

**Document of
The World Bank**

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**PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED LOAN
IN THE AMOUNT OF US\$ 3.43 MILLION
TO THE
DOMINICAN REPUBLIC
FOR A
GLOBAL DISTANCE LEARNING NETWORK PROJECT - LIL
September 15, 2000**

Latin America and the Caribbean Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective July 14, 2000)

Currency Unit = Dominican Peso (DoP)

DoP = US\$0.0625

US\$1.00 = DoP 16.00 Pesos

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

DLC	Distance Learning Center
NGO	Non Governmental Organization
CAS	Country Assistance Strategy
CDF	Comprehensive Development Framework
DROPIN	Dominican Republic Office for the Promotion of Investment
INAP	Instituto Nacional de Administracion Publica
WBI	World Bank Institute
LIL	Learning and Innovation Loan
GDLN	Global Distance Learning Network
NPV	Net Present Value
ERR	Economic Rate of Return
VSAT	Very Small Aperture Terminal
OC	Operating Cost
PAR	Procurement Assessment Review
SOE	Statement of Expenditures
SA	Special Account

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**Dominican Republic
Distance Learning Project**

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Dominican Republic
Distance Learning Project

Project Appraisal Document

Latin America and the Caribbean Region
LCC3C

Date: Sept 15, 2000 Country Director: Orsalia Kalantzopoulous Project ID: P068753 Lending Instrument: Learning and Innovation Loan (LIL)	Team Leader: David Gray Sector Manager: Jamil Salmi Sector: Education Theme(s): Training through Distance Learning Poverty Targeted Intervention: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Project Financing Data

☒ Loan ☐ Credit ☐ Grant ☐ Guarantee ☐ Other [Specify]

For Loans/Credits/Others:

Amount (US\$m): \$3.43 million

Proposed terms: ☐ To be defined ☐ Multicurrency ☒ Single currency, specify US Dollars

☐ Standard Variable ☐ Fixed ☒ LIBOR-based

Grace period (years): 5
Years to maturity: 17
Commitment fee: 0.75%
Service charge: NA%
Front-end fee on Bank loan: 1.0%

Financing plan: ☐ To be defined

Source	Local	Foreign	Total
Government	0.46	0.64	1.10
IBRD including Front-end fee of 1%	1.60	1.83	3.43
IDA			
Other			
Total:	2.06	2.47	4.53

Borrower: Dominican Republic
Guarantor: NA
Responsible agencies: INAP

Estimated disbursements (Bank FY/US\$m):

FY	2000	2001	2002	2003	2004	2005
Annual	2.39	0.39	0.29	0.29	0.04	0.03
	2.39	2.78	3.07	3.36	3.40	3.43

Project implementation period: 2000-2005 (5 years)

Expected effectiveness date: October 31, 2000

Expected closing date: October 31, 2005

Implementing agencies: INAP

Contact person: Ana Obalys Pérez de Cabral, Directora Nacional

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A: Project Development Objective

1. Project development objective: (see Annex 1)

The main objectives of the project are to: (a) test the effectiveness and sustainability of a Distance Learning Center (DLC) as part of a global knowledge-sharing network, expanding access to high quality training, strengthening the capacity of public and private sector decision-makers and improving levels of policy dialogue; and (b) support the establishment of a “cyberpark”.

2. Key performance indicators: (see Annex 1)

Performance indicators will measure progress towards realization of the project. Project objective indicators include: (a) improved access to high quality training by public and private sector professionals, measured by the number of professionals trained in the various target groups, (b) relevance and quality of courses and training events, as reflected in participant questionnaires and follow-up surveys, (c) sustainability and effectiveness of the DLC, measured by demand for, and utilization of, DLC services and willingness to pay, reflected in DLC revenue (100% of operating expenses to be covered by revenue generation by the 4th year of DLC operation; (d) improvement in the skill mix of the civil service and the capacity to formulate, implement and monitor economic policy and sector strategies, measured by an annual survey of trainees and through Bank sectoral reviews, and (e) quality of policy dialogue reflected in the quality of the performance of the Bank’s portfolio and assessments of the CDF pilot.

B: Strategic Context

1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)

Document number: R99-119

Date of latest CAS discussion: July 6, 1999

The FY00-02 CAS identifies trade liberalization, privatization and public sector modernization as key objectives required for economic growth and meaningful poverty reduction. It notes that achieving these long-term objectives will require the development of appropriate incentives, institutions, skills and a clear sense of direction which can endure cyclical changes in administration. Building a broad, society-wide consensus on the specific means to achieve these objectives will require time, as well as investments in knowledge generation and sharing, and the continued development of a national dialogue which involves all segments of Dominican society. The project is expected to contribute significantly to several of these elements, (i) improving skill levels in the public service and other segments of society, (ii) knowledge generation and sharing both within the Dominican Republic and internationally and, (iii) development of consensus and national dialogue.

2. Main sector issues and Government strategy:

The Bank’s program in the Dominican Republic as defined in the FY00-02 CAS, recognizes the opportunities and challenges faced by Dominican society during the next few years. The program reflects the discipline required on the part of the Bank and the need to focus intervention in several key areas. These include activities which identify and address knowledge gaps, through targeted sector work emphasizing poverty reduction, and institutional improvement - rather than the physical expansion of services. Consequently, the CAS re-defines the Bank’s role, to one which highlights its comparative advantage in knowledge generation, sharing and facilitation. The proposed Distance Learning Center and framework envisaged for the Global Distance Learning Network (GDLN) can provide essential mechanisms in support of this agenda.

While the Bank can assist in the development of knowledge and increase the availability of international experience and best practice, strengthening the capacity of the public and private sectors to utilize and apply this effectively will require broadening of training programs and opportunities for professional career development. This is reflected in the Government's renewed focus on training and revitalization of the Instituto Nacional de Administracion Publica (INAP) and development of a high technology training/development nexus at the Cyberpark of Santo Domingo.

Established as a government agency in 1991, explicitly to address issues of capacity building and skill mix, INAP is responsible for; (i) identifying the training needs of public servants; (ii) overseeing training of public servants in support of public administration priorities and in response to identified needs; (iii) establishing a center for research, documentation, and information on issues in the field of public administration; (iv) encouraging the cultural, ethical, and humanistic development of public servants in their career paths; and (v) collaborating with other government agencies to support improvement of administrative and management processes.

The Government of the Dominican Republic and private sector investors have embarked on an effort to develop and operate a new generation of business parks in the country. These new parks will specialize in Information Technology (IT) and related industries including information services exports, software development, and computer design and manufacturing, enabling the country to flourish in the global information economy. The first of these parks, the Cyberpark of Santo Domingo ("the Cyberpark") includes a strong educational element, the proposed Technological Institute of Las Americas (ITLA). This center will focus on delivery of information technology training to Dominican and foreign students. The center will be developed in partnership with a number of local academic institutions (e.g. INTEC), all of which have experience in the use of distance learning. Connecting the Cyberpark to the DLC and GDLN will allow sharing of courses and facilities and ensure the integration of the DLC into the domestic distance learning network through the Codetel fiber optic loop.

At the same time as delivering high quality training to all segments of Dominican society, opportunities exist to utilize the DLC to support and deepen the on-going process of national consensus building. This process, which was initiated during the preparation of the CAS, can potentially lead to a shared national vision – and strengthen support for necessary policy reform. The dialogue, which has been facilitated by the Bank, has involved all segments of Dominican society (including government, opposition party, labor unions, private sector, respected experts and civil society) and is being supported by an Institutional Development Fund (IDF) grant. In keeping with Comprehensive Development Framework (CDF) pilots elsewhere, this process is expected to provide donors with a means of prioritizing and targeting their support and coordinating activities to ensure maximum impact.

3. Learning and development issues to be addressed by the project:

The project will test the potential of video- and Internet-based distance learning to contribute to the professional development of public servants and other segments of Dominican society. Specifically, the project will assess the benefits of providing broad, in-situ access to high quality courses (defined to include formal training courses, seminars and interactive policy dialogue events) on modern development issues and approaches provided from a wide range of international sources (including both North-South and South-South exchanges). The potential to develop and deliver course content to the DLC in the Dominican Republic from any of the DLCs connected on the Global Distance Learning Network (GDLN) as well as other institutions, both domestic and international, represents one of the most innovative aspects of this project – and should guarantee the availability of high quality, relevant content.

The project will attempt to assess the potential of this approach to substitute for, and augment, national training programs in a cost-effective manner, relative to traditional methods. It will develop a business model which tests the willingness of government, the private sector and others (e.g. donors) to utilize distance education to fulfill their training requirements and contribute to cost recovery and the long-term sustainability of a distance learning facility. In focusing on matching demand for course content with supply, emphasis will be given to development of feedback mechanisms designed to ensure the availability of quality content and the responsiveness of the Network (the GDLN) to supply relevant material at a price which clients are willing to pay.

As well as developing capacity within the Dominican Republic, it is expected that the project will contribute to the overall development of the GDLN, the proposed framework for content delivery and (potentially) governance of the country-based Distance Learning Centers. A variety of models for the GDLN are under consideration by the Bank and partner agencies (which includes the DLCs), ranging from a highly structured controlling entity through to those based on a loose association of members which operate in a largely autonomous fashion and are responsible for content identification and achieving sustainability through cost recovery. In the Latin America and the Caribbean region, in particular, the emerging model will ensure complementarity and/or support for existing regional distance learning networks/initiatives. The project also explicitly recognizes the potential of this approach to contribute to national development, through domestic networks of distance learning organizations. The project will address the latter through integration with the Cyberpark and domestic fiber optic network. This will facilitate the sharing of content and joint development of courses.

The availability of high-quality and relevant content will effectively underwrite and dictate the success or failure of the DLC. This places a significant level of responsibility on international and local agencies to successfully identify client needs, both in terms of subject matter and specificity. This will be addressed through consultant input; (i) an initial Market Analysis, (ii) a region-wide investigation of available distance learning capacity and content and, (iii) the development of a DLC Business Plan. On-going review will be carried out through evaluation of both the quality and relevance of individual course offerings. Mechanisms will be put in place to ensure that this impacts the direction of future content development, by the World Bank Institute (WBI) and other partner agencies, both domestic and international. It will be particularly important to closely match demand and supply given the intended clientele of the DLC – senior managers in the public and private sectors. This audience is unlikely to make recurrent use of facilities unless content closely matches their specific needs. Similarly, issues of language must be explicitly addressed – the stated aim of the project to achieve high levels of usage and penetration will be compromised if there are fundamental constraints limiting comprehension and the potential for interaction. This issue will be dealt with through use of simultaneous translation (in the Dominican Republic or Washington, as circumstances demand) and by identifying content providers in Spanish-speaking countries.

Finally, in the case of the Dominican Republic, the project will examine the role of modern distance learning in the development of national dialogue, consensus and partnerships. It is expected that the DLC will enhance these by providing a forum for the participation of local stakeholders, respected international experts and generally, by placing reforms in the context of global best practice. Such a process was used successfully in the preparation of the CAS and continues with the recently launched CDF pilot.

4. Learning and innovation expectations:

[X] Economic: The economic viability of distance learning as a tool for capacity building in the Dominican context is to be established. It is expected that the project will demonstrate an economically viable method of delivering high quality training to increasingly replace or supplement high-cost, low-impact training scholarships, study tours, and the import of trainers.

[X] Financial: The appropriate mechanisms to ensure financial viability of distance learning are to be defined. Financial viability hinges on market development and cost recovery. Cost recovery, in turn, depends on the availability of government and private sector resources committed to the project, the quality and availability of relevant content, and development of effective partnerships. The project will finance a decreasing share of DLC operating costs during the first three years of implementation to allow for gradual market development and the establishment of mechanisms for identifying changes in demand over time. An appropriate fee structure will be determined during the first year of the project, building on the findings of the market analysis. Issues such as mechanisms for pass-through fees within the GDLN network will be addressed by the members of the network during the start-up phase.

[X] Technical: The project will introduce state-of-the-art computer, video and satellite-based communications equipment. This will provide a similar range and level of services found in a Bank Country Office. Appropriate training for Information Technology staff will be provided under the supervision of the Bank's Information Systems Group (ISG) staff to ensure proper equipment operation and maintenance. ISG will also provide support – on a decreasing scale – over the duration of the project as local capacity increases. Pass-through equipment warranties (both local and international) and replacement/upgrade contingencies are included in the project. Finally, by integrating the DLC (and GDLN) with the partners associated with the proposed Cyberpark, the project will test the effectiveness of a domestic distance learning network and associated sharing of content and facilities.

[X] Institutional: The Distance Learning Center will be created and operated as an integral part of INAP. The Academic Council (Consejo Academico) will be revitalized to provide support in needs assessment and guidance on content development and program accreditation. Arrangements will be sought for close partnership between public, academic, donor, civil society and private sector organizations, as well as domestic, regional and international networks involved in professional education.

[X] Participation: The project is expected to increase policy dialogue through the extension of opportunities for government officials, private sector professionals and civil society to participate and contribute to the development of the Dominican Republic. In addition, it is expected that the quality of policy dialogue will be enhanced by the global nature of the GDLN - facilitating international consultation and sharing of experiences.

C: Project Description Summary

1. Project components:

The project comprises three components (i) retrofitting and equipping of a Distance Learning Center in INAP (Santo Domingo); (ii) support for the establishment and administration of the Distance Learning Center as a fully operational training facility, and (iii) support for the establishment and introduction of new skills acquisition opportunities at the Cyberpark and its integration with the DLC and GDLN.

Component I consists of retro-fitting of the INAP facilities to provide for two classrooms and supporting offices. The facility will be equipped with communications equipment (satellite antennae, control units), video-conferencing unit and computers as well as necessary furniture and infrastructure (telephones, electrical and data lines, office equipment). Under the terms of the "Procurement Agreement" signed with the Government, the Bank's Information Solutions Group (ISG), working with local contractors, will be responsible for the procurement and installation of this equipment. ISG will be responsible for providing technical support in trouble shooting and advisory services. In addition, ISG will be responsible for coordinating and delivering initial training of DLC technical staff and supplying supporting documentation, including operational manuals for DLC equipment. Local and international warranties

will be put in place to cover equipment failure, while the project will accommodate funds to cover periodic technology reviews and subsequent upgrades. The latter are likely to include connection to other domestic agencies with distance learning capacity.

Component II concerns the establishment of the institutional framework and business model to be used in the development of a viable Distance Learning facility. This will include staff costs for a Coordinator and IT technician – to be covered on a decreasing scale over the duration of the project, supporting consultant costs associated with specific tasks (development of a market analysis, business plan, partnerships and content development, financial management/ audits, and staff training). This component will also cover other operating costs on a decreasing basis (telecommunications charges, consumables).

At the Borrower's request, WBI could be responsible for ensuring the availability of a core set of relevant courses, teleseminars and policy dialogue events (based on discussions with DL staff and supporting analysis) and with facilitating access by the DLC to other international sources of content, formalizing partnership arrangements, as appropriate. These services would be provided at no cost during Project implementation.

The working relationship between the World Bank Institute (WBI), ISG and the Distance Learning Center would be embodied in a "Memorandum of Understanding" (MoU) that could be negotiated between the parties during the first few months of DLC operations. The MoU would address the following issues:

1. Delivery of learning activities by WBI (courses, seminars, discussions, etc) through the network which will be accessible to the Center;
2. Management of the central network by ISG to facilitate participation in the network by the Center, as both a receiver and deliverer of network content;
3. Facilitation by the Bank to ensure access for the Center to learning services provided by content originators other than the World Bank;
4. Safeguarding of intellectual property rights
5. Services to be provided to the DLC by WBI, ISG which exceed the above.

The MoU, which would cover the first three years of the project, could be re-negotiated to encompass required changes to the relationship and reflect the increasing independence of the DLC and the experience gained in establishing the GDLN.

Component III consists of support for the establishment and introduction of new skills opportunities at the Cyberpark of Santo Domingo. This will include a package of technical assistance in support of development of a business and marketing plan, investigation of issues relating to intellectual property rights and the legal framework and strengthening of relevant training capacity in the Cyberpark partner agencies (universities). In addition, equipment will be procured in support of the Cyberpark notably to equip computer labs, the "net-preneur" center and distance learning facilities. These will be connected to the DLC via the existing Codetel fiber optic backbone. Finally, funds will be provided in support of an internet development portal, which will be used to promote the services of the DLC and Cyberpark and investment opportunities in the country. Table 1 shows the estimated costs associated with each component/sub-component.

Table 1 – estimated costs associated with each component/sub-component (inc. cont)

Component	Sector	Indicative Costs (US\$M)	% of Total	Bank-financing (US\$M)	% of Bank-financing
1. DLC Retrofitting and Equipment	Physical	1.12	25%	1.12	33%
a. Civil works		0.33			
b. Network Access Equipment		0.18			
c. Videoconference Equipment		0.42			
d. Other equipment / Furniture		0.14			
e. Logistics		0.05			
2. Support for DLC Establishment and Operation	Physical	1.99	44%	0.89	26%
a. Consultant services/training		0.32			
b. Operating costs		1.67			
3. Support for the Cyberpark and integration of DLC into Domestic Network	Physical	1.38	31%	1.38	41%
a. Cyberpark consultant services/training		0.83			
b. Computing and network equipment		0.30			
c. Development of Internet portal		0.25			
(i) Total		4.49	100%	3.39	100%
(ii) Total Project Costs					
(iii) Interest during construction					
(iv) Front-end fee		0.03		0.03	
(v) Total Financing Required		4.53	100%	3.43	100%

The project will be implemented over a five year period: July 31, 2000 – July 31, 2005.

2. Institutional and implementation arrangements:

LIL Implementation Period: 2000-2005 (five years)

Implementing Agencies: The Instituto Nacional de Administracion Publica (INAP) was established in 1991 under the direction of a Consejo Academico (Academic Council) to address issues of capacity building and improving skill mix in public institutions.

Project Oversight and Coordination: The Instituto Nacional de Administracion Publica (INAP) will assume responsibility for project oversight and coordination of activities associated with all Components. The National Director of INAP and the DLC Coordinator will oversee the physical preparation of the DLC facility, coordinate a market analysis/ needs assessment, develop a business plan for the life of the project, and facilitate the establishment of monitoring and evaluation processes in accordance with loan effectiveness conditions. In addition to regular supervision activities, bi-annual meetings will be held

between the DLC and the WBI/LAC Region GDLN team to review the availability and quality of content as well as to discuss the evolution of training needs in the Dominican Republic.

Project Implementation: Project implementation will be the responsibility of the DLC staff within INAP, which will consist of the DLC Coordinator, DLC Technician, and Accountant. Financial Management will be the responsibility of INAP.

D: Project Rationale:

1. Overall Rationale.

Through the establishment of the GDLN, the World Bank and participating client countries intend to expand access to training opportunities in support of national development objectives and poverty alleviation. The in-situ training made possible by distance learning modalities facilitates change in institutional culture and promotes the immediate application of lessons and techniques learned. The GDLN will also promote the development of a virtual community of public administration and development professionals that encourages the sharing of knowledge. This will extend participation in policy dialogue to include internationally-recognized experts, whose participation would be either impractical or unaffordable through traditional methods.

Recent and ongoing reforms in the Latin American state have already had an enormous impact on the role of public functionaries in the region¹:

- The globalization of trade and the economic system has created a new level of interdependence and inter-relatedness between countries. These trends continue to alter the conditions within which national governments must operate and increase the international consequences of local actions and *vice versa*. They reinforce the importance of exposure to international best practice and lessons learned.
- The pace of economic and technological change has increased, requiring continual upgrading of skills ("lifelong learning"). Traditional training approaches are not necessarily well suited to fulfilling these needs.
- A number of other fundamental changes affecting public administration are underway in the region. These include, (i) the re-definition of the boundaries between the public and private sector, with less emphasis on regulation and more on partnership, (ii) the growing importance of social sector programs, (iii) decentralization of functions from national or federal levels to sub-national bodies and, (iv) the recognition of the benefits of an active and participatory civil society
- During the coming decade, the size of the IT industry is expected to attain \$2 trillion. Even a small share of this market will yield high leverage over initial investments, and create new opportunities for employment and business development. The establishment of the Cyberpark will provide suitable educational facilities and increase skilled resources. The facility will counteract a "technology drain" of young people to better paying markets.

¹ Proceedings of the "Iberoamerican Forum on Interactive Distance Training for Public Functionaries", Latin American Center for Public Administration in support of Development (CLAD), November 2-26, 1999, Santa Cruz, Bolivia

The establishment of a DLC and domestic distance learning network in the Dominican Republic will respond directly to the demand by public functionaries and the private sector for training in new areas of knowledge and provide the new skill sets now required by the challenges outlined above. The project will offer the ability to provide high-quality, in situ access to international best practice for a large number of public and private sector professionals. This broad-based approach should be effective at initiating the cultural changes required to advance policy reform and respond to the challenges of globalization. There is increasing evidence from the region that traditional modes of training public servants and the private sector such as overseas scholarships, secondments and study tours, by influencing only a minority, have not proven effective in stimulating changes in institutional behavior and providing an adequate response to the evolving global economy.

Integration of the DLC and GDLN with the Cyberpark will extend the reach of domestic agencies involved with distance learning and technology training. The Cyberpark aims to provide a nexus for the development of information technology expertise and investment aimed at producing commercially viable products and services. By facilitating access to state-of-the-art training in information technology and nurturing these skills in an environment catering to the development of commercial products and services (the “net-repreneur” center), the Government will ensure that the Dominican Republic can compete in the rapidly changing global economy.

2. Lessons learned and applied in the project design:

a. The Effectiveness of Distance Learning

In recent years, significant innovations in telecommunications and information technology have facilitated the simultaneous transmission of text, data, graphics and video. These have stimulated advances in teaching and learning methods that serve to overcome the spatial constraints imposed by traditional, class-room based methods. While early methods were largely “broadcast” in nature – the student being a relatively passive recipient of material, recent innovations now allow full interaction – fundamentally altering the relationship of trainer and trainee. Two-way interaction not only explicitly benefits the trainees, but allows them to become trainers, bringing their experience to the event.

There is tremendous growth in the application of distance education within the LAC region, driven largely by the promise of delivering high quality knowledge to a geographically dispersed audience. As well as the private sector, these networks are found in academia (e.g. ITESM - Monterrey, the University of the West Indies), secondary education (e.g. WorldLinks) and more recently, being applied to the training of public servants (e.g. INAP –Mexico). In the latter case, there is commonly a strong interest in developing the domestic network, providing content to provincial clients, often to counter the primacy of a capital city (e.g., Trinidad and Tobago, Venezuela, Guatemala). There is also evidence of the increasing development of partnerships within countries, between Universities and those serving the public service, for example. This is providing new opportunities for content development and delivery. By connecting the DLC (and hence the GDLN) to these domestic networks, the potential exists to reach a larger audience and broaden dialogue and the range of relevant topics.

To a large extent, therefore, the effectiveness of distance learning *per se* is not in doubt, at least in the Latin American context. The innovative aspects of this project, which are being tested, include the effectiveness of a business model which links self-sustaining partners in a global network and which brings international best practice to bear on the training of professionals. These explicitly address the lessons emerging from the recent history of distance learning in the region², specifically:

² Moore, Michael G. and Greg Kearsley. Distance Education: A Systems View. Washington: Wadsworth Publishing Company, 1996.

- **Institutional context:** The World Bank has had extensive experience over the years with distance education in a number of country contexts but this has been largely limited to national-level programs (Lang, 1997). One exception is the World Links for Development (WorLD) program, which provides Internet connectivity and training for teachers, teacher trainers and students in developing countries in the use of technology in education. One key lesson learned through WorLD, Chile's *Enlaces*, and other similar Bank programs, is the importance of making necessary investments in human resources to ensure the maximum benefit from investments in technology (Moore, 1996). The model being used for the GDLN acknowledges this by identifying or establishing a strong lead agency and training staff capable of managing the academic program, marketing and facilitation. The emphasis on cost-recovery should allow re-investment in human resources and technology infrastructure.
- **Matching demand with supply of high quality content:** While technological constraints were the principal limiting factors in the early development of distance learning, these have now been replaced by content issues. The problem for course developers has shifted from finding a way to deliver all the materials necessary, to finding enough good-quality material to deliver. (Moore, 1996). Success is linked to identification and articulation of needs and matching this to the supply coming from providers. This reinforces the importance of evaluation and feedback mechanisms which need to function at all levels of a distance learning network and are key to its sustainability. These mechanisms provide feedback to course producers on unmet demand, which in turn should bring new courses into the market. Similarly, in a market-driven network, participants should be able to choose from available content based on information on the availability of material from local, regional and international sources. Suppliers must work together to ensure that this content is both generically applicable and locally specific (relevant) enough to satisfy the needs of participants. These concerns will be central in the design and implementation of the GDLN.
- **Improving sustainability in a high cost technology environment.** The evidence suggests that few individual institutions have been able to generate sufficient traffic to justify dedicated wide-band systems (such as that proposed for this project). Other alternatives cited include the use of "on-demand" services or the use of a dedicated network, to be shared between all, traditionally government, services. Norway has had great success with this arrangement. In either case, it has become clear that there must be an entity responsible for developing policies and practices in network administration -- either a unit within government or an external organization which can act as independent consultant. (Bates, 1995). The approach being taken in this project responds to these issues in a number of ways:
 1. The recent emergence of dedicated training agencies in many Latin American countries should provide this focus at a national level. The explicit focus on cost recovery and management of the DLC as a business (either fully or partially commercial) will also provide opportunities for sustainability not found in most previous efforts (e.g. the African Virtual University).
 2. In terms of overall network administration, the GDLN, at least initially, is making use of the Bank's proven technology solution, achieving economies of scale and allowing the focus to remain on content / impact in the formative first phase. The tried-and-tested policies and procedures used by the Bank will be amended to fit the needs of the DLCs, as experience grows.

Bates, A.W. (Tony). Technology, Open Learning and Distance Education. New York: Routledge, 1995.
 Lang, Grace K. *Distance Education and Educational Technology: A Survey of Bank Operations in the Education Sector*. Prepared for the Human Development Department and the Economic Development Institute of the World Bank, September 1997.

Further, technology and support mechanisms will be reviewed during the project and be allowed to diverge or evolve, if necessary, to fit the development of the local private sector and emerging industry standards.

3. Finally, management of risk and potential cost-sharing scenarios will be addressed in the design of the GDLN. A critical concern in this context, is the level of independence of the independent the individual DLCs. Will they, for example, be allowed to fail if demand is insufficient or will there be cross-subsidy or central support mechanisms? Much depends on the level of responsibility assumed by the GDLN and whether this extends beyond content issues.

b. The Effectiveness of Technology Parks

Reductions in telecommunications prices and aggressive international promotion are delivering employment opportunities and new export earnings to countries offering technology parks that especially benefit export-oriented information service providers, including software developers, Internet and IT-enabled services, and multimedia products. India is an example of a country where programming for other countries is generating significant income and jobs for well qualified computer graduates, at salaries that are considerably less than those of the developed economies. The shortages of programmers worldwide is estimated at 2 million in 2000. Web page design, multi-lingual data entry, web page creation and translation, multi-lingual program and systems support, remote technical support and remote consulting are all examples of "exported" IT work available today.³ There are many other examples. Jamaica and the OECS countries have for several years provided bases for offshore production of information services and are exploring ways to extend favorable telecommunications prices to areas beyond the physically segregated free zones.

c. The Role of the Internet in Sharing Knowledge and Promoting Investment

The dramatic rise of the Internet over the past 3-5 years supports the assertion that the rules of international business are being redefined. Countries need an Internet presence to maintain or expand their prominence in the global marketplace, and engage in new roles and opportunities. While developed countries, those with large markets and access to technology have been quick to realize this potential (see Yahoo!), developing countries, such as the Dominican Republic have much to gain from providing a single, well structured "gateway" to their internet presence. Such a gateway can provide information on the business environment and investment opportunities as well as facilitating communications between local producers and foreign investors capable of partnering to develop global marketing opportunities. Similarly, the gateway can facilitate the exchange of knowledge necessary for economic development. Many of the challenges faced by those in development have been faced elsewhere and sharing of lessons learned and best practices can dramatically reduce unnecessary duplication and experimentation. Finally, the capabilities of the Internet can assist by facilitating transactions, hitherto requiring cumbersome bureaucratic processes. One example, being adopted widely in the developed world, is government procurement. Many of the procedures associated with contracting and monitoring of these activities can be automated in a secure Internet environment.

E: Summary Project Analysis:

(detailed assessments for those analyses applicable to a LIL are in the project file, see Annex 8)

³ Schware, Robert and Paul Kimberley, "Exploiting Information Technologies for Electronic Commerce and Better Public Sector Management," Global Conference on the Development Agenda for Small States, The Commonwealth Secretariat and The World Bank, London, 17-18 February 2000.

1. Economic: (supported by Annex 4)

[] Cost-Benefit Analysis : NPV=US\$ million; ERR= %
 [X] Cost Effectiveness Analysis: [] Other (specify)

Achieving a useful analysis of the relative costs and presumed advantage of distance learning is complicated in the Dominican Republic by the extremely low levels of public sector training activity which currently exist and the recognition that, while cost effectiveness is important, the use of distance learning potential brings benefits beyond the purely economic. These include the potential which exists to make high-quality international knowledge available to a significant number of public and private sector professionals. It would therefore be inappropriate to simply compare existing training approaches to that which can be made available through the Distance Learning Center. The cost-effectiveness analysis included in Annex 4 has been largely based on studies undertaken for other Distance Learning Centers (in Africa) and a detailed cost-benefit analysis undertaken in Bolivia – where costs are likely to be similar. A number of other factors relating to the situation in the Dominican Republic may also mitigate the risk inherent in the strict assumptions made in the analysis for cost recovery (that it will provide 100% of revenue by year four). These include (i) the availability of a significant core training budget within INAP (US\$1 million in FY00), which can be at least partially re-directed to the DLC and (ii) the increasingly well developed nature of distance learning for public functionaries in the region, both in terms of technological reach and content availability.

The analysis included in Annex 4 consists of comparing the cost of delivering training through the proposed DLC to the current training and course delivery system for the “target market” (high-level government officials and private sector and community leaders). The average DLC training delivery cost has been estimated at US\$95/student-day (assuming 60% capacity usage) which is lower than, or comparable with, the cost of training delivery under current systems in other GDLN pilot countries.

2. Financial: (See also Annex 5)

The DLC is expected to attain financial sustainability by its fourth year of operation, by generating enough revenue, through user fees (defined to include internal transfers of INAP core training budget and fee-paying clients), to fully cover operating costs. Financial simulations determined that the financial break-even point will be achieved when the average rate of installed capacity reaches 60%. This corresponds to about 5000 person-days of training per year. For the first 3 years, DLC revenue is expected to cover approximately 20%, 40% and 80% of operating costs for each successive year.

3. Technical:

The project will introduce state-of-the-art computer, video and satellite-based communications equipment. This will provide a similar range and level of services found in a Bank Country Office. Appropriate training for Information Technology staff will be provided under the supervision of the Bank's Information Systems Group (ISG) staff to ensure proper equipment operation and maintenance. ISG will also provide support – on a decreasing scale – over the duration of the project as local capacity increases. Equipment warranty (both local and international, as appropriate) and replacement/upgrade contingency are included in the project.

4. Institutional:

a. Executing agency: The Distance Learning Center will be established within INAP and administered by a Coordinator answering directly to the Director of INAP. The Academic Council will be reconvened

(it is described in the law which established INAP) to provide academic guidance. The role of the Council and its composition will be assessed during the development of the business model, with a view to ensuring the broad participation of Dominican society. Project preparation activities will ensure that the DLC is established and operational by project effectiveness, or shortly thereafter. The project will gradually scale up the activities of the DLC to allow it time to increase its technical and administrative capacity. In addition, project component II is dedicated to providing assistance to the DLC to ensure that it can administer its functions adequately. Part III, which deals with support to the Cyberpark, will also be administered by INAP, contingent on the borrower presenting to the Bank an acceptable arrangement between the parties which facilitates carrying out of the component.

b. Project management: The project management team will be hired on the basis of competition. Compensation will be in line with Government pay scales. Financial management will be the responsibility of INAP (see Annex 6), while external auditing will be contracted to a private firm. Monitoring and evaluation, including beneficiary and client surveys will also be contracted out.

5. Social:

Not Applicable

6. Environmental assessment: Environmental Category ☐ A ☐ B ☒ C

The project will have no environmental impact.

7. Participatory approach:

a. While it is envisaged that a significant number of agencies will become involved in aspects of DLC operations, notably as recipients / sponsoring agencies (e.g. donors) and content providers (e.g. universities), definition of these and their respective roles will be left to the DLC team and consultants charged with Business Plan development. Preparation activities have identified several agencies with existing distance learning capacity (INFOTEP, Pontificia Universidad Catolica Madre y Maestra – PUCMM,), the Technical Institute of Santo Domingo - INTEC and several interested in utilizing the Center (e.g. WB, USAID, UNDP, IADB, Commission for the Reform of the Public Sector). A number of these agencies are integral to the development of the Cyberpark and the integration of the DLC with the park will facilitate the participation of these as full partners in the GDLN – as recipients of content and in the delivery of courses. These groups will be consulted during preparation of the Business Plan and the role and composition of the Academic Council will be reviewed, with a view to identifying possible changes to the composition of the Council, or potentially, the addition of other advisory committees or working groups designed to ensure the broad participation of Dominican society.

b. While the core clientele of the DLC will be the public sector (INAP's mandated responsibility), the Market Analysis and Business Plan will include the interests of the private sector and others and examine ways in which they can benefit from the DLC and contribute to its development. There is evidence in the Dominican Republic that such demand exists – the telephone company (CODETEL) successfully offers distance learning facilities and this approach is central to the role perceived for the proposed Cyberpark. The management of the DLC will be encouraged to aggressively pursue such business opportunities, if these do not detract from their central mission.

F: Sustainability and Risks

1. The sustainability of the Dominican Republic Distance Learning Center is dependent on a number of factors, not all of which are under its direct control, at least in the short-term. Key among

these is the availability of relevant , high quality content of interest to local clientele. By definition, and assuming adequate marketing and willingness to use distance learning-based training in lieu of more traditional approaches (overseas scholarships, classroom-based training), this will dictate the level of demand and potential revenue available, either from the Government's core training budget or fee-paying sources. The involvement of the private sector is seen as crucial to sustainability, a relationship which will be greatly facilitated by integration with the Cyberpark. The latter will also ensure that the DLC is well placed to adopt improved telecommunications technology as this becomes available.

In terms of Component III, the sustainability of the Cyberpark is largely dependent on the degree to which private investors and international firms are attracted to it and achieve suitable returns on investment. This in turn will require that, (i) the Cyberpark is established within a sound legal framework, (ii) the management of the Cyberpark is able to establish an attractive and stable investment environment, (iii) that marketing efforts are adequate and successful, (iv) that the synergies envisaged for the park are forthcoming and, (v) that a range of macroeconomic and political factors continue to encourage foreign direct investment in the Dominican Republic.

2. Critical Risks: (reflecting assumptions in the fourth column of Annex 1)

Risk	Risk Rating	Risk Minimization Measure
From Outputs to Objective		
Government commitment to training of professionals in public and private sectors and civil society	M	Development of market analysis and business plan and integration of DLC as recognized option for INAP training program Government commitment to pay increasing share of DLC costs over project period.
Availability of resources for training	M	Use of broad-based participatory approach to preparation of business plan and marketing strategy, including use by donor community. Internal pricing mechanisms established to record use of INAP core budget expenditure for DLC events Involvement with the commercially oriented Cyberpark venture
Availability of high quality content (courses, teleseminars and policy dialogue events) and relevance to local needs, particularly content offered in Spanish	S	World Bank Institute (WBI) courses (some in Spanish), at least, could be available at the Borrower's request; market study will fine tune the supply of training from other institutions to give the broadest range of courses; Consultants hired to work with WBI and DLC Coordinator to identify distance learning courses in Spanish Provision of facilities and equipment to allow simultaneous translation Integration into existing domestic and regional distance learning networks
Reliable management of satellite equipment	M	Bank will assure initial management and will assist DLC in training of IT support staff

From Components to Outputs		
Reliability of the technology	M	The DLC will be under the Bank's technology umbrella in initial period
Obsolescence / upgrade of equipment within project period	M	Funds contained in project to prepare upgrade plan and contingency for upgrade. Bank to give guidance.
Appropriate equipment operation and maintenance	N	Technical integration of DLC equipment into existing domestic and regional networks and emerging technology infrastructure The project will provide intensive training for technical staff; maintenance will be contracted out to qualified contractor(s).
Management team capacity	M	A competitively selected, highly-qualified and business oriented coordinator, with a proven track record, will be hired, and assisted by a qualified team.
Legal and institutional framework to operate Cyberpark is developed	M	Loan proceeds for Component III (Cyberpark) contingent on presentation to the bank of an acceptable arrangement between one or more entities and the Borrower in order to enable the Borrower to carry out said component.
Other institutions' cooperation and willingness to pay (private sector, donors, etc)	M	Other institutions will be invited to contribute to the DLC business plan and canvassed on an on-going basis regarding training needs; marketing campaigns will be carried out by the management team. The DLC will be integrated into the domestic distance learning network and benefit from involvement in the commercially oriented Cyberpark venture.
Overall Risk Rating	M	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

3. Possible Controversial Aspects:

There is potentially one main source of controversy with respect to the project.

The Bank, through WBI, is engaged in distance learning activities with various partners around the globe, including Bank member countries. To the extent WBI facilities and course content are used in these initiatives, the Bank in effect administers and controls such initiatives, relying in large part on its own human resources and technical infrastructure based in Washington, D.C. GDLN is envisioned as a future extension of this distance learning network, but at this point is at a nascent stage of development where the eventual number of partners, rules of administration, infrastructure specifications and course content standards and sources remain largely undefined. What exact role, if indeed any, the Bank will play in the full-fledged GDLN is also unresolved at this point, although it is expected that the Bank will remain as one of the network's key partners. Nevertheless, at present in the early history of an emerging GDLN, it is clear and unavoidable that the Bank's influence is substantial when it comes to setting technical equipment standards for the network, establishing contractor relationships with the network, participating in the provision of course content for the network, providing training to network counterparts from participating member countries and purchasing and installing network equipment for such counterparts.

Finally, there is some risk involved in Component 3 – which involved dealing with the Cyberpark of Santo Domingo. This organization is in its infancy and many questions relating to its sustainability and legal and institutional framework persist.

G: Main Loan Conditions

1. Effectiveness Conditions:

- Staff (DLC coordinator, computer specialist, accountant and office assistant) selected and employed under terms of reference satisfactory to the Bank.
- Completion of a Market Analysis.
- Issuance of the Operational Manual.
- Financial management system operational.
- Appointment of acceptable independent auditors.
- Acceptable legal opinion indicating that the amendment to the Procurement Agreement has been duly authorized by the Borrower and Technical Secretary to the Presidency.

2. Other [classified according to covenant types used in the Legal Agreements.]

- A draft annual DLC business plan (program of activities, annual budget and provisional accounts, including replacement/rehabilitation expenses) will be submitted for review by the Bank in October of each fiscal year, with a final version (incorporating comments made by the Bank) to be approved by the Academic Council in December of each fiscal year.
- DLC retains staff with qualifications and experience acceptable to IBRD.
- The Borrower has furnished to the Bank, an arrangement, acceptable to the Bank, between the Borrower and one or more entities that will permit the Borrower to carry out Part C of the Project.

Financial and Progress Reporting:

- Commitment by the Borrower to cover 20%, 40% and 80% respectively of the costs of communications satellite bandwidth rental (operating expenses) for the first 3 years of the project.
- Commitment by the Borrower to cover 20%, 50% and 80% of other incremental operating costs under Components I and II of the project.
- DLC Quarterly Activity Report submitted to the IBRD within a month of the end of each quarter.
- Financial Audit Report submitted to IBRD within 6 months of the end of each fiscal year.

H: Readiness for Implementation

☒ 1. a) The engineering design documents for the first year's activities are complete and ready for the start of project implementation.

☐ 1. b) Not applicable.

☒ 2. The procurement documents for the first six month's activities are complete and ready for the start of project implementation; and a framework for agreement on standard bidding documents that will be used for ongoing procurement during the project has been established.

☐ 3. The LIL's implementation plan has been appraised and found to be realistic and of satisfactory quality.

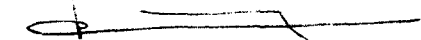
☐ 4. The following items are lacking and are discussed under loan conditions (Section G): Adequate Financial Management system

I: Compliance with Bank Policies

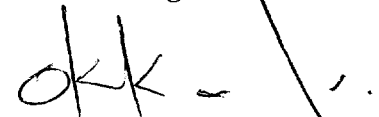
☐ 1. This project complies with all applicable Bank policies.



Team Leader: David Gray



Sector Manager: Jamil Salmi



Country Director: Orsalia Kalantopolous

ANNEX 1: PROJECT DESIGN SUMMARY

Dominican Republic: Distance Learning Project

Hierarchy of Objectives	Key Performance Indicators	Monitoring and Evaluation	Critical Assumptions
Sector-related CAS Goal: Public sector modernization and support for national dialogue.	Sector Indicators: <ul style="list-style-type: none"> • Skill mix of civil service improves and is reflected in productivity. • Broad participation in policy dialogue and development. • Level of consensus and partnership building in development process continues to deepen. 	Sector / Country Reports: Specific surveys to be conducted every year. Performance of the Bank's portfolio and assessment of CDF pilot	(from Goal to Bank Mission) Access to knowledge and information is applied and transformed into better policies and improved performance by public, private and community actors which has a positive impact on poverty alleviation.
Follow-on Development Objective: Mainstream the use of distance learning as an ongoing tool to increase access of public and private sector professionals to global innovations and information	<ul style="list-style-type: none"> • Number of public and private professionals trained • Number and variety of organizations using DLC (All ministries and 30% of large and medium organizations by project end) 	DLC Bi-Annual Reviews.	Adequate supply, quality and relevance of training courses.

<p>Project Development Objective: To test the effectiveness and sustainability of a distance learning center as part of a global knowledge-sharing network, expanding access to high quality training and strengthening the capacity among government officials, private sector managers and civil society.</p>	<p>Outcome / Impact Indicators:</p> <ul style="list-style-type: none"> • Increase number of people trained (Yr. 1: 1000 person-days of training; Yr. 2: 2500 person-days of training; Yr. 3: 3225 person-days of training; Yr. 4: 4625 person-days of training) • Distance learning facility utilization rate (60% by year 4). • DLC operating cost/income ratio (1.0 by year 4). • 50% of content is provided by national and international partners by end year 2. • Quality and relevance of courses offered by DLC is evaluated satisfactory or better by a minimum of 80% of participants. 	<p>Project Reports:</p> <p>Quarterly and Bi-annual reports.</p> <p>Quarterly and Bi-annual reports</p> <p>Year 1 Audit report</p> <p>Quarterly and Bi-annual reports</p> <p>Training program evaluations completed by participants.</p> <p>Six-month follow-up participant surveys</p>	<p>(from Objective to Goal)</p> <p>Trainee organization willingness and ability to pay.</p> <p>Acceptability of distance learning to public, private and community trainees.</p> <p>Regular availability of relevant courses and convenience of scheduling for trainees, particularly course offerings in Spanish.</p> <p>DLC Director and team to identify and refine course offerings annually on the basis of requests and feedback of trainees.</p> <p>Reliable satellite equipment management.</p>
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Output from each component: 1. Fully equipped and operational DLC. 2. Viable and cost-effective provision of training opportunities for a wider audience. 3. Consultant Studies. DLC integrated into domestic network	Output Indicators: <ul style="list-style-type: none"> Operational Acceptance Test completed successfully. Number of public and private professionals trained. DLC self-financing: 20% in year 1, 40% in year 2, 60% in year 3 and 100% in year 4. Business plan and monitoring and evaluation systems in place by end of year 1. Agreement exists between INAP and Cyberpark/ITLA Consultant Studies satisfactorily completed to high standard Codetel / ISG sign-off on connectivity. 	Project Reports: MCI/Codetel report Quarterly and Bi-annual reports Annual audit report of DLC. Year 1 Bi-annual report	(from Outputs to Objective) Government willing to utilize distance learning in training programs. Technology works reliably and is accepted by trainees. Willingness and ability to pay by trainee organizations. Relevance of GDLN training to identified country demand. Cyberpark has established legal framework Compatibility between technology in use in domestic network
Project Components/Sub-components: 1. Retrofitting and equipping of a Distance Learning Center in INAP. 2. Support for the establishment and operation of a DLC as a sustainable training facility. 3. Support for the establishment of the Cyberpark and integration of DLC into domestic network	Inputs: (budget for each component) US\$ 1,120,000 US\$ 1,990,000 US\$ 1,380,000	Project Reports: ISG/MCI Operational Acceptance Report and sign-off. Quarterly and Bi-Annual Reports.	(from Components to Outputs) Donors willing to allocate part of training budgets to project. Management team is business oriented. Course content relevant to local needs. Participating institutions willing to cover part of operating costs. Private sector willing to cooperate.

ANNEX 2: PROJECT DESCRIPTION

Dominican Republic: Distance Learning Project

By Component:

A. Project Component 1 - Distance Learning Center Retrofitting - US\$ 1.12million

This component comprises:

(a) upgrading facilities made available by the Instituto Nacional de Administracion Publica (INAP) for establishment of the DLC, including:

- (i) a videoconference room with a 30-person capacity,
- (ii) a computer room outfitted for 30 computer stations (hardware, software and internet hook-up)
- (iii) a technical and administrative center
- (iv) mechanical outfitting such as installation and/or upgrading of electrical and telephone wiring

(b) equipment of the DLC including:

- (i) a Very Small Aperture Terminal (VSAT) (satellite communication terminal)
- (ii) video, telecommunications and microprocessor equipment
- (iii) office and classroom furniture
- (iv) various other equipment for DLC operation and security

B. Project Component 2 -Support for the DLC Operation - US\$ 1.99 million

This component aims to assist the DLC begin operation and become financially viable. It includes:

- (a) financing of DLC operation costs on a decreasing basis over the first 3 years of operation
- (b) technical assistance for the training of Center staff, periodic evaluation of Center operation and management effectiveness and establishment of financial accounts and their annual audit.
- (c) funds for the sponsoring and development of local course content and partnerships
- (d) financing of technology review and upgrade

C. Project Component 3 – Support for the establishment of the Cyberpark and integration of DLC into domestic network – US 1.38 million

This component will provide technical assistance and partial equipment needs in support of the Cyberpark venture. It includes support for:

- (a) a market study and marketing campaign to determine the real and potential market demand for the Cyberpark
- (b) a study and market survey to assess the benchmark and best practices for the establishment of the Technology institute of Las Americas (ITLA), including the development of an on-line training center and technical training program.

- (c.) a study to determine best practices and benchmarks for the development of the E-Center and Netpreneur Center.
- (d) the establishment of a “Training the trainers” and pilot technology training program and for strengthening the current university academic curricula and the capacity of instructors.
- (e) development of a Business Plan and Financial Prospectus for the consortium established to launch the Cyberpark and related developments. This will include the legal and strategic frameworks associated with the proposed Venture Capital Fund.
- (f) revision of the current legal framework and implementation of best practices in the areas of intellectual property rights and electronic commerce (e-commerce).
- (g) study in support of the National Internet Infrastructure Development Strategy
- (h) procurement of the partial equipment needs of the Netpreneur centre and training facilities, including computer and network equipment and video-conferencing.
- (i) development of the internet gateway to promote investment opportunities, provide information on the business environment, provide access to government, private sector and civil society and facilitate the exchange of knowledge.
- (j) equipment required to connect the DLC to the Codetel fiber optic network

Project Implementation Framework

Given the nature of the project which encompasses a multitude of sectors, it was agreed that *the Instituto Nacional de Administracion Publica (INAP)*. will take on the overall responsibility for the preparation of this project. Some of the key activities tied to the above preparation will include the establishment of the DLC, the revitalization of Academic Council (Consejo Academico) which will provide support in needs assessment and guidance on content development and program accreditation and preparation of the site (classrooms, videoconference room, computer room, administrative offices, etc).

The Distance Learning Center will be created and operated as an integral part of INAP but will maintain separate accounts. Appropriate internal pricing mechanisms are key to the effective functioning and sustainability of the center, as INAP-funded participants’ fees will be paid to the DLC’s account from the INAP core budget.

The Consejo Academico is the governing body of INAP, and is presided over by the Director of the Oficina Nacional de Administracion y Personal (ONAP). The Director of INAP acts as Secretary of the Consejo and has voice but no vote. The members of the Consejo Academico represent government ministries and agencies from each sector. It is the members from sectoral agencies who hold decision making roles on the Consejo. Given its structure and composition, the Consejo Academico is uniquely qualified to support the development of the DLC in terms of content development and accreditation of programs, and its members well positioned to liaise between the DLC and the public sector institutions the Center will primarily serve. It will be the forum for discussion of needs assessment results from the Secretariats and the coordination and accreditation of training programming from the entire spectrum of interested parties.

Project Implementation: INAP will take overall responsibility for the implementation of the project, under the guidance of the Director. Daily management of the DLC will be the responsibility of a Coordinator who will be selected on the basis of proven experience in the management of a private enterprise and/or similar educational entities. He/she will be assisted by a team consisting of a technician (computer specialist with telecommunications knowledge), an accountant and an office assistant. Other personnel will be shared with INAP. Financial Management and accounting responsibilities will be the undertaken by INAP. All personnel shall be recruited on a competitive basis.

The Project Coordination Unit (INAP Director and DLC staff) will work with consultants to prepare a Market Analysis and Business Plan for the DLC, identifying the needs of the local market (public and private sectors) and the potential to address these through content delivered by international sources or locally. These studies will directly address issues relating to cost recovery and intellectual property and provide input to wider determination of the structure and governance of the GDLN. The Business Plan will be updated on an annual basis and submitted to the Academic Council for review and approval and to IBRD for review

The Academic Council will be responsible for monitoring the DLC, managing and establishing the DLC development policy, approving the annual Business Plan and program of activities, assessing the DLC financial statements and providing recommendations to help the Center become financially self-sustaining. In addition to the annual report, the Council will be kept informed of the DLC activities by a quarterly report submitted by the PCU within 30 days of the end of each quarter.

Project Financing: IBRD will finance DLC retrofitting and equipment and consultant services and training related to DLC start-up. Over the project implementation period, IBRD will also finance, on a decreasing basis, DLC operating expenditures. As the market for its services develops, the DLC is to mobilize an increasing share of financing for its operating expenses, to achieve self-sufficiency within the project implementation period. This can come both from fee-paying clients and from re-direction of INAP core training budget. It is expected that the Borrower (INAP/DLC) will cover 20% of operating expenses in the first year, 40% in the second year (50% in the case of non-satellite bandwidth costs), 80% in the third year, and be completely self-financing in the fourth year of project implementation.

The DLC will submit a quarterly activity report to the Bank within 30 days of the end of each quarter. At the end of its fiscal year, but no longer than six months after its completion, the Borrower will present to IBRD financial audit reports of: (i) the Special Account; and (ii) DLC accounts and financial statements.

See Annex VI for a more detailed discussion of project procurement and financial management.

3. Monitoring and evaluation arrangements:

The activities of the DLC will be monitored through the annual business plans and quarterly reports and Bi-annual reports/meetings (video-conferences) as specified above.

The quality of the DLC courses will be assessed through participants questionnaires, completed following each course. A follow-up survey designed to indicate long-term value of the DLC and course content will be administered six months after course completion. The general performance of the DLC and the functioning of the GDLN will be monitored through quarterly and bi-annual reports, the latter focussing on curriculum/academic issues in some depth. All reports will be forwarded to and discussed with WBI. A first assessment of the financial and economic viability of the scheme will be carried out at the end of the first year of operation.

Annex 3: Estimated Project Costs
A. Project Costs by Component

	Foreign (US\$)	Local (US\$)	Total - Project
A. CENTER RETROFITTING AND EQUIPMENT			
Civil Works	-	300,000	300,000
Civil Reconstruction	-	300,000	300,000
Network Access Equipment	160,196	-	160,196
Common Equipment for all Sites	28,005	-	28,005
Remote Baseband Equipment per Site	36,491	-	36,491
Remote RF Equipment per Site	45,700	-	45,700
Upgrade (Year 4)	50,000	-	50,000
International Equipment for DLC Studios	392,117	-	392,117
Video Equipment	75,740	-	75,740
T.120 Application Kit	12,000	-	12,000
Audio Equipment	17,377	-	17,377
Audio Response Equipment	11,900	-	11,900
LAN Equipment	65,000	-	65,000
TV Receive only	15,000	-	15,000
PCs and Related Equipment	95,100	-	95,100
Upgrade (Year4)	100,000	-	100,000
Other DLC Equipment and Furniture	-	119,300	119,300
Office Furniture	-	30,000	30,000
UPS and Generator	-	54,000	54,000
Other Electrical/Electronic equipment	-	7,500	7,500
Video and TV Equipment	-	7,800	7,800
Upgrade (Year 4)	-	20,000	20,000
Shipping and Installation of Equipment	45,000	-	45,000
B. SUPPORT FOR CENTER ESTABLISHMENT			
Consultant Services and Training	18,000	306,000	324,000
Civil Works Supervision	-	88,000	88,000
Market Analysis	-	8,000	8,000
Business Plan	12,000	-	12,000
Training for DLC Staff	-	30,000	30,000
Content Development/Partnerships	-	105,000	105,000
Audits	-	75,000	75,000
Technology Review	6,000	-	6,000
Operating Cost	832,780	837,000	1,669,780
Satellite Bandwidth&Servicing Cost	693,480	-	693,480
Personnel	-	375,000	375,000
Maintenance	139,300	260,000	399,300
Utilities	-	77,000	77,000
Variable Operating Cost	-	125,000	125,000
C. ESTABLISHMENT OF THE CYBERPARK AND INTEGRATION OF DLC			
Equipment for Cyberpark	116,949	162,000	278,949
Computers and Networking	66,250	48,000	114,250
Video-conferencing and related	50,699	7,400	58,099
Office Equipment	-	106,600	106,600
Consultant Services	835,000	250,000	1,085,000
Cyberpark market study and marketing campaign	150000	-	150,000
Establishment of the Technology institute of Las Americas (ITLA).	120000	-	120,000
Best practices and benchmarks for the development of the E-Center	110000	-	110,000
"Training the trainers" and pilot technology training program	100000	-	100,000
Development of a Business Plan and Financial Prospectus	180000	-	180,000
Revision of the current legal framework	75000	-	75,000
Development of Nat. Internet Information Strategy	100000	-	100,000
Development of the internet gateway	0	250000	250,000
PROJECT COSTS	2,400,042	1,974,300	4,374,342
Physical Contingencies	71,426	58,130	129,556
Price Contingencies	-	-	-
TOTAL PROJECT COSTS	2,471,468	2,032,430	4,503,898
Front-end Fee	-	34,000	34,000
TOTAL INVESTMENT	2,471,468	2,066,430	4,537,898

Annex 3: Estimated Project Costs, continued
B. Project Cost by Category

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	Foreign (US\$)	Local (US\$)	Total - Project
Goods	669,262	281,300	950,562
Works	-	300,000	300,000
Services	898,000	526,000	1,424,000
Training	-	30,000	30,000
Operating Cost	832,780	837,000	1,669,780
Other			
PROJECT COST	2,400,042	1,974,300	4,374,342
Physical Contingencies	71,426	58,130	129,556
Price Contingencies	-	-	-
TOTAL PROJECT COSTS	2,471,468	2,032,430	4,503,898
Front-end Fee		34,000	
TOTAL INVESTMENT	2,471,468	2,066,430	4,537,898

Assumptions:

Funding Factor of Operating Cost	165%
equivalent to funding % of operating cost	
year 1	82%
year 2	61%
year 3	21%
year 4	0%
Physical Contingency Factor	10%
Price Contingency Factor	0%

Footnotes

(1) Project lengths is five years

ANNEX 4: COST EFFECTIVENESS ANALYSIS SUMMARY

Dominican Republic: Global Distance Learning Project

1. The cost effectiveness analysis is based on comparing the cost of delivering training courses through the Global Distance Learning Network with the current training and course delivery practice in its "target market". Currently, there are four main methods of in-service training of professionals: (a) international training, i.e. outside the Dominican Republic, (b) regional training, i.e. in another Latin American country, (c) local training by local trainers, and (d) local training by international trainers.
2. Main Assumptions. In the absence of reliable and comprehensive data on the training market in the Dominican Republic, preliminary data gathered in other countries make it possible to estimate the following distribution of in-service training of professionals (mainly public sector employees who were trained in 1997-1998): 45% of professionals are trained internationally, 15% are trained regionally, 20% are trained locally by local staff, and 20% are trained locally by international staff.
3. Capacity: By design, the Dominican Republic distance learning facility will have a capacity of 30 seats each for the conference and computer rooms. The Center may operate over 260 working days per year. In the long run (by year 5), capacity utilization is estimated to be around 60%, corresponding to a production level of 4680 student-days. For the first four years, a steady annual increase of the capacity utilization rate is projected as follows: 8%, 16%, 33% and 41% respectively for each successive year.
4. One of the indicators for comparing costs of course delivery in the current system of in-service training of professionals with the one proposed in the GDLN is the unit cost of course delivery per student-day. This indicator reflects all measurable components except the "quality and convenience of the proposed system" as it will provide easier and wider access to state-of-the-art knowledge and information. In a comprehensive evaluation these benefits need to be taken into account although they are difficult to quantify.
5. Cost of the Distance Learning Center: The unit cost of course delivery per student per day is defined as operating cost plus depreciation (i.e. total OC) divided by the total number of students trained over an average course length. The estimated cost structure of the DLC is detailed in annex 5. The annual cost is determined to be around US\$440,000. Fixed cost represent 85% of total cost, indicating that a high level of expenses will be incurred by the Center irrespective of the level of utilization of its facilities. The cost per day and per student depends on the level of demand, and hence the rate of use of the proposed facilities. The table below shows that the cost per student and per day is very sensitive to the rate of capacity utilization. Unit cost decreases sharply when utilization of the center facilities increases whereas the operating cost is remains largely unchanged due to the importance of fixed costs.

Unit cost in US\$					
Year	1	2	3	4	5
Capacity utilization (%)	8	16	33	41	60
Total operating cost	445	442	454	453	442
Cost-student-day	741	346	174	140	95

6. This simulation emphasizes the importance of retaining a qualified, business-oriented manager to develop effective marketing tools and attract sufficient clients to ensure DLC competitiveness and

financial sustainability. Preliminary market data suggest that an utilization rate of 60% may be attained by the fifth year of operation corresponding to a reasonable unit cost of US\$95 per day per student. This will require an intensive marketing endeavor by the DLC management team aiming at: diversifying Center products and services and winning customer loyalty through delivery of a steady high-quality service, competitive pricing, and training content relevant to expressed demand and client expectations.

7. Unit Cost of the Existing Training System: Only very limited data is available on existing training provision in the Dominican Republic. Analysis carried out for the Distance Learning Project in Côte d'Ivoire provides some comparison - US\$296 for a 10-day course and US\$493 for a 5-day course. Similarly, a Cost-Benefit Analysis undertaken for the DLC in Bolivia, provided estimates of between US\$320/5-day course/person and US\$4000/course/person (overseas training).

8. This range of cost suggests that the proposed Global Distance Learning Network (GDLN) training system (estimated unit cost of US\$95/day) will be at least as cost-effective as the existing, with the true savings coming from the substitution of DLC services for overseas scholarships.

Annex 5: Financial Summary

A. Project Cost by Category

years in operation	0	1	2	3	4	5	Total
Project Components							
Investment Cost	2,238,562	117,000	82,000	205,000	32,000	30,000	2,704,562
Civil Works	300,000						300,000
Network Access Equipment	110,196			50,000			160,196
International Equipment for DLC Studios	292,117			100,000			392,117
Equipment for Cyberpark	278,949						278,949
Other DLC Equipment and Furniture	99,300			20,000			119,300
Shipping and Installation of Equipment	45,000						45,000
Consultant Services and Training	1,113,000	117,000	82,000	35,000	32,000	30,000	1,409,000
Operating Cost	17,000	330,556	330,556	330,556	330,556	330,556	1,669,780
Fixed Operating Cost	17,000	305,556	305,556	305,556	305,556	305,556	1,544,780
Satellite Bandwidth & Servicing Cost		138,696	138,696	138,696	138,696	138,696	693,480
Personnel	15,000	72,000	72,000	72,000	72,000	72,000	375,000
Maintenance		79,860	79,860	79,860	79,860	79,860	399,300
Utilities	2,000	15,000	15,000	15,000	15,000	15,000	77,000
Variable Operating Cost		25,000	25,000	25,000	25,000	25,000	125,000
Total Project Cost	2,255,562	447,556	412,556	535,556	362,556	360,556	4,374,342

B. Project Financing

years in operation	0	1	2	3	4	5	Total
Implementation Period							
Required Financing							
Total Project Cost	2,238,562	117,000	82,000	205,000	32,000	30,000	2,704,562
Physical Investment Cost	1,125,562	-	-	170,000	-	-	1,295,562
Services	1,113,000	117,000	82,000	35,000			1,347,000
Financed by IBRD	2,238,562	117,000	82,000	205,000	32,000	30,000	2,704,562

C. Project Operation Financing

years in operation	0	1	2	3	4	5	Total
Operational Period							
Required Financing							
Project Operating Cost	17,000	330,556	330,556	330,556	330,556	330,556	1,669,780
Revenue Generation	-	60,000	127,500	260,000	322,500	462,500	1,232,500
Financed by IBRD	17,000	270,556	203,056	70,556	8,056	-	569,224
Surplus						(131,944)	(131,944)

Note assumptions:

personnel hired in run-up to center opening @ cost of:	15,000
utilities etc. before operation starts	2,000
covering of operating costs in years 1,2,3,4, and onward	
year 1:	82%
year 2:	61%
year 3:	21%
year 4:	0%

1. A financial analysis was conducted to determine the terms of financial viability of the proposed project. In the absence of adequate and reliable data regarding the training market in the Dominican Republic, we propose to determine the financial goals (pricing policy and cost sharing principle) and market goals (level of demand and capacity utilization to be targeted) to be accomplished by the DLC management team if the Center is to be financially self sustaining by the medium term (fourth year of operation). More market research is needed to have better information on characteristics of the Dominican Republic's training market and a precise understanding of its dynamics to help design an appropriate marketing policy for the Center. Therefore, during the project preparation phase, a consultant will conduct a detailed market analysis which will be available to the DLC management team once it is in place. The main use of the market study is to serve as a key input to business plan design by the DLC management team. The business plan will be drafted over the first two months of start-up of Center operations.

2. **Main assumptions.**

Revenue.

Income generation: the most crucial set of assumptions pertains to the revenue generation patterns. Given the rapid pace of project preparation, only a very preliminary understanding of the market dynamics has been obtained. An alternative approach (admittedly sub-optimal) for deriving a set of precise revenue projections would have been to use training supply to determine the requirements for the center to be financially viable and then analyze whether these requirements are reasonable from the demand side in the context of the Dominican Republic. Training supply is relatively precise as most of the DLC courses will be provided by the WBI at least for the first two years. The main assumption regards the utilization rates for Center facilities, which are projected, over the first five years of operation, to be 7.7%, 16.3%, 33%, 41.3% and 60% for each successive year. The maximum capacity amounts to 4680 student-days of training at a 60% utilization rate. The training fee is set at around US\$100 per student per day: as this price seems to be competitive and affordable for most public and private institutions (see Annex 4) and is therefore expected to attract more students.

Other financial revenue: the amount of financial support to the DLC to balance its operating cost over the first years of operation is determined by the extent to which the Center can generate its own revenue. Hence, it is defined as the residual between the revenue generated and total funding required to cover operating costs before depreciation.

Operating Cost.

Satellite Bandwidth Rent: the satellite bandwidth cost includes the yearly rental cost for the bandwidth and a corresponding service charge. Bandwidth costs are fixed costs, i.e. they don't depend on capacity utilization rates. Annual cost is estimated at US\$138,700 on the basis of existing rates provided by the supplier.

Personnel: we have assumed that the center has eight local staff including a Director (partly covered from DLC funds), a DLC Coordinator, an accountant (part) and a technician. Annual salary per staff is based on current market data for similar positions and responsibilities.

Maintenance: the estimated maintenance costs are based on the following assumptions: locally procured equipment (PCs, furniture, etc.) and civil works have a yearly maintenance of 10% of initial investment cost; internationally procured equipment (equipment for videoconferencing room) has a yearly maintenance cost of 20% of initial investment cost. This high rate accounts for possible contracting out maintenance activities of sensitive equipment to a qualified foreign or regional company.

Utilities: utility costs include expenditures on electricity, telephone and water, which were estimated to cost US\$15,000 annually by comparison to similar computer services in the Dominican Republic.

Variable Operating Cost: These mainly comprise costs related to training and office supply, and depend on capacity utilization. A flat cost of US\$25,000 per year has been assumed (which is roughly US\$500 per student per day at full capacity utilization).

Depreciation: equipment is assumed to depreciate at different rates in accordance with national accounting standards in the Dominican Republic .

Fee/Interest and debt service: the government of the Dominican Republic would carry the interest and principal repayment in lieu of the Center to allow for sensible and attractive training rates. However it is envisaged that the Center assumes reinvestment and renewal cost of its equipment.

3. **Financial Statements and Results.** Based on the above assumptions, basic financial statements of the Center have been estimated for the first five years of its operation. Table 5.1 presents the income and cash flow statement as well as its projected balance sheet. It shows that under the above assumptions the Distance Learning Center will be economically viable and self sustaining (reach its break-even point) once its capacity utilization rate attains or exceeds 42% (or 3225 student-days per year are sold). This is the equivalent of 700 professionals attending a 5-day training per year. From the market perspective, this requirement seems to be achievable: (i) a rate of US\$100 per day per participant compares favorably with the estimated average cost of the current training practice (see Annex 4); this rate will allow for more participants within the same overall budget; (ii) 700 professionals trained annually represents around 15% of the high-level civil servant population in the Dominican Republic; however private sector managers and community leaders may also take training, either reducing the number of civil servants who would need to be trained to maintain the assumption of 700 students per year, or increasing the number of students who could be trained in a given year above 700.

4. The income statement suggests that the break-even point (operating cost minus depreciation) will be attained in the fourth year, when the capacity utilization rate reaches 42% (at a unit cost of US\$140 per day per student). The overall equilibrium (including depreciation to allow for reinvestment) is attained in the fifth year at an utilization rate of 60%. To achieve this goal, an intensive marketing campaign will be needed from the Center management team to: diversify DLC products and services and win customer loyalty through steadily improving quality of service, competitive pricing, and providing training courses that meet expressed demand and client expectations. This emphasizes the importance of retaining a qualified business-oriented manager to develop effective marketing tools and attract enough clients to ensure Center competitiveness and financial sustainability.

5. Initial pricing of the Center's services aims at promoting DLC products and attracting more professionals and decision makers to strengthen their management and policy formation capacity, which is difficult to quantify in economic and financial terms. Consequently, the operating deficit of the first three years will be covered through the IBDR loan. This financial support will match the exact deficit (without depreciation), projected to be around US\$446,000 for the first three years, making up approximately 50% of generated income over that period. This support will be provided on a decreasing basis over this 3-year period as follows: 79% of operating cost in the first year, 56% in the second, and 11% in the third. As the initial training rate, US\$100 per person, is in the low range, it may be raised in relation to the market demand for certain high-demand courses. A flexible market-driven pricing policy should improve the financial viability of the project.

Annex 6: Procurement and Financial Management Arrangements Dominican Republic: Distance Learning Project

A. General

1. **Procurement Assessment Review:** The project appraisal did not include a formal Procurement Assessment Review (PAR) as the team to manage the project was not yet in place. However, the bulk of the procurement for this project has been carried out during the preparation phase and was handled by the Bank under the terms of the "Procurement Agreement" signed between the Government of the Dominican Republic, the Technical Secretary to the President (the Recipient) and the World Bank. This agreement was established on the basis of a waiver to the Bank's procurement guidelines issued by the Managing Director, Mr. Shengman Zhang on 07/09/1999.

2. The bulk of procurement required under this project has been handled during the preparation phase under two PPFs (P367-0, \$550,000 and P367-1, \$400,000). These have covered Consultant Services (\$50,000 and \$50,000, respectively), Goods (\$350,000 and \$200,000) and Works (\$150,000 and \$150,000). In order to be fully compatible with the Bank's own system, goods procured internationally under the PPFs (network access and videoconference equipment for the DLC -US\$402,000) have been procured by the Bank under the same contract that the Bank uses for its own distance learning equipment (this was awarded competitively). This arrangement was embodied in the Procurement Agreement described in (1). Goods including office equipment and furniture procured locally under the PPFs have been procured by the Borrower using national shopping (US\$ 119,300). The contract for civil works (US\$ 300,000), covered under the PPFs was awarded on the basis of Direct Contracting to an existing on-site contractor, as described in Section III, Para 3.7 of the Bank's *Guidelines for Procurement under IBRD Loans and IDA Credits*. Consultant utilized under the PPFs have been selected as individual consultants.

B. Procurement Arrangements:

3. The following procurement arrangements, presented in Table A, will apply to all contracts financed by the IBRD loan. These arrangements were agreed upon during appraisal and are to be confirmed at negotiations.

4. Unless covered under the terms of the "Procurement Agreement", as described in (1) above, goods financed by the IBRD loan will be procured in accordance with the Bank's *Guidelines for Procurement under IBRD Loans and IDA Credits published in January 1995 and revised in January and August 1996, September 1997 and January 1999*. Consultant services financed by the IBRD loan will be procured in accordance with the Bank's *Guidelines for Selection and Employment of Consultants by World Bank Borrowers published in January 1987 and revised in September 1997 and January 1999*.

C. Procurement of Works/Goods.

5. *Goods:* Equipment required under Component III of the project and for subsequent years of the project (i.e. that not covered by the Procurement Agreement or procured under the PPFs), will be procured through international competitive bidding (\$300,000), national competitive bidding (\$190,000) or national shopping (\$80,000).

Annex 6, Table A: Project Costs by Procurement Arrangements
(in US\$ million including taxes, duties and contingencies)

Expenditure Category	Procurement Method			Total Cost (incl. Cont.)
	ICB	NCB	Other	
1. GOODS				
a) Network access/Videoconference equip – Part 1	0.1 (0.1)	0.1 (0.1)	0.08 ^a (0.08)	0.28 (0.28)
(b) Network access/Videoconference equip – Part 3	0.12 (0.12)	0.06 (0.06)		0.18 (0.18)
(c) Office furniture and other equipment – Part 3		0.11 (0.11)		0.11 (0.11)
2. CONSULTANT SERVICES AND TRAINING				
(a) Consultant Services and Training – Parts 1 and 2			0.22 (0.22)	0.22 (0.22)
(b) Consultant Services – Part 3			1.08 (1.08)	1.08 (1.08)
3. OPERATING COST				
a) Satellite bandwidth rental			0.69 ^b (0.28)	0.69 (0.28)
b) Operating expenditures			0.97 ^c (0.29)	0.97 (0.29)
4. PPF Refinancing			0.95 ^d	0.95
TOTAL	0.22 (0.22)	0.27 (0.27)	3.99 (2.9)	4.49 ^e (3.39)

a. - shopping

b. - Sole source, see Section E.

c. - Personnel costs, utility charges

d. - Re-financing of PPFs – P367-0 (\$550,000) and P367-1 (\$400,000)

e. - Excluding Front-end Fee

D. Consulting services and Training

6. Consultant services financed by the loan are estimated at US\$ 1,300,000. The services include training and technical assistance. Technical assistance will consist exclusively of short-term consultancies. Technical assistance contracts, including contract for training and audits, will be procured following Bank procedures on the basis of establishment of short lists of qualified firms or individuals agreed by the Bank. The selection procedures based on the consultant guidelines will consist of: (i) quality and cost-based for consulting firms, and; (ii) least cost for auditing firms.

E. Operating Costs

7. *Incremental Operating Costs:* The communications system installed during this project makes use of a particular satellite. Space (bandwidth) on this satellite is rented on a sole source basis with the company which operates it (Intelsat). The terms of this contract will be negotiated between the Borrower and the supplier with Bank assistance during year 1 of the Project. Other incremental operating costs

incurred by the Borrower for the purposes of carrying out activities under the project may include office supplies and maintenance, incremental staff, vehicle operation and maintenance, photocopies, conference materials, audits and telecommunications costs.

F. Prior Review Thresholds

8. Consulting assignments, with firms and individuals, that cost US\$30,000 or more and US\$15,000 or more, respectively per contract, will be subject to prior review by IBRD. Review thresholds are given in Table B below.

G. Post Review

9. All contracts not subject to the above thresholds will be subject to a post review.

Annex 6, Table B: Thresholds for Procurement Methods and Prior Review

Expenditure Category	Contract Value (Threshold) (US\$)	Procurement Method	Contracts Subject to Prior Review
1. GOODS	$\geq 250,000$ 50 – 250,000 < 50,000	ICB NCB 3 Quotations	All All None
2. CONSULTANTS SERVICES AND TRAINING	Individuals: >15,000 Individuals: <15,000 Firms: > 30,000 Firms: < 30,000	QCBS Least cost	All None All None
3. COMMUNICATIONS SATELLITE BANDWIDTH	Above 50,000	Direct Contracting	All

H. Procurement Implementation Schedule and Advance Procurement Actions.

10. The detailed investment implementation schedule will be presented in the Project Implementation Manual. This timetable will be used as a basis to monitor procurement processing.

I. Project Financial Management

11. **Financial Management Assessment:** During project preparation, a Financial Management Assessment was carried out by LCOAA, and an Action Plan was agreed to with the borrower. Given that INAP's financial management capacity was minimal at the time of the assessment, it was decided that the establishment of an operational financial management system should be a condition of effectiveness for the loan. Risk in this aspect of the project is considered minimal, given the high degree of Bank involvement in the procurement process, the UNDP's handling of the PPFs, which was equivalent to about 30% of the loan, and the small amount of the total loan. (Note: the financial risk related to

sustainability of the program is not addressed in the financial management assessment, which focuses more on accounting, reporting, and internal control. Financial risk is addressed in other sections of this PAD).

12. **Financial Management Arrangements including Accounting, Auditing and Reporting:** The Borrower, through INAP, will maintain separate accounting records for the project and for its own operations. The Project Preparation Advance(s) were administered by the local office of UNDP, which did not retain a role under the loan. In addition to its financial statements, the Borrower will submit a quarterly Project Management Report, 45 days after the end of each quarter, presenting a summary of sources and uses of funds, procurement/contracts schedule and statement and summary of expenditures by component and by category. This report should be consistent with the format of the Project Management Report (PMR) as shown in Annex 7 of the Bank's Project Financial Management Manual. Assurance has been obtained from the Borrower that implementing agency accounts and financial statements, and the Special Account maintained by INAP will be audited annually in accordance with international audit standards by experienced and recognized audit firms satisfactory to the Bank. It was agreed with the borrower that the appointment of auditors is a condition of effectiveness. It is also essential that the audit TOR includes the issuance of a management letter on internal controls six months after effectiveness.

13. At the end of its fiscal year, but no longer than six months after its completion, the Borrower, through INAP, will present to IBRD financial audit reports of: (i) the Special Account as well a special opinion on the SOEs; and (ii) DLC accounts and financial statements.

J. Disbursement Arrangements

14. The proposed allocation of the loan is shown in Table C. The IBRD Loan will be disbursed over a period of 5 years (from 2000 to 2005), with a closing date of October 31, 2005 to allow for a close follow-up on the project activities.

15. During negotiations, it was agreed that \$30,000 could be provided in retroactive financing, to cover costs associated with the project during the start-up of the DLC under the Project Preparation Advances. These funds, which cover the period from June 1st, 2000 through to effectiveness, represent staff costs and miscellaneous charges, including utilities.

Annex 6, Table C: Allocation of Loan Proceeds

Expenditure Category	Amount (US\$)	Disbursement Percentage
1. GOODS		
a) Network access/Videoconference equip – Part 1	280,000	100% of foreign expenditures; 100% of local expenditures (ex-factor costs); 85% of other local expenditures
b) Network access/Videoconference equip – Part 3	180,000	100% of foreign expenditures; 100% of local expenditures (ex-factor costs); 85% of other local expenditures
c) Office furniture and other equipment – Part 3	116,000	100% of foreign expenditures; 100% of local expenditures (ex-factor costs); 85% of other local expenditures
2. CONSULTANT SERVICES AND TRAINING		
a) Consultant Services and training - Parts 1 and 2	215,000	100% of local and foreign expenditures for services of consultants
b) Consultant Services – Part 3	1,085,000	100% of local and foreign expenditures for services of consultants
3. OPERATING COSTS		
a) Satellite bandwidth rent	280,000	80% until \$110,000 have been disbursed in aggregate; then 60% until \$190,000 have been disbursed in aggregate; then 20% thereafter
b) Operation expenditures	289,700	80% until \$80,000 have been disbursed in aggregate; then 50% until \$250,000 have been disbursed in aggregate; then 20% thereafter
4. PPF Refinancing	950,000	Amounts due
5. Front-end Fee	34,300	100% payable to the Bank upon effectiveness
TOTAL	3,430,000	

15. To facilitate project implementation, a Special Account in US dollars will be established by the Borrower in the name of the DLC of the Dominican Republic in the Central Bank on terms and conditions satisfactory to IBRD. The DLC will operate this Special Account, which will have an authorized allocation of \$160,000 (or 4.7% of the loan amount).

16. For contracts not subject to IBRD prior review, specifically; (a) goods contracts estimated to cost less than \$50,000 equivalent, (b) contracts for the employment of consultant firms costing less than \$30,000 equivalent, (c) employment of individual consultants costing less than \$15,000 equivalent each; (d) contracts associated with incremental operating costs (other than bandwidth rental) and training as set forth in Table 6, disbursements will be made against Statements of Expenditure certified by the Financial Manager of the DLC (or authorized signatory). Otherwise, all applications to withdraw the proceeds of the loan will be fully documented for contracts subject to prior review by IBRD. The minimum application size for payments to be made directly by the Bank to the contractors and suppliers or for issuance of Special Commitments is 20% of the authorized allocation to the Special Account. Applications for replenishment will be submitted monthly or when 33% of the initial deposit is disbursed, whichever occurs first. Replenishment applications will be supported by the necessary documentation including the SA statement and a reconciliation of the Special Account statement to the project's records based on invoices and other documents. The Special Account will be audited annually by auditors

acceptable to the Bank. Due to its small size and up-front disbursement schedule, it is not anticipated that the project will disburse via PMRs – however, this will be considered depending on the progress of the project and the DLC's ability to generate comprehensive PMRs in a timely manner.

Annex 7: Project Processing Budget and Schedule

Dominican Republic: Distance Learning Project

Project Schedule	Planned (At final PCD stage)	Actual
Time taken to prepare the project (months)	6	9
First Bank mission (identification)	06/15/99	06/15/99
Appraisal mission departure	11/30/99	11/30/99
Negotiations	12/18/99	09/14/00
Planned Date of Effectiveness	2/18/00	10/14/00

Prepared by: National Institute of Public Administration

Preparation assistance: PPF Advance

Bank staff who worked on the project included:

Name	Specialty
David Gray	Team Leader/Knowledge Management Coordinator
Juliet Maria Litterer	Education Specialist
Abrao Grynglas	Senior Information Technology Officer
Juan Padron	Senior Information Technology Officer
Guillermo Cintron	Resident Mission Liaison
Ferenc Molnar	Senior Counsel
Reynaldo Pastor	Counsel
Daria Goldstein	Counsel
Edward Daoud	Disbursement Officer
Xiomara Morel	Disbursement Officer
Jacqueline Marie L. Demars	Financial Management/Disbursement Officer
Vladimir Jadrijevic	Procurement Specialist
Daniel Boyce	Financial Management Specialist
Patricia de la Fuente	Financial Management Specialist
Robert Schware	Senior Informatics Specialist
Michael Foley	Senior Distance Education Specialist

Annex 8: Documents in the Project File*

Dominican Republic: Distance Learning Project

- Country Assistance Strategy for the Dominican Republic, June 9, 1999, Report No. 19393 DO
- User Needs Assessment – Bolivia Distance Learning Center
- Cost Effectiveness Analysis and financial model
- BTO of Reconnaissance Mission, June 13-16, 1999
- BTO of Technical Mission, October 10-13, 1999
- BTO of Financial Management Mission, February 16-18, 2000
- Cost Effectiveness Analysis
- Signed VSAT License Authorization, October 19, 1999
- Signed Building Permit (to locate satellite dish), November 8, 1999
- Signed PPF (P367-0), November 11, 1999
- Signed contract (DOM/00/002) with UNDP, January 17, 2000
- Signed PPF (P367-1), April 5, 2000
- Signed Revision (DOM00/002/B) with UNDP, June 27, 2000
- Signed Aide Memoire/Action Plan from Financial Management Mission, June 6/16/2000

*Including electronic files.

Annex 9: Statement of Loans and Credits

Dominican Republic Distance Learning Project

Status of Bank Group Operations in Dominican Republic Operations Portfolio As of 10-January-2000

Closed 23
Projects

Board Date Fiscal Year		Last PSR		Original Amount in US\$ Millions				Difference Between Expected and Actual Disbursements ^{a/}		
Active Projects		Supervision Rating b/		IBRD	IDA	Cancel.	Undisb.	Orig.	Frm	Rev'd
		<u>Development Objectives</u>	<u>Implementation Progress</u>							
1995	P007020	IRRIG LAND & WATERSH	S	S	28	0	0	22.5	11.96	4.39
1996	P035494	BASIC EDUCATION	S	S	37	0	0	24.0	20.01	12.61
1997	P035722	NATIONAL HWY. PROJ.	S	S	75	0	0	50.4	32.33	12.33
1998	P035733	ENVIRONMENT POLICY	S	S	3	0	0	2.0	0.27	0
1998	P007015	PROV.HEALTH SERV.PRJ	S	S	30	0	0	17.5	-7.36	0
1999	P063201	EMERGENCY OPERATIONS	S	S	111.11	0	0	45	3.89	-2.5
2000	P052736	TELECOM REG. REFORM	S	S	12.3	0	0	12.3	0	0
2000	P059510	WASTEWATER DISPOSAL IN TSM CENTERS (LIL)	S	S	5.0	0	0	5.0	0	0

Source: The World Bank.

Dominican Republic
Statement of IFC's
Held and Disbursed Portfolio
As of 8/31/99
(In US Dollars Millions)

FY Approval	Company	Held				Disbursed			
		Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1991/94	DTC	0	0	0	0	0	0	0	0
	1998 Flamenco Bavaro	14	0	0	21.7	13.55	0	0	20.15
	1993 Hotel Flamenco	3.15	0	0	0	3.15	0	0	0
1995/96	Smith-Enron	0	0	0	0	0	0	0	0
	Total Portfolio:	17.15	0	0	21.7	16.7	0	0	20.15

Approvals Pending Commitment

	Loan	Equity	Quasi	Partic
1997 GILS	10	6	0	0
2000 HOSPITEN	11	0	0	11
Total Pending Commitment:	21	6	0	11

Annex 10: Country at a Glance

Dominican Republic at a glance

01/18/2000

POVERTY and SOCIAL

1998

	Dominican Republic	Latin America & Carib.	Lower-middle-income
Population, mid-year (millions)	8.3	502	908
GNP per capita (Atlas method, US\$)	1,770	3,940	1,710
GNP (Atlas method, US\$ billions)	14.6	1,978	1,557

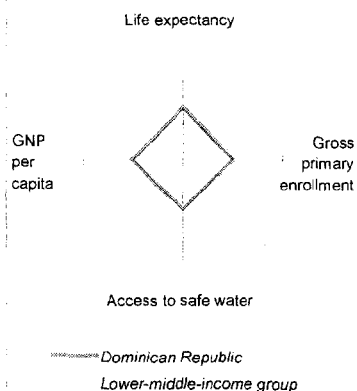
Average annual growth, 1992-98

	Dominican Republic	Latin America & Carib.	Lower-middle-income
Population (%)	1.8	1.6	1.1
Labor force (%)	2.6	2.3	1.5

Most recent estimate (latest year available, 1992-98)

Poverty (% of population below national poverty line)	21		
Urban population (% of total population)	64	75	58
Life expectancy at birth (years)	71	70	68
Infant mortality (per 1,000 live births)	40	32	38
Child malnutrition (% of children under 5)	6	8	
Access to safe water (% of population)	73	75	75
Illiteracy (% of population age 15+)	17	13	14
Gross primary enrollment (% of school-age population)	103	113	103
Male	103		105
Female	104		100

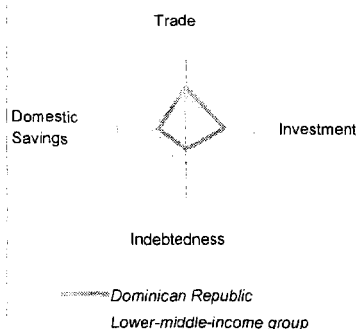
Development diamond*



KEY ECONOMIC RATIOS and LONG-TERM TRENDS

	1977	1987	1997	1998
GDP (US\$ billions)	4.6	5.8	15.1	15.9
Gross domestic investment/GDP	21.8	24.2	22.0	25.8
Exports of goods and services/GDP	20.0	25.6	31.4	30.6
Gross domestic savings/GDP	17.6	12.4	17.3	16.9
Gross national savings/GDP	18.9	18.6	21.0	23.6
Current account balance/GDP	-2.8	-6.2	-1.1	-2.2
Interest payments/GDP	1.1	1.9	1.2	1.1
Total debt/GDP	24.5	67.3	28.1	
Total debt service/exports	13.2	18.4	7.7	
Present value of debt/GDP			25.5	
Present value of debt/exports			64.6	

Economic ratios*

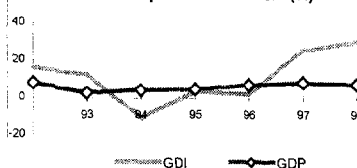


	1977-87	1988-98	1997	1998	1998-03
(average annual growth)					
GDP	3.0	4.2	8.2	7.3	6.8
GNP per capita	0.1	2.2	6.3	4.9	5.1
Exports of goods and services	8.1	6.0	10.8	4.4	7.7

STRUCTURE of the ECONOMY

	1977	1987	1997	1998
(% of GDP)				
Agriculture	20.1	11.9	12.4	11.6
Industry	29.5	20.7	32.3	32.8
Manufacturing	19.0	12.8	17.0	16.6
Services	50.4	67.4	55.3	55.6
Private consumption	78.3	81.9	75.0	74.9
General government consumption	4.1	5.8	7.8	8.2
Imports of goods and services	24.2	37.4	36.2	39.5

Growth rates of output and investment (%)



	1977-87	1988-98	1997	1998
(average annual growth)				
Agriculture	0.7	2.0	3.4	0.8
Industry	-1.7	5.6	10.6	8.6
Manufacturing	-1.4	5.3	7.9	4.7
Services	5.7	4.0	7.9	7.5
Private consumption	2.8	2.8	3.3	7.2
General government consumption	8.6	16.4	61.0	12.9
Gross domestic investment	3.4	13.1	25.8	30.3
Imports of goods and services	4.8	4.8	10.2	17.1
Gross national product	2.4	4.1	8.3	6.8

Growth rates of exports and imports (%)



Note: 1998 data are preliminary estimates

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete

