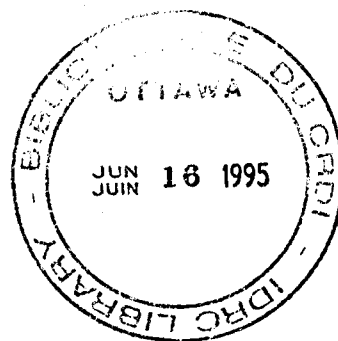# NATIONAL INFORMATION PROJECT

SOUTH AFRICA

Report of an IDRC Mission

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National Information Project

South Africa

Table of Contents

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Background

Underlying the many-faceted mandate of the Reconstruction and
Development Programme (RDP) is the need for a comprehensive transformation
of the public sector decision-making environment. This is nowhere more evident
than in respect of the information requirements of the RDP itself for planning,
implementation, monitoring, and evaluation. The transformation process involves
fundamentally reformed conditions of information sharing, communication and
participation in the South African economy and society, including the
establishment of a modern infrastructure to make this possible. This, in turn,
requires improved methods of co-ordination within the RDP Office itself, as well
as among and between the three tiers of government. In this regard, a
framework for the development of a broad information policy needs to be
considered as part of the overall alignment process.

The May 1994 report of the IDRC-sponsored Preparatory Mission,
"National Information Management Project: South Africa", defined a framework
for a national information policy for South Africa. The present report
complements that earlier study. It reflects the integrated nature of the policy-
making process, especially in a multi-sectoral, information economy.

The original plan called for a full-scale Mission to follow, based on the
preliminary investigations carried out by the Preparatory Mission. The terms of

reference of the Preparatory Mission, the time available to it for field visits and for completion of the study, and the context in which it carried out its work, (Central Government Ministers and Provincial Premiers had only just been appointed) necessitated the sketching of only broad principles for further action by the South African Government of National Unity. The technical dimensions associated with this process (e.g., information and communications technologies and telecommunications) were to have been dealt with in the Mission proper, but because of the rapid pace with which developments were taking place in South Africa post the April 1994 election, it was decided against fielding a mission at that time. The present report, therefore, proposes some modifications to the original plan.

Progress to Date

The report of the Preparatory Mission served to promote the need for an information culture and made several recommendations to address some immediate information needs. These include:

1.   A minimum harmonised dataset, based on standards agreed to by all relevant users and producers of such a dataset, to respond to the urgent need for information to implement and monitor the RDP in the face of the huge data gaps that exist at the moment;

2.   An integrated test environment to test technologies and information packages suitable for wide deployment in an environment that allows

communities to provide direct input related to their needs;

3. Developing and keeping up-to-date an inventory of documents produced by the negotiating fora that have been dealing with a wide range of issues over the last several years; and

4. Safeguarding the data and records of the former TBVC states, before they have dispersed irrevocably.

The report suggests that these four activities could be initiated by local institutions under the overall direction of the RDP, and recommended three short-term studies important to prepare the ground for further work on issues identified as priorities within the policy framework. These are:

1. The legal framework for information policy;

2. Information exchange between central, provincial and local government, and

3. South African education and training capabilities in the information field.

Finally, the Preparatory report proposes the creation of an Information Policy and Coordination Unit (IPCU) as a means of addressing the information flows within government institutions and between government and society-at-large. In summary, the report recommends that this co-ordinating mechanism address issues concerning the harmonization of information activities nationally.

The most important immediate task is to establish a mechanism to facilitate government decision-making. This is essential to efficient resource allocation and for effective program implementation by government bodies at all levels. A

National Information Project has been established under the direction of Dr.

Bernie Fanaroff and is being led by Mr. Etienne Theart, from the RDP Office. A

comprehensive and systematic project plan is currently under development and a

coordinating committee is being established to oversee the project. In the

meantime, work has already begun on a training program for departments and

provinces, the establishment of improved communication links among government

agency personnel working in the field, and the identification of key performance

indicators. It is intended that this process will lead to the construction of a "data

model" and establishing an organizational structure that will promote effective

implementation. Involvement of state and parastatal agencies, and non-

governmental organisations involved in the information sector, is planned at a

later stage.

The National Information Project should go a long way towards meeting a

recent call by Public Service and Administration Minister Zola Skweyiya's recent

call to "...work towards a situation where the currently fragmented information

residing on various databases could be made available on an integrated basis."

All other recommendations of the Preparatory Mission, while considered

important, remain to be implemented. To date, none of the short-term studies

identified in the report has been commissioned. A decision with respect to the

creation of an IPCU has been delayed to permit further consideration of a number

of factors, including the best site to locate such a unit.

Since its inception, the RDP Office has been tasked with numerous, critical

national developmental programs. Yet, its staffing arrangements remain fluid.
It may be that implementation of the complete set of recommendations contained
in the IDRC Preparatory Mission report is contingent on the decision concerning
the establishment of the proposed IPCU.

The Telecommunication Infrastructure

The apartheid regime provided a telecommunication infrastructure to serve
its own interests and denied communication and information exchange
opportunities to the black communities. At present, Telkom provides nine
telephone connections per 100 people, compared to an average of 50 for OECD
countries. In rural South African communities, the coverage is less than one
telephone per 100 people, and in many communities there are no telephones at all.
Posts, Telecommunications and Broadcasting Minister Pallo Jordan has said that,
at the current growth rate, telephone penetration will stand only at 11 per 100
population by the year 2000.

At the same time, many business and government users are unhappy
because they cannot get access to the more sophisticated, value-added,
telecommunication-based information services available internationally, and which
they need to permit their own management information systems to be implemented
effectively. For example, it is reported that all white universities have access to
the Internet, but no black universities have such access. The services that do
exist, are patterned after the old structures.

Telkom is adding new telephone lines, yet the backlog of unfilled requests for telephone connections continues to rise. The new mobile services are growing as fast as they can absorb new customers. There is significant unused capacity in the Transnet, Eskom, and defence telecommunication networks. Major international telecommunication operators and new satellite services coming on stream in 1995 are threatening to significantly reduce Telkom's capability to respond to the enormous national needs

Clearly, the effective implementation of the recommendations contained in the Preparatory Mission report, as well as the objectives of the RDP, will depend heavily on an order of magnitude of expansion of the telecommunication network - both in terms of geographical and population coverage, as well as modern data and information service capabilities.

The RDP White Paper recognizes this when it states that "Telecommunication is an information infrastructure and must play a crucial role in South Africa's (development) programmes. The RDP aims to provide universal affordable access for all as rapidly as possible within a sustainable and viable telecommunications system; to develop a modern and integrated telecommunications and information technology system that is capable of enhancing, cheapening and facilitating education, health care, business information, public administration and rural development."

The information and telecommunication issues are highly interrelated and interdependent in the current South African environment. With the convergence

of information and communication technologies and services in the evolutionary development of the information highways of the future, these issues will become ever more important as time passes. The RDP White Paper recognizes this as well: "The use of information technology provides a major challenge in linking basic needs with information highways in innovative ways that improve the capacity of industry, successfully to integrate into world markets."

It is no wonder, therefore, that a number of studies on the information, communication and electronics industries have emerged of late in South Africa. These include reports on research conducted by the Council for Scientific and Industrial Research (CSIR) on the physical infrastructure (the "backbone"), and on the possible applications of value-added networks as they relate to the information highway. The Standing Committee for Electronics, currently managed by the Industrial Development Corporation, has researched the restructuring of the electronics and information technology industry, the use of technology-supported education and training, and the potential of "smart-cards". In addition, many other studies are underway by various interest groups in South Africa.

For the future, participation in economic, social and political life will be heavily influenced by the reach of the telecommunication infrastructure. This leads us to the recommendation that accompanying the broad framework of a national information policy proposed in the IDRC Preparatory Mission report, there should be a complementary report helping to define a broad

framework for a national telecommunication policy.

Establishing A Framework for a Telecommunications Policy-making Process

South Africa has already taken some important steps along the path of telecommunication reform that all countries are following in order to adapt their telecommunication institutions to the needs of their societies in light of changing technological, economic and social conditions. Different countries have adopted different solutions, depending upon their particular needs, priorities, values, and circumstances. Nevertheless, successful telecommunication reform requires a systematic approach within a framework of national policy development. This permits the identification and assessment of policy options that consider all the linkages of telecommunication to other sectors of the economy, and to the government's economic and social objectives.

The current situation is characterised by the need for a clear regulatory framework for the telecommunication sector - a framework that is perhaps managed by an independent authority not unlike the Independent Broadcasting Authority established recently for the broadcasting sector.

Minister Jordan recently reflected on the need to develop South Africa's telecommunication services and information infrastructure over the next 20 years. **It is essential that as widely a consultative process as possible be activated soon to engage the various players and interest groups, including the private sector, NGO-movement, key parastatals and the labour unions. This strategy**

would be in line with that of other similar developing economies, and it

should culminate in the drafting of a Telecommunications White Paper.

The National Telecommunications Forum (NTF) should be an important player in this process. Discussions with respect to the development of a clear framework at its first plenary (24-25 November, 1994) would appear to be a significant, constructive step forward. The impact upon the labour market and, therefore, the union movement, the suppressed demand for communication services by communities, and the need for the private sector to organise its R&D and product delivery almost certainly require a strong leadership approach by government to ensure effective policy development, coordination and implementation. Similarly, the larger dimension of the Southern African region should not be ignored as South Africa is uniquely placed to provide leadership that can benefit the entire region.

The need for independent, international participation to contribute information and experience from other countries and from international agencies has already been identified. A possible role for IDRC could be to facilitate this process by supporting the preparation of a report outlining the framework of a national telecommunication policy. Such a report would be based on a review of the policy research literature, on international experience to date, on developments in relevant international agencies, and the current situation in South Africa.

However, if the policy framework is to be extended beyond the telecommunication sector, and linked to the other sectors with which

telecommunication is converging or becoming increasingly interrelated, the broad

policy framework will need to be more encompassing. There are several

interrelated dimensions to a broader framework for developing telecommunications

policy:

1. Reform of the telecommunications sector (the essential infrastructure);

2. Convergence with the information technology and information service

    sectors;

3. Advanced stage convergence with media and other content sectors,

    providing for multimedia and other information highway services;

4. Applications for implementation of modern information management

    systems and improved decision-making in government and the private

    sector;

5. Applications in high priority sectors of development, for example,

    education and training, health, housing and water; and

6. Applications to support the implementation of other priorities of the RDP,

    for example, creating opportunities for small- and medium-sized

    enterprises, which are seen as the key to economic growth, employment,

    and a stable and democratic future.

Examining the issue of telecommunication reform within the broader

framework outlined here would necessitate a direct linkage between the

telecommunication reforms, reforms taking place in other sectors, and South

Africa's transition to a developed economy and society within the global

information society of the 21st century. The development of this broad-based

policy framework should also help facilitate policy development in the areas

with which telecommunication is interrelated, for example, the important

telecommunication component in the development of policies and programs in

education and training, regional development, and other areas.

Program Coordination and Implementation

The greatest challenge facing the Government of National Unity is to

integrate broad development goals with the necessary frameworks that would

facilitate the various programmes. According to Minister Jordan, "a key

objective now is to strive for the realization of Universal Service - the dominant

goal in our policy."

The RDP is the fundamental policy and strategic framework for the

optimum delivery of development programs, products, and services. The

Government now requires the formulation of a detailed policy and legislative

program for successful implementation. The RDP Ministry should provide an

enabling environment in accordance with the business planning and budgeting

process already activated.

Due to the pervasive implications of the telecommunications sector, it is

suggested that Minister Jay Naidoo, who is responsible for the RDP, take the

lead in coordinating efforts involving the information service, information

technology and telecommunication sectors, and for identifying key

performance areas for the delivery of specific outputs within these sectors.

Responsibility for carrying out the necessary reviews, analyses and studies

needed to formulate policies, strategic plans and projects in the information,

communication and telecommunication sectors, would rest with the appropriate

line Ministries. For instance, the formulation of a national telecommunication

policy, and the reforms and structural reorganisation of this sector, would be the

responsibility of the Minister for Posts, Telecommunications, and Broadcasting.

The approach described above relates to the policy making process relating

to telecommunications, information services, information highways or information

technologies. **Given the multidisciplinary nature of the issues involved in an**

information economy and the need to approach them in an integrated fashion,

Ministers Pallo Jordan and Jay Naidoo might consider striking a Cabinet

Committee on Telecommunications and Information, as a means for ensuring

rapid progress in their fundamental areas. Ministries that may need to be

involved include:

- Trade and Industry

- State Enterprises

- Arts, Culture, Science and Technology

- Public Service and Administration

- Finance

- Deputy President Thabo Mbeki (responsible for the drafting of a Freedom
  of Information Act)

In addition to the above recommendation, there will be a need to examine the implication of the information and communication technologies and services for the South African information economy generally. There will also be a need to include broad-based participation from all sectors of the South African society. Therefore, the government might consider establishing a non-statutory Advisory Council on the South African Information Economy. This would include the relevant state structures and parastatals, academics, non-governmental organisations, the labour movement, and the private sector. The Council would keep in touch with global trends and understand their implications for the South African economy, in a sector (- information) where global integration is increasing rapidly. To a degree, any such Advisory Council would be no different from those set up in various Western capitals such as Washington, Ottawa, and Stockholm to advise government on matters such as national information infrastructures, the information highway, and the information economy/society.

Given the multidimensional nature of information-related issues, the Advisory Council can, in turn, establish specific ad hoc working groups and task forces. These bodies would be mandated to seek the involvement of not only technical experts, but also the information and media sectors, the private sector, special interest groups, non-governmental organizations, and the community-at-large.

Structured in this manner, these various activities and initiatives could

proceed in parallel with next steps in the implementation of the recommendations

contained in the IDRC Preparatory Mission report. With the lead, coordination,

and harmonization provided by the Cabinet Committee, the various initiatives

should mutually reinforce each other and help stimulate a more widespread

understanding of the roles of communication and information as important

resources in the implementation of the RDP plans and programs. **Consideration**

should also be given to telecommunications being added to the list of

Presidential or RDP lead projects currently underway. A White Paper on the

wider subject of the Information Economy should also be considered,

underpinned by in-depth research and analysis being activated at an early stage.