

Document of  
The World Bank

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Report No: 38890 – AFR

PROGRAM APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT  
IN THE AMOUNT OF SDR 76.21 MILLION  
(US\$ 114.4 MILLION EQUIVALENT) TO THE  
REPUBLIC OF KENYA  
KENYA TRANSPARENCY & COMMUNICATIONS INFRASTRUCTURE PROJECT (TCIP/CIP 1)

PROPOSED GRANT  
IN THE AMOUNT OF SDR 13.5 MILLION  
(US\$ 20.1 MILLION EQUIVALENT) TO THE  
REPUBLIC OF BURUNDI  
BURUNDI COMMUNICATIONS INFRASTRUCTURE PROJECT (CIP 2)

PROPOSED CREDIT  
IN THE AMOUNT OF SDR 20.2 MILLION  
(US\$ 30 MILLION EQUIVALENT) TO THE  
REPUBLIC OF MADAGASCAR  
MADAGASCAR COMMUNICATIONS INFRASTRUCTURE PROJECT (CIP 3)

IN A TOTAL OF SDR 109.91 MILLION FOR PHASE 1  
(US\$ 164.5 MILLION EQUIVALENT)

OF A US\$424 MILLION EQUIVALENT  
REGIONAL ADAPTABLE PROGRAM LOAN  
FOR THE  
REGIONAL COMMUNICATIONS INFRASTRUCTURE PROGRAM

March 5, 2007

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective 28 February 2007 for Kenya, 31 January 2007 for Burundi and Madagascar)

1.5170 US\$ = SDR 1 (for Kenya)  
1.48945 US\$ = SDR 1 (for Burundi and Madagascar)

## FISCAL YEAR

January 1 – December 31

## ABBREVIATIONS AND ACRONYMS

AFD	French Development Agency ( <i>Agence Française de Développement</i> )
APL	Adaptable Program Loan
AfDB	African Development Bank
BP	Bank Procedures
COMESA	Common Market of Eastern and Southern Africa
CTO	Commonwealth Telecommunications Organization
CIP	Communications Infrastructure Project
CAGR	Compound Annual Growth Rate
CAS	Country Assessment Strategy
DRC	Democratic Republic of Congo
DFID	Department of International Development (United Kingdom)
DBSA	Development Bank of Southern Africa
DFIs	Development Financial Institutions
EABs	East Africa Backbone system
EASSy	Eastern Africa Submarine System
E&SA	Eastern and Southern Africa
ESMF	Environmental and Social Management Framework
EIB	European Investment Bank
EU	European Union
FMS	Financial Management System
GP	General Policies
GDP	Gross Domestic Product
GNI	Gross National Income
IRU	Indefeasible Right of Use
ICT	Information and Communications Technology
IDA	International Development Association
IFC	International Finance Corporation
IXP	Internet Exchange Points

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KfW	German Credit Agency for Reconstruction ( <i>Kreditanstalt Für Wiederaufbau</i> )
MDG	Millennium Development Goals
M&E	Monitoring and Evaluation
NEPAD	New Partnership for Africa's Development
OD	Operational Directives
OP	Operational Manual
OPN	Operational Policy Note
OBA	Output-Based Aid
PAD	Project Appraisal Document
PRSP	Poverty Reduction Strategy Papers
PPP	Public Private Partnership
PPIAF	Public-Private Infrastructure Advisory Facility
RCIP	Regional Communications Infrastructure Program
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SIDEM	Social and Institutional Development and Economic Management
SAT-3	Southern Africa Submarine Cable
SATA	Southern Africa telecommunications Association
SPV	Special Purpose Vehicle
SIDA	Swedish International Development Cooperation Agency
TCIP	Transparency and Communications Infrastructure Project
US\$	United States Dollars
US	United States of America
VP	Vice-President
WBG	World Bank Group

Acting Vice President:	Hartwig Schafer
Regional Integration Director:	Mark Tomlinson
Sector Director	Mohsen Khalil
Country Directors for TCIP/CIP1	Colin Bruce
CIP2	Pedro Alba
CIP3	Ritva Reinikka
Sector Manager:	Philippe Dongier
Task Team Leader for the Program:	Laurent Besançon
Co-Task Team Leader for the Program	Mavis A. Ampah
Co-Task Team Leaders for TCIP/CIP1	Harold Bedoya
CIP2	Isabel Neto
CIP3	Isabel Neto

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# AFRICA - Regional Communications Infrastructure Program (RCIP)

## PROGRAM APPRAISAL DOCUMENT

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**BURUNDI TECHNICAL ANNEX II**  
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**MADAGASCAR TECHNICAL ANNEX III**  
**Madagascar Communications Infrastructure Project (CIP3)**

AFRICA  
REGIONAL COMMUNICATIONS INFRASTRUCTURE PROJECT  
PROJECT APPRAISAL DOCUMENT

AFRICA  
CITPO

Date: March 5, 2007 Country Director: Mark D. Tomlinson Sector Manager/Director: Philippe Dongier  Project ID: P094103  Lending Instrument: Adaptable Program Loan	Team Leader: Laurent Besancon Sectors: Telecommunications (60%); General information and communications sector (20%); General industry and trade sector (20%) Themes: Regional integration (P); Trade facilitation and market access (P); Infrastructure services for private sector development (P) Environmental screening category: Full Assessment
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**Project Financing Data**

[ ] Loan [X] Credit [X] Grant [ ] Guarantee [ ] Other:

For Loans/Credits/Others:  
Total Bank financing (US\$m.): 424.00  
Proposed terms:

<b>Financing Plan (US\$m)</b>			
Source	Local	Foreign	Total
BORROWER/RECIPIENT	21.20	0.00	21,20
International Development Association (IDA)	0.00	424.00	424.00
Total:	21.20	424.00	445.20

**Borrower:**  
First Phase : Kenya (TCIP/CIP1), Burundi (CIP2), Madagascar (CIP3)

**Responsible Agency:**  
Relevant Ministry in charge of Telecommunications

Estimated disbursements (Bank FY/US\$m)									
FY	8	9	10	11	12	13	14	15	16
Annual	10.00	30.00	50.00	60.00	60.00	60.00	60.00	50.00	44.00
Cumulative	10.00	40.00	90.00	150.00	210.00	270.00	330.00	380.00	424.00
<p>Start date: June 30, 2011</p>									
<p>Project description: <b>f. PAD A.3</b></p>									
<p>Does the project meet the Regional criteria for readiness for implementation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>									
<p><b>Ref. PAD D.7</b></p>									
<p>Project development objective <b>Ref. PAD B.2, Technical Annex 3</b></p> <p>The RCIP Program has two overarching development objectives: (i) to contribute to lower prices for international capacity and extend the geographic reach of broadband networks (the "connectivity development objective"); and (ii) to contribute to improved Government efficiency and transparency through e-government applications (the "transparency development objective"). The project objectives of individual countries (CIP1, 2, 3 and subsequent) are/will be a subset of these.</p>									
<p>Project description [one-sentence summary of each component] <b>Ref. PAD B.3.a, Technical Annex 4</b></p> <p>The proposed World Bank Operation under the Regional Communications Infrastructure Program (RCIP) aims at assisting East and Southern Africa (E&amp;SA) countries to implement a strategy of effective regional connectivity and increased government efficiency through the use of this connectivity, by (i) offering technical assistance to promote further sector liberalization and to resolve market efficiency gaps, (ii) leveraging private investment in the deployment of regional and national backbone infrastructure, as well as rural networks through public private partnership (PPP) arrangements and capacity purchase, and (iii) leveraging the infrastructure to increase government efficiency and transparency through the selective deployment of key e-Government services.</p> <p>The first phase of the RCIP (proposed for IDA financing) will take the form of Communications Infrastructure Projects 1, 2 and 3 (CIP1, 2, 3) with a combined IDA volume of US\$164.5 million. This will include Kenya (Transparency &amp; Communications Infrastructure Project - CIP1/TCIP), Burundi (CIP2) and Madagascar (CIP3). Subsequent phases will reach the Board based on readiness of countries applying for support under the Program as well as availability of IDA/IBRD financing. Countries that have expressed interest for subsequent phases include Malawi, Rwanda, Mozambique, Tanzania, Zambia, Lesotho, Uganda, DRC and Mauritius (IBRD). In the particular case of Mauritius, the activities may include submarine cable-related activities and would likely have to be treated as a related but altogether different project. It is also expected that some RCIP-related ICT components will be included in national projects where scaling-up country-specific project components is found to be more efficient. This will be done on an opportunity and readiness basis. Estimates for the combined IDA volume for the above</p>									



countries (except Mauritius) for the second and subsequent phases are in the order of US\$260 million.

Overall, the Program is open to Angola, Botswana, Burundi, Comoros, DRC, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe, provided these countries are eligible for IDA or IBRD financing at the time of their application for IDA/IBRD support under the Program. A public website has been developed to facilitate this process ([www.worldbank.org/rcip](http://www.worldbank.org/rcip)).

Which safeguard policies are triggered, if any? *Ref. PAD D.6, Technical Annex 10*

The proposed Environmental Category is B.

The physical components of this Program will mostly be limited to the building of national terrestrial backbones, rollout of rural networks, and of the landing stations, in the few cases where the latter might be required. No beach manholes or onshore cable infrastructure up to the landing station will be financed under this project. The risks associated with the kind of infrastructure financed under this Program are generally low, and the project is therefore assigned to environmental category B under OP 4.01. Land acquisition for terrestrial facilities will likely trigger OP 4.12 Involuntary Resettlement considerations. The project is not expected to impact indigenous peoples in any negative way, and therefore OP 4.10 is not triggered. However, once the actual locations of the facilities to be financed are known, this fact will be re-assessed.

An Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework (RPF) have been prepared in both English and French for the overall program. The ESMF and the RPF have been reviewed by the Bank and publicly disclosed in all countries participating in the first phase of RCIP. They are also available on [www.worldbank.org/rcip](http://www.worldbank.org/rcip) as well as at the InfoShop. Specific costed Environmental Management Plans (EMP) and Resettlement Action Plans (RAPs) will be prepared as necessary for the terrestrial facilities during project implementation, in line with the ESMF and RPF, once the exact locations of those facilities have been identified. The institutional responsibilities for preparing the various safeguards instruments would lie with the implementing agency of each participating country. Any specific required action for some of the Civil Works will be taken into account during project implementation. Institutional responsibilities for preparing the safeguard assessment strategy will be defined closely with the Safeguards Team.

Significant, non-standard conditions, **if any**, for: *NA*

*Ref. PAD C.7*

Board presentation: March 29, 2007

Loan/credit effectiveness: June 29, 2007

Covenants applicable to project implementation:

(for additional details see Country Technical Annexes, Section C.5)

Kenya Effectiveness conditions:

- (a) Adoption of a Project Implementation Manual;
- (b) Recruitment to key staff to the executing agency, the ICT Board;
- (c) Establishment of a financial management system;
- (d) Opening of a Project Account and deposited therein an initial deposit;
- (e) Establishment of an institutional risk management policy framework.

Kenya Disbursement conditions:

- (a) No disbursement for any grant related unless the disbursement and governance mechanisms are in place and satisfactory to IDA and the grants concerned shall have been made according to the

procedures set in the Grants Operational Manual.

- (b) No disbursement for purchase of telecommunication capacity unless the parameters and expenditures for such support have been defined and approved by IDA

Burundi Effectiveness conditions.

- (a) Adoption of a Project Implementation Manual;
- (b) Establishment of the Project Steering Committee;
- (c) Establishment of the ICT Executive Secretariat structure and recruitment of its key staff;
- (d) Establishment of a financial management system;
- (e) Opening of an account in a commercial bank.

Burundi Disbursement conditions. Disbursement relating to the development of the Backbone - component 2(b) – is conditional on conclusion of a Subproject Agreement between the Government and the concerned private operator(s) which is in form and substance satisfactory to the Bank.

Madagascar Effectiveness conditions.

- (a) Adoption of a Project Implementation Manual;
- (b) Establishment of the Executive Secretariat and recruitment its key staff;
- (c) Establishment of a financial management system;
- (d) Adoption of an ICT Sector Policy Letter;
- (e) Opening of a designated account in a commercial bank
- (f) Establishment of a Steering Committee.

Madagascar Disbursement conditions. Disbursement relating to the development of the Backbone - component 2(b) – is conditional on conclusion of a Subproject Agreement between the Government and the concerned private operator(s) which is in form and substance satisfactory to the Bank.

Note

**This document is the Program Appraisal Document for the Regional Communications Infrastructure Program. It is complemented by Technical Annexes which are country-specific and are prepared for each country joining the Regional Communications Infrastructure Program at the time of their application for IDA or IBRD financing.**

## **A. STRATEGIC CONTEXT AND RATIONALE**

### **1. Regional and sector issues**

1. **Eastern and Southern Africa – Region & Sector Issues.** This section highlights the main regional and sector issues that are relevant to the countries covered by the program. More detail, particularly with regards to country-specific issues, is provided in the country Technical Annexes.

2. **Economic development in Eastern and Southern Africa (E&SA)<sup>1</sup> is held back by prohibitive telecommunications and ICT costs.** Due to incomplete liberalization and lack of communications infrastructure, costs for ICT and telecommunications services have remained prohibitive in the region. Despite the significant growth that took place in recent years in some telecommunications sub-sectors –most notably mobile communications— E&SA is the only part of Africa that is not connected to the global optical fiber broadband infrastructure and accounts for only 0.07 percent of the world’s international bandwidth capacity. The region currently relies mostly on expensive and poor quality satellite infrastructure with costs amongst the highest in the world: international wholesale bandwidth prices are 20 to 40 times higher than those in the United States, international calls are on average 10 to 20 times that of other developing countries and dial-up Internet monthly access prices range from 1 to 10 times the monthly GNI per capita in 14 E&SA countries. For instance, 20 hours of Internet dial up access was US\$160 in 2003 in Sudan, 550 percent the monthly GNI per capita. The result of such high cost and low quality communications is that the region is ill placed to compete in the global economy. Without access to low price and high quality telecommunications services, it is very costly for countries to trade among themselves and with the rest of the world. Opportunities to create jobs and to expand production of goods and services are also limited without access to telecommunications, as are opportunities for more effective learning, social participation, government efficiency and transparency.

3. **Incomplete liberalization is keeping prices high.** While several countries have implemented reforms to promote greater competition and private sector participation in various ICT sub-sectors, incomplete liberalization in most of the region has allowed incumbent telecommunications operators to use their monopoly power to keep prices high in areas key to economic development such as international bandwidth and access to Internet.

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<sup>1</sup> Eastern and Southern Africa (E&SA) is defined to include the following 25 countries: Angola, Botswana, Burundi, Comoros, DRC, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe.

4. **The lack of modern backbone infrastructure<sup>2</sup> is a further key constraint.** This limits citizens' access to broadband communication services at affordable prices. Twenty countries of the region do not have direct terrestrial access to global Information and Communications Infrastructure (ICI) and networks and rely on expensive and poor quality satellite connectivity to link up with each other and the rest of the world. Submarine cable backbone projects for the region have been proposed in the past, but none have materialized due to a combination of factors including poor regulatory, policy and investment climates in the region, the complexity of a multi-country investment project and related concerns about financial sustainability. Furthermore, as highlighted by recent feasibility studies conducted, the lack of national backbone networks makes it extremely costly and not commercially viable, at least in the short term, to provide communications service beyond the capital city and a number of other urban centers, hence limiting the impact of the reforms undertaken and contributing further to the urban-rural divide. The maps attached at the end of this document illustrate the current submarine infrastructure in the continent as well as some of the links (terrestrial and submarine cable elements) which are deemed necessary to improve connectivity in the region as part of a broad regional connectivity initiative called upon by the New Economic Partnership for Africa's Development (NEPAD) Heads of State in November 2004.

5. **The Regional Communications Infrastructure Program (RCIP), proposed for World Bank financing, focuses on terrestrial connectivity infrastructure.** RCIP will complement one or several submarine cable projects currently under preparation. A proposed IFC investment is under preparation (jointly with EIB/DBSA/AfDB/AFD/KfW) for financing an operator-backed Special Purpose Vehicle as part of the proposed Eastern Africa Submarine System (EASSy) cable. The proposed EASSy cable would connect South Africa, Madagascar, Mozambique, Tanzania, Kenya, Somalia and Sudan to the rest of the world, under an open access, pro-competitive model that will ensure that capacity is available to all at a fair price. Alternative cable projects are also under preparation by operators and countries of the sub-Region. It is important to note that the RCIP, to be viable, is not dependent on the EASSy cable project specifically. RCIP will be viable as long as one submarine cable materializes. The presence of several alternative submarine cable projects under preparation enhances the viability of the RCIP.

6. **A multi-donor approach will help catalyze international connectivity.** Several other donors, including the multi-donor program infoDev administered by the World Bank, DFID, the EU, and SIDA have also made important contributions in order to improve access to international connectivity in Eastern and Southern Africa (E&SA). This endeavor is one of the most challenging development assistance programs the World Bank Group has had to carry out: regional (over 25 countries), over 30 telecommunications operators, a multi-donor approach involving both public and private sector branches.

7. **An open access structure will make the capacity more affordable to countries.** Over the last 2 years, the World Bank and IFC teams, leveraging internal policy dialogue resources, have been promoting, alongside other partners, a policy objective of open access,<sup>3</sup> based on an agreed open access structure, which has led to both Governments and operators strongly

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<sup>2</sup> For the purposes of this project, backbone infrastructure refers to a collection of high-capacity fiber optic or point-to-point wireless (e.g., microwave) links between main populated areas, both within countries and between countries, which serve as the basis on which telecom operators provide voice and data services. The text at some points will make the distinction between: *national backbone* networks (within countries), *regional backhaul* networks (between neighboring countries, terrestrial networks), and *regional backbone* networks (between the region and the rest of the world, e.g., undersea cables).

<sup>3</sup> Open access is broadly defined as an equal opportunity for operators to have unfettered access to given infrastructure or services under similar terms and conditions.

embracing the open access agenda. The analytical work and constructive dialogue led by the World Bank Group has also resulted in a dramatic reduction of the price at which capacity may become available for non-initial parties on the East Africa Submarine System (EASSy) project (a seven-fold decrease compared to initial estimates made by operators), or for small initial party operators (a four-fold decrease).

8. **RCIP will accelerate national infrastructure roll-out, encourage traffic demand and support eGovernment applications.** The proposed RCIP (which is the focus of this Program Appraisal Document) is designed as an horizontal APL regional operation to: (a) accelerate the roll-out of the terrestrial regional and related national backbone infrastructure to extend the reach of submarine cable traffic to consumers in all the countries of the Eastern and Southern region, rather than only the coastal countries; (b) finance purchase of capacity for use by Government and by other targeted users (schools, universities, hospitals, etc.); and (c) finance related activities such as eGovernment and ICT in rural areas. Without the potential increased traffic made possible by accelerating national infrastructure roll-out and encouraging traffic demand (as highlighted in (b) and (c) above), the regional infrastructure may not be viable and therefore may not materialize, at least in the short term. Both (b) and (c) are therefore critical to increase the viability prospects of the regional infrastructure. While a separate proposal by IFC will finance an operation focusing on the EASSy submarine cable, the RCIP operation proposed for World Bank financing focuses on the terrestrial elements of the overall regional communications infrastructure and on activities generating demand for the infrastructure being put in place.

9. **The IFC and World Bank interventions are highly complementary.** This will ensure viability of the overall regional initiative:

- The viability of any submarine cable in the region is directly impacted by the potential increase in traffic through an acceleration of the terrestrial backhaul and backbone links, the development of applications at national level, and governments' use of the infrastructure to provide services; and
- Conversely, without a submarine cable such as the EASSy project supported by IFC (or other submarine cable projects), and the resulting reduction in broadband access costs, countries would not have the incentive to develop complementary infrastructure, and the development of applications would be seriously hampered.

10. **Country ownership and sector readiness is driving the Bank's engagement.** The countries participating in the first phase of the RCIP World Bank operation (Kenya, Burundi and Madagascar) were chosen based on readiness and by official request to the World Bank (from their respective Ministries of Finance), which showed: (i) ownership of the activities beyond the Ministry of Telecommunications or its equivalent; (ii) the desire to work with the World Bank Group; and (iii) the activities to be financed are at the core of the country's priorities. It is also worth noting that the three countries have subscribed to an open access platform and have advanced considerably in terms of ICT sector liberalization and sector reform, both of which will enhance the impact of the RCIP.

## **2. Rationale for Bank involvement**

11. This section summarizes the rationale for Bank involvement from a regional perspective. More detail, particularly with regards to country-specific issues, is provided in the country Technical Annexes.

12. **The World Bank Group is well placed to contribute in the context of a multiple development partners' effort.** The World Bank Group first stepped into the RCIP with efforts and resources following the Algiers Declaration from the Summit of the Heads of State and

Government Implementation Committee (HSGIC) in November 2004, which called on the World Bank Group to support regional connectivity efforts in view of its extremely important impact on regional development and growth<sup>4</sup>. The overall program has been formulated with and alongside other donors' interventions: (i) the Accra donors meeting in February 2005 articulated the comparative advantage of the World Bank in infrastructure financing and in the policy and regulatory interventions, in view of its extensive worldwide experience in reform of the telecom sector and its capacity to lend longer term resources for the realization of backbone infrastructure; (ii) the EASSy consortium members' meeting in Livingstone, Zambia on April 6<sup>th</sup>, 2006 called on the World Bank Group to help mobilize financing partners around the concept of an open access and hybrid project structure; (iii) IFC has co-lead the multi-donor efforts to finance the EASSy SPV; and (iv) the World Bank has been co-opted alongside the African Development Bank to be a member of the joint Operators/Governments/DFIs Task Force.

**13. An important body of analytic work and policy dialogue supports the Bank's engagement.** The World Bank Group is well placed to support the proposed Program and projects on account of the considerable ground work that has been carried out to date, as outlined below:

- i. Funding network rationalization study and a regulatory and policy bottleneck study leading to a key regional policy-makers/operators workshop in July 2004 (the Algiers Head of States Declaration calling for World Bank support built on the workshop output);
- ii. Co-financing with DBSA and AFD on a Detailed Feasibility Study for the EASSy Submarine cable (2004/5);
- iii. Funding capacity-building at NEPAD e-Africa Commission (on-going – 2 officials funded through PPIAF/infoDev);
- iv. Funding a Commonwealth Telecommunication Organization (CTO) regulatory analysis (through PPIAF);
- v. Funding an exercise to structure backhaul network for Eastern Loop (Kenya, Uganda, Rwanda, Burundi, Tanzania; an IFC Advisory Service mandate leveraging donors trust funds);
- vi. Funding national backbone studies initially focusing on 8 countries (Kenya, Uganda, Rwanda, Burundi, Tanzania, Madagascar, Malawi and Mozambique): The main objectives of this ongoing study are to: (i) develop current and estimate aggregate traffic forecasts for each country over the next decade, so as to appropriately estimate the capacity of the backbone links needed; (ii) collect information on the existing backbone infrastructure; (iii) propose routing and specifications for a national backbone network; (iv) propose an appropriate business, commercial and financing structure for possible public private partnerships (PPP); and (v) make recommendations on the regulatory framework and changes which might be needed;
- vii. Putting together a workable financing platform of up to US\$170m for the EASSy project (IFC in collaboration with EIB, AfDB, DBSA, AFD, and KfW);
- viii. Maintaining a constructive dialogue with all parties over the past 3 years; and
- ix. Acting as an honest broker for all parties.

**14. RCIP fits well with WBG's Strategy for Africa, particularly within the framework of the Africa Action Plan:** The Bank's Africa Region Development Strategy, discussed at the Board in July 2003, identified advances in ICT as one of the three emerging positive trends in the

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<sup>4</sup> See Declaration from 12th Summit of the Heads of State and Government Implementation Committee (HSGIC) Algiers, Algeria, November 2004. <http://www.nepad.org/2005/files/documents/169.pdf>.

21st Century for Africa, offering “enormous opportunities to leapfrog stages of development”. RCIP also fits within the Bank’s comprehensive Africa Action Plan developed in 2005, which further articulates goals and objectives covering several important development areas including: (1) building national development strategies and measuring results; (2) building capable states and improving governance; (3) supporting drivers of growth; and (4) strengthening and implementing partnerships at the country level.

**15. RCIP also addresses key Millennium Development Goals including for:**

(i) *MDG 1, Targets 1 & 2 (Eradicate extreme poverty and hunger)*. Significant evidence exists to support the assertion that sustained growth is key to poverty reduction. A large number of recent econometric studies suggest that the quantity and quality of telecommunications infrastructure may be connected to growth (Canning 1997, Röller and Waverman 1995, Madden and Savage 1998, Riaz 1997, Easterly and Levine 1997). Based on the increase in ICT investment in industrial countries between 1995 to 2000, Haacker and Morsink (2002) estimate an average increase in growth of total factor productivity of about 0.4% per year. Malaysia’s return on ICT capital (44.8%) is about three times higher than that for non-ICT capital (15.4%) (Lee and Khatri 2003). At the microeconomic level, ICT provides farmers, workers and entrepreneurs opportunities to reduce transaction costs, increase market coverage and improve competitiveness. For example, Novica, (an IFC investee company) is a Web and catalog merchant of international artwork and crafts that connects more than 1,800 artisans and artisan groups through its offices in Peru, Indonesia, Thailand, Mexico, India, Brazil and Ghana with consumers and retailers globally. Artisan’s working with Novica earn between 10% to 50% above their local market prices.

(ii) *MDG 2, Target 3 (Universal primary education)*: Access to ICT can also improve education systems through long distance learning and teacher training. In Turkey for example, through donor funding approximately 22,800 small, rural schools were equipped with ICT access. Studies show that these efforts had a direct impact on enrollment, which has increased by 900,000 students in the past 7 years.

(iii) *MDG 5 & 6 (Health)*: Access to ICT services in remote areas can contribute to lower child mortality and improving maternal health. Health care workers can provide remote consultation, diagnosis, and treatment. ICT can even help in the prevention of disease. In Gambia, local inhabitants use satellite telephones to transmit information from sensors along 50,000 km of rivers that is used to calculate the appropriate time to spray against the disease carrying blackfly, a main contributor to river-blindness.

(iv) *MDG 8, Targets 12 through 18 (Global Partnership for Development)*: This MDG reaffirms the need to promote good governance (Target 12), support the special needs of landlocked countries (Target 14) and cooperate with the private sector to “make available the benefits of new technologies, especially information and communications” (Target 18). People living in rural and remote areas tend to be poor and socially isolated. They lack information relevant to their particular situation and thus have difficulty interacting with other community members or other communities. ICTs, such as radio, telephone and email, can be of great value in bringing people together, bridging geographic distances and providing relevant information to the poor. The correlation across countries of the human development index (HDI) and the networked economy index (NEI) is above 0.8, suggesting a link between welfare and the use of ICT in developing countries.

16. **RCIP is designed to provide infrastructure financing while strengthening institutional and regulatory reforms.** As highlighted in the WBG's Strategy for ICT Sector Development in the region, *Connecting Sub-Saharan Africa, 2005* incomplete sector liberalization and lack of infrastructure are key impediments to leveraging ICT for economic and social development. The RCIP program has been designed to overcome these bottlenecks, providing infrastructure financing while strengthening policy and regulatory environments and institutions.

### **3. Higher level objectives to which the program contributes**

17. **Links to CASs and PRSPs are consistent.** While the countries that would benefit from this project vary in size and needs, common strategic themes identified in the various CASs and PRSPs - higher growth and economic opportunities for the poor; efficiently and effectively managed public sector; improved health management and enabling environment for economic growth and structural transformation – clearly benefit from improved communications infrastructure and cheaper access to ICT.

18. **The higher level objectives are to accelerate growth and improve governance.** RCIP is expected to contribute to the objectives of accelerated and shared growth (in relation with the project's connectivity development objective) and greater fiduciary accountability and improved governance in the public sector (in relation with the project's transparency development objective) and access to government services.

19. **The connectivity development objective will be the engine of shared growth** achieved by: (i) accelerating the physical rollout of backbone infrastructure (investment intervention based on public-private partnerships to leverage private sector investment in infrastructure); and (ii) removing monopoly regimes through policy and regulatory support to ensure that once in place, the infrastructure is accessible to all operators on open, transparent and non-discriminatory terms.

## **B. PROJECT DESCRIPTION**

### **1. Lending instrument**

20. **The lending instrument will be a Regional IDA horizontal Adaptable Program Loan (APL).**<sup>5</sup> The proposed program's first phase fits the eligibility criteria of the IDA14 regional program in the areas of regional economic integration, in particular infrastructure, and supports regional programs that build implementation capacity and increase donor harmonization and coordination:

- The proposed operation involves three countries in the first phase (Kenya, Burundi and Madagascar), and up to eight other countries likely to join in subsequent phases.
- The benefits accrued in the targeted countries (i.e., increased access to quality and affordable ICT services) spill over country boundaries as: (i) higher volumes increase the viability of the regional communications infrastructure network, decrease cost of access and increase trade between African countries, and (ii) cross-border initiatives provide countries with the incentives to develop missing infrastructure to increase ICT access.
- There is clear evidence of country and regional commitment, as highlighted above. The proposed APL structure will allow countries to join on a commitment and/or readiness basis.

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<sup>5</sup> A horizontal Adaptable Program Loan (APL) is structured in "horizontal" phases in order to allow participation of different countries as and when they express demand and demonstrate readiness.



- The proposed operation provides a platform for a higher level policy harmonization between countries fostering pro-competitive regional connectivity.
- The program and its first phase are part of a well-developed and broadly supported regional strategy, potentially extending to 25 countries in East and Southern Africa.
- The World Bank Group is providing assistance alongside other development partners including AfDB, EIB, DBSA, AFD and KfW.

21. **IDA allocations will follow country considerations.** Since this is a regional project, supplementary regional IDA funding can be used to leverage country allocations for up to 2/3 of the full proposed IDA amount of the project, with country allocations covering 1/3 of the project cost attributable to each individual country involved. In the case of eGovernment components, given that the impact of eGovernment activities is more national in nature than regional, and in consideration of the current constraint for the regional IDA allocation, eGovernment components will be funded from the individual country IDA allocations. The table below provides a summary of an estimate of the proposed lending by country, with the regional/national IDA breakdown for Phase 1 and subsequent phases.

Phase	Country	Source of Funds		Total	
1	Burundi	IDA	Regional	20.10	13.10
			National		7.00
1	Kenya	IDA	Regional	114.4	56.83
			National		57.57
1	Madagascar	IDA	Regional	30.00	20.00
			National		10.00
2+	DRC	IDA	Regional	80.50	53.33
			National		27.17
2+	Lesotho	IDA	Regional	12.00	7.67
			National		4.33
2+	Malawi	IDA	Regional	20.00	12.33
			National		7.67
2+	Mozambique	IDA	Regional	17.00	8.67
			National		8.33
2+	Rwanda	IDA	Regional	14.00	8.33
			National		5.67
2+	Tanzania	IDA	Regional	89.50	57.00
			National		32.50
2+	Uganda	IDA	Regional	10.00	5.33
			National		4.67
2+	Zambia	IDA	Regional	16.50	10.67
			National		5.83
	<b>TOTAL Phase 1</b>	<b>IDA</b>	<b>Regional</b>	<b>164.50</b>	<b>89.93</b>
			<b>National</b>		<b>74.57</b>
	<b>TOTAL Phase 2+</b>	<b>IDA</b>	<b>Regional</b>	<b>259.50</b>	<b>163.33</b>
			<b>National</b>		<b>96.17</b>
	<b>TOTAL RCIP</b>	<b>IDA</b>	<b>Regional</b>	<b>424.00</b>	<b>252.70</b>
			<b>National</b>		<b>171.30</b>

Phase 2+ indicates second and subsequent phases.

## **2. Program objective and phases**

22. **The first Phase of the RCIP will take the form of Communications Infrastructure Projects 1, 2 and 3 (CIP1, 2, 3) with a combined IDA volume of US\$164.5 million.** This will include Kenya (Transparency & Communications Infrastructure Project – CIP1/TCIP), Burundi (CIP2) and Madagascar (CIP3). Subsequent phases will reach the Board based on readiness of countries applying for support under the Program as well as availability of IDA/IBRD financing. Countries that have expressed interest for subsequent phases include Malawi, Rwanda, Mozambique, Tanzania, Zambia, Lesotho, Uganda, DRC and Mauritius (IBRD). In the particular case of Mauritius, the activities may include submarine cable-related activities and would likely have to be treated as a related, but different project. It is also expected that some RCIP-related ICT components will be included in national projects where scaling-up country-specific project components is found to be more efficient. This will be done on an opportunity and readiness basis. Estimates for the combined IDA volume for the above countries (except Mauritius) for the second and subsequent phases are in the order of US\$260 million.

23. **The Program is open to 25 countries.** Angola, Botswana, Burundi, Comoros, DRC, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe, provided these countries are eligible for IDA or IBRD financing at the time of their application for IDA/IBRD support under the Program. A public website has been developed to facilitate this process ([www.worldbank.org/rcip](http://www.worldbank.org/rcip)).

24. **By the end of the program, all capitals and major cities in E&SA would be linked to the Global Information and Communications Network through competitively priced high-bandwidth connectivity.** Traffic in the region is expected to increase by at least 36 percent annually and bandwidth costs projected to fall to under US\$1,000 per Mbit/s per month by 2010, which should translate into end-user broadband access at under US\$150/month and rapidly decline further. This in turn should lead to lower prices for telephone services and better access to the Internet that will significantly improve foreign and local private investment opportunities in the region, decrease the cost of doing business and increase the prospects for job creation and wealth generation while enabling countries to reap the benefits of ICT as a platform to deliver services to their citizens.

## **3. Program development objective and key indicators**

25. **The program supports connectivity and transparency development objectives.** The RCIP Program, the CIP1,2,3 Projects and following CIP Projects have two overarching development objectives (i) to contribute to lower prices for international capacity and to extend the geographic reach of broadband networks (the “connectivity development objective”); and (ii) to contribute to improved Government efficiency and transparency through eGovernment applications (the “transparency development objective”).

26. **The program will seek to achieve these objectives by focusing on investments linked to fostering open and cost-effective access to communications infrastructure and services and ICT-enabled government and public service transformation.** The main development outcomes will include: i) increase in volume of international and national traffic, ii) decrease in average price of international communications, iii) increase in number of eGovernment applications leading to improved efficiency in institutions and government agencies which have adopted eGovernment applications as well as increased satisfaction of users with government services received through electronic delivery.

27. **The primary beneficiaries of the Program will be the citizens and governments of East and Southern Africa through increased access to lower cost and higher quality communications, business sector through reduced transactions cost, and targeted users (schools, universities, hospitals) through increased lower cost connectivity.**

28. **RCIP will place significant emphasis on developing a results-based program.** Given the specific emphasis of IDA 14 discussions to focus on results and improve local capacity to measure progress toward core development outcomes, the RCIP program is placing significant emphasis on a results based program with dedicated resources to develop robust monitoring and evaluation (M & E) frameworks at both national and regional level to ensure intended results are achieved. More detailed outcomes and indicators will be included in the specific country programs for better monitoring.

29. **Outcomes and indicators will be program and country specific.**

<b>Project Development Objective (PDO)</b>	<b>Outcome Indicators</b>	<b>By the closing date of the Program</b>
<b>Connectivity development objective:</b> To contribute to lower prices for international capacity and to extend the geographic reach of broadband networks	Volume of international traffic  Volume of national traffic using 2 proxies: <ul style="list-style-type: none"> <li>▪ Internet user penetration</li> <li>▪ Total teledensity</li> </ul> Average price of international communications using the proxy: <ul style="list-style-type: none"> <li>▪ Price of international “E1<sup>6</sup>” capacity link</li> </ul>	See Technical Annex for each participating country (where applicable)
<b>Transparency development objective:</b> To contribute to improved Government efficiency and transparency through eGovernment applications	Satisfaction of users with government services received through electronic delivery  Improved efficiency in institutions/government agencies which have adopted eGovernment applications	See Technical Annex for each participating country (where applicable)

#### 4. Program and project components

30. **The proposed RCIP program is focused on closing the terrestrial connectivity gap in E&SA.** Closing the submarine cable gap is the focus of other initiatives under preparation, including the proposed EASSy submarine cable project. Closing the terrestrial connectivity gap under RCIP requires the combination of two key interventions: (i) investment intervention based on a public-private partnership, as feasibility studies have shown that several segments of the infrastructure network (and demand-enhancing eGovernment applications) would not be fully commercially viable at this stage based on a strictly private sector financing model; and (ii) policy and regulatory support to ensure that once in place, the infrastructure is accessible to all service providers on open, transparent and non-discriminatory terms.

<sup>6</sup> An “E1” is a standard measure of capacity in digital communications links, corresponding to 2 Mbit/s.

31. **The proposed 10-year, multi-phase APL will assist E&SA countries to implement a strategy of effective connectivity and increased government efficiency** through the use of this connectivity, by: (i) offering technical assistance to promote further sector liberalization and resolve market efficiency gaps; (ii) leveraging private investment on the basis of Public Private Partnership (PPP) arrangements in the coordinated deployment of regional and national backbones and rural telecommunications networks, with a focus on missing links and avoiding development of redundant infrastructure; and (iii) leveraging the infrastructure to increase government efficiency and transparency through the selective deployment of key eGovernment services and applications.

32. **RCIP supports a customizable menu of options.** To maximize flexibility and client-responsiveness in a multi-country environment, RCIP has been designed as a highly customizable menu of options which individual Governments choose from and adapt to their unique circumstances in order to package their country-specific RCIP operation. The various country-specific operations within the RCIP umbrella program will include a number of specific components and subcomponents, drawn from the following menu of options, which have been grouped under four broad headings or components, described in more detail below.

33. **Component 1: Enabling Environment, including Monitoring & Evaluation capacity-building.** This component aims to promote further regional market integration and sector liberalization. This will include the following subcomponents focused on technical assistance, capacity-building and training to: (a) promote further sector liberalization and legal and regulatory reforms in order to maximize the benefits of the regional infrastructure (regulatory tools to guarantee open access to national and international infrastructure, cost-modeling, tariff regulation, interconnection, essential facility regulation, competition policy and regulation, spectrum and other scarce resource management); (b) support the implementation of regulatory reforms; (c) accelerate the establishment of the legal and regulatory framework for the information society, in particular, regarding security of networks and electronic transactions, privacy and data protection, access to information, intellectual property rights, cyber-crime etc.; (d) support continued sector reform to maximize the impact of the connectivity component and strengthening the PPP framework to provide a sound basis for both the connectivity and eGovernment components; (e) build M&E capacity; and (f) design and implement project communications.

34. While it is expected that not all countries will require the same level of support in all these areas, this enabling environment component is eminently regional in nature, as it will support the further opening of the sector in the participating countries, with important spillover effects due to increased traffic in the regional network and a consequent reduction in the overall costs. In addition, common areas of technical assistance and capacity building initiatives (in particular training courses) can be implemented as regional activities.

35. **Component 2: Connectivity.** This component aims to support the deployment of regional connectivity. This will include the following subcomponents: (a) support for the financing of a submarine cable landing station or virtual landing station<sup>7</sup> (for landlocked countries), as well as support for the creation of a national Internet Exchange Point (IXP), run by an association of operators or a private third party venture, with regional connections to other

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<sup>7</sup> This is expected to be essentially a small construction with limited equipment aimed at guaranteeing fair and unfettered physical access by all operators to the regional backhaul and the submarine cable(s).

IXPs; (b) support to finance purchase of capacity on the submarine cable(s), backhaul and national backbone networks, to assist rural and underserved areas, as well as targeted users (schools, universities, hospitals, eGovernment use) with discounted capacity prices; (c) support for the deployment of regional backhaul links across the borders with neighboring countries to reach the submarine cable(s) landing point, together with support for the deployment of the national backbones, on the basis of PPPs, leveraging private sector investment; (d) support to finance the establishment of a government virtual private network (GovNet) to cater to all the government communications needs (both data and voice/video); (e) support to extend ICT in rural areas and/or community-driven ICT development on the basis of PPPs with competitive award of subsidies; and (f) support for country-specific innovative demand-stimulation programs (such as the Digital Village and the SMS e-Services programs foreseen for the Kenya operation).

**36. These sub-components will also contribute to ensure the viability of the regional communications infrastructure supported under RCIP.** For instance, without the potential increased traffic made possible by an acceleration of national infrastructure roll-out and application building, the regional infrastructure may not be viable and therefore may not materialize. Conversely, without cross-border initiatives such as the EASSy submarine cable project or other complementary projects, the individual countries may not be in a position to achieve low-cost broadband access and therefore may not be in a position to advance their growth agenda and overall global competitiveness. Landlocked countries in Eastern and Southern Africa are especially disadvantaged as they need to interconnect with incumbents or national long distance operators in intermediary countries to carry traffic to the landing point and often pay high prices in the process. Effective cross-border links and supporting regulatory frameworks are therefore critical for the region as a whole.

**37. Component 3: Transparency - eGovernment Applications.** eGovernment applications apply the judicious use of ICT to enable governments to improve their internal systems, deliver services more efficiently and effectively, and make information more accessible to citizens. This component will support selected major government services which would be candidates for transition to eGovernment through the use of technology, business process re-engineering to streamline processes, and change management to ensure acceptance of the new methods of working. The applications will be prioritized as follows: (a) activities which will have the greatest impact in terms of transparency and accountability; (b) services where there is a change champion who could help promote adoption from within government; (c) possibility of private sector participation to enhance drive for results, efficiency, and economies of scale; and (d) high potential for success with implementation and payback within a few years, hence the possibility for quick wins. While not required, a public-private joint venture approach is a mechanism to promote efficiency and sustainability. This component will also support transaction-based eProcurement in selected departments. The project will also support, where required, the establishment of scalable transaction-enabled government Web portals on which to anchor key eGovernment interventions, access to service delivery applications and information, and real-time M&E.

**38. A wide choice of eGovernment applications is available for selection by specific countries,** based upon the individual country's state of readiness, its interest in increasing transparency and citizen's voice in government, and existing human and physical infrastructure. These range from classic applications for public finance, procurement, inland revenue collection and budgetary allocations, to the widely needed services such as registrations of birth, marriage,

and death, and transaction-based services for company registrations, property titling and vehicle/driver registrations, insurance, citizen's ID cards, utility payments, and so forth.

39. **Application development will also be critical to ensure the viability of the regional and national communications infrastructure**, since applications will increase demand for broadband communication services. The increased traffic and therefore the viability of any submarine cable's low cost high volume business model, and related cross-border infrastructure links, provide additional justification for the broader RCIP support.

40. **Component 4: Project Management.** This component will consist of support to finance project management related issues. Depending on the specific implementation arrangements for each country, this component may include elements such as human resources support with management, procurement, financial management, M&E, and communications expertise, as well as support to conduct audits.

## **5. Lessons learned and reflected in the program design**

41. **The program incorporates lessons learned from other regional horizontal APLs**, and that provide support across countries within a common framework. Regional Programs reviewed include operations in Africa and outside the region, such as the Social and Institutional Development and Economic Management Technical Assistance Program (SIDEM) for EU8 countries,<sup>8</sup> as well as the Southern Africa Power Market Program. Review of the Pamir Private Power Project (Tajikistan) highlights the need to establish measures that enable investors and operators to provide a tariff profile that reflects consumers' ability to pay. In the case of Pamir, IDA and IFC's commitment to buy down the cost of capital acted as a catalyst to attract much larger investment for the project than otherwise possible. The program also builds on experience of previous regional projects in the area of Safeguards.

42. **RCIP packages lessons learned and brings an innovative angle to ICT reforms.** This project is the first regional ICT project to reach this advanced stage of preparation in the Africa region, which means that few comparisons with similar environments are available. However, previous experience with projects in other sectors and their implementation record in East & Southern Africa countries still hold a number of useful lessons:

1. Project design must reflect the intent, interest and priorities of the beneficiaries and stakeholders, to ensure ownership of the project and particularly the reform process;
2. There must be an emphasis on capacity building of project agencies. Experience confirms that sustained project impact depends on well-managed, well-financed executing agencies;
3. Preparation and implementation by the responsible ministries of ICT/Telecommunications will ensure the integration and follow-up activities within several government ministries and departments;

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<sup>8</sup> EU8 countries include the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, the Slovak Republic and Slovenia.

4. In each country, a dedicated project team well integrated in a designated ministry and clearly empowered to lead project implementation, is essential to ensure focus and swift results;
5. With the large number of stakeholders and implementing partners, adequate provision for a communication strategy will be important.

43. **Closing the gender gap in access to communications will require deliberate efforts.** Women within developing countries are often left outside the information age in comparison with men whose poverty they share.<sup>9</sup> Women's ability to take advantage of ICT is dependent on conducive policies, an enabling environment in their countries to extend communications infrastructure to where women live, and increased educational levels. Therefore, during implementation of the Regional Communications Infrastructure Program (RCIP) gender issues will be considered early in the process of the introduction of ICT in participating countries so that gender concerns can be incorporated from the beginning and not as a corrective.

## 6. Alternatives considered and reasons for rejection

44. **APLs work best in the Regional context.** Closing the terrestrial connectivity gap in Eastern and Southern Africa requires the combination of two key interventions: (i) investment intervention based on a public-private partnership; and (ii) policy and regulatory support to ensure that once in place, the infrastructure is accessible to all service providers on open, transparent and non-discriminatory terms. Both elements are key to project success. As evidenced from previous experience in the Western Africa SAT-3 submarine cable<sup>10</sup>, and by the absence of pure private infrastructure in Eastern & Southern Africa, other alternatives focusing exclusively on public investment or on policy reform, or relying on sole private sector financing, were discarded.

## C. IMPLEMENTATION

### 1. Institutional and implementation arrangements: overall regional coordination

45. **The more countries participating in RCIP, the better.** Irrespective of the source of financing (World Bank Group, Government, Development Partners or private), the connectivity initiatives in East and Southern Africa need to be managed and coordinated both at national and regional levels. Regional coordination is particularly important to ensure seamless connectivity, harmonized policy frameworks and increased scale economies. The ultimate objective of the World Bank Group and its development partners is to support several projects aimed at linking E&SA countries to one another and to the rest of the world by 2010.

46. **Local champions will drive implementation.** In each country, within the executing ministry, a dedicated project implementation team, equipped with strong professional skills in program management, procurement, financial management, technical design and supervision, will

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<sup>9</sup> Gender, Information Technology, and Developing Countries: An Analytic Study, Nancy Hafkin and Nancy Taggart, Academy for Educational Development, [http://ict.aed.org/infocenter/pdfs/Gender\\_Book\\_Photos.pdf](http://ict.aed.org/infocenter/pdfs/Gender_Book_Photos.pdf)

<sup>10</sup> Lack of policy/regulatory support has led to limited impact of SAT3 on reducing prices and delivering on development outcomes.

be empowered to lead project implementation. For regional coordination, several mechanisms are in place to coordinate national and cross-border infrastructure roll-outs, and the harmonization of national policy frameworks within the region. Considerable work has already been done in supporting different governments to coordinate national programs, with some activities being financed by the World Bank Group and other donors as noted earlier. It is also likely that existing convening frameworks will continue to be used, including:

- (i) Government policy forums under the sponsorship of the African Union: policy forums are regularly convened for the ICT sectors at the Ministerial level for policy decisions or at the technical level for policy development. This also includes activities carried out by the NEPAD e-Africa Commission (based in South Africa) which has tabled the NEPAD ICT Broadband Network Protocol, expected to undergo revisions following inputs by the industry;
- (ii) Operator forums under the EASSy, East Africa Backbone operators association (EABs) and Southern Africa Telecommunications Association (SATA): the EASSy, SATA and EABs initiatives have led to regular discussion and coordination amongst operators driven by the desire to accelerate infrastructure roll-out;
- (iii) All-stakeholders meetings and the joint Government/Operators/Development Financial Institutions Task Force.

47. **Donor and stakeholder participation will be important.** NEPAD e-Africa Commission activities have been supported with various grants including from PPIAF. Other donors are currently contributing to its financing. It is expected that the above convening frameworks and processes will continue to be used for overall coordination, monitoring of progress in policy harmonization and in the roll-out of cross-border infrastructure. The enabling environment component in each project financed under the RCIP program will include the option to finance convening workshops and stakeholders meetings as may be needed for coordination or capacity-building among the respective Ministries of Telecommunications (or their equivalents) and national institutions responsible for eGovernment.

## **2. Monitoring and evaluation of outcomes/results**

48. Monitoring and evaluation of RCIP will be embedded in the various components of the project, and technical assistance provided through the project will include support for M&E.



<b>PDO</b>	<b>Outcome Indicators</b>	<b>Use of outcome information</b>
<b>Connectivity development objective:</b> To contribute to lower prices for international capacity and extend the geographic reach of broadband networks	Volume of international traffic  Volume of national traffic using 2 proxies: <ul style="list-style-type: none"> <li>▪ Internet user penetration</li> <li>▪ Total teledensity (fixed and mobile)</li> </ul> Average price of international communications using the proxy: <ul style="list-style-type: none"> <li>▪ price of wholesale international "E1" capacity link</li> </ul>	Assess trends in international communications and regional communications integration  Assess level of access to communications services within targeted countries  Assess competitiveness of countries with regards to cost of capacity
<b>Transparency development objective:</b> To contribute to improved Government efficiency and transparency through eGovernment applications	Satisfaction of users with government services received through electronic delivery  Improved efficiency in institutions/ government agencies which have adopted eGovernment applications.	Show improvement in quality of eGovernment services  Indicate successful rollout and use of eGovernment services
<b>Intermediate Results</b>	<b>Results Indicators for Each component</b>	<b>Use of results monitoring</b>
Defined at country level in the relevant Technical Annex		

### 3. Arrangements for results monitoring

49. The arrangements for results monitoring are specified for each participating country in the relevant Technical Annex.

### 4. Support to IDA 14 Results Measurement System.

50. **RCIP will support the IDA Results Measurement System (RMS)** by collecting data on the sector (including specifically on teledensity), thus aligning with the 14 indicators of countries' development progress endorsed by IDA deputies at their meeting in Hanoi in July 2004<sup>11</sup>. With the Program, the World Bank will have information to measure teledensity figures for participating countries in the regional Program. Depending on the specific eGovernment applications supported through the Program, information on other indicators such as cost of business start up or public financial management would be made available, among others.

<sup>11</sup> The Results Measurement System (RMS) was endorsed by the IDA Deputies at their July 2004 meeting in Hanoi. The indicators selected for IDA 14 RMS included: (1) Proportion of population below US\$1 dollar per day; (2) Under-5 child mortality; (3) Prevalence Rate of Women aged 15-24; (4) Proportion attended by skilled health personnel; (6) Ratio of girls to boys in primary and secondary education; (7) Primary school completion rates; (8) Proportion of the population with sustainable access to an improved water source; (9) Fixed lines and mobile telephones per 1,000 inhabitants; (10) Formal cost of business start ups; (11) Public finance management; (12) GDP per capita; (13) Access of rural population to an all-seasoned road; and (14) Household electrification rate.

## 5. Sustainability

Component	Sustainability
<b>Component 1: Technical assistance to sector ministry, regulator, M&amp;E capacity</b>	Technical assistance is being provided to, among others, improve sustainability through capacity building within the Ministry and regulator.
<b>Component 2: Connectivity</b>	
(a) Support for a (virtual) landing station, and for establishment of an Internet Exchange Point (IXP).	The operation and maintenance costs to maintain this infrastructure once it is up and running are limited. Sustainability of this component is improved by assigning management of such infrastructure to the private sector company or association of companies that will be operating as a commercial concern, in order to cover maintenance costs.
(b) Support for capacity purchase schemes on the regional and national networks to support targeted users (schools, universities, hospitals, eGovernment users, other user groups).	Capacity can be leased (monthly, yearly, etc) or purchased for the life of the cable, i.e. on an IRU <sup>12</sup> basis (Indefeasible Rights of Use) similar to a capital investment. To improve sustainability of this component, capacity on the national and regional backbones will be purchased as much as possible on an IRU basis. In addition, the purchase of capacity would be based on the principles of cost-sharing, and the objective would be to compensate for high prices prior to expected reduction of prices. Support will be designed so as to be phased out as prices decrease.
(c) Support for the rollout of a national backbone.	Any public financial support required would be calculated in such a way as to allow the operation to be profitable – and therefore sustainable – on an ongoing basis. Because ownership of the equipment remains with the operators/holding company, they would be responsible for maintenance and ensuring the sustainability of operation in the long run. Once investment and infrastructure are in place, operational costs are relatively low.
(d) Support for financing the governments' virtual communications network.	This component mostly relates to physical investments in infrastructure as usage charges would be covered under 2(b). Sustainability risks would be minimized if availability of resources for network maintenance can be guaranteed.
(e) Support for the extension of ICT coverage in rural areas. The government would launch a tender process for rural coverage and subsidies would be attributed to operators which ask for the least subsidy.	Same as for 2(c).
<b>Component 3: eGovernment applications</b>	Sustainability is ensured through PPP arrangements or by targeting beneficiary agencies where commercialization can be achieved for cost-recovery purposes or where significant cost savings can be realized.

## 6. Critical risks and possible controversial aspects

51. **RCIP is a complex and ambitious Program with significant risks and benefits at the country level.** A number of risks related to the planning and execution of the RCIP have been identified. Some of these risks are also found in other regional projects supported by the Bank

<sup>12</sup> IRU refers to the right to use a specific amount of capacity on the cable for life of the infrastructure.

and underscore the importance of a coordinated approach. The table below covers the risks which are at the RCIP Program level. RCIP country-specific risks are covered in the relevant Technical Annexes.

Main Risks	Rating	Mitigation measures
<b>To project development objective</b>		
Delays/cancellation of the Eastern African Submarine System (EASSy)	M	In addition to EASSy, there are a number of complementary submarine cable initiatives currently being planned by various private sector interests and governments. By moving towards the concept of capacity purchase, the IDA program is designed to leverage any regional submarine infrastructure which will be in place. The project aims at facilitating traffic generation in advance of the submarine cable being launched, including but not limited to EASSy.
Inadequate alignment of the various country-specific projects, regional organizations, and operators, which could limit impact of regional approach.	M	Use of an APL instrument allowing a phased approach that groups countries according to their readiness. Build up capacity at the national level for increased effectiveness of regional dialogue. Explore PPP opportunities at a national level including to promote alignment of government and private sector interests.
Governance issues with regards to build out of infrastructure where state-owned enterprises coexist with private operators	M	While the participation of enterprises with poor efficiency records in the roll-out of the infrastructure may not be desirable, it cannot be totally ruled out, especially in countries where the telecommunications market is not open to competition. Hence, special institutional arrangements and specific transparency and competitive safeguards will be put in place to mitigate this risk.

Risk Rating: S = Substantial, M = Moderate, N = Negligible.

## 7. Loan/credit conditions and covenants

52. Grant/Loan/Credit conditions and covenants will be defined individually for each Communications Infrastructure Project. There are no conditions/covenants at the Program level.

## D. APPRAISAL SUMMARY

53. For all Communication Infrastructure Projects, the Technical Annex will cover the country-specific economic, financial, technical and fiduciary appraisal considerations.

### 1. Economic and financial analysis at the program level

54. **An assessment for backbone connectivity of Phase 1 countries took place.** It included the development of a financial model, was conducted with the help of international consultants in several of the countries participating in RCIP, notably those included in Phase 1. A preliminary economic and financial analysis was prepared on the basis of this study. The main focus of the program is on regional connectivity; hence the economic and financial analysis was mainly concerned with the backbone and backhaul components, as well as the purchase of capacity and, to a limited extent, the rural ICT component. The results for individual countries are included in the Technical Annexes. In this section, the focus is on the economic benefits derived from the program at the regional level.

### *Economic Benefits at the Country Level*

55. **Research shows that GDP is higher in countries with more advanced telecommunication networks—doubling of teledensity in participating RCIP countries could help increase GDP by 0.9 percent.** The notion that telecommunications infrastructure is an important contributor to the economic development of countries is well established. Various researchers beginning with Hardy in 1980, Norton in 1992 and others have all found that there is an externality component in enhanced fixed telecoms penetration – that is, GDP is higher, and growth faster in countries with more advanced telecoms networks.<sup>13</sup> Results of studies focusing on the macroeconomic effects of ICT in the OECD countries show increases in productivity when ICT were introduced in the everyday working life starting in the late 1980s, when computers came into widespread use in the workplaces. The overall effect on productivity by ICT has been found to be in the region 0.3 to 0.8 percent per year.<sup>14</sup> Moreover, significant evidence exists to suggest that doubling of the teledensity in Eastern and Southern Africa countries could increase annual growth rates by at least 0.9 percent.

56. **Telecommunication investment can produce significant economic benefits across different sectors in the economy.** The economic model used to assess the economic benefits of the project in individual countries attempts to estimate the impact of two externalities:

1. The first is related to the savings of individual new users (and from there to the economy as a whole) who substitute only 10% of their expenditure on transportation with telephone calls. It must be noted that, based on survey data, about 10% of household expenditure in Africa (not counting the cost of time) is dedicated to transport services.
2. A second economic benefit is the increase in productivity, measured in income improvements, which is evident in the agricultural perishable products sub-sector. It has been estimated that incomes of agricultural producers in this particular sub-sector can rise by about 9% through the use of mobile telephones.

57. **Additional significant economic benefits (not fully quantifiable by the economic model) occur through the removal or lowering of economic barriers of various kinds.** One effect often attributed to ICT is the reduction of transaction costs in the economy. When telecommunication becomes widespread in a country, easier, faster and cheaper communications services lead to lower costs for the transfer of messages in the economy. As a result, the number of successfully concluded transactions increases, each adding some economic value. This effect increases dramatically with higher penetration levels. As a result of the network effect, the number of messages exchanged increase exponentially when the number of users increases. In addition, the impact of the increase in the use of Internet services has not been quantified by the economic model, given that it is still a recent phenomenon in developing countries. However, there is enough evidence to suggest that the aggregate impact of the project is likely to be larger than what has been described so far, if one were to account for the rapid growth expected in the use of broadband Internet.

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<sup>13</sup> Melvin Fuss, 2005. The Impact of Telecoms on Economic Growth in Developing Countries, in Africa: The Impact of Mobile Phones, Vodafone Policy Papers.

<sup>14</sup> See for example Bart van Ark & Marcin Piatokowski, 2004. Productivity, Innovation and ICT in Old and New Europe, Groningen Growth and Development Centre, March 2004.

58. **Estimating the cost of financing the backbone network will be difficult in the African context.** A low cost and high capacity backbone network is also essential for the provision of e-services to rural areas in Eastern and Southern Africa. To estimate the effects of e-services in economies of Eastern and Southern African countries would be very difficult. Large scale public services of this kind have only been offered in high income countries until recently and even there few studies exist regarding the socio-economic effects. No empirical studies exist of these effects in any African low income country. Advanced information services also have wide-ranging applications in health care and education. Such indirect benefits, although difficult to quantify, are certain to far outweigh the directly measured impact.

#### *Economic Benefits at the Regional Level*

59. **ICT can help developing countries overcome inefficiencies in trade promotion, logistics, and customs services to become more competitive and integrated in the international trading system.** The implementation of RCIP will have a transforming impact on regional communications traffic, which in turn will have an important impact on regional and global trade and overall economic integration of the participating RCIP countries and the whole region. The economic benefits of the implementation of the program can be demonstrated by the increase in regional and international trade transactions and thus of the volume of foreign trade through the following channels:

- Fink, Mattoo, and Neagu (2002)<sup>15</sup> find that a 10 percent decrease in the bilateral price of phone calls is associated with an 8 percent increase in bilateral trade; and
- Freund and Weinhold (2000)<sup>16</sup> find that a 10 percent increase in the relative number of web hosts in a country is associated with increased trade flows by 1 percent.

60. **RCIP will contribute to reduce connectivity costs.** Eastern and Southern Africa currently has one of the highest connectivity costs in the world and international calls are on average 10 to 20 times higher than in other developing countries. RCIP aims to contribute to significantly reduce these prices. Assuming just a 10 percent decrease of international call prices within the Common Market for Eastern and Southern Africa (COMESA) – of which nine potential RCIP target countries are members, it is conservatively estimated that the volume of the trade within COMESA would increase annually by at least US\$250 million.

#### *Regional Considerations for RCIP Project Components*

61. **RCIP components were designed to be viable in the current environment.** It is important to note that RCIP components were designed as an integrated and interlinked program to ensure long term economic viability of the infrastructure, maximize development impact of the investments, and ensure initial investments are recouped. The Detailed Feasibility Study for the EASSy project argued that for the long term economic viability of EASSy (and of any other major submarine fiber cable connecting the region to the rest of the world), it is extremely

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<sup>15</sup> Carsten Fink, Aaditya Mattoo, Ileana Cristina Neagu, 2002. Assessing the Impact of Communication Costs on International Trade, Policy Research Working Paper #2929, The World Bank, Washington, DC

<sup>16</sup> Caroline L. Freund & Diana Weinhold, 2000. On the effect of the Internet on international trade, International Finance Discussion Papers 693, Board of Governors of the Federal Reserve System, U.S.

important that African countries develop their domestic and regional network infrastructure as quickly as possible to meet the expected growth of demand for internet traffic, which is likely to be substantial. To ensure the viability of the domestic and regional network infrastructure and to ensure that its benefits are delivered to end users, it is important to develop both the backbone and access (or last mile) network. While access networks in urban areas are being rapidly developed mainly by mobile operators, backbone networks and access networks in rural areas will require Government financial support in the form of subsidies (as it is the case in most of the developing countries and many developed countries). To ensure the viability of the whole infrastructure system, it is important to stimulate demand by the public administration and citizens through the support of government's communications networks, subsidizing internet access and usage by educational institutions, and development and implementation of eGovernment applications.

**62. Greater integration and coordination of RCIP activities will help maximize economic benefits.** RCIP has a potential to deliver significant economic benefits to Eastern and Southern Africa countries. However, in order to maximize these benefits, it is important to ensure that its individual components are implemented within an integrated and coordinated program.

## **2. Social & environment**

**63. The Program will have many positive social impacts; negative impacts on land acquisition are unlikely.** The program is not expected to have any negative social impacts. The only potential negative impact relates to land acquisition for the construction of telecommunications and ancillary infrastructure, such as access roads, which could prompt the need for involuntary resettlement of the affected populations. However, this potential impact is considered unlikely, given that most of the proposed telecommunications facilities are expected to be constructed alongside other existing infrastructure, such as roads and power transmission lines.

**64. The environmental impacts expected from this Program are moderate to minimal.** The backhaul/backbone and rural ICT components are the only ones likely to have some environmental impact, either due to temporary disruption through the construction of ducts for laying the fiber optic networks or from the construction of ancillary infrastructure, notably access roads, associated with towers for microwave links and rural wireless systems.

## **3. Safeguard policies**

**65. The proposed category for the Program is B.**

<b>Safeguard Policies Triggered by the Project</b>	<b>Yes</b>	<b>No</b>
Environmental Assessment (OP/BP/GP 4.01)	[x]	[ ]
Natural Habitats (OP/BP 4.04)	[ ]	[x]
Pest Management (OP 4.09)	[ ]	[x]
Cultural Property (OPN 11.03, being revised as OP 4.11)	[ ]	[x]
Involuntary Resettlement (OP/BP 4.12)	[x]	[ ]
Indigenous Peoples (OD 4.20, being revised as OP 4.10)	[ ]	[x]
Forests (OP/BP 4.36)	[ ]	[x]
Safety of Dams (OP/BP 4.37)	[ ]	[x]
Projects in Disputed Areas (OP/BP/GP 7.60)*	[ ]	[x]
Projects on International Waterways (OP/BP/GP 7.50)	[ ]	[x]

66. **The physical components of this Program will mostly be limited to the building of national terrestrial backbones, rollout of rural networks, and of the landing stations, in the few cases where the latter might be required.** No beach manholes or onshore cable infrastructure up to the landing station will be financed under this project. The risks associated with the kind of infrastructure financed under this Program are generally low, and the project is therefore assigned to **environmental category B under OP 4.01**. Land acquisition for terrestrial facilities will likely trigger OP 4.12 Involuntary Resettlement considerations. The project is not expected to impact indigenous peoples in any negative way, and therefore OP 4.10 is not triggered. However, once the actual locations of the facilities to be financed are known, this fact will be re-assessed.

67. **An Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework (RPF) have been prepared** in both English and French for the overall program. The ESMF and the RPF have been reviewed by the Bank and publicly disclosed in all countries participating in the first phase of RCIP. They are also available on [www.worldbank.org/rcip](http://www.worldbank.org/rcip) as well as at the InfoShop. Specific costed Environmental Management Plans (EMP) and Resettlement Action Plans (RAPs) will be prepared as necessary for the terrestrial facilities during project implementation, in line with the ESMF and RPF, once the exact locations of those facilities have been identified. The institutional responsibilities for preparing the various safeguards instruments would lie with the implementing agency of each participating country. Any specific required action for some of the Civil Works will be taken into account during project implementation. Institutional responsibilities for preparing the safeguard assessment strategy will be defined closely with the Safeguards Team.

#### 4. Policy exceptions and readiness

68. The Program does not require any exception to the Bank policies.

### E. COMMUNICATIONS STRATEGY

69. **Effective communications through the life cycle of RCIP (from planning, appraisal to implementation) can contribute to the ultimate success of the Program.** Communication is

\* *By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas*

particularly crucial for transparency initiatives involving eGovernment components which require both government and public awareness and acceptance to be effective. The role of communications includes, but is not limited to:

- Setting a clear communications plan and defining the issues around the project, revisiting the strategies with the project team regularly;
- Ensuring appropriate disclosure and transparency at all stages of the project;
- Anticipating and addressing potential reputation risk issues;
- Ensuring that the project team is aware of external perspectives by circulating, analyzing, and if necessary, responding to press and public opinions;
- Establishing a system to provide information through the web and other means;
- Determining the types of information and communication activities that are best suited to addressing issues or problems;
- Preparing and disseminating both routine and complex outreach products (e.g., news releases, briefs, op-eds/articles, Q&As, websites etc.) that promote the strategic and timely flow of information and key messages to key internal and external audiences;
- Overseeing planning, coordination, scheduling and logistics for press briefings, high-level meetings, workshops and other communications-related activities;
- Ensuring cohesive and consistent talking points for the public and press;
- Updating World Bank External Affairs and IFC Corporate Relations staff on status of the project;
- Providing media coaching to spokespersons.

70. **In this context, a communications strategy has been formulated (also available at [www.worldbank.org/rcip](http://www.worldbank.org/rcip)) and is being implemented.** Details of the communications strategy can be found in Annex 7.



## Annex 1: Program Overview Note

### Regional Communications Infrastructure Program (RCIP) Communications Infrastructure Project 1, 2 &3 (CIP1,2&3)

#### Background

1. **Economic development in Eastern and Southern Africa (E&SA)<sup>17</sup> is held back by prohibitive telecommunications and ICT costs.** Due to incomplete liberalization and lack of communications infrastructure, costs for ICT and telecommunications services have remained prohibitive in the region. The region currently relies mostly on expensive and poor quality satellite infrastructure with costs amongst the highest in the world, on average 10 to 20 times that of other developing countries, leaving the region ill placed to compete in the global economy. Without access to low price and high quality telecommunications services, it is difficult for the countries to trade among themselves and with the rest of the world, to create jobs and expand production of goods and services.

2. **The private sector, telecom operators, governments and donors have joined forces.** The private sector, telecom operators, governments and donors have joined forces to improve open access to affordable ICT services across East and Southern Africa. As part of this effort, working with eight other development partners (AfDB, AFD, DBSA, DFID, EIB, EU, KfW and SIDA and the multi-donor infoDev program), the World Bank Group is supporting complementary initiatives to help close connectivity gaps. The World Bank Group's engagement followed the Algiers Declaration from the Summit of the Heads of State and Government Implementation Committee (HSGIC) in November 2004, which called on the World Bank Group to support regional connectivity efforts in view of its far reaching impact on the regional development and growth agenda.

#### Overview of the Program

3. **The IFC and World Bank interventions are highly complementary.** Closing the connectivity gap in Eastern and Southern Africa requires one or several submarine cable projects, as well as terrestrial connectivity infrastructure. Consequently, two distinct but complementary initiatives are being pursued in parallel.

- On one hand, an IFC operation as part of a joint IFC/EIB/DBSA/AfDB/AFD/KfW effort, is proposing to finance through a Special Purpose Vehicle, an operator-backed submarine cable, known as East African Submarine Cable System (EASSy), which would follow the coastline to connect South Africa, Madagascar, Mozambique, Tanzania, Kenya, Somalia and Sudan to the rest of the world. The main operating principle of this submarine cable, which differentiates it from many others funded under oligopoly regimes, is reliance on an open access, pro-competitive communications regime that ensures capacity is available to all operators at a fair market-based price, independent of their status as shareholders of EASSy. Several other possible submarine cable projects are under preparation by various private sector interests and governments, and this enhances the likelihood that at least one of them will materialize.

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<sup>17</sup> Eastern and Southern Africa (E&SA) is defined to include the following 25 countries: Angola, Botswana, Burundi, Comoros, DRC, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe

- On the other hand, the proposed World Bank RCIP operation, which is the focus of this Program Appraisal Document, is focused on closing the terrestrial connectivity gap by supporting the build-out of terrestrial networks to connect the main towns of all participating countries with each other, and the rest of the world. The RCIP combines two key interventions: (i) investment intervention based on a public-private partnership as feasibility studies have shown that several segments of the infrastructure network would not be fully commercially viable at this stage based on a strictly private sector financing model, and (ii) policy and regulatory support to ensure that once in place, the infrastructure is accessible to all service providers on open, transparent and non-discriminatory terms. The proposed RCIP also emerges from the Bank's Africa Action Plan, which identified advances in ICT as one of the three emerging positive trends in the 21<sup>st</sup> Century for Africa, offering "enormous opportunities to leapfrog stages of development."

4. **The Program is not dependant on any single submarine cable initiative.** As mentioned above, it must be noted that the proposed World Bank RCIP operation does not rely solely on the proposed EASSy cable, as there are a number of other submarine cable initiatives of which it is likely that one or two will materialize. The program will thus benefit from competition at two levels, possibly between different cables if more than one materializes, and between different operators providing service on the same cable (as open access implies no restrictions to the number of service providers on one cable).

5. **The lending instrument will be a Regional IDA horizontal Adaptable Program Loan.** The proposed IDA instrument for RCIP is a regional, Adaptable Program Loan (APL), structured in "horizontal" phases in order to allow participation of different countries as and when they express demand and demonstrate readiness. The first phase of the operation is proposed to include Burundi, Kenya, and Madagascar.

6. **Supply and demand initiatives.** In addition to directly supporting the roll-out of specific segments of the terrestrial infrastructure network, the Program is also designed to ensure the viability and sustainability of the overall regional network and the productive use of this regional infrastructure. This is being pursued through targeted investments in capacity purchase for Government use and other targeted user groups (schools, universities, hospitals, etc.), rural network deployment and development of specific eGovernment applications.

7. Without the potential increased traffic made possible by an acceleration of national and regional terrestrial infrastructure roll-out and activities aimed at encouraging traffic demand, the regional infrastructure may not be viable, at least in the short term. Therefore, RCIP improves the likely viability of various investments as part of the regional network, including of the proposed submarine cable projects. Further, a feasibility study indicates that portions of this infrastructure, notably the national backbones and rural networks, may not be commercially viable. Thus deployment of this infrastructure under a public private partnership (PPP) model has been proposed. Targeted public subsidies may also be required in order to make the infrastructure marginally profitable and thus capable of leveraging private investment. The subsidies, where required, will be structured in such a way that they will be minimized and specifically targeted through a variety of output-based aid (OBA) approaches.

8. **Country ownership and sector readiness is driving the Bank's engagement.** The countries participating in the first phase of the RCIP World Bank operation (Kenya, Burundi and Madagascar) were chosen based on readiness and based on their submitting an official IDA support request (from their respective Ministries of Finance) which showed (i) ownership of the activities beyond the Ministry of Telecommunications or its equivalent; (ii) the willingness to work with the World Bank Group; and (iii) that the activities to be financed were at the core of the respective country's priorities. It is also worth noting that the three countries have subscribed

to an open access platform and have advanced considerably in terms of ICT sector liberalization and sector reform, both of which will maximize the impact of the IDA intervention.

9. **The program will be open to 25 countries.** Overall, the comprehensive RCIP Program is open to Angola, Botswana, Burundi, Comoros, DRC, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe, provided these countries are eligible for IDA or IBRD financing at the time of their application for IDA/IBRD support under the Program. A public website ([www.worldbank.org/rcip](http://www.worldbank.org/rcip)) has been developed to facilitate the application process.

## **Description of the World Bank Operation**

10. **RCIP will assist Eastern and Southern Africa countries to implement a strategy of effective connectivity and increased government efficiency.** The proposed World Bank Operation under RCIP aims at assisting E&SA countries to implement a strategy of effective regional connectivity and increased government efficiency through the use of this connectivity, by (i) offering technical assistance to promote further sector liberalization and resolve market efficiency gaps; (ii) leveraging private investment in the deployment of regional and national backbone infrastructure, as well as rural networks through public private partnership (PPP) arrangements; and (iii) to leverage the infrastructure to increase government efficiency and transparency through the selective deployment of key eGovernment services.

11. **Countries may join when they are ready, choosing project components from a customized Menu of Options.** The proposed investment instrument is a 10-year, horizontal APL, which will allow countries to join the program based on their readiness. To maximize flexibility and client-responsiveness in a multi-country environment, RCIP has been designed as a menu of options which individual Governments choose from in order to package their country-specific operation, drawn from the following components and subcomponents, as described in more detail below.

12. **Component 1: Enabling Environment, including Monitoring & Evaluation capacity-building.** This component aims to promote regional market integration and further sector liberalization through technical assistance and capacity building in specific telecommunications sector regulatory matters, as well as the design of the legal and regulatory framework for the information society. It will also involve support in the implementation of the program, notably through strengthening the Public Private Partnership (PPP) framework, building M&E capacity and supporting project communications. It is expected that common areas of technical assistance and capacity building initiatives (in particular training courses) can be implemented as multi-country activities.

13. **Component 2: Connectivity.** This component aims to support the deployment of regional connectivity through the following subcomponents: (a) financing the landing station or virtual landing station (for landlocked countries) for the submarine cable (dry portion), involving a small construction with limited infrastructure and telecom equipment, as well as financing for a national Internet Exchange Point (IXP); (b) financing the purchase of capacity on the regional infrastructure (both submarine and terrestrial) for schools, universities, hospitals, eGovernment and other priority targeted user groups; (c) leveraging private sector investment on the basis of PPPs, if required, in the deployment of regional and national terrestrial backbone networks; (d) financing the establishment of a government virtual private network (GovNet) to cater to all the government communications needs (both data and voice/video); and (e) leveraging private sector

investment on the basis of PPPs with competitive award of subsidies, if required, to extend the telecommunications and ICT infrastructure in rural areas and/or community-driven ICT development.

14. **Component 3: Transparency – eGovernment Applications.** This component aims to enable governments to improve their internal systems, deliver services more efficiently and effectively, and make information more accessible to citizens. It will involve the development of selected major government services which would be candidates for transition to eGovernment through the use of technology. There is a clear rationale for considering the eGovernment component of this project to be crucial:

- It uses technology and modern approaches to increase the government's ability to ensure transparency and employ techniques to support anti-corruption activities,
- It also increases the communications traffic flows relevant to national and regional communications infrastructure
- It contributes to a behavioral change for citizens and businesses with regards to the increased use of broadband capacity, therefore encouraging the use of the Internet as an everyday tool, and thus incrementally contributing to an earlier viability for investments in infrastructure.

15. **Component 4: Project Management.** This component will support project management related issues, and may include elements such as support for management, procurement, financial management, M&E, and communications expertise, as well as support to conduct audits.

## Annex 2: Safeguard Policy Issues

### Regional Communications Infrastructure Program (RCIP) Communications Infrastructure Project 1, 2 &3 (CIP1,2&3)

#### Social

71. **The Program will have many positive social impacts; negative impacts on land acquisition are unlikely.** The Program will have many positive social impacts. The Program will have many positive social impacts, as indicated in other parts of this document, and is not expected to have any negative social impacts. The only potential negative impact relates to land acquisition for the construction of telecommunications and ancillary infrastructure, such as access roads, which could prompt the need for involuntary resettlement of the affected populations. However, this potential impact is considered unlikely, given that most of the proposed telecommunications facilities are expected to be constructed alongside other existing infrastructure.

#### Environment

1. **The environmental impacts expected from this Program are moderate to minimal.** The backhaul/backbone and rural ICT components are the only ones likely to have some environmental impact, either due to temporary disruption through the construction of ducts for laying the fiber optic networks or from the construction of ancillary infrastructure, notably access roads, associated with towers for microwave links and rural wireless systems.

#### Safeguard policies

2. **The proposed category is B.**

<b>Safeguard Policies Triggered by the Project</b>	Yes	No
<u>Environmental Assessment (OP/BP/GP 4.01)</u>	[x]	[ ]
Natural Habitats (OP/BP 4.04)	[ ]	[x]
Pest Management (OP 4.09)	[ ]	[x]
Cultural Property (OPN 11.03, being revised as OP 4.11)	[ ]	[x]
Involuntary Resettlement (OP/BP 4.12)	[x]	[ ]
Indigenous Peoples (OD 4.20, being revised as OP 4.10)	[ ]	[x]
Forests (OP/BP 4.36)	[ ]	[x]
Safety of Dams (OP/BP 4.37)	[ ]	[x]
Projects in Disputed Areas (OP/BP/GP 7.60)*	[ ]	[x]
Projects on International Waterways (OP/BP/GP 7.50)	[ ]	[x]

72. **Financing of submarine cables is not envisaged.** A related submarine cable infrastructure, the East African Submarine Cable System (EASSy), is being financed by a consortium of private and public operators with the support of private sector branches of multiple DFIs, including IFC, AfDB, EIB, KfW, AFD and DBSA. As these activities are associated with this project, World Bank standards apply and a detailed Environmental and Social Impact

\* By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas.

Assessment (ESIA) has been conducted for the EASSy cable, which also includes an Environmental and Social Management Plan (ESMP). The ESIA's preliminary findings indicate that, while the EASSy cable route passes within close proximity of a number of environmentally sensitive areas, the impacts likely to be generated in the cable laying are minimal, and are limited to the shallow water cable laying operation, for which detailed mitigation measures are outlined. With regards to onshore cable laying, the only potential impact arises from the construction of the beach manhole and the ducts to carry the cable to the landing (or terminal) station. However, in most of the countries this onshore infrastructure is already in place and requires minimal upgrades or extensions. Mitigation measures are outlined in the ESIA for the construction activities related to this onshore cable infrastructure up to the landing station.

3. **The physical components of this Program will mostly be limited to the building of national terrestrial backbones, rollout of rural networks, and of the landing stations,** in the few cases where the latter might be required. No beach manholes or onshore cable infrastructure up to the landing station will be financed under this project. The risks associated with this kind of infrastructure are generally low, and the project is therefore assigned to environmental category B under OP 4.01. Land acquisition for terrestrial facilities will likely trigger OP 4.12 Involuntary Resettlement considerations. The project is not expected to impact indigenous peoples in any negative way, and therefore OP 4.10 is not triggered. However, once the actual locations of the facilities to be financed are known, this fact will be re-assessed.

4. **An Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework (RPF) have been prepared** in both English and French for the overall Program. The ESMF and the RPF have been reviewed by the Bank and publicly disclosed in all countries participating in the first phase of RCIP. They are also available on [www.worldbank.org/rcip](http://www.worldbank.org/rcip) as well as at the InfoShop. Specific costed Environmental Management Plans (EMP) and Resettlement Action Plans (RAPs) will be prepared as necessary for the terrestrial facilities during project implementation, in line with the ESMF and RPF, once the exact locations of those facilities have been identified. Once specific EMPs and RAPs have been drafted for each individual project and sub-project (if applicable), these, together with the updated ESMF and RPF, will be disclosed in-country and discussed with potential affected parties, in line with the parameters established in the ESMF and RPF.

5. **Institutional responsibilities for safeguards will lie at country level.** The institutional responsibilities for preparing the various safeguards instruments would lie with the implementing agency of each participating country. Any specific required action for some of the Civil Works will be taken into account during project implementation. Institutional responsibilities for preparing the safeguard assessment strategy will be defined closely with the Safeguards Team.

### **Policy Exceptions and Readiness**

6. The Program does not require any exception to the Bank policies.

**Annex 3: Project Preparation and Supervision**  
**Regional Communications Infrastructure Program (RCIP)**  
**Communications Infrastructure Project 1, 2 &3 (CIP1,2&3)**

	Planned	Actual
Initial PID to Infoshop		April 18, 2005
Initial ISDS to Infoshop		April 18, 2005
Virtual <b>Revised PCN</b> Review Meeting	November 19, 2006	November 29, 2006
QER Meeting	December 19, 2006	December 19, 2006
Decision Meeting (ROC)	January 25, 2007	January 25, 2007
Updated PID to Infoshop	January 29, 2007	February 13, 2007
Updated ISDS to Infoshop	January 29, 2007	February 13, 2007
Appraisal - Phase I projects	January 29, 2007	February 13, 2007
Negotiations - Phase I projects	February 19, 2007	February 26, 2007
Board/RVP approval – Program	March 29, 2007	
Planned effectiveness date - Phase I projects	June 29, 2007	
Planned mid-term review – Phase I projects	June 2009	
Planned closing date - Phase I projects	June 30, 2011/12	

Key institutions responsible for preparation and supervision of the project:

- Kenya : Ministry of Information and Communication
- Burundi : Ministry of Transports, Posts and Telecommunications
- Madagascar : Ministry of Telecommunications, Posts and Communications

The team has received three Japanese Grants to finance the environmental studies of the project:

- Environmental assessment of telecommunications infrastructure projects and identification of options
- Environmental and telecommunications legal framework in francophone/Anglophone African countries

The team has received 2 grants from FMTAAS to carry out the feasibility studies for the national backbone infrastructure in Burundi, Kenya, Madagascar, Malawi, Mozambique, Rwanda, Uganda, and Tanzania.

World Bank Group staff and consultants who worked on the project included:

NAME	TITLE	UNIT
Laurent Besançon, Team Leader	Sr. Regulatory Specialist	CITPO
Mavis Ampah, Co-Team Leader	Sr. ICT Policy Specialist	CITPO
Isabel Neto	ICT Policy Specialist	CITPO
Juan Navas-Sabater	Sr. Telecom Specialist	CITPO
Peter Silarszky	Economist	CITPO
Harold Bedoya	Sr. Economist	AFCKE
Arleen Seed	Sr. Information Officer	ISGEG
Jonathan Pavluk	Sr. Counsel	LEGA
David Satola	Sr. Counsel	LEGPS
Cecile Ramsay	Operations Adviser	AFTQK
Aisha Elaine Williams	Investment Officer	CGMGT

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Alassane Sow	Country Manager	AFMBI
Bella Lelouma Diallo	Sr. Financial Management Specialist	AFTFM
Brighton Musungwa	Sr. Financial Management Specialist	AFTFM
Cécile Niang	Young Professional	AFCRI
Dahir Elmi Warsame	Sr. Procurement Specialist	AFTPC
Eavan O'Halloran	Sr. Country Officer	AFMMG
Eme Essien	Sr. Investment Officer	CAFÉ1
George Allan Hooper	Consultant	CASDR
Gervais Rakotoarmanana	Sr. Financial Management Specialist	AFTFM
Glenn Thomas Ware	Chief Investigative Counsellor	INT
Henny Rahardja	ET Consultant	CITST
Hyacinth Brown	Sr. Finance Officer	LOAG2
James Morley	Consultant	CASDR
Jeffrey Lecksell	Cartographer	GSDPG
Joseph Solan	Consultant	CITTM
Josiane Raveloarison	Sr Private Sector Specialist	AFTPS
Kaoru Kimura	ET Consultant	CITPO
Kashmira Daruwalla	Sr. Procurement Specialist	CITPO
Kristine Schwebach	Operations Analyst	AFTS1
Lolette Kritzinger-van Niekerk	Sr. Economist	AFRCI
Lova Ravaoarimino	Procurement Analyst	AFTPC
Mallory Lee Saleson	Communications Officer	AFREX
Mark Williams	Economist	CITPO
Michèle Ralisoa Noro	Program Assistant	CITPO
Moses Wasike	Sr. Financial Management Specialist	AFTFM
Nightingale Rukuba-Ngaiza	Sr. Counsel	LEGAF
Nathalie S. Munzberg	Counsel	LEGAF
Olivier Nour Noel	Sr. Investment Officer	CAFS1
Pascal Leccia	Sr. Investment Officer	CITTM
Prosper Nindorera	Sr. Procurement Specialist	AFTPC
Ruxandra Burdescu	Operations Analyst	AFCRI
Sameena Dost	Senior Counsel	LEGAF
Sascha Djumena	Sr. Operations Officer	AFCRI
Serigne Omar Fye	Sr. Environmental Specialist	AFTS1
Stephanie Leydier	Investment Officer	CITTM
Sylvain Ranbeloson	Sr. Procurement Specialist	AFTPC
Thomas Walton	Consultant	AFTS1
Vera Blagev	Investment Analyst	CITTM
Wolfgang Chadab	Finance Officer	LOAG2

Bank funds expended to date on project preparation:

1. Bank resources: US\$912,261
2. Trust funds: US\$47,800
3. Total: US\$960,061

Estimated Approval and Supervision costs:

1. Remaining costs to approval: US\$70,000 (BB RCIP) + US\$171,000 (BB Kenya & Madagascar) + US\$107,200 (Japanese CTF) = US\$348,200
  2. Estimated annual supervision cost: US\$300,000
-



**Annex 4: Documents in the Project File**  
**Regional Communications Infrastructure Program (RCIP)**  
**Communications Infrastructure Project 1, 2 & 3 (CIP1,2&3)**

Initial PCN Review Package	March 15, 2005
Minutes of Initial PCN Review Meeting	March 31, 2005
Project Information Document (Concept Stage)	April 15, 2005
Integrated Safeguards Datasheet (Concept Stage)	April 15, 2005
Approval of Japanese CTF Grants	November 21, 2006
Revised Project Concept Note	November 29, 2006
Approved Minutes of Revised PCN Virtual Review Meeting	December 12, 2006
QER Package	December 14, 2006
QER Minutes	December 22, 2006
Decision Meeting (ROC) Package	January 12, 2007
Updated Project Information Document at Infoshop	February 13, 2007
Updated Integrated Safeguards Datasheet at Infoshop	February 13, 2007
Appraisal - Phase I projects	January 29, 2007
	February 13, 2007
Negotiations - Burundi	February 26, 2007
Madagascar	February 28, 2007
Kenya	March 1, 2007

## Annex 5: Communications Strategy

### Regional Communications Infrastructure Program (RCIP) Communications Infrastructure Project 1, 2 & 3 (CIP1,2&3)



## **AFRICA** *Regional Communications Infrastructure Program*

[www.worldbank.org/rcip](http://www.worldbank.org/rcip)



## COMMUNICATIONS PLAN

### 1. BACKGROUND INFORMATION

#### Issue Context

1. Economic development in Eastern and Southern Africa<sup>18</sup> (E&SA) is held back by prohibitive telecommunications and ICT costs due to incomplete liberalization and lack of infrastructure. Despite the significant growth in some telecommunications sub-sectors – most notably mobile communications – E&SA is the only part of Africa that is not connected to the global broadband infrastructure and accounts for only 0.07% of the world's international bandwidth capacity.

2. The region currently relies mostly on expensive and poor quality satellite infrastructure with costs amongst the highest in the world: international wholesale bandwidth prices are 20 to 40 times higher than those in the United States, international calls are on average 10 to 20 times that of other developing countries and dial-up Internet monthly access prices range from 1 to 10 times the monthly Gross National Income (GNI) per capita in 14 E&SA countries.

3. Without access to low price and high quality telecommunications services, it is difficult for the countries to create jobs, expand production of goods and services, trade among themselves and with the rest of the world.

#### Project Background

4. The proposed Regional Communications Infrastructure Program (RCIP) is an effort to leverage private sector participation and alongside efforts by eight other development partners (AfDB, AFD, DBSA, DFID, EIB, EU, KfW and SIDA) in order to improve access to international connectivity in E&SA.

5. RCIP has two over-arching development objectives:

1. *Connectivity development objective*: by supporting populations and businesses across E&SA to have access to quality and affordable telecommunications infrastructure and services; and
2. *Transparency development objective*: by making use of affordable capacity to improve efficiency and transparency of selected government functions through eGovernment applications (such as e-Procurement, e-Customs, online tax payment, vehicle registration, utility payments etc.)

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<sup>18</sup> Eastern and Southern Africa (E&SA) is defined as the following 25 countries: Angola, Botswana, Burundi, Comoros, DRC, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe

6. The countries participating in the first phase of the operation are Kenya, Burundi and Madagascar. The Board date has been set for March 29. It is expected that other E&SA countries will join the Program in due course.

7. The risks associated with this kind of infrastructure are generally low: the physical components of this project will mostly be limited to the building of national backbones, rollout of rural networks, and of the landing stations; and the environmental impacts expected are moderate to minimal. Nevertheless, RCIP is one of the most complex assignments the joint institutions has had to carry out – with approximately 25 countries, over 30 telecommunications operators, multi-donor approach (both public sector branches and private sector branches) in an extremely politically-charged environment.

#### **Project Components**

8. The proposed 10-year, multi-phase Program will assist E&SA countries to implement a strategy of effective connectivity through:

1. Technical assistance to promote further sector liberalization and resolve market efficiency gaps;
2. Financing of coordinated backbone deployment to avoid redundant infrastructure initiatives and focus on missing links on the basis of Public private partnership (PPP) arrangements to leverage private sector investment;
3. Supporting the development of eGovernment applications and other transparency initiatives.

#### **Expected Outcome**

9. By the end of the program, all capitals and major cities in E&SA should be linked to the global Information and Communications network through competitively priced high-bandwidth connectivity. Traffic in the region is expected to increase by at least 36% CAGR, and bandwidth costs are projected to decline more than tenfold from between US\$ 5,000-8,000 per month for 1 Mbit/s today to under US\$1,000 per Mbit/s per month by 2010, which should translate into end-user broadband access at under US\$150/month, and is likely to rapidly decline further.

10. This in turn should lead to lower prices for telephone services and better access to the Internet that will significantly improve foreign and local private investment opportunities in the region, decrease the cost of doing business and increase the prospects for job creation and wealth generation while enabling countries to reap the benefits of ICT as a platform to deliver services to their citizens.

#### **Lending Instrument**

11. The lending instrument for RCIP will be an Adaptable Program Loan. This instrument involves a series of loans through which the World Bank provides phased and sustained support for a borrower's long-term development program. Under Adaptable Program Lending, funding for the program starts with components that are ready and can be appraised, allowing other components to be prepared over time and be eligible for financing at subsequent stages. This allows a quicker World Bank response to borrower needs while providing flexibility in program implementation.

#### **Country Eligibility**

12. RCIP is open to Angola, Botswana, Burundi, Comoros, DRC, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe, provided the countries are eligible for IDA or IBRD financing at the time of their application for support.

#### **IFC Support to EASSy**

13. While the World Bank operation focuses on the terrestrial elements of the overall regional communications infrastructure and activities which make use of capacity, the IFC operation is focused specifically on the financing of the Eastern Africa Submarine Cable System (EASSy). EASSy is an initiative to connect countries of Eastern Africa via a high bandwidth under-sea fibre optic cable system to the rest of the world. IFC has been working jointly with the private sector arm of other development institutions to finance the operators-backed Special Purpose Vehicle - which is a core enabler of the

EASSy submarine cable to connect to the rest of the world under an open access, pro-competitive communications regime that ensures capacity is available to all at a fair price. Several other possible submarine cable projects are under preparation by various private sector interests and governments, and this enhances the likelihood that at least one of them will materialize.

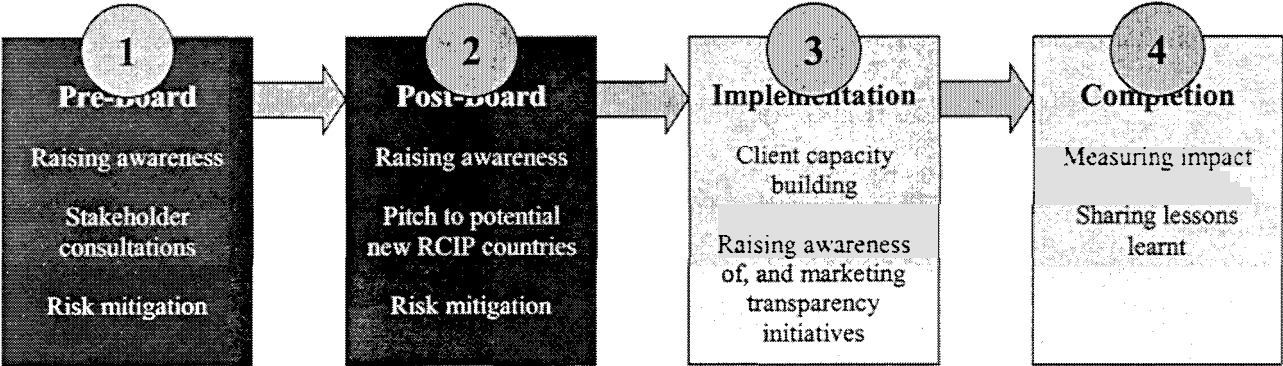
**2. THE ROLE OF COMMUNICATIONS**

14. Effective communications through the life cycle of RCIP (from planning, appraisal to implementation) can contribute to the ultimate success of the project. Communication is particularly crucial for transparency initiatives involving eGovernment components which require both government and public acceptance and uptake to be effective. The role of communications includes:

- setting a clear communications plan and defining the issues around the project, revisiting the strategies with the project team regularly;
- ensuring appropriate disclosure and transparency at all stages of the project;
- anticipating and addressing potential reputation risk issues;
- ensuring that the project team is aware of external perspectives by circulating, analyzing, and if necessary, responding to press and public opinions;
- establishing a system to provide information through the web and other means;
- determining the types of information and communication activities that are best suited to addressing issues or problems;
- preparing and disseminating both routine and complex outreach products (e.g., news releases, briefs, op-eds/articles, Q&As, websites etc.) that promote the strategic and timely flow of information and key messages to key internal and external audiences;
- overseeing planning, coordination, scheduling and logistics for press briefings, high-level meetings, workshops and other communications-related activities;
- ensuring cohesive and consistent talking points for the public and press;
- updating World Bank External Affairs and IFC Corporate Relations staff on status of the project;
- providing media coaching to spokespersons.

**3. COMMUNICATION STAGES**

15. Each stage of the project life cycle requires different types and intensity of communications engagement. The figure below briefly summarizes the main communication components at each stage of the project, and are applicable to all current as well as future RCIP countries. Due to the projected long project life cycle of RCIP (10 years) and many variable factors involved, this communication plan deals primarily with Stage 1 and 2 and will be updated as the subsequent stage approaches.



Expected Project Life Cycle – 10 years

#### 4. POSITIONING

16. The World Bank Group decided to dedicate efforts and resources into the EASSy project and the RCIP following the Algiers Declaration from the Summit of the Heads of State and Government Implementation Committee (HSGIC) in November 2004, which called on the World Bank Group to support regional connectivity efforts.

17. Since then, the World Bank and IFC teams along with other partners, have promoted the policy objective of open access. Governments have strongly embraced the open access agenda. The analytical work and constructive dialogue led by the World Bank Group has also resulted in a dramatic reduction of the price at which capacity may become available for non-initial parties on the East Africa Submarine System (EASSy) project (a seven-fold decrease compared to initial estimates made by operators) or for small initial party operators (a four-fold decrease).

##### **Great Expectations**

18. Although certainly large scale in scope and potential impact, RCIP is not a 'controversial' project in the way that other infrastructure projects (dam or mining for example) are. Partly because RCIP only triggers two out of the ten World Bank safeguards policies, but partly also because it is generally accepted by most that Africa desperately needs reliable and affordable telecommunications infrastructure to promote economic growth and be globally competitive. In this sense, there is no obvious split in support camps. However, there is a sense of great expectations of the World Bank and RCIP. It is important that the World Bank capitalizes on this goodwill as it communicates about the project and seeks feedback on specific initiatives. In return, the World Bank has a duty to be open and transparent in its engagement with the stakeholders.

##### **Balancing the RCIP and EASSy Relationships**

19. In the initial stage of project preparation, it was contemplated that the proposed EASSy submarine cable may be financed partly through IDA. However, there has since been a shift in approach, whereby EASSy is now proposed for financing through DFIs' private sector branches rather than with IDA or other concessional finance instruments. The proposed use of IDA under RCIP, would be for terrestrial connectivity, purchase of capacity and related activities – but not for the submarine cable.

20. To date, the media is almost exclusively reporting on the progress of EASSy, and not on RCIP. Therefore, a challenge is to re-align the media's perception and understanding of what RCIP is about.

#### 5. KEY MESSAGES

21. As the framework of RCIP has evolved significantly over the past few years and media reporting to date has been inconsistent at best, the messages below will be useful to frame the context of public discussion and to clarify existing misperceptions (particularly about EASSy).

- **RCIP is more than just an infrastructure project.** It is ultimately a social project – its potential benefits will be widespread and long lasting. By the end of the program, all capitals and major cities in E&SA should be linked to the global Information and Communications network through competitively priced high-bandwidth connectivity. Traffic in the region is expected to increase by at least 36% CAGR, and bandwidth costs are projected to decline more than tenfold from between US\$ 5,000-8,000 per month for 1 Mbit/s today to under US\$1,000 per Mbit/s per month by 2010, which should translate into end-user broadband access at under US\$150/month, and is expected to rapidly decline further. This in turn should lead to lower prices for telephone services and better access to the Internet that will significantly improve foreign and local private investment opportunities in the region, decrease the cost of doing business and increase the prospects for job creation and wealth generation while enabling countries to reap the benefits of ICT as a platform to deliver services to their citizens.

- RCIP is truly a joint partnership effort. The overall program has been formulated with and alongside more than 20 governments, more than 30 operators and private sector stakeholders, eight other development partners (AfDB, AFD, DBSA, DFID, EIB, EU, KfW and SIDA) and the multi-donor program infoDev housed at the World Bank.
- RCIP is expected to contribute to both connectivity and transparency objectives. The connectivity development objective is expected to be an engine of shared growth achieved by (i) accelerating the physical rollout of backbone infrastructure; and (ii) removing monopoly regimes through policy and regulatory support to ensure that once in place, the infrastructure is accessible to all operators on open, transparent and non-discriminatory terms. While efficiency and improvements in public sector service delivery will contribute to greater fiduciary accountability and improved governance.
- The IFC and World Bank roles are highly complementary to ensure viability of the overall regional program:
  - The viability of any submarine cable in the region is directly impacted by the potential increase in traffic made possible by an acceleration of the terrestrial backhaul and backbone links, the development of applications at national level, and governments' use of the infrastructure to provide services (the focus of the RCIP proposed for World bank support);
  - Conversely, without cross-border initiatives such as the EASSy project, and the resulting reduction in broadband access costs, countries would not have the incentive to develop complementary infrastructure, and the development of applications would be seriously hampered (the focus of the EASSy project proposed for IFC financing along with other financiers).
- The World Bank Group is keen to support Africa in accelerating communications infrastructure rollout – whether terrestrial or submarine, which comply with the principles of open access, affordability, and long-term viability. The latest project structure developed by telecommunications operators for the EASSy initiative is now compliant with these principles and is therefore supported by a number of development partners including the World Bank Group's IFC. Initiatives deemed complementary to the EASSy initiative will be assessed on a case by case basis provided the proposed initiatives are workable and in line with the open access principles.
- RCIP fits with World Bank Group's Strategy for Africa and addresses key Millennium Development Goals: the World Bank's Africa Region Development Strategy, discussed at the Board in July 2003, identified advances in ICT as one of the three emerging positive trends in the 21<sup>st</sup> Century for Africa, offering "enormous opportunities to leapfrog stages of development." However, as highlighted in the World Bank Group's Strategy for ICT Sector Development in the region, *Connecting Sub-Saharan Africa*, incomplete sector liberalization and lack of infrastructure are key impediments to leveraging ICT for economic and social development. The RCIP program has been designed to overcome these bottlenecks, providing infrastructure financing while strengthening policy and regulatory environments and institutions. ▪

## 6. SPOKESPERSONS

22. The approved spokespersons for RCIP/EASSy are:

Laurent Besancon	RCIP TTL (Johannesburg)	RCIP
Philippe Dongier	Manager, Policy Division, Global ICT Department (HQ)	RCIP
Mark Tomlinson	Director, Regional Integration (HQ)	RCIP
Mohsen Khalil	Director, Global ICT Department (HQ)	EASSy
Joe Solan	EASSy Consultant (HQ)	EASSy

23. All media requests for comments (from both HQ and Field) should be routed to the RCIP Communications Coordinator (Henny Rahardja based in Washington, D.C) who can channel to the appropriate spokespersons based on availability.

## 7. KEY COMMUNICATIONS ELEMENTS – STAGE 1 & 2

### RCIP Website

24. The RCIP website ([www.worldbank.org/rcip](http://www.worldbank.org/rcip)) will be the main gateway to information and documents related to RCIP. It will be created and maintained by the RCIP Communications Coordinator and reviewed by the RCIP TTL and extended RCIP Communications Team.

25. The target audience and goals of the RCIP website are twofold:

1. to provide information and latest update on RCIP to a general audience;
2. as a 'call to action' to Government decision makers of RCIP-eligible countries to join the Program, by providing a 'menu' of options and information on requesting IDA financing.

26. A dedicated email account ([rcip@worldbank.org](mailto:rcip@worldbank.org)) and mailing list has also been set-up.

27. Transparency is key to credibility. Therefore, as much as possible, project documents, presentations and procurement notices should be posted on the website in a timely manner. Due to low bandwidth internet access in most of Africa, file sizes and graphics should be kept to a minimum.

28. The website should also be made available in French for ease of use by audience in Francophone Africa.


### Stakeholder Consultation Workshops

29. A series of stakeholder consultation workshops were conducted in the respective RCIP Phase 1 countries (Kenya, Burundi and Madagascar in the first phase of operation) in late January-February 2007. The workshops were facilitated by the World Bank for the Governments of the respective RCIP countries with the following aims:

1. To ensure that RCIP's objectives, potential benefits and impacts are communicated in a transparent manner, thoroughly discussed, and well-understood;
2. To provide an opportunity for the RCIP project team and government representatives to obtain direct feedback and suggestions on specific initiatives (such as the Grassroots Transparency Initiative or the Digital Village Transparency Initiative) within the framework of the Program;

30. Participation was broad-based, comprising civil society, parliamentarians, local council representatives, academia, business owners / private sector, the donor community, government, and the media.

**Africa Regional Communications Infrastructure Program (RCIP)**  
[www.worldbank.org/rcip](http://www.worldbank.org/rcip)

RCIP GENERAL INFORMATION	RCIP RESOURCES
 <ul style="list-style-type: none"> <li>▶ <a href="#">RCIP Home</a></li> <li>▶ <a href="#">Program Background</a></li> <li>▶ <a href="#">IFC Support to EASSy</a></li> <li>▶ <a href="#">World Bank RCIP Countries</a></li> <li>▶ <a href="#">Requesting IDA Financing</a></li> <li>▶ <a href="#">Frequently Asked Questions</a></li> <li>▶ <a href="#">News and Media</a></li> </ul>	<ul style="list-style-type: none"> <li>▶ <a href="#">Stakeholder Workshops</a></li> <li>▶ <a href="#">Project Documents</a></li> <li>▶ <a href="#">Presentations</a></li> <li>▶ <a href="#">Publications</a></li> <li>▶ <a href="#">Related Links</a></li> <li>▶ <a href="#">Subscribe to Mailing List</a></li> <li>▶ <a href="#">Contact Information</a></li> </ul>
<p><small>Economic development in Eastern and Southern Africa (E&amp;SA) is held back by prohibitive telecommunications and ICT costs due to incomplete liberalization and lack of infrastructure. Despite the significant growth in some telecommunications sub-sectors – most notably mobile communications – E&amp;SA is the only part of Africa that is not connected to the global broadband infrastructure and accounts for only 0.07% of the world's international bandwidth capacity.</small></p> <p><small>The region currently relies mostly on expensive and poor quality satellite infrastructure with costs amongst the highest in the world: international wholesale bandwidth prices are 20 to 40 times higher than those in the United States, for international calls are on average 10 to 20 times that of other developing countries and dial-up Internet monthly access prices range from 1 to 10 times the monthly Gross National Income (GNI) per capita in 14 E&amp;SA countries. For instance, the cost of 20 hours of Internet dial up access was US\$160 in 2003 in Sudan, 550% the monthly GNI per capita.</small></p> <p><small>Without access to low price and high quality telecommunications services, it is difficult for the countries to create jobs, expand production of goods and services, trade among themselves and with the rest of the world.</small></p>	

## Video

31. As RCIP is complex and documents filled with technical jargon, a visual presentation (i.e. video) is being proposed as the 'premise piece' in any initial communication about RCIP. It is expected that the video will help to convey several messages about RCIP:

1. to explain the project in a manner which is easy to understand for non-project specialists;
2. to convey that RCIP is ultimately more than just an infrastructure project – it is a social project that will impact the day-to-day lives of the population in a very positive way, and will contribute significantly to economic growth and competitiveness;
3. to capture the thoughts, anticipation and aspiration of the various stakeholder groups (government officials, students, university administrators, small business owners, hospitals etc.) at the opportunities that RCIP will bring them;
4. to highlight some of the consultation process involved (by videotaping the stakeholder consultation workshops);
5. to illustrate the commitment of the people working behind the project (the respective Government Ministries as well as World Bank Management).

32. The video will be shown initially to brief Executive Directors of the World Bank (and their staff) in advance of the Board of Directors' meeting on March 29, 2007. Subsequently, the video will be made available at future events and for download on the RCIP website.

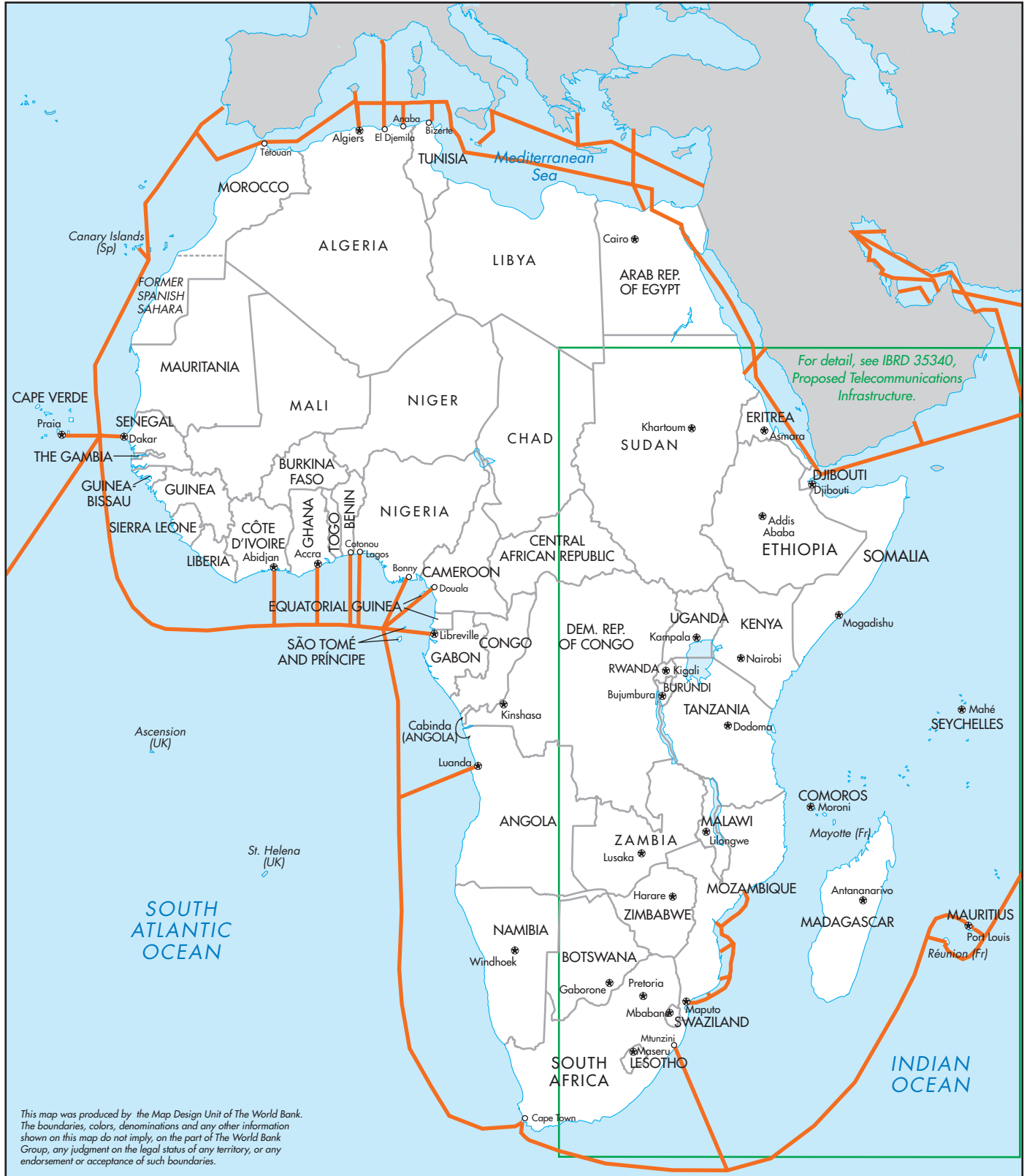
33. It is hoped that the video will also be a compelling tool in 'pitching' RCIP to Governments who have yet to join the Program.



# AFRICA

## EXISTING SUBMARINE TELECOMMUNICATIONS INFRASTRUCTURE

- EXISTING SUBMARINE TELECOMMUNICATIONS INFRASTRUCTURE
- SELECTED NATIONAL CAPITALS
- INTERNATIONAL BOUNDARIES



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# EASTERN AFRICA PROPOSED TELECOMMUNICATIONS INFRASTRUCTURE



For detail, see IBRD 35341 and Burundi Technical Annex.

For detail, see IBRD 35342 and Madagascar Technical Annex.

- PROPOSED IFC-SUPPORTED SUBMARINE CABLE
- PROPOSED WORLD BANK-SUPPORTED BACKHAUL CONNECTIVITY
- NON-WBG FINANCED INFRASTRUCTURE
- PROPOSED IFC-SUPPORTED LANDING STATIONS
- ★ NATIONAL CAPITALS
- INTERNATIONAL BOUNDARIES