needs. These activities are somewhat arbitrary in terms of user selection, and do not (nor do they claim to) target the most excluded. Rather, they benefit primarily a rung or two down on the market access ladder, and as such are widening the net of access and support beyond commercial ISPs. They thus offer some prospect for revenue generation, but the risk of coming into conflict

with commercial ISP services limits this. (Whilst SDNP could in principle compete as an ISP, subsidisation of ISP services to customers who could otherwise afford a commercial ISP clearly would not contribute to development. The Project is well aware of this.)

Activity:- Work in for design and development of web sites for several non-SIAs. Please refer to SDNP News.

Recommendation 2: Pursue Connectivity and Web services, but keep under review.

Connectivity, Web and Community Access Centre activities should be pursued, but kept under review in the context of a clarification of development priorities and objectives, of future sustainability, and of developments in the commercial sector. (see below)

Activity:- Work in progress.

It may also be noted under this heading that the advocacy and capacity building activities in relation to Internet Domain Names is valuable, and will remain so for some considerable time, until Bangladesh can fully claim its rights and effectively and efficiently administer and manage Internet Domain Names and the infrastructure itself. This can also contribute to the standing of SDNP and, especially if combined with a growing Open Source expertise (in Linux and databases), enhance its sustainability.

Recommendation 3: Maintain Internet Advocacy

The work in relation to Internet advocacy and capacity building is of national value and should be sustained and reinforced as the need arises.

Activity:- Maintaining harmonious relationship with local ISP Association and government agencies, like Bangladesh Telecomm Regulatory Commission and others.

Institutional Collaborations

This is an area of major strength. The diversity in focus of these collaborations is striking. Their development goals straddle a huge range; and their *modus operandi* vary enormously. The contrast between an online blood-donor service run by a voluntary doctor's association for low-income people; and a partnership in the creation of online financial services to the business sector, seems almost irreconcilable within the same framework or organisational objectives. Even within the one sector, education, the subsidisation of computers in schools in the poorest areas is a far cry from subsidising the country's most prestigious government training centre. (Further on, we focus on the challenges such diversity pose.)

Partnership are also at different levels of development. A few are well established, achieving results, and need minimal servicing. Others are in the throws of formulation and initial implementation, a hugely time and resource consuming effort. A third group is just on the horizon and in early conception phase.

Results to date suggest that the development potential of at least some is very significant, and that benefits may in some cases accrue to excluded and marginalised groups. Collaborations could also be a critical factor in achieving sustainability.

Yet in grasping almost every opportunity, and creating many, the precise development value and prioritisation of resources, as compared to the volume of investment, has become unclear. Furthermore, their sheer number and the heavy management overhead that each requires is a significant drain on management resources and severely tests its capacity.

Recommendation 4: Consolidate and Deepen Collaborations

With the finalisation of funding within sight, it is probably necessary to concentrate on consolidating existing collaborations, and taking on new ones where the design and implementation resources are manageable. As in other areas, the issue of re-evaluating the long-term objectives and focus of collaborations is also recommended below.

Activity:- Work in progress (See SDNP News)

SDNBD Portal

The SDNP Portal is a sophisticated and relatively comprehensive resource. It is regularly updated with current material, is user-friendly, and achieves a reasonably high level of usage. The limited evidence is that it is highly regarded by sustainable development users. In addition to the direct contribution of SDNP staff to the Portal, it is significantly reinforced by other SDNP collaborations and associations.

It is also expensive, and will require considerable effort to approach sustainability. A partial source of funding is the World Bank-sponsored Development Gateway, currently exploring a presence in Bangladesh and for which SDNP is one obvious home. Some uncertainty and disagreement has developed between SDNP and Development Gateway. It would be in neither's interest – and especially not in the interest of development – should a separate Bangladesh Gateway be set up, or the Gateway decide to abandon Bangladesh.

The sustainability and further development of the Portal will also depend on encouraging ever greater usage.

Recommendation 5: A Sustainable SDNBD Portal

Long-term, post-funding arrangements for the uploaded of data and information on a regular basis might be explored at this early stage to relieve some of the in-house burden on SDNP. SDNP should further pursue the Development Gateway option, though only on terms that will add to its sustainability. Further effort should also be devoted to increasing usage, and gathering evidence of impact, a factor that might influence external donors.

Activity:- The main index page has been re-designed and refocused.

Regional Node Development

The Mymensingh node represents a very ambitious experiment in bringing ICTs out of Dhaka along a string of cities to the north. It will be a crucial test of the concept, in particular how the benefits of broadband capacity can be translated into useful applications in a wide variety of sectors and to a diversity of groups, from professors to farmers. It has, and will continue, to consume significant resources, but this is justified. It is very important that it has the resources to deploy the concept right down to the applications stage, outside the hosting nodes – in some cases literally out into the countryside. This is where the real value added will lie and where an example of international relevance might be achieved.

The other proposed nodes are relatively simpler in design and cost, but will also require considerable effort to translate into maximum benefits.

Recommendations 6: Proving the Concept of Regional Nodes

In order to test the concept of regional nodes, Mymensingh must proceed as far and deep as possible. Additional nodes will be added, but the completion of the full network must not be at the expense of any individual one. It is more important to explore fully the stand-alone potential of each, that to have a larger number at different stages of development. It may be necessary to scale back, and omit one or more nodes from the final configuration. Given the additional nodes added during the project, and the unavoidable delays encountered, the original objectives would still be attained.

Activity:- Work in progress (See SDNP News)

SDNP Objectives Globally and in the SDNBD Project

Having dealt with the activities above, we now turn to conclusions and recommendations around objectives, management and sustainability.

We conclude that all major initiatives taken or proposed by Bangladesh SDNP are in accordance with the general SDNP philosophy. The informal and sometimes uncertain criteria used to select them by Project Management have kept them *within the bounds of supporting sustainable development*. This is not a trivial conclusion since the Project for much of the time was, as stated, acting on its own initiative and lacking clear external guidance. There had also been suggestions that a few activities went beyond what a development-oriented UNDP-funded project should support. Although we understand these concerns, we do not believe this to be the case for two reasons: the development circumstance in Bangladesh, and of the challenge of sustainability facing SDNBD.

First, Bangladesh is amongst the poorest in the world.¹ It is reportedly very corrupt², in both government and business, and the environment for development and for productive enterprise is difficult in the extreme. The array of social, economic, environmental challenges faced by the people of Bangladesh is enormous. In this context, the range of projects that might be judged to contribute to sustainable development is somewhat wider than in some other places.

1 It is ranked 145th of 173 countries in the Human Development Index; and 72nd of 88 in terms of the Poverty index of developing countries. (UNDP Development report 2002)

2 Transparency International's 2001 Corruption Perception Index (which measures the perception of corruption in each country) rates Bangladesh as last of 91 countries. <http://www.globalcorruptionreport.org/>

Second, SDNBD, in common with many SDNPs elsewhere, is expected to become self-sustaining in terms of income generation. In the only model available to SDNBD, at least part of this income must be generated by selling services on the market. Thus one end of a 'development-contribution' spectrum of activities can in the long term potentially subsidise the other— for instance, a business-oriented service that could in principle be undertaken by a commercial organisation could cross-subsidise services targeted at excluded and marginalised groups.

The BSS Financial Information Service (BFIS) and Financial Databank Project, described earlier, offers an interesting example. SDNP recently signed a collaboration agreement to provide online business information services. SDNP does not subsidise this – they are in partnership with BSS, the government managed news agency, and will receive payment as a proportion of income generated. Nevertheless, it does represent an initial investment and is, like all ventures, risky. It also consumes valuable management time. Such an activity in 'normal' development circumstances might be deemed to offer nothing to sustainable development. In Bangladesh, it is somewhat more justifiable as a contribution to the development of a legitimate business sector. Furthermore, in the context of the sustainability possibilities of SDNP, it is justified as a small risk that might generate revenues to subsidise firmer development activities for which no revenue is likely to accrue.

The case is cited at length as it illustrates a dilemma for SDNP in relation to its objectives and sustainability. The project so far has, we claim, managed to maintain a reasonably balanced focus in sustainable development. But this is likely to be severely tested as the pressure of achieving its own sustainability, by means almost certainly of a large income-driven component, rises. In other words, if nothing changes and grant funding dries up, SDNP is more likely to get gradually diverted into revenue generation activities, and away from sustainable development.

This would be a pity, as we believe the project has, more than most SDNPs, the capacity to achieve sustainability at the same time as maintaining a clear focus on sustainable development. A number of areas need to be considered, and no doubt will soon be. The following cover just a few arising directly from this evaluation.

Refine Objectives and Information Systems

At best the objectives of this Project have been ambiguous, pointing in two directions at once neither clearly mapped out. Combining the two objectives of sustainability existence and supporting sustainable development will be a far bigger and more complex challenge. The first requirement is clear thinking and good management information systems. The goal must be to build a management information system that will simultaneously achieve several goals:

- Provide detailed information on the cost (in money, management and other) of each activity, and how and when they arise;
- Assess the immediate, medium term, and long-term potential for achieving income, if any;
- Evaluate the nature and level of benefit of each activity in terms of sustainable development of each activity, much of which is qualitative.

Detailed knowledge of how the target group benefits, to what extent, what it costs, and how sustainable it are also invaluable tools when approaching external donors!

If these goals can be achieved, then each activity can be balanced against the benefits and the net costs. Activities can be prioritised against overall objectives (e.g. focusing on specific target groups), and rational decisions made for future actions.

Such a process would look very different for different activities. The impact of a Portal is notoriously difficult to assess, though levels, purpose and even satisfaction with use can be tracked with some effort. Many portals have also virtually given up the idea of generating income and so rely on distributing costs and effort.

The various SDNP collaborations have mostly been implemented without serious consideration of income generation – which is understandable given their speculative nature. Like the Connectivity and Web serves, however, there are limited efforts in place to understand and monitor their development benefits.

Recommendation 7: MIS to Merge Business Management and Development Impact

Although we do not pretend it will be easy, the transition to sustainability and the formulation of clear objectives will demand a comprehensive and innovative information system: Cost and resource accounting, activity monitoring, impact evaluation, and analysis will all have to be developed to quite a sophisticated level.

We therefore recommend that as part of the business plan, these aspects are greatly reinforced and systematised. Since this is a problem faced by many development Projects, perhaps UNDP or other agencies might either already have solutions or be willing to support their development.

Activity:- A consultant will be deployed during the first quarter of 2004 to develop the business model and sustainability plan.

With this information, a tailored constellation of development activities can be in principle be designed, each with an income generating capacity ranging from very negative (i.e. costly but significant development impact) to very positive (significant income but minimal impact), that will optimise the prospects of sustainability and the sustainable development impact.

This brings us to the business plan.

A Business Plan, and an Evolution Strategy

The Project is about to develop a much needed Business Plan. More is needed. A Business Plan conventionally is applied to a new product. In this case, we must consider the evolution of one set of 'products' which were grant funded; to another set that is largely self-financing or locates new funding sources; along with the accompanying institutional, management and human and other resource implications. To get from here (a project status and capability) to there (an autonomous initiative equipped with the required set of tools and capabilities) requires an Evolution Strategy.

The strategy will have to retain the most valuable parts of the current situation, whilst supplementing the Project with the new requirements. This applies across the Steering Committee, management, the institutional structure, the activities, the resources, and so forth.

This report does not go into that Strategy. But the following points can be made.

Recommendation 8: Supplementing and reinforcing Management Capacity

Management, already strong in innovation, conception, design and implementation, should be supplemented with management information, external communication, project documentation and business planning and skills. These skills are essential to extracting the maximum value from current activities for sustainability (for instance by communicating effectively with stakeholders). focusing activities and objectives for the future, and achieving sustainability.

Activity:- Mentioned in the last activity.

The transition to a more sustainable entity, surviving on a mix of grant-aid, semi-commercial support and commercial activity will be difficult to achieve. Yet we believe the Project, because of its significant scale, the calibre of its resources, and the innovative range of activities it is pursuing, stands a good chance of succeeding. Any reduction in resources could seriously compromise that opportunity.

Recommendation 9: To Continue, and Supplement Funding for Sustainability Trained

We are recommending that budgeted resources be utilised in a more focussed manner, to consolidate existing activities and bring them to a level of fruition before funding terminates and sustainability become critical. Furthermore we would recommend that any additional resources coming available from the SEMP Programme should be devoted to a set of actions that will underpin sustainability and a realistic Business Plan and Evolution Strategy, including the recommendations immediately above.

Activity:- Work in progress (See SDNP News)

8. UNDP HQ Technical Evaluation Mission Report, February 2003:

Main Recommendations

The main findings described above clearly suggest that SDNP BD faces many challenges across the board including vision and mission, programme activities, project management, staffing, etc. This initial set of recommendations will only address the more general level issues. Additional and more concrete recommendations associated with the ones included in this draft will be presented in the final report of the technical evaluation.

The main recommendations are:

1. A Refined Vision and Mission

- 1.1 SDNP BD new vision should be centred on becoming one of the leading player in supporting the achievement of the MDGs by using ICT as an enabler for development and moving beyond basic connectivity issues.
- 1.2 SDNP BD's mission should be to deploy ICT solutions that address the basic development goals of the country and target the rural and urban poor facing pervasive market failures. This includes all those groups currently excluded from the benefits of the new technologies (women and youth, specially) that are not being targeted by any of the ongoing projects and initiatives.

2. The Policy Perspective – Role of SDNP

- 2.1 SDNP core development activities should be aligned with the National ICT Policy that has been recently drafted by the national ICT Task Force. This will secure that SDNP interventions at the local level have the potential of being scaled up and replicated at the national level by other development partners and actors.
- 2.2 This is an important policy element that could guarantee both the continuous refocusing and survival of SDNP in the medium and long term. The National ICT Strategy already includes some key elements of ICTD that can be led and implemented by SDNP in the short run given the availability of project resources.

3. Innovative ICTD Pilots and Support for Ongoing Activities

- 3.1 The new vision and mission includes the previous emphasis on networking and information dissemination and sharing but under a larger conceptual framework with more focused and strategic interventions.
- 3.2 The latter will take the form of innovative pilots addressing areas such as e-learning, capacity building, e-business and related. In fact, some of the current SDNP activities are already aligned in this fashion and could be easily

- implemented in the short run (telemedicine, disaster prevention, schoolnets, and e-learning).
- 3.3 SDNP BD should launch at least three new pilot programmes within the next 6 months.(see section IV below for additional details)
 - 3.4 Pilots will secure rapid allocation and disbursement of all existing programme funds and, if successful, could prepare the ground for additional allocations by SEMP beyond June 2004
 - 3.5 Support for ongoing activities should continue, specially for those more directly linked to the new approach and pilots. Other activities should be reevaluated and phased out (or furnished to its stakeholders) within the next 6 to 9 months.
 - 3.6 The SDNP database, one of its signature products, should be carefully assessed by an independent local expert to determine its current scope and usefulness as well as its potential for expansion and decentralisation.

Activity:- Pilot 1,2 and 3 has been developed and work in progress.

4. Improved Management Process:

- 4.1 Within the current situation, it will certainly be difficult to change the existing management structure. However, it can be improved by introducing clear communication channels among the various levels of management, especially those that are external to BIDS and SDNP BD. This includes both MoEF/PMU and UNDP.
- 4.2 SDNP BD should be more proactive on this and make sure that all relevant and pertinent information and strategic decisions go through the same channels on every occasion. Day to day operations should not be included here.
- 4.3 SDNP BD should also visit on a regular basis UNDP and PMU management to enhance communications and strengthen networking among the various layers of management.

5. Re-profiling of SDNP

- 5.1 The new approach will require that SDNP BD management engage on re-profiling the staffing requirements of the project to be able to design, develop and deliver the various new activities that have been suggested.
- 5.2 SDNP BD should reduce its technical staff to a small core and, at the same time, bring in additional capacity to develop and manage new projects.
- 5.3 SDNP Co-ordinator should engage more directly on ICTD policy issues (specially those that involve and require a multi-stakeholder approach) and recruit an office manager to assist in office administration.
- 5.4 The re-profiling exercise should also reduce the core operational costs and prepare the ground for a less demanding sustainability plan.
- 5.5 This process should start within the next three months and be completed by the end of the year at the latest.

5.6 It is recommended that women are specially encouraged to apply for SDNP BD positions.

6. Re-branding of SDNP

6.1 It is essential that SDNP BD actively address the issue of being perceived a just another though sui generis ISP.

6.2 This should be done in a positive fashion by building on the existing image to secure that current stakeholders are not encouraged to desert the programme and packaging the new components around the former to attract new stakeholders thus giving SDNP a unique character in the field.

6.3 For this purpose, a PR and communications strategy should be developed and a PR/communications staff should be engaged.

6.4 The process should be complemented by building on the existing partnerships, gathering the lessons learned from them, and developing a partnerships strategy that focuses on the new activities and pilots.

7. Supporting Current Stakeholders I - SEMP Related Activities

7.1 Technical support activities for SEMP SIA's should continue but the focus should change. SDNP BD has to make sure that within a year SIAs have the capacity of mainstreaming SDNP ICT services into their core activities and be able to sustain them on their own.

7.2 A network of SIA focal points should be created to foster this process with focal points from all SIAs that have been empower by senior management to engage in this process.

7.3 Government based SIAs will also benefit from the current MOSICT e-government programme of providing government institutions with hardware, software, training and technical personnel.

7.4 It should be expected that a few SIAs will not be able to accomplish this due to internal reasons –and this should not be the responsibility of SDNP BD.

8. Supporting Current Stakeholders II – Non-SEMP Activities

8.1 SDNP BD is providing support to a wide variety of stakeholders. From one vantage point, a few of them are seemingly not related to existing core SDNP activities.

8.2 SDNP should give priority to those current users and stakeholders that can either be partners or help implement most of the new pilots and initiatives that will in turn engage new stakeholders.

8.3 Support to others should be decreased and ended in the medium term or changed into a more service driven approach where services are provided at cost. This can contribute to the long-term sustainability of the programme (see below for additional details).

9. Towards Sustainability I – Cost Recovery Strategy

- 9.1 A few of the stakeholder organizations that have benefited from SDNP BD support are not directly engaged in direct development activities yet they have received equal support as those who are.
- 9.2 The issue here is the lack of a cost recovery strategy to work with such organizations and for example charge for the services at 70-80% of existing market prices. This strategy should be designed and implemented in the short run.
- 9.3 Within the new and refined vision and mission, SDNP BD needs to be more selective on supporting organisations that can afford to pay for technical support. The focus should be on maximizing revenue while maintaining or reducing (in relative terms) operational costs, choosing those services that are more in line with SDNP BD core capacity and pilot programmes, and prioritising “quick wins” and high PR projects.
- 9.4 The revenue generated by these services should go back to the project and managed by UNDP, and be used for the transition that will occur once the current funding ends in mid 2004.
- 9.5 Special care should be taken to make sure that the cost recovery emphasis does not overtake the development objectives of SDNP BD.

Activity:- To be included in Business plan.

10. Towards Sustainability II – Role of ODA

- 10.1 From the experience from over 40 SDNP national projects, it is possible to conclude that none of them, not even the most successful ones, have been able to fully sustain their operations on cost recovery. This does not necessarily mean that achieving this goal is not possible in Bangladesh (think Grameen or BRAC).
- 10.2 What is without doubt clear is that in the short and medium run, SDNP BD will still require to attract donor funding not only because it needs to be sustainable but perhaps more importantly because achieving the new targets set here fall out of any possible cost recovery scheme for initial success.
- 10.3 UNDP support will be still required here not so much in terms of financial resources but more in relation to policy and programme development support and links to the MDGs.
- 10.4 By tying some of pilots to the national ICT strategy, SDNP BD is also securing that its development work is set within a larger policy framework that will make its operations more relevant and sustainable at the macro level.

Activity:- To be included in business plan.

11. Towards Sustainability III – Institutional Sustainability

11.1 The survival of SDNP BD beyond the existing project should not be taken as a goal in itself. All depends on the national context and the particular niche that SDNP can carve for itself during its project phase.

11.2 As a matter of fact, a few SDNPs have been successful by closing operations where other existing organizations have adopted its mandate and supported its development focus and goals. This however does not seem to be the case in Bangladesh and BIDS is supportive in seeing SDNP become an independent and legal entity.

11.3 SDNPs have secure independent institutional sustainability in over 15 countries. Most have adopted an NGO or foundation legal status and in at least one case have created both commercial and NGO entities to work together (with the former providing subsidies to the latter). In the context of Bangladesh, it is recommended that SDNP becomes a foundation. But before embarking on this process, an assessment of SDNP's status should be carried out in the first quarter of 2004.

11.4 A business plan should be design and developed within the next 9 months and include all the elements described in this section as well as in sections 9 and 10 above.

Activity:- To be included in the sustainability plan.

Recommendations for Pilot Projects

As the new core activity of SDNP, innovative pilots must be closely linked to national policy to secure their scalability, replicability and sustainability. SDNP BD is well positioned to accomplish this through its current links to the various ministries including the Ministry of Planning and the Ministry of Science and ICT in addition to the Ministry of Environment and Forestry.

Pilots related to the National ICT Strategy

As mentioned before, the national strategy makes some generic recommendations on specific ICTD pilots some of which SDNP BD is already either considering or working on. These are:

- Access and connectivity to rural/poor areas

Activity:- Access and connectivity has been extended to local enterprises working in the development sector around the regional nodes. Work is in progress in Mymensingh region, as the first regional node of SDNBD. MoU has been finalized with the Bangladesh Red Crescent Society for setting up three other regional nodes in Barisal, Chittagong and Khulna.

- Telecenteres/cyberkiosks (cost recovery basis)

Activity:- Work is in progress.

- Internet exchange Management for ccTLD (possible cost recovery)
Activity:- Included as the pilot-3 activity of SDNBD.
- Expansion of ICTD sector
- Schoolnets
Activity:- Further expansion is expected in a short time to the north-western portion of the country. South-west portion has been taken under the programme with selection of the lead school and implementation of it.
- Telemedicine
Activity:- Work is in progress to make collaborational programmes with Gonoshyashtho in Savar, Bangladesh Community Hospital in Mymensingh and Comfort Telemedicine Service in Dhaka.
- Environment information/GIS systems
- Human resource development

Some of these pilots are already being implemented by the Bangladesh Computer Council, the de facto implementing agency for MoSICT.

SDNP Pipeline Pilots

Among its many activities, SDNP BD has already started work on developing and implementing some key pilots. These include:

- Agricultural information centre (northwest)
- Telemedicine
- E-learning programme (northeast)
- Cyclone shelter information (southwest)
Activity:- Pilot-2
- Remote access centres in Hilly areas (south east)
- Schoolnet pilot with FED and US partner/Open Source Software
Activity:- Work in progress.
- Internet exchange (donation from Packet Clearing House, www.pch.net to SDNP, cost recovery basis)
Activity:- Pilot-3

- Promotion of local content in local languages
Activity:- Pilot-1

Note that some of these match, by coincidence rather than planning, the ones suggested by the National ICT strategy. SDNP BD should seek to coordinate activities with BCC to increase overall impact and avoid potential duplication and competition.

Pilot Selection, Design and Implementation

It is recommended that initially an international expert be recruited (through APDIP/SURF) to help in the final identification and initial design of the pilot programmes. SDNP BD should also engage a staff member with development expertise to work closely with the expert so ensure capacity building of SDNP BD takes place.

Each pilot will be developed as a standalone project and will be presented to UNDP, PMU and BIDS as a formal UNDP project document with outputs, activities, inputs and full budget. If appropriate, a project manager for each pilot could be recruited and support SDNP operations. The manager will be a non-technical person. SDNP BD can add temporary staff to its operations if the pilot does require such services.

New technical staff can be used more than one pilot and will offer contracts for the duration of their assignments within each pilot project. Each pilot will have a substantial monitoring and evaluation component to guarantee that project PR, lessons learned, good practices and relation to MDGs are captured in a systematic fashion.

9. Mid-term Evaluation Report, March 2003:

An independent mission composed of two experts, one national (4 weeks) and another from UN SDN HQ (1 week), New York made an evaluation on the performance and achievements of the project. Their recommendations are follows:

Recommendations

1. Vision

The SDNP BD Programme has adequate resources to contribute to innovating initiatives in promoting ICT for development programmes in Bangladesh. In this regard, the Programme must work at an upstream level to impact on conceptualising feasible applications of ICT in promoting e-Governance and address the needs of the poor. Its vision must therefore, address the Millennium Development Goals (MDGs) that emphasises transparency and accountability in public management and empowering the poor with access to human development choices.

The mission of Programme should clearly be to innovate strategic applications of ICT in development programmes that are sharply focused on addressing governance and poverty alleviation issues.

2. The policy perspective

Consistent with the vision, the Programme mandate should have the underlying policy of catalysing and replicating the ICT for poverty and development initiatives. While, the Programme may undertake downstream projects and involve itself fully in their implementation, these should strictly be limited to validating the concepts and innovations. The policy should also have a strategy to provide a framework and knowledge space for development partners to build-on these pilot initiatives and upscale their impact at the national programme and policy level.

The Programme should correspond with the national ICT policy and assist the government in translating policy guidelines into actionable programmes and projects.

3. Innovative ICT for Development

Building-on the strategies as well as the indicative implementation plan that the Programme has formulated for pilot initiatives, institutional arrangement and operational modalities should be established at an earliest opportunity for potentials partners and agents to mobilise proposals that could be funded by the Programme. SDNP BD has already developed a list of opportunity areas including telemedicine, disaster prevention, school programme, implementation of knowledge management system at BIDS, e-learning, and similar others. The Programme should support implementation of at least three pilot projects in the next six months. This would be in addition to its ongoing

activities, which must however be streamlined with its vision. For instance, alliance with private ISPs should be sought to optimise the capacity of the ICT industry.

4. Improve management process

The SDNP BD Programme management will have to continue to operate within its organisational and management structure. While it will be able to operate independently of BIDS management, its reporting requirements to PMU and UNDP Dhaka will be obligatory. This is primarily because of the Programme's operating provision within the SEMP programme framework in which both PMU (located within the Ministry of Environment) and UNDP Dhaka are important stakeholders. In this regard, the SDNP BD Programme management should adopt proactive approach to keeping the two important stakeholders updated on the activities, achievements and issues requiring decision of the steering committee.

5. Re-profiling of SDNP

The staffing strength of the Programme should be re-structured to include subject matter experts with considerable knowledge of development management and exposure to potentials for integrating ICT in development interventions. These experts/consultants should be retained for specific time bound activities and advisory services to support the Programme management in strategic planning and conceptualising as well as operationalising the pilot initiatives.

The Programme Co-ordinator should be involved more intimately in articulating policy issues pertaining to ICT for Development, especially those that involve and require a multi-stakeholder approach. An office manager should be recruited to manage day-to-day operation and administration of the project.

The Programme needs to outreach its capacity and leverage its achievements in promoting ICT for development. Its future interventions will require a more focused strategy to impact on up-scaling pilot interventions and national policy and strategy formulation. This will require the Programme to further strengthen its manpower capacity to include a Public Relation Officer who would have the capacity to network with stakeholders and the government for promotional activities.

The above re-profiling tasks should be accomplished within the next three months.

6. Supporting Stakeholders

6.1 SEMP related activities

In the immediate term, the Programme should ensure that the stakeholders already provided with ICT support services, in particular the SIAs, have strategy to sustain their capacities. SDNP BD should provide them with further technical assistance if needed.

6.2 Non-SEMP Activities

Support to Non-SEMP partners and agents would be provided on a competitive and fee for service basis. In this strategy, both SIA and Non-SEMP partners and agents should be eligible to qualify for the pilot interventions. The selection of proposals should be based on quality especially the innovative characteristics of ICT for development and poverty alleviation.

Those Non-SEMP partners, who have been supported thus far in the areas of Internet access, networking support, development of web and databases, should be required to progressively pay for the services in case of additional requirement.

7. Sustainability of SDNP BD

As with any development partner supported initiative, the SDNP BD Programme must develop an institutional strategy for its sustainability. The Programme has already initiated cost recovery measures for some of its services. A more comprehensive business model should be designed while ensuring that the Programme continues to provide support for ICT for development and poverty alleviation issues at the national level. Therefore, the business model will not require SDNP BD to operate on a purely commercial platform but it must generate adequate net surplus for its sustainable operation as well as to meet additional capital requirements for technology upgradation and skill development of its staff members. An option could be the conversion the Programme into a foundation. However, this strategy should be evaluated in the context of similar institutional arrangements adopted for other donor-funded programmes in Bangladesh (for instance, the Bangladesh Silk Foundation and PKSf supported by the World Bank, Rural Bittohen Institution supported by CIDA and ADB).

The Programme should as a priority formulate its sustainability strategy taking into account the following requirements:

1. **Business Plan:** The exit strategy for the existing UNDP cooperation should accompany a business plan that should provide a viable model relating to its activities, financing strategy, revenue model and future financials, etc., keeping in perspective the development role of the Programme.
2. The **Cost Recovery Strategy** should have detailed estimates of the future operating costs reflecting the willingness and affordability of the Programme's beneficiaries.
3. **Alternative Funding:** The Programme management should (with advice from UNDP, PMU, BIDS, and SC) determine alternative funding sources since in the initial years after UNDP's exit, the operating revenue may not be adequate to meet the expenses. Development funding is likely to be needed from other sources especially to meet the additional capital expenses needed the Programme's technology upgradation.
4. The sustainability strategy should also clarify a viable **institutional arrangement** as noted above (transforming SDNP BD into a foundation following an assessment during the first quarter of 2004).

8. Resource centre

The Programme may develop web-enabled repository of relevant publications, books, reports, and other documents. The “Resource Centre” may also provide for a repository of disparate sources of information on socio-economic and environmental issues and appropriate technologies may be used to standardize the data set and thereby formulate a metadata framework. This “Resource Centre” would be accessible via the SDNP BD portal.

The Programme may explore cost recovery possibilities by offering its services as an online reseller of publications and documents. Additionally, a system could be set up for membership subscription to the Centre on a six monthly or annual basis.

D. FUND

1. **Fund release:** The first fund release letter was sent to the NPD on October 5, 1998 and subsequently another request was sent containing the financial report, Bank certificate, Budget break-down and Work plan on October 12, 1999. On December 23, 1998 a letter from the NPD was received regarding the first fund release of Tk. 1080080.00 against the project account CA-13057-5, Agrani Bank, Principal Branch, Motijheel C/A., Dhaka.
2. **Fund utilization:** The first fund utilization letter was sent to the NPD on October 3, 1999 with a budget break-up for January-March 1999.
3. **All RFAs and financial statements:** All quarterly Requests For Advance (RFA) were sent regularly to the NPD with copies to the Resident Representative, UNDP and the Programme Coordinator, PMU, SEMP.
4. **All vouchers:** Copies of all vouchers covering the financial transactions of the project have been submitted to the PMU.
5. **Government audits take place during the middle of each year.** UNDP carry out their audit during end of each year. BIDS has also an internal audit system of its own.

E. EQUIPMENT

1. All equipment are purchased directly by the UNDP from the non-expendable project fund. Since UNDP has its own procurement rules, SDN has little or no control over the procurement process, except sending requisition.
2. Requisitions- First: The first requisition of equipment was sent to the NPD on March 10, 1999 and later on it has been informed by the NPD that for all procurement of equipment, the requisition should be directed to the

UNDP. Subsequently requisitions were submitted to UNDP on April 11, 1999 and on April 25, 1999. However, the same requisition was again submitted to UNDP on November 3, 1999 (with a reminder on September 1, 1999). The requisition included 3 servers, LAN and server room related items.

The servers, along with some other equipment were received by the project on June 28, 2000 and finally rest of the equipment arrived at the end of 2000.

3. Second requisition: Requisition submitted to NPD on August 19, 2001, and equipment started to be delivered from December 26, 2001. However, a few of the equipment are yet to be delivered in this requisition.
4. Requisition for Pilots: BIDS has been given the responsibility to select a consultant/consulting firm to commission the pilots. Commissioning of Pilot-1 (MDG Portal) has started from July 01, 2003, while commissioning of Pilot-2 (Multi-purpose Telecentres in Coastal Belt) is going to start from September 2003. There are a few pipeline pilots at hand, namely, Pilot-3 on setting up an Internet Exchange, Pilot-4 on e-Forms, Pilot-5 on VoIP Exchange, Pilot-6 on Agriculture Information Centre- Northwest Interface, and Pilot-7 on e-governance.

F. PERSONNEL

1. Advertisements: Advertisements for the post of IT Specialist were published on June 01, 1999 in the Bangladesh Observer and the Daily Star. None of the applicants was found suitable. Later on advertisements were published for the post of Project Coordinator, Management Consultant for development of a Business Plan and Management Consultant for Needs and Resource Assessment for SDNP Partners and other Relevant Stakeholders as per recommendation of the UNDP Mission. These advertisements were published on September 03, 1999 in the Daily Star and on September 04, 1999 in the Bangladesh Observer.

By the advertisement published on 03.09.99 and 04.09.99, 4 applicants were found suitable for interview for the post of MC (Business Plan) among 17 applicants and 9 applicants were called for interview for the post of MC (Needs and Resources Assessment) among 31 applicants and none found suitable for the post of Coordinator.

On August 02, 1999, the advertisement for the post of Project Coordinator was again published in the Bangladesh Observer and 6 applicants were called for interview among 28 applicants.

For the post of Assistant Systems Administrator, the vacancy announcement was posted in the SDNP's web site for more than 30 days and advertisement on the vacancy announcement was published in the Daily Star on May 23, 1999 and in the Protham Alo on May 24, 1999.

2. Selection Board: The selection board for recruitment of the PC comprised of the PD, SDNP, a representative of UNDP, a representative of PMU and a resource person, namely, Dr. Siddique Hossain, Director, Computer Centre, BUET. The interview was taken on November 22, 1999 and the selection board chose Mr. Hakikur Rahman as PC of SDNP, who joined the project on December 15, 1999.

The interview board for management consultants were composed of PD, SDNP, a representative of UNDP, a representative of PMU and Dr. Rahim Baksh Talukder from IBA, DU as the resource person. This board met on November 17, 1999 to recruit MC (Business Plan) and MC (Needs and Resources Assessment). No candidate was found suitable for MC (Business Plan) and the board selected Mr. Partha Pratim Sarker as MC (Needs and Resources Assessment), who joined the project on December 15, 1999.

For the recruitment of ASA, the selection board was formed as per recommendation of UNDP Mission and comprised of the PD, SDNP, PC, SDNP, a representative of UNDP and a representative of PMU. The board selected Mr. Farhad Nizam as the Assistant Systems Administrator and Mr. Touhid Uz Zaman as the Web Designer and both of them joined the project on July 1, 2000.

3. Detail on recruitment and continuation of services for other personnel are given in Annex-.

G. TECHNICAL INSTALLATION

1. BIDS LAN: A total of 120 PCs are connected through a Local Area Network (LAN) and operating satisfactorily in BIDS from February 2000.
2. Connectivity with upstream provider: Currently SDNBD server is connected to NEKSUS (a private ISP) with 256K down and 64K up radio link. Installation of VSAT SCPC connectivity is in commissioning stage under Pilot-2.
3. Connectivity with BOL: As per recommendation of the UNDP Mission and also based on technical considerations, the project chose Bangladesh

Online Limited for the lease line connectivity to the Internet from March 2000. This link is serving as the email backup link for all SDNBD users.

4. Connectivity with SIA and non-SIA: Till now 350 users have been connected to the SDNP server other than 120 users from BIDS.
5. BIDS web site: The site (<http://www.bids-bd.org>) has been designed and hosted in a server at USA in October 1999. This is now looked after directly by BIDS.
6. SDNP web site: This site (<http://www.sdnbd.org>) has also been designed and hosted in a server at USA from February 2000. This website is updated, practically everyday. SDN website is currently hosting about 71 detailed pages on specific issues. It also keeps track of environment movements, environmental health situation and provides links to important sites such as daily updating on various other information. Links are also provided to Government sites including those displaying the national policies, plans and various BBS data.
7. The first regional node in Mymensingh has been working in close partnership with the Bangladesh Agricultural University since December 2002. A separate partnership programme is at hand with the Bangladesh Red Crescent Society for establishing three regional nodes in Barisal, Chittagong and Khulna, including several strategic locations stations, to be used as multi-purpose community tele-centres. Commissioning of Pilot-2 may start from January 2004.
8. Internet Exchange: Setting up of an Internet Exchange falls under the Pilot-3 of SDNBD. Switch equipment has been donated by the Packet Clearing House (www.pch.net) and licensing procedure is pending with the BTRC. It is expected that within first quarter of 2004, the Exchange will be operational.
9. Information Centre/Cyber Cafe: A cyber cafe comprising of 6 PCs has been established in the premises of BIDS to enable school and college students to browse through the Internet. Special arrangements have been made to offer these services to non-formal school children from nearby slum areas. Other two cyber centres are working at the National Press Club (2 PCs) and ICMS premises (2 PCs).
10. Tele-medicine: The SDNP-BAU (Mymensingh) link has been extended to a community hospital in Mymensingh (BAU-CBMCH) and at the other end, to the Comfort Telemedicine Service (SDNBD-CTSB), to be used for tele-medicine purposes. This link will be extended to support Thana level activities along the backbone (Gazipur, Bhaluka, and Mymensingh).