

GOVERNMENT OF RWANDA



An Integrated ICT-led Socio-Economic Development Policy and Plan for Rwanda 2001 - 2005



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Report Submitted to

His Excellency President Paul Kagame

March 2001

Introductory Remarks

The Rwandan ICT-led Socio-Economic Development Policy and Plan Development Process which is being supported by the Economic Commission for African (ECA) within the framework of the Africa Information Society Initiative (AISII) began in 1998. The process is divided into two phases. The first phase concentrated on the development of a comprehensive ICT-led Integrated Socio-Economic Development Framework for Rwanda (known as the *Framework Document*) and this was followed by the development of an ICT-led Integrated Socio-economic Policy for Rwanda. The Government now has in place a comprehensive set of ICT policies and strategies as detailed in the GOR ICT Policy document adopted by the Cabinet in early 2000. The details of the GOR Policy document are reproduced in this Report. Also reproduced in Appendix 1 of the Report are relevant extracts of the *Framework Document*.

The second phase of the process concentrated on the development of the 1st ICT Plan (2001 –2005) for Rwanda – the **NICI-2005** Plan guided by the Government's ICT Policies. This NICI Plan, the first of four to be developed within the framework of the *Vision for Rwanda (VfR)* is to serve as a cornerstone of the Government's socio-economic development plan over the next five year starting 2001. The Final Draft of the **NICI-2005** Plan is presented in this Report.

On the whole the Rwanda process yielded three output: a **Policy**, and **Plan** and **Structures**. The Policy was based on the *Framework Document*, while the Plan was developed to implement Government Policy Commitments. The Structures, namely the proposed National Information Technology Commission (NITC) and its Working Groups and the Rwandan Information Technology Authority (RITA) are designed to serve as national coordinating structures and bodies to support the development and the implementation of the NICI Plans. The three components resulting from the Rwanda process are therefore complimentary entities and part of a whole. The details of each of these three components are presented in this Report.

**You cannot teach a man anything; you can only help him find it
within himself**

Galileo

For the same reason...

**You cannot teach a nation anything; you can only help it find it
within itself**

THE POLICY

THE GOVERNMENT OF RWANDA

AN INTEGRATED SOCIO-ECONOMIC AND ICT POLICY AND STRATEGIES FOR ACCELERATED DEVELOPMENT

**A GOR POLICY DOCUMENT FOR THE REALIZATION OF THE VISION *FOR RWANDA*--- TO TRANSFORM RWANDA INTO AN
INFORMATION-RICH KNOWLEDGE-BASED SOCIETY AND ECONOMY WITHIN TWENTY YEARS**

February 2000

SECTION ONE

Preamble and Background to the Government of Rwanda's Integrated Socio-Economic and ICT Policy and Strategies

Preamble

1. The Government of Rwanda (GOR) recognized the role that information and communication technologies (ICTs) can play in accelerating the socio-economic development of Rwanda towards an information and knowledge economy. The GOR believes that Rwanda is equally placed to take advantage of these technologies to facilitate her socio-economic development process.
2. The GOR acknowledges that in the new emerging economic order, the fundamental basis for wealth creation and national prosperity is information and knowledge and that Rwanda cannot afford to be without either of these.
3. The GOR also recognizes that the information and knowledge economy is generating opportunities across all sectors in a number of developed and developing countries. --- It is a new source for the creation of quality jobs, wealth generation and redistribution, rapid economy development and prosperity as well as a source for facilitating global competitiveness.
4. The GOR further recognizes that geographic data and information are essential to social and economic planning and development. It believes that they are much a part of the nation's information infrastructure as the other elements of the infrastructure and should be accorded the same level of support. In this context, ICT policies and strategies, including NICIs, will take into account the geoinformation component.
5. With the emerging information revolution, the GOR sees ICTs as a key factor for achieving progress in economic and social development in Rwanda. The Government believes that ICTs are offering Rwanda a window of opportunity to leap-frog the key stages of industrialization and transform her subsistence agriculture dominated economy into a service-sector driven high value-added information and knowledge economy that can compete on the global market.
6. The GOR further acknowledges that if Rwanda is to move her industrially weak, subsistence agriculture based economy towards an information and knowledge economy it will need to develop a comprehensive integrated ICT-led socio-economic development policies, strategies and plans. It will therefore not be enough for Rwanda to implement a number of isolated ICT projects and programmes or sectorial policies that are not tied to the country's overall socio-economic development objectives, strategies and programmes.

7. In this regard, the Rwandan ICT Policy and Strategies are set within the wider context of the socio-economic development objectives of the Government. These policies and strategies are designed to specifically accelerate Rwanda's socio-economic development process towards the realization of the vision to transform Rwanda into an information-rich knowledge-based society and economy within 20 years.
8. The GOR is also aware that the deployment of ICTs to support the socio-economic development by a number of countries will be creating new winners and losers, within the new emerging global economic order to be dominated by information and knowledge economies (IKEs). And the gap between these new winners and losers is likely to be much larger than the development gap that now exists between the advanced nations and the under-developed nations. Rwanda is at risk of being further marginalized if she failed to embrace these technologies to transform her economy and society.
9. It is within this context that Rwanda, as part of the African Information Society Initiative (AISI) initiated by the United Nations Economic Commission for Africa (UNECA) has developed her ICT Policy and Strategies on which to base her future National Information and Communications Infrastructure (NICI) Plans for accelerating the socio-economic development of Rwanda.
10. This Policy Document presents the GOR's Vision for Rwanda in the information age. It is based on an earlier GOR ICT Policy Framework Document "An Integrated Framework for Socio-Economic and ICT Policy and Plan Development and Implementation for Rwanda". This framework document released in October 1999 was subjected to a wide-ranging consultation and dialogue within the Government and among other key stakeholders and the Rwanda public at large.
11. This Policy Document reflects the Government's total commitment to transform Rwanda into an information-rich knowledge-based society and economy to ensure that Rwanda and its people fully participates in the information age and enjoys the social, cultural and economic benefits of the emerging information revolution.
12. The GOR is wholeheartedly committed to the implementation of its integrated socio-economic and ICT Policy and Strategies to facilitate the process of establishing a prosperous society, with an economy that is globally competitive, dynamic, robust and resilient in respect to the rapid changes and advances that will take place in the global economy to be dominated by technology-driven information and knowledge economies.

Taking into Account Key Socio-Economic Indicators and Developmental Challenges

13. The GOR acknowledged that if Rwandan's ICT Policy, Strategies and subsequent National and Information and Communications (NICI) Plans are to make a desirable impact on the developmental process they must be related to the wider social and economic development agenda of the government.

14. The GOR further recognizes that its ICT Policies, Strategies and Plans must form an integral part of the overall vision for social and economic development of Rwanda and they must also take into account the developmental challenges facing Rwanda within the context of the current status of its key socio-economic indicators; ---- with specific reference to the fact that:

- Rwanda has the highest population density in Africa;
- The country is one of the least urbanized country in Africa with 94% of its population living in scattered settlements in the rural areas;
- Rwanda has a relatively high population growth rate and crude birth rate;
- Rwanda has a predominantly agricultural economy ---- most of which is based on subsistence farming with very little mechanization or the application of modern agricultural production methods or practices;
- The majority of the working population (91.1%) are actively involved in agriculture with only 1.7% working in the industrial sector and 7.2% in the service sector of the economy;
- Rwanda currently depends on coffee and tea for most of its export earnings;
- Rwanda's industrial sector is small and under-developed, --- currently contributing about only 19% of GDP;
- The service sector, the second largest contributor to GDP after the agriculture sector is under-developed;
- Rwanda's public debt is a major impediment to economic development;
- Poverty is widespread in Rwanda with about 64% of the population living below the poverty line;
- Life expectancy estimated at 49 years in 1998 is low even by African standards;
- Rwanda has a high illiteracy rate. High primary school drop-out rate and very low secondary school enrolment rate and that
- Rwanda is currently facing a serious human resource problem in all skill areas and more so in the area of information technology.

Addressing Key Developmental Challenges

15. Further to taking into account the current status of key socio-economic indicators in guiding the development of its integrated socio-economic and ICT Policies and Strategies, the GOR also recognizes the need to target these policies, strategies and plans at addressing the key developmental challenges facing Rwanda –and these include:

- Diminishing agricultural productivity
- Narrow economic and Export Base
- Poor Institutional Capacity
- Public Debt Burden
- Extreme land fragmentation, diminishing land resources and per capita arable land.
- Rapid population growth and high population density
- A low level human resource development
- Underdeveloped and under-funded social infrastructure and services
- A weak private sector
- Long and costly distance from the Ocean
- Social and Economic Factors of the Genocide
- Low capacity in World Trade Organization (WTO) negotiations on General Agreement on Trade in Services (GATS)

16. Rwanda, the GOR believes, is a nation fully aware of its problems and challenges as well as its potentials and capabilities to address these problems and challenges to facilitate the advancement of its society, economically, socially and culturally.

The Vision for Rwanda: Transforming Rwanda into an Information Rich Society and Economy

17. The GOR acknowledges the need to clearly define and state its overall *Vision for Rwanda* -- the realization of which will transform Rwanda into an information-rich knowledge-based society and economy --- with a middle-income status within 20 years. The GOR's *Vision for Rwanda* has three component: the Global Vision, the Vision 2020 framework for socio-economic development and the ICT-led Development Vision.

- ***The Global Vision***

To improve the quality of life of the people of Rwanda by enriching their social, economic and cultural well-being through the modernization of the economy and society.

18. The GOR through its *Vision for Rwanda*, does not envisage the future of Rwanda only in economic development terms; ----- The Vision also acknowledges the need for Rwanda to develop politically, socially and culturally to foster: political stability, good governance and system of government; improvement in the quality of life for of the people of Rwanda; national unity and reconciliation; social interaction, cohesion and

integration; social justice; environmental protection and the fostering of the cultural heritage of Rwanda. The *Vision for Rwanda* also aims at enhancing the pride and confidence of the people of Rwanda in their abilities and capabilities develop Rwanda into a prosperous nation that is at peace with itself territorially and ethnically.

19. To contribute to the realization of this Global Vision, the GOR is further committed the Vision 2020 and the ICT-led Development Vision.

- ***The Vision 2020***

To develop Rwanda into a middle income country by Year 2020

- ***ICT-led Development Vision***

To modernize the Rwandan economy and society using information and communication technologies (ICTs) as an engine for: accelerated development and economic growth; national prosperity; and global competitiveness.

- ***Missions for Realization of the Vision for Rwanda***

20. *Main Mission*

To achieve for Rwanda a middle income status by Year 2020 and transform its society and economy into an information-rich knowledge-based society and economy by modernizing its key sectors using information and communication technologies.

21. *Sub-Missions*

- To develop an ICT Industry for Rwanda
- To develop a highly competitive value-added service sector with the potential to develop into a business-hub of the region.
- To promote social and cultural interaction and integration at all levels of the Rwandan society.

- ***Strategies for Achieving Stated Missions***

22. The GOR is committed to the implementation of the following broad strategies towards the achievement of the Missions for the realization of the *Vision for Rwanda*:

Strategy A:

To transform Rwanda into an IT literate nation

Strategy B:

To promote and encourage the deployment and utilization of ICTs within the economy and society.

Strategy C:

To improve the efficiency of the Civil and Public Service

Strategy D:

To improve the information and communications infrastructure of Rwanda.

Strategy E:

To transform the educational system using ICTs with the aim to improving accessibility, quality and relevance to the development needs of Rwanda.

Strategy F:

To improve the human resource development capacity of Rwanda to meet the changing demands of the economy.

Strategy G:

To develop the legal, institutional and regulatory framework and structures required for supporting the deployment and utilization of ICTs within the economy and society.

Strategy H:

To facilitate the process of national reconciliation and reintegration by promoting social and cultural interaction within the society.

SECTION TWO

Elements of the Integrated Socio-Economic and ICT Policies and Strategies

The Socio-economic Development Policy

23. The GOR through the *Vision for Rwanda* is committed to the establishment of a globally competitive, diversified and balance economy that is driven by information, knowledge and skills --- an economy with an ICT-intensive modern industrial sector; a modern, efficient and competitive agricultural sector; and a vibrant ICT-driven, valued added service sector capable of serving as the engine for accelerated economic growth and development.

24. In developing Rwanda's socio-economic and ICT Policies and Strategies to transform Rwanda into an information-rich knowledge-based society and economy, the GOR is mindful of the fact that it cannot abandon its agricultural sector --- it must however make it modern, efficient and competitive. ---- However, the GOR is aware that even such an efficient, modern and competitive agricultural sector cannot be capable of being the engine for accelerated economic growth and development --- that role is assigned to the service sector.

25. As part of the government's commitment to develop a comprehensive integrated ICT-led socio-economic development policies, strategies and plans that are tied to the country's overall socio-economic development strategy, the GOR is committed to implementing a multi-sectorial socio-economic development policy with the following sectorial goals:

- ***Agricultural Sector Development Goal***

26. To modernize the agricultural sector to improve its efficiency and productivity to ensure food security, generate rural employment, contribute to economic growth and to improve the foreign exchange generation capacity of the sector.

- ***Service Sector Development Goal***

27. To develop a competitive high value-added service sector, to generate employment and serve as an engine for accelerated development and economic growth with the potential develop into a business-service hub for the domestic economy, the East Africa sub-region and beyond.

28. The GOR is fully aware that the Rwandan domestic market is far too small and for Rwanda to grow and accelerate its development process; it must export. The goal to develop the service sector as a business hub to produce and export its services into the sub-region and beyond is key to the Government's socio-economic development policy objectives.

- ***Industrial Sector Development Goal***

29. To develop a viable ICT production and development industry, a vibrant cottage industry and a mass-consumer products light industry capable of generating economic growth and employment and producing goods for the domestic market and for export into the sub-regions and beyond.

Degree of Emphasis on the Development of the Various Sectors

30. As part of the GOR overall socio-economic strategic within the context of the moving Rwanda from a predominantly agricultural economy status to predominantly an information and knowledge economy status within 20 years, the government, will lay *very high* emphasis on the development of the service sector, *medium-to-high* emphasis on the development of the industrial sector and *medium* emphasis on agriculture sector.

The ICT-2020 Policy

31. The ICT-2020 Policy, sets out the orientation of the Government's ICT Policy and Strategies within context of the GOR's broad socio-economic development objectives within the Vision 2020 time frame of 20 years.

32. The Government in formulating its ICT-2020 Policy is guided by the principle that if Rwanda is to take full advantage of the opportunities of the information age and develop a vibrant multi-sectorial information and knowledge economy, it should not as a nation be just a consumer of ICT goods and services but also a producer and developer of the technology.

33. The GOR believes that development of a local ICT production industry and service sector is as equally important as the deployment, exploitation and utilization of the technology to support the activities of various sectors of the economy and society.

34. The GOR as part of its ICT policy and strategy is therefore fully committed to simultaneously pursuing both ICT Exploitation and Production policy involving: the utilization and exploitation of ICTs to support the delivery of government services and the activities of various sectors of the economy as well as the production, development and delivery of ICT products and services ---- i.e. towards the development and promotion of an ICT industry and service sector.

35. The GOR will implement this ICT Policy over a period of twenty years up to the Year 2020 through the implementation of four 5 Year NICI Plans with the 1st, 2nd and 3rd NICI Plans laying emphasis on the exploitation and utilization of ICT products and services to support the delivery of government services and the activities of various sectors of the economy and the 4th NICI Plan laying emphasis on the production, development and delivery of ICT products and services.

36. Each of the NICI Plans will therefore have elements of ICT Utilization and Exploitation as well ICT Production and Development. But the 1st, 2nd and 3rd NICI Plans will be designed to lay emphasis on programmes, projects and initiatives that promote the utilization and exploitation of ICTs in the society and economy with the 4th NICI Plan laying emphasis on programmes, projects and initiatives targeted at accelerating the development of the ICT Production Sector to facilitate the development and production of ICT goods and services for the domestic and the export market.

The Development of the Rwandan Information Society and Economy

37. The adoption of the socio-economic development policy in conjunction with the ICT-2020 policy framework will facilitate the process towards the realization of the Missions of the *Vision for Rwanda* --- to develop Rwandan's Information Society and Economy.

38. The GOR is therefore fully committed to implementing this integrated socio-economic development and ICT policy within the context of the *Vision for Rwanda* to by the year 2020 transform Rwanda's predominantly agricultural economy into:

- A high income economy dominated by the trading in ICT products and services
- An economy characterize by a large commercial service sector with a reasonably large and vibrant, ICT service sub- sector and industry
- An economy in which the majority of the working population are either directly or indirectly involved in information and communications related activities
- An economy in which a reasonable large proportion of the population has access to information and communications technology products and services.
- An economy in which the provision and delivery of goods and services of the key sectors of the economy are to a large extent facilitated by information and communications technologies
- An economy in which the provision and delivery of services by government and its administrative machinery are to a large extent facilitated by information and communications technologies
- A economy based on an advanced and reliable national information and communications infrastructure
- An economy based on a literate society with a high proportion of computer literate.

SECTION THREE

Key Government Policy Commitments and Programmes of Action to Facilitate the Process of Transforming Rwanda into an Information-rich Knowledge-based Society and Economy

Commitment to the Realization of the Vision for Rwanda

39. The GOR acknowledges that, its full endorsement and ownership of the *Vision for Rwanda* and its Missions will be crucial for the realization of the Vision. The GOR has identified the following critical factors that will be necessary for the realization of the *Vision for Rwanda* and it is committed to ensuring that these critical factors and requirements are met:

- The GOR's endorsement and ownership of the Vision for Rwanda
- The GOR leadership and total commitment to the realization of the Vision for Rwanda
- The GOR endorsement and commitment to the Missions and the corresponding Strategies designed to contribute to the realization of the Vision for Rwanda
- The goodwill and the support of the people of Rwanda and their endorsement of the need for the Vision for Rwanda
- A high profile national leader to champion the cause of the Vision for Rwanda
- A strategic Government Ministry to provide national leadership on behalf of the GOR
- Dedicated policy and decision makers, professionals, cutting across the public and private sector committed to the mission for attaining the Vision for Rwanda
- The identification and the setting of realistic objectives and targets that can be achieved within a given time frame

Creating and Facilitating an Enabling Environment for the Development of the Rwandan Information Society and Economy

40. The Government recognizes that one of its key role will be ensuring a favourable enabling political and socio-economic environment for facilitating the process of establishing Rwanda's information society and economy.

41. The GOR is therefore totally committed to providing and facilitating the necessary enabling political, economic, regulatory, legal and institutional environment to support the process of moving Rwanda from a predominately agricultural economy to an information-rich knowledge-based society and economy.

42. The Government further acknowledges that: to facilitate the process of promoting the development and exploitation of ICTs in the economy and society, the GOR will need to put in place special policy packages, incentive programmes and policy instruments.

43. The Government is therefore committed to taking the necessary policy and programmatic initiatives that will include implementing the necessary policy programmes and instruments, tax and other incentive packages targeted at aiding, facilitating and supporting the development of the Rwandan information society and economy. The Government is further committed to put in place the necessary instruments to strengthen its participation in WTO negotiations.

Human Resource Development and Deployment is the Key

44. The GOR acknowledges that: the extent to which Rwanda will benefit from the advances and the opportunities of the emerging information age will depend on how Rwanda is capable of developing and harnessing its human resources to initiate, support and maintain its socio-economic development towards an information and knowledge economy.

45. The GOR further acknowledges that the young population of Rwanda can be transformed into an asset by adding value to human resources and provide the environment for utilizing these resources for socio-economic development process ---- and that ICTs could play a major role in this area.

46. The GOR is therefore fully committed to putting in place and facilitating the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy. The GOR firmly believes that: human resources is the ultimate resource – more so for a nation like Rwanda without key natural resources. The development of people to support the process of moving Rwanda into an information society and economy is therefore top priority of the Government and the crucial role that ICTs can play in this area is fully recognized and promoted by the government.

Commitment to the Deployment and Exploitation of ICTs in the Educational System

47. The GOR acknowledges the key role that ICTs can play in educational delivery and training and the need for ICT training and education in schools, colleges and universities. The Government further acknowledges, the role that ICTs can play in literacy education and need to improve the educational system as a whole.

48. The GOR as part of its ICT Strategy to speed up the process of the deployment of ICTs in the society and economy; to develop an IT literate nation and to support the development of human resources in ICTs and other key professional skill areas is therefore committed to the rapid deployment, utilization and exploitation of ICTs within the educational system from primary school upwards. The GOR in this respect will be initiating a comprehensive programme for the deployment and exploitation of computers in schools, colleges and universities.

Commitment to the Deployment of ICTs to Support the Operations of the Civil and Public Services

49. The GOR acknowledge the crucial role that ICTs can play in the delivery of Government Services; in bringing government closer to the people; and in facilitating the implementing of the Government's decentralization and villagization policy to support the activities of the local administrative units.

50. The GOR is therefore committed to the deployment, exploitation of ICTs to support the operations and activities of the Civil and Public Services as part its commitment to the modernization of the Civil and Public Services to facilitate administrative cost reduction and the promotion of efficiency in the delivery of government services to the people of Rwanda.

Commitment to the Development of the Service Sector into the Business Service Hub of the Region

51. The GOR fully acknowledge the need for Rwanda to develop a regional competitive advantage in the area of ICT exploitation and production through the development of a competitive ICT industry and service sector.

52. The GOR believes that ICTs can serve as the engine for developing these targeted lead sectors of the economy into a competitive regional business service hub.

53. The GOR further believes that Rwanda, by extensively deploying ICTs to support the development of its service sector can serve as the Dubai of the region and provide ranges of off-shore, banking and financial services to business community in the region and beyond.

54. The Government is therefore determined to facilitate the development of the Service Sector of the economy into the Business Service Hub of the Region through the deployment and exploitation of ICTs.

Commitments to Facilitating the Private Sector

55. The GOR recognizes the critical role that the private sector can play as a key partner in the process of moving Rwanda into an information and knowledge economy. The government is therefore committed to promoting and facilitating the role of the private sector in the development and participation in the Rwandan information society and economy.

56. Apart from its commitment to facilitate the private sector through the creation of the necessary enabling environment and putting in place the necessary policy programmes, and incentive packages, the Government is further committed to the creation of a stable economic and investment climate that will assist both domestic and foreign private sector organizations in the development of: the physical telecommunication and communications infrastructure and other ICT infrastructure; information resources and systems “infostructure” to support the activities of various sectors of the economy as well as in the development of human resources in ICT and other skill areas required by the information economy; and in the mobilization of financial resources and other technological resources to aid the process of developing and exploiting the opportunities of the information economy.

The Establishment of ICT Specialist Institutions

57. The GOR acknowledges the need for the establishment of a specialist ICT training Institute for Rwanda. The GOR is therefore committed to facilitating establishment of the proposed Regional Information Technology (IT) Institute in Rwanda. The Government acknowledges that Rwanda's bilingual status makes it an ideal country for such an Institution which could attract both English and French speaking students from the region and beyond. There is also the need to develop training and education facilities in spatial data management at the university of Rwanda.

Commitment to the Development and Liberalization of the Telecommunications, Communications and the Mass Media Sector

58. The Government is committed to: improving communication facilities and to diversifying the means of access through the utilization of appropriate telecommunications systems.

59. The Government as part of its strategy in this area will be increasing access to telecommunication facilities; facilitating the rehabilitation and strengthening of telecommunication and communication facilities. There are plans to liberalized the telecommunications and communications sector to encourage investment and competition in the sector.

60. Government Policy in the Mass Media and Information sector is to promote information in order to facilitate the achievement of social welfare and to foster national reconciliation and unity. The Government will be pursuing a policy of diversifying and improving the quality of information; increasing accessibility to ranges of information within and outside the country and creating a supportive environment for the development of the private press. The Government is also committed to plans to liberalize this sector and privatize the services of ORINFOR. – the Government Information and Mass-media agency.

Commitment to R&D Initiatives to Support the Development and Exploitation of ICTs

61. To enhance Rwanda's capacity to develop, produce, manufacture and assembly ICT products and services as a step towards developing a local globally competitive ICT service sector and industry, the GOR is committed to promoting and supporting R&D initiatives in Rwandan Research Institutions, Universities and Colleges.

62. The Government as part of its strategy in this area will be encouraging partnership, collaboration and linkages between local R&D Institutions and foreign Centers of Excellence to speed up the process of knowledge and know-how transfer to Rwandans.

Commitment to Facilitating an Investment Climate for the Mobilization of Financial and Technological Resources

63. Apart from the development and mobilization of human resources, as critical factors for ICT development, deployment and exploitation in the society and economy, the Government is fully committed to facilitating the mobilization of the necessary financial and other technological resources through Foreign Direct Investment (FDI) and Domestic investment to aid the socio-economic development process in Rwanda.

Commitment to Physical Infrastructure Development

64. The GOR acknowledges that the level, scale and speed of the socio-economic development envisaged in the *Vision for Rwanda* cannot take place without the necessary modern physical infrastructure: roads and general utilities; social infrastructure; telecommunications and communication infrastructure. The GOR is therefore committed to the rapid development, upgrade, improvement and deployment of the necessary infrastructure in all key areas. In this regard, the development of a reputable geographic information infrastructure will prove an important asset to support the development of the physical infrastructure.

Standards, Best Practices and Guidelines for ICT Deployment and Exploitation

64. The GOR acknowledges that the deployment, exploitation and the development of ICTs in Rwanda will need to be guided by appropriate Standards, Best Practices and Guidelines. The GOR is therefore committed to facilitating this process.

Enabling Legal, Regulatory and Institutional Provision

65. The GOR acknowledges that: the development and the exploitation of ICTs in the economy and society as well as the development of the information and knowledge economy will need to be supported and facilitated by appropriate legal provisions and legislation; regulatory framework and provisions as well as institutional structures. The Government is therefore committed to implementing relevant and appropriate sections of the "African Telecommunication Policy and Regulatory Framework Development Programme --prepared by the Africa Ministers of Communication --the African Connection) at African Telecom'98 in Johannesburg, May 1998 in areas like:

- Separation of Government regulatory and operator duties
- Establishment of independent regulatory institutions
- Universal service and access to basic and value added telecommunications services
- Creation of conditions for an investor friendly telecommunications environment
- Development of local communications industry towards competitiveness
- Liberalization and encouragement of private investment in the ICT sector
- Establishment of national regulatory institutions
- Establishment of a mechanism for co-ordinated spectrum management and frequency planning

66. The Government is also committed to the enactment of the necessary laws and legislation in area like: Intellectual Property Law; Telecommunication Law -- to govern and regulate the activities of the telecommunication sector and in passing the necessary legislation to facilitate electronic commerce and other Internet-related activities in the country.

Commitments to the NICI Process for Socio-economic Development

67. As a key aspect of its ICT Policy and Strategy for developing the Rwandan information society and economy, the GOR is committed to putting in place and implementing four 5 year NICI Plans (1st, 2nd, 3rd and 4th NICI) over the 20 year time span of the Vision 2020 socio-economic development programme. The individual time span and goals of the each the NICIs are:

The 1st NICI Plan (2001 to 2005)

Goal: To Support the *development* of an economic base and environment for accelerated growth and development towards transforming Rwanda into an information-rich knowledge-based society and economy.

- ***The 2nd NICI Plan (2006 to 2010)***

Goal: To support the *strengthening* of the economic base and improving the economic environment to accelerate development and growth towards achieving an information-rich knowledge-based society and economy.

- ***The 3rd NICI Plan (2011 to 2015)***

Goal: To facilitate the process of *sustaining* economic development and growth towards improving national prosperity and global competitiveness

- ***The 4th NICI Plan (2016 to 2020)***

Goal: To *consolidate* the process towards achieving a middle income status and an information-rich knowledge-based society and economy.

Commitments to Programmes and Initiatives within the 1st NICI Plan

68. The GOR is fully committed to putting in place and facilitating the implementation of the a number of programmes and initiatives within the 1st NICI Plan. Some of these are:

- the implementation of special government policy and budgetary packages, tax and investment incentive programmes, policy instruments and lead sector promotion packages and incentives to promote the exploitation and development of ICTs in the economy and society to facilitate and accelerate the process of moving Rwandan economy towards predominately an information and knowledge-base economy;
- the development and implementation of a comprehensive human resource development programme to improve the human resource development capacity of Rwanda to meet the changing demands of the ICT sector and other key sectors of the economy;
- the implementation of a number of national ICT applications across all sectors of the economy;
- the mobilization and the deployment of the necessary financial and technological resources to support the implementation of targeted programmes and initiatives;
- the modernization of the civil and public service, -- one aspect of this being the computerization of their activities and operations;
- the promotion and supporting of R&D initiatives directed at the development and the exploitation of the opportunities of the information society and economy;
- the development of standards, best practices and guidelines to guide the deployment, exploitation and development of ICTs in key sectors and
- the provision of the necessary legal, regulatory and institutional framework to support ICT development in Rwanda.

Commitments to the Setting up of National ICT Structures and Bodies

69. The GOR is committed to setting up the necessary National ICT Structures and Bodies to coordinate, support and facilitate the implementation of its ICT Policies, Strategies and Plans. A number of these structures and bodies are envisaged. To start with the GOR is setting up: the *National Information Technology Commission (NITC)*, the *NITC Working Groups*, the *National Geographic Data Committee (NGDC)* and the *Rwanda Information Technology Authority (RITA)*.

- ***The National Information Technology Commission (NITC)***

70. The NITC will be a high powered body whose membership will be made up of a number of Cabinet Ministers from key Ministries and representatives from the Private Sector, Academia, Labour Organizations, etc. The NITC will be chaired by the President ----- the National ICT Champion

71. The NITC on behalf of the GOR will be responsible for: (i) coordinating the development of Rwanda's ICT Policy, Strategies and Plans (ii) supervising the work of RITA and other government agencies involved in the implementation of programmes, projects and initiatives that forms part of government ICT Policy, Strategies and Plans and (iii) commissioning and setting up the NITC Working Groups, and supervising their work.

- ***The NITC Working Groups (NITC-WGs)***

72. The NITC Working Groups will be set up to address specific national ICT issues and priority subject areas of ICT Policy, which the NITC will from time to time identify for attention. Some of these NITC-WGs will address specific technical issues while some will be set-up to advise the NITC on specific policy matters relating to specific sectors of the economy and society as well as deliberate on specific subject matters that need to be addressed within the Government's ICT Policy or Plan.

- ***The National Geographic Data Committee (NGDC)***

73. The NGDC will coordinate the development and maintenance of geospatial data at national level. It will define the nature and characteristics of the geoinformation infrastructure and supervise its implementation and functioning. It will also be an advisory body to the government.

- ***The Rwanda Information Technology Authority (RITA)***

74. The Rwandan Information Technology Authority (RITA) will be the National ICT Implementation and Coordination Body under the supervision of the NITC. RITA is being set up as an autonomous body with linkages to the IT Divisions/Directorates of the Ministries as well as with other ICT-related organizations in the public and private sector.

75. RITA will among other things have the responsibility for: co-ordinating National ICT initiatives and projects; facilitating the implementation of NICI Plan programmes; facilitating the work of the NITC, the NITC-WGs as well as IT Division/Directorates of Government Ministries; providing advisory and technical support services to the NITC, the NITC-WGs as well to public and private sector organizations.

76. RITA will also have the responsibility for developing National ICT Standards and Guidelines and will have ICT Consultancy role as well as public awareness and education role in the area of information and communications technologies.

THE PLAN

You see things and you say 'Why?' but I dream of things that never were and I say 'Why not?'
George Bernard Shaw

The NICI-2005 Plan: Preamble

The Guiding Principles Underlying the Development of the NICI-2005 Plan

The development of the NICI-2005 Plan is based on the following guiding principles:

1. The Plan is aimed at contributing to the realization of the *Vision for Rwanda (VfR)* as well to the achievements of the relevant Missions and the Strategies of the Vision.
2. The various Programmes, Initiatives and the corresponding Plan-Actions of the Plan are designed to be practical, realistic and implementable with clearly stated time-bound measurable (TBM) targets.
3. The Plan took in account the fact that: the Government will continue to formulate and implement its short to medium term socio-economic development and budgetary plans during the life-span of the Plan. In this respect, the NICI-2005 Plan is not aimed at substituting this exercise. Rather it serves as a point of policy-reference and a framework for complementing and supplementing this exercise within the context of the Government's long-term goal to transform Rwanda into an information-rich and knowledge economy by pursuing an *ICT-led socio-economic development policy*.
4. The Plan also incorporates a *Programme Monitoring, Evaluation and Reporting Framework* that allows for appropriate intervention procedures and actions with clear guidelines on how and when these can be activated and by which agency or authority. This Framework --- forming a key component of the Plan implementation process --- is developed to facilitate and co-ordinate an enforceable bottom-up monitoring and evaluation mechanism and reporting procedure involving a number of key players namely: the *Program Execution and Co-ordination Committees* (PECCs) of the Government Ministries and the PSOs; the *Programme Evaluation and Monitoring Unit* (PEMU) of RITA and the *Plan Review Standing Committee* (PRSC) of the NITC. Also to play a key role in this process is the *Round Table Plan Review Meeting* to be convened annually by the NITC and Chaired by H.E the President – the National ICT Champion.
5. The Plan as far as possible is flexible enough to allow for its modification, revision and adaptation as the need arises during its 5 Year implementation time-frame.
6. As part of the process of building flexibility into the implementation of the Plan, the Plan as far as possible avoids going into specific implementation-details of the programmes and initiatives identified for implementation under the Plan. The premise is that, for each major programme or initiative, these details will be developed and worked-out within the context of a Project Implementation Document or Report during the actual implementation of the Plan to take into account specific circumstances, constraints and opportunities and developments operating at the time. This approach also allow for the fine-tuning of the programme details as the need arises during the actual implementation of the Plan.

7. Finally, a key guiding principle underlying the development of the NICI-2005 Plan is the concept of '**decentralization-and-localization**' of the *implementation, monitoring and evaluation* of the Programmes and Initiatives of the Plan. Instead of centralizing the implementation of the Plan, each Programme or Initiative of the Plan is associated with an Implementation Agency who takes the responsibility for its implementation monitoring and evaluation. The *Plan Execution Coordinating Committee* (PECC) of the Government Ministries and Public Sector Organizations, are to play a key role in this process.

Components and the Presentation of the Details of the NICI-2005 Plan

1. The details of the NICI-2005 Plan are organized in terms of the following levels:

- The 8 Pillars – each representing a Sub-Plan of NICI-2005
- The Government Policy Commitments – relating Area of Focus of each of the Sub-Plans
- The Sub-Plan Programmes and Initiatives
- The Programme Objectives and Goals
- The Plan-Actions --- relating to the implementation of each of the Programmes of the Sub-Plans
- The Time-Bound Measurable (TBM) Targets – associated with each of the Plan-Actions
- The Plan-Action Implementation Agencies --- corresponding to each of the Plan Actions

2. The NICI-2005 Plan is built on 8 Pillars of the Plan --- each representing a Sub-Plan, these include:

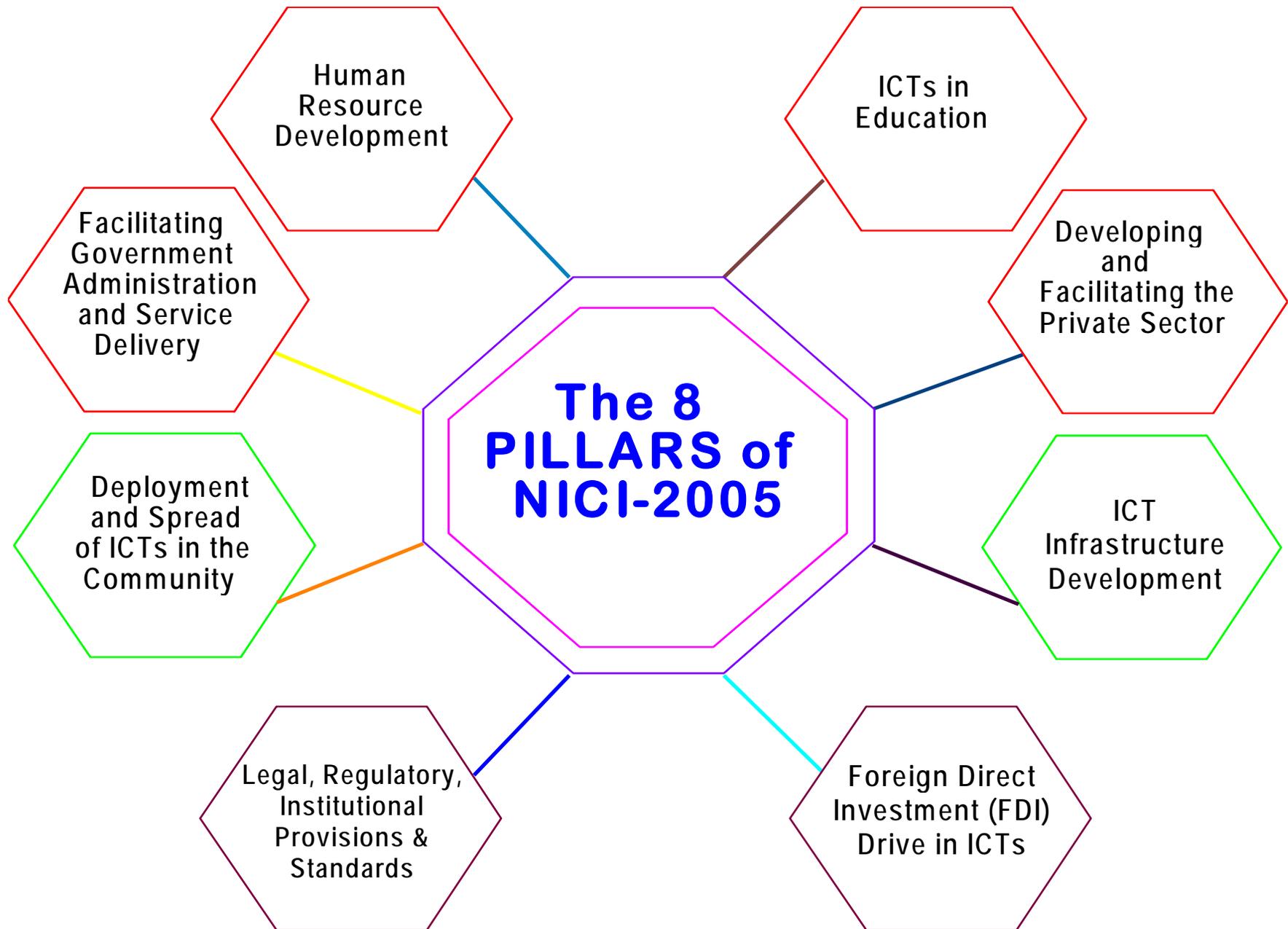
- Human Resource Development Sub-Plan;
- ICTs in Education Sub-Plan,
- Facilitating Government Administration and Service Delivery Sub-Plan;
- Developing and Facilitating the Private Sector Sub-Plan;
- Deployment and Spread of ICTs in the Community Sub-Plan;
- ICT Infrastructure Development, Legal Regulatory,
- Institutional Provisions and Standard Sub-Plan; and
- Foreign Direct Investment Drive in ICTs Sub-Plan.

3. For each of these Sub-Plans, the relevant Government ICT Policy Commitments are documented. This is followed by the identification of a number of *Programmes* for implementation under the Sub-Plan. The *Objectives and Goals* of each of the Programmes are documented followed by the identification and description of the specific *Plan-Actions* to be implemented under the Programme. Each of these Plan-Specific Actions has associated with it a number of *Time-Bound Measurable Targets*. To complete the process, corresponding, *Implementation Agencies* are identified for each of the Plan Actions.

4. Some of the Plan-Actions has associated with them *Plan-Action Prerequisites and Linkages*. The Prerequisites defines what need to be done before a specific Plan-Action can be implemented while the Linkages links the Plan-Action with other Plan-Actions within the NICI-2005 Plan

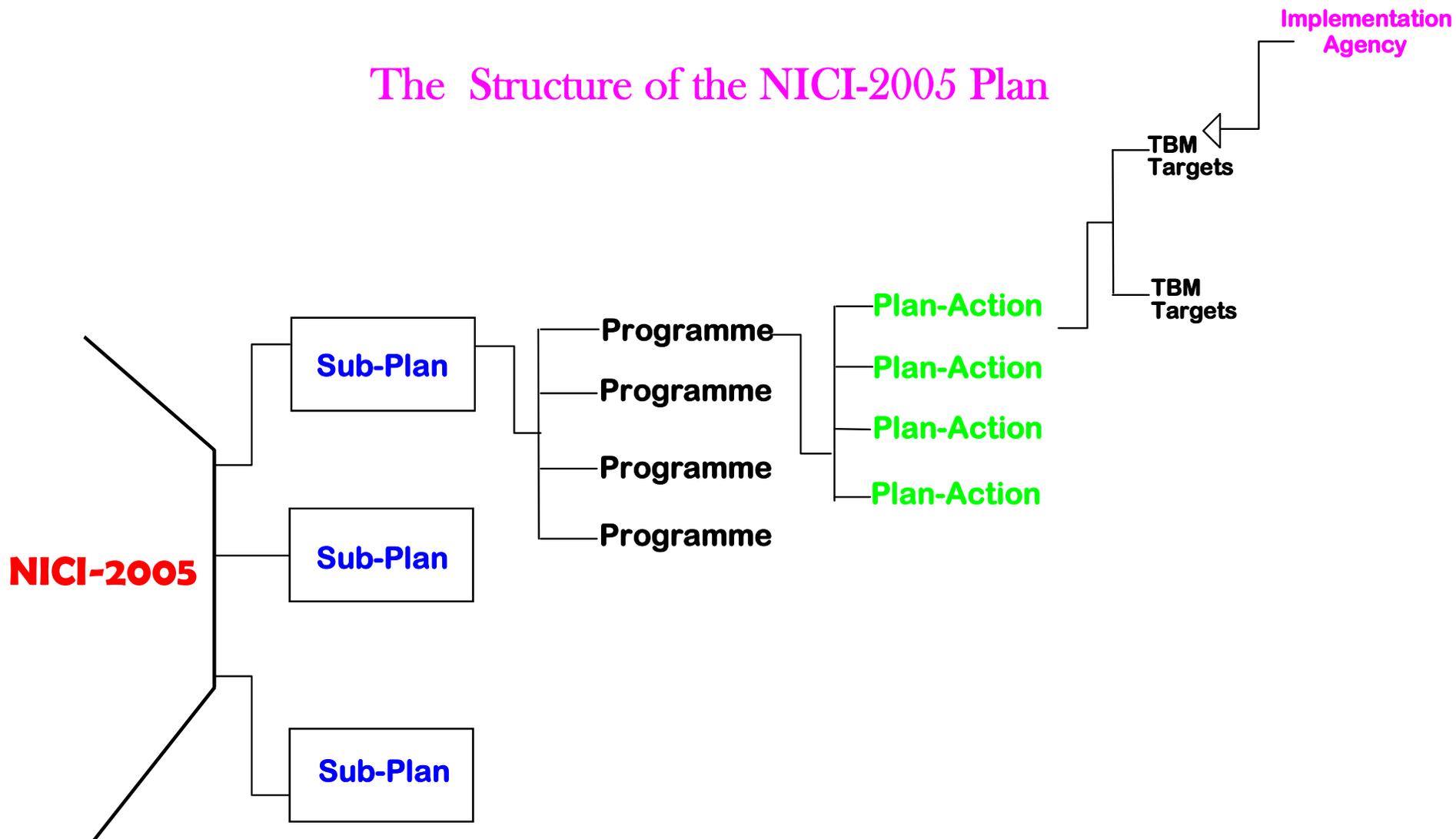
5. Also each of the Sub-Plans is analyzed in terms of how they relate to the Vision for Rwanda (*VfR*) Mission Strategies and to what extent their implementation will contribute to the realization of the GOR's multi-sectoral economic development policy and the ICT-2020 policy. The risk factors associated with the implementation of each of the Sub-Plans are also considered

6. In a nutshell; the NICI-2005 is a collection of 8 Sub-Plans representing – the 8 Pillars of the Plan. Each of the Sub-Plans constitute a collection of Programmes to which we associate a number of Plan-Actions, with corresponding specific Time-Bound Measurable Targets and Implementation Agencies.



The NICI-2005 Plan: Details of Sub-Plans

The Structure of the NICI-2005 Plan



The key resource for developing the information and knowledge economy in any nation is human resource... Human resource is the ultimate resource ... more so for a nation without a national resource. For Rwanda, the development of its people is key to transforming its predominantly agricultural economy into a predominantly information and knowledge economy

**The Sub-Plan for
Human Resource Development**

Final Version

February 2001

Relevant Vision for Rwanda (VfR) Mission Strategies and Government Policy Commitments

Sub-Plan for....	Human Resource Development
Relevant Vision for Rwanda (VfR) Mission Strategies	<ul style="list-style-type: none"> • To Improve the Human Resource Development Capacity of Rwanda to meet Changing Demands of the Economy • To Transform Rwanda into an IT Literate Nation • To promote and encourage the deployment and utilization of ICTs within the Economy and Society
Relevant Government Policy Commitments	<p><i>Commitment for a Comprehensive Human Resource Development and Deployment</i></p> <p>The GOR acknowledges that: the extent to which Rwanda will benefit from the advances and the opportunities of the emerging information age will depend on how Rwanda is capable of developing and harnessing its human resources to initiate, support and maintain its socio-economic development towards an information and knowledge economy.</p> <p>The GOR further acknowledges that the young population of Rwanda can be transformed into an asset by adding value to human resources and provide the environment for utilizing these resources for socio-economic development process ---- and that ICTs could play a major role in this area.</p> <p>The GOR is therefore fully committed to putting in place and facilitating the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy. The GOR firmly believes that: <i>human resource is the ultimate resource – more so for a nation like Rwanda without key natural resources</i>. The development of people to support the process of moving Rwanda into an information society and economy is therefore top priority of the Government and the crucial role that ICTs can play in this area is fully recognized and promoted by the government.</p> <p><i>Commitment to R&D Initiatives to Support the Development and Exploitation of ICTs</i></p> <p>To enhance Rwanda’s capacity to develop, produce, manufacture and assembly ICT products</p>

	<p>and services as a step towards developing a local globally competitive ICT service sector and industry, the GOR is committed to promoting and supporting R&D initiatives in Rwandan Research Institutions, Universities and Colleges.</p> <p>The Government as part of its strategy in this area will be encouraging partnership, collaboration and linkages between local R&D Institutions and foreign Centers of Excellence to speed up the process of knowledge and know-how transfer to Rwandans.</p>
<p>Key Players</p>	<p>Government as the lead Player in collaboration with the Private Sector, the Educational Institutions and the Civil Society</p>

The Programmes and Initiatives

Programme	<i>HRD -1: Initiatives to Examine and Monitor the Human Resource Status of the Country as well as to set-up relevant Human Resource Development Facilitating Structures and Bodies</i>
Relevant SUNRISE Component	Universal Human Resource Development Programme
Type and Scope of Programme	National Initiative aimed at facilitating and supporting human resource development initiatives in the country
Implementation Details Requirements	Non
Programme Ownership	NITC

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy.
Programme-Specific Goals	<ul style="list-style-type: none"> To facilitate the process of human resource development to support the activities of the various sectors of the economy

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H1.1	<p>The NITC to commission a Report on the establishment of the <i>National Human Resource Development Agency</i> (NHRDA)</p> <p>Note: This Report will provide details relating to the role, objectives and functions of the NHRDA as well as details of its organizational structure and how it will be funded and administrated</p>	<p><u>Prerequisites:</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">Non</p>	<p>Commission and complete the National Human Resource Development Agency Report by 2001</p>	NITC
H1.2	<p>Set-up the National Human Resource Development Agency (NHRDA)</p> <p>Note: The NHRDA will be responsible for establishing the human resource needs of the country, mobilizing the necessary resources for human resource development and facilitating the process of the training of critical human resources at the various educational and training institutions in the private and public sector. The NHRDA will also be responsible for facilitating manpower training overseas when the need arise.</p>	<p><u>Prerequisites:</u></p> <p>The Proposal for setting up the NHRDA (as per H1.1)</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">H1.1</p>	<p>Set-up the National Human Resource Development Agency (NHRDA) by 2002</p>	The NITC in collaboration with the Ministry of Public Service and Labour
H1.3	<p>Conduct a Comprehensive Human Resource Assessment Study to establish on a periodic basis the national human resource inventory (supply) and shortfall (demand) in key skill and professional areas.</p> <p>Note: The Output of this 2-Yearly Study will be the <i>National Human Resource Assessment Report</i> (e.g. National Human Resource Assessment Report-2002, National Human Resource Assessment Report-2004 and so on)</p>	<p><u>Prerequisites:</u></p> <p>The Setting-up of the National Human Resource Development Agency (NHRDA) (as per H1.2)</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">H1.2</p>	<p>The National Human Resource Development Agency (NHRDA) from 2002 to carryout a National Human Resource Assessment Study on a two yearly basis to establish supply and demand of human resources in all key skill and professional areas.</p>	The National Human Resource Development Agency (NHRDA)

1.0 Programme: General Profile Information

Programme	<i>HRD-2: Programme to promote the acquisition of computer equipment by the Civil and Public Service Organizations</i>
Relevant SUNRISE Component	Special ICT Promotion Packages, Policy Instruments and Incentive Programmes
Type and Scope of Programme	A National policy initiative targeted at making resources available for human resource development within the civil and public service
Implementation Details Requirements	Non
Programme Ownership	Ministry of Finance and Economic Planning

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> To develop and harness the nation's human resources to initiate, support and maintain Rwanda's socio-economic development towards an information and knowledge economy.
Programme-Specific Goals	<ul style="list-style-type: none"> To facilitate computer resource acquisition to aid the process of ICT human resource development in the Civil and Public Service To make computers and its products affordable and accessible to the civil and public service, to assist their efforts in improving the skill base of civil and public servants in the areas of ICTs and in other related skills To speed up the process of computerization within the Civil and Public Service

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H2.1	Implement Tax Policy instruments to facilitate the importation of computers and other ICT equipment at special low import duty rates by the civil and public service	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages</u> <p style="text-align: center;">Non</p>	Reduce Import and Excise Duties on Computer Products to Zero rate by 2002 – Targeted at the Civil Service and Selected Public Service Organizations	Ministry and Finance and Economic Planning

1.0 Programme: General Profile Information

Programme	<i>HRD-3: Programme to facilitate the private sector to invest in human resource development</i>
Relevant SUNRISE Component	Special ICT Promotion Packages, Policy Instruments and Incentive Programmes
Type and Scope of Programme	A National policy initiative aimed at meeting the human resources needs of the private sector
Implementation Details Requirements	Non
Programme Ownership	Ministry of Finance and Economic Planning

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy. • To develop and facilitate the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy.
Programme-Specific Goals	<ul style="list-style-type: none"> • To encourage the Private Sector to invest in human resource development • To provide HRD tax allowances and rebates to companies and establishments to defray HRD cost including the cost of training or upgrading the computer skill of their staff or for participating in Youth Employment Programmes, ---- a component of which could involve the recruitment of unemployed youth and school leavers to undergo in-house training in computer related skills for possible employment.

3.0 Programme: Plan-Actions and Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H3.1	Implement Special Tax instruments and packages that enables companies to claim expenditure on human resource development as tax allowances or tax rebates	<u>Prerequisites:</u> <p align="center">Non</p> <u>Plan-Action Linkages:</u> <p align="center">H9.2</p>	Provide Private Sector organizations 100% Tax allowance on HRD-related expenditure by 2002	Ministry of Finance and Economic Planning

1.0 Programme: General Profile Information

Programme	<i>HRD-4: Initiative to Promote home ownership of computers</i>
Relevant SUNRISE Component	Special ICT Promotion Packages, Policy Instruments and Incentive Programmes
Type and Scope of Programme	National initiative to spread the use of computers among the population: This initiative will indirectly contribute to enhancing ICT-skills and other related skills in the country
Implementation Details Requirements	Non
Programme Ownership	Ministry of Finance and Economic Planning

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy. • To develop and transform the young population of Rwanda into an asset by adding value to human resources and provide the environment for utilizing these resources for socio-economic development process.
Programme-Specific Goals	<ul style="list-style-type: none"> • To increase the pace of computer penetration into the community in the shortest possible time • To make home ownership of computers easy and affordable as a step towards facilitating the process of ICT skill development and the widespread use of computers and the Internet in the society

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H4.1	Implement Tax Policy instruments to make the price of computers affordable to the public at large	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Reduce Import Duties on computers by 2001 to bring computer equipment price down Implement in the 2001/2002 Budget and other subsequent Budgets (within NICI-2005 time-frame) special tax provisions to facilitate the importation of computer components for local assembly	Ministry of Finance and Economic Planning
H4.2	Implement a special tax instrument to reduce or totally eliminate taxes on computers assembled locally to encourage the purchase of these computers to boost the local industry	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Implement in the 2001/2002 Budget and other subsequent Budgets (within NICI-2005 time-frame) special tax instrument to reduce or totally eliminate taxes on locally assembled computers	Ministry of Finance and Economic Planning

1.0 Programme: General Profile Information

Programme	<i>HRD-5: Programme for ICT Skill development and upgrade within the Civil and Public Service</i>
Relevant SUNRISE Component	Universal Human Resource Development Programme
Type and Scope of Programme	A National initiative designed to facilitate ICT-related human resource development and skill upgrade in the civil and public service.
Implementation Details Requirements	Non
Programme Ownership	Ministry of Public Service and Labour

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy. • To develop and facilitate the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy. • To develop and transform the young population of Rwanda into an asset by adding value to human resources and provide the environment for utilizing these resources for socio-economic development process.
Programme-Specific Goals	<ul style="list-style-type: none"> • To equip all civil and public servants with basic computing skills • To recruit/train and upgrade the skill of specialist computer professionals to operate and manage computer systems of the various Government Ministries and Public Sector Organizations.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H5.1	Implement a Special Basic Computing and Internet Usage Training Programme for all Ministers and Secretary Generals as well as for Chief Executives and Senior staff of Public Sector Organizations (PSOs)	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	All Ministers and Secretary Generals, as well as Chief Executives and Senior staff of (PSOs) should be trained in the use of Computers and the Internet by 2001	Ministry of Public Service and Labour in collaboration with the relevant Ministries and PSOs
H5.2	Implement a Special Basic Computing and Internet Usage Training in all Ministries and Public Sector Organizations (PSOs) for the User Staff from Directors and down. Note: This training programme will also be aimed at Parliamentarians as well as the Administrative Staff of the National Transitional Assembly	<u>Prerequisites:</u> Government Ministries and PSOs must have their computer system in place <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	About 40% of the staff of each Ministry and PSO (including the National Transitional Assembly) should be trained in basic computing and Internet usage by 2002 About 80% - 100% of the staff of each Ministry and PSO (including the National Transitional Assembly) should be trained in basic computing and Internet usage by 2004	Ministry of Public Service and Labour in collaboration with the relevant Ministries and PSOs The National Transitional Assembly
H5.3	Introduce Special Professional Level ICT Training Programmes to train and upgrade the skill of professional IT staff in all Ministries and Public Sector Organizations including the National Transitional Assembly	<u>Prerequisites:</u> Government Ministries and Public Organizations must have their computer system in place <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Each Ministry and PSO (including the National Transitional Assembly) depending on size and its operations should train/recruit a skeleton computer professional staff in the relevant key skill areas by 2002 Each Ministry and PSO (including the National Transitional Assembly) depending on size and its operations should by 2004 train/recruit all the required professional computer staff (Programmers and Systems Developers, Network Managers, Engineers and Technicians, Computer Technicians etc)	Ministry of Public Service and Labour in collaboration with the relevant Ministries and PSOs The National Transitional Assembly

<p>H5.4</p>	<p>Implement a ‘Office Space-for-Service’ Initiative aimed at enabling Government Ministries and PSOs to rent their an utilized office space to private computer service provision companies</p> <p>Note: This initiative will enable a proportion of the rent charged to be waived in return for say free computer training to the employees of the Ministry or PSO. A similar arrangement could be reached with other computer companies in return for providing ranges of computer services (system installation, maintenance, repair and other computer service) to the Government Ministries and PSOs</p>	<p><u>Prerequisites:</u></p> <p>The Ministry of Public Works, Transport and Communication in collaboration with the Ministry of Public Service will need to formulate specific guidelines to guide the implementation of this initiative in Government Ministries and relevant PSOs.</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>The Ministry of Public Works, Transport and Communication in collaboration with the Ministry of Public Service to Commission a Report to set-out the Guidelines for Implementing the ‘Office Space-for-Service’ Initiative by 2001</p> <p>Implement the ‘Office Space-for-Service’ initiative starting from 2002.</p>	<p>The Ministry of Public Works, Transport and Communication in collaboration with other Government Ministries and PSOs</p> <p>&</p> <p>The National Transitional Assembly</p>
<p>H5.5</p>	<p>Government to issue a directive to make IT literacy an essential requirement for all future Government and public sector employment.</p> <p>Note: This directive should also stipulate that future promotions in the Civil and Public Service will require basic knowledge in the use of computer. Also annual confidential reports of government and public sector employees will contain details of the degree of employee’s use of computers in discharging his/her duties.</p>	<p><u>Prerequisites:</u></p> <p>The Ministry of Public Service will need to draw-up the Guidelines for implementing this directive once it is issued by the Government</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>The Ministry of Public Service to by 2001 issue a Directive to make IT literacy a basic requirement for future employment and promotions within the Civil and Public Service</p>	<p>Ministry of Public Service and Labour</p>

1.0 Programme: General Profile Information

Programme	<u>HRD-6: Programme to improve the management, policy formulation, planning, execution and monitoring skill within the civil and public service</u>
Relevant SUNRISE Component	Universal Human Resource Development Programme
Type and Scope of Programme	National human resource development initiative aimed at developing and enhancing the management and other professional skills of civil and public service employees.
Implementation Details Requirements	Non
Programme Ownership	Ministry of Public Service and Labour

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy. • To develop and facilitate the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy.
Programme-Specific Goals	<ul style="list-style-type: none"> • To upgrade the skill of middle to senior level civil servants in the various Government Ministries and PSOs in the area of management, policy formulation, execution and monitoring

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H6.1	Institute periodic on-going short-term training programmes, workshops and seminars in management; policy formulation, execution and monitoring for selected number of civil servants from Government Ministries and PSOs	<p><u>Prerequisites:</u></p> <p align="center">Non</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p><u>Short Term Target:</u> Train 50% of suitably identified civil and public servants in each Ministry or PSO by 2002</p> <p><u>Long term Target:</u> Train all suitably identified civil and public servants in each Ministry or PSO by 2004</p>	Ministry of Public Service and Labour in collaboration with the various Ministries and PSOs.

1.0 Programme: General Profile Information

Programme	<u>HRD-7: Programme to support professional level skill development in targeted lead sectors of the economy --- the Service Sector and the ICT Industry</u>
Relevant SUNRISE Component	Universal Human Resource Development Programme
Type and Scope of Programme	National human resource development initiative aimed at developing the necessary skills required by the service and the ICT sectors of the economy.
Implementation Details Requirements	Non
Programme Ownership	The National Human Resource Development Agency (NHRDA)

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy. • To develop and facilitate the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy. • To develop and transform the young population of Rwanda into an asset by adding value to human resources and provide the environment for utilizing these resources for socio-economic development process. • To promote and support R&D initiatives in Rwandan Research Institutions, Universities and Colleges.
Programme-Specific Goals	<ul style="list-style-type: none"> • To train a wide range of professionals required by the service sector and the ICT industry. • To use ICTs to facilitate professional level human resource development in business, science and technology

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H7.1	Train adequate number of Business Professionals, namely: Accountants, Bankers and Financial Service Personnel, Lawyers, Marketing and Sales Personnel and other Professional Corps for the Service Sector	<p><u>Prerequisites:</u></p> <p>The National Human Resource Assessment Studies and Reports</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">H1.3</p>	<p><u>Short-term Targets:</u></p> <p>Increase, by 2003, the Annual enrollment of students taking Business Professional level courses in Universities and Colleges by 30% to 50%.</p> <p>Upgrade the skill of Junior to middle level Business Professionals in Private Sector Establishments within the Service Sector and the ICT Industry by Year 2003</p> <p>Upgrade the skill of Junior to middle level Business Professional Civil Servants in Key Ministries linked to the Service Sector or the ICT Industry by Year 2003</p> <p><u>Long-term Targets:</u></p> <p>Increase, by 2005, the Annual enrollment of students taking Business Professional level courses in Universities and Colleges by 50% to 75%.</p> <p><u>Note:</u> In all cases the exact percentage increase will be determined by the</p>	<p>Universities and Colleges Ministry of Education</p> <p>Ministry of Public Service and Labour</p> <p>The National Human Development Resource Agency</p> <p>Private Sector Federation</p> <p>Individual Companies</p> <p>Universities and Colleges Ministry of Education</p>

			latest National Human Resource Assessment Study; --- the details of which will be documented in the most recent National Human Resource Assessment Report	
H7.2	Train adequate number of Computer Professionals namely: Computer Scientists, System Developers and Analysts, Network and Telecommunication Engineers and Technicians, Programmers, Software Developers, Web and Content Developers etc	<p><u>Prerequisites:</u></p> <p>The National Human Resource Assessment Studies and Reports</p> <p><u>Plan-Action Linkages:</u></p> <p>H1.3</p>	<p><u>Short term Target:</u></p> <p>Increase, by 2003, the Annual enrollment of students taking Computer Professional level courses in Universities and Colleges by 30% to 50%.</p> <p><u>Long term Target:</u></p> <p>Increase, by 2005, the Annual enrollment of students taking Computer Professional level courses in Universities and Colleges by 50% to 75%.</p> <p><u>Note:</u> In all cases the exact percentage increase will be determined by the latest National Human Resource Assessment Study; --- the details of which will be documented in the most recent National Human Resource Assessment Report</p>	<p>Universities and Colleges Ministry of Education</p> <p>Universities and Colleges Ministry of Education</p>
H7.3	Train adequate number of Scientists (Pure Scientists, Computer Scientist, Mathematicians) as well as Engineers and Senior Level Technicians, (Electronic and Electrical Engineers and Technicians, Computer Engineers and Technicians, Mechanical Engineers and Technicians and Telecommunication Engineers and Technicians)	<p><u>Prerequisites:</u></p> <p>The National Human Resource Assessment Studies and Reports</p> <p><u>Plan-Action Linkages:</u></p> <p>H1.3</p>	<p><u>Short term Target:</u></p> <p>Increase, by 2003, the Annual enrollment of students taking Science and Engineering Courses in the Universities and Colleges from 30% to 50%.</p>	<p>Universities and Colleges Ministry of Education</p>

			<p><u>Long term Target:</u></p> <p>Increase, by 2005, the Annual enrollment of students taking Science and Engineering Courses in the Universities and Colleges from 50% to 75%.</p> <p>Note: In all cases the exact percentage increase will be determined by the latest National Human Resource Assessment Study; --- the details of which will be documented in the most recent National Human Resource Assessment Report</p>	<p>Universities and Colleges Ministry of Education</p>
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1.0 Programme: General Profile Information

Programme	HRD-8: Programme to improve the ICT human resource development capacity of the National University of Rwanda (NUR), the Kigali Institute of Science Technology and Management (KIST), the Kigali Institute of Education (KIE) and Other Institutions of Higher Learning
Relevant SUNRISE Component	Universal Human Resource Development Programme
Type and Scope of Programme	National human resource development capacity building initiative targeted at the Higher Institutions of Learning
Implementation Details Requirements	Non
Programme Ownership	Ministry of Education

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy. • To develop and facilitate the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy. • To develop and transform the young population of Rwanda into an asset by adding value to human resources and provide the environment for utilizing these resources for socio-economic development process. • To promote and support R&D initiatives in Rwandan Research Institutions, Universities and Colleges.
Programme-Specific Goals	<ul style="list-style-type: none"> • To upgrade the facilities and the resources of NUR, KIST, KIE and other Institutions of Higher Learning involved in ICT Human Resource Development

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H8.1	<p>Improve the facilities of NUR, KIST and KIE and make the necessary resources available to them to enable them increase enrollment of students on ICT-related courses and to introduce additional ICT types of programmes at the certificate, diploma and degree levels.</p>	<p><u>Prerequisites:</u></p> <p>The NUR, KIST and the KIE to cost their respective additional resource and facility improvement requirements to facilitate increase in enrollment of students on ICT-related courses</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">H7.3, H7.4</p>	<p>Improve and upgrade on an on-going basis (within the time-frame of NICI-2005) the computing facilities and resources of the NUR, KIST and the KIE to accommodate additional students on ICT programmes</p> <p>The Government (within the time-frame of NICI-2005) to increase the respective annual budgets of the NUR, KIST and the KIE by 50% to 75% to facilitate the acquisition of additional resources and facilities to meet increase in the enrollment of students on ICT-related programmes</p> <p>Note: It is expected the NUR, KIST and the KIE will come out with exact costing in relation to their additional resource and facility improvement requirements to meet increase in the enrollment of students on ICT-related programmes in their respective Institutions</p>	<p align="center">Ministry of Education</p> <p align="center">Universities and Colleges</p>
H8.2	<p>Make the necessary resources available to other private and public Institutions of Higher Learning to enable them increase student enrollment on recognized ICT programmes.</p>	<p><u>Prerequisites:</u></p> <p>All other Institutions of Higher Learning to cost their respective additional resource and facility improvement requirements to facilitate increase in enrollment of students on ICT-related courses</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">H7.3, H7.4</p>	<p>The Government (within the time-frame of NICI-2005) to make the necessary resources available to other private and public Institutions of Higher Learning to enable them increase student enrollment on recognized ICT programmes.</p>	<p align="center">Ministry of Education</p>

1.0 Programme: General Profile Information

Programme	<u>HRD-9: Programme to set up a National HRD Fund to provide grants to selected public and private sector organizations, academic institutions and businesses to participate in national HRD programmes</u>
Relevant SUNRISE Component	Universal Human Resource Development
Type and Scope of Programme	National human resource development initiative aimed at mobilising resources to support skill development and upgrade initiatives.
Implementation Details Requirements	Non
Programme Ownership	The National Human Resource Development Agency

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy. • To develop and facilitate the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy. • To develop and transform the young population of Rwanda into an asset by adding value to human resources and provide the environment for utilizing these resources for socio-economic development process. • To promote and support R&D initiatives in Rwandan Research Institutions, Universities and Colleges.
Programme-Specific Goals	<ul style="list-style-type: none"> • To set up a National Human Resource Development Fund with a target of US\$ 150 million to fund HRD programmes and initiatives.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H9.1	<p>Government to set aside US\$10 million as its direct contribution to HRD Fund for the next five years</p> <p>Note: This will constitute the GOR's contribution from the Treasury to the HRD Fund</p>	<p><u>Prerequisites:</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">Non</p>	<p>GOR to allocate US\$3 million from its resources for HRD by 2002</p> <p>GOR to allocate US\$6 million from its resources for HRD by 2003</p> <p>GOR to allocate US\$10 million from its resources for HRD by 2005</p>	<p>Ministry of Finance and Economic Planning</p> <p>The Rwandan ICT Fund for Development (<i>ICTfDev</i>) Committee</p>
H9.2	<p>Raise US\$5 million from HRD levy on corporate income</p> <p>Note: This will also constitute the GOR's contribution from the Treasury to the National HRD Fund</p>	<p><u>Prerequisites:</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">Non</p>	<p>Raise US\$1 million from HRD levy on corporate income by 2002</p> <p>Raise US\$3 million from HRD levy on corporate income by 2003</p> <p>Raise US\$5 million from HRD levy on corporate income by 2005</p>	<p>Ministry of Finance and Economic Planning</p> <p>The Rwandan ICT Fund for Development (<i>ICTfDev</i>) Committee</p>
H9.3	<p>Raise US\$90 million from International Donor Agencies (Bilateral and Multilateral)</p>	<p><u>Prerequisites:</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">Non</p>	<p>Raise US\$40 million from International Donor Agencies by 2002</p> <p>Raise US\$50 million from International Donor Agencies by 2003</p> <p>Raise US\$90 million from International Donor Agencies by 2005</p>	<p>The Rwandan ICT Fund for Development (<i>ICTfDev</i>) Committee</p> <p>National Human Resource Development Agency</p>

H9.4	Raise US\$40 million from Other Foreign Donor Sources (NGOs, Foundations, Company Donations, Private Donations and Grants)	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Raise US\$10 million from International Donor Agencies by 2002 Raise US\$25 million from International Donor Agencies by 2003 Raise US\$40 million from International Donor Agencies by 2005	The Rwandan ICT Fund for Development (ICTfDev) Committee National Human Resource Development Agency
H9.5	Raise US\$5 million from private donations, fund-raising activities, and other sources	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Raise US\$1 million from private donations, fund-raising, and other sources by 2002 Raise US\$3 million from private donations, fund-raising, and other sources by 2003 Raise US\$5 million from private donations, fund-raising, and other sources by 2005	The Rwandan ICT Fund for Development (ICTfDev) Committee National Human Resource Development Agency

1.0 Programme: General Profile Information

Programme	<i>HRD-10: Special Human Resource and Skill Development and Upgrade Initiatives</i>
Relevant SUNRISE Component	Universal Human Resource Development Programme
Type and Scope of Programme	National human resource development and skill upgrade initiative.
Implementation Details Requirements	Non
Programme Ownership	National Human Resource Development Agency

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy. • To develop and facilitate the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy. • To develop and transform the young population of Rwanda into an asset by adding value to human resources and provide the environment for utilizing these resources for socio-economic development process.
Programme-Specific Goals	<ul style="list-style-type: none"> • To set up national structures to complement and supplement national human resource development and skill update efforts • To provide the unemployed Youth ‘on-the-job’ training and short-term jobs • To provide the unemployed Youth employable skills as part of a national skill development programme • To facilitate foreign investment in the human resource development sector

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H10.1	<p>Set up a National Youth Training (YTS) Scheme</p> <p>Note: Funds for setting up and implementing the YTS Scheme will come from the National HRD Fund</p>	<p><u>Prerequisites:</u></p> <p align="center">Non</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p>The Ministry of Youth Sports and Culture in Collaboration with the Ministry of Public Service and Labour and the National Human Resource Development Agency to by 2001 commission and complete a Report on the setting up of the YTS</p> <p>The Human Resource Development Agency to establish and YTS scheme by 2002</p>	<p>Ministry of Youth, Sports and Culture</p> <p>Ministry of Public Service and Labour</p> <p>National Human Resource Development Agency</p>
H10.2	<p>Set up a National YTS Grant with Funds from the HRD Funds and other sources and Implement the YTS Scheme</p>	<p><u>Prerequisites:</u></p> <p>The National Human Resource Assessment Studies and Reports</p> <p>Setting-up the National HRD Fund</p> <p>The YTS Report</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">H1.3, HRD-9</p>	<p>Set-up the YTS Grant by 2002</p> <p>A total of at least 2000-4000 Youths should benefit from the YTS Training Scheme annually by 2003</p> <p>The total number of youths benefiting from the Scheme annually should double by 2005</p> <p>Note: The figures quoted above can be revised upwards based on the recommendations contained in the YTS Report and relevant details of the National Human Resource Assessment Report</p>	<p>The Human Resource Development Agency</p> <p>Ministry of Public Service and Labour</p> <p>Ministry of Youth, Sports and Culture</p> <p>The Private Sector Federation</p>

<p>H10.3</p>	<p>Provide YTS Grants to private and public sector organizations participating in the Scheme to defray part of the cost of providing job or training unemployed youth on the scheme</p>	<p><u>Prerequisites:</u></p> <p>Setting-up the HRD Fund</p> <p><u>Plan-Action Linkages:</u></p> <p>HRD-9</p>	<p>Provide YTS Grants to private and public sector organizations participating in the Scheme during each stage of the programme</p>	<p>The Human Resource Development Agency</p>
<p>H10.4</p>	<p>Programme to set-up the <i>Rwanda Worker's College</i> and associated Regional Training Centers for Human Resource Development and Skill Update.</p> <p><u>Note:</u> This initiative is aimed at setting up under the auspices of the National Human Resource Development Agency (NHRDA), the <i>Rwanda Worker's College</i> (RWC) in Kigali with branches and Centers in other regional capitals. The RWC and its Regional Centers will provide short and long-term training and skill update programmes in ranges of skills and professional areas to public and private sector workers.</p> <p>Retrenched civil and public servants as well as out-of-work private sector employees and demobilized military personnel planning to embark on a different career or rejoin the workforce will also avail of the training programmes of the RWC.</p> <p>The RWC and its Regional Centers will also serve as a suitable institution for implementing some of the components of the <i>National Life-Long Learning Initiative</i> (NLLI) (as per E9.5) designed to promote and facilitate the concept of Life Long Learning in Rwanda.</p> <p>It is expected that the initial funding for setting-up the National Workers College and some of its Regional Centers will come from the National HRD Fund.</p>	<p><u>Prerequisites:</u></p> <p>Setting-up the NHRDA</p> <p>Setting-up the National HRD Fund</p> <p><u>Plan-Action Linkages:</u></p> <p>H1.2, HRD-9, E9.5</p>	<p>The NHRDA in collaboration with the Ministry of Public Service and Labour, the National Labour Union, the Private Sector Federation to commission and complete a Report for setting up the RWC by 2002.</p> <p>Establish the RWC in Kigali by 2005</p> <p>Set-up a number of Regional Centers of the RWC in key Prefectures within the time frame of NICI-2010</p>	<p>The NHRDA</p> <p>Ministry of Public Service and Labour,</p> <p>The National Labour Union, and</p> <p>The Private Sector Federation</p>

<p>H10.5</p>	<p>Government through the National Human Resource Development Agency (NHRDA) to put in place, implement and publicize an <i>Open-Door-HRD</i> Policy and Initiative to attract HRD foreign investment and world-class professional training and educational service providers and establishments into Rwanda.</p> <p>Note: This initiative is aimed at encouraging any foreign HRD or training company, institution or organization wishing to set-up in Rwanda to be able to do so provided they bring in the necessary investment and resources (human and technological) to support their operations and met standards set by the National Accreditation Bodies.</p> <p>Some of these HRD companies, institutions and organizations who met the Export Processing and Free Zones (EPfZs) conditions will be given the option to operate in these Zones and avail of the benefits of the EpfZs.</p>	<p><u>Prerequisites:</u></p> <p>The National Human Resource Assessment Studies and Reports</p> <p><u>Plan-Action Linkages:</u></p> <p>H1.3</p>	<p>Government through the NHRDA to put in place, implement and publicize an <i>Open-Door-HRD</i> Initiative by 2002</p> <p>Note: The actual number of world-class professional training and educational service providers and establishments to be allowed to set up and the type of training programmes they will be allowed to offer will be dictated from time to time on the details of the 2-Yearly National HRD Assessment Studies contained in the National HRD Reports.</p>	<p>The National Human Resource Development Agency</p>
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Programme	HRD-11: An Initiative to set up the National Vocational Training Commission (NVTC)
Relevant SUNRISE Component	Universal Human Resource Development Programme
Type and Scope of Programme	This Initiative is designed to set-up a NVTC to be responsible for providing training, accreditation and certification in key vocational areas to school leavers and people out of work.
Implementation Details Requirements	Non
Programme Ownership	Ministry of Public Service and Labour

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy. • To develop and facilitate the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy. • To develop and transform the young population of Rwanda into an asset by adding value to human resources and provide the environment for utilizing these resources for socio-economic development process
Programme-Specific Goals	<ul style="list-style-type: none"> • To promote vocational training in key skill areas • To facilitate the improvement of vocational training standards throughout the country • To meet the short-fall in vocational skills in key sectors of the economy • To contribute to the manpower and skill update requirements of the cottage industry

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H11.1	<p>Commission a Report for setting up the National Vocational Training Commission (NVTC).</p> <p>Note: The NVTC will be responsible for running special training centers (NTVC Training Centers) in all Prefectures to train artisans and tradesmen and women including: Carpenters, Masons and Bricklayers, Radio and TV Mechanics, Dress Makers and Tailors, Hair Dressers, Painters, Plumbers, Automobile Mechanics, Computer Technicians, Network Technicians, Telecommunication Technicians, Artist and Designers, Careterers, Hospitality Workers, etc. Courses in Business Management will also be offered</p> <p>The NTVC will, as part of its role will be responsible for awarding National Certificates at various grades to reflect different grades of competence of Artisans. These certificates will be awarded to graduates of the NVTC Training Centers and other Artisans not trained by NVTC but were successful at NVTC examinations.</p>	<p><u>Prerequisites:</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">Non</p>	<p>The Ministry of Public Service and Labour to commission and complete the NVTC set-up Report by 2001</p> <p>Note: This Report will document the functions, the organizational structure and operations of the NVTC</p>	<p style="text-align: center;">Ministry of Public Service and Labour</p> <p style="text-align: center;">The National Human Resource Development Agency</p>
H11.2	<p>Programme to set-up the NVTC</p> <p>Note: Funds for setting up the NVTC will come from the National HRD Fund</p>	<p><u>Prerequisites:</u></p> <p style="text-align: center;">The NVTC Report</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">HRD-9, H11.1</p>	<p>The Ministry of Public Service and Labour in collaboration with the National Human Resource Development Agency to set-up the NVTC by 2003</p>	<p style="text-align: center;">Ministry of Public Service and Labour</p> <p style="text-align: center;">The National Human Resource Development Agency</p>

H11.3	Set up NVTC Training Centers <u>Note:</u> Funds for setting up and the NVTC Training Centers will come from the National HRD Fund	<u>Prerequisites:</u> The NVTC Report <u>Plan-Action Linkages:</u> HRD-9, H11.1	Set-up pilot NVTC Training Centers in selected Prefectures by 2004	NVTC
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1.0 Programme: General Profile Information

Programme	HRD-12: Initiative to formulate guidelines and standards for the provision of ICT education and training services by private and public institutions
Relevant SUNRISE Component	Standards, Practices and Guidelines for ICT Deployment and Exploitation
Type and Scope of Programme	An initiative to promote and facilitate high standards in the provision of ICT education and training in Rwanda
Implementation Details Requirements	Non
Programme Ownership	Ministry of Education

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy. • To develop and facilitate the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy.
Programme-Specific Goals	<ul style="list-style-type: none"> • To monitor, improve and enforce standards in the area of computer education and training in the private and public institutions • To regularize and standardize ICT training provision by private computer training centers and institutes • To set-up and implement an accreditation system for computer education and training centers and Institutions in the private and public sector

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H12.1	Ministry of Education to draw up enforceable guidelines for setting up private and public computer training centers, Institutes and Colleges in the country	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Draw up and implement guidelines for setting up computer training Centers, Institutes and Colleges by 2001	Ministry of Education
H12.2	Ministry of Education to develop and implement an Accreditation System for accrediting Computer Training Centers, Institutes and Colleges in the country	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Put in place an accreditation system for Computer Training Centers, Institutes and Colleges by 2001	Ministry of Education
H12.3	Ministry of Education in collaboration with the National Council of Computer Education (NCCE) to draw up an updateable list of approved Computer Courses and Programmes to be offered by accredited private and public Computer Training Centers, Institutes and Colleges in the country	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Put in place a mechanism for drawing up an approve list of computer courses and programmes in the country. Draw up the first list of approve computer courses and programmes by 2001. This list should be adapted annually thereafter.	Ministry of Education The National Council of Computer Education (NCCE)

<p>H12.4</p>	<p>The Human Resource Development Agency, in collaboration with the Ministry of Public Service and Labour, the National Labour Union, the National Employers Association, relevant CSOs and other Industry Groupings and Associations, to draw up from time to time, industry manpower requirements in the area of ICT manpower and skills</p>	<p><u>Prerequisites:</u></p> <p>Non</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>Set-up by 2001 an <i>Industry ICT Manpower Requirements Advisory Committee</i> as an AdHoc Committee with membership from the Human Resource Development Agency, the Ministry of Public Service and Labour, the National Labour Union, the National Employers Association and other Industry Groupings and Associations including relevant CSOs</p> <p><u>Note:</u> The first report of the Committee on industry manpower requirements in the area of ICT skills should be published by early 2002. Thereafter, the Committee should issue annual reports.</p>	<p>The National Human Resource Development Agency</p>
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1.0 Programme: General Profile Information

Programme	<u>HRD-13: Programme to define standards for the certification of ICT professional skills in Rwanda and to Promote Professional Standards in the ICT Profession</u>
Relevant SUNRISE Component	Universal Human Resource Development Programme
Type and Scope of Programme	National human resource development initiative aimed at promoting professionalism in the ICT Profession
Implementation Details Requirements	Non
Programme Ownership	Ministry of Education

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop and harness the nation’s human resources to initiate, support and maintain Rwanda’s socio-economic development towards an information and knowledge economy. • To develop and facilitate the implementation of a comprehensive human resource development programme to support the development of the Rwandan information society and economy. • To develop and transform the young population of Rwanda into an asset by adding value to human resources and provide the environment for utilizing these resources for socio-economic development process.
Programme-Specific Goals	<ul style="list-style-type: none"> • To draw up guidelines for the certification of ICT Professional Skill • To define which ICT qualifications and work experience qualifies as an ICT Professional Skill for the purpose of employment and promotion in the private and public sector • To set up a Professional Bodies as a Corporate Bodies with membership grades. • To set up an ICT Users Association as a Trade and Industry Group or Association • To set up a relevant Artisan and Trade Associations

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
H13.1	Ministry of Education in collaboration with the National Standards Organization and a recognized National ICT Professional Body or Association to draw up guidelines for ICT Professional Skill Certification in Rwanda	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Draw up Guidelines for ICT Professional Skill Certification in Rwanda by 2002	<p style="text-align: center;">Ministry of Education</p> <p style="text-align: center;">National Standards Organization</p> <p style="text-align: center;">National ICT Professional Associations</p>
H13.2	Ministry of Education in collaboration with the National Standards Organization and a recognized National ICT Professional Body or Association to draw up a list of recognized Professional ICT Skills and Qualifications	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	<p>Draw up a list of recognized Professional ICT Skills and Qualifications by 2002.</p> <p>Note: This list should be updated annually thereafter.</p>	<p style="text-align: center;">Ministry of Education</p> <p style="text-align: center;">National Standards Organization</p> <p style="text-align: center;">National ICT Professional Associations</p>
H13.3	<p>Set-up the Institute for Computer Professionals of Rwanda (ICPR) as a chartered professional IT body.</p> <p>Note: The ICPR will be modeled along the patterns of similar Professional Computer Bodies found in most countries in the world. It will among other things work with the proposed Rwandan Council for IT Education to provide Accreditation for IT Education and Training in Rwanda. The ICPR will be fully recognized by the Government.</p>	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Initiate the process of establishing the <i>Institute for Computer Professionals of Rwanda (ICPR)</i> by 2001. And a fully fledged society should be operational by 2002	Interested Parties, Organizations and Institutions

H13.4	Set-up other relevant Professional Chattered Organizations in areas like: Accountancy (<i>Rwandan Association of Chattered Accountants</i>), Banking (<i>Rwandan Institute of Bankers</i>); Law (<i>Rwandan Bar Association</i>); Marketing (<i>Rwandan Institute of Marketing</i>), Engineering (<i>The Rwandan Institution of Engineers</i>) among others	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Initiate the process to set up a number of Professional Bodies in Accountancy, Banking, Law, Engineering etc within the time-frame of NICI-2005	Interested Parties, Organizations and Institutions
H13.5	Set-up the <i>Rwandan Computer Users Association</i> as an ICT Trade and Industry Association	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Initiate the process for establishing the <i>Rwandan Computer Users Association</i> by 2001. And a fully fledged Association should be operational by 2002	Interested Parties, Organizations and Institutions
H13.6	Set-up relevant Artisan and Trade Associations to set, regulate and enforce Code of Conduct and Standards in the area of Apprenticeship, Training, Certification and Quality Service within the Cottage Industry. Note: Some of the Artisan and Trade Associations that could be set-up include those of: Bricklayers, Carpenters, Painters, Motor Mechanics, Plumbers, Tailors and Dressmakers; HairDressers etc.	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Initiate the process to set up a relevant Artisan and Trade Associations within the time-frame of NICI-2005	Interested Parties, Organizations and Institutions

The Multi-Sectoral Economic Development & ICT-2020 Policy Implications and the Risk Factors of the Sub-Plan

<p align="center">Possible Contributions to the Realization of the GOR's Multi-Sectoral Economic Development Policy</p>	<p>The implementation of the programmes, initiatives and plan-actions of this Sub-Plan will in the long run be making a substantial impact on the development of the key sectors of the economy</p> <p>The current shortfall in manpower in all key professional and technical skill areas is having adverse effect in all the three sectors targeted by the Government Multi-Sectoral Economic Development Policy. The programmes and initiatives of this Sub-Plan will not only go a long way to meet the current shortfall in manpower requirements in all the key sectors but will also lead to additional supply of quality professional and technical skills for the economy as a whole.</p> <p>Furthermore there is no doubt that the development of the Rwandan information and knowledge economy will depend very much on how much resources are invested into human resource development efforts. The rapid development of targeted lead sectors like the Service Sector and the Industrial Sector as well as the modernization of the Agriculture sector will depend on a skilled work force --- the development of which could be aided in the medium and the long term by the implementation of the programmes and initiatives identified for implementation under this Sub-Plan.</p>
<p align="center">Areas of Emphasis as per the ICT-2020 Policy</p>	<p>The implementation of the programmes, initiatives and plan-actions of the <i>Human Resource Development</i> Sub-Plan will have implications for both the exploitation and the production of ICTs in Rwanda. A number of the HRD programmes and initiatives identified for implementation will require the deployment and exploitation of ICTs in one form or another. In addition, some of the ICT professional and technical manpower developed, as per this Sub-Plan will be utilized to facilitate the deployment and exploitation of ICTs in key sectors of the economy.</p> <p>Furthermore the development of a local ICT production and service provision industry will require quality ICT manpower both in the professional and technical skills area. A number of the programmes and initiatives under the HRD Sub-Plan are targeted at producing local ICT skills that could in the medium to long-term be deployed in the ICT production industry.</p> <p>The <i>Human Resource Development</i> Sub-Plan will therefore contribute to the GOR policy goal to simultaneously pursue both ICT Exploitation and Production policy involving: the utilization and exploitation of ICTs to support the delivery of government services and the activities of various sectors of the economy as well as the production, development and delivery of ICT products and services ---- i.e. towards the development and promotion of an ICT industry and service sector.</p>

The Risk Factors

Substantial investment in human resource development (as per the programmes and initiatives of this Sub-Plan) without a corresponding improvement in the economy to generate quality jobs may lead to the brain drain of highly qualified professional and technical expertise from Rwanda. It is envisaged that the programmes and initiatives identified for implementation in the HRD Sub-Plan will not only lead to meeting the current shortfall in human resources in all key skill areas but will also generate additional human resources in anticipation that the implementation of the other Sub-Plans of the NICI-2005 will generate new and additional demands for quality manpower.

For example, the implementation of Sub-Plans like those relating to: Developing and Facilitating the Private Sector; Facilitating Government Administration and Service Delivery; ICT Infrastructure Development; Deployment and Spread of ICTs in the Community; ICTs in Education; and Foreign Direct Investment Drive in ICTs; will apart from boosting the economy will generate additional demand for quality manpower in the medium and long term.

The risk factor therefore only arises in the situation where the supply of manpower (up and above that required for meeting the current shortfall in human resources) is not matched by a corresponding demand generated by the implementation of the other Sub-Plans that could boost the economy.

**The Sub-Plan for
Promoting ICTs in Education**

Final Version

February 2001

Relevant Vision for Rwanda (VfR) Mission Strategies and Government Policy Commitments

Sub-Plan for....	Promoting ICTs in Education
Relevant Vision for Rwanda (VfR) Mission Strategies	<ul style="list-style-type: none"> • To Transform Rwanda into an IT literate Nation • To transform the educational system using ICTs with the aim to improving accessibility, quality and relevance to the development needs of Rwanda. • To Improve the Human Resource Development Capacity of Rwanda to meet Changing Demands of the Economy
Relevant Government Policy Commitments	<p><i>Commitment to the Deployment and Exploitation of ICTs in the Educational System</i></p> <p>The GOR acknowledges the key role that <i>ICTs</i> can play in educational delivery and training and the need for ICT training and education in schools, colleges and universities. The Government further acknowledges the role that ICTs can play in literacy education and need to improve the educational system as a whole. The GOR is therefore committed to the rapid deployment, utilization and exploitation of ICTs within the educational system from primary school upwards. The GOR in this respect will be initiating a comprehensive programme for the deployment and exploitation of computers in schools, colleges and universities.</p> <p><i>Commitment to the Establishment of ICT Specialist Institutions</i></p> <p>The GOR acknowledges the need for the establishment of a specialist ICT training Institute for Rwanda. The GOR is therefore committed to facilitating establishment of the proposed Regional Information Technology (IT) Institute in Rwanda. The Government acknowledges that Rwanda's bilingual status makes it an ideal country for such an Institution, which could attract both English and French speaking students from the region and beyond.</p>
Key Players	Government as the lead Player in collaboration with the Educational Institutions, the Private Sector and the Civil Society

The Programmes and Initiatives

1.0 Programme: General Profile Information

Programme	EDUC-1: Programme to promote the acquisition of computer equipment by the Educational Institutions
Relevant SUNRISE Component	Special ICT Promotion Packages, Policy Instruments and Incentive Programmes
Type and Scope of Programme	Policy Initiative aimed at speeding up the process of deployment of computers in the Educational Institutions
Implementation Details Requirements	Ministry of Finance and Economic Planning to develop the details relating to how this programme could be implemented and facilitated
Programme Ownership	Ministry of Finance and Economic Planning

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To transform Rwanda into an IT literate nation • To promote universal computer literacy in the school system of Rwanda • To improve the quality, accessibility and relevance of education to national developmental needs.
Programme-Specific Goals	<ul style="list-style-type: none"> • To assist the process of introducing computers into the primary and secondary schools. • To assist the process of computerization and computer facility upgrade in the Universities and Colleges • To make computers and its products affordable and accessible to educational institutions to facilitate their role in human resource development. • To make computers and its products affordable to NGOs involve in education, human resource development, community-based social and economic empowerment projects and initiatives. • To make the funding of computer acquisition components of Donor-support Educational Projects affordable to the relevant Funding Organization and Agencies

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
E1.1	Implement Tax Policy instruments to facilitate the importation of computers and other ICT equipment at special low import duty rates – targeted at the Universities, Colleges, and the Schools.	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Reduce Import and Excise Duties on Computer Products to Zero rate by 2002 – targeted at the Universities, Colleges, and Schools	Ministry of Finance and Economic Planning
E1.2	Implement a tax policy initiative targeted at Donor Agencies and NGOs implementing education-related projects to import computer equipment and other related products at special low import duty rates.	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Reduce Import and Excise Duties on Computer Products to Zero rate by 2002 – targeted at Donor Agencies and Selected Educational NGOs	Ministry of Finance and Economic Planning
E1.3	Implement a National ‘ <i>Computers for Schools</i> ’ Scheme to make it obligatory for Government Ministries, Agencies and Public Sector Organizations (PSOs) to donate their used computers to the primary and secondary schools	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Put in place and implement by 2001 Guidelines and Directives to facilitate the donation of used computers to schools by Government Ministries, Agencies and other (PSOs)	Ministry of Finance and Economic Planning in collaboration with Ministry of Public Service and Labour
E1.4	Put in place ‘ <i>Adopt-and-Sponsor a School</i> ’ Initiative to encourage Businesses within the Private Sector; Civil Society Organizations (CSOs); and International and Donor Agencies (IDAs) operating in Rwanda to adopt schools with the aim to provide them with new and used computers and other educational facilities and resources on a periodic and sustained basis.	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	<p>The Ministry of Education to launch the ‘<i>Adopt-and-Sponsor a School</i>’ Initiative by 2001.</p> <p>The Ministry of Education to publicize the Initiatives and encourage targeted organizations to participate.</p>	Ministry of Education with, the Private Sector, CSOs and (IDAs)

1.0 Programme: General Profile Information

Programme	<i>EDUC-2: Computers in Schools -- “Operation ICT Knowledge for the Youth” Programme</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	National ICTs in Education Project. The Project will be implemented during the time-frame of NICI-2005 to involve the majority of schools. It envisaged that subsequent NICIs (e.g. NICI-2010 and possibly NICI-2015) will also incorporate the implementation of follow-ups to this project.
Implementation Details Requirements	Ministry of Education to commission and develop a comprehensive Project Document detailing how the programme will be implemented and financed on a year to year basis during the time frame of NICI-2005
Programme Ownership	Ministry of Education

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To transform Rwanda into an IT literate nation • To promote universal computer literacy in the school system of Rwanda • To improve the quality, accessibility and relevance of education to national developmental needs. • To promote the use of ICTs in literacy education • To improve the human resource development capacity of Rwanda to meet changing demands of the economy.
Programme-Specific Goals	<ul style="list-style-type: none"> • To introduce computers into Rwandan primary, secondary, vocational and technical schools • To introduce computer literacy and basic computing as compulsory subjects into all Rwandan secondary, vocational technical schools and Teacher Training Colleges • To make computer education an integral part of the educational system at the school levels • To prepare Rwanda school children for university and college level education in computer-related programmes. • To prepare Rwanda youth to embark on ICT-related career

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
E2.1	Ministry of Education to develop a comprehensive <i>Policy on Computer Education in Schools</i>	<u>Prerequisites:</u> <p align="center">Non</p> <u>Plan-Action Linkages:</u> <p align="center">Non</p>	Develop a comprehensive <i>Policy on Computer Education in Schools</i> by 2001	Ministry of Education
E2.2	Ministry of Education to develop and implement a detailed Plan for the deployment of computers in schools	<u>Prerequisites:</u> Ministry of Education <i>Policy on Computer Education in Schools</i> (as per E2.1) <u>Plan-Action Linkages:</u> <p align="center">E2.1</p>	Ministry of Education to develop and implement a detailed Plan for the deployment of computers in schools by 2001 All Rwanda Schools depending on size should be equipped with at least 5 computers per school by 2002 All Rwanda Schools depending on size should be equipped with at least 10 computers per school by 2004 The student-computer ratio in the schools should be 10-to-1 (or better) by 2005	Ministry of Education

<p>E2.3</p>	<p>Ministry of Education to develop and implement a programme for setting up <i>Mobile-Computer-Laboratories</i> (MCLs) for schools</p> <p>Note: This Initiative will involve the acquisition of buses or vans and equipping them with computers and other necessary equipment to serve as MCLs.</p>	<p><u>Prerequisites:</u></p> <p>Ministry of Education <i>Policy on Computer Education in Schools</i> (as per E2.1)</p> <p><u>Plan-Action Linkages:</u></p> <p>E2.1</p>	<p>Set-up 5 MCLs to serve mainly rural Prefectures by 2002</p> <p>Increase the number of MCLs serving the entire country to 10 by 2003</p> <p>All rural Prefectures depending on size and number of schools should be served by at least 3 MCLs by 2005</p> <p>Urban Prefectures depending on size and number of schools should be served by at least 2 MCLs by 2005</p>	<p>Ministry of Education</p>
<p>E2.4</p>	<p>Ministry of Education to set-up a “<i>Computers-in-Schools</i>’ Unit or Secretariat within the Ministry.</p> <p>Note: This Unit or Secretariat will be responsible for all policy initiatives targeted at the deployment, exploitation and utilization of computers in the school system. It will also be responsible for the implementation of all ICT projects and initiatives aimed at the primary and secondary schools.</p>	<p><u>Prerequisites:</u></p> <p>Ministry of Education <i>Policy on Computer Education in Schools</i> (as per E2.1)</p> <p><u>Plan-Action Linkages:</u></p> <p>E2.1</p>	<p>Set-up a “<i>Computers-in-Schools</i>’ Unit/Secretariat within the Ministry of Education by 2001</p>	<p>Ministry of Education</p>

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Programme	<u>EDUC-3</u>: <i>The National SchoolNet Project</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	A National Initiative aimed at spreading Internet access and its use within the Rwandan school system. The Project is to be implemented in three phases: The 1 st phase will be a pilot project involving selected schools in a selected number of Prefectures (ensuring a reasonable urban and rural balance and spread); the 2 nd Phase will involve the implementation of the project on a national basis in selected schools from the larger number of Prefectures; and the final phase will involve schools in the majority if not all not the Prefectures
Implementation Details Requirements	Ministry of Education to commission a National SchoolNet Project Report --- providing details of project implementation for phases 1, 2 and 3 as well as details relating project costing and funding issues
Programme Ownership	Ministry of Education

2.0 Programme Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To transform Rwanda into an IT literate nation • To promote universal computer literacy in the school system of Rwanda • To promote and facilitate the rapid deployment and utilization of ICTs in the school system
Programme-Specific Goals	<ul style="list-style-type: none"> • To provide access to the Internet in Rwandan schools • To promote and facilitate the spread of the Internet in Rwandan schools • To expose Rwanda school children to the Internet technology and educate them on its usage • To promote and facilitate the use of the educational resources of the Internet to support and facilitate teaching and learning in Rwandan schools. • To promote and facilitate the implementation of electronic distance education (EDE) within the Rwandan school system, using the resources and the educational development and delivery infrastructure of the Internet to complement and supplement face-to-face education and learning experience of Rwandan children. • To link Rwandan schools with schools in other parts of the world to facilitate knowledge acquisition and exchange of educational experience on global scale

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
E3.1	<p>Set-up a <i>National SchoolNet Committee</i> with membership from the Ministry of Education, Ministry of Youth and Sports, RITA; the Private Sector, National Teachers Organizations, Parents Organizations (e.g. PTAs), the proposed National Council for Computer Education (NCCE) and the proposed Institute for Computer Professionals of Rwanda (ICPR).</p> <p>Note: Since the Institute for Computer Professionals of Rwanda (ICPR) is yet to be established, its representative on the <i>National SchoolNet Committee</i> can be incorporated into the Committee at a later date.</p>	<p><u>Prerequisites:</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">H13.3, E5.4</p>	<p>Ministry of Education to set-up the <i>National SchoolNet Committee</i> by 2001</p>	<p>Ministry of Education</p>
E3.2	<p>Ministry of Education to commission the development of the <i>Rwandan SchoolNet Project</i> Implementation Report</p>	<p><u>Prerequisites:</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">Non</p>	<p>Commission and complete by 2001 the <i>Rwandan SchoolNet Project</i> Implementation Report and Plan</p> <p>Note: This Project Report will among other things provide details of the project implementation plan, project costing and funding issues and the scheduling of project activities within the time-frame of NICI-2005</p>	<p>Ministry of Education and the National SchoolNet Committee</p>
E3.3	<p>The Ministry of Education to launch the <i>National SchoolNet Project</i></p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The setting up of the <i>National SchoolNet Committee</i> 2. The <i>Rwandan SchoolNet Project</i> Report and Plan 	<p>Launch the <i>National SchoolNet Project</i> by 2001</p>	<p>Ministry of Education and the National SchoolNet Committee</p>

		<u>Plan-Action Linkages:</u> Non		
E3.4	<p>Implement 1st Phase of the National SchoolNet Project to involve 10 to 15 schools in about 5 rural and urban Prefectures</p> <p>Note: Phase 1 of the SchoolNet Project constitutes the Pilot Phase of the Project.</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The setting up of the <i>National SchoolNet Committee</i> 2. The Rwandan SchoolNet Project Report and Plan <p><u>Plan-Action Linkages:</u> Non</p>	Launch the Phase 1 of the National SchoolNet Project by 2001	Ministry of Education and the National SchoolNet Committee
E3.5	<p>Implement 2nd Phase of the National SchoolNet Project to involve 10 to 15 schools in Prefectures not covered in the 1st Phase of the Project</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The setting up of the National SchoolNet Committee 2. The Rwandan SchoolNet Project Report and Plan <p><u>Plan-Action Linkages:</u> Non</p>	Launch the Phase 2 of the National SchoolNet Project by 2003	Ministry of Education and the National SchoolNet Committee
E3.6	<p>Implement the Final Phase of the National SchoolNet Project to involve all schools (if not the majority of schools) in all Prefectures</p>	<p><u>Prerequisites:</u></p> <p><i>The setting up of the National SchoolNet Committee</i></p> <p>The Rwandan SchoolNet Project Report and Plan</p> <p><u>Plan-Action Linkages:</u> Non</p>	Launch the Final Phase of the National SchoolNet Project by 2005	Ministry of Education and the National SchoolNet Committee

1.0 Programme: General Profile Information

Programme	EDUC-4: National Public Awareness Programme Targeted at Promoting the ‘Vision for Rwanda’ (VfR)-- to transform Rwanda into a middle-income, information-rich and knowledge-based society and economy through the implementation of an ICT-led socio-economic development policies and plans
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	A National Initiative aimed at promoting the Vision for Rwanda (VfR) and the role that ICTs will play in speeding up the socio-economic development process of Rwanda. The scope of the Programme will also include the role that Government will be playing in the public awareness initiative both at home and abroad. <i><u>Note:</u> This Programme forms part of the Rwandan Electronic Government and Governance Initiative (REGGI)</i>
Implementation Details Requirements	A designated agency of Government like RITA and/or ORINFOR will need to be assigned the responsibility for preparing and implementing a comprehensive coordinated public awareness programme and provide a national leadership and coordination in the implementation of the programme. Efforts of various Government Departments will need to be coordinated by this agency.
Programme Ownership	The National Information Technology Commission (NITC)

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To mobilize the Rwandan public towards the realization of the Missions and the aspirations of the Vision for Rwanda (VfR). • To promote the development of the Rwanda into an information and knowledge based society and economy
Programme-Specific Goals	<ul style="list-style-type: none"> • To raise the level of ICT awareness in the general public • To educate the public on the role that ICTs can play in facilitating rapid socio-economic development and national prosperity • To educate the public at home and abroad on the GOR’s ICT Policies and Plans and on their role within the context of promoting the Vision for Rwanda (VfR).

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
E4.1	Launch a National Weekly ICT Public Awareness and Literacy Programme on Radio and TV	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Launch the National ICT Public Awareness and Literacy Programme on Radio and TV by 2001	Ministry of Education and ORINFOR
E4.2	Put in place an initiative to use the mass media: radio, TV and the print media to inform and educate the public on the Vision for Rwanda (VfR) and the role that the GOR's ICT Policies, Strategies and Plans are going to play towards the realization of this Vision.	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Launch by 2001 an Initiative to inform and educate the public on the new Vision for Rwanda (VfR) and the role of ICTs in national development, wealth creation and national prosperity.	GOR Information Service, RITA ORINFOR & the Private Media
E4.3	RITA in collaboration with the GOR Information Service to organize regular public forums, meetings, seminars and workshops as a public awareness and education exercise on ICTs and the Vision for Rwanda (VfR).	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	The GOR and RITA to start organizing Public Forums on educating the Public on the new Vision for Rwanda from 2001	GOR Information Service RITA & ORINFOR

E4.4	Special Presidential Initiatives and Actions to Promote and Champion the Vision for Rwanda through the deployment, exploitation the development of ICTs to support Rwandan's rapid socio-economic development in the next 20 years	<p><u>Prerequisites:</u> Cabinet Approval of the GOR Integrated ICT Policy and the NICI-2005 Plan</p> <p><u>Plan-Action Linkages:</u> Non</p>	<p>The President of Rwanda in his capacity as the National ICT Champion to take the following actions:</p> <p>Officially Launch the GOR's Integrated ICTs for Socio-economic Development Policy and the NICI-2005 Plan on Radio and TV.</p> <p>Promote the GOR's Integrated ICTs for Development Policy and the NICI-2005 Plan during the Post ADF'99 Head of States Summit in Morocco (in 2001) and at other similar Prestigious International Meetings and Gatherings</p> <p>Launch the 'ICTs for Development' (ICTfDev) Fund for Rwanda to raise US\$500 million to support the implementation of NICI-2005</p> <p>Chair a Donor's Conference in Kigali (by early 2001) to launch and kick-start the US\$500 million ICTfDev Initiative.</p>	Office of the President & NITC
E4.5	Ministers, Senior Government Officials and other personalities, will from 2001 onwards regularly use the media and the opportunities provided by public meetings, press conferences and briefings both at home and abroad to refer to and promote the new <i>Vision for Rwanda (VfR)</i> and the role that ICTs will be playing as part of Government policy to transform the Rwandan society and economy.	<p><u>Prerequisites:</u> Cabinet Approval of the GOR Integrated ICT Policy and the NICI-2005 Plan</p> <p><u>Plan-Action Linkages:</u> Non</p>	Initiate by 2001 the process of regular public briefings by Ministers, Senior Government Officials and other Personalities on the new <i>Vision for Rwanda (VfR)</i> and the role of ICTs.	Office of the President NITC & Government Ministries
E4.6	The Ministry of Foreign Affairs, through the Diplomatic Missions Abroad to publicize and promote the new <i>Vision for Rwanda (VfR)</i> and the role that ICTs will be playing as part of Government policy to transform the Rwandan society and economy. Note: This Initiative will be codename: the ' <i>Image of Rwanda</i> '	<p><u>Prerequisites:</u> Cabinet Approval of the GOR Integrated ICT Policy and the NICI-2005 Plan</p> <p><u>Plan-Action Linkages:</u> Non</p>	Implement by 2001, the ' <i>Image of Rwanda</i> ' Initiative focusing on promoting abroad the new <i>Vision for Rwanda (VfR)</i> and the role that ICTs will be playing as part of Government policy to transform the Rwandan society and economy.	Ministry of Foreign Affairs and Regional Cooperation

1.0 Programme: General Profile Information

Programme	<u>EDUC-5</u>: <i>An Initiative to Develop a National Computer Curriculum for Primary and Secondary Schools and Coordinate Computer Education in Rwandan Schools</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	A national computer education and literacy initiative aimed at the primary and secondary schools.
Implementation Details Requirements	The Ministry of Education to put in place a Curriculum Development Team with a clear terms of reference to develop for the Rwandan school system a Comprehensive Computer Curriculum. The terms of reference for this Committee should include a requirement to propose guidelines and recommendations on issues relating to standards, examination and certification in computer-related subjects at the primary and secondary school levels.
Programme Ownership	Ministry of Education

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none">• To transform Rwanda into an IT literate nation• To promote the rapid deployment and utilization of ICTs in the Rwandan school system• To promote computer literacy as an integral part of the school system in Rwanda
Programme-Specific Goals	<ul style="list-style-type: none">• To develop a National Computer Education Curriculum for Primary and Secondary Schools• To offer Computer Studies as a Core Course for the Leaving School Certificate Examination• To administrate, co-ordinate and manage Computer Education in Rwanda

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
E5.1	Ministry of Education to set-up a <i>Computer Curriculum Development Team</i> to develop the National Computer Curriculum for Primary and Secondary Schools	<p><u>Prerequisites:</u></p> <p>The Ministry of Education need to put in place its <i>Policy on Computer Education in Schools</i> (as per E2.1)</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">E2.1</p>	The <i>National Computer Curriculum Development Team</i> to be set-up and complete its work by 2001	Ministry of Education
E5.2	The implementation of the Computer Curriculum in Secondary Schools on a phase-by-phase basis	<p><u>Prerequisites:</u></p> <p>1.Implementation of this action will need to be preceded by the introduction of some computers into the schools introducing the computer curriculum.</p> <p>A pre-requisite of this action is therefore the implementation of key elements of Programme EDUC-1 -- designed to facilitate the acquisition of computer equipment by the educational institutions and Programme EDUC-2 – the Computer in Schools Initiative</p> <p>2. The setting up of the National Council for Computer Education</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">EDUC-1, EDUC-2, E5.4</p>	<p>Introduce the implementation of Computer Curriculum in a selected number of schools in a selected Prefectures starting from 2002</p> <p>Increase the number of schools implementing the Computer Curriculum by 50% by 2003 and ensure that the number of Prefectures covered also increase in number.</p> <p>Introduce computer curriculum into all Rwandan schools by 2005</p>	<p>Ministry of Education</p> <p align="center">&</p> <p>The National Council for Computer Education (NCCE)</p>

E5.3	Ministry of Education to set-up a <i>Computer Education Examination Board</i> to administer Computer-based Examinations at the Primary and Secondary Schools	<u>Prerequisites:</u> The Ministry of Education need to put in place its <i>Policy on Computer Education in Schools</i> (as per E2.1) <u>Plan-Action Linkages:</u> E2.1	<i>The Computer Education Examination Board to be set-up by 2001</i>	Ministry of Education
E5.4	The National Information Technology Commission (NITC) in collaboration with the Ministry of Education to set-up a <i>National Council for Computer Education</i> (NCCE) to serve as a Permanent Working Group of the NITC to advise on all matters relating to Computer Education in the country	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	The <i>National Council for Computer Education</i> (NCCE) under the auspices of the NITC to be established by 2001	NITC in collaboration with the Ministry of Education

1.0 Programme: General Profile Information

Programme	<i>EDUC-6: Programme to Train a Critical Mass of Computer Literacy Teachers (CLTs)</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	National computer education and literacy programme aimed at ‘Training the Trainers’.
Implementation Details Requirements	Ministry of Education to develop in collaboration with UNR, KIST, and KIE a Project Proposal for the implementation of this national project. This project implementation document will include details of the type of training programmes to be undertaken, the duration of these programmes and the type and level of certificates to be awarded to successful candidates at the end of the course. The proposal will also provide details relating to the institutions that will be providing the course, the candidates as well as the required resources, funds and funding sources.
Programme Ownership	Ministry of Education and the National Council for Computer Education

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To transform Rwanda into an IT literate Nation • To promote the teaching of computer literacy in the Rwandan school system • To speed-up the process of the deployment and utilization of ICTs in the educational system
Programme-Specific Goals	<ul style="list-style-type: none"> • To train a critical mass of computer-literacy teachers (CTLs) to teach basic computing, computer literacy and Internet usage in the primary and secondary schools • To provide School Teachers computer literacy and basic computing skills • To facilitate the process of spreading the usage of the Internet technology in Rwanda schools

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
E6.1	The Ministry of Education to commission the development of a project proposal for a Six Month 'Train-the-IT Teachers' (TITT) Certificate Programme in Basic Computing and Computer Studies	<u>Prerequisites:</u> <p align="center">Non</p> <u>Plan-Action Linkages:</u> <p align="center">Non</p>	<p>The 'Train-the-IT Teachers' Certificate Programme in Basic Computing and Computer Studies Project Report to be commission and completed by 2001.</p> <p>Note: This Project Report will among other things provide details of the project implementation plan, project costing and funding issues and the scheduling of project activities within the time-frame of NICI-2005</p>	Ministry of Education
E6.2	The Ministry of Education to identify Training Institutions to implement the TITT Project.	<u>Prerequisites:</u> Train-the-IT Teachers Project Implementation Plan <u>Plan-Action Linkages:</u> <p align="center">Non</p>	Complete identification of training institutions to implement the TITT Programme by 2001	Ministry of Education

<p>E6.3</p>	<p>Ministry of Education to Implement the ‘Train-the-Teachers’ (TITT) programme on a phase-by-phase basis to train a critical mass of CLTs.</p>	<p><u>Prerequisites:</u></p> <p>Train-the-IT Teachers Project Implementation Plan</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>Note: Based on assumption that each primary and secondary school will have a CLT, then with n primary and secondary schools in the country (including projections for up to 2005), the critical mass of CLTs to be trained is n</p> <p><u>Phase 1:</u> Train and deploy the 1st Batch of n/3 Teachers by 2001</p> <p><u>Phase 2:</u> Train and deploy the 2nd Batch of n/3 additional Teachers by 2002</p> <p><u>Phase 3:</u> Train and deploy the 3rd Batch of n/3 additional Teachers by 2003</p> <p><u>Phase 4:</u> Train CLTs annually thereafter to fill vacancies and to achieve the required critical mass of ‘one CLT per school’ by 2005</p>	<p>Ministry of Education</p> <p>&</p> <p>Universities and Colleges</p>
<p>E6.4</p>	<p>Teacher Training Colleges, Universities and other Colleges providing Teacher Training Education Programmes to make Computer Studies and Basic Computing an integral and a compulsory subject of these Programmes</p>	<p><u>Prerequisites:</u></p> <p>Non</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>Ministry of Education to by 2001 issue and enforce a directive that will require Teacher Training Colleges, Universities and other Colleges to make Computer Studies and Basic Computing an integral and a compulsory subject within Teacher Training Education Programmes</p>	<p>Ministry of Education</p> <p>&</p> <p>Universities and Colleges</p>

1.0 Programme: General Profile Information

Programme	<i>EDUC-7: Programme to Train Military Personnel in ICTs</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	National computer education, literacy and entrepreneurial skill development initiative targeted at the Military
Implementation Details Requirements	The Ministry of Defense and National Security to prepare in collaboration with the Ministry of Education, the National Council for Computer Education (NCCE) and suitable educational and training institutions a Project Implementation Report for this national initiative. This project implementation document will include details of the type of training programmes to be undertaken, the duration of the programmes and the type and level of certificates to be awarded to successful candidates at the end of the course. The Report will also provide details relating to the institutions that will be providing the course, the suitable candidates as well as the required resources, funds and funding sources.
Programme Ownership	Ministry of Defense and National Security & the National Council for Computer Education

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To transform Rwanda into an IT literate Nation • To promote universal computer literacy in Rwanda • To improve the human resource development capacity of Rwanda to meet changing demands of the economy.
Programme-Specific Goals	<ul style="list-style-type: none"> • To train military personnel in various types of computer skills • To raise the level of computer literacy within the military service • To provide job creations avenues and opportunities in ICTs for Military Personnel • To facilitate the process of spreading the use, deployment and utilization of ICTs in Rwanda

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
E7.1	Ministry of Defense and National Security to Commission the development of a project proposal for a <i>6-Month Computer Training Programme</i> for Serving, Retire and Demobilized Military Personnel	<u>Prerequisites:</u> <p align="center">Non</p> <u>Plan-Action Linkages:</u> <p align="center">Non</p>	<p>The '<i>Computer-Skills for the Military</i>' Certificate Programme Report to be commission and completed by 2001</p> <p>Note: This Project Report will among other things detail the project implementation plan, project costing and funding issues and the scheduling of project activities within the time-frame of NICI-2005</p>	Ministry of Defense and National Security
E7.2	Ministry of Defense and National Security in collaboration with the Ministry of Education to identify Training Institutions to implement the ' <i>Computer-Skills for the Military</i> ' Certificate Programme	<u>Prerequisites:</u> <p>The '<i>Computer-Skills of the Military</i>' Project Implementation Report and Plan (as per E7.1)</p> <u>Plan-Action Linkages:</u> <p align="center">E7.1</p>	<p>Complete identification of training institutions by 2001</p>	Ministry of Defense and National Security

<p>E7.3</p>	<p>Ministry of Defense and National Security to implement Computer Training Programme for Military Personnel on a phase-by-phase basis</p>	<p><u>Prerequisites:</u></p> <p>The ‘<i>Computer-Skills of the Military</i>’ Project Implementation Report and Plan (as per E7.1)</p> <p><u>Plan-Action Linkages:</u></p> <p>E7.1, PRS-9</p>	<p>Starting from 2001, train batches of serving Military Personnel from the MOD Headquarters and other Field Units in basic computing and Internet usage</p> <p>Starting from 2002, train batches of retired and demobilized Military Personnel to serve as computer teachers in schools and Drop-in-IT Centers for the Youth and the unemployed.</p> <p>Starting from 2002 train a special corps of servicing, retired and demobilized Military Personnel as computer technicians to install maintain and repair computer systems in Government Ministries and PSOs and private sector organizations</p> <p>Starting from 2003 train demobilized Military Personnel in computer and entrepreneurial skills with the prospect of starting their own ICT service provision businesses within the cottage industry or the service sector</p>	<p>Ministry of Defense and National Security</p>
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1.0 Programme: General Profile Information

Programme	EDUC-8: National Programme to Speed-up the Deployment, Exploitation and Development of ICTs in Higher Education Institutions
Relevant SUNRISE Component	National ICT Initiatives
Type of Programme and Scope of Programme	A National ICT Initiative aimed at the Universities and Colleges
Implementation Details Requirements	Non
Programme Ownership	Ministry of Education

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To transform Rwanda into an IT literate nation • To develop and transform the young population of Rwanda into an asset by adding value to human resources and provide the environment for utilizing these resources for socio-economic development process. • To promote and support R&D initiatives in Rwandan Research Institutions, Universities and Colleges.
Programme-Specific Goals	<ul style="list-style-type: none"> • To make ICT an integral part of education and training in Higher Educational Institutions • To improve the ICT-related Human Resource Development Capacities of the Higher Educational Institutions • To improve and upgrade the ICT resources and facilities of Higher Educational Institutions • To encourage and facilitate ICT-related R&D work in the Universities and Colleges. • To encourage and promote the setting-up of Campus Companies/Industrial Facilities for ICT-related activities in the Universities and Colleges

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
E8.1	Implement a programme to set up Computer Science or Computing Departments in Universities and Colleges without these Departments.	<p><u>Prerequisites:</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">Non</p>	Universities and Colleges without Computer Science or Computing Department to set up one by 2002	<p>Ministry of Education</p> <p style="text-align: center;">Universities and Colleges</p>
E8.2	Implement a Programme to increase the annual intake of Computer Science, Computer Technology, Electronic and Electrical Engineering Students in the Universities and Colleges	<p><u>Prerequisites:</u></p> <p>Each University and College will need to develop a proposal on how it will implement this Action Plan.</p> <p><u>Note:</u> The Plan Implementation Proposal for each Institution will among other things provide details of the implementation plan including costing, resource and capacity requirements as well as funding issues.</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">Non</p>	<p>The annual output of Computer Science, Computer Tech./Engineering, Electronic and Electrical Engineering Graduates from the Universities and Colleges to be increase at an annual rate of 25% - 30% between 2001 and 2003</p> <p>Universities and Colleges to at least triple their output of Computer Science, Computer Tech./Engineering, Electronic and Electrical Engineering Graduates by 2005</p>	<p>Ministry of Education</p> <p style="text-align: center;">Universities and Colleges</p>
E8.3	Universities and Colleges to equip all their Departments with Computer Systems	<p><u>Prerequisites:</u></p> <p>Each University and College will need to cost this Action Plan</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">Non</p>	Departments within all Universities and Colleges to have access to computers by 2002.	<p>Ministry of Education</p> <p style="text-align: center;">Universities and Colleges</p>

E8.4	Universities and Colleges in collaboration with the Ministry of Education to in the first instance make computer education and training an integral part of all certificate, diploma and degree level programmes and later on make computer course module a compulsory component of all University and College level courses and programmes	<p><u>Prerequisites:</u></p> <p>Each University and College will need to put in place a procedure for facilitating the implementation of this Action-Plan</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>Computer education and training to be made an integral component of all certificate, diploma and degree level programme at the Universities and Colleges by 2002</p> <p>Computer Course Module to be made a compulsory component of all Diploma, Degree and Certificate courses and programmes offered at all Rwandan Universities, and Colleges by 2004</p>	<p>Ministry of Education</p> <p>&</p> <p>Universities and Colleges</p>
E8.5	Internet Access to be made available to all Staff and Students at the Universities and Colleges	<p><u>Prerequisites:</u></p> <p>Each University and College will need to cost this Action Plan</p> <p>Also the extent of execution of this Action Plan will depend on the extent to which the Universities and Colleges are equipped with the required computer systems (as per E8.3)</p> <p><u>Plan-Action Linkages:</u></p> <p>E8.3</p>	All Departments in Universities and Colleges to have access to the Internet by 2002.	<p>Ministry of Education</p> <p>&</p> <p>Universities and Colleges</p>
E8.6	Improve and upgrade the resources and facilities of the existing Computer Science, Computer Tech./Engineering and related Departments in the Universities and Colleges	<p><u>Prerequisites:</u></p> <p>Each University and College will need to cost this Action Plan</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	Improve and upgrade the resources and facilities of the existing Computer Science, Computer Tech./Engineering and related Departments in the Universities and Colleges during the time-frame of NICI-2005	<p>Ministry of Education</p> <p>&</p> <p>Universities and Colleges</p>

<p>E8.7</p>	<p>Set-up and operationalize on a phase-by-phase basis the proposed <i>Rwandan Academic & Research Network (RARN)</i> – Linking all Institutions of Higher Education into a Wide Area Network with a Gateway to the Internet.</p>	<p><u>Prerequisites:</u></p> <p><i>Rwandan Academic & Research Network (RARN) Project Implementation Report</i></p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p><u>Phase 1:</u> Implement and complete the 1st phase of the RARN Project to link NUR, KIST, KIE, KIH by 2001</p> <p><u>Phase 2:</u> Extend the RARN Project to link other Higher Institutions including National Research Institutes and Centers by 2003</p>	<p>Universities and Colleges</p>
<p>E8.8</p>	<p>Universities and Colleges to facilitate the setting-up of Campus Companies/Units or Industrial Facilities and Parks to serve as Incubators for ICT-related production and service provision activities.</p>	<p><u>Prerequisites:</u></p> <p>Each University or College will need to develop a Policy Statement to guide the setting up and the operations of Campus Companies including STPs and other Industrial Facilities and Parks</p> <p>Note: This Policy will among other things provide guidelines on: ownership arrangements and the obligations of the campus companies to the University or College; the contractual obligations and limitations of University or College staff working for these companies; the incubator period of these campus companies and their relationship with the University or College after the incubator period.</p> <p><u>Plan-Action Linkages:</u></p> <p>P3.2</p>	<p>Begin the setting-up of ICT-related Campus Companies or Industrial Facilities in selected Universities and Colleges by 2002</p> <p>Begin the setting-up of Software Technology Parks (STPs) in selected Universities by 2002</p> <p>Universities and Colleges to set-up other campus companies during the time-frame of NICI-2005</p>	<p>Universities and Colleges</p> <p>National Research Institutes</p>

<p>E8.9</p>	<p>Rwandan Institutions of Higher Learning and the National Research Institutes to implement a programme aimed at promoting academic and research collaboration and twining arrangements with International Centers of Excellence in ICT-related Research, Education or Training</p>	<p><u>Prerequisites:</u></p> <p>All Universities, Colleges and the National Research Institutes will need to develop a Policy Statement to guide Twining arrangements with external institutions at the Departmental and the University or College level</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>At least two linkages with International Centers of Excellence in ICT to be established by each University, College or National Research Institute by 2003</p> <p>Note: Each University, College or National Research Institute should endeavor to establish collaborative and twining arrangements with a number of external institutions during the time-frame of NICI-2005</p>	<p>Universities and Colleges</p> <p>National Research Institutes</p>
<p>E8.10</p>	<p>Universities, Colleges and National Research Institutes to set-up ICT R&D Units/Centers</p> <p>Note: The Universities, Colleges and the National Research Institutes will be required to vigorously promote and support the setting up of R&D Centers to encourage cutting-edge research and development work and attract research funding from local and international sources.</p>	<p><u>Prerequisites:</u></p> <p>Each University and College is to develop and policy on how it intend to promote and support R&D work in ICTs and other areas.</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>ICT R&D Units/Centers to be set up in a selected number of Universities and Colleges by 2003.</p> <p>All Universities and Colleges to have R&D Centers by 2005</p>	<p>Universities and Colleges</p> <p>National Research Institutes</p>

1.0 Programme: General Profile Information

Programme	<i>EDUC-9: National Electronic Distance Education and Training (NEDET) Programme</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	National electronic distance education and training initiative targeted at all levels of education and training in Rwanda.
Implementation Details Requirements	Non
Programme Ownership	Ministry of Education

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To transform Rwanda into an IT literate nation • To transform the educational system using ICTs with the aim to improving accessibility, quality and relevance to the development needs of Rwanda.
Programme-Specific Goals	<ul style="list-style-type: none"> • To supplement and Complement Campus-based Education and Training at all Levels of the Educational System • To promote and facilitate life-long learning experience in Rwanda • To promote, encourage and facilitate, in-company and in-service training using the emerging educational delivery and electronic messaging technologies

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
E9.1	The Ministry of Education in Collaboration with the Universities and Colleges to set up an AdHoc Team to prepare a Project Report for the implementation of Electronic Distance Education and Training (EDET) in Higher Educational Institutions	<u>Prerequisites:</u> Ministry of Education to Prepare a Policy Statement on EDET <u>Plan-Action Linkages:</u> Non	Set-up the EDET Project Report Team by 2001 <i>Commission and complete the EDET in Higher Educational Institutions Project Report and Plan by 2001</i>	Ministry of Education
E9.2	Ministry of Education to launch a Programme to implement EDET in the Higher Educational Institutions using the Internet, Educational and Multimedia presentation and delivery technologies.	<u>Prerequisites:</u> The EDET in Higher Educational Institutions Project Report and Plan (as per E9.1) <u>Plan-Action Linkages:</u> E9.1	Fast track Universities and Colleges to launch the implementation of EDET programmes by 2002 All other Universities and Colleges to launch the implementation of EDET programmes by 2003	Ministry of Education & Universities and Colleges

<p>E9.3</p>	<p>Universities and Colleges to provide a selection of their courses and programmes to the public by EDET using the Internet, Educational and Multimedia presentation and delivery technologies.</p>	<p><u>Prerequisites:</u></p> <p>The EDET in Higher Educational Institutions Project Report and Plan (as per E9.1)</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>Fast track Universities and Colleges to offer their courses and programmes to the public via EDET by 2003</p> <p>All other Universities and Colleges to offer their courses and programmes to the public via EDET by 2004</p>	<p>Universities and Colleges</p>
<p>E9.4</p>	<p>Ministry of Education to Launch a ‘EDE-in-Schools’ Programme to promote the use of the resources of the Internet by schools to avail of relevant educational materials and facilities (e.g. electronic libraries, books, learning and teaching materials) to facilitate and compliment teaching and learning in Rwanda schools.</p>	<p><u>Prerequisites:</u></p> <p>Ministry of Education <i>Policy on Computer education in Schools</i> (as per E2.1)</p> <p><u>Plan-Action Linkages:</u></p> <p>E2.1, EDUC-3</p>	<p>Ministry of Education to Launch the ‘EDE-in-Schools’ Initiative by 2002</p>	<p>Ministry of Education</p>
<p>E9.5</p>	<p>The Ministry of Education to launch the <i>National Life-Long Learning Initiative</i> (NLLI) to promote and facilitate the concept of Life Long Learning in Rwanda.</p> <p>Note: This Initiative can be administered through selected Universities, Colleges and other Institutions and Training Organizations or Companies</p>	<p><u>Prerequisites:</u></p> <p>Non</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>1. Ministry of Education to Launch the NLLI by 2002</p> <p>2. Put in place Structures, Mechanisms to implement the NLLI starting from 2003</p>	<p>Ministry of Education</p> <p>Universities and Colleges</p> <p>in collaboration with the National Labour Union and Employers Associations</p>

<p>E9.6</p>	<p>The Ministry of Public Service and Labour to establish and operationalize a <i>National In-service Training and Skill Update Initiative</i> via EDE for the Civil and Public Service.</p>	<p><u>Prerequisites:</u> Non</p> <p><u>Plan-Action Linkages:</u> Non</p>	<p>1. Launch the National EDET-base In-service Training and Skill Update Initiative for the Civil and Public service by 2002</p> <p>2. Start the implementation of the Initiative within the Civil Service and PSOs by 2003</p>	<p>Ministry of Public Service and Labour in collaboration with the the The Rwanda Labour Unions and Associations</p>
<p>E9.7</p>	<p>Launch a National Programme to encourage Organizations and Companies within the Private Sector to tap into the Global System of online and off-line EDET offerings to facilitate in-company training and skill update on an on-going basis.</p>	<p><u>Prerequisites:</u> Non</p> <p><u>Plan-Action Linkages:</u> Non</p>	<p>Launch a National Programme for In-company training and skill update in the Private Sector via EDET by 2002</p>	<p>The Private Sector Federation The Rwanda Labour Unions and Associations</p>

Programme	EDUC-10: Special ICT in Education Programmes and Initiatives
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	Special ICT programmes and initiatives targeted at the school system
Implementation Details Requirements	Non
Programme Ownership	Ministry of Education

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To transform Rwanda into an IT literate nation • To transform the educational system using ICTs with the aim to improving accessibility, quality and relevance to the development needs of Rwanda.
Programme-Specific Goals	<ul style="list-style-type: none"> • To promote academic exchanges and other educational twinning arrangement between Rwanda schools and their counterparts in other parts of the world • To development and implement the SMART School concept in Rwanda • To facilitate IT penetration in rural area schools.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
E10.1	Programme to encouraged Rwandan schools (secondary, vocational and technical) to engage in educational pairing arrangements with their counterparts in other countries to facilitate, academic exchanges and inter-student sharing of experiences and knowledge using the facilities of the Internet	<p><u>Prerequisites:</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">EDUC-3</p>	<p>Ministry of Education to by 2002 institute a nationwide programme to facilitate inter-school academic exchanges and twining arrangement between Rwanda Schools and their counterparts in other countries.</p> <p>Target twining at least five schools from each Prefecture with other schools outside Rwanda by 2005</p>	Ministry of Education
E10.2	<p style="text-align: center;"><i>The Rwandan Experimental SMART Schools Initiative (RESSI)</i></p> <p>Note: The implementation of RESSI will target the implementation of the SMART Schools concept currently being implemented in Malaysia, India and other countries. The SMART schools concept for introducing computer education into the school system does not lay emphasis only on Information Technology in schools, but also on the use of skills and values that will be important in the next millennium. The RESSI schools in Rwanda will be specially equipped and funded to concentrate on a balanced development of students in intellectual, emotional and physical terms, with a view to developing a technologically literate, creative, and critically thinking class of students.</p>	<p><u>Prerequisites:</u></p> <p>Ministry of Education to prepare a Policy document on the implementation of RESSI by 2002</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">Non</p>	<p>Target designating two school per Prefecture as RESSI Experimental School by 2003</p> <p>Double the number of RESSI Experimental Schools per Prefecture annually during the rest of the NICI-2005 time frame.</p>	Ministry of Education

E10.3	Special Initiative to deploy the expertise of ICT-trained serving, retired and demobilized military personnel to serve as a special IT corps for IT penetration in rural area schools.	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">E7.3</p>	Ministry of Education in collaboration with the Ministry of Defense and National Security and to by 2003 put in place a package and a programme to facilitate the deployment of ICT Military personnel in rural area schools	Ministry of Education & Ministry of Defense and National Security
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1.0 Programme: General Profile Information

Programme	EDUC-11: Initiative to set-up the Regional Information Technology Institute (RITI)
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	A Regional IT initiative by the Rwandan Government to promote ICT education and training within Rwanda and the sub-region
Implementation Details Requirements	The NITC on behalf the Government is to commission a Report on the establishment of the Regional Information Technology Institute in Rwanda. The Report should among other things provide specific recommendations relating to all aspects and issues relating to the establishment and the operation of the Institute.
Programme Ownership	Ministry of Education

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To transform Rwanda into an IT literate nation • To improve the human resource development capacity of Rwanda to meet the changing demands of the economy.
Programme-Specific Goals	<ul style="list-style-type: none"> • To take advantage of the multi-lingual status of Rwanda to set-up a world-class sub-regional multi-lingual ICT Training and Research Institute in Rwanda • To increase ICT-related human resource development capacity in Rwanda and in the sub-region

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
E11.1	NITC in collaboration with the Ministry of Education to commission a report on the establishment of RITI	<u>Prerequisites:</u> <p align="center">Non</p> <u>Plan-Action Linkages:</u> <p align="center">Non</p>	The NITC in collaboration with the Ministry of Education to Commission and complete a Report on the establishment of RITI by 2002	The NITC Ministry of Education
E11.2	Ministry of Education to facilitate the establishment of RITI	<u>Prerequisites:</u> <p align="center">The RITI Report (as per E11.1)</p> <u>Plan-Action Linkages:</u> <p align="center">E11.1</p>	Establish RITI by 2005	Ministry of Education

The Multi-Sectoral Economic Development & ICT-2020 Policy Implications and the Risk Factors of the Sub-Plan

<p align="center">Possible Contributions to the Realization of the GOR's Multi-Sectoral Economic Development Policy</p>	<p>The implementation of the programmes, initiatives of this Sub-Plan will in the long run be making a substantial impact on the development of the key sectors of the economy. The development of the Rwandan information and knowledge economy will depend very much on how much resources are invested into promoting the deployment, utilization and exploitation of ICTs in the Educational System. The rapid development of targeted lead sectors like the service sector and the industrial sector as well as the modernization of the agriculture sector will depend on a skilled work force --- the development of which could be aided in the medium and the long-term by the implementation of a number of the key programmes and initiatives of this Sub-Plan.</p> <p>On the whole, it is anticipated that the implementation of the key programmes and initiatives of this Sub-Plan will certainly contribute towards the realization of the GOR's multi-sectoral economic development policy.</p>
<p align="center">Areas of Emphasis as per the ICT-2020 Policy</p>	<p>A number of the programmes, initiatives and plan-actions of this Sub-Plan are targeted at facilitating the deployment, exploitation and utilization of ICTs in the Educational System. It is however envisaged that some of the programmes and initiatives will in the long run make substantial contributions towards the development of the local ICT production and service provision sector of the economy by way of providing the skilled ICT human resources necessary for developing these sectors.</p> <p>The <i>ICTs in Education</i> Sub-Plan will therefore contribute to the realization of the GOR's policy goal to simultaneously pursue both ICT exploitation and production policy involving: the utilization and exploitation of ICTs to support the delivery of government services and the activities of various sectors of the economy as well as the production, development and delivery of ICT products and services ---- i.e. towards the development and promotion of an ICT industry and service sector.</p>

The Risk Factors

A number of risks can be associated with this Sub-Plan; for example, there is that risk of deepening the gap between rich and well-endowed schools and the poor and less-endowed schools. This is likely if the implementation of the programmes and initiatives relating to the deployment and exploitation of ICTs in schools is not evenly spread and balance. Children in disadvantage schools could be further disadvantaged if for lack of basic amenities like: electricity and telephone they are left out of the 'ICT deployment in schools' loop. The risk of creating a comparatively an inferior learning environment for some of Rwanda school children could be therefore be compounded by the an unbalanced deployment of ICTs in schools.

Other possible risk factors relating to the implementation of the *ICTs in Education* Sub-Plan are similar to those of the *Human Resource Development* Sub-Plan. For example, initiatives targeted at speeding-up the deployment, exploitation and the development of ICTs in Higher Educational Institutions do require a reasonable amount of investment in terms of resources which could eventually lead to the development of quality human resources in ICT skills and other related skill areas. In the event that there is no corresponding improvement in the economy to generate quality jobs to absorb these highly skilled manpower, there is the risk that Rwanda will experience a brain drain of expensively trained and highly qualified professional and technical expertise the country desperately needs for initiating and fuelling Rwanda's own socio-economic development.

The risk of flight of skilled manpower abroad because of lack of opportunities at home will mean that Rwanda will be losing out on both the actual and opportunity cost (a high one) of training this skilled manpower and as well as losing out on not availing of the services of this manpower for its own socio-economic development efforts. To avoid or reduce this risk, there is therefore the need to provide the conditions for the deployment and utilization of trained skilled manpower that could result from the implementation of some of the programmes and initiatives of the *ICTs in Education* Sub-Plan by also implementing those other Sub-Plans directly targeted at boosting economic activity and by so doing generate employment opportunities for the skilled professional, managerial and technical manpower.

“..... In the case of Rwanda, the deployment, exploitation, and the development of ICTs to support the socio-economic development of Rwanda is not a matter of choice but that of a necessity ---- ICTs could power the economy and move it towards an information and knowledge-based economy....”

H.E President Paul Kagame

**The Sub- Plan for
Facilitating Government Administration and Service Delivery**

Final Version

February 2001

Relevant Vision for Rwanda (VfR) Mission Strategies and Government Policy Commitments

Sub-Plan for....	Facilitating Government Administration and Service Delivery
Relevant Vision for Rwanda (VfR) Mission Strategies	<ul style="list-style-type: none"> • To improve the efficiency of the Civil and Public Service
Relevant Government Policy Commitments	<p><i>Commitment to the Deployment of ICTs to Support the Operations of the Civil and Public Services</i></p> <p>The GOR acknowledge the crucial role that ICTs can play in the delivery of Government Services; in bringing government closer to the people; and in facilitating the implementing of the Government’s decentralization and villagization policy to support the activities of the local administrative units.</p> <p>The GOR is therefore committed to the deployment and exploitation of ICTs to support the operations and activities of the Civil and Public Services as part of its commitment to the modernization of the Civil and Public Services to facilitate administrative cost reduction and the promotion of efficiency in the delivery of government services to the people of Rwanda.</p>
Key Players	Government as the Lead Player and Facilitator

The Programmes and Initiatives

1.0 Programme: General Profile Information

Programme	GOV-1: Initiative to set up NICI-2005 Plan Execution and Coordination Structures within Government Ministries, Public Service Organizations and other Organizations and Establishments involve in the implementation of the National Plan
Relevant SUNRISE Component	National ICT Initiative
Type and Scope of Programme	An initiative to facilitate the execution and coordination of the implementation of components of the NICI-2005 at the organizational level
Implementation Details Requirements	Non
Programme Ownership	The National Information Technology Commission

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> To promote and improve the efficiency and effectiveness of the Civil and Public Service
Programme-Specific Goals	<ul style="list-style-type: none"> To facilitate the execution and coordination of specific components of the NICI-2005 Plan at the level of the various Government Ministries, PSOs and other public and private sector organizations, establishments and entities identified in the Plan as implementation agencies.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable (TBM) Targets	Plan-Action Implementation Agency
G1.1	<p>All Government Ministries, and Public Service Organizations (PSOs) and other relevant NICI-2005 Plan implementation agencies, establishments and entities to respectively set up a Plan Execution and Coordination Committee (PECC)</p> <p>Note: The PECC is to be 3 member committee chaired by the Minister in the cases of Government Ministries or the Chief Executive in the case of PSOs and other Organizations and Agencies. This Committee in each case will be responsible for:</p> <p>(i) seeing to it that the Programmes and Initiatives assigned to the Ministry or the Organization for implementation are clearly defined and understood by the Ministry or the Organization;</p> <p>(ii) identifying and mobilizing the necessary resources for the implementation of the assigned Programmes and Initiatives;</p> <p>(iii) coordinating the implementation of the assigned Programmes and Initiatives and seeing to it that they are properly executed;</p> <p>(iv) liaising (where appropriate) with the organization's Information Technology Division/Directorate (ITSD) (as the case may be) in the execution of those Programmes and Initiatives assigned for implementation by the ITSD;</p> <p>(v) establishing that the time-bound measurable (TBM) targets of the Plan-Specific Actions of the assigned Programmes and Initiatives are met and on time (as specified in the Plan);</p> <p>(vi) coordinating the evaluation and monitoring (M&E) of the implementation of the assigned Programmes and Initiatives;</p>	<p><u>Prerequisites</u></p> <p align="center">Non</p> <p><u>Plan-Action Linkage</u></p> <p align="center">Non</p>	<p>All Government Ministries, PSOs and other identified NICI-2005 Implementation Agencies, Establishments and Entities to set up their respective PECC by early 2001</p>	<p align="center">Relevant Government Ministries, PSOs and other Public and Private Sector Entities</p>

	<p>(vii) identify problems associated with the implementation of specific Programmes, Initiatives and corresponding Plan-Actions;</p> <p>(vii) recommend specific interventions and actions to take to facilitate the implementation of delayed Programmes, Initiatives, or Plan Actions</p> <p>(viii) collect and analyse relevant Plan M&E data and information to document the status of the implementation of the Programmes, Initiatives and their associated Plan-Actions and</p> <p>(ix) prepare and submit to the Plan Evaluation and Monitoring Unit of RITA (RITA-PEMU) a <i>Bi-Annual Plan Implementation Progress Report</i> providing details of the Plan M&E exercise within the Ministry or PSO.</p>			
G1.2	All Ministries, PSOs and other NICI-Plan Implementation Entities to submit the list of the PECC members to the NITC and the ICT Advisor to the President	<p><u>Prerequisites</u></p> <p>The setting up of the PECC by respective Ministries, PSOs and other Entities</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	List of members of PECCs to be submitted to the NITC and the ICT Advisor to the President by mid 2001	Relevant Government Ministries, PSOs and other Public and Private Sector Entities

1.0 Programme: General Profile Information

Programme	<u>GOV-2: Programme to set up Information Technology Services Division or Directorate (ITSD) in Government Ministries and Public Service Organizations</u>
Relevant SUNRISE Component	Integrated Civil and Public Service Computerization Programme
Type and Scope of Programme	Government-wide initiative to facilitate the process of computerizing the civil and public services
Implementation Details Requirements	Each Government Ministry and Public Sector Organization (PSO) will need to develop a strategy for setting up their respective ITSD detailing its organizational structure human resources and other technical and administrative requirements.
Programme Ownership	Ministry of Public Service and Labour

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To promote and improve the efficiency and effectiveness of the Civil and Public Service • To modernize the operations of the Civil and Public Service • To facilitate administrative and service delivery cost reduction and the improvement of productivity within of the civil and public service
Programme-Specific Goals	<ul style="list-style-type: none"> • To set-up in each Ministry and Public Service Organizations an ITSD to provide an enabling and facilitative infrastructure and environment for supporting the delivery of ICT services to users across the Ministry/PSO. The ITSD will have the responsible to deliver a wide range of computing services including: (i) organization-wide computer network access and usage services; (ii) computer-based information system facilities to support the activities and operations of the Directorates and other external entities of the Ministry/PSO; (iii) Intranet and Internet services to all staff of the Ministry/PSO; (iv) training, user support and system maintenance services across the Ministry/PSO; and (v) computer hardware and software identification, sourcing and procurement services to the entire Ministry/PSO. • To seamlessly integrate the activities and operations of the Government Ministries and PSOs at the headquarters with that of their respective local functional units and other external divisions and entities at the Prefecture level via information sharing and interchange through the deployment and utilization of ICTs

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
G2.1	<p>All Government Ministries, Public Service Organizations (PSOs) as well as the National Transitional Assembly to develop their respective <i>ICT Policy Statement</i> on the deployment and exploitation of ICTs to support their organizational activities and operations within the framework of the NICI-2005 Plan.</p> <p>Note: This <i>ICT Policy Statement</i> will among other things document: (i) the Ministry's or PSO's Vision and Mission Statements and their relationship to the overall 'Vision for Rwanda' (<i>VfR</i>) and its Missions; (ii) the Ministry's or PSO's ICT Strategies for the deployment and exploitation of ICTs to support its operations and activities and (iii) the key areas of operations and organizational activities to be targeted for the implementation of the stated ICT strategies of the Ministry/PSO within the framework of the NICI-2005 Plan.</p>	<p><u>Prerequisites</u></p> <p>In formulating its <i>ICT Policy Statement</i>, there a need for each Ministry or PSO to make reference to the provisions of the GOR ICT Policy Document and take into account the Vision for Rwanda' (<i>VfR</i>) Statements and the Policy intentions of Government to transform Rwanda into an information-rich and knowledge-based middle income economy and society by Year 2020</p> <p><u>Plan-Action Linkage</u></p> <p style="text-align: center;">Non</p>	<p>Each Government Ministry and PSO to formulate and make public their respective <i>ICT Policy Statement</i> by early 2001.</p> <p>Each Government Ministry and PSO to make available a copy of its <i>ICT Policy Statement</i> to NITC and the ICT Advisor to President by mid. 2001</p>	<p>Government Ministries and PSOs</p> <p>The National Transitional Assembly</p>
G2.2	<p>All Government Ministries, GOR Establishments, Public Service Organizations (PSOs) and the National Transitional Assembly to set-up their Information Technology Services Division or Directorate (ITSD).</p> <p>Note: For each Government Ministry and PSO, the decision on whether the ITSD will be set-up either as</p>	<p><u>Prerequisites</u></p> <p>Each Govt. Ministry and PSO in collaboration with the Ministry of Public Service will need to develop its Proposal for setting up its ITSD.</p> <p>Note: Depending on its size and the nature of its activities each Ministry's or PSO's proposal for the establishment of its ITSD will</p>	<p>Fast Track Government Ministries and PSOs to set up their ITSD by 2001</p> <p>All other Government Ministries and PSOs to set-up their ITSD by 2002</p>	<p>Government Ministries and PSOs in collaboration with the Ministry of Public Service and Labour</p>

	<p>a Division or a Directorate will depend on its size and the nature and the extent of its activities and operations.</p>	<p>provide details of the organizational structure, the human resource and other technical and administrative requirements of their respective ITSDs.</p> <p><i>Plan-Action Linkages</i></p> <p>G2.3</p>	<p>Note: In most cases, what will be required to start an ITSD is to set-up a small ITSD with skeleton staff of about four (as per G2.3). Depending on the size of the organization and its activities the ITSD can be expanded over-time within the time-frame of NICI-2005.</p>	<p>The National Transitional Assembly</p>
G2.3	<p>The Kick-Start-Your-ITSD Programme</p> <p>Note: This Programme is designed to Kick-Start the setting-up the ITSDs in the Government Ministries, PSOs and the National Transitional Assembly. Each of these will be required under the Programme to nominate 4 of their employees to undergo a four to six months <i>Fast-Track ICT Training Programme</i> to prepare them to serve as the skeleton staff of the ITSD of their organization.</p> <p>One of the nominees will be train in basic computer networking, network support and administration skills; one in software and user support and training skills; one in basic hardware support, troubleshooting and computer technician skills; and one in system administration and management skills. For each Ministry and PSO, these 4 personnel on completion of their training programme will return to form the start-up skeleton staff of the ITSD. Some Ministries and PSO could decide to send more than four personnel to participate in the Programme.</p> <p>It is envisaged that the NUR and KIST will either independently or jointly provide the required training and will issue certificates to successful candidates.</p>	<p><i>Prerequisites</i></p> <p>A <i>Fast-Track ICT Training Programme</i> Proposal from the National University of Rwanda (NUR) and the Kigali Institute for Science, Technology and Management (KIST) and other interested ICT training institutions and establishments.</p> <p>The Proposal will provide details of how the programme will be implemented; the basic entry requirements as per each of the proposed skill areas; cost details; and the type of certificate to be issued at the end of the course.</p> <p><i>Plan-Action Linkages</i></p> <p>Non</p>	<p>Each Government Ministry (including the Office of the President and the Office of the Prime Minister), PSO and the National Transitional Assembly to set-up their respective skeleton ITSD by 2001 using the team trained under <i>A Fast-Track ICT Training Programme</i></p>	<p>The Ministry of Public Service and Labour in collaboration with other Government Ministries and PSOs</p> <p>&</p> <p>The National Transitional Assembly</p>

<p>G2.4</p>	<p>All Government Ministries and PSOs to develop their 5-Year IT Plan within the framework of the NICI-2005 Plan.</p> <p>Note: The implementation of this Plan will be appropriately phased over the time-frame of the NICI-2005 Plan. The IT Plan for each Ministry or PSO will take into account the key organizational activities and operations to be computerized or supported by the deployment and exploitation of ICTs.</p>	<p><u>Prerequisites</u></p> <p>The ICT Policy Statement to be developed by each Ministry and PSO.</p> <p><u>Plan-Action Linkages</u></p> <p>G2.1</p>	<p>All Government Ministries (including the Office of the President and the Office of the Prime Minister) the PSOs and the National Transitional Assembly to develop their respective Five Year IT Plan by late 2001</p>	<p>Government Ministries and PSOs</p> <p>The National Transitional Assembly</p>
<p>G2.5</p>	<p>All Government Ministries, PSOs and the National Transitional Assembly to develop annual IT Budgets (within the time-frame of NICI-2005) to implement their respective IT Plans.</p>	<p><u>Prerequisites</u></p> <p>The IT Plan of each Ministry or PSO</p> <p><u>Plan-Action Linkages</u></p> <p>G2.4</p>	<p>All Government Ministries (including the Office of the President and the Office of the Prime Minister) the PSOs and the National Transitional Assembly depending on their size, and operations to set aside (during the time-frame of NICI-2005) 5-10% of its annual budget as IT Budget to cover the purchase of IT products, services and training</p>	<p>Government Ministries and PSOs in collaboration with the Ministry of Public Service and Labour</p> <p>National Transitional Assembly</p>
<p>G2.6</p>	<p>Programme for Organizational Process Re-engineering of Government Ministries and PSOs to facilitate Administrative Efficiency and Improved Service Delivery.</p> <p>Note: Under this Initiative all Government Ministries and PSOs, before embarking on their computerization process will be obliged to undertake a comprehensive review of their organizational structures and procedures with a view to exploring the scope for process re-engineering and redesign to facilitate improved administrative efficiency and service delivery.</p>	<p><u>Prerequisites</u></p> <p>Non</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>All Government Ministries and PSOs to by 2001 investigate the need to undertake a process re-engineering task before embarking on computerization</p>	<p>Government Ministries and PSOs in collaboration with the Ministry of Public Service and Labour</p>

1.0 Programme: General Profile Information

Programme	<i>GOV-3: The Government Computerization Project</i>
Relevant SUNRISE Component	Integrated Civil and Public Service Computerization Programme
Type and Scope of Programme	A Government ICT Project aimed at the deployment and exploitation of ICTs to support administrative and service delivery activities and operations of Government Ministries and PSOs
Implementation Details Requirements	Non
Programme Ownership	Ministry of Public Service and Labour

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To support the administrative and service delivery activities and operations of central and local government units • To promote and improve the efficiency and effectiveness of the Civil and Public Service • To modernize the operations of the Civil and Public Service • To facilitate administrative and service delivery cost reduction and the improvement in productivity within of the civil and public service
Programme-Specific Goals	<ul style="list-style-type: none"> • To computerize Government Ministries and PSOs to facilitate efficient administration and service delivery • To install corporate (organizational) computer networks with access to the Internet within each of the Government Ministries and PSOs • To implement applications systems, database and information systems to support the administrative activities and service delivery functions and activities of the Government Ministries and PSOs • To spread the use of Internet within the government Ministries and other public service organizations

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
G3.1	<p>Government Ministries, PSOs and the National Transitional Assembly to commission an Organization-wide Corporate Network Implementation Report</p> <p>Note: This report will provide details of (i) organizational system need assessment and requirements, (ii) the type of network system to install and its configuration, (iii) the network technologies and networking standards to adopt (iv) the type of services to derive from the system to meet organizational and user requirements (v) how the implementation of the network will be phased; (vi) resource requirements and (vii) system costing and funding issues</p>	<p><u>Prerequisites</u></p> <p>The IT Plan of each Ministry or PSO</p> <p><u>Plan-Action Linkages</u></p> <p style="text-align: center;">G2.4</p>	<p>Each Government Ministry and PSO and the National Transitional Assembly to commission and complete its Organization-wide Corporate Network Implementation Report by 2002</p>	<p style="text-align: center;">Government Ministries and PSOs in collaboration with the Ministry of Public Service and Labour</p> <p style="text-align: center;">The National Transitional Assembly</p>
G3.2	<p>Each Government Ministries, PSOs and the National Transitional Assembly to implement a flexible organization-wide corporate network.</p> <p>Note: This network should be capable of being scaled-up and enhanced to take advantages of future technological innovations, developments and offerings as well as meet the changing, administrative and support services needs of the Ministry or PSO while at the same time being cost-effective manageable and efficient.</p>	<p><u>Prerequisites</u></p> <p>The Organization-wide Corporate Network Implementation Report of each Ministry or PSO</p> <p><u>Plan-Action Linkages</u></p> <p style="text-align: center;">G3.1, G3.4</p>	<p>Fast-Track Government Ministries and PSOs to implement their corporate network (at least at the organizational headquarters) by 2002</p> <p>All other Government Ministries and PSOs to implement their corporate network (at least at the organizational headquarters) by 2003</p> <p>Note: The corporate network, depending on the size and the</p>	<p style="text-align: center;">Government Ministries and PSOs</p> <p style="text-align: center;">The National Transitional Assembly</p>

			geographical spread of the a given Government Ministry or PSO could be implemented in stages, starting with first networking the headquarters, followed by extending the network into a wide-area network linking its other divisions and functional units in the Prefectures. It is possible to implement the wide-area network using the infrastructure of the proposed GOV-NeT.	
G3.3	<p>Each Government Ministry or PSO to identify and develop for its specific use relevant computer-based applications, information and database systems to support its administrative and service delivery activities. Key applications include:</p> <p>(i) Directorate-Specific Computer Based Applications and Information Systems (for use by specific Directorates of the Ministry or PSO) for example Management Information System (MIS), Personnel/Human Resource Management System, Accounting & Budgetary System and Payroll System as in the case of Administration and Finance Directorate</p> <p>(ii) Shared Applications and Information Systems including of software, information and database systems that will used by two or more Directorates or Divisions and</p> <p>(iii) Organization-wide Standard Application Systems like: Standard Applications and Internet-based Applications</p> <p>(iv) Special Database and Information Systems for supporting specific functions or areas of operation of the Organization as well as its functional local and external divisions or entities</p> <p>(v) All other relevant computer-based applications that will be identified for implementation from time to time</p>	<p><u>Prerequisites</u></p> <p>The IT Plan of each Ministry or PSO</p> <p>&</p> <p>The Organization-wide Corporate Network Implementation Report of each Ministry or PSO</p> <p><u>Plan-Action Linkages</u></p> <p>G2.4, G3.1, CMN-4, CMN-5</p>	<p>Fast-Track Government Ministries and PSOs to implement their mission-critical computer-based applications, information and database systems by 2002.</p> <p>All other Government Ministries and PSOs to implement their mission-critical computer-based applications, information and database systems by 2003.</p> <hr/> <p>Fast-Track Government Ministries and PSOs to implement their non-critical computer-based applications, information and database systems by 2003.</p> <p>All other Government Ministries and PSOs to implement their non-critical computer-based applications, information and database systems by 2004.</p>	<p>Government Ministries & PSOs with technical support from RITA</p>

<p>G3.4</p>	<p>Each Government Ministry or PSO to connect their corporate network to GOV-NeT</p>	<p><u>Prerequisites</u></p> <p>The IT Plan of each Ministry or PSO & The Organization-wide Corporate Network Implementation Report of each Ministry or PSO</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>Fast-track Government Ministries and PSOs to connect their corporate network to GOV-NeT by 2003</p> <p>All other Government Ministries and PSOs to connect their corporate network to GOV-NeT by 2004</p>	<p>Government Ministries & PSOs with technical support from RITA</p>
<p>G3.5</p>	<p>Each Government Ministry or PSO to spread access to the Internet within their organization</p>	<p><u>Prerequisites</u></p> <p>The IT Plan of each Ministry or PSO & The Organization-wide Corporate Network Implementation Report of each Ministry or PSO</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>All Government Ministries and PSOs to spread access to the Internet within their respective establishments by 2003</p>	<p>Government Ministries & PSOs with technical support from RITA</p>

1.0 Programme: General Profile Information

Programme	<u>GOV-4: GOV-NeT- The Government Intranet Project</u>
Relevant SUNRISE Component	Integrated Civil and Public Service Computerization Programme
Type and Scope of Programme	A Government ICT Project aimed at implementing a wide-area network linking all Government Ministries, PSOs and other public institutions and establishments throughout the country. Note: This Project forms part of the <i>Rwandan Electronic Government and Governance Initiative</i> (REGGI)
Implementation Details Requirements	A GOV-NeT Project Implementation Report will need to be put together detailing how the Project will be implemented and funded.
Programme Ownership	Ministry of Public Service and Labour

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To bring government closer to the people • To facilitate the implementation of the Government decentralization policy • To support the administrative and service delivery activities and operations of Central and Local government units • To promote and improve the efficiency and effectiveness of the Civil and Public Service • To modernize the operations of the Civil and Public Service • To facilitate administrative and service delivery cost reduction and the improvement of productivity within of the civil and public service

Programme-Specific Goals	<ul style="list-style-type: none">• To inter-network all the Government Ministries and PSOs via their organizational network into GOV-NeT– the Wide Area Network (Intranet) of Government• To provide a common Internet Gateway for all Government Ministries via GOV-NeT• To facilitate Civil and Public Service wide information access, interchange and exchange via GOV-NeT
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3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
G4.1	<p>Commission a Project Report for the Implementation of GOV-NeT</p> <p>Note: GOV-NeT is to serve as the Government Wide-Area Network linking all Government Ministries and PSOs as well as providing a common gateway to the Internet. It is proposed that GOV-NeT also serve as the Government-wide Intranet and that it should in the future be linked to the proposed <i>Rwanda Academic Research Network</i> (RARN)</p> <p>GOV-NeT will apart from facilitating information sharing, exchange and interchange between Ministries and PSOs including the Universities and Colleges (by linking the RARN to GOV-NeT) will also be used to facilitate service delivery, reduce duplication of activities and improve the level and speed of service to the public via public access electronic centers like: MCTs, Community Electronic Information Kiosks (CEIKs), Public Data Processing Centers (PDPC), Public Information Kiosks (PIKs) and so on.</p>	<p><u>Prerequisites</u></p> <p>The GOV-NeT Project Implementation Report will document among other things details of (i) need and user requirement assessment (ii) systems requirements and configuration (iii) project implementation, scheduling and phasing and (v) costing and funding issues</p> <p><u>Plan-Action Linkages</u></p> <p>E8.7, CMN-1, C3.1, C3.4, G8.3</p>	<p>Commission and complete the <i>GOV-NeT Project Implementation Report</i> by 2001</p>	<p>Ministry of Public Service and Labour</p>

G4.2	Implement the Nodes of GOV-NeT	<u>Prerequisites</u> The GOV-NeT Project Implementation Report <u>Plan-Action Linkages</u> G3.4	Implement the core system of GOV-NeT by 2002 Corporate Networks (nodes) of Fast track Ministries to be connected to GOV-NeT by 2003 Corporate Network of other Ministries to be connect to GOV-NeT by 2004	Government Ministries and PSOs in collaboration with Ministry of Public Service and Labour with technical support from RITA
G4.3	Implement the GOV-NeT common Internet Gateway	<u>Prerequisites</u> The GOV-NeT Project Implementation Report <u>Plan-Action Linkages</u> Non	Implement the GOV-NeT Internet Gateway by 2002	Ministry of Public Service and Labour with technical support from RITA
G4.4	Implement Suitable Application Systems to facilitate information access, interchange and exchange over GOV-NeT within the civil and public service.	<u>Prerequisites</u> The GOV-NeT Project Implementation Report <u>Plan-Action Linkages</u> Non	Information interchange and exchange application system to be implemented on GOV-NeT by 2003	Ministry of Public Service and Labour with technical support from RITA

1.0 Programme: General Profile Information

Programme	GOV-5: The GOR Web-Presence Development Project
Relevant SUNRISE Component	Integrated Civil and Public Service Computerization Programme
Type and Scope of Programme	A Government ICT Project aimed at facilitating the Web-Presence of all Government Ministry, PSOs and other Public Institutions and Agencies Note: This Project forms part of the <i>Rwandan Electronic Government and Governance Initiative</i> (REGGI)
Implementation Details Requirements	Non
Programme Ownership	Office of the President

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To bring government closer to the people • To facilitate Government decentralization policy • <i>To support the administrative and service delivery activities and operations of central and local government units</i>
Programme-Specific Goals	<ul style="list-style-type: none"> • To develop and maintain the GOR Web-site on the Internet with links to existing and new Web-sites of Government Ministries and other relevant organizations • To encourage all Government Ministries and other PSOs to develop a presence on the Internet through the creation of their Organizational Web-sites • To provide information on Rwanda via the Web to Rwandans in and outside the country and to the international community. • To Use the Internet as a vehicle to project a better image of Rwanda to the outside world.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
G5.1	The Office of the President to develop the GOR Official Web-site to host all GOR official documents and information.	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement a fully operational GOR Official Web-site by early 2001 Note: The Office of the President will be responsible for the development and maintenance of the Official GOR Web-site.	The Government Web Master within the Office of the President
G5.2	Each Government Ministry and Public Service Organization to Develop their respective Web-site	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Each Government Ministry and Public Service Organization to develop its Web-site by 2002 Note: Each Government Ministry and Public Service Organization will be responsible for the development and maintenance of their respective Web-sites	Government Ministries and Public Sector Organizations
G5.3	Each Government Ministry and Public Service Organization Web-site to be linked to the GOR Official Web site	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Each Government Ministry and Public Service Organization Web-site to be linked to the GOR Official Web site by 2002	Government Ministries and Public Sector Organizations

1.0 Programme: General Profile Information

Programme	<i>GOV-6: National Geographic Information System (GIS) Applications Project</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	A National ICT Project aimed at building and enhancing the GIS capability of a number of Government Ministries and PSOs.
Implementation Details Requirements	Candidate Ministries for the implementation of this project are: Ministry of Health; Ministry of Lands, Resettlement and Environmental Protection; Ministry for Public Works, Transport and Communications; Ministry of Local Government and Social Affairs; Ministry of Energy, Water and Natural Resources; Ministry of Agriculture, Animal Resources and Forestry, and others
Programme Ownership	The National Geographic Data Committee (NGDC) on behalf of the NITC

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To bring government closer to the people • To facilitate Government decentralization and villagization policy • To support the administrative and service delivery activities and operations of central and local government units • To promote and improve the efficiency and effectiveness of the Civil and Public Service
Programme-Specific Goals	<ul style="list-style-type: none"> • To develop, enhance and strengthen the GIS capability a number of Government Ministries and PSOs. • To promote and demonstrate the use of GIS to support administrative services, decision-making and service delivery in the civil and public service. • To set up a National Task Force on GIS as one of the Permanent Working Groups of the NITC

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
G6.1	The NITC to set-up the <i>National Geographic Data Committee</i> (NGDC) as one of its permanent Working Groups to oversee and advise on the implementation of GIS to support Government administration and service delivery in relevant Ministries.	<u>Prerequisites</u> <p align="center">Non</p> <u>Plan-Action Linkages</u> <p align="center">Non</p>	The NITC to set-up the NGDC by 2001	NITC
G6.2	<p>Ministry of Transport, Public Works and Communication to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services</p> <p>Ministry of Lands, Resettlement and Environmental Protection to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services</p> <p>Ministry of Health to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services</p> <p>Ministry of Local Government and Social Affairs to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services</p>	<u>Prerequisites</u> <p>The Setting-up of the <i>National Geographic Data Committee</i> (NGDC)</p> <u>Plan-Action Linkages</u> <p align="center">Non</p>	<p>Relevant Ministries to implement their component of the <i>National GIS Project</i> and implement 50% of their relevant GIS applications by 2003</p> <p>Relevant Ministries to implement 100% of their GIS applications by 2005</p>	Relevant Project Implementation Government Ministries with technical support from RITA

	<p>Ministry of Energy, Water and Natural Resources to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services</p> <p>Ministry of Agriculture Animal Resources and Forestry to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services</p> <p>Other relevant Ministries and Public Sector Organizations to implement suitable GIS applications under the auspices of the National GIS Project to support their respective administrative and service delivery services</p>	<p><u>Prerequisites</u></p> <p>The Setting-up of the <i>National Geographic Data Committee</i> (NGDC)</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>Relevant Ministries to implement their component of the <i>National GIS Project</i> and implement 50% of their relevant GIS applications by 2003</p> <p>Relevant Ministries to implement 100% of their GIS applications by 2005</p>	<p>Relevant Project Implementation Government Ministries with technical support from RITA</p>
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1.0 Programme: General Profile Information

Programme	<i>GOV-7: Special Government ICT Initiatives</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	Special National ICT projects and initiatives targeted at specific sectors, government services, establishments and organizations. Note: This Project forms part of the <i>Rwandan Electronic Government and Governance Initiative</i> (REGGI)
Implementation Details Requirements	Non
Programme Ownership	The Relevant Government Ministries, Departments, Establishments and PSOs

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To bring government closer to the people • To support the administrative and service delivery activities and operations of central and local government units • To promote and improve the efficiency and effectiveness of the Civil and Public Service
Programme-Specific Goals	<ul style="list-style-type: none"> • To develop and implement special ICT systems and applications to support the activities and operations of specific Government Agencies

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
G7.1	<p align="center">The Local Government Computer Bureau (LGCB) Initiative</p> <p>Note: This Initiative is designed to facilitate the setting up of a <i>Local Government Computer Bureau</i> (LGCB) to provide computing services (on contract basis) to Local Government Administrations in all Prefectures.</p> <p>The LGCB will operate as an autonomous, Public Sector Organization providing ranges of computer services to local government administrations in areas like: hardware and software procurement on behalf of local government authorities; application system development and implementation to meet the processing needs of the local governments authorities serving as client; hardware, software and network support services etc.</p>	<p><u>Prerequisites</u></p> <p>A detailed Report documenting how the LGCB is to set-up and operated.</p> <p>Note: This Report will among other things recommend the most appropriate set-up structure for the LGCB. For example one possibility is to set-up the LGCB as a separate PSO providing computer bureau services to Local Government Authorities and other client in the public and private sector on contract basis or operate it as an entity jointly owned by the Local Government Authorities. The possibility of the LGCB being a unit within RITA can also be considered.</p> <p><u>Plan-Action Linkages</u></p> <p align="center">Non</p>	<p>Ministry of Local Government and Social Affairs to commission and complete the Report on setting up the LGCB by 2002</p> <p>Set-up the LGCB by 2004</p>	<p>Ministry of Local Government and Social Affairs</p>
G7.2	<p>Roads Records Information System (RORIS)</p> <p>Note: RORIS is to be developed, maintained and supported by the ITSD of the Ministry of Transport Public Works and Communications. RORIS will link to the Ministry's Geographic Information System (GIS) to be developed and will serve as a national database system on the road network system in Rwanda. Details of the status of each section of the road network (urban,</p>	<p><u>Prerequisites</u></p> <ol style="list-style-type: none"> 1. A Comprehensive Project Report for RORIS covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Ministry of Transport Public Works and Communications 	<p>Commission and complete the RORIS Project Implementation Report by 2003</p> <p>Implement RORIS by 2004</p>	<p>Ministry of Transport Public Works and Communications</p>

	<p>rural, feeder roads) will be held in RORIS and this information will be updateable.</p> <p>Other types of information to be held by RORIS will include details of the existing and the planned section of the national road network, including information on the profiles of the various components of the existing network (e.g. type, location and length of the road network, access information, current condition of the road, scheduled repairs, resurfacing and other road maintenance details, and planned extensions of the road etc).</p>	<p><u>Plan-Action Linkages</u></p> <p>Non</p>		
G7.3	<p align="center">Military Personnel Information System (MIPIS)</p> <p>Note: MIPIS is to be developed, maintained and supported by the ITSD of the Ministry of Defense and National Security to serve as a centralized personnel database system on military personnel including serving, retired and demobilized military personnel. Access to MIPIS will be confidential to the Ministry of Defense and National Security and it will provide details relating to various units of the Armed Forces to facilitate administration and rapid resource (personnel, equipment and other resources) mobilization deployment, allocation and reallocation.</p>	<p align="center"><u>Prerequisites</u></p> <ol style="list-style-type: none"> 1. A comprehensive Project Report for MIPIS covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Ministry of Defense <p><u>Plan-Action Linkages</u></p>	<p>Ministry of Defense and National Security to Commission and complete the Project Report for developing MIPIS by 2002</p> <p>Develop MIPIS by 2004</p>	<p align="center">Ministry of Defense and National Security</p>
G7.4	<p align="center">The National Identity (ID) Card System Computerization Project</p> <p>Note: This objective of this Project is to Computerize the National Identity Card (ID) Provision and Administration System. The system is to be implemented by the ITSD of the Ministry of Local Government and Social Affairs.</p>	<p><u>Prerequisites</u></p> <ol style="list-style-type: none"> 1. National ID Card System Computerization Project Report 2. The setting up of the ITSD of the Ministry of Local Government and Social Affairs. 	<p>Commission and complete the National ID Card System Computerization Project Report by 2002</p> <p>Project to computerize the National ID Card System to commerce by 2003</p>	<p align="center">Ministry of Local Government and Social Affairs</p>

	<p>The aim is to eventually develop a unique ID system to support the issuing of smart ID cards to serve as a single computer-readable multi-purpose card, that apart from serving as an ID card can be used to interact with Government services, make payments, vote electronically, obtain passport, driving license , etc.</p> <p>Note: This Project forms part of the <i>Rwandan Electronic Government and Governance Initiative</i> (REGGI)</p>	<p><u>Plan-Action Linkages</u></p> <p>Non</p>		
G7.5	<p>The National Driving License and Vehicle Licensing and Registration Computerization Project</p> <p>Note: This project is to computerize the Driving License, Vehicle Licensing and Registration system of Rwanda. The project will also target the administrative and operational activities associated these Licensing and Registration processes.</p>	<p><u>Prerequisites</u></p> <p>The National Driving License and Vehicle Licensing and Registration Computerization Project Report.</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>Ministry of Transport, Public Works and Communications to Commission and complete a Project Report by 2002</p> <p>Project to Computerize the computerize the Driving License, Vehicle Licensing and Registration system of Rwanda to be commenced by 2003</p>	<p>Ministry of Transport, Public Works and Communications in collaboration of other relevant Government Agencies</p>
G7.6	<p>Initiative to Computerize Key Operations and Support Services of the National Police Force</p> <p>Note: This initiative is designed to facilitate the process of identifying and computerizing key Operations and Support Services of the National Police Force.</p>	<p><u>Prerequisites</u></p> <ol style="list-style-type: none"> 1. A Detailed Report on the computerization of key operations and support services of the National Police Force 2. The setting up of the ITSD of the National Police Service <p><u>Plan-Action Linkages</u></p>	<p>Commission and complete Report on computerizing key operations and support services of the National Police Force by 2002</p> <p>Start computerizing key operations and support services of the National Police Force by 2003</p>	<p>Ministry of Internal Affairs</p> <p>The Rwandan National Police Service</p>

<p>G7.7</p>	<p align="center">Programme to Computerize Key Operations and Support Services of the Rwandan Criminal Justice System</p> <p>Note: This Programme is designed to facilitate the process of identifying and computerizing key Operations and Support Services of the Rwandan Criminal Justice System</p>	<p><u>Prerequisites</u></p> <p>A Detailed Report on the computerization of key operations of the Rwandan Criminal Justice System</p> <p>The setting up of the ITSD of the Ministry of Justice and Institutional Relations</p> <p><u>Plan-Action Linkages</u></p> <p align="center">C4.1</p>	<p>Ministry of Justice to commission and complete Report on computerizing key operations of the Rwandan Criminal Justice System by 2002</p> <p>Start computerizing key operations of the Rwandan Criminal Justice System by 2002</p>	<p align="center">Ministry of Justice and Institutional Relations</p>
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1.0 Programme: General Profile Information

Programme	GOV-8: <i>The Smart Government Initiative (SGI)</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	<p>This initiative will focus on all issues concerning the implementation of ICT-supported governance and service delivery. SGI will involve the implementation of special programmes and initiatives directed at bringing government closer to the people through effective governance and efficient delivery of government services. An SGI Committee is to be set up to serve as a Working Group of the NITC to monitor and oversee the implementation SGI-related programmes and initiatives.</p> <p><u>Note</u>: This Initiative forms part of the <i>Rwandan Electronic Government and Governance Initiative (REGGI)</i></p>
Implementation Details Requirements	Non
Programme Ownership	The Smart Government Initiative (SGI) Committee

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To bring government closer to the people • To support the administrative and service delivery activities and operations of central and local government units • To promote and improve the efficiency and effectiveness of the Civil and Public Service
Programme-Specific Goals	<ul style="list-style-type: none"> • To promote effective governance and efficient delivery of Government Services • To facilitate public access to online information on ranges of topics of interest to the public at large • To promote Government and Private Sector partnership to facilitate the delivery of specific services to Government and public institutions as well as to the public at large.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
G8.1	The NITC to set-up the <i>Smart Government Initiative (SGI) Committee</i> as one of its permanent Working Groups to oversee and advise on the implementation of the SGI.	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	The NITC to set-up the SGI Committee by 2001	NITC
G8.2	<p align="center">Government Electronic Procurement and Settlement System (GEPSS) Project</p> <p>Note: The GEPSS Project is designed to set-up a centralized electronic system to facilitate the tendering, procurement and the settlement of goods and services online to eliminate the need for duplicate systems operating in various Government Ministries and Agencies. GEPSS will serve as a Government-wide integrated system to facilitate the implementation of a fully electronic procurement system which will enable informed, and transparent procurement decision making guided by uniform terms and conditions.</p> <p>The system will integrate the following components: (i) suppliers' database; (ii) procurement database; (iii) financial systems integrated with payment systems, (iv) electronic catalogues of products and services; (v) price details (vi) performance and delivery details, and (vii) payment mechanism integrated into catalogues to enable on-line decision making.</p> <p>The GEPSS once set up will, in the future play a key role in the development of <i>business-to-government (B2G) e-commerce</i> in Rwanda.</p>	<u>Prerequisites</u> 1.The Setting-up of the SGI Committee 2. The GEPSS Project Implementation Report <u>Plan-Action Linkages</u> P5.2	Commission and complete the GEPSS Project Implementation Report by 2002 Implement a fully operational Government Electronic Procurement and Settlement System (GEPSS) by 2004	The Relevant Government Ministry or Agency in collaboration with the Smart Government Initiative (SGI) Committee

G8.3	<p>The Public Information Kiosks (PIKs) Initiative</p> <p>Note: This SGI initiative is designed to set-up public electronic information access kiosks to serve as public access points for information on ranges of subjects of public interest. The PIKs will be equipped with electronic information access equipment and facilities like: TVs as well as computers and touchscreens connected to Government electronic information sources, databases and the Internet.</p> <p>The user-interface of these access equipment like the computers and the touchscreens will be designed to be simple, and easy to use with graphical user interfaces in French, English and Kinyarwanda. The user-friendly graphical user interface will be design to integrate suitable images and symbols to enable those that cannot read nor write to avail of the service offered. The system on the whole will facilitate interactive dialog through the clicks of a mouse, and touchscreens</p> <p>The types of information that could be access at the PIKs throughout the country include:</p> <ul style="list-style-type: none"> • Government information and announcements • Civic education-related information • Information of educational and training opportunities and vacancies • Information on job opportunities in Government Ministries and PSOs • Vacancy announcements in the private sector • Information on social services and social welfare benefits and entitlements <p>Some of the additional information that could be accessed at the rural based PIKs include:</p> <ul style="list-style-type: none"> • Short and medium term weather information 	<p><i>Prerequisites</i></p> <ol style="list-style-type: none"> 1. The Setting-up of the SGI Committee 2. The PIK Initiative Implementation Report <p><i>Plan-Action Linkages</i></p> <p>Non</p>	<p>Commission and complete the PIK Initiative Implementation Report by 2002</p> <p>Begin the implementation of the PIK Initiative by 2004</p>	<p>The Relevant Government Ministry or Agency in collaboration with the Smart Government Initiative (SGI) Committee</p>

	<p>and forecast</p> <ul style="list-style-type: none"> • Information of commodity prices in major centres of the country; • Information on the supply and shortages of commodities; • Information on the availability and cost of seeds, fertilizers and other agricultural inputs; • Information of agricultural subsidies and other government schemes targeted at the farming communities; • Information on crop and livestock diseases and possible remedies • Early warning information; and • Other agricultural related information like: inventory of good practices in agriculture, local and international agricultural research findings and outputs of interest to local farmers etc. 			
G8.4	<p>The Smart Government Initiative (SGI) – Private Sector Partnership Programme</p> <p>Note: This Programme will be aimed at involving the private sector in the provision and delivery of Government services to government institutions and to the public at large. The objective is not to privatize the provision of the relevant Government Services but to cut down on government expenditure in the provision and delivery of these services by partnering with private sector organizations and businesses. The partnered private sector organizations and business will be responsible for meeting the investment and operational cost for the development, provision and delivery of the services and recover their cost over time by way of charging users of the service a ‘service fee’.</p> <p>Some of the areas of service that could be suitable candidates for the pilot phase of this project include: (i) human resource and skill development services to Government Ministries and Agencies in areas like:</p>	<p><u>Prerequisites</u></p> <ol style="list-style-type: none"> 1. The Setting-up of the SGI Committee 2. The <i>SGI-Private Sector Partnership</i> Report. <p>Note: This Report will document details of how this Government-Private Sector partnership will be implemented</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>Commission and complete the <i>SGI-Private Sector Partnership</i> Report by 2002</p> <p>Begin pilot implementation of the <i>SGI-Private Sector Partnership</i> Programme by 2004</p>	<p>The Relevant Government Ministry or Agency in collaboration with the Smart Government Initiative (SGI) Committee</p>

<p>computing skills, management and administrative skills, professional skills in specific short-fall areas etc (ii) ranges of social welfare services to urban and rural communities on behalf of the Ministry of Local Government and Social Welfare and other Social Ministries (iii) hospital and health care services to the community on behalf of the Ministry of Health (iv) rate and debt collection services on behalf of National Utilities (v) collection of specific taxes on behalf of the Rwanda Revenue Authority (vi) computer and computing services to government institutions – covering areas like: Internet and Web-related services, data processing services, computer and network system maintenance, upgrade and repair services, database administration services, system back-up services, computer-based accounting and payroll services, networking services etc. (vii) vehicle maintenance services to government institutions, (viii) government estate management and administrative services, (ix) others</p> <p>For those services targeted at the community at large, suitable <i>Service Provision and Delivery Centers</i> (SPDCs) or points are to be set-up by the participating private sector organizations and businesses at convenient locations in government buildings, community centers, post offices, markets and other community activity centers in the rural and urban areas for citizens to access these services. Some of the SPDCs will also serve as government service information bureau where people can obtain information on services provided.</p>			
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The Multi-Sectoral Economic Development & ICT-2020 Policy Implications and the Risk Factors of the Sub-Plan

**Possible Contributions to the Realization
of the GOR's Multi-Sectoral Economic
Development Policy**

The programmes, initiatives and plan-actions identified for implementation under this Sub-Plan will contribute to the development of the key sectors the economy. It is envisaged that the modernization of Government administration and improvement in service delivery through the deployment and exploitation of ICTs, will have an indirect positive impact on economic activities in the agricultural, service and the industrial sector. For example, the improvement of Government support and facilitating services to the private sector will no doubt boost the development of the service and the industrial sector of the economy.

More specifically, the realization of the GOR's policy goal to develop a competitive high value-added service sector, to generate employment and serve as an engine for accelerated development and economic growth with the potential develop into a business-service hub of the sub-region will not be possible without an improvement in Government Administration and Service Delivery.

Also the programmes and initiatives identified for implementation under this Sub-Plan have the potential to contribute towards the realization of the goal to develop a viable ICT production industry; a vibrant cottage industry and a mass-consumer products light industry capable of generating economic growth and employment and producing goods for the domestic market and for export into the sub-regions and beyond.

On the whole, the implementation of programmes and initiatives of this Sub-Plan will indirectly but effectively contribute towards the realization of the GOR's multi-sectoral economic development policy.

<p>Areas of Emphasis as per the ICT-2020 Policy</p>	<p>The majority of the programmes, initiatives and plan-actions identified for implementation under this Sub-Plan lays emphasis on the exploitation and utilization of ICTs to facilitate Government Administration and Service Delivery. This emphasis on ICT exploitation and utilization programmes and initiatives is realistic since most of Government Administration and Service Delivery activities are more directed at the utilization of ICTs to support these activities rather than on the production or development of ICTs. It is however envisaged that, the wide-spread deployment and exploitation of ICTs in Government Ministries and Public Sector Organizations, will boost demand for ICT services and products in the country, and this will in turn support the development of a local ICT production and service sector in the long run.</p> <p>On the whole, this Sub-Plan will contribute to the realization of the GOR's policy goal aimed at simultaneously pursuing both ICT exploitation and production policy involving: the utilization and exploitation of ICTs to support the delivery of government services and the activities of various sectors of the economy as well as the production, development and delivery of ICT products and services ---- i.e. towards the development and promotion of an ICT industry and service sector.</p>
<p>The Risk Factors</p>	<p>The deployment and exploitation of ICTs to facilitate Government administration and service delivery will require financial, technological (ICT) and human resources. There is a risk of under-utilization of the deployed resources if specific procedures are not put in place to facilitate their proper exploitation. Also there is that risk of going ahead and deploying computer equipment and resources without putting in place the required corresponding technical and management team to support the utilization of these resources.</p> <p>Another area of risk may arise in situations where some of the key programmes and initiatives of the Sub-Plan are not implemented for one reason or another. It will be difficult to effectively implement a number of the other seven Sub-Plans if some of the key programmes and initiatives designed for facilitating Government administration and service delivery are not implemented. For example, a number of the programmes and initiatives identified for implementation under the Sub-Plan: <i>'ICTs in Education'</i> are expected to be implemented by the Ministry of Education and these cannot be effectively implemented if the programmes and initiatives identified for facilitating the Ministry's administration and service delivery activities are not implemented. The same is the case for other Ministries and PSOs expected to support the implementation of Sub-plans like: the <i>Deployment and Spread of ICTs in the Community; Developing and Facilitating the Private Sector; Legal, Regulatory, Institutional Provisions & Standards; ICT Infrastructure Development; and Foreign Direct Investment Drive in ICTs.</i></p>

**The Sub-Plan for
Developing and Facilitating the Private Sector through ICTs**

Final Version

February 2001

Relevant Vision for Rwanda (*VfR*) Mission Strategies and Government Policy Commitments

Sub-Plan for....	Developing and Facilitating the Private Sector
Relevant Vision for Rwanda (<i>VfR</i>) Mission Strategies	To promote and encourage the deployment and utilization of ICTs within the economy and society.
Relevant Government Policy Commitments	<p>Commitment to the Development of the Service Sector into the Business Service Hub of the Region through the deployment and exploitation of ICTs.</p> <p>The GOR fully acknowledge the need for Rwanda to develop a regional competitive advantage in the area of ICT exploitation and production through the development of a competitive ICT industry and service sector. The GOR believes that ICTs can serve as the engine for developing these targeted lead sectors of the economy into a competitive regional business service hub.</p> <p>The GOR further believes that Rwanda, by extensively deploying ICTs to support the development of its service sector can serve as the Dubai of the region and provide ranges of off-shore, banking and financial services to business community in the region and beyond. The Government is therefore committed to facilitating the development of the Service Sector of the economy into the Business Service Hub of the Region through the deployment and exploitation of ICTs.</p> <p><i>Commitment to Facilitating the Private Sector</i></p> <p>The GOR recognizes the critical role that the private sector can play as a key partner in the process of moving Rwanda into an information and knowledge economy. The government is therefore committed to promoting and facilitating the role of the private sector in the development and participation in the Rwandan information society and economy.</p>
Key Players	Government and the Private Sector as the lead Players with the Participation of the Civil Society

The Programmes and Initiatives

1.0 Programme: General Profile Information

Programme	<u>PSR-1:</u> Programme to facilitate a stable policy implementation environment and to provide incentive packages to support the rapid deployment, and exploitation of ICTs in key sectors of the economy
Relevant SUNRISE Component	Special ICT Promotion Packages, Policy Instruments, and Incentive Programmes
Type and Scope of Programme	Policy initiative aimed at facilitating the rapid deployment and exploitation of ICTs within the economy
Implementation Details Requirements	Non
Programme Ownership	Ministry of Finance and Economic Planning

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To facilitate the development of the service sector into the ‘business service hub’ of the region through the deployment and exploitation of ICTs • To promote and facilitate the role of the private sector in the development and participation in the Rwandan information society and economy. • To promote and encourage the rapid deployment and utilization of ICTs within the Private Sector
Programme-Specific Goals	<ul style="list-style-type: none"> • To provide and ensure a reasonably stable policy and regulatory environment to facilitate the development of the ICT service sector and industry • To implement special tax instruments and budgetary provisions to provide targeted incentives to the private sector to speed up the process of the deployment and exploitation of ICTs • To develop and implement policy instruments to facilitate the importation of computers, computer components and other ICT equipment at special low import duty rates targeted at the private sector • To implement special service sector development incentive programmes and packages

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
P1.1	The Government to ensure a stable ICT-related regulatory regime and policy making and implementation environment to facilitate the activities of private sector within the ICT service sector and industry	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Government to within the time frame of NICI-2005 ensure a stable policy and regulatory regime within the ICT service sector and industry	The GOR through the relevant Ministries and Agencies
P1.2	Design and implement special tax instruments and incentive packages in the Year 2000/2001 Budget specifically targeted at kick-starting the development of the ICT production sector in the areas of hardware, software and system development	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement special tax instruments and incentive packages in the 2000/2001 Budget to kick-start the ICT production sector	Ministry of Finance and Economic Planning
P1.3	Design and implement special incentive packages in the Year 2000/2001 Budget specifically targeted at aiding the growth of the ICT-related service sector.	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement special tax instruments and incentive packages in the 2000/2001 Budget to aid the growth of the ICT service sector	Ministry of Finance and Economic Planning
P1.4	Design and implement follow-up tax instruments and incentive packages in subsequent Budgets (2002/2003, 2003/2004, 20004/2005, 2005/2006) aimed at broadening the base of the ICT industry and increasing its product range	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement special tax instruments and incentive packages in the 2002/2003, 2003/2004, 20004/2005, 2005/2006 Budgets to the broaden ICT industry base and increase its product range	Ministry of Finance and Economic Planning
P1.5	Design and implement special incentive packages in subsequent Budgets (2002/2003, 2003/2004, 20004/2005, 2005/2006) aimed at speeding up the growth of the ICT-related service sector and increasing its export capability within the region.	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement special tax instruments and incentive packages in the 2002/2003, 2003/2004, 20004/2005, 2005/2006 Budgets to speed up the growth of the ICT-related service sector and increase its export capability	Ministry of Finance and Economic Planning

1.0 Programme: General Profile Information

Programme	<u>PSR-2:</u> Programmes to promote the development and expansion of a local industry for assembling, repair, and maintenance of computers and peripheral equipment and computer systems
Relevant SUNRISE Component	Special ICT Promotion Packages, Policy Instruments, and Incentive Programmes
Type and Scope of Programme	An initiative aimed at the development and expansion of the local ICT production and service sector
Implementation Details Requirements	Non
Programme Ownership	Ministry of Finance and Economic Planning

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To support the development and the growth of the ICT industry of the economy to facilitate the production, distribution and provision of ICT products, goods and services • To promote the development and expansion of the service sector into a highly competitive value-added sector with the potential to develop into a business-service hub of the region. • To promote and facilitate the role of the private sector in the development and participation in the ICT industry and service sector.
Programme-Specific Goals	<ul style="list-style-type: none"> • To promote and facilitate the local assembly of computers, network equipment and other peripheral and electronic devices for the domestic market and for export into the sub-region and beyond • To promote the development of a cottage industry for the repair, servicing and maintenance of computer and network equipment

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
P2.1	Implement special tax policy instruments and budgetary provisions targeted at making the importation of computer equipment in component form cheaper than the importation of assembled computers and related equipment.	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement in the 2001/2002 Budget and other subsequent Budgets (within NICI-2005 time-frame) special tax provisions to facilitate the importation of computer components for local assembly	Ministry of Finance and Economic Planning
P2.2	Implement a special tax instrument to reduce or totally eliminate taxes on locally assembled computers to encourage the purchase of these computers to boost the local computer assembly industry	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement in the 2001/2002 Budget and other subsequent Budgets (within NICI-2005 time-frame) special tax instruments to reduce or totally eliminate taxes on locally assembled computers and related equipment.	Ministry of Finance and Economic Planning
P2.3	Put in place a government policy directive to encourage educational institutions, the civil and public services to purchase locally assembled computers and other peripheral equipment and devices to promote the development of the local computer industry	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Develop and implement by 2002 a Government Policy directive to encourage educational institutions, the civil and public service organizations to purchase locally assembled computers and peripheral equipment and devices	Ministry of Finance and Economic Planning
P2.4	Put in place a government policy directive to encourage the educational institutions, the civil and public services to contract reputable local companies (especially SMEs in the cottage industry) to carry out the repair, servicing and maintenance of their computer equipment and other peripheral devices	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Develop and implement by 2002 Government Policy directive to encourage educational institutions, the civil and public services to contract local computer system repair, servicing and maintenance companies	Ministry of Finance and Economic Planning

<p>P2.5</p>	<p>Develop and implement a project to establish a <i>National Computer Hardware Assembly Facility</i> with private sector involvement</p>	<p><u>Prerequisites</u></p> <p>Non</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>Establish a National Computer Hardware Assembly Facility by 2002</p>	<p>Ministry of Commerce, Industry and Tourism</p> <p>The Private Sector</p>
<p>P2.6</p>	<p>Develop and provide a 6-month computer hardware vocational course in the repair and servicing of computers targeted at school leavers to generate manpower for the local computer repair and servicing industry.</p> <p>Note: The proposed National Vocational Training Commission (NVTC) will play a key role in this initiative. Some of the NVTC Training Centers will be targeted to provide this Certificate Programme in collaboration with other Institutions like the NUR and KIST.</p>	<p><u>Prerequisites</u></p> <p>Non</p> <p><u>Plan-Action Linkages</u></p> <p>H11.3</p>	<p>The NVTC Training Centers, NUR, KIST and other interested private and public ICT training institutions and establishments to develop and run and a 6-month Certificate Vocational course in computer hardware repair and servicing in collaboration with public and private technical vocational institutions by 2002</p>	<p>The National Vocational Training Commission (NVTC)</p> <p>National University of Rwanda (NUR)</p> <p>Kigali Institute of Science, Technology and Management (KIST)</p>

1.0 Programme: General Profile Information

Programme	<i>PSR-3: Programme to promote the development of Software Technology Parks (STPs)</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	A National Project aimed at developing the software development base and industry for Rwanda targeted at the export market.
Implementation Details Requirements	Need for a Government policy framework document to guide the establishment and the operations of STPs
Programme Ownership	Ministry of Commerce, Industry and Tourism

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To support the development and the growth of the ICT industry of the economy to facilitate the production, distribution and provision of ICT products, goods and services • To promote and facilitate the role of the private sector in the development of the ICT industry and service sector.
Programme-Specific Goals	<ul style="list-style-type: none"> • To promote the development of a competitive software development export sector with the active participation of local software houses and developers. • To tap into the world-wide multi-million dollar off-shore software development industry • To develop a competitive ISO standard local software development industry • To encourage the creation of quality software development jobs • To promote, encourage and facilitate the active participation of foreign investors in the local software development industry • To promote joint ventures between local and foreign software houses to facilitate the rapid growth in the software industry and knowledge transfer.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
P3.1	Develop and implement a Comprehensive Government policy guidelines and provisions to guide and facilitate the setting up of private STPs and public (government-sponsored) STPs in the country.	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Commission and complete Government policy guidelines and provisions for setting up STPs by 2002 Facilitate the setting up STPs by 2003 Establishment of private and public STPs to start by 2003	Ministry and Commerce and Industry and Tourism Ministry and Commerce and Industry and Tourism Private sector and public institutions interested in setting up STPs
P3.2	Develop and implement specific incentive programmes and packages (tax holidays, investment incentives, grants, loans etc) targeted at encouraging and facilitating local companies to set up of STPs within or outside the Export Processing and Free Zones (EPfZs)	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> F2.1	Implement in the 2002/2003 Budget and other subsequent Budgets (within NICI-2005 time-frame) special tax instrument to facilitate the setting up STPs within or outside the EPfZs.	Ministry of Finance and Economic Planning
P3.3	Implement a National Project to set-up pilot public STPs in public institutions like NUR, KIST and in specially established Technology, Research and Development Parks	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> F4.1	Set up a pilot public STPs at NUR, KIST and in specially established Technology, Research and Development Parks by 2002	Ministry and Commerce and Industry and Tourism NUR, KIST

P3.4	Develop and implement specific incentive programmes (tax holidays, investment incentives, grants, loans etc) to attract World-class Software Houses to set-up private STPs either as sole ventures or as joint ventures with local software development companies	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement within the 2001/2002 Budget and other subsequent Budgets (within NICI-2005 time-frame) special tax and incentive packages to attract World-class Software Houses to set-up STPs within or outside the Export Processing and Free Zones (EPFZs)	Ministry of Finance and Economic Planning
P3.5	Develop and implement initiatives to adopt and enforce ISO standards and quality levels in the Software Development Industry.	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Develop and enforce ISO standards and quality levels in the Software Development Industry by 2002	Ministry of Commerce, Industry and Tourism National Standard Organization RITA

1.0 Programme: General Profile Information

Programme	PSR-4: Programme to develop and implement guidelines and internationally-accepted standards for the provision of ICT services by the private sector
Relevant SUNRISE Component	Standards, Best Practices and Guidelines for ICT Deployment and Exploitation
Type and Scope of Programme	An initiative targeted at the promoting and enforcing the adherence to international standards in the provision of ICT services
Implementation Details Requirements	Non
Programme Ownership	The National Standards Board

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To promote and facilitate the role of the private sector in the development and participation in the Rwandan information society and economy.
Programme-Specific Goals	<ul style="list-style-type: none"> • To promote the development of a competitive value-added ICT service sector • To promote, encourage and facilitate the provision of ISO standard ICT services by Rwanda Companies • To promote the development of locally-based World-Class ICT Service Providers

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
P4.1	Set-up an NITC Working Group (WG) with Private Sector involvement on: <i>Developing a World-Class ICT Service Sector in Rwanda</i>	<u>Prerequisites</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages</u> <p style="text-align: center;">Non</p>	Set-up the NITC Working Group on <i>Developing a World-Class ICT Service Sector in Rwanda</i> by 2001	NITC
P4.2	The NITC-WG on ' <i>Developing a World-Class ICT Service Sector in Rwanda</i> ' in collaboration with the National Standards Organization to formulate guidelines and standards for the provision of quality ICT services by the private sector.	<u>Prerequisites</u> The setting-up of NITC-WG on ' <i>Developing a World-Class ICT Service Sector in Rwanda</i> ' <u>Plan-Action Linkages</u> <p style="text-align: center;">Non</p>	Formulate guidelines and standards for the provision of quality ICT services by the private sector by 2002	The NITC Working Group on Developing a World-Class ICT Service Sector The National Standards Organization
P4.3	Put in place mechanisms and procedures for implementing the guidelines and standards for the provision of quality ICT services by the private sector.	<u>Prerequisites</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages</u> <p style="text-align: center;">Non</p>	Begin the implementation of guidelines and standards for the provision of quality ICT services by the private sector by 2002	The NITC Working Group on Developing a World-Class ICT Service Sector The National Standards Organization

1.0 Programme: General Profile Information

Programme	PSR-5: <i>Electronic Commerce (e-commerce) and Electronic Trade (e-trade) Initiative</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	A National Project aimed at developing capacity for private sector participation in e-commerce and e-trade
Implementation Details Requirements	The Ministry of Commerce Industries and Tourism need to prepare a National Policy document to guide and facilitate the development of electronic commerce and electronic trade in Rwanda
Programme Ownership	Ministry of Commerce Industries and Tourism

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To facilitate the development of the service sector into the ‘business service hub’ of the region through the deployment and exploitation of ICTs • To support the development and growth of the ICT industry to facilitate the production, distribution and provision of ICT products, goods and services • To promote and facilitate the role of the private sector in the development and participation in the Rwandan information society and economy. • To promote the rapid development of business-to-consumer (B2C), business-to-business (B2B) and business-to-government (B2G) electronic commerce and electronic trade in Rwanda
Programme-Specific Goals	<ul style="list-style-type: none"> • To kick-start e-commerce and electronic trade in Rwanda • To facilitate the rapid development and the spread of e-commerce services in the private sector • To facilitate the involvement of SMEs in domestic, regional and global e-commerce and e-trade. • To promote the development of <i>business-to-consumer</i> (B2C); <i>business-to-business</i> (B2B); and <i>business-to-government</i> (B2G) e-commerce in Rwanda

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
P5.1	Prepare a report on developing and facilitating B2C, B2B and B2G e-commerce and e-trade in Rwanda	<u>Prerequisites</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages</u> <p style="text-align: center;">Non</p>	Commission and complete the Electronic Commerce and Trade Report by 2001	Ministry of Commerce, Industry and Tourism
P5.2	Implement a Pilot <i>Business-to-Government</i> (B2G) e-commerce in the area of procurement of goods and services to involve a number of Government Ministries, PSOs and selected Suppliers and Service Providers	<u>Prerequisites</u> The Electronic Commerce and Trade Report <u>Plan-Action Linkages</u> <p style="text-align: center;">G8.2</p>	Ministry of Commerce, Industry and Tourism to facilitate the implementation of a Pilot B2G e-commerce system by 2002	Ministry of Commerce, Industry and Tourism Participating Relevant Government Ministries, PSOs and Private Sector Organizations
P5.3	Set-up <i>E-commerce Resource Service Centers</i> (ERSCs) and <i>Electronic-Trade Point Centers</i> (ETPCs) in a number of key Prefectures	<u>Prerequisites</u> The Electronic Commerce and Trade Report <u>Plan-Action Linkages</u> <p style="text-align: center;">Non</p>	Set-up pilot <i>E-commerce Resource and Service Centers</i> (ERSCs) or E-commerce Booths in Kigali, Butare and other major cities by 2001 Set-up <i>Electronic Trade-Point Centers</i> (ETPCs) in Kigali, Butare and satellite ETPCs in other major provincial towns by 2001 Increase the number of ERSCs and ETPCs by 50% by 2003 Set-up ERSCs and ETPCs in all Prefectures by 2005	Ministry of Commerce, Industry and Tourism

P5.4	Programme to enact relevant cyberlaws and other legal and legislative provisions to support the development of e-commerce and e-trade in Rwanda	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Enact relevant cyberlaws and necessary e-commerce and e-trade legal and legislative provisions by 2003	Ministry of Justice and Institutional Relations The National Transitional Assembly Ministry of Commerce, Industry and Tourism
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1.0 Programme: General Profile Information

Programme	<i>PRS-6: The Electronic Banking Initiative</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	An Initiative aimed at promoting and supporting the development on online and Internet Banking and the provision of Financial Services online.
Implementation Details Requirements	Non
Programme Ownership	Ministry of Commerce, Industry and Tourism

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To promote the development and expansion of the service sector into a highly competitive value-added sector with the potential develop into a business-service hub of the region. • To promote and facilitate the role of the private sector in the development and participation in the ICT industry and service sector.
Programme-Specific Goals	<ul style="list-style-type: none"> • To put in place the necessary regulations to support online and Internet Banking • To facilitate the development and provision of online financial services • To promote the development of Rwanda as a regional hub for online financial and banking services • To promote the development of online inter-banking services within the Banking System of Rwanda

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
P6.1	Implement a Programme to put in place the necessary banking and financial regulations and procedures to facilitate online banking and financial service provision in Rwanda and the Sub-region	<u>Prerequisites</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages</u> <p style="text-align: center;">Non</p>	Put in place relevant Banking and Financial Regulations and Procedures to facilitate online banking and financial service provision by 2002	<p style="text-align: center;">The National Bank of Rwanda</p> <p style="text-align: center;">Ministry of Finance and Economic Planning</p> <p style="text-align: center;">Ministry of Commerce, Industry and Tourism</p>
P6.2	Implement an Initiative to promote and encourage Rwandan Commercial Banks and Financial Institutions to provide their services online to the public. Note: This Initiative is to speed-up the process of introducing online banking and Internet Banking into Rwanda. Banks and other Financial Institutions will by this Initiative be required to provide at least some of their services to the public online using either their propriety online system or the Internet or both	<u>Prerequisites</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages</u> <p style="text-align: center;">Non</p>	Put in place and implement an initiative aimed at encouraging the provision of online services by the Banks and other Financial Institutions by 2002	<p style="text-align: center;">The National Bank of Rwanda</p> <p style="text-align: center;">Ministry of Finance and Economic Planning</p> <p style="text-align: center;">Ministry of Commerce, Industry and Tourism</p> <p style="text-align: center;">The Commercial Banks and Financial Institutions</p>
P6.3	Implement a Programme aimed at facilitating and promoting Rwanda as the regional hub for online and Internet banking services as well as for the provision of online financial services	<u>Prerequisites</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages</u> <p style="text-align: center;">Non</p>	Put in place and implement an initiative aimed at facilitating and promoting Rwanda the regional hub for online banking and financial services 2003	Ministry of Commerce, Industry and Tourism
P6.4	Implement a Programme to facilitate electronic (online) inter-bank transaction within the Commercial Banking System and between the Central Bank of Rwanda and the Commercial Banks	<u>Prerequisites</u> <p>The setting-up of an inter-bank computer network linking the computer systems of the Commercial Banks and that of the Central Bank of Rwanda</p>	Facilitate the implementation of inter-bank transactions online by 2002	<p style="text-align: center;">The National Bank of Rwanda</p> <p style="text-align: center;">The Commercial Banks and Financial Institutions</p>

1.0 Programme: General Profile Information

Programme	<i>PRS-7: Special Initiatives to facilitate the rapid development of an Export-Oriented Software Services and Product Development Industry</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	Initiatives aimed at supporting the development of a competitive export-focused software development industry
Implementation Details Requirements	Non
Programme Ownership	Ministry of Commerce, Industry and Tourism

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To promote the development and expansion of the service sector into a highly competitive value-added sector with the potential develop into a business-service hub of the region. • To promote and facilitate the role of the private sector in the development of the ICT industry and service sector.
Programme-Specific Goals	<ul style="list-style-type: none"> • To promote the development of the Rwanda Software Products and Services industry • To facilitate the development of a competitive export-driven software industry • To tap into the world wide multi-million dollar off-shore software development industry • To develop a competitive ISO standard local software development industry • To facilitate an investor-friendly enabling environment to attract quality investments into the local Software Industry

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
P7.1	<p>Implement a Programme to set-up a <i>Software Certification Agency (SCA)</i> to monitor and enforce quality assurance in the software industry.</p> <p>Note: The SCA will be mandated to serve as the Certification Body for software services and products targeted at the export market. The Agency will be initially set-up as a unit within RITA or within the National Standards Organization; this can later on be transformed into a fully-fledged independent agency as the Rwandan software products and services industry develops and expands.</p> <p>The Federation of Rwandan Private Sector is to be a key stakeholder in the setting-up and of this Agency.</p>	<p><u>Prerequisites</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages</u></p> <p style="text-align: center;">Non</p>	<p>Ministry of Commerce, Industry and Tourism in collaboration with the Private Sector Federation and the National Standards Board to set-up the <i>Software Certification Agency</i> by 2002</p> <p>Initiate a process for developing and popularizing on the international market a Rwandan Brand for Quality Software Products and Services by 2005</p>	<p>Ministry of Commerce Industry and Tourism</p> <p>The National Standards Organization</p> <p>The Private Sector Federation</p>
P7.2	<p>Ministry of Education to implement an initiative aimed at encouraging the Universities and Colleges to develop and offer special degree programmes targeted at producing Software Development oriented Applied Mathematics Graduates</p> <p>Note: Universities and Colleges under this initiative will have the option to either set up a Special Department to offer these courses or use relevant existing Department to develop and offer these programmes. Graduates of these programmes will be expected to have those relevant mathematical and logical skills</p>	<p><u>Prerequisites</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages</u></p> <p style="text-align: center;">Non</p>	<p>Initiative to train Software Development oriented Applied Mathematics Graduates at the country's Universities and Colleges to begin by 2003</p>	<p>Ministry of Education</p> <p>Universities and Colleges</p>

	specifically required for software development. These types of Graduates will in addition to Computer Science graduates are essential for supporting the development of the Rwandan Software Industry.			
P7.3	Implement a Programme to enact enforceable copyright and Intellectual Property Rights laws directed at encouraging the inflow of Software Development related foreign direct investments (FDIs) by International Software Houses and Computer Companies into Rwanda.	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> L2.3	Enact enforceable copyright and Intellectual Property Rights laws to attract Software Development related foreign direct investments (FDIs) by 2003	Ministry of Justice and Institutional Relations & The National Transitional Assembly
P7.4	Implement an Initiative aim at attracting at least 5 Fortune 500 companies to out-source computer services and software development in Rwanda by 2005	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	RIPA to put in place and implement an initiative to attract at least 5 Fortune 500 companies to out-source computer services and software development in Rwanda by 2005	RIPA
P7.5	Programme to encourage the Local Banks to extend working capital to Software Development companies, STPs and other top-end computer service providers Note: This initiative will focus on new start-up computer companies, especially those set-up by up and coming young entrepreneurs and newcomers into the industry. Apart from emphasis on software development, some of the computer service provision companies that can be supported under the scheme include: computer networking and cable installation companies, Web-based System Development companies, ISPs, companies and private institutions involve in ICT human resource development especially in the area of software development, computer repair and maintenance service provision companies, etc.	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	The Commercial Banks to set-up a Special Business Loan Schemes targeted at Software Development companies, STPs and other top-end computer service providers by 2001	The Commercial Banks Operating in Rwanda

<p>P7.6</p>	<p align="center">The Young IT Entrepreneurs (YITE) Business Support Scheme</p> <p>Note: This initiative is designed to provide a number of business support services and facilities to Young Business Entrepreneurs planning to set-up Information Technology start-up companies and businesses.</p> <p>The scheme will provide qualified young entrepreneurs soft-business start-up loans guaranteed by the Government. The local Commercial Banks and Micro-Finance Agencies will be encouraged to provide the loan.</p> <p>Another key component of the YITE Business Support Scheme is a Management and Business Training Programme targeted at potential Young Entrepreneurs. Completion of this Training Programme will be a pre-requisite for qualifying for the YITE soft-business start-up loan. It is possible that the YITE Business Training Programme will be offered at the NVTC Training Centers</p>	<p><u>Prerequisites</u></p> <p align="center">Non</p> <p><u>Plan-Action Linkages</u></p> <p align="center">P7.5, P8.1, H11.2</p>	<p>Set-up the YITE Business Support Scheme by 2002</p> <p>Note: The YITE Scheme is to be set-up by the Ministry of Commerce, Industry and Tourism with the involvement of the local Commercial Banks and Micro-Finance Agencies</p>	<p>Ministry of Commerce, Industry and Commerce</p> <p>The Commercial Banks Operating in Rwanda</p> <p>Micro-Finance Agencies</p>
<p>P7.7</p>	<p>Initiative to encourage Export-oriented Software Development Companies and STPs to spend at least 20-25% of their total budget on training and software productivity and quality tools.</p> <p>Note: The Ministry of Finance and Economic Planning to facilitate this Initiative by introducing an incentive package within which expenditure on training and software productivity and quality tools by qualified Software Companies and STPs are tax deductible.</p>	<p><u>Prerequisites</u></p> <p align="center">Non</p> <p><u>Plan-Action Linkages</u></p> <p align="center">Non</p>	<p>Ministry of Finance and Economic Planning to implement special tax instruments and incentive packages in the 2002/2003, Budget (and subsequent Budgets within the time frame of NICI-2005) to make expenditure on training and software productivity and quality tools by qualified Software Companies tax deductible.</p>	<p>Ministry of Finance and Economic Planning</p>

<p>P7.8</p>	<p>Programme to allow STPs and other companies involve in developing software for the Export market to utilize part of their export earnings for re-investment to improve their regional and global competitiveness.</p> <p>Note: The Ministry of Finance and Economic Planning to facilitate this Programme by introducing an incentive package within which export earnings use for re-investment by STPs and other Software Companies are tax deductible.</p>	<p><u>Prerequisites</u></p> <p>Non</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>Ministry of Finance and Economic Planning to implement special tax instruments and incentive packages in the 2002/2003, Budget (and subsequent Budgets within the time frame of NICI-2005) to make export earnings use for re-investment by STPs and other Software Companies tax deductible.</p>	<p>Ministry of Finance and Economic Planning</p>
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1.0 Programme: General Profile Information

Programme	<i>PRS-8: Business and Career Development Support Services Initiative</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	An initiative targeted at providing career and business development support services
Implementation Details Requirements	Non
Programme Ownership	Ministry of Commerce Industry and Tourism

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To promote the development and expansion of the service sector into a highly competitive value-added sector with the potential develop into a business-service hub of the region. • To promote and facilitate the role of the private sector in the development of the ICT industry and service sector
Programme-Specific Goals	<ul style="list-style-type: none"> • To promote the development of Business Support Services targeted at SMEs • To support business career development among the youth and the ‘out-of-work’

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
P8.1	<p>Set-up Career and Business Development Advisory Centers (CABDACs)</p> <p>Note: CABDAC is to be set up in all Prefectures to serve as a Business Development Center to assist entrepreneurs and those planning to set up their own business with information and contacts. CABDAC could also administer micro-finance projects design for generating local employment and supporting start-up businesses in the ICT sector and other sectors of the economy</p> <p>These Centers will also serve as a Citizen's Advisory Bureaus to provide services on Career Development to the Youth and the Out-of-Work.</p>	<p><u>Prerequisites</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages</u></p> <p style="text-align: center;">P7.6</p>	<p>Ministry of Commerce, Industry and Tourism in collaboration with the Private Sector Federation to commission a report for setting up CABDACs by 2001</p> <p>Set-up pilot CABDACs in selected Prefectures by 2003</p>	<p>Ministry of Commerce, Industry and Tourism in Collaboration with the Private Sector</p>
P8.2	<p>An Initiative to develop and in put in place an <i>ICT Policy Advisory and Facilitation Team</i> within the Private Sector Federation</p> <p>Note: Given the recognition of the critical role that the private sector can play as a key partner to Government in the process of moving Rwanda into an information and knowledge economy, it is necessary that the Rwandan Private Sector effectively participates in the ICT policy and plan formulation and implementation process.</p>	<p><u>Prerequisites</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages</u></p> <p style="text-align: center;">Non</p>	<p>The Private Sector Federation to implement an Initiative to put in place an ICT Policy Advisory and Facilitation Team within the Federation by 2001</p>	<p>The Private Sector Federation</p>

	<p>The Private Sector Federation representing the private sector, would need to have the required expertise in ICT policy issues to be able to among other things: effectively dialog with Government and contribute to ICT policy and plan formulation and implementation; assist its members on issues relating to their participation in the information and knowledge economy and play an effective advocacy role on behalf of its members to project and strengthen the role of the private sector as a key ICT-led socio-economic development stakeholder.</p> <p>This Initiative to develop an in-house <i>ICT Policy Team</i> within the Private Sector Federation is aimed at providing the Federation the necessary capacity to facilitate the role of the private sector in the development and participation in the Rwandan information society</p>			
P8.3	<p>The Private Sector Federation to Organize regular ICT Briefing Sessions and Meetings for its members on developments within the local ICT industry, and the possible impact of policies and plans within the sector</p>	<p><u>Prerequisites</u></p> <p>The setting up of the <i>ICT Policy Advisory and Facilitation Team</i> within the Private Sector Federation</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>The Private Sector Federation to organize regular ICT-Industry Briefings and Meetings for its members during the time frame of NICI-2005</p>	<p>The Private Sector Federation</p>

1.0 Programme: General Profile Information

Programme	<i>PSR-9: Programme to facilitate the involvement of the Military in Commerce</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	An Initiative aimed at promoting and facilitating the involvement of the Rwandan Armed Forces in commercial ventures and activities
Implementation Details Requirements	The Ministry of Defense and National Security will need to prepare a Project Report providing implementation details relating to the various aspects of the Initiative
Programme Ownership	Ministry of Defense and National Security

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To facilitate the development of the service sector into the business service hub of the region through the deployment and exploitation of ICTs • To support the development and the growth of the ICT industry of the economy to facilitate the production, distribution and provision of ICT products, goods and services
Programme-Specific Goals	<ul style="list-style-type: none"> • To put in place relevant structures and mechanisms to facilitate the involvement of the Military in ICT-related commercial ventures. • To raise the necessary funding to support projects and initiatives targeted at facilitating the involvement of the Military in commercial ventures

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
P9.1	Commission a Report on the establishment of a <i>Foundation for Military Engagement in Commerce</i> (FMEC) to serve as a National Agency for promoting and facilitating the involvement of serving, retired and demobilize military personnel as well as military establishments, organizations and associations in commercial ventures	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Ministry of Defense and National Security to Commission and complete the FMEC Report by 2001 Set-up FMEC by 2002	Ministry of Defense and National Security
P9.2	Implement an initiative to set-up Army Business Co-operatives (ABCs) and Army Business Entities (ABEs) to engage in business and commercial activities in all sectors of the economy. Note: The ABCs and ABEs will operate under the auspices of FMEC and will be involve in the agriculture sector (ABCs and ABEs in Agriculture); the ICT industry (ABCs and ABEs in the ICT industry); cottage industry (ABCs and ABEs in the cottage industry); and in the service sector (ABCs and ABEs in the service sector including the ICT service sector). Membership of the ABCs and ABEs will be made up of serving, retire and demobilized military personnel of all ranks. The ABCs will operate more like NGOs involve in commercial ventures while the ABEs will operate as fully fledged registered companies with the membership being the share holders of the company. The formation of an ABC or ABE to engage in any business venture can be undertaken by any group of military personnel who voluntary come together for this purpose provided the guidelines set-up by FMEC are followed. It is also possible for a given Military establishment to set up its own ABCs or ABEs.	<u>Prerequisites</u> The setting-up of FMEC <u>Plan-Action Linkages</u> Non	Ministry of Defense and National Security to Commission and complete a Report on the Guidelines for setting-up ABCs and ABEs by 2002 Begin setting up ABCs and ABEs by 2003	Ministry of Defense and National Security Interested Military Personnel with assistance from FMEC

P9.3	<p>Set-up a '<i>Military Fund for Entrepreneurship</i>' (MFE) under the auspices of FMEC to serve as a Special Fund to provide seed money, grants, start-up capital, and loans to ABC, ABEs and other qualified military personnel and organizations to facilitate their involvement in commercial ventures</p>	<p><u>Prerequisites</u></p> <p>The setting-up of FMEC</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>Ministry of Defense and National Security in collaboration with FMEC to set-up and launch the '<i>Military Fund for Entrepreneurship</i>' (MFE) by late 2002</p> <p>FMEC to target raising an initial capital endowment of about US\$5 million for the MFE by 2003</p> <p>The initial capital endowment of MFE should be increased by 50% by 2005</p>	<p>Ministry of Defense and National Security and FMEC</p> <p>FMEC</p> <p>FMEC</p>
P9.4	<p>FMEC to develop on a pilot basis a number of ICT-related businesses ventures to kick-start the setting up of ABCs and ABEs in ICTs.</p> <p>Note: Candidate areas to begin with include: operating local commercial radio stations, assembling of computers and other ICT equipment and devices for the local and regional market; provision of ranges of ICT services targeted at the service sector and the cottage industry; providing human resource development and training services in ICT, management and other related areas etc</p>	<p><u>Prerequisites</u></p> <p>Non</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>FMEC to develop on a pilot basis ICT-related business ventures to kick-start the setting up of ABCs and ABEs in ICTs by 2003</p>	<p>FMEC</p>

The Multi-Sectoral Economic Development & ICT-2020 Policy Implications and the Risk Factors of the Sub-Plan

<p align="center">Possible Contributions to the Realization of the GOR's Multi-Sectoral Economic Development Policy</p>	<p>The programmes and initiatives identified for implementation under this Sub-Plan will in the long run have a substantial impact on the development of the key sectors of the economy. A number of the programmes and initiatives are aimed at developing and facilitating the service sector with the aim to develop it into the 'business service-hub' of the region. Some of the programmes are targeted at facilitating the development of the industrial sector including the ICT sub-sector and the cottage industry while a number are broadly targeted at aiding the agriculture sector. A number of the initiatives targeted at the ICT production sector are aimed at kick-starting and broadening the base of this sector and increasing its product range. In relation to the ICT service sector, a number of the initiatives of the Sub-Plan have the potential to support the growth of the sector and increasing its export capability.</p> <p>On the whole, since the programmes and initiatives of the Sub-Plan are aimed at the entire private sector which encompasses the agricultural sector, the service sector and the industrial sector the potential for contributing to the realization of the GOR's multi-sectoral economic development policy is great.</p>
<p align="center">Areas of Emphasis as per the ICT-2020 Policy</p>	<p>The programmes and initiatives of the Developing and Facilitating the Private Sector Sub-Plan have implications for both the exploitation and production of ICTs. A number of the programmes are specifically targeted at facilitating the deployment and exploitation of ICTs in the private sector while others are aimed at promoting the development and expansion of the local ICT production industry – targeting software and ICT systems development; hardware assembly, maintenance and servicing as well ICT service provision.</p> <p>On the whole, the programmes and initiatives of this Sub-Plan will contribute to the realization of the GOR's policy goal aimed at simultaneously pursuing both ICT exploitation and production involving: the utilization and exploitation of ICTs to support the delivery of government services and the activities of various sectors of the economy as well as the production, development and delivery of ICT products and services ---- i.e. towards the development and promotion of an ICT industry and service sector.</p>

The Risk Factors

A number of the programmes and initiatives of this Sub-Plan are aimed at facilitating the development of the private sector. The expectation is that, the private sector will be able to develop fast enough to aid the process of developing a regional competitive advantage in the area of ICT exploitation and production through the development of a competitive ICT industry and service sector. This process, it is envisaged will boost the economy, generate quality jobs and assist in the process of wealth creation and national prosperity.

The risk factor as per the implementation of the programmes and initiatives of this Sub-Plan arises in the situation where the expected boost in the economy did not materialize despite the efforts and resources targeted at facilitating the development of the private sector. For example, some of the initiatives like those aimed at facilitating the private sector through special tax policy instruments, incentive packages, and budgetary provisions do have high risk factors (in the case of a non-performing economy) measured in terms of the actual cost ('revenue-forgone') and opportunity cost of these programmes and initiatives.

It is also anticipated that apart from boosting the economy, facilitating the development of the private sector will also generate additional demand for quality manpower in the medium and long term. This additional manpower requirement of a fast growing private sector is expected to be met by the implementation of the Human Resource Development Sub-Plan. There is therefore that risk element, (measured in terms of the resources devoted to human resource development) in the event that the private sector failed to generate enough economic activity and by so doing failed to create quality jobs.

**The Sub-Plan for the
Deployment and Spread of ICTs in the Community**

Final Version

February 2001

Relevant Vision for Rwanda (*VfR*) Mission Strategies and Government Policy Commitments

Sub-Plan for....	Deployment and Spread of ICTs in the Community
Relevant Vision for Rwanda (<i>VfR</i>) Mission Strategies	<ul style="list-style-type: none"> • To transform Rwanda into an IT literate nation • To promote and encourage the deployment and utilization of ICTs within the economy and society • To facilitate the process of national reconciliation and reintegration by promoting social and cultural interaction within the society
Relevant Government Policy Commitments	<p>The Government of Rwanda (GOR) recognized the role that ICTs can play in accelerating the socio-economic development of Rwanda towards an information and knowledge economy. The GOR believes that Rwanda is equally placed to take advantage of these technologies to facilitate her socio-economic development process.</p> <p>The GOR acknowledges that in the new emerging economic order, the fundamental basis for wealth creation and national prosperity is information and knowledge and that Rwanda cannot afford to be without either of these.</p> <p>The GOR also recognizes that the information and knowledge economy is generating opportunities across all sectors in a number of developed and developing countries. --- It is a new source for the creation of quality jobs, wealth generation and redistribution, rapid economy development and prosperity as well as a source for facilitating global competitiveness.</p> <p>The GOR is wholeheartedly committed to the implementation of its integrated socio-economic and ICT Policy and Strategies to facilitate the process of establishing a prosperous society, with an economy that is globally competitive, dynamic, robust and resilient in respect to the rapid changes and advances that will take place in the global economy to be dominated by technology-driven information and knowledge economies.</p> <p>The GOR through its <i>Vision for Rwanda (VfR)</i>, does not envisage the future of Rwanda only in economic development terms; ----- The Vision also acknowledges the need for Rwanda to develop politically, socially and culturally to foster: political stability, good governance and system of government; improvement in the quality of life for of the people of Rwanda; national unity and reconciliation; social interaction, cohesion and integration; social justice; environmental protection and</p>

	the fostering of the cultural heritage of Rwanda. The <i>Vision for Rwanda (VfR)</i> also aims at enhancing the pride and confidence of the people of Rwanda in their abilities and capabilities develop Rwanda into a prosperous nation that is at peace with itself territorially and ethnically.
Key Players	Government as the lead Player with the involvement of Civil Society and the Private Sector

The Programmes and Initiatives

1.0 Programme: General Profile Information

Programme	<i>CMN-1: The National Multi-Purpose Community Telecenter (MCT) Project</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	National Community-based ICT Initiative targeted at spreading ICT access in the community
Implementation Details Requirements	Need to commission a National MCT Project Implementation Proposal and Plan
Programme Ownership	RITA

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To bring government closer to the people • To facilitate Government decentralization and villagization policy • To support the administrative and service delivery activities and operations of central and local government units
Programme-Specific Goals	<ul style="list-style-type: none"> • To set up Multipurpose Community Telecenters (MCTs) in a number of towns and cities, including sites where the villagization programme has been implemented to provide community-based ICT-related services including Internet Café services to the public at large. • To facilitate public access to the Internet and community-based access to Government information and services. • To spread the use of ICTs and the Internet in the community.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
C1.1	Commission the development of a <i>National Multipurpose Community Telecenter (MCT) Project Report</i> detailing the project plan and other implementation and funding issues	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	The National MCT Project implementation Plan to be commissioned and completed by 2001	Ministry of Local Government, and Social Affairs in collaboration with other Project Implementation Ministries
C1.2	The Ministry of Local Government and Social Affairs to set up Multipurpose Community Telecenters in selected Communes throughout the Country	<u>Prerequisites:</u> An MCT Project Implementation Plan for the Ministry of Local Government, Urban Development and Social Affairs <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Establish at least ten MCTs per Prefecture by 2002 Double the number of MCTs per Prefecture by 2005	Ministry of Local Government, and Social Affairs
C1.3	The Ministry of Lands, Human Resettlements and Environmental Protection to set up MCTs in a selected number of existing and new Villages to be set-up under the Villagization Programme	<u>Prerequisites:</u> An MCT Project Implementation Plan for the Ministry of Lands, Settlements and Environmental Protection <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	A selected number of existing Villagization Programme villages with basic facilities like electricity and telephone access should be equipped with an MCT by 2002 All villages created under the Villagization programme should be equipped with MCTs by 2005	Ministry of Lands, Human Resettlements and Environmental Protection

C1.4	The Ministry of Gender and Women in Development to set up MCTs in Women Centers throughout the country	<p><u>Prerequisites:</u></p> <p>An MCT Project Implementation Plan for the Ministry of Gender and Women in Development</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>Implement MCTs in existing Women Centers in key Prefectures by 2002</p> <p>Implement MCTs in Women Centers in all Prefectures by 2005</p>	Ministry of Gender and Women in Development
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1.0 Programme: General Profile Information

Programme	<i>CMN-2: The National Telemedicine Project</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	National Community-based ICT Initiative targeted at the Health Delivery System
Implementation Details Requirements	Need to commission a Telemedicine Project Implementation Report
Programme Ownership	Ministry of Health

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To facilitate administrative and service delivery cost reduction and the improvement in productivity within of the health delivery system • To modernize the operations of the Health Delivery System
Programme-Specific Goals	<ul style="list-style-type: none"> • To establish telemedicine systems in a number of Rural and Urban hospitals and Community Health Centers to demonstrate the use of ICTs to support health delivery and community-based medical education and training. • To support medical research in the Medical Schools and Teaching Hospitals • To facilitate access by Hospitals and Medical Schools to medical information, documents and research material on a global scale via the Internet • To deploy and utilize ICTs in the fight against HIV/AIDs in Rwanda

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
C2.1	The Ministry of Health to commission the development of a <i>National Telemedicine Project Implementation Plan</i> for Rwanda	<u>Prerequisites:</u> <p align="center">Non</p> <u>Plan-Action Linkages:</u> <p align="center">Non</p>	The Ministry of Health to commission and complete the National Telemedicine Project implementation framework and Plan 2001	Ministry of Health
C2.2	The Ministry of Health to facilitate the implementation of Telemedicine systems in a selected number of Regional Hospitals and Community-based Health Centers	<u>Prerequisites:</u> <p align="center">A Telemedicine Project Implementation Plan for the Ministry of Health</p> <u>Plan-Action Linkages:</u> <p align="center">Non</p>	<p>Implement Telemedicine Systems in 50% of the Regional Hospitals and Community-based Health Centers by 2003</p> <p>Double the number of Medical Establishments implementing Telemedicine Systems in the country 2005</p>	Ministry of Health
C2.3	Medical and Nursing Training Institutions to pilot Continuing Medical Education (CME) using the resources of Telemedicine systems	<u>Prerequisites:</u> <p align="center">A Telemedicine Project Implementation Plan for the Ministry of Health</p> <u>Plan-Action Linkages:</u> <p align="center">Non</p>	Implement Telemedicine-Assisted CME in the majority of Medical and Nursing Training Establishments by 2004	Ministry of Health

1.0 Programme: General Profile Information

Programme	CMN-3: <i>Special Initiatives to facilitate the rapid deployment and exploitation of ICTs within the Community</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	Special Initiatives targeted at speeding up the process of ICT deployment and exploitation within the community.
Implementation Details Requirements	Non
Programme Ownership	The Relevant Implementation Agencies

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To bring government closer to the people • To facilitate Government decentralization and villagization policy • To support the administrative and service delivery activities and operations of Local Government Units • To modernize the operations of the Civil and Public Service • To facilitate administrative and service delivery cost reduction and the improvement in productivity within of the civil and public service
Programme-Specific Goals	<ul style="list-style-type: none"> • To implement community-based ICT initiatives to speed up the process of deployment and utilization of ICT-based systems within the community

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
C3.1	<p style="text-align: center;">Initiative to set-up 'Public Data Processing Centers' (PDPCs)</p> <p>Note: The PDPCs will be set-up to provide computing services to SMEs, the self-employed local business people and individuals without their own computer systems. They will also serve as Business Service Centers to provide, secretarial; offices address services and computer services to the business community especially those operating in the service sector.</p> <p>These Centers are expected to be set-up as private initiatives with some support from the Ministry of Commerce, Industry and Tourism.</p>	<p><u>Prerequisites:</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">Non</p>	<p>Ministry of Commerce, Industry and Tourism to facilitate the setting-up of pilot PDPCs with private sector involvement by 2002</p> <p>Ministry of Commerce, Industry and Tourism to encourage and facilitate the setting up of PDPCs through individual private sector initiatives.</p>	<p>Ministry of Commerce, Industry and Tourism</p> <p>The Private Sector</p>
C3.2	<p style="text-align: center;">Special Schemes to Promote PC Penetration into the Community</p> <p>Note: These schemes will be targeted at implementing a number of special initiatives by Government, the Private Sector and other stakeholders to facilitate among other things: the lowering of the cost of PCs; the promotion of easy-installment payment schemes, the provision of bank loans to qualified individuals, and organization for the purchase of PCs; computer donations by computer companies and other businesses to schools, hospitals community-based organizations; bulk donations of used and new computers by Donor Agencies and International organizations; the arrangement large-volume bargain price imports of PCs; multi-lateral funding arrangements etc.</p>	<p><u>Prerequisites:</u></p> <p style="text-align: center;">Non</p> <p><u>Plan-Action Linkages:</u></p> <p style="text-align: center;">E1.3, E1.4, H4.1, H4.2</p>	<p>Ministry of Finance and Economic Planning in collaboration with other Agencies and Interested Stakeholders to by 2002 launch schemes to promote PC Penetration within the community</p>	<p>Ministry of Finance and Economic Planning</p> <p>The Private Sector</p> <p>The Local Commercial Banks</p> <p>International Donor Agencies (IDAs)</p>

C3.3	<p align="center">National Electronic Libraries and Archive (NELA) Project</p> <p>Note: The NELA Project is made up of a two initiatives namely: <i>the Rwandan Electronic Library Initiative</i> (RELI) and the <i>National Electronic Archive Project</i> (NEAP). Both Initiatives will be implemented under the auspices of the National Library Board.</p> <p>The RELI is aimed at setting up a <i>National Electronic Library</i> (NeL) to be based in Kigali and a number of associate <i>Regional Electronic Libraries</i> (ReLs) in key Prefectures. These electronic libraries may be housed in existing National and Regional Libraries or set-up in separate premises. The NeL and the ReLs will be equipped with modern electronic facilities and will have online access to the Internet to facilitate public access to major Leading Electronic Libraries throughout the world as well as access to the widely available electronic books, journals, magazines and the vast amount of other freely available published materials on the Internet. The NeL and the ReLs will also house published materials (books, journals, magazine, research, reports, music etc) on electronic media like compact disc, hard and floppy disks for public access and lending to other public and academic (University and College) Libraries via an Inter-Library Loan Scheme. These electronic libraries will also be equipped with reproduction facilities.</p> <p>The National Electronic Archive Project (NEAP) is aimed at setting up a National Archive System for Rwanda and computerizing the entire context of the Archive on an on-going basis.</p>	<p><u>Prerequisites:</u></p> <p align="center">Non</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p>The National Library Board to launch the NELA Project by 2002.</p> <p>Implement RELI and set-up a pilot NeL in Kigali by 2003 and a number of pilot ReLs by 2005</p> <p>Set-up and fully operational NeL and a number of ReLs by the 2nd Year of NICI-2010</p> <p>Implement NEAP on a pilot basis by 2003</p> <p>The National Archive Holdings to be fully computerized by 2005</p>	<p>The National Library Board in Collaboration with the Ministry of Education and the NITC</p>
C3.4	<p align="center">Programme to set-up Community Electronic Information Kiosks (CEIKs)</p> <p>Note: The CEIKs are to be set-up by the Government Information Service to serve as a one-stop shop for online access to information on local and central government services and community-based information and</p>	<p><u>Prerequisites:</u></p> <p align="center">Non</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p>RITA in collaboration with relevant Government Agencies to launch programme to set-up the CEIKs by 2002</p>	

	<p>announcements. This community-based online information centers will provide a single point of contact for people for information on government services as well as serve as an electronic information center for community announcements, local electronic bulletin board and provide an avenue for local businesses to advertise their services and products as well as provide an avenue for local community based organizations and schools to announce their activities and inform the public.</p> <p>Note: This Programme forms part of the <i>Rwandan Electronic Government and Governance Initiative</i> (REGGI)</p>		A target of establishing at least 10 CEIKs per in urban Prefectures and about 5 in rural Prefectures to be achieved by 2005	RITA in collaboration with relevant Government Agencies
C3.5	<p>The ‘Pay-Your-Bills Online’ System (PYBOS)</p> <p>Note: This initiative is aimed at setting up a <i>National Electronic Payment System</i> to serve as an online facility to enable people to pay their utility bills online. This system is to be set-up by the National Utilities, in partnership with the private sector to provide a ‘one-stop-point’ for the payment of bills like: electricity bills, telephone bills, water bills, etc. This online system is to be linked directly to the computer system of the National Utilities to facilitate online transaction and updating of customer accounts. PYBOS counters kiosks or ATMs are to be set-up at public places like Post Offices, Libraries, Telecenters, Public Information Kiosks (PIKs) etc.</p>	<p><u>Prerequisites:</u></p> <p>Non</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	The National Utilities to initiate a project to implement and operationalize PYBOS by 2003	The National Utilities
C3.6	<p>The ‘Pay Your Tax Online’ System (PYTOS)</p> <p>Note: The ‘<i>Pay Your Tax Online</i>’ system is to be set-up by the Rwanda Revenue Authority to facilitate online payment of taxes and the completion of tax returns by individuals (income tax, property tax, road tax etc), institutions and corporate entities (corporation, VAT and other business-related taxes).</p> <p>Like the ‘<i>Pay-Your-Bills Online</i>’ System (PYBOS), public access to the PYTOS which is to be linked to the Rwanda Revenue Authority database system will be via counters, kiosks or ATMs installed at public places like Post Offices, Libraries, Telecenters, Public Information Kiosks (PIKs), Hotels, and Banks etc.</p>	<p><u>Prerequisites:</u></p> <p>Non</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	The Rwanda Revenue Authority to PYTOS by 2003	Rwanda Revenue Authority

1.0 Programme: General Profile Information

Programme	<u>CMN-4: Computer-based Information System Implementation Initiatives Targeted at the Delivery of Community-based Government Services: Phase 1 Projects</u>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	Programmes and initiatives targeted at developing relevant database and information systems to support government administrative services and community-based service and information delivery
Implementation Details Requirements	A number of the database and information systems identified for implementation will required a project implementation report detailing key implementational issues including: addressing technological and human resource requirement issues as well project implementation cost and funding issues.
Programme Ownership	The Relevant Government Ministries and PSOs

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To bring government closer to the people • To support the administrative and service delivery activities and operations of local government units • To modernize the operations of the Civil and Public Service • To facilitate administrative and service delivery cost reduction and the improvement in productivity within of the civil and public service
Programme-Specific Goals	<ul style="list-style-type: none"> • To develop specific computerized database and information systems with public interface components to support community-based services and information delivery services by Government Ministries and PSOs

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
C4.1	<p align="center">Criminal Justice Information and System (CRIJIS)</p> <p>Note: CRIJIS is to be developed, maintained and supported by the ITSD of the Ministry of Justice and Institutional Relations. It is to serve as a comprehensive computer-based information and database system on all aspects relating to the administration, operations and the activities of the Criminal Justice and Legal System of Rwanda.</p> <p>CRIJIS will host among other things, electronic documentation of the details relating to: the Rwandan legal system; the administration of justice; the operations of the Courts including the cases, the records, proceedings, charges, verdicts, sentences and the people involve: the prosecution and defense team, plaintiffs and the defendants etc.</p> <p>CRIJIS will have a public interface component to facilitate access to the non-confidential information sections of the system, which is of public interest. Access will be via GOV-NeT nodes, and other public access points and centers like: Telecenters, Public Information Kiosks (PIKs) etc.</p> <p>Note: This Project forms part of the <i>Rwandan Electronic Government and Governance Initiative</i> (REGGI)</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The CRIJIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Ministry of Justice and Institutional Relations <p><u>Plan-Action Linkages:</u></p> <p align="center">G7.6, G7.7</p>	<p>Ministry of Justice and Institutional Relations to commission and complete the CRIJIS Project Implementation Report by 2002</p> <p>Implement CRIJIS by 2003</p>	<p align="center">Ministry of Justice and Institutional Relations</p>
	<p align="center">Parliamentary Database and Information System (PADIS)</p> <p>Note: PADIS is to be developed, maintained and supported by the ITSD of the National Transitional</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The PADIS Project Report covering implementation details and plans and the cost of the system. 	<p>The National Transitional Assembly to commission and complete the PADIS Project Implementation Report by 2002</p>	<p align="center">The National Transitional Assembly</p>

C4.1	<p>Assembly. It is to be a publicly accessible computerized database and information system on key aspects of the Rwanda National Assembly including: details and profile of Parliamentarians, the Officers of the Assembly, the Committees of Parliament and their membership, laws enacted by Parliament, the on-going deliberations of Parliament among others. PADIS will form one of the key components of the Rwandan Electronic Government and Governance Initiative (REGGI). PADIS will eventually be accessible on the Internet, via GOV-NeT, Telecenters and other public access points and centers.</p>	<p>2. The setting up of the ITSD of the National Transitional Assembly</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>Implement PADIS by 2003</p>	
C4.3	<p>Cabinet Decision Information System (CADIS)</p> <p>Note: CADIS will be developed, maintained and supported by the ITSD of the Office of the President and will service as a database and information system on all aspects of Cabinet Decisions. Key information and details to be held in CADIS in relation to each Cabinet decision will include: background to Cabinet Decisions; documentation relating to Cabinet Decisions; when information relating to Cabinet Decisions were first tabled and by which Ministry or Agency; when the decision was actually taken and how long it took from the date it was tabled at Cabinet; the exact contents of the Cabinet Decisions; who it to act on the Decision; when is the Decision to be effective and its confidentiality status and so on.</p> <p>CADIS will also hold information relating to the monitoring of the implementation of Cabinet Decisions; for example information on: the Decision implementation agencies; required implementation resources; triggering mechanisms, when and who to check on the status of the implementation of the Cabinet Decision and when will the outcome of the implementation of the Decision be reported back to Cabinet in cases where this a requirement. This Project forms part of the Rwandan Electronic Government and Governance Initiative (REGGI)</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The CADIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Office of the President <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>The Office of the President to commission and complete the CADIS Project Implementation Report by 2002</p> <p>Implement CADIS by 2003</p>	<p>The Office of the President</p>

<p>C4.4</p>	<p align="center">Social Services Information System (SOSIS)</p> <p>Note: SOSIS is to be developed, maintained and supported by the ITSD of the Ministry of Local Government and Social Affairs. It will serve as a computerized database and information system with a number of components --- some of which will be publicly accessible at the community level. SOSIS will host all relevant social welfare system administration information as they relates to: (i) the social welfare services (e.g. type [education, poverty alleviation, orphan-support, emergency relief, accommodation etc], kind, scope, coverage, cost, duration etc) and (ii) recipients-related information (e.g. type and profile of recipient; qualification and entitlements; gender; age of recipient, as well as the coverage, type, quantity, and the amount of benefits or services received or to be received by the recipient and for how long etc). SOSIS will also serve as the National Database on key Social Indicators.</p> <p>SOSIS will be used by the Ministry of Local Government and Social Affairs and its agencies for the planning and administration of the provision of the social services and for studying the impact of these services on the community. The publicly accessible components of SOSIS will be used by the public to access information on the services available and how to qualify for these services. Service beneficiaries or their agents or representatives (parents or guardians, teachers and school administrators, social workers, health care providers, lawyers, religious leaders etc) could also avail of SOSIS information online.</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The SOSIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Ministry of Local Government and Social Affairs <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p>The Ministry of Local Government and Social Affairs to commission and complete the SOSIS Project Implementation Report by 2002</p> <p>Implement SOSIS by 2003</p>	<p align="center">Ministry of Local Government and Social Affairs</p>
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<p>C4.5</p>	<p align="center">The Rwandan Tax Administration and Information System (R-TAIS)</p> <p>Note: R-TAIS is to be developed, maintained and supported by the ITSD of the Rwanda Revenue Authority. The system is to serve as a comprehensive integrated computerized database and information system with specific components to support and facilitate the administration of the tax system and also for interfacing with taxpayers (at the community-level) to facilitate the process of meeting their tax obligations to the State.</p> <p>Key components of R-TAIS is to include: <i>Tax Administration System (TAS), Income Tax Information System (ITIS), Custom and Excise Information System (CEIS); Corporate Tax Information System (CTIS)</i> among others. R-TAIS is to have an online interface to facilitate online transaction and information request as well as for the completion of tax returns.</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The R-TAIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Rwanda Revenue Authority <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p>The Rwanda Revenue Authority to commission and complete the R-TAIS Project Implementation Report by 2001</p> <p>Implement R-TAIS by 2002</p>	<p align="center">The Rwanda Revenue Authority</p>
<p>C4.6</p>	<p align="center">Tourism Promotion Information System (TPIS)</p> <p>Note: TPIS is to be developed, maintained and supported by the ITSD of the ORTPN. The system is to provide public access to tourism information including details of tourist spots; game parks; hotels and lodges in various parts of the country; health information; travel information (air, road and lake) and other information that will be required to promote and facilitate tourism in Rwanda. TPIS is to be accessed online at the Airports, Hotels, Tourist Centers etc throughout the country.</p> <p>The information on TPIS will also be available the Web via the Virtual Tourism Promotion and Facilitation Web-Site to be set-up by ORTPN (as per F4.6)</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The TPIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the ORTPN <p><u>Plan-Action Linkages:</u></p> <p align="center">F4.6</p>	<p>ORTPN to commission and complete the TPIS Project Implementation Report by 2001</p> <p>Implement TPIS by 2002</p>	<p align="center">ORTPN</p>

<p>C4.7</p>	<p>The National Health Information System (NAHIS)</p> <p>Note: NAHIS is to be developed and maintained and supported by the ITSD of the Ministry of Health to serve as a national database system holding information on Health Care Delivery and Administration, Epidemics, Hygiene, HIV/AIDS prevention and other key health indicators and parameters.</p> <p>The NAHIS will have the following integrated components: (i) <i>Health System Administration Information</i> to be accessed only by the Ministry of Health (ii) the <i>Hospital Information System</i> to be access by the Ministry of Health, the Hospitals and the Community Health Centers (iii) the <i>National Drug Database</i> to be accessed by the Ministry of Health, the Hospitals and the Community Health Centers and (iv) <i>Public Access Health Information System</i> which the public can access for relevant information of the Health Delivery System.</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The NAHIS Project Report covering implementation details and plans and the cost of the system. 1. The CADIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Ministry of Health <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>The Ministry of Health to commission and complete the NAHIS Project Implementation Report by 2001</p> <p>Implement NAHIS by 2002</p>	<p>Ministry of Health</p>
<p>C4.8</p>	<p>National Nutritional Surveillance Information System (NANSIS)</p> <p>Note: NANSIS is to be developed, maintained and supported by the ITSD of the Ministry of Health to serve as a comprehensive information system to support nutritional surveillance and monitoring activities in the country. NAHIS will host both nutritional surveillance administrative information as well statistical details relating to nutritional surveys and impact studies.</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The NANSIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Ministry of Health <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>The Ministry of Health to commission and complete the NANSIS Project Implementation Report by 2001</p> <p>Implement NANSIS by 2002</p>	<p>Ministry of Health</p>

<p>C4.9</p>	<p align="center">National Food Security and Early Warning Information System (FEWIS)</p> <p>Note: FEWIS is to be developed, maintained and supported by the ITSD of the Ministry of Agriculture, Animal Resources and Forestry to facilitate and support National Food Security and Early Warning activities of the Ministry.</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The FEWIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Ministry of Agriculture, Animal Resources and Forestry <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p>The Ministry of Agriculture, Animal Resources and Forestry to commission and complete the FEWIS Project Implementation Report by 2001</p> <p>Implement FEWIS by 2002</p>	<p align="center">Ministry of Agriculture, Animal Resources and Forestry</p>
<p>C4.10</p>	<p align="center">The Environmental Monitoring Information System (EMIS)</p> <p>Note: EMIS is to be developed, maintained and supported by the ITSD of the Ministry of Lands, Human Resettlement and Environmental Protection. EMIS is be use to support environmental impact assessment activities of the Ministry; as well as environmental protection public awareness and education programmes.</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The EMIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Ministry of Lands, Human Resettlement and Environmental Protection <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p>The Ministry of Lands, Human Resettlement and Environmental Protection to commission and complete the EMIS Project Implementation Report by 2001</p> <p>Implement EMIS by 2002</p>	<p align="center">Ministry of Lands, Human Resettlement and Environmental Protection</p>

1.0 Programme: General Profile Information

Programme	<u>CMN-5: Computer-based Information System Implementation Initiatives Targeted at the Delivery of Community-based Government Services: Phase 2 Projects</u>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	Programmes and initiatives targeted at developing relevant database and information systems to support government administrative services and community-based service and information delivery
Implementation Details Requirements	A number of the database and information systems identified for implementation will required a project implementation report detailing key implementational issues including: addressing technological and human resource requirement issues as well project implementation cost and funding issues.
Programme Ownership	The Relevant Government Ministries and PSOs

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To bring government closer to the people • To support the administrative and service delivery activities and operations of local government units • To modernize the operations of the Civil and Public Service • To facilitate administrative and service delivery cost reduction and the improvement in productivity within of the civil and public service
Programme-Specific Goals	<ul style="list-style-type: none"> • To develop specific computerized database and information systems with public interface components to support community-based services and information delivery services by Government Ministries and PSOs

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
C5.1	<p>Rural Development Information System (RUDIS)</p> <p><u>Note:</u> RUDIS is to be developed maintained and supported by the ITSD of the Ministry of Local Government and Social Affairs. It is to be an integrated rural development information system to serve as a comprehensive dynamic database and information system on all aspects of rural development. Information in RUDIS will contain updateable details on rural communities including: a definition of what constitutes a rural community in a given Prefecture, their number in a given commune or Prefecture, as well as the status and profile of these rural communities in terms of: population and the population distribution; amenities and social infrastructure (the type, number and the state of hospitals, community centers, schools, etc in the community); the physical and communications infrastructure (roads, water, electricity, telephone, radio service etc) among others.</p> <p>RUDIS will be used by Government agencies for rural development planning and for studying the impact of government policies on rural communities. It will also be used by the private sector as a one-stop information source for developing services and business ventures, targeted at specific rural communities. The NGO and the Donor community will also use RUDIS to plan their intervention programmes targeted at rural communities in specific areas like poverty reduction, improving the living condition for rural communities, rural employment and income generation programmes etc.</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The RUDIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of Ministry of Local Government and Social Affairs <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p>Ministry of Local Government and Social Affairs to commission and complete the RUDIS Project Implementation Report by 2003</p> <p>Implement RUDIS by 2004</p>	<p>Ministry of Local Government and Social Affairs</p>

<p>C5.2</p>	<p align="center">Communal Information System (COMIS)</p> <p>Note: COMIS is to be developed, maintained and supported by the ITSD of the Ministry Local Ministry of Local Government and Social Affairs. COMIS will complement RUDIS and will be used to support all aspects of district level administration. It will hold administrative information on a sector-by-sector basis within a given commune. It will also hold publicly accessible information on government services and other information require to bring government closer to the people.</p> <p>Note: This Project forms part of the <i>Rwandan Electronic Government and Governance Initiative</i> (REGGI)</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The COMIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Ministry of Local Government <p><u>Plan-Action Linkages:</u></p> <p align="center">C5.1</p>	<p>Ministry of Local Government and Social Affairs to commission and complete the COMIS Project Implementation Report by 2003</p> <p>Implement RUDIS by 2004</p>	<p align="center">Ministry of Local Government and Social Affairs</p>
<p>C5.3</p>	<p align="center">The Rwanda Agricultural Information System (RAGRIS)</p> <p>Note: RAGRIS is to be developed, maintained and supported by the ITSD of the Ministry of Agriculture, Animal Resources and Forestry. It will be the main source of online information on all aspects of Agriculture in Rwanda.</p> <p>RAGRIS will be organized into a number of components, some of which will be publicly accessible via the Telecenters; GOV-NeT nodes, the Internet and other public electronic information access points and centers. Some of the components of RAGRIS are:</p> <p><u>RAGRIS-Admin:</u> This will concentrate on information and details relating the Ministry of Agriculture, Animal Resources and Forestry, its Institutions and Divisions including the Agricultural Colleges, Research Institutions and other Structures and Bodies concern with Agriculture in Rwanda.</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The RAGRIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Ministry of Agriculture <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p>Ministry of Agriculture, Animal Resources and Forestry to commission and complete the RAGRIS Project Implementation Report by 2003</p> <p>Implement RAGRIS by 2004</p>	<p align="center">Ministry of Agriculture, Animal Resources and Forestry</p>

	<p><u>RAGRIS-Stats</u>: This will be a publicly accessible component of RAGRIS and will be devoted to serving as an electronic database and information system on statistical details relating to Agriculture in Rwanda. The agricultural statistical information and data to be hosted on RAGRIS-Stats will go beyond the statistical information on Agriculture normally produced by the Government Statistical Service.</p> <p><u>RAGRIS-Info</u>: This will be one of the publicly accessible components of RAGRIS. It will host current information on agricultural inputs and their cost, weather and climatic information to advise farmers; Government agricultural services and incentives; local agricultural input prices and prices of commodities, etc.</p>			
C5.4	<p>Land Records Information System (LARIS)</p> <p>Note: LARIS is to be developed, maintained and supported by the ITSD of the Ministry of Lands, Resettlement and Environmental Protection. It is to be used by the Departments and Agencies responsible for land administration and allocation and for the registration of Lands and Titled Deeds. LARIS will serve as a computerized database information system and an electronic archive of all details relating to land administration, allocation, registration and utilization in Rwanda.</p> <p>This searchable system will be used by the Ministry and its Local government agencies for land allocation and usage, planning and administration while the public will also access its relevant components to obtain information on registered lands and Title Deeds, to monitor the status of application for registration of lands and Title Deeds, the zoning of lands for specific use by the Government. LARIS will also be publicly accessed to obtain information that could be used to settle land ownership disputes.</p>	<p><u>Prerequisites:</u></p> <ol style="list-style-type: none"> 1. The LARIS Project Report covering implementation details and plans and the cost of the system. 2. The setting up of the ITSD of the Ministry of Lands <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>Ministry of Lands, Human Resettlement and Environmental Protection to commission and complete the LARIS Project Implementation Report by 2003</p> <p>Implement LARIS by 2004</p>	<p>Ministry of Lands, Human Resettlement and Environmental Protection</p>

<p>C5.5</p>	<p align="center">National Education and Training Opportunities Database System (NETODS)</p> <p>Note: NETODS is to be developed, maintained and supported by the proposed <i>National Vocational Training Commission</i> (NVTC). It is to serve as a publicly accessible source for information on vocational and other educational training opportunities at the NVTC Training Centers, Universities and Colleges throughout the country</p>	<p><u>Prerequisites:</u></p> <p>1. The NETODS Project Report covering implementation details and plans and the cost of the system.</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">H11.2</p>	<p>The NVTC to commission and complete the NETODS Project Implementation Report by 2004</p> <p>Implement NETODS by 2005</p>	<p align="center">The National Vocational Training Commission (NVTC)</p>
<p>C5.6</p>	<p align="center">Disaster Preparedness Information System (DIPIS)</p> <p>Note: DIPIS is to be developed, maintained and supported by the ITSD of the Ministry of Lands, Human Resettlement and Environmental Protection to support and facilitate disaster preparedness activities and operations in the country</p>	<p>1. The DIPIS Project Report covering implementation details and plans and the cost of the system.</p> <p>2. The setting up of the ITSD of the Ministry of Lands, Human Resettlement & Environmental Protection</p> <p><u>Plan-Action Linkages:</u></p> <p align="center"><i>Non</i></p>	<p>Ministry of Lands, Human Resettlement & Environmental Protection to commission and complete the DIPIS Project Implementation Report by 2003</p> <p>Implement DIPIS by 2004</p>	<p align="center">Ministry of Lands, Human Resettlement & Environmental Protection</p>

1.0 Programme: General Profile Information

Programme	CMN-6: <i>Special Programmes and Initiatives to facilitate the active involvement of women in ICTs</i>
Relevant SUNRISE Component	National ICT Initiatives
Type and Scope of Programme	Special initiatives targeted at increasing the role of women in the ICT sector and industry
Implementation Details Requirements	Non
Programme Ownership	Ministry of Gender and Women Development

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To facilitate the improvement in the quality of life for of the people of Rwanda including those of women and their dependants • To generate employment and economic opportunities for women and facilitate their full involvement the Nation’s socio-economic development process • To facilitate and ensure the future role of women in the emerging information and knowledge economy and society.
Programme-Specific Goals	<ul style="list-style-type: none"> • To increase the enrolment of girls in science and technology programmes, especially in ICT related programmes at the Universities and Colleges • To create opportunities to facilitate the active involvement of women in the ICT service and sector and industry. • To improve the representation of women in ICT-related professions and in top-level management positions within the ICT sector

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
C6.1	Initiatives to increase the enrolment of women in ICT related educational and training programme in the Universities and Colleges	<p><u>Prerequisites:</u></p> <p align="center">Non</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p>Ministry of Education in collaboration with the Ministry of Gender and the Universities to by 2001 commission a report on how best to increase the enrolment of girls on ICT-related programmes in the Higher Institutions of Learning</p> <p>All Universities and Colleges to put in place and implement an admission policy targeted at ICT-related programmes that positively discriminate in favour of women by 2002</p> <p>All Universities and Colleges to achieve a 50:50 (or better) male-to-female admission rate on all ICT-related programmes by 2005</p>	<p align="center">Ministry of Education</p> <p align="center">Ministry of Gender and Women in Development</p> <p align="center">Universities and Colleges</p>

C6.2	Initiatives to increase the representation of women in the ICT-related professions	<p><u>Prerequisites:</u></p> <p>Non</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>The Ministry of Public Service and Labour and the PSOs to by 2002 put in place and implement an ICT staff recruitment and promotion policy that will encourage women to embarked on an ICT-related career within the civil and public service.</p> <p>The Ministry of Public Service and Labour to by 2001 issue a directive that obliges the Ministries and PSOs to ensure that women are given the same chance to embarked on and avail of ICT training and skill update programmes and opportunities.</p> <p>The Ministry of Public Service to by 2001 issue a directive that ensures that women are represented on the ITSD management and technical staff of the various Ministries and PSOs.</p> <p>The Private Sector Federation to encourage its members to take steps to facilitate a fair representation of women on their ICT-related technical and managerial staff</p>	<p>Ministry of Public Service and Labour & The Private Sector</p> <p>Private Sector Federation</p>
C6.3	Programme to facilitate the active involvement of women in the ICT service sector and Industry	<p><u>Prerequisites:</u></p> <p>Non</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>The Ministry of Gender and Women in Development to by 2002 put in place and implement a public awareness campaign aimed at encouraging women to actively get involve in the ICT service sector and industry</p> <p>Ministry of Gender and Women in Development in collaboration with the local Banks, the Donor Agencies and</p>	<p>Ministry of Gender and Women in Development</p>

			Micro Finance Support Organization to by 2002 set-up a Micro-finance and loan scheme to assist women organization and individual women to embark on ICT service sector/industry related business ventures	
C6.4	Initiatives to increase the number of women in management positions in the ICT Service sector and Industry	<p><u>Prerequisites:</u></p> <p>Non</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>Ministry of Gender and Women in Development to by 2002 put in place and implement a special initiative targeted at lobbying the Private Sector to facilitate the representation of women in management positions in their respective organizations.</p> <p>Ministry of Gender and Women in Development to by 2002 institute a Presidential Award to be awarded by the President to the organization or company that best promote the career advancement of women in ICTs.</p> <p>Ministry of Gender and Women Development to by 2002 institute an annual Presidential Award to be awarded by the President to the top woman ICT Executive</p>	Ministry of Gender and Women in Development
C6.5	Initiatives to encourage girls to undertake science and technology education and training programmes	<p><u>Prerequisites:</u></p> <p>Non</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>Ministry of Education to by 2001 develop and put in place a comprehensive policy and guidelines for promoting and facilitating the enrolment of girls in science and technology education and training programmes throughout the Rwandan school system.</p> <p>The Universities and Colleges to by 2001 put in place and implement policies aimed at increasing (on an annual basis) the enrolment of female students on science and technology programmes.</p>	<p>Ministry of Education</p> <p>Universities and Colleges</p>

			<p>Ministry of Education to by 2002 put in place an initiative to increase the number of female science and technical teachers in the primary, secondary, vocational and technical schools</p>	Ministry of Education
			<p>The Ministry of Education to by 2002 institute an annual scholarship programme aimed at needy but bright girls that want to embark on science and technology education at the school level or at the University and College level.</p>	Ministry of Education
			<p>Universities and Colleges to institute by 2002 their own scholarships and financial support programmes targeted at needy female students embarking on science and technology courses.</p>	Universities and Colleges
			<p>Ministry of Gender and Women in Development to by 2002 institute an annual Presidential Award to be awarded by the President to the Best Female Science Student in each Prefecture at the Secondary School Leaving Certificate Examinations.</p>	Ministry of Gender and Women in Development
			<p>The Universities and Colleges to institute annual award for Best Female Science and Technology student from each of the Science and Technology Faculties.</p>	Universities and Colleges

The Multi-Sectoral Economic Development & ICT-2020 Policy Implications and the Risk Factors of the Sub-Plan

<p align="center">Possible Contributions to the Realization of the GOR's Multi-Sectoral Economic Development Policy</p>	<p>A number of the programmes, initiatives and plan-actions identified for implementation under this Sub-Plan will in broad terms contribute to the development of key sectors of the economy. Specifically the implementation of a number of the special initiatives designed for facilitating rapid deployment and exploitation of ICTs within the community will indirectly contribute to the development of the service sector. Also, a number of computer-based information system implementation initiatives targeted at the delivery of community-based Government Services, will apart from having a direct impact on improving the delivery of Government Services, will in the long-run have impact on the development of key target sectors like the service and the industrial sectors of the economy. The Agriculture sector modernization process is also likely to be facilitated by the implementation of some of the programmes and initiatives of this Sub-Plan.</p> <p>In a nutshell the implementation of the programmes and initiatives of this Sub-Plan has the potential to contribute to the realization of the GOR's multi-sectoral economic development policy.</p>
<p align="center">Areas of Emphasis as per the ICT-2020 Policy</p>	<p>The majority of the programmes, initiatives and plan-actions of this Sub-Plan are targeted at facilitating the deployment, exploitation and utilization of ICTs within the community. It is possible that some of the programmes and initiatives will in the long-run indirectly make some contribution towards developing the local ICT production and service provision sector of the economy by way of generating demand for ICT products and services.</p> <p>The Sub-Plan for the <i>Deployment and Spread of ICTs in the Community</i> will therefore contribute to the realization of the GOR's policy goal to simultaneously pursue both ICT exploitation and production policy involving: the utilization and exploitation of ICTs to support the delivery of government services and the activities of various sectors of the economy as well as the production, development and delivery of ICT products and services ---- i.e. towards the development and promotion of an ICT industry and service sector.</p>

The Risk Factors

A number of the programmes and initiatives identified for implementation under this Sub-Plan relate to the development of computer-based systems. The development and maintenance of these systems will require a reasonable investment in technological and human resources. Given that these resources could be found to development these systems, the risk of their under-utilization may arise if procedures are not put in place for their proper deployment and usage. In some cases the under-utilization risk could be amplified if the user-community do not embrace the system for one reason or another.

Another area of risk may arise in situations where some of the key programmes and initiatives of the Sub-Plan are not implemented for one reason or another. A number of these programmes and initiatives are targeted at implementing some of the key computer-based applications, information and database systems to support the community-based administrative and service delivery activities of Government Ministries and some of the PSOs. Implementing the Sub-Plan for *Facilitating Government Administration and Service Delivery* without implementing some of the key components of this Sub-Plan may lead to the risk of not fully exploiting the ICT resources and the facilities deployed by the Ministries and the PSOs.

Also not implementing a number of the key programme and initiatives of this Sub-Plan could result in excluding a large section of Rwandans from having access to ICTs --- This could adversely impact on the demand for ICT services and products which may in the long run constrain the development and expansion of the local ICT service and production sector thus making it difficult to realize the goal of developing Rwanda into the service-hub of the sub-region.

**The Sub-Plan for
ICT Infrastructure Development**

Final Version

February 2001

Relevant Vision for Rwanda (VfR) Mission Strategies and Government Policy Commitments

Sub-Plan for....	ICT Infrastructure Development
Relevant Vision for Rwanda (VfR) Mission Strategies	To improve the information and communications infrastructure of Rwanda.
Relevant Government Policy Commitments	<p><i>Commitment to Physical Infrastructure Development</i></p> <p>The GOR acknowledges that the level, scale and speed of the socio-economic development envisaged in the <i>Vision for Rwanda (VfR)</i> cannot take place without the necessary modern physical infrastructure: roads and general utilities; social infrastructure; telecommunications and communication infrastructure. The GOR is therefore committed to the rapid development, upgrade, improvement and deployment of the necessary infrastructure in all key areas. In this regard, the development of a reputable geographic information infrastructure will prove an important asset to support the development of the physical infrastructure.</p> <p><i>Commitment to the Development and Liberalization of the Telecommunications, Communications and the Mass Media Sector</i></p> <p>The Government is committed to: improving communication facilities and to diversifying the means of access through the utilization of appropriate telecommunications systems. The Government as part of its strategy and commitment to increasing access to telecommunication facilities; facilitating the rehabilitation and strengthening of telecommunication and communication facilities, is also committed to liberalizing the telecommunications and communications sector to encourage investment and competition in the sector.</p>
Key Players	Government and the Private Sector as the lead Players

The Programmes and Initiatives

1.0 Programme: General Profile Information

Programme	<u>IFR-1</u>: <i>Initiatives to liberalize the communication sector and for facilitate universal access to ICT infrastructure and services</i>
Relevant SUNRISE Component	To improve the information and communications infrastructure of Rwanda.
Type and Scope of Programme	Policy initiative aimed at communication sector liberalization and the promotion of universal of access to communication services
Implementation Details Requirements	Non
Programme Ownership	Ministry of Transport, Public Works and Communications

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> To promote and facilitate modern physical infrastructure development, expansion and upgrade in areas like: roads and general utilities; social infrastructure; telecommunications and communication infrastructure.
Programme-Specific Goals	<ul style="list-style-type: none"> To diversify the means of access through the utilization of appropriate telecommunications and communication systems To increase access to telecommunication and communication systems and facilities

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
II.1	Implement plan to liberalize the communications sector	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Formulate and complete policy initiatives on the liberation of the communication sector by 2002	Ministry of Transport, Public Works and Communications
II.2	Develop and implement a programme to facilitate universal access to basic and value added communications services	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Develop policy and programme on universal access to basic and value added communication services by 2001 Implement and monitor the impact of the programme during NICI-2005 time frame	Ministry of Transport, Public Works and Communications
II.3	Develop and enforce universal access and rural connectivity obligations within communication service operator licenses.	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Enforce and monitor during NICI-2005 time frame compliance with universal access obligations stipulated in Communication Service Provision Licenses granted to Operators	Ministry of Transport, Public Works and Communications
II.4	Develop and implement programme to diversify and improve the quality of information, and access	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Develop programme for diversifying and improving quality of information and access by 2001 Implement programme during NICI-2005 time frame	Ministry of Transport, Public Works and Communications

1.0 Programme: General Profile Information

Programme	<i>IFR-2: Initiatives to expand, rehabilitate and upgrade of the existing ICT infrastructure</i>
Relevant SUNRISE Component	To improve the information and communications infrastructure of Rwanda.
Type and Scope of Programme	National Infrastructure development initiative
Implementation Details Requirements	Non
Programme Ownership	Ministry of Transport, Public Works and Communications

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> To promote and facilitate modern physical infrastructure development, expansion and upgrade in areas like: roads and general utilities; social infrastructure; telecommunications and communication infrastructure.
Programme-Specific Goals	<ul style="list-style-type: none"> To develop, upgrade, improve and deploy ICT infrastructure in key areas To facilitate the rehabilitation and strengthening of telecommunication and communication facilities

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
I2.1	Implement programme of National Road Network, expansion, rehabilitation and upgrade	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Carryout on-going expansion, rehabilitation and upgrade of the National Road Network during the time frame of NICI-2005	Ministry of Transport Public Works and Communications
I2.2	Implement programme to privatize Road maintenance and set-up a Road maintenance fund.	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Privatize Road maintenance by 2002 Set-up a Road maintenance fund by 2002	Ministry of Transport Public Works and Communications
I2.3	Develop and implement a comprehensive urban and rural electrification programme	<u>Prerequisites:</u> <p style="text-align: center;">Non</p> <u>Plan-Action Linkages:</u> <p style="text-align: center;">Non</p>	Develop a programme for urban and rural electrification by 2001 Target achieving at least 75% coverage of electricity in urban areas by 2005 Target achieving at least 50% coverage of electricity in rural areas (medium and high density rural settlements) by 2005	Ministry of Energy, Water and Natural Resources Electrogaz

I2.4	Implement programme for the rehabilitation and expansion and upgrade of the national telecommunication infrastructure	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	On-going rehabilitation and expansion and upgrade of the existing national telecommunication infrastructure to be completed by 2003	Ministry of Transport Public Works and Communications Rwandatel and other Telecom and Communication Service Operators and Providers
I2.5	Develop and implement a comprehensive programme for rural roll-out of telecommunication and communication infrastructure and services	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Develop a comprehensive programme to install public telephone access systems and mini-telecenters in rural communities (local trading shops, schools, local administration units, hospitals post offices etc) by 2001 Implement programme to achieve 80% coverage of medium to high density rural communities 2003 Achieve 100% coverage of medium to high density rural communities by 2005	Ministry of Transport Public Works and Communications Rwandatel and other Telecom Service Operators Rwandatel and other Telecom and Communication Service Operators and Providers Rwandatel and other Telecom and Communication Service Operators and Providers
I2.6	Implement telecommunication infrastructure digitization programme	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Telecommunication infrastructure digitization programme to be completed by 2001	Rwandatel and other Telecom and Communication Service Operators and Providers

I2.7	Implement programme to improve the Internet delivery infrastructure, the national Internet backbone and point of present throughout the country	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Achieve True Internet 'Point of Presence' throughout the country by 2001 Implement on-going improvement in the Internet delivery infrastructure and the Internet backbone throughout the NICI-2005 time frame	Rwandatel, Rwandacell and Other Telecom Service Operators, Bandwidth Providers and ISPs
I2.8	Government to formulate and implement a special initiative aimed at spreading Internet Access by promoting and facilitating the development of a competitive and vibrant ISP environment in Rwanda <u>Note:</u> Government as part of the programme to improve the Internet access and investment in Internet infrastructure development is to also encourage a competitive environment to facilitate the establishment of primary and secondary (including virtual ISPs) by private companies and public organizations and institutions (e.g. universities, colleges, Government Agencies etc) throughout the country including remote regions.	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Ministry of Public Works, Transport and Communication in collaboration with other relevant Government Agencies to formulate and implement this special initiative by 2002	Ministry of Public Works, Transport and Communication

1.0 Programme: General Profile Information

Programme	IFR-3: Fast Track National Communications Infrastructure Development Initiative
Relevant SUNRISE Component	To improve the information and communications infrastructure of Rwanda.
Type and Scope of Programme	A Fast-Track Communications Infrastructure Development Promotion Initiative
Implementation Details Requirements	Non
Programme Ownership	Rwanda Investment Promotion Authority (RIPA) and Ministry of Transport, Public Works and Communications

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> To promote and facilitate modern communications infrastructure development, expansion and upgrade
Programme-Specific Goals	<ul style="list-style-type: none"> To provide a fast track to the development of the national communications backbone.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
I3.1	<p align="center">The Rapid National Broadband Backbone Development Facilitation Initiative</p> <p>Note: This initiative is to promote the rapid development of an advanced broadband communication backbone infrastructure for Rwanda through private investment.</p> <p>The Initiative is designed to be the most competitive in the region for attracting world-class communication backbone technology into the country. It will serve as one of the initiatives designed to promote hassle-free communication backbone development to accelerate the process of building and expanding the communication backbone of Rwanda.</p> <p>The Initiative will make it possible for any company or organization wishing to invest in the building of a section of the national communication backbone using advanced broadband technologies to be free to do so without the need for securing license or going through lengthy process of authorization. The Initiative will ensure that any company local or foreign with the capacity to implement a section of the national backbone will be free to undertake this activity. The only restriction or requirement will be that advance (cutting-edge) technologies should be deployed and that a minimum capital investment requirement to be stipulated by Government from time to time is met.</p>	<p><u>Prerequisites:</u></p> <p align="center">Non</p> <p><u>Plan-Action Linkages:</u></p> <p align="center">Non</p>	<p>RIPA in collaboration with the Ministry of Public Works, Transport and Communications to by 2001 develop an attractive and competitive investment promotion package and incentives to facilitate the implementation of the <i>Rapid National Broadband Backbone Development Facilitation Initiative</i>.</p> <p>RIPA to aggressively promote the <i>Rapid National Broadband Backbone Development Facilitation Initiative</i> domestically and international</p>	<p align="center">Ministry of Public Works, Transport and Communications</p> <p align="center">The Rwandan Investment Promotion Authority (RIPA)</p>

	The Banks will be encouraged to support this type of ventures to accelerate the process of building the country's communication backbone and infrastructure in the shortest possible time.			
I3.2	<p>Develop and implement an ICT infrastructure development initiative specifically directed at promoting and encouraging both domestic and foreign investment into the development of high-speed broadband communication infrastructure to specifically support offshore software development activities and ICT out-sourcing services in Rwanda.</p> <p>Note: This will be a special rapid infrastructure development initiative aimed at promoting a fast track, method to encourage both local and foreign companies to invest in high-speed broadband communication infrastructure development with minimum bureaucracy and regulation</p>	<p><u>Prerequisites:</u></p> <p>Non</p> <p><u>Plan-Action Linkages:</u></p> <p>P7.4</p>	<p>RIPA in collaboration with the Ministry of Finance and Economic Planning to by 2002 put in place and implement a special investment promotion package to encourage high-speed broadband communication infrastructure development to support offshore software development activities and ICT out-sourcing services in Rwanda.</p>	<p>RIPA</p> <p>Ministry of Finance and Economic Planning</p>

The Multi-Sectoral Economic Development & ICT-2020 Policy Implications and the Risk Factors of the Sub-Plan

Possible Contributions to the Realization of the GOR's Multi-Sectoral Economic Development Policy

The implementation of the programmes and initiatives of this Sub-Plan will be crucial for the development of the key sectors of the economy.

The development and the deployment of the necessary infrastructure (physical and communication infrastructure) is key to the implementation of a number of the programmes and initiatives of other Sub-Plans of NICI-2005. The multi-sectoral developmental impact of the *ICT Infrastructure Development Sub-Plan* is both direct and indirect (via other Sub-Plans). The agriculture sector, the service sector and the industrial sector will all benefit directly from the implementation of the programmes and initiatives identified in this Sub-Plan for improving, rehabilitating, upgrading and expansion of the nation's communication and physical infrastructure. The possible direct contribution of this Sub-Plan to the realization of the GOR's multi-sectoral development policy is therefore self-evident.

On the other hand, the possible indirect contributions relate to the dependency of the components of some of the other Sub-Plans on ICT infrastructure development. For example, the deployment of advanced broadband communication backbone technologies is necessary for developing a viable 'software-for-export' industry envisaged under some of the programmes and initiatives of Sub-Plans like: *Developing and Facilitating the Private Sector* Sub-Plan; and the *Foreign Direct Investment Drive in ICTs* Sub-Plan.

All programmes and initiatives identified for implementation under other Sub-Plans that relates to use of the Internet also to some extent do depend on the implementation of the key components of the *Sub-Plan* in the area of improving and spreading access to the Internet as well as improving both the short-haul and long-haul bandwidth link to the Internet. The multi-sectoral development contributions of these ICT infrastructure development- dependent Sub-Plans, could also be categorized as some of the indirect contributions of the *ICT Infrastructure Development* Sub-Plan to the realization of the GOR's multi-sectoral development policy.

<p style="text-align: center;">Areas of Emphasis as per the ICT-2020 Policy</p>	<p>The programmes and initiatives of this Sub-Plan have implications for both the exploitation and production of ICTs. For example, the deployment and spread of Internet infrastructure through the country as envisaged under some of the Programmes of this Sub-Plan is going to have a dramatic impact on the exploitation and utilization of the Internet and its resources in most sectors of the economy. Also since the use of the Internet requires the deployment of ICT equipment like: computers, modems, telephone, servers etc, it could be argued that the deployment and spread of the Internet infrastructure in the country will be having a far reaching impact as per the exploitation of ICTs within the country.</p> <p>Furthermore, a number of the programmes and initiatives targeted for implementation under <i>the ICT Infrastructure Development</i> Sub-Plan have direct relevance to the ICT Production policy orientation of the Government. For example, a number of the initiatives that will be directed at ICT infrastructural development efforts do lend themselves to contributing to the development of the local ICT industry. In addition, the highly skilled technical personnel normally required for most of the ICT infrastructure development activities often do play a key role in other related ICT system development initiatives; for example communication and telecommunication engineers do play a role in R&D initiatives aimed at developing and fabricating telecommunication and communication products, devices and systems.</p> <p>The <i>ICT Infrastructure Development</i> Sub-Plan will therefore contribute to the GOR's policy goal to simultaneously pursue both ICT exploitation and production policy involving: the utilization and exploitation of ICTs to support the delivery of government services and the activities of various sectors of the economy as well as the production, development and delivery of ICT products and services ---- i.e. towards the development and promotion of an ICT industry and service sector.</p>
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The Risk Factors

Possible risk factors associated with the implementation of the *ICT Infrastructure Development* Sub-Plan relates only to situations where, there is no appreciable return on investment in infrastructure development especially in the areas of costly advanced ICT infrastructure. However, the likelihood of this risk manifesting itself is not high since, as expected, private sector will be the main if not the sole investor in this area. and it is not likely that they will invest if they are not sure that they will get a good return on investment. Furthermore evidence in other countries shows that the telecommunications and communications sector is a very lucrative one because of the advent of the Internet and the strategic role that advances in communication technologies are playing as a key socio-economic development factor in most regions of the world.

Another possible risk factor relates to the possibility of Rwanda failing to attract substantial quality investment into the development of the ICT infrastructure after the Government have done all that it can in liberalizing the communication sector and providing costly (in terms of 'revenue-forgone') tax incentives and packages to attract investors. In the event that this happens, not only will there be that risk of revenue lost (actual cost and opportunity cost) but also Rwanda will run the risk of delaying its technological advancement in the area of communications and telecommunications and this will undoubtedly have an adverse impact on the implementation of some of the other Sub-Plans of NICI-2005 and on the economy as a whole.

**The Sub-Plan for
Legal, Regulatory and Institutional Provisions and Standards**

Final Version

February 2001

Relevant Vision for Rwanda (VfR) Mission Strategies and Government Policy Commitments

Sub-Plan for....	Legal, Regulatory, Institutional Provisions and Standards
Relevant Vision for Rwanda (VfR) Mission Strategies	To develop the legal, institutional and regulatory framework and structures required for supporting the deployment and utilization of ICTs within the economy and society.
Relevant Government Policy Commitments	<p><i>Commitment to Enabling Legal, Regulatory and Institutional Provisions</i></p> <p>The GOR acknowledges that: the development and the exploitation of ICTs in the economy and society as well as the development of the information and knowledge economy will need to be supported and facilitated by appropriate legal provisions and legislation; regulatory framework and provisions as well as institutional structures. The Government is therefore committed to implementing relevant and appropriate sections of the "African Telecommunication Policy and Regulatory Framework Development Programme --prepared by the Africa Ministers of Communication --the African Connection) at African Telecom'98 in Johannesburg, May 1998. The Government is also committed to the enactment of the necessary laws and legislation in area like: Intellectual Property Law; Telecommunication Law -- to govern and regulate the activities of the telecommunication sector and in passing the necessary legislation to facilitate electronic commerce and other Internet-related activities in the country.</p> <p><i>Commitments to the Setting up of National ICT Structures and Bodies</i></p> <p>The GOR is committed to setting up the necessary National ICT Structures and Bodies to coordinate, support and facilitate the implementation of its ICT Policies, Strategies and Plans. A number of these structures and bodies are envisaged. To start with the GOR is setting up: the <i>National Information Technology Commission (NITC)</i>, the <i>NITC Working Groups</i>, and the <i>Rwanda Information Technology Authority (RITA)</i>.</p> <p><i>Commitment to Facilitating and Encouraging the Adoption of Standards, Best Practices and Guidelines for ICT Deployment and Exploitation</i></p> <p>The GOR acknowledges that the deployment, exploitation and the development of ICTs in Rwanda will need to be guided by appropriate Standards, Best Practices and Guidelines. The GOR is therefore committed to facilitating this process</p>
Key Players	Government as the Lead Player and Facilitator

The Programmes and Initiatives

1.0 Programme: General Profile Information

Programme	<u>LRI-1</u>: Initiatives to facilitate the necessary regulatory enabling environment for the promotion and development of the information and knowledge economy
Relevant SUNRISE Component	Enabling Legal, Regulatory and Institutional Framework
Type and Scope of Programme	Government Policy Initiative aimed at providing the necessary regulatory environment for the development of the information and knowledge economy of Rwanda Note: This <i>Programme forms part of the Rwandan Electronic Government and Governance Initiative (REGGI)</i>
Implementation Details Requirements	Non
Programme Ownership	Ministry of Transport Public Works and Communications

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> To develop the legal, institutional and regulatory framework and structures required for supporting the deployment and utilization of ICTs within the economy and society.
Programme-Specific Goals	<ul style="list-style-type: none"> To put in place the necessary regulatory framework and facilitate an enabling regulatory environment for the deployment and utilization of ICTs within the economy and society.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
L1.1	Implement a programme to separate government regulatory and operator duties	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Separate government regulatory and operator duties by 2001	Ministry of Transport Public Works and Communications
L1.2	Implement a programme for the establishment of an independent National Communications Regulatory Authority	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Ministry of Transport Public Works and Communications to establish the National Communication Authority by 2001	Ministry of Transport Public Works and Communications
L1.3	Implement a programme for the establishment of a mechanism for co-ordinated spectrum management and frequency planning	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Establishment a mechanism for co-ordinated spectrum management and frequency planning by 2002	Ministry of Transport Public Works and Communications

1.0 Programme: General Profile Information

Programme	<u>LRI-2</u>: <i>Initiatives to facilitate an enabling legal and legislative environment for the development of the development and exploitation of ICTs in Rwanda</i>
Relevant SUNRISE Component	Enabling Legal, Regulatory and Institutional Framework
Type and Scope of Programme	Government Policy Initiative aimed at providing the necessary legal and legislative environment for the development of the information and knowledge economy of Rwanda Note: This <i>Programme forms part of the Rwandan Electronic Government and Governance Initiative (REGGI)</i>
Implementation Details Requirements	Non
Programme Ownership	Ministry of Justice and Institutional Relations

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> To develop the legal, institutional and regulatory framework and structures required for supporting the deployment and utilization of ICTs within the economy and society.
Programme-Specific Goals	<ul style="list-style-type: none"> To enact the necessary laws, cyberlaws and relevant legislation to govern, regulate and facilitate the development, deployment, and exploitation of ICTs within the economy and society

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
L2.1	Enact the Telecommunication Law	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Enact the Telecommunication Law by 2001	Ministry of Transport, Public Works and Communications Ministry of Justice and Institutional Relations The National Transitional Assembly
L2.2	Put in place a programme to develop and enact laws and legislation relating communication sector liberalization	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Develop and enact communication sector liberalization laws and legislation by 2002	Ministry of Transport, Public Works and Communications Ministry of Justice and Institutional Relations The National Transitional Assembly

<p>L2.3</p>	<p>Implement a programme to enact the necessary cyberlaws to support e-commerce and other Internet related activities</p> <p>Note: Some of the Cyberlaws to enact include: (i) Legislation for the Prevention of computer crimes (ii) Laws relating to Security including Digital Signatures, Cryptography and Encryption etc (iii) Copyright and Intellectual Property Right Laws (iv) Electronic Government Legislation (v) Laws relating to Privacy of data, etc. and (vi) Freedom of Access to Information Laws</p>	<p><u>Prerequisites:</u></p> <p>Non</p> <p><u>Plan-Action Linkages:</u></p> <p>Non</p>	<p>Progressively enact the following cyberlaws during the time frame of NICI-2005: (i) Legislation for the Prevention of computer crimes (ii) Laws relating to Security including Digital Signatures, Cryptography and Encryption etc (iii) Copyright and Intellectual Property Right Laws (iv) Electronic Government Legislation (v) Laws relating to Privacy of data, etc. (vi) Freedom of Access to Information Laws and other relevant cyberlaws by 2005.</p> <p>Note: The GOR as part of developing and putting in place the necessary cyberlaws, could adopt and adapt relevant sections of UNCTRAL – the model cyberlaws developed by the United Nations</p>	<p>Ministry of Justice and Institutional Relations</p> <p>The National Transitional Assembly</p>
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1.0 Programme: General Profile Information

Programme	<u>LR1-3: Initiatives to put in place the necessary institutional framework, structures and bodies for supporting the implementation of National ICT policies, strategies and plans</u>
Relevant SUNRISE Component	Enabling Legal, Regulatory and Institutional Framework
Type and Scope of Programme	Government Policy Initiative aimed at putting in place the necessary institutional framework, structures and bodies for supporting the implementation of National ICT policies, strategies and plans Note: This <i>Programme forms part of the Rwandan Electronic Government and Governance Initiative (REGGI)</i>
Implementation Details Requirements	Non
Programme Ownership	GOR

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> To develop the legal, institutional and regulatory framework and structures required for supporting the deployment and utilization of ICTs within the economy and society.
Programme-Specific Goals	<ul style="list-style-type: none"> To set up suitable National ICT Structures and Bodies to coordinate, support and facilitate the development, deployment utilization and the spread of ICTs in the society and the economy.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
L3.1	Implement the programme to set up the National Information Technology Committee (NITC) and its Working Groups	<u>Prerequisites:</u> <p align="center">Non</p> <u>Plan-Action Linkages:</u> <p align="center">Non</p>	1. Enact the Decree for setting up the NITC by early 2001 2. Set-up the NITC by 2001	GOR
L3.2	Appoint an ICT Advisor to the President	<u>Prerequisites:</u> <p align="center">Non</p> <u>Plan-Action Linkages:</u> <p align="center">Non</p>	Appoint an ICT Advisor to the President by 2001	GOR
L3.3	<p align="center">An Initiative to Implement Project-RITA</p> <p>Note: This Initiative is designed to initially regard the setting up of RITA as a Project for the next 3 years (2001 to 2003) to provide it with at least a skeleton staff, accommodation and an operating budget. RITA will thereafter be expanded into a fully operational organization with the requisite additional staff and resources</p>	<u>Prerequisites:</u> <p align="center">The Passing of the Decree to set-up RITA</p> <u>Plan-Action Linkages:</u> <p align="center">Non</p>	1. Commission and complete a by early 2001 a Project Report for the implementation of Project-RITA Note: This is to document the resources required to set-up and operate RITA for the next 3 years. This Report will also provide details of the funding required to recruit a skeleton staff for RITA, purchase required equipment, provide accommodation for RITA and pay for its operational cost for the next two years. 2. Mobilize Funds for the Implementation of Project-RITA 3. Implement Project-RITA by 2001	GOR

L3.4	Implement a programme to expand and fully operationalize the activities and the operations of RITA	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Expand and fully operationalize the activities and the operations of RITA by 2003	GOR
L3.5	Implement the programme to set up Information Technology Divisions or Directorate (ITSDs) in Government Ministries and Public Service Organizations	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> G2.2	All Government Ministries including the Office of the President and the Office of the Prime Minister to set-up their ITSD by 2002	Relevant Ministries and Public Sector Organizations in collaboration with the Ministry of Public Service and Labour
L3.6	Programme to set-up a Parliamentary Select Committee on ICTs for Development	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Set-up the Parliamentary Select Committee on ICTs for Development by 2001	The National Transitional Assembly

1.0 Programme: General Profile Information

Programme	<u>LRI-4</u>: Initiatives to facilitate standards, best practices and guidelines for ICT deployment and exploitation in the society and economy.
Relevant SUNRISE Component	Standards, Best Practices and Guidelines for ICT Deployment and Exploitation
Type and Scope of Programme	An initiative aimed at facilitating ICT deployment and exploitation within the society and economy.
Implementation Details Requirements	Non
Programme Ownership	RITA and the National Standards Organization

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To develop the legal, institutional and regulatory framework and structures required for supporting the deployment and utilization of ICTs within the economy and society.
Programme-Specific Goals	<ul style="list-style-type: none"> • To facilitate the process of the development, adoption and the enforcement of international standards as well as best practices and guidelines for ICT development, deployment and exploitation in Rwanda

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
L4.1	Commission and develop a programme to define standards to guide the importation of ICT products	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Commission and complete the formulation of standards to guide the importation of ICT products by 2001	Ministry of Commerce, Industries and Tourism; & The National Standards Organization
L4.2	Put in place and enforce standards for the importation of ICT products	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Implement and enforce standards for the importation of ICT products by 2002	Ministry of Commerce, Industries and Tourism
L4.3	Commission a programme to formulate Guidelines and Standards for the provision of ICT training services by private computer training centers	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Commission and complete the formulation of Guidelines and Standards for the provision of ICT training services by private computer training centers by 2002	Ministry of Education and RITA
L4.4	Put in place and enforce standards for the provision of ICT training services by private computer training centers	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Implement and enforce Guidelines and Standards for the provision of ICT training services by private computer training centers by 2002	Ministry of Education and RITA

L4.5	Commission an initiative to define standards and best practices to guide the activities of companies and organization operating within the ICT production sector	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Commission and complete the development of standards and best practices to guide the activities of companies and organization operating within the ICT production sector by 2002	Ministry of Commerce, Industries and Tourism & The National Standards Organization
L4.6	Put in place and enforce standards and best practices to guide the activities of companies and organization operating within the ICT production sector	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Implement and enforce standards and best practices to guide the activities of companies and organization operating within the ICT production sector by 2002	Ministry of Commerce, Industries and Tourism
L4.7	Commission and develop a programme to define standards for the certification of ICT professional skills in Rwanda	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Commission and complete the setting up of standards for the certification of ICT professional skills in Rwanda by 2002	Ministry of Education National Council for Computer Education (NCCE)
L4.8	Put in place and enforce standards for the certification of ICT professional skills in Rwanda	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Implement and enforce standards for the certification of ICT professional skills in Rwanda.	Ministry of Education National Council for Computer Education (NCCE)
L4.9	Set-up a Unit within RITA to monitor and ensure compliance with Standards, Best Practices and Guidelines	<u>Prerequisites:</u> Non <u>Plan-Action Linkages:</u> Non	Set-up a Unit within RITA to monitor and ensure compliance with Standards, Best Practices and Guidelines by 2002	RITA

The Multi-Sectoral Economic Development & ICT-2020 Policy Implications and the Risk Factors of the Sub-Plan

<p align="center">Possible Contributions to the Realization of the GOR's Multi-Sectoral Economic Development Policy</p>	<p>The programmes and initiatives of this Sub-Plan will be providing the necessary enabling and facilitating environment for the development of the key sectors of the economy especially the ICT service sector and Industry. For example, the provision of an enabling regulatory environment for the development of the communications industry will encourage investment in the sector --- this will have a positive impact on the rapid development of the sector which will in turn have a multiplier effect on other sectors of the economy including the service sector, the agriculture sector and the industrial sector as a whole.</p> <p>Another possible area of direct and indirect contributions of this Sub-Plan to the GOR's multi-sectoral economic development policy relates to the enactment of relevant cyberlaws to support the development of Internet-related activities and electronic commerce in Rwanda. These initiatives for Standards and Best Practices and Guidelines for ICT deployment and exploitation as per this Sub-Plan also have the potential to contribute directly and indirectly to the realization of GOR's multi-sectoral economic development policy</p>
<p align="center">Areas of Emphasis as per the ICT-2020 Policy</p>	<p>The programmes and initiatives of <i>the Legal, Regulatory, Institutional Provisions and Standards</i> Sub-Plan have implications for both the exploitation and production of ICTs. Most of these programmes and initiatives are either targeted at providing an enabling legal, regulatory environment for facilitating the deployment, exploitation of ICTs or for facilitating activities aimed at supporting the development of a local ICT production and service provision industry</p> <p>This Sub-Plan will therefore contribute to the realization of the GOR's policy goal aimed at simultaneously pursuing both ICT exploitation and production involving: the utilization and exploitation of ICTs to support the delivery of government services and the activities of various sectors of the economy as well as the production, development and delivery of ICT products and services ---- i.e. towards the development and promotion of an ICT industry and service sector.</p>
<p align="center">The Risk Factors</p>	<p>There are no apparent risk factors associated with the implementation of the Programmes, Initiatives and Action-Plans of this Sub-Plan</p>

**The Sub-Plan for
Foreign Direct Investment (FDI) Drive in ICTs**

Final Version

February 2001

Relevant Vision for Rwanda (VfR) Mission Strategies and Government Policy Commitments

Sub-Plan for....	Foreign Direct Investment (FDI) Drive in ICTs
Relevant Vision for Rwanda (VfR) Mission Strategies	<ul style="list-style-type: none"> • To promote and encourage the deployment and utilization of ICTs within the economy and society. • To improve the information and communications infrastructure of Rwanda.
Relevant Government Policy Commitments	<p><i>Commitment to Facilitating an Investment Climate for the Mobilization of Financial and Technological Resources</i></p> <p>Apart from the development and mobilization of human resources, as critical factors for ICT development, deployment and exploitation in the society and economy, the Government is fully committed to facilitating the mobilization of the necessary financial and other technological resources through Foreign Direct Investment (FDI) and Domestic investment to aid the socio-economic development process in Rwanda.</p> <p><i>Commitments to Facilitating the Private Sector</i></p> <p>Apart from its commitment to facilitate the private sector through the creation of the necessary enabling environment and putting in place the necessary policy programmes, and incentive packages, the Government is further committed to the creation of a stable economic and investment climate that will assist both domestic and foreign private sector organizations in the development of: the physical telecommunication and communications infrastructure and other ICT infrastructure; information resources and systems “infostructure” to support the activities of various sectors of the economy as well as in the development of human resources in ICT and other skill areas required by the information economy; and in the mobilization of financial resources and other technological resources to aid the process of developing and exploiting the opportunities of the information economy.</p>

	<p><i>Commitment to the Development and Liberalization of the Telecommunications, Communications and the Mass Media Sector</i></p> <p>The Government is committed to: improving communication facilities and to diversifying the means of access through the utilization of appropriate telecommunications systems. The Government as part of its strategy and commitment to increasing access to telecommunication facilities; facilitating the rehabilitation and strengthening of telecommunication and communication facilities, is also committed to liberalizing the telecommunications and communications sector to encourage investment and competition in the sector.</p>
<p>Key Players</p>	<p>Government and the Private Sector as the lead Players</p>

The Programmes and Initiatives

1.0 Programme: General Profile Information

Programme	<i>FDI-1: The Foreign Direct Investment (FDI) Promotion Study Initiative</i>
Relevant SUNRISE Component	Resource (Financial and Technological) Mobilization and Deployment
Type and Scope of Programme	An Initiative aimed at a carrying-out a study to analyze Rwanda's potential and capacity for attracting FDI within the ICT service sector and industry
Implementation Details Requirements	Non
Programme Ownership	RIPA

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To create the condition for attracting foreign investment and joint ventures to support the development of the local ICT industry • To facilitate the mobilization of the necessary financial and other technological resources through Foreign Direct Investment (FDI) and Domestic investment to aid the socio-economic development process in Rwanda.
Programme-Specific Goals	<ul style="list-style-type: none"> • To carryout a comprehensive study to establish Rwanda's potential and capacity to attract foreign direct investment to develop and expand the local ICT service sector and industry • To implement specific recommendations as to how best Rwanda can tackle and overcome barriers to attracting FDI and specifically promote Rwanda as a regional destination for ICT Foreign Direct Investment

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
F1.1	<p>FDI Study-1: Commission a Study to evaluate Rwanda’s capacity and potential to attract FDI in ICTs and other key areas.</p> <p>Note: This Study will among other things examine and rate Rwanda’s FDI capacity and potential in terms of the following factors:</p> <p><i>Policy and Regulatory Factors</i></p> <ul style="list-style-type: none"> • Economic and Political Stability • Rules Governing Entry and Operations of Foreign Investors • Standards and Treatment of Foreign Affiliates • Functioning and Structure of Markets • FDI-enabling Privatization Policies • FDI-enabling Trade Policies (Tariffs and International Agreements) • FDI-enabling Tax Policies • Intellectual Property Laws • Regional Cooperation Frameworks • FDI-enabling Business Facilitation Factors • FDI-enabling Investment Promotion Services • FDI-enabling Investment Incentives (including financial and fiscal) • Programmes for Targeting of Investors and Sectors • Reduction of Hassle Costs (corruption, administrative efficiency, etc) • Amenities (quality hotels, business services, communications etc.) • After-Investment Services <p><i>Economic Factors:</i></p> <ul style="list-style-type: none"> • Market Size and Per Capita Income • Market Growth • Access to Regional and Global Markets • Structure of Markets • Access to Raw Materials • Low-Cost Unskilled Labor and Skilled Labor (all areas) • The ICT Human Resource Base 	<p><i>Prerequisites</i></p> <p style="text-align: center;">Non</p> <p><i>Plan-Action Linkages</i></p> <p style="text-align: center;">Non</p>	<p>RIPA to commission and complete the FDI Study-1 by 2001</p>	<p>RIPA</p>

	<ul style="list-style-type: none"> • Technology and Innovative Capacity • Marketing Networks • Communications Infrastructure • Physical Infrastructure (Ports, Roads, Power, Telecommunications) • Input Costs (Transport and Communication to/from and within Country, Costs of Intermediate Goods) • Membership in Regional Integration Frameworks 			
F1.2	FDI Study-2: Commission a Report to draw on the findings of FDI Study-1 to make specific recommendations as to how best Rwanda can tackle and overcome the identified barriers to attracting FDI and specifically promote Rwanda as a regional destination for ICT Foreign Direct Investment	<u>Prerequisites</u> The Report of FDI Study-1 <u>Plan-Action Linkages</u> Non	RIPA to commission and complete the FDI Study-2 Report by early 2002	RIPA
F1.3	Implement the Recommendations of FDI Study-2	<u>Prerequisites</u> The Report of FDI Study-2 <u>Plan-Action Linkages</u> Non	RIPA in collaboration with relevant Public and Private Sector Agencies to implement the recommendations of the FDI Study- 2 Report by 2002	RIPA in collaboration with relevant Public and Private Sector Agencies

1.0 Programme: General Profile Information

Programme	<u>FDI-2:</u> <i>Export Processing and Free Zone (EPfZ) Initiatives targeted at both domestic and foreign ICT producers and service providers</i>
Relevant SUNRISE Component	Resource (Financial and Technological) Mobilization and Deployment
Type and Scope of Programme	Export Promotion Policy Initiative targeting the ICT service sector and industry
Implementation Details Requirements	Non
Programme Ownership	Ministry of Commerce Industry and Tourism

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To facilitate the development of the service sector into the business service hub of the region through the deployment and exploitation of ICTs • To support the development and the growth of the ICT industry to facilitate the production, distribution and provision of ICT products, goods and services • To promote and facilitate the role of the private sector in the development and participation in the ICT industry and service sector.
Programme-Specific Goals	<ul style="list-style-type: none"> • To promote the development a competitive ICT export sector with the active participation of local producers and service providers. • To support the private sector in the development and production of ICT products and services for the domestic market and for export • To promote, encourage and facilitate the active participation of foreign investors in the local ICT industry and service sector and in the development the ICT export sector • To promote joint ventures between local and foreign companies to facilitate the rapid development of the ICT industry and service sector • To develop the local software development and ICT service provision sector • To develop the local computer hardware assembly, repair and maintenance industry • To encourage the creation of quality jobs in ICT-related areas • To actively promote foreign investment in the ICT industry and service sector to speed up the process of job creation and knowledge transfer.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
F2.1	Develop a comprehensive fast-track programme for the creation of location-independent Export Processing and Free Zones (EPfZs) through-out the country targeted at the development, production, distribution and provision of ICT products, goods and services mainly for the export market	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Develop a comprehensive fast-track programme for the creation of EPfZs for ICTs by 2001	Ministry of Commerce Industry and Tourism & Rwanda Investment Promotion Authority (RIPA)
F2.2	Develop and implement specific incentive programmes (tax holidays, investment incentives, grants, loans etc) targeted at encouraging the participation of local businesses and institutions in the EPfZs	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement in the 2001/2002 Budget and other subsequent Budgets (within NICI-2005 time-frame) special EPfZ promotion incentive programmes targeted at the domestic investor	Ministry of Finance and Economic Planning
F2.3	Develop and implement specially-targeted incentive packages (grants to SMEs) to promote the development of ICT products within the EPfZs for the export market	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement in the 2001/2002 Budget and other subsequent Budgets (within NICI-2005 time-frame) special EPfZ promotion incentive programmes (grants to SMEs) targeted encouraging ICT production for export	Ministry of Finance and Economic Planning

F2.4	Develop and implement specific incentive programmes (tax holidays, investment incentives, grants, loans etc) to attract World-Class ICT companies to operate in the EPfZs	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement in the 2001/2002 Budget and other subsequent Budgets (within NICI-2005 time-frame) special EPfZ promotion incentive to attract World-Class computer companies Target to attract at least one major computer company per year to set up a regional base in Rwanda during the time-frame of NICI-2005 Target to attract a number of smaller and medium size computer companies per year during the time-frame of NICI-2005	Ministry of Finance and Economic Planning Ministry of Commerce Industry and Tourism & Rwanda Investment Promotion Authority (RIPA)
F2.5	Mount a national publicity drive and public awareness campaign to promote and sell the Rwandan 'EPfZ for ICTs' Programme locally and in the sub-region through the electronic and print media and trade magazines.	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Implement an initiative to publicize the Rwandan 'EPfZ for ICTs' Programme locally and the sub-regional market by 2001	Ministry of Commerce Industry and Tourism & The Rwanda Investment Promotion Authority (RIPA)
F2.6	Promote and market the Rwandan 'EPfZ for ICTs' Programme internationally on the Web, at Trade Fairs, Foreign Mission and in the international mass media	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Develop and implement an initiative to extensively publicize and market the Rwandan 'EPfZ for ICTs' Programme internationally by 2001	Ministry of Commerce Industry and Tourism & The Rwanda Investment Promotion Authority (RIPA)

Programme	FDI-3: Initiative to Promote Rwanda as a Competitive Destination for FDI in ICTs
Relevant SUNRISE Component	Resource (Financial and Technological) Mobilization and Deployment
Type and Scope of Programme	A foreign investment promotion initiative targeted at attracting FDI in ICTs
Implementation Details Requirements	Non
Programme Ownership	RIPA

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To create the condition for attracting foreign investment and joint ventures to support the development of the local ICT industry • To facilitating the mobilization of the necessary financial and other technological resources through Foreign Direct Investment (FDI) and Domestic investment to aid the socio-economic development process in Rwanda.
Programme-Specific Goals	<ul style="list-style-type: none"> • To promote internationally foreign direct investment opportunities in Rwanda • To promote Rwanda as a suitable regional hub for ICT-enabled Services

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
F3.1	RIPA in collaboration with Ministry of Foreign Affairs to launch and implement an Initiative to promote software development and other Export Processing and Free Zones (EPfZs) opportunities in Rwanda via the Rwanda Foreign and Trade Missions	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> F2.1	Launch Initiative by 2001	RIPA & Ministry of Foreign Affairs and Regional Cooperation
F3.2	Implement a Programme to set up a special Trade Fair Promotion Division within RIPA with special responsibilities for promoting investment opportunities and the EPfZ for ICTs initiative at international trade fairs and other trade and investment promotion meetings in the region and internationally	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> F5.5	Launch Programme by 2001	RIPA Private Sector Federation
F3.3	Launch an initiative aimed at positioning and promoting Rwanda as a regional hub for ICT-enabled Services	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	RIPA to develop a proposal on how to implement this initiative by 2001 Implement Initiative by 2002	RIPA

1.0 Programme: General Profile Information

Programme	<i>FDI-4: Initiatives to attract foreign and domestic investment to facilitate rapid infrastructure development and expansion</i>
Relevant SUNRISE Component	To improve the information and communications infrastructure of Rwanda.
Type and Scope of Programme	Infrastructure Development Investment Promotion Initiative
Implementation Details Requirements	Non
Programme Ownership	Rwanda Investment Promotion Authority (RIPA) and Ministry of Transport, Public Works and Communications

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> To promote and facilitate modern physical infrastructure development, expansion and upgrade in areas like: roads and general utilities; social infrastructure; telecommunications and communication infrastructure.
Programme-Specific Goals	<ul style="list-style-type: none"> To liberalize the telecommunications and communications sector to encourage investment and competition in the sector.

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
F4.1	Develop and implement a comprehensive programme to promote domestic investment and attract foreign capital, and joint ventures to support the rapid development of the ICT infrastructure	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Develop ICT infrastructure development investment promotion programme by 2001 Promote and implement programme throughout-out NICI-2005 time frame Target attracting \$200 million domestic investment into ICT infrastructure development by 2005 Target attracting \$700 million foreign investment into ICT infrastructure development by 2005	Rwandan Investment Promotion Authority (RIPA)
F4.2	Put in place a programme to facilitate the process of rapid acquisition of licenses and authorizations to install and operate communication equipment and systems as well as for providing communication-related services	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Develop a <i>Rapid Response Programme</i> to facilitate the process of speeding up license acquisition and authorizations to install and operate communication equipment and systems as well as for providing communication-related services by 2002 Set-up a <i>Rapid Response and Service Unit (RRSU)</i> within the Ministry of Transport, Public Works and Communication to facilitate the implementation of the programme by 2001 Implement programme throughout the NICI-2005 time frame.	Ministry of Transport, Public Works and Communications in collaboration with RIPA

F4.3	Put in place and implement a programme to facilitate conditions for an investor friendly telecommunications environment	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Develop a programme to facilitate conditions for investor friendly telecommunications environment by 2001 Implement programme during NICI-2005 time frame	Rwandan Investment Promotion Authority (RIPA) Ministry of Transport, Public Works and Communications
F4.4	Develop and implement a programme to facilitate the development of local communications industry towards competitiveness	<u>Prerequisites</u> Non <u>Plan-Action Linkages</u> Non	Develop a comprehensive programme to facilitate competition in the communications industry by 2001 Implement programme during NICI-2005 time frame. Target achieving during the time frame of NICI-2005 an annual increase of at least 20% in the number of companies operating in each of the sectors of the industry	Ministry of Transport, Public Works and Communications Rwandan Investment Promotion Authority (RIPA)

1.0 Programme: General Profile Information

Programme	<i>FDI-5: Special Foreign Direct Investment (FDI) and Export Promotion Initiatives</i>
Relevant SUNRISE Component	Resource (Financial and Technological) Mobilization and Deployment
Type and Scope of Programme	An Initiative aimed at promoting and facilitating trade and investment
Implementation Details Requirements	Non
Programme Ownership	RIPA

2.0 Policy-Relevant Strategic Goals and Programme-Specific Goals

Policy-Relevant Strategic Goals	<ul style="list-style-type: none"> • To create the condition for attracting foreign investment and joint ventures to support the development of the local ICT industry • To facilitate the mobilization of the necessary financial and other technological resources through Foreign Direct Investment (FDI) and Domestic investment to aid the socio-economic development process in Rwanda. • To promote and facilitate trade and commerce
Programme-Specific Goals	<ul style="list-style-type: none"> • To promote and facilitate investment and trade • To develop Web-presence for the promotion and facilitation of investment, trade and exports

3.0 Plan-Specific Actions and Time-Bound Measurable (TBM) Targets

	Plan-Specific Actions	Plan-Action Prerequisites and Linkages	Time-Bound Measurable Targets	Plan-Action Implementation Agency
F5.1	<p align="center">Set-up the <i>One-Stop Investment Facilitation Center</i></p> <p>Note: This Center is to be set-up at RIPA Headquarters in Kigali to provide Investment Gateway services and other facilitation services to potential investors. The Center, which will eventually be linked to GOV-NeT, will among other things serve as a one-stop shop for information on investment opportunities in Rwanda and for access to the various investments related services provided by Government Ministries and PSOs.</p>	<p><u>Prerequisites</u></p> <p align="center">Non</p> <p><u>Plan-Action Linkages</u></p> <p align="center">Non</p>	<p>RIPA to set-up the <i>One-Stop Investment Facilitation Center</i> by 2001</p>	RIPA
F5.2	<p align="center">Set-up a <i>Virtual One-Stop Investment Promotion and Facilitation Site</i></p> <p>Note: This Virtual One-Stop Investment Web-site is to be developed, hosted and maintained by the ITSD of RIPA. It will provide the same services as the Physical One-Stop Investment Facilitation Center. It will serve an Investment Promotion Site as well as provide investment gateway services and facilitation services to potential investors online. It will be possible for investors to access information on investment opportunities in Rwanda on this Web-site and make inquires for additional information and facilitation services via the site. This Virtual One-Stop Site is likely to serve as the first port of call for most potential foreign investors.</p>	<p><u>Prerequisites</u></p> <p align="center">Non</p> <p><u>Plan-Action Linkages</u></p> <p align="center">Non</p>	<p>RIPA to set-up the Virtual One-Stop Investment Promotion and Facilitation Site on the Web by 2001</p> <p>Note: The setting up of the Virtual One-Stop Investment Promotion and Facilitation Site will take priority over the setting-up of the Physical One-Stop Investment Facilitation Center at RIPA Headquarters</p>	RIPA

F5.3	<p>Set-up a the <i>Rwandan Export Promotion Agency (REPA)</i></p> <p>Note: RIPA now serves as both the Investment Promotion and Export Promotion Agency. The possibility of creating a separate Export Promotion Agency at a later date is to be considered. This separation will enable RIPA to focus more on Investment Promotion and Facilitation.</p>	<p><u>Prerequisites</u></p> <p>Non</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>The Ministry of Commerce, Industry and Tourism to consider the possibility of setting up REPA and if possible set-up it up by 2005</p>	<p>Ministry of Commerce, Industry and Tourism</p>
F5.4	<p>Set-up <i>One-Stop Export Promotion and Facilitation Centers</i></p> <p>Note: A number of these Centers will be at locations throughout the country to vigorously promote the need to produce for export and to serve as <i>Rapid Response Facilitation Centers</i> for assisting local exporters. These Centers will be set-up at all the major Export Processing and Free Zones (EPfZs) as well as at each of the major regional capitals.</p>	<p><u>Prerequisites</u></p> <p>Non</p> <p><u>Plan-Action Linkages</u></p> <p>Non</p>	<p>RIPA to set-up a One-Stop Export Promotion and Facilitation Center in Kigali by 2002.</p> <p>Set-up Branches of the One-Stop Export Promotion and Facilitation Center at other suitable locations throughout the country by 2005</p>	<p>RIPA in collaboration with the Ministry of Commerce, Industry and Tourism</p>
F5.5	<p>Set-up the <i>Virtual Trade Fair Site</i> to promote Rwandan Products and Services on the Internet.</p> <p>Note: The <i>Virtual Trade Fair Site</i> is to be developed, hosted and maintained by the ITSD of RIPA. It will serve as an online facility for promoting Rwandan goods and services on the Internet. Local Rwandan companies including SMEs from all sectors of the economy will be able to either link their Web-sites to the <i>Virtual Trade Fair Site</i> or host a store-front at the site to promote their goods and services. In addition to promoting Rwandan goods and services, the site will also provide e-commerce (business-to-consumer, business-to-business, and business-to-government) and e-trade facilitation services to Rwandan companies planing to do business on the Internet.</p>	<p><u>Prerequisites</u></p> <p>Non</p> <p><u>Plan-Action Linkages</u></p> <p>PSR-5</p>	<p>RIPA in collaboration with the Ministry of Commerce, Industry and Tourism and the Private Sector Federation to set up the Virtual Trade Fair Site by 2002</p>	<p>RIPA, Ministry of Commerce, Industry and Tourism, Private Sector Federation</p>

<p>F5.6</p>	<p>Set-up and <i>Virtual Tourism Promotion and Facilitation Site</i></p> <p>Note: The Virtual Tourism Promotion and Facilitation Web-Site will be developed, hosted and maintained by the ITSD of ORTPN. This site (just like the TPIS as per C4.6) will provide online access to tourism information including details of tourist spots; game parks; hotels and lodges in various parts of the country; health information; travel information (air, road and lake) and other information that will be required to promote and facilitate tourism in Rwanda. The site will provide links to all Rwandan Hotel Web-sites as well as sites of other Tourist Facilitation Agencies. The site will also provide advance reservation and booking facilities for hotels, national park tours, car rental etc. It will also provide one-line facilities for making tourist visa applications to be forwarded to the Rwandan Immigration Service for processing.</p>	<p><u>Prerequisites</u></p> <p>Non</p> <p><u>Plan-Action Linkages</u></p> <p>C4.6</p>	<p>ORTPN to set-up the <i>Virtual Tourism Promotion and Facilitation Site</i> by 2001</p>	<p>ORTPN</p>
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The Multi-Sectoral Economic Development & ICT-2020 Policy Implications and the Risk Factors of the Sub-Plan

<p align="center">Possible Contributions to the Realization of the GOR's Multi-Sectoral Economic Development Policy</p>	<p>The implementation of the programmes and initiatives of this Sub-Plan will be making a substantial impact on the development of both the ICT service sector and the ICT production industry. The GOR's multi-sectoral development policy does lay emphasis on the development of the service sector and the industrial sector. The Government envisaged that the development of the Service Sector (in particular the ICT service sub-sector) and the Industrial Sector (in particular the ICT Production sub-sector) will play a central role in the economy by serving as the engine for accelerated development and economic growth; national prosperity and global competitiveness --- the goals of the stated ICT-led Development Vision for Rwanda.</p> <p>The promotion of FDI Drive in ICTs which is central to the programmes and initiatives identified for implementation under this Sub-Plan will be directly contributing to the development of the service and the industrial sector and indirectly (and in a limited way) to the development of the agricultural sector. More importantly it is envisaged that the multiplier effect of the development of the ICT sub-sectors of the service sector and the industrial sector in the entire economy will in the long-run, contribute towards the realization of the GOR's multi-sectoral economic development policy.</p>
<p align="center">Areas of Emphasis as per the ICT-2020 Policy</p>	<p>The programmes, initiatives and plan-actions of the <i>Foreign Direct Investment (FDI) Drive in ICTs</i> Sub-Plan have implications for both the exploitation and production of ICTs in Rwanda. It is expected that while some of the FDIs in ICTs will directly and indirectly facilitate the deployment, exploitation and utilization of ICTs in all key sectors of the economy others will specifically be targeted at the ICT production industry. For example, FDIs aimed at the software development industry (especially in the area of investment in Software Technology Parks –STPs) and at ICT infrastructure development will directly contribute to the ICT production industry.</p> <p>On the whole, the <i>FDI Drive in ICTs</i> Sub-Plan will contribute to the realization of the GOR's policy goal to simultaneously pursue both ICT exploitation and production policy involving: the utilization and exploitation of ICTs to support the delivery of government services and the activities of various sectors of the economy as well as the production, development and delivery of ICT products and services ---- i.e. towards the</p>

	development and promotion of an ICT industry and service sector.
The Risk Factors	As in the case of the <i>ICT Infrastructure Development</i> Sub-Plan, a possible risk factor as per the implementation of the programmes and initiatives of the <i>FDI Drive in ICTs</i> Sub-Plan relates to the possibility of Rwanda failing to attract substantial quality FDI in ICTs after the Government have done all that it can in providing costly (in terms ‘revenue-forgone’) tax incentives and packages to attract investors. In the event that this happens, not only will there be that risk of revenue lost (actual cost and opportunity cost) but also Rwanda will run the risk of delaying its advancement in the area of ICTs and this will undoubtedly have an adverse impact on the implementation of some of the other Sub-Plans of the NICI-2005 Plan and on the economy as a whole.

“...It can be no accident that there is today no wealthy, developed country that is information poor...and for that matter no information rich country that is poor and underdeveloped.....”

Prime Minister Mahathir Mohammed of Malaysia

The NICI-2005 Plan: Guidelines for Making Changes

Guidelines for Making Changes to the NICI-2005 Plan

The NICI-2005 Plan has in-built flexibility that allows for Plan modification and revision at various levels subject to some specific guidelines. The Guidelines provides details of which level of the Plan can be subject to changes (modification or revision); the possible types of changes, the acceptable grounds for making the required changes; who can authorize or make changes; and whether or not the changes are to be notified and if so, by whom. Presented below are the Plan modification details in relation to what is possible at each of the levels of the Plan

- **The 8 Pillars Level**

The 8 Pillars representing the Areas of Focus of the Sub-Plans provides the basis of the NICI-2005 Plan, so as a rule they are not subject to modification or revision. In other words the 8 Pillars forms the cornerstone of the Plan and as such, one cannot therefore make changes to them, either in scope or content.

- **The Government Policy Commitments Level**

The Government Policy Commitments as they relate to each of the Area of Focus of the Sub-Plans are part and parcel of Government Policy approved by the Cabinet. The premise underlying the development of the NICI-2005 Plan is that: the GOR ICT Policy Document provides details of the GOR policy commitments in relation to WHAT need to be done towards the realization of the Vision for Rwanda through the exploitation and development of ICTs and that the NICI-2005 Plan which is based on these policy commitments is intended to provide details of HOW these policy commitments can be translated into concrete programmes and initiatives for implementation. The NICI-2005 being the actualization of some of the Policy Commitments of Government, cannot in itself provide a framework for the modification or revision of these Policy commitments. The Flexibility of the Plan does not therefore allow for the modification or revision of the Government Policy Commitments referred to in the Plan.

- **Other Levels**

The Plan Modification Details and Possibilities as they relate to the other Levels are presented in the Table below.

	Programme Level	Programme Goals/Objectives Level	Plan-Action Level	Time-Bound Measurable (TBM) Targets	Plan-Action Implementation Agency
<i>Scope for Flexibility of Action During the Actual Implementation of the Plan</i>	A given Programme identified for implementation within the Plan could, if the need arises be enhanced, modified or scrapped as dictated by prevailing circumstances and constraints during the actual implementation of the Plan	Specific Programme Goals/Objectives could be adapted or revised to meet changing circumstances as the need arise	Specific Plan-Actions as per a given Programme can be expanded-on; enhanced, revised or scrapped during the actual implementation of the Plan	Every effort to should be made to meet the Time-Bound Targets. Targets should therefore not be change arbitrarily	A Plan-Action assigned to a given Implementation Agency can be re-assigned to another agency if it is thought the new Agency is in a better position to implement the Plan-Action
<i>Possible Types of Changes</i>	Enhancement Modification Revision Move to Next NICI Scraping	Adaptation Modification Revision	Expansion Enhancement Modification Revision Moved to Next NICI Scraping	Deferring Enhancement Modification Revision Move to Next NICI	Reassignment
<i>Acceptable Grounds for making relevant changes</i>	Need for Enhancement Need for Modification Need for Revision No more Relevant Not Implementable Already Implemented Note: Lack of resources cannot be an acceptable ground for scraping an entire Programme	Need for Adaptation Need for Modification Need for Revision	Need for Expansion Need for Enhancement Need for Modification Need for Revision No more Relevant Not Implementable Already Implemented Note: Lack of resources cannot be an acceptable ground for scraping a Plan-Action	Need for Enhancement Need for Modification Need for Revision No more Relevant Not Implementable Already Implemented Note: Lack of resources cannot be an acceptable ground for not implementing and meeting a Time-Bound Target	The new Agency is in a better position to implement the Plan-Action

<i>Who Can Make Changes</i>	The NITC in Consultation with the Agency or Organization that Owns the Programme	The NITC in Consultation with the Agency that Owns the Programme	The Plan-Action Implementation Agency	The Implementation Agency	The Old and the New Implementation Agencies by mutual agreement
<i>Should Authorization be Obtained</i>	Yes	No	Yes	Yes	No
<i>From Who Should Authorization Be Obtained</i>	The Cabinet – The Ultimate Owner of NICI-2005 Plan	N.A	The Agency or Organization that Owns the Programme	NITC	N.A
<i>Are Changes to be Documented</i>	Yes	Yes	Yes	Yes	Yes
<i>Who is to Document Changes</i>	The Agency or Organization that Owns the Programme	The Agency or Organization that Owns the Programme	The Plan-Action Implementation Agency	The Implementation Agency	The Old and the New Implementation Agencies
<i>Should Changes be Notified</i>	Yes	Yes	Yes	Yes	Yes
<i>Who is to be Notified of Changes</i>	The Cabinet The ICT Advisor to the President RITA The Agency that Owns the Programme All relevant Plan-Action Implementation Agencies	The NITC The ICT Advisor to the President RITA All relevant Plan-Action Implementation Agencies	The NITC The ICT Advisor to the President RITA The Agency who Owns the Programme	The NITC The ICT Advisor to the President RITA The Agency who Owns the Programme	The NITC The ICT Advisor to the President RITA The Agency who Owns the Programme

Notes:

1. The ultimate owner of the NICI-2005 Plan is the Cabinet who is also the owner of the GOR ICT Policies and Strategies on which the NICI-2005 is based.
2. The NITC through its *Plan Review Standing Committee* (PRSC) will be responsible for compiling all changes to the Plan and documenting this in its Annual Plan Implementation Status Report for submission to the President and the Cabinet. RITA will assist the PRSC in this exercise.
3. The *Round Table Plan Review Meeting* to be convened annually by the NITC and Chaired by H.E the President will among other things discuss the details of the NITC's Plan Implementation Status Report.

The NICI-2005 Plan: Monitoring, Evaluation and Reporting Framework

Preamble

A key component of the NICI-2005 Plan implementation process is Framework for facilitating the Monitoring and Evaluation (M&E) of the implementation of the Programmes, Initiatives and their corresponding Action-Plans. This monitoring and evaluation process will ensure that Plan objectives and targets met as well as facilitate the taking of corrective measures if the stated targets, goals or objectives of programmes, initiatives and Plan Actions are not being met or achieved during the time-frame of the NICI Plan. It is also possible that some of the corrective measures may involve the drawing up of new programmes, initiatives and plan-actions for implementation within the current NICI or subsequent ones.

The NICI plan monitoring and evaluation process will also facilitate the process of amending the details of the SUNRISE model to guide the identification and development of suitable programmes for incorporation into subsequent NICIs. The monitoring and evaluation framework will therefore serve as the main driving force for facilitating transition from one NICI to another.

An outlined of the Plan Monitoring, Evaluation and Reporting Framework is presented in the attached diagram; with the relevant details of the key components of presented below.

The Key Players of the Plan Monitoring and Evaluation Process

To facilitate and co-ordinate the Plan M&E process, an enforceable bottom-up mechanism (detailed below) is to be adopted involving the participation of a number of key players including: the *Program Execution and Co-ordination Committees* (PECCs) of the Government Ministries and the PSOs; the *Programme Evaluation and Monitoring Unit* (PEMU) of RITA and the *Plan Review Standing Committee* (PRSC) of the NITC. Also to play a key role in this process is the *Round Table Plan Review Meeting* to be convened annually by the NITC and Chaired by H.E the President – the National ICT Champion.

Key Stages of the M&E Exercise

The actual Plan M&E exercise will involve three stages with each stage addressing a number of specific objectives.

- *Pre-Implementation M&E Exercise:*

To establish that the details and the objectives of the Programmes and the corresponding Plan-Actions are well understood by those assigned within the Plan Implementation Organisations and Agencies to execute them.

To establish those resource mobilization issues for the implementation of the Programmes and the associated Plan-Actions has been addressed or will be addressed during the implementation of these Programmes and Plan-Actions.

To address the issue of Programme or Plan-Action Ownership by ensuring that, (where appropriate), an Individual, a Team or a Unit, Division or Directorate has been identified within the Plan Implementation Organization to own a specific Programme or Plan-Action and be responsible for its execution and reporting on its progress and completion to the relevant PECC.

- *During-Implementation M&E Exercise:*
 - To establish that the Programmes and Plan Actions are properly executed as per the programme details, objectives and goals.
 - To identify which indicators (where appropriate) to use to monitor and evaluate the implementation of the Programmes
- *Post-Implementation M&E Exercise*
 - To establish that the Plan-Action Time-Bound Measurable Targets are implemented and due dates met
 - To determine what intervention actions to take at the organizational level if specific Plan-Action Time-Bound Measurable Targets were not implemented or their due dated are not met and see to it that these actions are taken.
 - To determine appropriate sanctions to impose on the Owners of Programmes or Plan-Actions in event of non-performance or non-delivering on target.

The Plan Execution and Co-ordination Committees (PECCs)

The PECCs to be set-up within each of the Government Ministries and PSOs (as per Plan-Action **G1.1**) will be responsible for the on-going monitoring and evaluation of the implementation of the relevant programmes, initiatives and plan-actions within the Ministries or PSOs. The PECCs will address the various objectives of the Pre-, During- and Post- Implementation M&E Exercises detailed above. For each Ministry or PSO, the PECC will undertake the following Plan Monitoring and Evaluation responsibilities:

- Monitor and evaluate the implementation of each of the Programmes and Initiatives and their corresponding Plan-Actions by establishing and ensuring that whether they are properly co-ordinated and executed and that the stated Time-Bound Measurable Targets of the Plan-Actions has been realized;
- Identify Programmes, Initiatives, or Plan Actions that have not been executed by the due date or whose implementation has been delayed as well as establish the reasons for the non-execution or delay in implementation of these Programmes, Initiatives, or Plan Actions
- Identify Plan Actions whose targets have not been realised by the due date and establish the reasons for this;
- Identify problems associated with the implementation of specific Programmes, Initiatives and corresponding Plan-Actions;
- Recommend specific interventions and actions to take to facilitate the implementation of delayed Programmes, Initiatives, or Plan Actions
- Collect and analyse relevant Plan M&E data and information to document the status of the implementation of the Programmes, Initiatives and their associated Plan-Actions
- Prepare and submit to the Plan Evaluation and Monitoring Unit of RITA (RITA-PEMU) a *Bi-Annual Plan Implementation Progress Report* providing details of the Plan M&E exercise within the Ministry or PSO.

The Plan Evaluation and Monitoring Unit (PEMU) of RITA (RITA-PEMU)

RITA-PEMU will have the responsibility for co-ordinating the monitoring and evaluation of the implementation of the NICI-2005 on a national basis. This it will do in collaboration with the PECCs of the Government Ministries and PSOs who will facilitate it with the relevant Plan M&E data and reports as they relates to the specific Ministries and PSOs.

In addition to the Plan M&E details from the PECCs, RITA-PEMU will also on its own evaluate and monitor the implementation of all other Programmes, Initiatives and Plan-Actions being implemented by the Private Sector, Civil Society and the Academic Institutions.

RITA-PEMU as part of its responsibility will:

- Prepare and submit a Consolidated Bi-Annual Plan Monitoring and Evaluation Report to the NITC. This Report will serve as a consolidated Report based on the details of the Bi-Annual Plan Implementation Progress Report (produced by the various PECCs) and the details of other Plan monitoring and evaluation exercises undertaken by the RITA itself. The RITA *Consolidated Bi-Annual Plan Monitoring and Evaluation*

Report will also contained recommendations to the NITC in relation to (i) how some of the documented Plan implementation problems could be tackled or overcome and (ii) what actions the Commission should or could take to sanction non-performing Plan Implementation Agencies.

- Produce a *Quarterly NICI-2005 Plan Status Bulletin* that will be used to report on (i) the status of on-going NICI-2005 Programmes and Initiatives in the various implementation Agencies and sectors of the economy (ii) details of Programmes, Initiatives or Plan-Actions started, completed (on target) completed (not on target) or delayed in the various Plan Implementation Agencies since the publication of the last Bulletin and (iii) other specific details relating to the implementation of particular Programmes, Initiatives or Plan-Actions. This Bulletin will be made available to all Government Agencies, the Private Sector organizations as well as made available to the Media and to the public at large.
- Provide specific Plan M&E details on the status of the implementation of the Plan or a component of it (at Programme, Initiative or Plan-Action level) based on inquires made to it by any interested local or international organization, government or non-governmental.

The NITC Plan Review Standing Committee (NITC-PRSC)

The NITC in its capacity as the highest national authority on all matters relating to the formulation and implementation of National ICT policies and NICI plans, will be responsible for overseeing the monitoring and evaluation of the implementation of the NICI-2005 Plan on behalf of the Government.

To perform this role the NITC Plan *Review Standing Committee* (PRSC) is to be set-up with the following membership:

- Chairman of the NITC (Chairman)
- A Senior Cabinet Minister (Member)
- The ICT Advisor to the President (Member)
- RITA Executive Secretary (Member)
- A Head of a University/College (Member)
- A Representative from the Private Sector
- A Representative from the Labour Union (Civil Society)

The NITC-PRSC will through the NITC be responsible for:

- Advising the President, Cabinet and Parliament on an on-going basis on the status of the implementation of the Plan as a whole.

- Preparing and submitting to the President and the Cabinet an *Annual Plan Implementation Status Report* based on the Consolidated Bi-Annual Plan M&E Report it receives from RITA and other Plan implementation status reports or information it might have commissioned or solicited from RITA or other sources.

Cabinet Ministers: Quarterly Cabinet Briefings

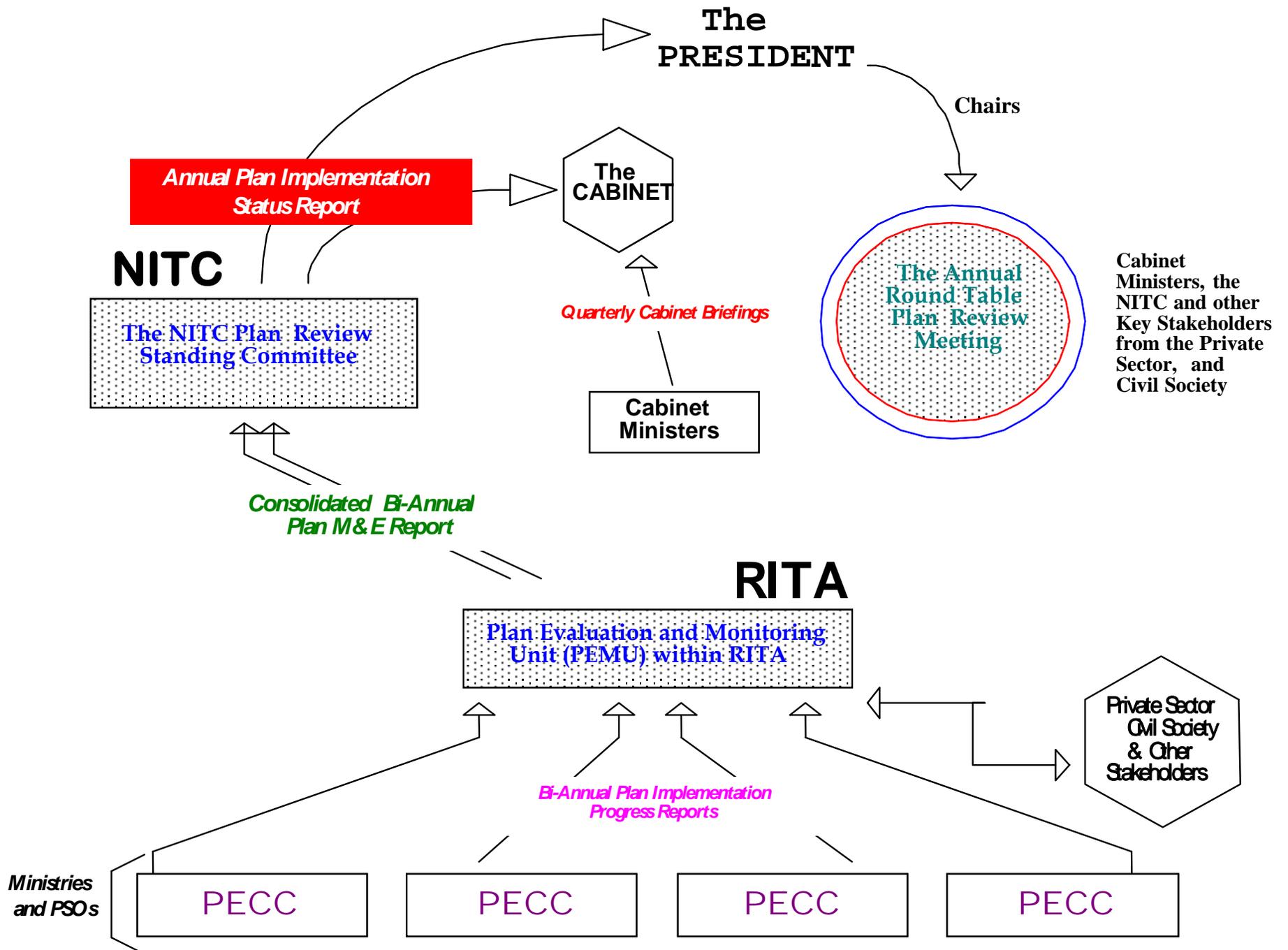
Each Cabinet Minister will on a quarterly basis brief Cabinet on the progress of the implementation of the Plan within his/her Ministry and in relevant sectors within the Minister's jurisdiction. This Cabinet Briefing Session will be organized on a quarterly basis and Ministers will be required to table a One-Pager Briefing Document detailing: new information since last briefing; programmes, initiatives and plan actions in progress and their status; problems being encountered; funding successes and problems and other plan implementation matters.

The Annual Round Table Plan Review Meeting

The *Plan Implementation Status Report* prepared by the NITC-PRSC will form the basis for the *Annual Round Table Plan Review Meeting*, which will be organized by the NITC and Chaired by H.E the President.

This Round Table Meeting which will be attended by Cabinet Ministers, member of the NITC and other Key Stakeholders from the Private Sector and the Civil Society will review all aspects of the implementation of the Plan to-date and come out with specific recommendation on how to address identified problems as well as to improve all aspects relating to the effective implementation of the Plan.

This meeting will also have the power to sanction or reprimand non-performing Plan Implementation Agencies.



The NICI-2005: Plan Costing and Funding Issues

The Rwandan ICT for Development (*ICTfDev*) Fund

1. It is proposed to set up the Rwandan ICT for Development (*ICTfDev*) Fund to raise US\$500 million in Five Years to support the implementation of the programmes and initiatives of NICI-2005 Plan. The activities of the Fund will be co-ordinated by a 5 member Committee to be chaired by H.E the President. The Fund raising initiatives will be an important and integral component of the implementation of the Plan.
2. The premise is that although the majority of the funds for implementing the Plan is likely to come from Government sources as part of its expenditure provisions, as well as grants, tax and investment incentives to the Private Sector, the Rwanda Government alone will not be able to entirely fund the implementation of the NICI-2005. There is therefore the need to raise funding from other external and local sources to supplement Government efforts. Candidate external sources include: the International Development/Donor Agencies (IDAs), NGOs, International ICT-support Foundations (e.g. Ford Foundation, Bill & Melinda Gates Foundation etc), Bilateral Donor Countries, the UN Special Initiative for Africa, Private Donations etc.
3. Government's contribution to the Fund will consist of: (i) annual budgetary allocations for the implementation of various components of the Plan (ii) annual budgetary provisions for tax, investment and other incentive packages, to support the implementation of components of Sub-Plans like: Human Resource Development; Developing and Facilitating the Private Sector; ICT Infrastructure Development; and FDI Drive in ICTs. The total contribution of Government to the Fund will be stated in terms of a given percentage of GDP on an annual basis for five years
4. It is expected that the Rwandan ICT for Development (*ICTfDev*) Fund Committee will vigorously promote and seek assistance from a number of external sources as well as from domestic sources. Domestic contributions to the Fund from Businesses and individuals could be made tax deductible.
5. There will be a need to recruit a Professional fundraiser or Agency to take care of the international fund raising efforts for the Fund from external sources other than the IDAs and the Bilateral Donor Countries
5. Contributions to the Fund could be in cash or kind (e.g. technical assistance; equipment and other ICT material donations; ICT advisors, and volunteer etc)

Costing the Implementation of the Plan

1. It is neither possible nor realistic to cost specific programmes and the initiatives of the Plan. The premise is that a number of the capital intensive and major programmes and initiatives of the Plan will during the actual implementation of the Plan require the development of a project implementation report which among other things will provide detailed cost figures. All that is possible at this level of the development of the Plan is to provide a consolidated 'projected cost' figures for each of the Sub-Plan within the context of the projected US\$500 million Fund proposed for supporting the implementation of the Plan.

2. Also because of the rapid technological advances in the world-wide ICT industry leading occasionally to changes in the cost of ICT-related products and services which in most cases results in lower procurement cost, it is anticipated that project costing is not likely to remain fixed over-time. There is therefore the need to continuously revise implementation cost of the programmes and initiatives of the Plan and for that matter the implementation cost of the Plan as a whole. Plan costing done at the beginning of the implementation of the Plan is not likely to hold in a year or two time. For these and other reasons the 'projected cost' approach adopted seems to be the most realistic method of gauging the 'probable cost' of the Plan. Furthermore the quoted figure of US\$500 million is an 'upper-bound' projection, it is more likely that the actual cost of the implementation of the Plan over the 5 Year period will be substantially less.

3. For the purpose of demonstration and illustration, a breakdown of the possible sources of the projected US\$500 million funding for the Plan is presented below. Also presented is the Sub-Plan Funding Matrix and a Table summarizing possible total fund allocation per Sub-Plan

The Sub-Plan Funding Matrix

	Source	GOR		IDAs		OFDs		LPS		Others		TOTAL	
		Nominal (\$ million)	%	Nominal (\$ million)	%	Nominal (\$ million)	%						
YEAR	Sub-Plan												
2001	HRD	6	40%	4.5	30%	2.25	15%	1.5	10%	0.75	5%	15	3
	EDUC	4	40%	3.5	35%	1.5	15%	0.5	5%	0.5	5%	10	2
	GOV	5	50%	2.5	25%	1.5	15%	0.5	5%	0.5	5%	10	2
	CMN	3	40%	2.25	30%	1.125	15%	0.75	10%	0.375	5%	7.5	1.5
	PRS	1.75	50%	1.05	30%	0.175	5%	0.35	10%	0.175	5%	3.5	0.7
	FDI	2	80%	0.125	5%	0.125	5%	0.125	5%	0.125	5%	2.5	0.5
	IFR	0.8	80%	0.1	10%	0.05	5%	0.02	2%	0.03	3%	1	0.2
	LRI	0.3	60%	0.1	20%	0.05	10%	0.025	5%	0.025	5%	0.5	0.1
	Sub-Total	22.85		14.125		6.775		3.77		2.48		50	10%
2002	HRD	18	40%	13.5	30%	6.75	15%	4.5	10%	2.25	5%	45	9
	EDUC	12	40%	10.5	35%	4.5	15%	1.5	5%	1.5	5%	30	6
	GOV	15	50%	7.5	25%	4.5	15%	1.5	5%	1.5	5%	30	6
	CMN	9	40%	6.75	30%	3.375	15%	2.25	10%	1.125	5%	22.5	4.5
	PRS	5.25	50%	3.15	30%	0.525	5%	1.05	10%	0.525	5%	10.5	2.1
	FDI	6	80%	0.375	5%	0.375	5%	0.375	5%	0.375	5%	7.5	1.5
	IFR	2.4	80%	0.3	10%	0.15	5%	0.06	2%	0.09	3%	3	0.6
	LRI	0.9	60%	0.3	20%	0.15	10%	0.075	5%	0.075	5%	1.5	0.3
	Sub-Total	68.55		42.375		20.325		11.31		7.44		150	30%
2003	HRD	21	40%	15.75	30%	7.875	15%	5.25	10%	2.625	5%	52.5	10.5
	EDUC	14	40%	12.25	35%	5.25	15%	1.75	5%	1.75	5%	35	7
	GOV	17.5	50%	8.75	25%	5.25	15%	1.75	5%	1.75	5%	35	7
	CMN	10.5	40%	7.875	30%	3.9375	15%	2.625	10%	1.3125	5%	26.25	5.25
	PRS	6.125	50%	3.675	30%	0.6125	5%	1.225	10%	0.6125	5%	12.25	2.45
	FDI	7	80%	0.4375	5%	0.4375	5%	0.4375	5%	0.4375	5%	8.75	1.75
	IFR	2.8	80%	0.35	10%	0.175	5%	0.07	2%	0.105	3%	3.5	0.7
	LRI	1.05	60%	0.35	20%	0.175	10%	0.0875	5%	0.0875	5%	1.75	0.35

<i>Sub-Total</i>		79.975		49.4375		23.713		13.195		8.68		175	35%
2004	HRD	9	40%	6.75	30%	3.375	15%	2.25	10%	1.125	5%	22.5	4.5
	EDUC	6	40%	5.25	35%	2.25	15%	0.75	5%	0.75	5%	15	3
	GOV	7.5	50%	3.75	25%	2.25	15%	0.75	5%	0.75	5%	15	3
	CMN	4.5	40%	3.375	30%	1.6875	15%	1.125	10%	0.5625	5%	11.25	2.25
	PRS	2.625	50%	1.575	30%	0.2625	5%	0.525	10%	0.2625	5%	5.25	1.05
	FDI	3	80%	0.1875	5%	0.1875	5%	0.1875	5%	0.1875	5%	3.75	0.75
	IFR	1.2	80%	0.15	10%	0.075	5%	0.03	2%	0.045	3%	1.5	0.3
	LRI	0.45	60%	0.15	20%	0.075	10%	0.0375	5%	0.0375	5%	0.75	0.15
<i>Sub-Total</i>		34.275		21.1875		10.163		5.655		3.72		75	15%
2005	HRD	6	40%	4.5	30%	2.25	15%	1.5	10%	0.75	5%	15	3
	EDUC	4	40%	3.5	35%	1.5	15%	0.5	5%	0.5	5%	10	2
	GOV	5	50%	2.5	25%	1.5	15%	0.5	5%	0.5	5%	10	2
	CMN	3	40%	2.25	30%	1.125	15%	0.75	10%	0.375	5%	7.5	1.5
	PRS	1.75	50%	1.05	30%	0.175	5%	0.35	10%	0.175	5%	3.5	0.7
	FDI	2	80%	0.125	5%	0.125	5%	0.125	5%	0.125	5%	2.5	0.5
	IFR	0.8	80%	0.1	10%	0.05	5%	0.02	2%	0.03	3%	1	0.2
	LRI	0.3	60%	0.1	20%	0.05	10%	0.025	5%	0.025	5%	0.5	0.1
<i>Sub-Total</i>		22.85		14.125		6.775		3.77		2.48		50	10%
TOTAL		228.5	46%	141.25	28%	67.8	14%	37.7	7%	24.8	5%	500	100%

TOTAL FUND ALLOCATION PER SUB-PLAN (\$MILLION)

	2001	2002	2003	2004	2005	TOTAL	%	Possible Funding Sources
HRD	15	45	52.5	22.5	15	150	30%	The GOR International Donor Agencies (IDAs) – Bilateral and Multilateral Other Foreign Donors and Source Local Private Sector (LPS), & Other Sources
EDUC	10	30	35	15	10	100	20%	The GOR International Donor Agencies (IDAs) – Bilateral and Multilateral Other Foreign Donors and Source Local Private Sector (LPS), & Other Sources
GOV	10	30	35	15	10	100	20%	The GOR International Donor Agencies (IDAs) – Bilateral and Multilateral Other Foreign Donors and Source Local Private Sector (LPS), & Other Sources
CMN	7.5	22.5	26.25	11.25	7.5	75	15%	The GOR International Donor Agencies (IDAs) – Bilateral and Multilateral Other Foreign Donors and Source Local Private Sector (LPS), & Other Sources Other Sources
PRS	3.5	10.5	12.25	5.25	3.5	35	7%	The GOR International Donor Agencies (IDAs) – Bilateral and Multilateral Other Foreign Donors and Source Local Private Sector (LPS), & Other Sources
FDI	2.5	7.5	8.75	3.75	2.5	25	5%	The GOR International Donor Agencies (IDAs) – Bilateral and Multilateral Other Foreign Donors and Source Local Private Sector (LPS), & Other Sources
IFR	1	3	3.5	1.5	1	10	2%	The GOR International Donor Agencies (IDAs) – Bilateral and Multilateral Other Foreign Donors and Source Local Private Sector (LPS), & Other Sources
LRI	0.5	1.5	1.75	0.75	0.5	5	1%	The GOR
TOTAL	50	150	175	75	50	500		
%	10%	30%	35%	15%	10%	100%		

POSSIBLE CONTRIBUTIONS TO THE \$500 MILLION ICT FUND FROM KEY SOURCES

Source	Nominal (US\$ million)	<i>Percentage</i>
Government of Rwanda (GOR)	228.5	46%
International Donor Agencies (IDAs) (Bilateral and Multilateral)	141.25	28%
Other Foreign Donors (OFDs)	67.8	14%
Local Private Sector (LPS)	37.7	7%
Other Sources	24.8	5%
TOTAL	500	100%

Notes:

1. Of the total \$500 million, about \$75 million constitute the GOR's facilitation of the PRS, FDI, IFR and LRI Sub-Plan through, tax, investment and other incentive packages. A large proportion of the \$75 million therefore does not represent expected 'actual cash' contribution of Government but what could be described as 'revenue-forgone' as per tax and investment incentive provisions.

2. Deducting the \$75 million from the 'projected' contribution of the GOR of **\$228.5** million brings down the contribution to **\$153.5** million, which is reasonably comparable to that of the combined figure of (\$209 million) for the IDAs and the OFDs

THE STRUCTURES

DETAILS OF PROPOSED NATIONAL ICT COORDINATING STRUCTURES AND BODIES

The Objectives, Functions and the Organizational Structure of the Proposed National ICT Coordinating Bodies

The National Information Technology Commission (NITC)

Mission of the NITC

The National Information Technology Authority (NITC) is being set up as a high powered ICT Policy Think-Tank with the mission to lead the process of creating the Rwandan information society and economy in line with the aspirations of the *Vision for Rwanda*. It will be responsible for advising the Government on all matters relating to how best Rwanda can formulate, develop and implement its ICT policies, strategies and plans to accelerate the process of transforming Rwanda into an information-rich, knowledge-based society and economy.

Membership of the NITC

The NITC will be chaired by the President, ----- the National ICT Champion. Its membership will be made up of the President of the National Assembly, the Prime Minister and a number of other senior Cabinet Ministers from key Ministries and distinguished representatives from the Private Sector, Academia, Civil Society, and Labour Organizations.

Objectives of the NITC

- To formulate and advise the GOR on all matters relating to policies, strategies, and plans for the deployment, exploitation and the development of ICTs to support the socio-economic development of Rwanda.
- To promote and facilitate the establishment of appropriate National ICT Structures, Bodies and Working Groups, to facilitate the formulation and implementation of National ICT policies, strategies and plans to transform Rwanda into an information-rich, knowledge-based society and economy.
- To encourage and promote the deployment and utilization of ICTs within the society and economy to: improve organizational efficiency and performance, as well as support and facilitate the development of Rwandan's human resources to serve as a key resource to initiate, sustain and consolidate, the country's effort towards the development of the Rwanda information society and economy
- To supervise, and co-ordinate through appropriate National ICT Structures, Bodies, Working Groups and Private Sector organizations and institutions; all national initiatives relating to the deployment, exploitation and the development of ICTs in the society and economy
- To monitor and evaluate through appropriate National Implementation Agencies the implementation of National programmes, projects and initiatives relating to the deployment, exploitation and development of ICTs within the society and economy

- To promote and facilitate the mobilization of the necessary human, financial and technological resources to support the process of developing the Rwandan information society and economy
- To promote and support national efforts and initiatives aimed at accelerating the development of the local ICT production and service sector of the economy into a globally competitive sector.
- To promote and facilitate the development and implementation of National ICT Standards, Procedures and Guidelines to facilitate the deployment, utilization and the development of ICTs products and services within the society and economy and
- To promote and facilitate National Awareness Campaigns and Educational Programmes on the role of ICTs for socio-economic development and on the activities, initiatives, policies, and programmes of Government towards the realization of the *Vision for Rwanda* – to transform Rwanda into an information-rich, knowledge-based society and economy.

The Rwanda Information Technology Authority (RITA)

The Rwandan Information Technology Authority (RITA) is to be set up as a statutory and autonomous National Agency to act as the National ICT Implementation and Coordination Body under the direct supervision of the National Information Technology Commission (NITC). RITA will also act as the Secretariat of the NITC and have an administrative link and working relation with to the Office of the President, the Prime Minister's Office and the Ministry of Public Works, Transport and Communications --- as its sponsoring Ministry.

Functions of RITA

RITA, reporting to the NITC through its Executive Management Committee, will have the following functions:

1. Coordinate on behalf of the NITC, activities and initiatives aimed at the formulation and development of National ICT Policies, Strategies and National Information and Communications Infrastructure (NICI) Plans
2. Coordinate on behalf of the NITC and the GOR the implementation of components of Government's ICT Policy, Strategies as well as the Programs, Projects and Initiatives identified under various NICI Plans designed for transforming Rwanda into an information-rich, knowledge-based society and economy
3. Undertake and coordinate on behalf of the NITC the strategic planning, monitoring and evaluation of the implementation and impact of National programmes, projects and initiatives relating to the deployment, exploitation and development of ICTs within the society and economy.
4. Promote and coordinate on behalf of the NITC the development and implementation of National ICT Standards, Procedures and Guidelines, Certification and Procurement Procedures and Guidelines to facilitate the deployment, utilization and the development of ICTs products and services in economy and society.
5. Undertake, with the support of the NITC; National ICT policy formulation advisory functions, to facilitate the development and the periodic review of the National ICT Policies, Strategies and corresponding Plans, in consultation with other appropriate Bodies and Agencies of Government and the Private Sector, to ensure that the policy recommendations, strategies, programs and projects are constantly updated and are consistent with the aspirations and the missions of the Vision for Rwanda.

6. Coordinate on behalf of the NITC the implementation of a comprehensive human resource development programme in ICTs and other skill areas to initiate, support, sustain and consolidate, the country's effort towards the development of the Rwanda information society and economy.
7. Assist and advise Government institutions, agencies and other public and private sector organizations and establishments on the development and implementation of their organizational ICT policies, strategies and plans to support their operations and activities
8. Provide, ICT consultancy and other related services through the National Computer Center (NCC) to Government institutions, agencies and other public and private sector organizations.
9. Provide through the NCC, technical advisory and support services to the NITC, the NITC- Working Groups (NITC-WGs) and to various Government Ministries and other public and private sector organizations and establishments.
10. Facilitate the work of the NITC (serving as the NITC Secretariat), and the NITC-WGs,
11. Facilitate the work ICT Consultants engaged by the GOR, the NITC, the NITC-WGs, as well as the work of Donor and International Organizations and Agencies in the execution of Donor-funded ICT programmes, projects and initiatives
12. Coordinate and implement in cooperation with other Government agencies, the Universities, Research Institutes and other Private Sector Organizations; policy and technological reviews, national ICT studies and periodic surveys to facilitate the ICT Policy formulation, implementation, monitoring and evaluation exercises of the NITC and to provide a national pool of information on the status and the impact of the GOR's ICT Policies, Strategies and Plans.
13. Develop and administrate the National Computer Center (NCC) as a key division of RITA with links to the Universities, Research Institutes and to Private Sector R & D and Training Organizations. The NCC will be the key income generator for RITA and will serve as the:
 - National Center for Advanced level ICT Education and Training in areas like: Computer Hardware Troubleshooting, Repair and Assembly; Computer Systems Analysis, Design and Development
 - National Software Repository and Development Center,
 - National ICT Consultancy Unit
 - Computer Bureau Service Provision Unit for Government Ministries and public sector organizations without their own computer systems

- National Center to provide a pool of technical personnel in the area of computer systems repair and maintenance; network systems development, installation and maintenance
 - National Center with the responsibility to develop and maintain the GOR Web-site with links the Web-sites (Home Pages) of various Government Ministries and public service organizations and other key private sector organizations.
 - National Center with the responsibility to set-up and administrator GOV-NET --- the proposed communications network to inter-network all the Government Ministries and other public service organizations into a wide area network which will also serve as the Government Intranet and provide an international gateway to the Internet.
14. Promote and coordinate on behalf of the NITC, the implementation of National Awareness Campaigns and Education Programmes on the role of ICTs for socio-economic development and on the activities, initiatives, policies, and programmes of Government towards the realization of the Vision for Rwanda – to transform Rwanda into an information-rich knowledge-based society and economy.
 15. Undertake the organizing of regular ICT Workshops, Training Programmes, Seminar and Conferences to raise ICT awareness nationally and to address other National ICT issues identified for attention by the NITC and
 16. Perform such other functions as may from time to time be assigned to it by the GOR and/or the NITC to support and facilitate the advancement, deployment, exploitation and the development of ICTs in the society and economy towards the realizations of aspirations, the ideals and the missions of the *Vision for Rwanda*.

The Organizational Structure of RITA

It is recommended that RITA should have the following four Directorates:

- Administration and Finance
- Operations and Planning
- The National Computer Center (NCC)
- Research and Development

Each of these Directorates will have a number of Divisions, which in turn will be divided into functional Departments. This flexible organizational structure will enable coordinated expansion of the organization: starting with some core Directorates, Divisions and Departments. RITA, therefore do not need to set up all the components of its organizational structure at the very beginning. Starting with one or two Directorates and a number of constituent Divisions and Departments, this structure could be expanded on as the organization grows.

Personnel

RITA will be headed by an Executive Director with each of the Directorates headed by a Director. Each of the Divisions will be headed by a Divisional Head (Chief of Division) and the respective Departments by a Head of Department.

The Executive Director will be the Chief Executive Officer (CEO) of RITA. He/she will be appointed by the NITC. The Directors will also be appointed by the NITC. All other members of staff will be appointed by the RITA Executive Management Committee.

The RITA Executive Management Committee

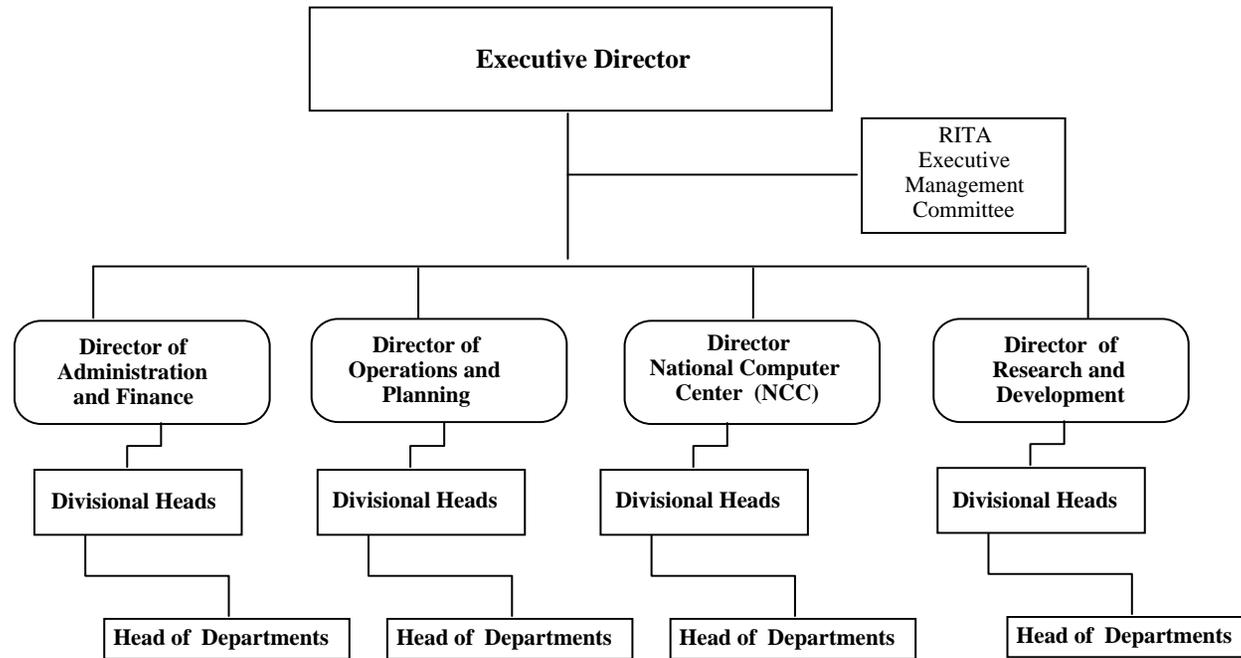
The RITA Executive Management Committee will assist the Executive Director in the proper management of the affairs of RITA. It will, under the direction of the NITC formulate and decide on organizational policies, strategies and procedures as well as play an advisory role in matters relating to: the general administration of the organization, and on financial, budgetary, personnel and recruitment matters. The Committee in addition will from time to time be assigned special roles and responsibilities by the NITC. This Committee will in effect provide the link between RITA and the NITC. Its membership will be made up of:

- Executive Director
- The Four Directors
- A Representative from the NITC
- A Representative from the President's Office
- A Representative from the Prime Minister's Office
- A Representative from MINTRACO

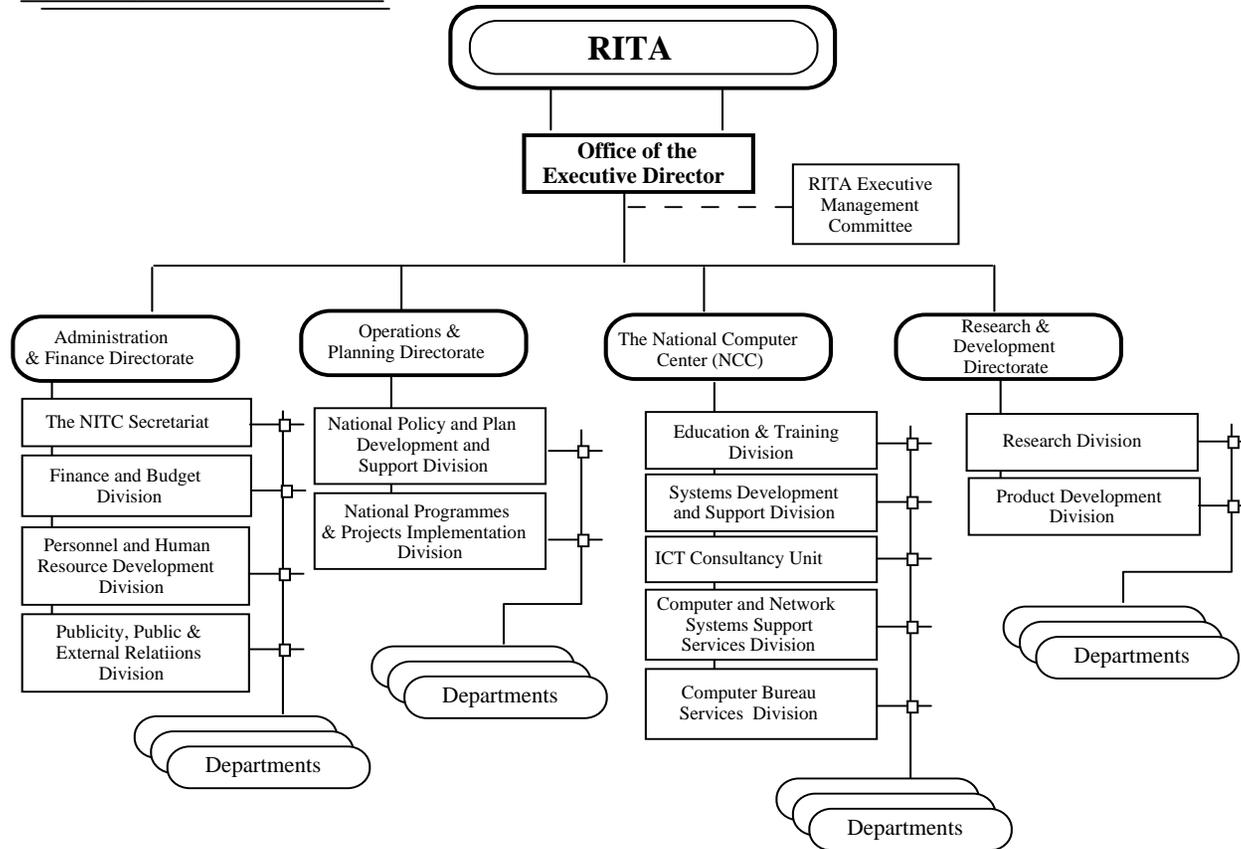
RITA: Organizational Structure Chart

The organizational structure and the corresponding organizational chart of RITA are presented as follows.

RITA: Organizational Structure

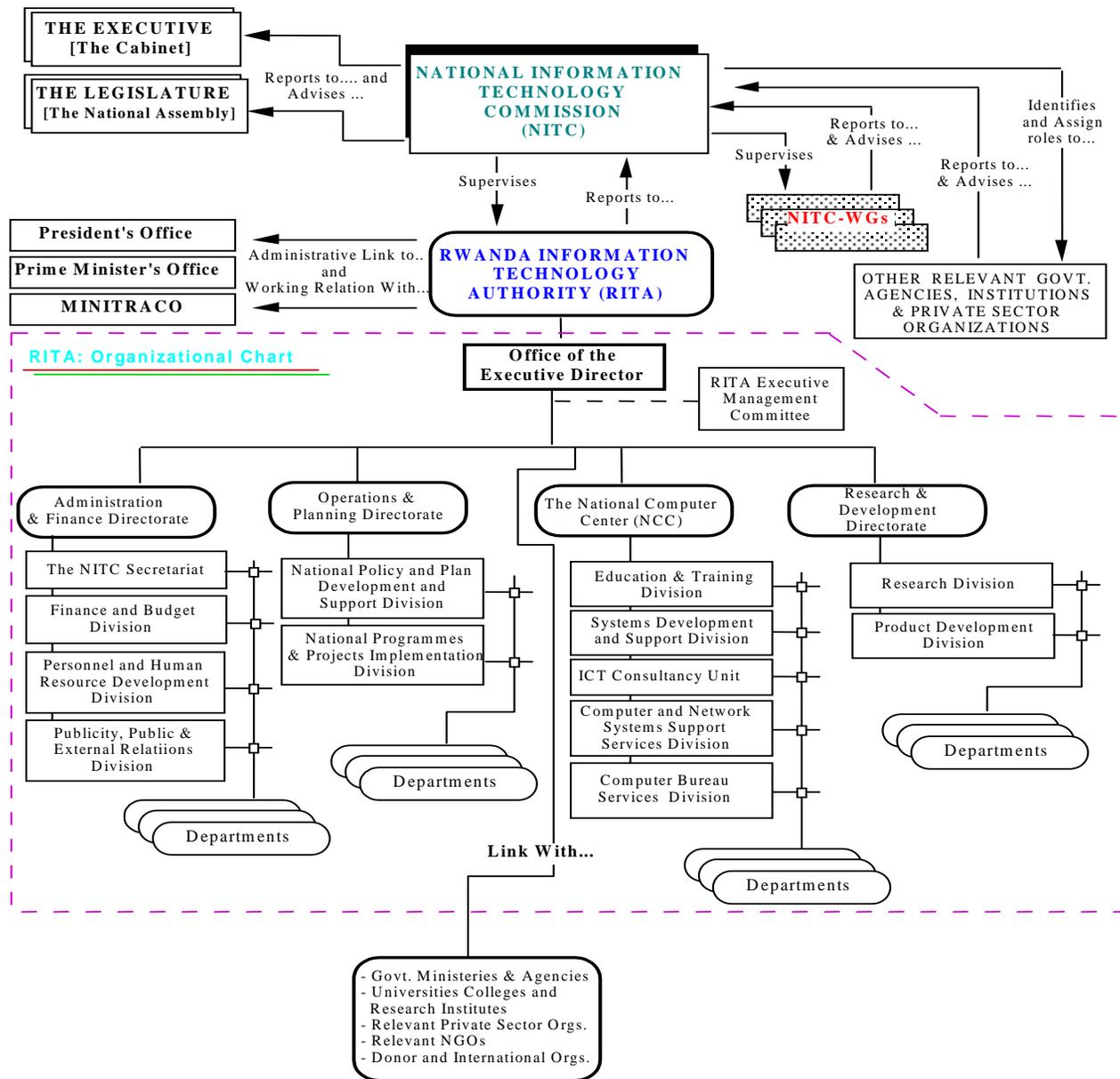


RITA: Organizational Chart



Summary of the Proposed Linkages between the National ICT Structures and Bodies

The details of the linkages between the National ICT Structures and Bodies and their linkages with other relevant Government Agencies, Bodies and other Organizations and Establishments are presented below.



In line with its objectives, it is envisaged that the NITC will report to the Cabinet and the National Assembly. It will as part of its role, advise the Government (the Cabinet) as well as the National Assembly (as the need arises) on all matters relating to how best Rwanda can formulate, develop and implement its ICT policies, strategies and plans to accelerate the process of transforming Rwanda into an information-rich, knowledge-based society and economy.

The NITC will also be responsible for supervising the work of its Working Groups and RITA. It will also from time to time identify and assign roles to other Government Agencies, Institutions, and relevant Private Sector Organizations and Establishments in respect to the formulation and implementation of components of National ICT Policies, Strategies and Plans.

RITA, apart from reporting to the NITC through its Executive Management Committee, will also have an administrative link and a working relation with: the President's Office, the Prime Minister's Office and MINITRACO. It is envisaged that RITA as part of its role as a national ICT Coordinating Body under the direction and supervision of the NITC will also have some level linkages with the IT Directorates/Divisions of the Ministries as well as with other ICT-related organizations, relevant NGOs and International Agencies.

APPENDICES

The NICI-2005 Plan: Supporting Documentation and Background Material

Appendix 1:

Extracts from the 'Integrated Framework for Socio-Economic and ICT Policy and Plan Development and Implementation for Rwanda'

The Document on which the Integrated ICT-Led Socio-Economic Development Policies and the NICI-2005 Plan are Based

Notes on the Possible Re-alignment of Key Sectors of the Economy as Rwanda Move from a Predominately Agricultural Economy (PAE) to a Predominately Information and Knowledge-based Economy through Implementation of its ICT-led Socio-Economic Development Policies and Plans

Government Commitment to the Implementation of Multi-sectoral Socio-economic Development Policy

The GOR as part of its ICT-led Socio-Economic Development Policies is commitment to implementing a multi-sectoral socio-economic development policy involving (i) the modernization of the agricultural sector to improve its efficiency and productivity to ensure food security, generate rural employment, contribute to economic growth and to improve the foreign exchange generation capacity of the sector; (ii) the development of a competitive high value-added service sector, to generate employment and serve as an engine for accelerated development and economic growth with the potential develop into a business-service hub for the domestic economy, the East Africa sub-region and beyond and (iii) the development of a viable ICT production and development industry, a vibrant cottage industry and a mass-consumer products light industry capable of generating economic growth and employment and producing goods for the domestic market and for export into the sub-regions and beyond.

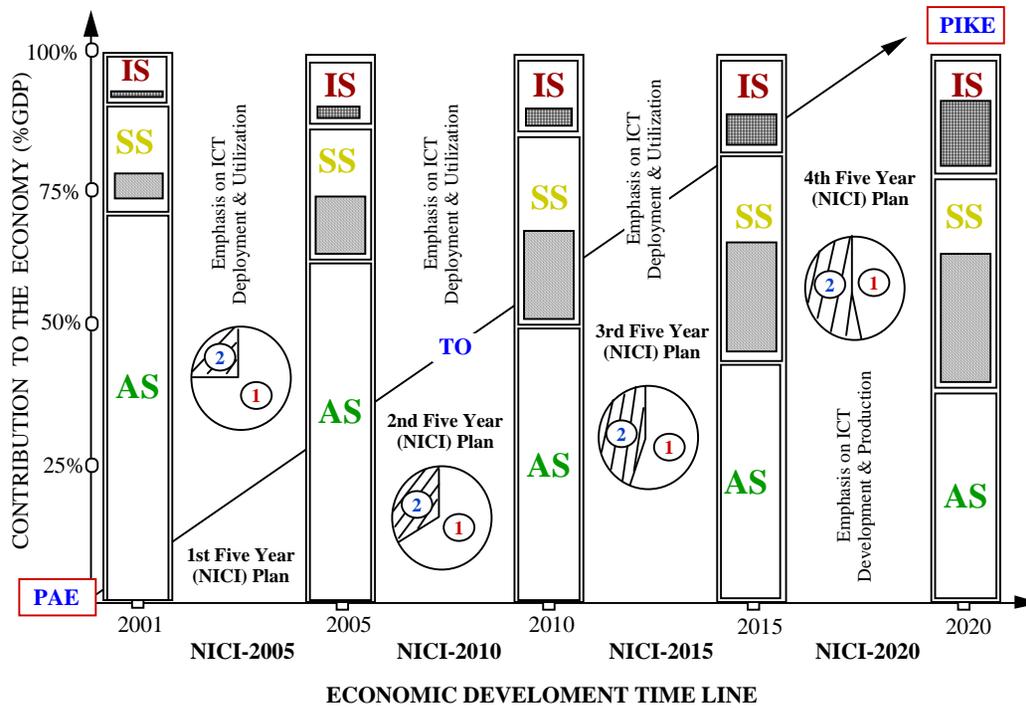
The ICT-2020 Policy, -- Setting out the orientation of the Government's ICT Policy and Strategies within context of the GOR's broad socio-economic development objectives.

The GOR as part of its ICT policy and strategy is committed to simultaneously pursuing both ICT Exploitation and Production policy involving: the utilization and exploitation of ICTs to support the delivery of government services and the activities of various sectors of the economy as well as the production, development and delivery of ICT products and services ---- i.e. towards the development and promotion of an ICT industry and service sector.

The GOR will implement this ICT Policy over a period of twenty years up to the Year 2020 through the implementation of four 5 Year NICI Plans with the 1st, 2nd and 3rd NICI Plans laying emphasis on the exploitation and utilization of ICT products and services to support the delivery of government services and the activities of various sectors of the economy and the 4th NICI Plan laying emphasis on the production, development and delivery of ICT products and services.

Possible re-alignment of the key sectors of the economy as it moves towards PIKE

The diagram below illustrates the possible contributions and re-alignment of the agricultural, service and industrial sectors of the within the context of the implementation of the GOR's multi-sectoral economic development policy and the ICT-2020 policy.



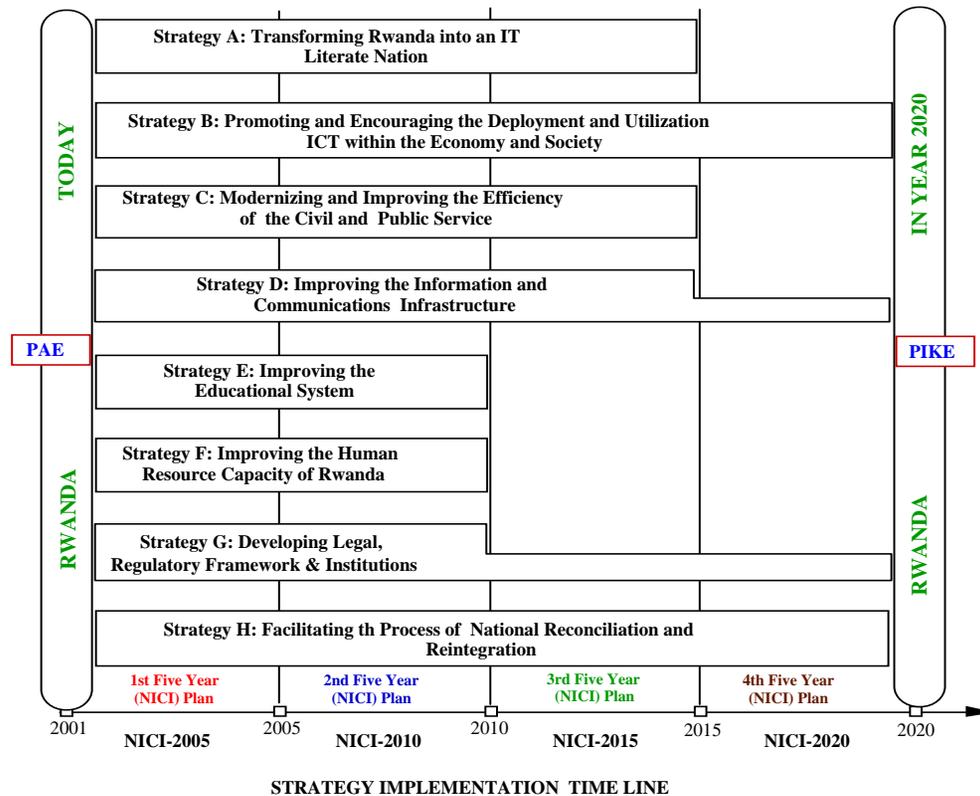
AS = Agriculture Sector
SS = Service Sector
IS = Industrial Sector
 = Size of the ICT-Services Sub-Sector
 = Size of the ICT-Production Sub-Sector
 = Degree of Emphasis on ICT Policy -Orientation 1 & 2 (as per ICT-2020) within a Given NICI Plan

Comments

1. It is expected that as Rwanda moves its economy from PAE to PIKE (as a result of the implementation of the NICIs) the role of the agriculture sector as a major contributor to the economy will reduce from the current level of close to about 75% to about 60% by 2005, and to close to 50% by 2015 and this is expected to further reduce to less than 40% of the economy by 2020:
2. On the other hand it is expected that the contribution of the targeted lead sectors --- the service sector and the industrial sector will increase marginally at first and then substantially during the second half of the ICT-2020 policy time frame. And by the year 2020, it is envisaged that the combined contribution of the targeted lead sectors to the economy will be close to 60% or more.
3. More importantly, it is envisaged that the contribution of the ICT sub-sectors of the service sector and the industrial sector (i.e. the ICT-production sub-sector) will increase dramatically over the implementation period of the 4 NICI plans spanning the ICT-2020 time frame. Specially, the ICT-production sub-sector which in Year 2000 is estimated to account for about 10% of the economic contribution of the industrial sector is expected to increase to about 80% of the industrial sector's contribution to the economy by the Year 2020. Also the size of the contribution of the ICT services sub-sector of the service sector is expected to increased from about 10% in Year 2000 to about 75% by Year 2020.
4. The rapid expansion of the ICT sub-sectors of the service and the industrial sectors as the targeted lead sectors is crucial for the attainment of the PIKE status by 2020.
5. Also as Rwanda move from PAE to PIKE, within the framework of ICT-2020, it is envisaged that the emphasis on ICT policy option 1 (i.e. on the exploitation of ICTs to support the delivery of government services and the activities of various sectors of the economy) -- within the 1st, 2nd and 3rd NICI Plans will result in a widespread deployment, exploitation and utilization of ICTs throughout the economy and society by the Year 2015.
6. Emphasis could then be shift to ICT policy 2 (i.e. on the production, development and delivery of ICT products and services) --- within the 4th NICI Plan to boost the ICT production sector and the entire ICT industry which will in turn have a spill-over effect on other sectors in particular the other sub-sectors of the industrial sector and the service sector and speed up the process towards achieving a PIKE status by Year 2020.

Notes on the Details of the Vision for Rwanda Mission Strategies for Supporting the NICI Plan Process

The diagram below illustrates the implementation of the Vision for Rwanda Mission Strategies across the various NICIs. It is envisaged that the 1st and the 2nd NICI Plans -- with the goal to support and strengthened the process of developing an economic base and environment for accelerated economic development and growth will be based on all the identified eight Strategies. The 3rd and the 4th NICIs will be based on only some of the key Strategies. A full description of the details of each of these Strategies is provided below.



Description of the Strategies

1. Strategy A: *To transform Rwanda into an IT literate nation*

It is envisaged that this Strategy will be implemented within the 1st, 2nd and 3rd NICI Plans. It will therefore be possible to transform Rwanda into an IT literate nation by 2015.

The implementation of Strategy A will require the need for: (i) putting in place special ICT promotion packages, policy instruments and incentives; (ii) developing the necessary human resource capacity in ICTs and in other professional areas; (iii) implementing a number of national ICT applications across all sectors of the economy and society, (iv) mobilizing and deploying the necessary financial and technological resources for implementing relevant ICT programmes identified within the NICI plans for achieving this strategy (v) developing standards, best practices and guidelines to guide the deployment, exploitation and development of ICTs in key sectors and (vi) providing the necessary legal regulatory and institutional framework for support ICT development in Rwanda.

2. Strategy B: *To promote and encourage the deployment and utilization of ICTs within the economy and society.*

This Strategy will be implemented in all NICI Plans up to the year 2020. The continuous promotion of the deployment and utilization of ICTs within the economy and society would require the (i) putting in place special ICT promotion packages, policy instruments and incentives; (ii) development of the necessary human resources in ICTs and in other professional areas to facilitate the process of ICT deployment and exploitation within the economy and society; (iii) implementation of a number of national ICT applications across all sectors of the economy and the society, (iv) mobilization and deployment of the necessary financial and technological resources, to aid the ICT deployment and exploitation exercise within the economy and society (v) development of standards, best practices and guidelines to guide the deployment, exploitation and development of ICTs in key sectors and (vi) providing the necessary legal regulatory and institutional framework for supporting ICT development in Rwanda.

3. Strategy C: *To improve the efficiency of the Civil and Public Service*

The modernization of the civil and public service to improve efficiency and service delivery to the public can be achieved within 15 years. Specific programmes to facilitate this process will therefore need to be incorporated into the 1st, 2nd and 3rd NICI Plans. On the whole the implementation of this strategy will require the (i) development of the necessary human resources in ICTs and in other professional areas; (ii) mobilization and deployment of the necessary financial and technological resources, (iii) computerization of the civil and public service as a major civil service modernization exercise and (iv) the development of standards, best practices and guidelines to guide the deployment, exploitation and development of ICTs in the civil and public service organizations

4. Strategy D: *To improve the information and communications infrastructure of Rwanda.*

It is envisaged that: the vast majority of the programmes needed for implementing this Strategy would have been implemented within fifteen years. It is therefore expected that the bulk of the required national information infrastructure (NII) for Rwanda would have been put in place by the completion of the implementation of the 3rd NICI Plan. However because of the dynamic nature of the ICT landscape which is characterized by rapidly changing and advancing technological offers, it is envisaged that some elements of the infrastructure will need to be updated, enhanced and expanded during the 4th NICI Plan period.

On the whole this strategy will require (i) putting in place special ICT promotion packages, policy instrument and incentives to facilitate the development, expansion and modernization of the national information infrastructure; (ii) developing the critical ICT human resources that will be required for supporting the rehabilitation, and expansion of the national ICT infrastructure (iii) implementing some national ICT applications specifically in the communications sector (iv) mobilizing and deploying the necessary financial and technological resources required for building the national infrastructure (v) developing the necessary standards, best practices and guidelines to guide the process of developing and improving the ICT infrastructure and (vi) providing the necessary legal regulatory and institutional framework for supporting the ICT development process in Rwanda.

5. Strategy E: *To transform the educational system using ICTs with the aim to improving accessibility, quality and relevance to the development needs of Rwanda.*

It is envisaged that the bulk of the task of transforming and improving the Rwanda educational system can be accomplished within 10 years. This process could be aided by the implementation of targeted ICT programmes, projects and initiatives that could be incorporated into the 1st and 2nd NICI Plans. Specifically the implementation of this strategy will require: (i) developing the necessary human resources in ICTs and in other professional areas; (ii) implementing a number of national ICT applications relevant to the educational system (iii) mobilizing and deploying the necessary financial and technological resources for implementing the necessary educational reform programmes and specific ICT programmes and initiatives targeted at improving the educational delivery system (iv) computerization of the civil and public service, especially the activities and the operations of the Ministry of Education and its organs in the Prefectures and the Communes (v) developing the necessary standards, best practices and guidelines to guide the deployment, exploitation of ICTs in the schools, colleges and the universities and (vi) providing the necessary institutional set-up to support ICT exploitation and development within the educational system, the ICT training provision sector and the research institutions.

6. Strategy F: *To improve the human resource development capacity of Rwanda to meet the changing demands of the economy.*

It is envisaged that the improvement of the human resource capacity of Rwanda to such a level that it can facilitate and support all key sectors of the economy can be accomplished within ten years. Again ICTs can play a major role in achieving the goals of this Strategy. Specifically human resource development (HRD) programmes will need to be incorporated into the 1st and 2nd NICI Plans aimed at developing and improving the pool of ICT professionals in Rwanda and for developing other professional skills in science, technology and in business.

The implementation of this strategy will on the whole require:(i) putting in place special ICT promotion packages and incentives to encourage the private and public sector organization to invest in the development of human resources to meet their needs (ii) implementing on a national level a number of HRD initiatives to boost up ICT skills and other skill areas (iii) mobilizing and deploying the necessary financial and technological resources to facilitate the implementation of HRD programmes and initiatives (vi) developing the necessary standards, best practices and guidelines to guide the process of HRD in key all sectors of the economy and (vii) providing the necessary and institutional support for facilitating HRD on a national basis.

7. Strategy G: *To develop the legal, institutional and regulatory framework and structures required for supporting the deployment and utilization of ICTs within the economy and society.*

It is envisaged that the bulk of work involving the development of the legal, regulatory and institutional framework could be carried out in the first two NICI Plan periods. It is however anticipated that some of the work will be carried over to the 3rd and 4th NICIs.

8. Strategy H: *To facilitate the process of national reconciliation and reintegration by promoting social and cultural interaction within the society*

It is anticipated that the implementation of this Strategy will transcend all four NICI Plans and beyond. ICTs could in some way be used to facilitate the process of social and cultural interaction at all levels of the society, which could translate into facilitating the process of national reconciliation and social reintegration. The realization of the goals of this Strategy could in some way be facilitated by (i) implementing a number of national ICT applications specially targeted at improving the process of social interaction within the communities and (ii) mobilizing and deploying the necessary financial and technological resources to implement specific ICT programmes that support the objectives of this strategy.

General Observations

1. It is envisaged that for Strategies whose implementation span more than one NICI Plans, specific goals or targets for each of the identified programmes, projects and initiatives will be set within each of the NICIs. For example, taking the case of Strategy F, which span the 1st and 2nd NICIs, specific targets/goals will be set for each of the HRD programmes identified for implementation within the 1st NICI Plan and likewise for those programmes targeted for implementation under the 2nd NICI Plan.

2. It is also possible that the same HRD programme implemented in the 1st NICI Plan will also be identified for implementation in the 2nd. In that case, the targets set for the 1st NICI will have to translate into those set for the 2nd NICI. For example, a programme to develop a pool of professional ICT personnel like system analysts could have a specific target in the 1st NICI as: increasing the number of system analysts in Rwanda by ten folds and in the 2nd NICI as: increasing the actual number achieved by the end of the 1st NICI by five folds.

Notes on the SUNRISE Model: A framework for the Development and Implementation of NICI Plans for Rwanda

The SUNRISE model was developed as part of the integrated framework for socio-economic and ICT policy and plans implementation for Rwanda to guide the development of the 1st Five Year NICI Plan (NICI-2005). The model provided a framework for identifying suitable programmes, projects and initiatives for incorporation into the Plan. It is envisaged that this model will be modified on the basis of the outcome of the NICI-2005 to also serve as a framework for developing subsequent NICI plans.

The Goal of the NICI-2005 Plan

The goal of the NICI-2005 is to use the eight Strategies identified for attaining the stated Missions of the Vision for Rwanda to support the development of the necessary economic base and environment to facilitate the process of moving Rwanda from a PAE to a PIKE. The NICI-2005 will therefore provide the spring-board from which Rwanda can take-off to achieve the transformation of its economy to a PIKE by implementing subsequent NICIs [NICI-2010, NICI-2015 and NIC-2020].

Supporting the development of the 'take-off base' using NICI-2005 will require:

- the implementation of special ICT promotion packages, policy instrument and incentives;
- the development of the necessary human resources in ICTs and other professional areas;
- the implementation a number of national ICT applications across all sectors,
- the mobilization and the deployment of the necessary financial and technological resources to support the implementation of targeted programmes and initiatives;
- the modernization of the civil and public service, -- one aspect of this being the computerization of their activities and operations;
- the development of standards, best practices and guidelines to guide the deployment, exploitation and development of ICTs in key sectors and
- provision of the necessary legal, regulatory and institutional framework to support ICT development in Rwanda.

Components of the SUNRISE Framework

The elements of the SUNRISE model were developed based of the goal of NICI-2005 as defined above. Each of these components corresponds to a letter in the phrase 'SUNRISE'.

- ***The Components***

S -- Special ICT Promotion Packages, Incentive Programmes and Policy Instruments

U --- Universal Human Resource Development Programme

N ---- National ICT Initiatives (NICTIs)

R ---- Resource (Financial and Technological) Mobilization and Deployment

I ----- Integrated Civil and Public Service Computerization Programme

S ---- Standards, Practices and Guidelines for ICT Deployment and Exploitation

E ---- Enabling Legal Regulatory and Institutional Framework

S -- Special ICT Promotion Packages, Policy Instruments, and Incentive Programmes

To facilitate the process of promoting the development and exploitation of ICTs in the economy and society, the GOR will need to put in place special policy packages, incentive programmes and policy instruments. It will therefore be necessary for the government to take necessary policy and programmatic initiatives that will facilitate the process of moving Rwanda towards predominately an information and knowledge-base economy (PIKE) in the shortest possible time.

U --- Universal Human Resource Development Programme

Human resource problem has been identified as one of the main obstacles to socio-economic development in Rwanda. The urgent need for putting in place a comprehensive universal human resource development programme to develop the ICT skill and other professional skill capacity for Rwanda has been acknowledged. Within this background, a key component of the SUNRISE model for developing NICI-2005 is putting in place a number of human resource development programmes and initiatives.

N ---- National ICT Initiatives (NICTIs)

For ICTs to assist the developmental process and make its impact felt within the economy and society, it will not be enough for the government to put in place a number of special ICT promotion packages, policy instruments, and incentive programmes. Equally important is the need to implement a number of national ICT Initiatives (NICTIs) across all sectors, especially in the lead sectors identified within the ICT-2020 Policy framework. Some of these applications, which will be executed as projects and programmes may be targeted specifically at aiding the delivery of government services; the dissemination of information; facilitating the introduction of computers into schools; supporting the implementation of government policy and plans in areas like: rural development, decentralization, good governance and democratic participation; institutional and capacity building among others.

R ----- Resource (Financial and Technological) Mobilization and Deployment

Apart from the development and mobilization of human resources, as critical factors for ICT development, deployment and exploitation to aid the socio-economic development process in Rwanda, there is also the need to mobilize the necessary financial and other technological resources without which most of the programmes and initiatives identified for implementation under NICTI-2005 will not be possible. For example, the development of the required human resources and the implementation of the NICTIs will all require considerable financial resources. Also the implementation of some of the NICTIs will require the need to put in place the necessary technological infrastructure. The mobilization and deployment of the necessary financial and technological resources is therefore crucial for the implementation of the 1st and subsequent NICTI Plans.

I ----- Integrated Civil and Public Service Computerization Programme

The modernization of the civil and public service is an on-going government exercise. It has been acknowledged that a modernize and efficient civil and public service is a prerequisite for socio-economic development in Rwanda and ICTs can play a facilitating role in this area. An integrated programme to computerize the activities and operations of the of the civil and public service has been identified as a key component of the modernization process. This will assist in improving the efficiency and service delivery operations of the civil and public service.

S ---- Standards, Best Practices and Guidelines for ICT Deployment and Exploitation

The deployment, exploitation and the development of ICTs in Rwanda will need to be guided by some standards, best practices and guidelines.

E ---- Enabling Legal, Regulatory and Institutional Framework

The development and the exploitation of ICTs in the economy and society will need to be supported and facilitated by necessary legal provisions and legislation, regulatory framework and provisions as well as institutional structures.

SUNRISE + 1: NICI Performance Monitoring and Evaluation

The SUNRISE framework also take into account the need for incorporation into the NICI implementation framework a programme for continuous performance monitoring and evaluation of the NICI-2005 programmes, initiatives and projects.

This monitoring and evaluation process will facilitate the taking of corrective measures if the stated targets, goals or objectives of a given programme is not being met or achieved during the life of the NICI Plan. It is also possible that some of the corrective measures may involve the drawing up of new programmes, initiatives and plan-actions for implementation within the current NICI or subsequent ones.

The NICI plan monitoring and evaluation process will also facilitate the process of amending the details of the SUNRISE model to guide the identification and development of suitable programmes for incorporation into subsequent NICIs. The monitoring and evaluation framework will therefore serve as the main driving force for facilitating transition from one NICI to another.

Notes on the NICI Development Process: The NICI Cycle

The actual NICI development, implementation process (the NICI circle) will involve the following stages:

Stage 1: *Identification and Selection of Programmes, Projects and Initiatives for incorporation into the NICI Plan*

This process is to be guided by the: ICT-2020 Policy Framework, and the Socio-Economic Development Policy Framework Guidelines (the formulation of both of which are based on the objectives of the Vision 2020, and the GOR development policy strategies and priorities). This process will also be guided by the SUNRISE model in case of NICI-2005 or a version of this model in the case of subsequent NICIs.

Stage 2: *The Development of Programme Profiles for each of the identified NICI programmes, projects and initiatives.*

This Programme Profile will document among other things: the objectives and the description of the programme, programme targets, its ICT-2020 and socio-economic development policy relevance, which NICI it belongs to and so on.

Stage 3: *The Implementation, and Monitoring of the Programmes, Projects and Initiatives*

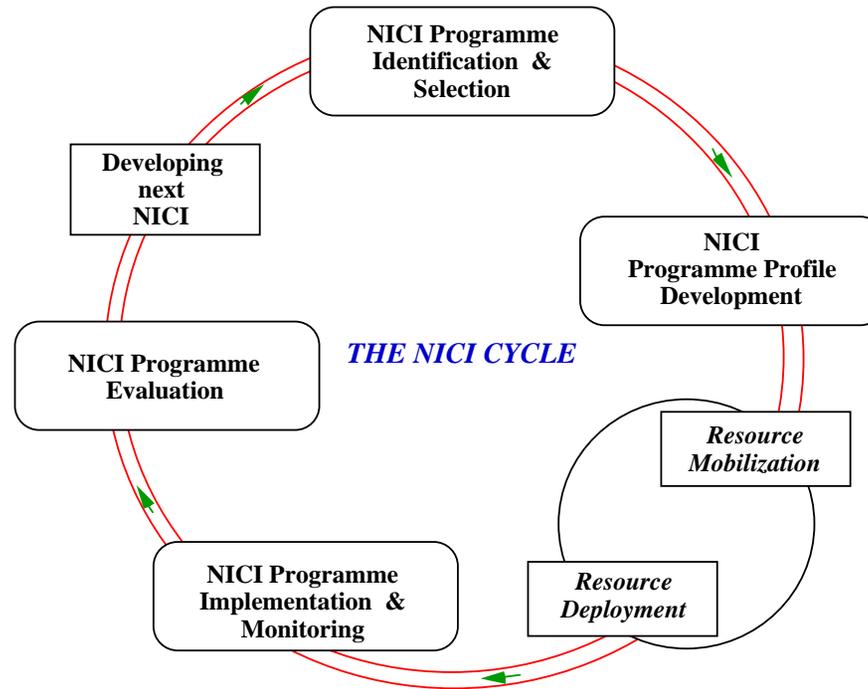
This will involve the actual implementation of the programme within the given time frame and monitoring its performance to facilitate corrective measures if the need arises

Stage 4: *Evaluation of the Performance of the NICI against set targets/goals of each of its programmes, projects and objectives*

This will be done at the end of the NICI implementation exercise to evaluate the extent to which programme targets or goals have been achieved

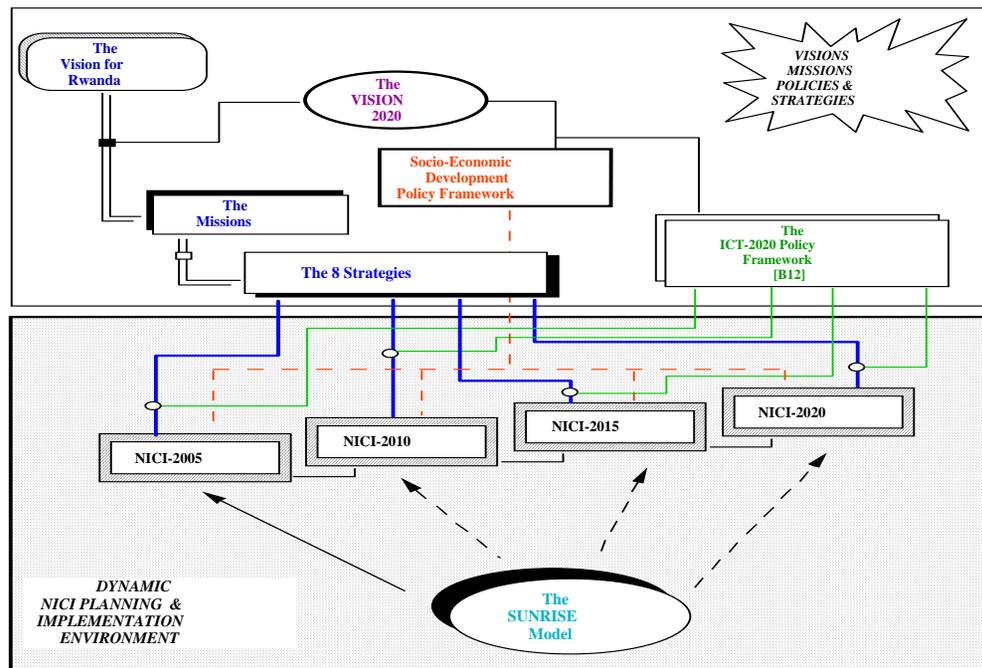
Stage 5: The Development of the next NICI.

The NICI Cycle



Notes on an Integrated Socio-Economic Policy Development and a Dynamic NICI Planning and Implementation Framework for Rwanda

The diagram below is an illustration of the integrated framework for socio-economic policy development and NICI planning and implementation for Rwanda. It depicts the inter-relationships between the key components developed in this study for facilitating a *SUNRISE* model-driven dynamic *NICI Plan* development, implementation, monitoring and evaluation within the context of the proposed *ICT-2020 Policy framework*, the *Socio-Economic Development Policy framework* guidelines and the *Eight Strategies* identified for achieving the stated *Missions* of the *Vision for Rwanda* which takes accounts of the objectives of the *Vision 2020*.



In a nutshell, the *SUNRISE* model (for guiding the development of the 1st *NICI*) or a variation of it (for guiding the development of subsequent *NICIs*) will provide the necessary dynamic transition from one *NICI Plan* to another, with the programme content of each of these *NICIs* set within the background of the integrated socio-economic and ICT policy and plan development and implementation framework developed for achieving the *Missions* of the *GOR vision* for the future.

Appendix 2:

The NICI-2005 Plan Steering Committee

The NICI-2005 Plan Steering Committee was set-up by His Excellency President Paul Kagame in August 2000 to co-ordinate the development of Rwanda's 1st National Information and Communication Infrastructure (NICI) Plan for 2001 to 2005 (NICI-2005) to be based on the GOR's Integrated Socio-Economic Development Policy approved by the Cabinet.

The work of the Committee was facilitated by an Economic Commission for Africa (ECA) Consultant – acting as the Resource Person and Facilitator responsible for preparing the various Drafts of the Plan and the associated Working Documents on which the Committee deliberated on at its working sessions. The Committee had three working sessions and discussed three separate Drafts of the Plan. The current Draft, which is the Final Draft of the Plan (as per this document) prepared by the Consultant was discussed by the Committee at its final session on 5th March 2001. The Final Plan will be produced by the Consultant for submission to the Cabinet after the Ministerial level Seminar scheduled for April 2001 to discuss the details of the Final Draft.

Membership of the Committee

- Mr Ephraim Rutaboba, Secretary General, MINISTRACO (Co-ordinator)
- Professor Silas Rwakabamba, Rector, Kigali Institute of Science Technology and Management (KIST)
- Dr. David Himbara, Principal Private Secretary to the President, Office of the President
- (Alternate: Mr. Claver Gatete, Director General, Economic Affairs, Office of the President)
- Dr. Ephrem Ruzindana, Director, Information Technology Services, Ministry of Defence
- Mr. Gaston Bushayija, Director, Management Information Systems Department, Central Bank of Rwanda
- Mr. Pipiani Hakizabera, Executive Secretary, Rwandan Private Sector Federation
- Mr. Charles Semapondo, Technical Director, Rwandatel
- Mr. Emmanuel Rugomboka, Technical Manager, Kigali Institute of Science Technology and Management (KIST)

Co-opted Members

Dr. Pius Ndayambaje, ICT Advisor to the President, Office of the President
Mr. Assumani Bizimana, Director of Communications, MINISTRACO

Resource Person and Facilitators

Professor Clement K. Dzidonu

- President & CEO, International Institute for Information Technology (INIIT).
- Chairman, Dept. of Computer Science, Valley View University.
- ICT Consultant, Economic Commission for African (ECA)
- Mr. Makane Faye, Senior Regional Advisor in Information and Communication Technology Policy, ECA