



Project proposal

For

Information System Infrastructure for ICT Centre at the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP)

Prepared in collaboration with
National Informatics Centre (NIC)
Government of India
(<http://home.nic.in>)

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Centre on Integrated Rural Development for
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A Proposal for Information System Infrastructure for ICT Centre at CIRDAP

I. Introduction

Background

The information and communication technology (ICT) revolution, because of its pervasiveness throughout the whole realm of human activity, has brought out a new shape in the economy, society and culture.

In the past few decades, ICT has transformed the world. Its potential for reducing poverty and fostering growth in developing countries has increased rapidly. By connecting people and places, ICT has played a vital role in national, regional and global development.

This enormous future promise of the applications of ICT has been captured and emphasised in the Delhi Declaration adopted by the ministers and senior officials from 14th CIRDAP Member Countries (CMCs) of the Asia-Pacific region.

At the 26th CIRDAP Executive Committee Meeting held in Manila, Philippines on 29-30 May 2007, Director General, CIRDAP made an appeal to other CIRDAP member countries to take part in furnishing and decorating the Conference Centre. Here many CMCs pledged support to the proposal. India pledging fullest cooperation (Recommendation 9/EC-26/2007) suggested CIRDAP to prepare an estimate for a full IT Infrastructure and Data Centre. This recommendation was fully endorsed by the 16th CIRDAP Governing Council Meeting held in Manila, Philippines from 31 May to 1 June 2007 (Decision 15/GC-16/2007). This indeed provided a great opportunity for CIRDAP to play a greater role in the age of information.

The Ministerial Retreat on Rural Development for the Asia-Pacific region was jointly organised by the Government of India and Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP) and was held in the Vigyan Bhavan in New Delhi.

The theme for the Ministerial Retreat was Sustainable Livelihood with special focus on Information and Communication Technology and Women Empowerment in the context of rural development.

II. The New Delhi Declaration

The Delhi Declaration on Sustainable Livelihood was signed during a Ministerial Retreat in New Delhi on 25-26 June 2008, which recognised that member countries at different stages and levels of development in ICT utilisation are trying to address the problem of 'digital divide' between and rural and urban areas for greater efficiency, transparency and accountability in governance.

In the Delhi Declaration, it is also advised that

- CIRDAP should further enhance its role in promoting sustainable rural livelihoods, empowering women and leveraging ICT through providing a platform for exchange of ideas, sharing experiences and best practices, dissemination of information and facilitating networks, including marketing networks, among the CMCs for generating knowledge, training and capacity building.

Equipped with modern features of information and communication technology, CIRDAP can expedite its work in bridging the gaps with the other regional organisations, as it is stated in the declaration:

- CIRDAP should work in partnership with other regional organisations such as SAARC, ASEAN, BIMSTEC, and ECO.

We also greatly expect that the Indian contribution to help establish a powerful ICT Centre at CIRDAP will also touch upon the policy and strategy structure in all the CIRDAP member countries, which will ultimately be helpful to implement the call by the ministers and senior officials from the Asia-Pacific countries in New Delhi on 26 June 2008.

The Declaration calls for the affirmative actions in policy and strategy level in the CMCs to improve livelihood and development in the rural areas:

Policy

- Governments should review the existing laws and regulations for creating an enabling environment for greater use of ICT in rural areas for e-governance, delivery of services to citizens and empowering citizens to access information; and
- The CMCs should encourage greater regional cooperation in the area of innovations and sharing of knowledge, best practices in women empowerment, marketing of rural products and leverage of ICT for rural development.

Strategy

- Community access to ICT may be expanded through successful e-community models such as information kiosks, wired villages, agriculture marketing portals, computerisation of land records, grameen phones, etc. Technologies should be affordable, cost-effective, simple and user friendly. They should use local resources including renewable energy sources wherever possible.

- Women's access to factors of production such as entitlement to land, natural resources, credit, knowledge and technology should be enhanced. Special efforts need to be made to increase their capacities through social mobilisation, education, skill development and training. ICT should be effectively used to create awareness, promote equality and counter social prejudices against women.

The declaration agreed upon taking some affirmative actions in CIRDAP Member Countries (CMCs) on the improvement of rural livelihoods, empowerment of rural women and leveraging ICT for rural development, in terms of policy and strategy. Some of these include promoting regional cooperation in marketing of rural products and promoting ICT to reach rural areas. The declaration called for simple affordable and cost-effective technology with maximum coverage in rural areas.

The Declaration appreciated the efforts of the Ministry of Rural Development, Government of India, in making the economic growth processes more inclusive by reaching out to millions of poor households in the rural areas, through the implementation of special and unique programmes and projects including rural e-connectivity. The Government's contribution in bridging the rural-urban digital divide by bringing ICT to the door-steps of the rural households is highly appreciated.

III. Why Do We Need an ICT Information System Infrastructure (ISI)?

Geographical Coverage

CIRDAP has a great role to play in spreading the benefits of ICT applications, proper uses of ICT and ICT implications to the member countries. Particularly the Centre will help the member countries in exchanging the ideas, sharing experiences and best practices and disseminating information and knowledge.

CIRDAP still lacks the modern features and approaches of ICT to reach out to the corners of the member countries. Some CIRDAP member countries including India and Malaysia are being benefited from the applications of ICT. These countries have a great success, particularly in distance learning, tele-medical centre, e-governance, e-land records etc. If the Centre gains a full command over all the features and applications of ICT, it can help the other countries which are still behind in e-connectivity, to have full access to the benefits of ICT applications.

ICT, particularly PC applications are broadly categorised into the following aspects specific to rural development:

- systems for decision support to administration
- systems for improving delivery system of services to citizens

- systems for empowering citizens to access information and enable network sharing.

Many CIRDAP member countries are facing a great challenge to capture the opportunities of ICTs and to apply and integrate them into a wide range of activities. Hence it is proposed to establish a fully equipped ICT ISI to cater to these urgent needs:

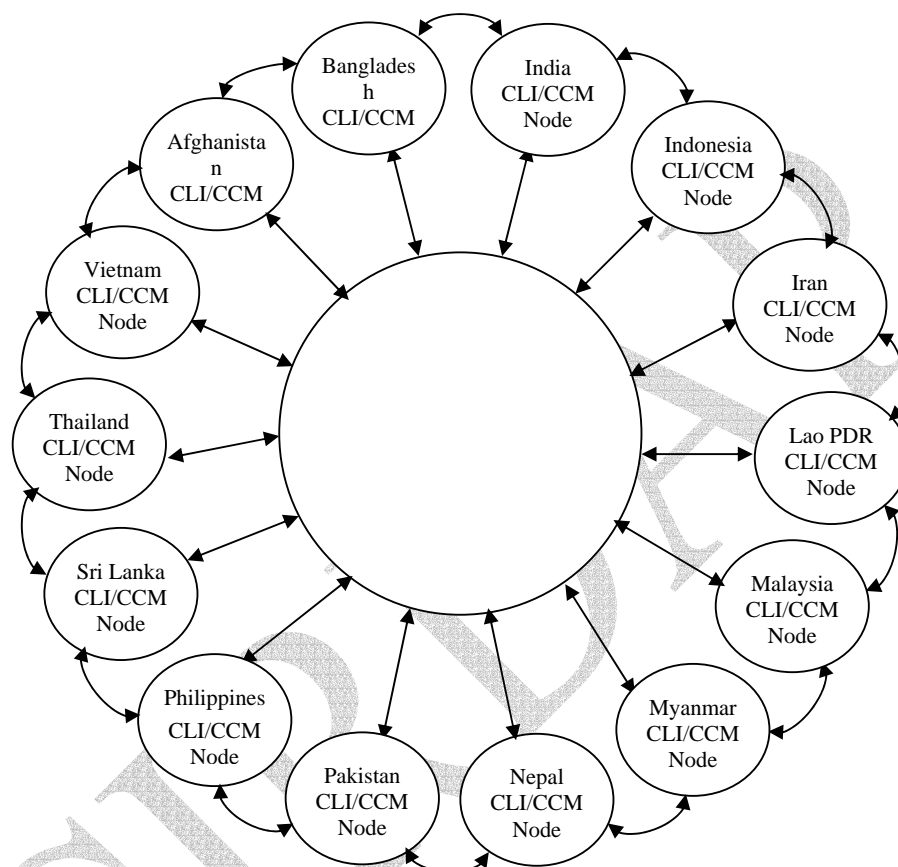


Figure: System Networking with CLIs/CCMs

Functional Coverage

The broad areas of action are Training, Research, Action Research/Pilot Projects, and Information & Communication etc.

Potential Usage

The ICT facility existing at CIRDAP HQ could be used for regional training organised by CIRDAP and its member countries. Government of Bangladesh could be one of the leading countries as was also assured during meeting with Minister of State for Rural Development, Secretary, RD and other officials of Government of Bangladesh. The VC facility could be of great use which could create virtual class room among member countries to facilitate

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training, discussion and meetings. ICT training lab could initiate training on “e: topics with hands-on experience.

IV. Role of Information System Infrastructure (ICTISI) in CIRDAP

CIRDAP will put its maximum efforts to ensure best use of information and communication technology in the member countries, as ICT is crucial to sustainable poverty reduction, and it makes a country’s economy more efficient and globally competitive, improves health and education services, and creates new sources of income and employment for the poor people.

ICT also enhances social inclusion and promotes more effective, accountable, democratic governance, especially when combined with effective freedom of information and expression. Many countries in the region have launched several projects each with a different approach such as e-governance, information villages, cell phones in rural network, wired villages, rural information kiosks, tele-centres, agriculture marketing portals, knowledge networks and many such initiatives. The ICTISI will help develop a common approach to bring all the initiatives under the same network.

V. Present Status of ICT Infrastructure of CIRDAP

The Government of Bangladesh has already approved construction of an International Conference Centre at a cost of US\$2.3 million. The construction work is now going on at a rapid pace and the initial phase of constructing three stories and the auditorium is expected to be completed very soon. The focal point for the proposed ICT system infrastructure will be located on the second floor of this building.

Although over the years, CIRDAP has strengthened its ICT infrastructure, still it needs a strong footing on ICT basement on which it can extend its hands to the member countries. To make a clear understanding of the Centre’s present position, the existing ICT structure is stated below:

1. Computer Peripherals

Out of 27 old computers, 21 old computers (all locally assembled systems) have been replaced with new computers. Three dot printers, eight laser printers, one colour inkjet printer, seven pen-drives, one USB hard disk drive, one PDA, one scanner and one Laptop have been purchased.

2. Local Area Network (LAN)

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The unstructured cable connecting 30 computers is in place.

3. Broadband Internet

CIRDAP has been using Broadband Internet line. Present internet speed is 1MBPS It is necessary to upgrade the internet speed immediately.

4. New Domain

One new Domain (cirdap.org) has been registered. Under this domain, CIRDAP online database and email addresses have been created.

5. New Mail Server

A new mail server has been installed and email accounts have been given to all users under new domain. CIRDAP receives lot of mail from outside. Sometimes important mails bounced due to shortage of server space. So, the server space has been increased to 1GB (1024MB) from existing space 100MB to avoid the mail bouncing problems.

6. Multimedia Projector and Digital Camera

One Multimedia Projector and one Digital Camera have been purchased to provide support to the various divisional activities of CIRDAP.

7. Website

A website maintaining all regular features of CIRDAP activities is being hosted and operational at <http://www.cirdap.org.sg>. The website has been an effective medium between the Centre and the member countries and need to be further upgraded to have content management system so that it becomes collaborative medium to share and exchange the content & best practices among member countries and public.

8. Databases

Databases for Mailing Addresses and Online News Clipping services have been developed for both online and offline.

9. UPS Support

One online UPS (2KVA) has been installed for the server to avoid the adverse effects of electric fluctuation and to get the full benefit for the long backup UPS to tackle the frequent power cuts. It is necessary to install a backup server to avoid any unavoidable circumstances.

VI. Goals and Objectives of the proposal

The following goals are kept in mind while making the proposal.

- To assist the CMC Governments in reviewing the existing laws and regulations for creating an enabling environment for greater use of ICT in rural areas for e-governance, delivery of services to citizens and empowering citizens to access information.
- To help the CMCs through encouraging greater regional cooperation in the area of innovations and sharing of knowledge, best practices in women empowerment, marketing of rural products and leverage of ICT for rural development.
- To help get community access to ICT through successful e-community models such as information kiosks, wired villages, agriculture marketing portals, computerisation of land records, tele-network, etc. Technologies should be affordable, cost-effective, simple and user friendly.
- To use ICT effectively to create awareness, promote equality and counter social prejudices against women.

In order to address the afore stated goals, the following objectives are addressed in the present proposal

1. Support **training programmes** on Rural Informatics i.e. Application of ICT/ eGovernance applications in the area of rural development, local self government etc
2. Provide eContent Repository system to support collaborative environment on **CIRDAP website** (internet and Intranet)
3. **Video Conference** system to support meeting and exchange of views, practices and support training from/to remote stakeholders.

VII. Project Methodology

A) Project implementation strategy

1. The proposal submission to Ministry of Rural Development, Government of India
2. The review/examination of proposal by the ministry and approval
3. The team of CIRDAP professional visit NIC Delhi to have introductory exposure on the proposed facilities to gain basic understanding on structure & function of the facility.

4. The Project execution will be commencing once the funds are transferred to CIRDP or CIRDP nominated project execution/partner agency.
5. The proposed facilities are to be ready by 1st Jan, 2010 to begin testing phase.
6. The proposed facility are intended to be launched by 24th Jan, 2010
7. Sustain the utilisation of ICT infrastructure created under the project for five years with technical support from prominent eGovernance/ICT organisation from a member country.

B) Project elements and its integration with CIRDP ongoing facilities

1. Two conference Halls, each with capacity to house 100 + participants, are under construction at CIRDP. It is proposed that both of them should have LCDs with VC facility.
2. An operational Auditorium is available without any modern facilities required for meeting/discussion/training. It is proposed that two LCD (with other VC equipments) may be provided for the same.
3. CIRDP conducts lots of training programmes and it is proposed to have ICT training lab so that they could conduct training programme on rural Informatics applications. Hence a lab with 25 desktop systems are proposed to be setup with windows and Linux setup.
4. It is proposed to have a LCD in Training lab as well.
5. One LCD with VC facility is proposed to be positioned in academic block [General Staff Meeting (GSM) Room] to support programme activities by directors/faculty/visitors.
6. Structured LAN Cabling need to be done linking conference rooms and training Lab.
7. Currently, CIRDP website is hosted in Indonesia and almost static in nature. A portal (internet & intranet) supported by open source content management system should be developed to provide collaborative environment.
8. Five year institutional support to ensure the adequate utilisation of ICT infrastructure and faculty support on Rural Informatics.

VIII. Broad items/elements of Activities

The following activities are proposed in order to realise the scope and objectives stated above.

A) Equipments

1. Setting up structured LAN with 100 nodes (cable, router/switch etc)
2. Acquiring 2 MBPS Leased lines for data communication
3. Setup a training Lab at second floor of Conference building with 25 Desktop systems, One LCD (for VC) and Project System.
4. 10 Desktop to support VC and control centre operations
5. 5 LASER Printers
6. Four LCD for two Conference Halls and two for an Auditorium to support VC
7. One LCD for smaller studio to support meetings/discussion at GSM Room
8. One Network Rack and one Server Rack
9. 8 servers to support Mail, database, website, GIS, Multimedia training etc
10. VC Control Centre/Server to support conference with 16-20 sites
11. Five Studios with VC associated equipments such Camera, Scanner etc
12. 3 ISDN (128 KBPS * 3 = 384 KBPS) for VC to begin with
13. UPS for 30 Kilowatts Load to support one hour operation
14. 9 Laptops for Directors, control centres etc

It is proposed that an existing AC will be repositioned accordingly to new layout as discussed.

B) A Portal (internet & Intranet) with dynamic content management system to provide collaborative environment to all stakeholders to enhance Knowledge based networking among member countries.

C) System Software

1. 25 Desktop Systems with Windows and Linux OS
2. 10 Desktop OS
3. One windows server and one Linux Server for training
4. One SQL server and one PostgreSQL server database
5. One GIS server
6. Video Editing and Production Lab for distribution of CDs on good practices.

D) Training support on

1. Application Software packages

It is understood that a few generic application software packages domain, by NIC, could readily be adopted by CIRDAP either for its internal purpose or showcasing to participants during training programmes on Rural Informatics: Some of the key packages are:

- a) EGranthalaya for Library Information management (<http://egranthalaya.nic.in/>)
- b) Open eNRICH for portal (internet & intranet) operationalisation (<http://enrich.nic.in>)
- c) Package for Decentralised & Participatory Planning (*PlanPlus*, <http://planningonline.gov.in>)
- d) Land Record and Property Registration Management (<http://NLRMP.nic.in>, <http://dolr.nic.in>)
- e) Information Systems for Watershed Management (*Planning & Monitoring*)
- f) Packages on Poverty Alleviation Schemes (*NREGAssoft*, <http://nrega.nic.in>), Self-Help Groups and Rural Housing.
- g) Information Systems for Rural Drinking Water Supply and Sanitation (<http://ddws.nic.in>)
- h) Agriculture Produce Marketing Network (*AgMarkNet*, <http://Agmarknet.nic.in>)
- i) National Panchayat Portal (<http://panchayat.gov.in>)
- j) Rural Products Marketing Package (<http://RuralBazar.nic.in>)
- k) Rural Sports Programme (<http://PYKKA.nic.in>)
- l) Forest/Tribal Rights/welfare Programmes etc

Such packages need to be provided, with installation support, to CIRDAP training repository along with soft copy of User Manual so that the information to other member countries could be disseminated. Also, faculty for training programme need to be provided by developer organisation for five years.

2. Common Purpose Training

- a) ICT Infrastructure Management: issues & Challenges
- b) Office productivity Tools (Office tools)
- c) e-Content Management

The topics listed above are indicative and could include some more similar topics based on demand and feedback. The faculty need to be provided by Technical Support Institutions (TSI) during next five years. Duration of each training programme is expected to be five working days.

E) Training

1. Introductory exposure to two professionals of CIRDAP, at NIC Headquarters, on proposed facilities for three/seven days.
2. Training to CIRDAP professionals on ICT infrastructure management

3. Faculty support training programmes organised by CIRDAP on afore stated topics related with Rural Informatics

It is expected that Five training programmes, on ICT topics, may be organised during an year.

G) Sustainability

1. Institutional support to sustain the ICT Infrastructure operations and faculty support on afore stated for five years.
2. Currently, CIRDAP has only a single computer programmer. ICT/Computer Manpower will be required to support information system infrastructure proposed to be created under this project. It is proposed to be brought on board as contract manpower.
3. Consultancy: It is proposed to bring ICT/eGovernance consultant(s), from member countries, on board to assist/advise CIRDAP on various topics from on need basis for short duration not exceeding ten working days.

IX. Expected Deliverables

1. VC facility at five studios in CIRDAP
2. A Training lab with 25 systems
3. A Dynamic content management collaborative system supporting CIRDAP website
4. Knowledge & skills development of CIRDAP professionals
5. Dissemination of information & knowledge through portal to member countries
6. Sharing of experiences, best practices, models etc
7. Skill Development of Rural Development functionaries of member countries through training programmes.
8. Sustained institutional support from eminent ICT/eGovernance (such as NIC) organisation

X. Duration

- A) It is estimated that the basic information system infrastructure creation/installation, at CIRDAP (Dhaka), as per the proposal would take 4 calendar months.
- B) Subsequent, ongoing operations in terms of institutional handholding, faculty/ consultancy/ manpower support, and Customisation support for RD packages, Annual Maintenance Contract (AMC) for equipments etc would go for five years.

XI. Approximate Budget

1. Capital Expenditure: Provided in **Annex 1**

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2. Operational Expenditure for five years: Provided in **Annex 2**

3. The Total Project Budget is given in **Annex 3**

	<i>in Rs.</i>	<i>in US\$</i>
Total cost for three years :	51,029,294	1,000,574
Total Cost for five years:	61,398,334	1,203,889

CIRDAP