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Report on Country-wide Consultations

for

**An Integrated Socio-Economic and ICT
Policy and Plan Development Framework
for Malawi**

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ABBREVIATIONS

AISI	AfricanInformationSocietyInitiative
CEO	ChiefExecutiveOfficer
COCI	ChambersofCommerceandIndustry
DISTMS	DepartmentofInformationSystemsandTechno logyManagementServices
GOM	GovernmentofMalawi
GWAN	GovernmentWideAreaNetwork
ICT	InformationandCommunicationTechnologies
IFMIS	IntegratedFinancialManagementInformationS ystem
IKE	InformationandKnowledge-basedEconomy
ISDN	InternationalSwitchedDataNetwork
MAGIC	MalawiGeographicInformationCommittee
MASEDA	MalawiSocio-EconomicDatabase
MIC	MultipurposeInformationCentres
MIE	MalawiInstituteofEducation
MIS	ManagementInformationSystem
MRA	MalawiRevenueAuthority
MSCE	MalawiSchoolCertificateofEducation
NICI	NationalInformationandCommunicationInfrast ructure
NICTA	NationalInformationandCommunicationTechn ologyApplications
NII	NationalInformationInfrastructure
OPC	OfficeofthePresidentandCabinet
PAE	PredominantlyAgricultural-basedEconomy
SME	SmallandMedium-scaleEntrepreneurs
TDC	TeacherDevelopmentCentre
UNDP	UnitedNationsDevelopmentProgramme
UNECA	UnitedNationsEconomicCommissionforAfrica
UNIMA	UniversityofMalawi
VP	VicePresident

Preface

The Malawi ICT policy and plan development process is based on a methodology developed by the United Nations Economic Commission for Africa (UNECA) within the framework of the Africa Information Society Initiative (AISI). The process is aimed at four key outputs, namely: the Framework, Policy, Plan and Structures.

The draft Malawi National ICT Policy framework document, the first output of this process coordinated by the Interim ICT Committee, was completed in 2002. Under the coordination of the Department of Information Systems Management and Technology Services (DISTMS), the draft ICT Policy Framework document was presented to the Malawi National ICT Committee for adoption in August 2002.

The Committee adopted the draft Framework Document with modifications and made a number of observations and recommendations on the Way Forward for this process. The National ICT Committee agreed that country-wide consultations on the draft Malawi National ICT Policy framework document be conducted with key stakeholders to;

- a) Solicit their feedback and final input to the document before the Policy is drafted;
- b) Enable stakeholders to enrich the document and;
- c) Stimulate national ownership of the Malawi National ICT Policy Framework document.

This report presents feedback, comments and recommendations from the national stakeholders consultation process on the Malawi National ICT Policy framework document.

I acknowledge the support of the Department of Information Systems and Technology Management Services and the National Economic Council in this consultancy.

1 National ICT Policy Framework Consultations

The Malawi National ICT Policy framework document consultations coordinated and facilitated by the National ICT Committee Secretariat were conducted through various stakeholder meetings held between February and March 2003 in all three regions of the country. Organisations consulted included universities, communication and utility regulatory authorities and providers and a cross-section of the private sector based in the four main centres of Blantyre, Zomba, Lilongwe and Mzuzu. The detailed list of institutions and individuals consulted is provided in Appendix 2 of this report.

The consultation process was successful in generating wider support for the Malawi National ICT Policy process and raising awareness among key stakeholders, of the critical role that ICTs can contribute to enhancing the overall socio-economic development of the country, however the enthusiasm of the stakeholders was overshadowed by a number of critical concerns which need to be addressed to ensure the success of the process.

- Institutional Structures, Plans and Provisions must be clearly elaborated to fully coordinate, support and integrate ICTs into the major development policies and sectors in Malawi if the National ICT Policy is going to comprehensively contribute to economic development of the country;
- There must be clear leadership and championing of this process to guide and support the integration of ICTs into all sectors of the economy;
- Timeframe - Vision 2020 timeframe. The overall implementation timeframe needs to be looked at very critically. Note that the year 2004 is significant in the national calendar, it may be difficult to finalise the policy in 2004 due to the upcoming national elections. It is therefore important to complete the policy development process expeditiously;
- Human resources being the key for the success of the implementation of ICTs for development, Malawi must critically address any issues that will negatively impact on, and deplete the pool of human resources to be developed to support this sector. The current HIV/AIDS scourge has already played a major role in depleting human resources in key sectors of the economy and the ICT sector has not been spared;
- Concern was raised that in referring to other national policy frameworks, we must not lose sight of the fact that the Malawi National ICT Policy framework document must take cognisance of issues that are peculiar to Malawi and that would defeat a policy based on any "external" assumptions and ensure that recommendations from other countries are customised to our situation.

1.1 Approach

The consultative process was conducted by circulating copies of the Malawi National ICT Policy framework document to key stakeholders prior to the presentation of the Framework. At each meeting, the consultant presented an electronic abstract version of the document and sought comments, feedback and recommendations from the stakeholders. This report summarises the proceedings.

The Malawi National ICT Policy Framework document outlines the SUNRISE model for the development and implementation of National Information and Communication Infrastructure (NICI) plans. The SUNRISE model forms part of the UNECA methodology for guiding the development of national ICT plans and provides a framework for identifying and guiding the implementation of suitable programmes, projects and initiatives that could be incorporated into the NICI Plans. In this report we have adapted the model to serve as a guideline for categorising comments, recommendations and feedback from the national stakeholders and to assist in identifying candidate programmes and initiatives, which could be developed for implementation in the Malawi National Information and Communication Infrastructure plans.

1.2 Are Information and Communication Technologies (ICTs) Pro-Poor?

The justification for a developing country such as Malawi to place a greater emphasis on ICTs is no longer a debatable issue although the opportunity cost of investing in ICTs is so much higher than in most developing countries. The socio-economic benefits that can be derived to the population of the country from the implementation of ICTs in the economy far outweigh the disadvantages. There are multiple interventions and demonstrated benefits that communities in other developing countries have realised through the introduction of ICTs as a vehicle for enhanced socio-economic development of their countries. Some examples are listed below:

1.2.1 Small and Medium Scale Entrepreneurs (SMEs)

ICTs have enabled Small and Medium Scale Entrepreneurs (SMEs) – small traders and craftspeople, both in Malawi and other developing countries to extend their markets through the use of email and the Internet as a mode of advertising and communication with their international clients.

An SME that exported woven baskets from Malawi to Belgium and Germany was able to expand her business more than tenfold through the use of email as a mode of efficient communication. A dressmaker in Ghana uses email to communicate orders from her international clientele. She receives her payments through Western Union money transfers.

1.2.2 Market Information

Timely availability of market and transport information for farmers can enable them to obtain better prices for their inputs and produce, ultimately reducing their “middle-man” costs and providing better income directly to the farmer themselves.

1.2.3 HIV/AIDS and Health Information

ICTs provide an excellent medium for the dissemination of critical health information across the country. They can also be used as an efficient medium for providing training, information and statistics on HIV/AIDS sensitisation campaigns or prevention methodologies.

1.2.4 Management Information

ICTs are the most effective means of providing organisations with critical timely management information for improved decision-making.

1.2.5 ICT Distance Learning – eLearning

ICTs can significantly accelerate the government's ratio of access to secondary and tertiary education through the provision of distance education through eLearning initiatives. This would facilitate remote access to curricula, documentation and training for more students than can currently be provided through the existing educational infrastructure in the country.

2 National Stakeholder Consultations Observations Analysed Using the SUNRISE Framework

The components of the SUNRISE model, each of which corresponds to a letter in the acronym 'SUNRISE' are:

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

U-U Universal Human Resource Development Programme

N-N National ICT Applications (NICTAs)

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

I-I Integrated Civil and Public Service Computerization Programme

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

E-E Enabling Legal, Regulatory and Institutional Framework

The SUNRISE model provides a basis for the analysis carried out in the Malawi National ICT Policy framework document relating to how each of the strategies identified for attaining the missions of the ICT-led socio-economic development vision are to be implemented over the four NICI plans.

3 S–Special ICT Promotion Packages, Incentive Programmes and Policy Instruments

To enhance/encourage the effective utilisation of ICTs to enhance socio-economic development of the country, the GOM will need to initiate specific packages, incentive programmes, design policy instruments and put in place specific programmes within the NICI plans to stimulate key stakeholders and sectors of the community to actively support the goals, visions and missions of the Malawi National ICT Policy.

These ICT promotion packages, incentive programmes and policy instruments must be developed with the full collaboration and support of key stakeholders and decision-makers who will ultimately be impacted by their implementation to garner the full support and commitment from all sectors involved. We take full cognisance of the fact that tax incentives, cannot be applied to all products and processes as the tax base of the GOM is already limited within the economy. It was raised, however, that the long-term benefits to the overall socio-economic development to the country of any tax (or other) incentives should be clearly analysed in their contribution towards stimulating economic growth and creating employment in new sectors to gain support and government commitment to the implementation of such incentives. Key stakeholders must be included in the process for a full appreciation of these incentives to be realised and implemented in a timely manner.

An example is where Malawi successfully applied tax incentives in the ICT sector by the removal of duty on imported computers in the GOM budget of 2000. This was a very positive move, recognised by key member countries of the G8 present at the Okinawa Summit of Unfortunatly, in the implementation of this tax incentive, duty was retained on computer parts, making it more expensive to import computer parts and components used in assembly of computers thereby creating a disincentive for the establishment of a comprehensive computer assembly industry in Malawi.

This would have facilitated the development of skills in computer assembly and also had the potential to generate additional revenue for the country through the establishment of a regional computer export industry as the neighbouring countries at the time, still had duty on imported computers. Clearer awareness and coordination amongst decision-makers highlighting the overall impact of the partial implementation of this tax incentive could have opened up this opportunity. A number of the neighbouring countries have since implemented a similar reduction or removal of tax on computers and have extended the incentive to tax on computer components.

The government apart from putting in place mechanisms for providing and facilitating the necessary enabling environment will also need to address policy issues directed at implementing special tax packages, instruments, and incentive programmes to promote the development of the information society and economy of Malawi. As part of its comprehensive ICT policy and plan the GOM need to take the necessary policy and programmatic initiatives that will include implementing the necessary budgetary packages and investment incentive programmes to promote the deployment, exploitation and development of ICTs in the economy and society to facilitate and accelerate the process of moving the economy towards an information and knowledge-based economy.

3.1 Education

- Need to provide incentives for ICT teachers and trainers to train and develop skills in the sector and for them to deliver ICT training effectively
- Legislation. Instruments to force the Private Sector to contribute resources to ICT development. E.g. TEVET.
- Includes special promotion incentives to HR development.
- ICT should be a component in EVERY training programme irrespective of the technical aspect (at Tertiary levels) integration is inevitable.
- Tele-education must be introduced for introducing distance education
- Every discipline must include a general computing component
- Recommendations should be placed in all training institutions that every module in tertiary education must include a general computing component
- ICT Awareness campaigns must be conducted for senior staff members of key organisations and institutions such as the Malawi Revenue Authority (MRA) and Principal Secretaries of line Ministries;
- Tax incentives, once established can have a timely impact to stimulate the market first before reverting to regular taxation.

3.2 Computer Assembly

- Duty on computers is zero as a way of promoting the use of computers, however, should you need a computer spare part duty is still charged on the spare parts, software and other ICT accessories.
- Incentives must be introduced to encourage the establishment of computer assembly businesses
- Introduction of computer assembly facilities and businesses will generate employment and facilitate the development of new skills in Malawi to maintain and repair computers
- Duty on spare parts must be removed so that Malawi ICT manufacturers and producers rather than just consumers.

3.3 Incentives

- The cost of all ICT equipment designated for use in the rural areas must have preferential importation tariffs attached to them to encourage ICT service providers to invest in the rural areas which cannot generate enough to cover the cost of extending services to these areas;
- ICT must be used to stimulate growth in the rural areas;
- There must be tax incentives introduced for rural ICT development
- Incentives must be introduced to encourage computer assembly businesses

3.4 Other Incentives

- Incentive must be introduced in the Public Sector. A major concern and he expressed his fear that those trainers might look for greener pastures.
 - Computers at a certain level are an incentive in themselves
 - A lot of emphasis has been put on the private sector role within inadequate attention being made to the other sectors such as the education, health, agricultural sectors.
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- The tele-density of Malawi needs to increase and there is therefore the need to source and deploy. Government must programme and source aimed at achieving this goal.
- Time is running out for Malawi and the development will widen further unless steps are taken as a matter of national priority to create incentives to stimulate support for this process from the private and public sector.
- The industrial base of Malawi is narrow – very little manufacturing is done, the private sector is mainly involved in trading and distribution of mainly imported goods, incentives and programmes need to be put in place to stimulate rapid expansion and development of the service-sector, particularly ICTs.
- The services sector although under-developed has the potential to grow with the right policies and incentives – need to give priority to this sector.
- The private sector needs to be involved in the development and deployment of the ICT infrastructure in the country and government needs to put in place the enabling environment to facilitate the private sector in this regards.
- Any equipment for rural ICTs currently has the same high taxation as equipment for the urban areas. There should be preferential taxation for ICT equipment to be installed in the rural areas. Govt should do more in promoting such infrastructure in the rural areas.
- The ICT policies and plans need to be blended with programmes and initiatives will need to be developed to implement key provisions of policies commitments of Government.
- The process needs to be supported at the CEO level to ensure an active engagement of the private sector in the process.
- All ICT donations must have a budget provision included for training if it is not already catered for in the recipient institution's budget.
- The failure and closure of a lot of new telecentres and Internet cafés is attributed to the very high, prohibitive cost of telecommunications.
- Low-interest venture capital funds should be made available for the development of businesses in the ICT investment sector.
- The Policy should intervene in financing ICT projects so that the lending institutions are responsive to the need to develop the ICT sector, possibly through existing institutions such as DEMATT, SEDOM or INDEBANK. Unfortunately, loans given by these institutions are very limited and have a long string of string of conditions.
- Operational costs for ISP's are very high and they do not have economies of scale. Maintenance costs and Cost of access are very high, is it possible to advocate for reducing the price of access to the Internet and email?

4 U–Universal Human Resource Development Programme

Throughout the national consultations, emphasis has been placed on the human resource capacity available within the country to support and sustain the implementation of the National ICT Policy. All stakeholders highlighted this as one of the key factors upon which the successful implementation of the policy will be determined.

A summary of stakeholder comments is listed below:

The ICT sector is the industry of the future and it is currently driving the economic growth and development in countries across the globe. ICTs are creating jobs, facilitating global competitiveness and generating wealth and enhancing management capabilities in a number of developing countries. In the new emerging information revolution, it was recognised that the ultimate key to the success and sustainability of the integration of ICTs into national socio-economic development process and the implementation of this ICT Policy for the country are the Human Resource Capacity to implement, manage, support, sustain and effectively utilise ICTs.

For Malawi, a developing country with minimal natural resources, a predominantly agricultural based economy and a weak industrial base, it was recognised and acknowledged that our human resources are the key to our participation in the rapidly developing global economic environment. ICTs on their own are merely tools for development, however, the key to their effective use and application in national development and wealth generation are in the capability of the human resources of the country to apply them to enhance their socio-economic goals, missions and visions.

The Human Resource Capacity Development was therefore highlighted as a national priority issue for which strategies must be developed to address the requirements for the successful implementation of this Malawi National ICT Policy. Various stakeholders emphasised the need for ICT training and awareness to be integrated into the educational curriculum from Primary school through to University, Teacher Training and Vocational Training institutes. In the private and public sectors, it was emphasised that decision-makers at all levels must be made aware of the critical role ICTs can play in enhancing their organisational efficiency in order for them to fully support the integration of ICTs into the economy.

4.1 Critical Factors Impacting on the Human Resource Development

An issue of major concern is the depletion of the human resources in this very specialised ICT sector that can be attributed to a number of key factors:

- Malawi cannot afford the depletion of its pool of ICT professionals currently being severely impacted by the HIV/AIDS epidemic. There is a need to sensitise and build awareness in the ICT sector.
- Insufficient access to professional ICT training centres in Malawi is hampering the development of a well-supported ICT sector.
- The brain-drain of Malawian ICT professionals to redeveloped countries, able to provide better financial rewards for ICT professionals is also severely negatively impacting on the sector. The slow growth, to date of the sector and the lack of recognition

and awareness of the significance of ICT to the economic development of the country has contributed to the ability of the country to train ICT professionals.

Further comments and recommendations on addressing the human resource capacity to support ICTs are detailed below:

4.2 Human Resource Capacity Development

- Human capacity is the greatest weakness in Malawi;
- Technology issues are not very loud in Malawi – may be because those being presented with issues relating to technology already have a high level of exposure to technology. Clear strategies must be implemented to sensitise and train senior decision-makers in ICTs;
- Exposure to technology is very important for acceptance or training in ICTs;
- The effective application of self-teach computer programme training is limited by the lack of prior exposure to ICTs assumed and inherent in the design of these programs;
- There must be more noise made about ICTs and what they can do for our socio-economic development, in public fora and in the electronic and print media – we need to be made greater awareness of ICTs if any significant progress is to be made;
- Computers are being used as glorified typewriters, users need additional training to enhance the effective utilisation of ICTs;
- The emphasis on human resource development (HRD) is key to the success of this ICT Policy, without it the implementation of this policy will not be possible.
- There are numerous computers in the country that are currently seriously underutilised due to lack of appropriate training. Training must therefore be made a priority to enable organisations to maximise on their investment in ICT equipment.
- Simplify training to make it appropriate or tailor it to the needs of the recipients;
- There is a lack of ICT training in industry, school and all sectors of the government;
- Client training components must be included in Internet Service Providers (ISP) service installation.
- One would want to see local capacity built in Malawi and this capacity must be recognised;
- Governments should increase its commitment to HRD at all levels to support ICT's.

4.3 The Impact of HIV/AIDS on the ICT Sector

- The ICT sector has not been spared from the impact of the HIV/AIDS pandemic affecting Malawi; these severe depletion of the human resources of Malawi;
- There is a need for awareness building on the issue of HIV/AIDS in the ICT sector in Malawi to reduce the further depletion of professionals in this sector that is so critical to the development of the country and its participation in the globalisation process in particular;
- Some sectors of the economy are already facing up to 46% depletion in the human resources in their sectors as a result of the HIV/AIDS pandemic. The ICT sector has, to date, not made any effort to assess the overall impact of HIV/AIDS on the sector although it is acknowledged to be significant, both in the public and the private sectors. These sectors cannot ignore the impact of HIV/AIDS and must therefore take

- serious steps to address and minimise the impact of the pandemic on the sector in particular and the country as a whole;
- ICTs are in the unique position of being able to provide a medium for the rapid deployment and dissemination of information and ways of utilising these very powerful tools to assist in providing and disseminating knowledge and information on HIV/AIDS, access to medication, are critical interventions to help the country in its battle against HIV/AIDS pandemic.

4.4 Educational Institutions

- In the education sector, we need as much help as we can get to introduce children nearly to training in ICTs;
- The Computer study syllabus for Secondary schools is already being implemented;
- A primary school curriculum is in the process of being developed and will be out in 2005;
- ICT training must be a component in EVERY training programme at Tertiary institutions; irrespective of the technical or non-technical aspect of the course;
- Educational institutions must aim at enhancing the use of computers;
- Need to provide adequate resources for teaching and learning in ICTs;
- Does Malawi have teacher trained in the delivery of ICT courses? If the GOM were to train them, surely they would leave for the private sector due to a lack of incentives in public schools;
- There is less opportunity for the GOM to be able to retain ICT teachers;
- The private schools will get the more benefit from trained ICT teachers than government schools unless incentives are found to retain ICT teachers;
- A new curriculum – Computer Studies has been developed and introduced into the public Secondary Schools. Malawi Institute of Education (MIE) is currently reforming the Primary school curriculum to introduce Computer Studies into the Primary school curriculum.
- Curriculum review - Primary, Secondary must involve universities.
- To ensure that the concept of installing computers into schools is sustainable:
 - Teachers must be trained in the use of computers;
 - Computer maintenance skills must be taught at the schools;
 - Clear thought and planning must be given to the introduction of automation projects;
 - The level of management at Primary schools around ICTs must not be a very junior, non-professional level e.g. junior staff and messengers
- Educational institutions face a major challenge for ICTs to take root and succeed in Malawi.
- Adonis is bringing in Trainers to train teachers in the use and application of ICT's in teaching in support of the Schoolnet programme. Teachers from selected schools receiving equipment under the pilot Schoolnet initiative will be the first recipients of this training. The project aims to propagate these skills;
- Currently, the Polytechnic is conducting ICT training with a 1:6 computer to student ratio in their department – there is a desperate need for more resources to be allocated to tertiary institutions for more efficient ICT training;
- With so few computers in the ICT department, how will other departments expose their students to ICTs?
- Introduction of computers at a tender age – very welcome, but human resource capacity to manage the PCs might be difficult to find;
- There is a Schoolnet program underway sponsored by donors, 6 schools in Malawi have so far benefited from it, receiving 30 computers each;

- Educational institutions have a big role to play in the promoting and fostering the role that ICTs play in the economy;
- ICT literacy includes the ability to READ BOOKS on ICTs. Malawi has a very poor reading culture and the Universities have inadequate reading material or books on ICTs;
- Mzuzu University has made ICT education compulsory in all disciplines;

5 National ICT Applications

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 as described above. Equally important is the need to implement a number of national ICT Application (NICTAs) across all sectors. 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. Comments from stakeholders are summarised below:

5.1 Computers in Schools Programme

- A number of initiatives have been started to place computer equipment in schools. One of these initiatives is the pilot Malawi Schoolnet Project, which has already placed 180 computers into 6 government secondary schools, with 30 computers in each school;
- Tele-education must be taken up as an alternative of facilitating distance education targeted at higher institutes of learning and secondary and in particular university levels;
- Mzuzu University already has plans to introduce tele-education programmes to extend its outreach to the community.

5.2 Electronic Government and Governance Initiatives

- ICT should be used to help in the delivery of government products and services e.g. access to standard government application forms should be made electronically available on the web;
- ICT should be used to help facilitate the coordination and management of the government decentralisation process in all the Districts and District Assemblies;
- Malawi must enhance the use of ICT facilities e.g. email or uploading information to the website, for more efficient daily operations.
- Some national government ICT systems and initiatives include:
 - The Road Traffic Management Information System (MIS) for computerised driving licenses and vehicle registration books
 - ASCYUDA—the computerised Malawi Revenue Authority Customs revenue MIS
 - The Computerised Passport System
 - IFMIS—The Integrated Financial Management Information System
 - PPI—The Personnel and Payroll Management Information System
 - MASEDA—Malawi Socio-Economic Database, the National Statistical Office electronic national statistics database
- For National ICT Applications such as IFMIS—etc, we must have emphasis on local participation to build and enhance local capacity in Malawi;
- There must be transparency and accountability in soliciting services for NICTAs within the country;

- One would want to see local capacity built in Malawi and this capacity must be recognised;
- Local Software Developers are not being promoted;
- National Geographic Information System (GIS) applications
 - Malawi has a national GIS project being coordinated by the Malawi Geographic Information Committee – MAGIC, currently in the process of setting up a Spatial Data Centre for the country
- ICTs provide better access to agricultural products prices, availability and markets.
- ICTs provide better access to market and product information and knowledge of agricultural products.

5.3 E-Commerce

- More e-Commerce applications should be set up to take advantage of the MALSWITCH electronic backbone that has been established in the country;
- A number of organisations in the country are now starting to use the e-Commerce facilities established by the Reserve Bank of Malawi through the MALSWITCH Project;
- SMEs must be sensitised to the advantages and applications of e-Commerce.

5.4 National Databases and Management Information Systems – MIS

- There must be a concrete plan for establishing national databases and management information systems (MIS) to support the administrative and management activities and information dissemination functions of selected Government Ministries and Public Sector Organizations;
- There must be a clear comprehensive plan for digitising and converting all the critical data of government to electronic or microfiche form;
- When companies have ICT problems contracts are normally given to external expertise;

5.5 Telecentres

- Multipurpose community centres must be set up to facilitate broader access to ICTs for communities
 - Concerns were raised as to how will be responsible for the management and maintenance of the computer equipment at these telecentres? The community through private-public partnerships.
 - These should be run jointly with business people in the area concerned and awareness raised to develop local ownership of the centres raised and managed;
 - MSCE holders can be trained to run the telecentres and even conduct maintenance of the equipment;
 - IKE-based economies sideline the rural people
 - Telecentres could redress the situation by providing relevant information for economic empowerment or Cellular phones in other developing countries such as India are used for business empowerment
 - Libraries located all over the country must be considered for use to host ICTs and create local telecentres for community access;
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- There are 315 Teacher Development Centres (TDCs) across the country currently being used as resource centres, these can also be considered for enhancement to become local telecentres;
- Post offices located all over the country must also be considered as local telecentre hosts
- Most of the already existing infrastructure proposed for use already has access to power (if it is available within the area);
- Concerns were raised that agricultural based economies would now be sidelined by this quest to become e-KEs. There is a need for advertisement of the agricultural products – e-KEs could address the problem by electronically transmitting agricultural market information.

6 R–Resource Mobilisation and Deployment– Financial and Technological

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 Malawi, 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 NICI-2005 will not be possible. For example, the implementation of the PIPPIs, the development of the required human resources and the implementation of the NICTAs will all require considerable financial resources. Also some of the NICTAs identified 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 NICI Plans. Possible resource mobilization deployment and development programmes for consideration for inclusion into NICI-2005 are:

6.1 Technological Resources

There must be a National Information Infrastructure (NII) development Programme established for:

- The rehabilitation and expansion of the National Telecommunication Infrastructure
- The promotion of private sector (domestic investment) and foreign investment in ICT Infrastructure development
- The development and improvement of the Internet Delivery Infrastructure of Malawi

Comments from the stakeholders are summarised below :

- Currently, the Polytechnic is conducting ICT training with a 1:6 computer access ratio in their department – there is a desperate need for more resources to be allocated to tertiary institutions for more efficient ICT training.
- Need to provide adequate ICT resources for teaching and learning in ICTs
- Provision of solar energy for ICT use needs to be considered for the rural areas – in collaboration with the Department of Energy;
- Encourage the private sector to donate used computers to schools and disadvantaged communities;

6.1.1 Telecommunications

One of the most critical factors constraining the development of the ICT sector is the telecommunication infrastructure in Malawi. Malawi has one of the poorest telecommunication infrastructures with the highest cost for telecommunication services in the SADC region¹. The lack of affordability of the services have been a major constraint to the growth of telecentres and related services in the country.

Although the last six years have seen major enhancements to the national telecommunication infrastructure in Malawi, the global rate of development of the sector poses a serious challenge to developing countries to not only catch up with, but to keep abreast of new technological advances in the sector. New technological advances in some cases make it easier to bridge and extend access to previously inaccessible locations without the necessity of installing extensive physical networks. In the commonly touted phrase that "Developing countries can leap-frog technology" the extension of national networks through high-speed wireless infrastructure without laying costly, difficult to maintain physical cabling is a case in point.

It is up to developing countries to therefore carefully plan any new developments in their infrastructure to ensure that they are implementing technologies that will:

- a) Not soon be obsolete and difficult to maintain;
- b) Be upgradeable to new up-coming technological solutions;
- c) Integrate with existing systems;
- d) Cater for projected or proposed new developments acceptable on the global arena;
- e) Have personnel fully trained in the installation, maintenance and support of these technologies.

Malawi's national telecommunications providers and regulators therefore face the challenge of keeping abreast and in fact ahead of international telecommunications developments. A summary of comments from stakeholders are listed below:

- There should be a National Telecommunications Super highway established in Malawi to address the national telecommunications needs of the country. Considerations should be given to working with existing institutions and projects such as MALSWITCH to set this up;
- ISDN has now started to be introduced in Malawi. The first sites are the Thyolo and Lower Shire telecommunication exchanges, ISDN will be introduced on the Mzuzu exchange later this year;
- People will need to be sensitised on how to maximise the use of ISDN;
- Telecommunications providers in Malawi must upgrade systems to cater for the rapidly growing demand of their clients before the systems become congested – plan ahead of the clients' needs;
- The telecommunications providers in the country must keep up with if not be ahead of developments in the ICT sector to be able to address the needs of their clients rather than lag behind them;
- The telecommunications providers in the country are unable to provide high quality telecommunication services to the community. For example telecommunication services in

¹SADCe-Readiness Report, June 2002

- Zomba has limited capacity severely hampering the University's access to the Internet and other similar services. These prompt users to source separate, generally costly solutions to address their needs when the telecommunications providers cannot provide these services in a timely manner;
- Government restrictions must not limit the development of the telecommunications sector;
- There should be more emphasis on the use of wireless technologies as these are ultimately cheaper to use;
- ESCOM planning to install fibre optic scabbling with their earthwires to extend data transmission access across the country.

6.1.2 Rural Electricity and Renewable Energy

The limited access to grid electricity in the rural areas in Malawi will severely limit the provision of ICTs in the rural areas unless alternative power sources are seriously considered and provided. The Energy Policy does not incorporate extension of grid electricity to some parts of the rural areas, however for the country to wait for the implementation timescale for these services would place access to ICTs and the potential they could bring to the rural areas further out of reach of the communities in Malawi whilst the rest of the world forges ahead.

An immediate alternative solution to this problem would be the implementation of solar energy for rural ICT applications where there is no grid electricity. It is therefore critical that there is close collaboration with the Department of Energy in the implementation of ICTs in the rural areas. This could be used to power rural Multimedia Information Centres, which can combine telephone, fax, photocopying, email, Internet radio and television services.

A number of donor agencies such as UNESCO and JICA are already implementing solar energy solutions for the rural areas in Malawi. Efforts must be made to work in collaboration with these initiatives in order to expedite implementation of rural Multimedia Information Centres.

6.2 Financial Resources

It is important that an initiative to mobilize donor funding for implementing fast-track projects and programmes to stimulate enhanced utilisation and appreciation of ICTs and the development of NICTAs. Specifically strategies must be implemented aimed at enhancing local capacity for the provision of ICT products and services and attracting foreign direct investment and joint ventures to support the rapid development of the local ICT Industry and infrastructure.

Comments from the stakeholders are summarised below :

- Encourage local banks to provide loans to SMEs involved in the ICT services sector and Industry;
- Initiatives must be established to mobilize funds to support HRD capacity building in key sectors of the economy;
- The implementation of the Malawi National ICT Policy funding, what will happen to the process should donor funding fail to be made available on time? Will we not have to suspend or abandon it if this is not available in a timely manner?
- Policies Malawi develop should have a financial bearing. The Government must first look at its own resources rather than waiting for donor support to these policies;

- We must identify income generating projects or programmes to ensure project financing is not interrupted and to facilitate the progression of this process and retain its momentum.
- Costs of the telecommunication and infrastructure are very high, this must be addressed by the telecommunications regulators as it is suppressing the growth of the ICT sector and telecentres in particular;
- Mobilise private sector funding to support ICT initiatives; examples would be to encourage private sector support for extending access to ICTs in schools by donating used computers to educational institutions and community ICT access centres;
- Encourage the private sector to sell off used computers to staff at reduced rate to encourage home-ownership of computers;
- Donor funding must be solicited to support the implementation of comprehensive Management Information Systems in the civil service ;
- Infrastructure is the key to everything be it sustainability or anything;
- The Malawi National ICT Policy framework document must be given wider circulation and lobbying within the Government and the private sector to enable adequate funding to be raised to support this ICT implementation process.

7 I-Integrated Civil and Public Service Computerisation Programme

The modernization of the civil and public service is a non-going government exercise. During the national dialogue process, it has been acknowledged that a modernized and efficient civil and public service is a prerequisite for socio-economic development in Malawi and ICTs can play a facilitating role in this area. An integrated programme to computerize the activities and operations of the civil and public service was identified by some of the stakeholders during the national dialogue process 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. A number of programme and initiatives can be identified within the broad computerizing programme that can serve as candidate for implementation within NICI-2005, some of which are:

Programme to:

- Encourage the establishment of Management Information Systems (MIS) Divisions in all government Ministries and public service organizations to coordinate and manage the development of comprehensive integrated management information systems for the organisations.
- Extend and spread the use of Internet within the government Ministries and other public service organizations. Here we take cognisance of the Government-Wide Area Network (GWAN) infrastructure that has been installed with Hill in Lilongwe and extending out to all other departments and ministries across the country. This forms the traffic backbone for all ICT Applications (NICTAs).
- Encourage all government Ministries and other public service organizations to develop a presence on the Internet through the creation of informative, up-to-date Web-sites.
- To provide information on Malawi to Malawians in and out of the country and to the international community
- As a vehicle to market Malawi internationally

7.1 Civil and Public Service ICT Utilisation

Despite the extensive investment being made in ICT infrastructure, the potential benefits to most institutions have not been realised. This is primarily due to under utilisation of ICTs to enhance management capacity and provide relevant, timely information to the users. This can be attributed to some of the following reasons:

- Lack of user input into the systems specifications and requirements;
- Lack of executive management level support;
- Unrealistic expectations and recommendations;
- Lack of appropriate training for the users and systems being implemented and;
- Inappropriate technology solutions

To further enhance the utilisation of ICTs in the country:

- There must be a broader use of the Internet in the rural areas, tailored to address the economic development of the rural communities
- Technology solutions specifically tailored to address the needs of organisations must be implemented. This would enable managers to see the direct benefits of ICT to their institutions and therefore become champions of ICTs themselves.

- Training delivered to managers and senior executives must be designed to enable them to fully realise the benefits of their investment in ICT equipment and its potential to enhance the efficiency and competitiveness of their organisations;
- Managers and senior executives must be trained in the efficient use and application of the Internet and the resources available to provide information beneficial to the socio-economic development of their organisations and country as a whole.

8 Standards, Practices and Guidelines for ICT Deployment

Standards and best practices to guide the activities of companies and organizations operating within the ICT production sector must be established and clearly defined (e.g. computer assemblers, software developers, etc.)

Programme to:

- Set up standards for ICT resource procurement within the civil and public service as has been done through the Government ICT Policy
- Identify best practices to guide the implementation of ICT within the civil and public service, including the academic institutions;
- Define standards to guide the importation of ICT products;
- Formulate guidelines and standards for the provision of ICT services;
- To formulate guidelines and standards for the provision of ICT training services by private computer training centres;
- Define standards for the certification of ICT professional skills in Malawi and;
- Codes of best practice in the ICT sector must be established;
- All ICT donations must have a budget provision included for training if it is not already catered for in the recipient institution's budget;
- Once the local computer assembly industry is established, Government institutions should not buy already assembled, imported computers, they should be encouraged to buy locally assembled ones for enhancement and support and promotion of local ICT assembly industry;
- There is a need for good standards to be established to ensure quality ICT products and services are developed and available on the market

8.1 Information Standards

- Pornographic sites visitation currently high due to:
 - Ignorance on how to effectively use the Internet;
 - Lack of appreciation of the scope of the Internet and what it can be used for;
 - Lack of training in the use of the Internet for research and professional applications or how to locate critical information;
- Very few Small and Medium Scale Entrepreneurs-SMEs have access to Internet and email, or in fact an email address in Malawi. Growing numbers of SMEs in the neighbouring countries now have at least an email address to extend their markets and business outreach.

8.2 Training Standards

- National ICT Standards must be set for ICT training in Malawi;
- Institutions identified for training on ICTs must be scrutinized to ensure that quality training is being delivered;

- Lack of professionalism in the ICT sector perpetuates by some unscrupulous private sector institutions must be checked, such as the installation of unnecessary hardware upgrades when the problem may be as minor as system software reconfiguration or virus removal. Some of these problems may also be attributed to inadequate levels of ICT training of the support personnel.

8.3 Security

- In the established Code of Best Practices for ICTs of security must be adequately covered. There is vandalism of institutional computer equipment, telecommunication lines within the country, severely hampering any progress in the sector.
- The website of the Ministry of Tourism was pirated and was defaced with a pornographic website. What security will be set in the Policy to prevent this kind of thing from happening again?
- Traditions of Malawi must be maintained in the access to the Internet;

8.4 Maintenance and Support

- ICT equipment is not repaired when it breaks down as spare parts are still imported at a 55% rate of duty; maintenance costs are high.
- Professional expertise in maintenance of computers is lacking, and when available, it can be very costly;
- More emphasis must be made in training a cadre of young professionals with comprehensive technical skills for the maintenance and support of ICTs.

8.5 Other ICTs

- Rural economies have been assisted for many years through the use of radio and extension workers for market and product information, Malawians must not sideline the other technologies with introduction of Internet-based technologies only. Best applicable ICT solutions must be found for each problem and it will not always be a computerised solution;
- ICTs should not be looked at as just computers, ICT includes radio, television, telephones and faxes;
- Telecommunications services and networks are not adequate for the whole country and are very expensive making it costly and difficult for rural communities to access ICT products and services.

9 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. The key areas to be addressed in this section are:

- 1 Policy Framework
- 2 Legislative Framework
- 3 Co-ordinated Spectrum Management
- 4 Institutional Structures and Provisions

Summarised comments raised by stakeholders under this section are:

9.1 Policy Framework

- Wireless technology needs to be promoted as it carries lower operational costs and can overcome land-line provider bottlenecks;
- There must be a deliberate policy to encourage people to buy cheaper computers;
- Government must establish a policy to buy locally manufactured/assembled computers as long as standards are maintained;
- There must be a policy to facilitate and plan for the maintenance of computers.

9.2 Other Policies and Documents

- The Framework document draws heavily on Vision 2020 and the PRSP;
- As the ICT Policy is coming after Vision 2020, we must ensure that issues relating to the ICT sector that may have been omitted in the Vision 2020 are clearly addressed and incorporated into the ICT Policy;
- Reference to some other critical policy documents have been omitted such as:
 - The National Archives Policy Act;
 - The National Documentation Library and Information Policy (National Research Council);
- SADC e-Readiness Report;
- Power Policy and;
- Rural Telecommunications Policy
- The Library network within primary and secondary schools and the universities in the country has been omitted

9.3 Institutional Structures, Plans and Provisions

Stakeholders raised the concern that although the Department of Information Systems and Technology Management Services (DISTMS) has, to date, played a commendable role in coordinating and facilitating the process thus far, the overall ownership, leadership and institutional hosting of the Policy Framework needs clarification and reorganisation if this Policy is to have the cross-cutting sectoral mandates that it requires for successful implementation.

The establishment of clearly defined, nationally recognised, institutional structures to drive the process forward and to continue to support it, is one of the most immediate requirements for the success of this process. These institutional structures must ensure that the coordinating institution has the authority and mandate to fully integrate ICTs into the other key sectors of the economy and to ably manage and drive the process for national development.

This institution would be responsible for:

- Driving and sponsoring the Malawi National ICT Policy process;
- Integrating the role ICT plays in the national socio-economic development and;
- Taking overall responsibility for the successful implementation of the policy and plans derived thereafter.
- Clear Institutional arrangements with the mandate to facilitate the integration of ICTs into all sectors of the economy – highlighting ownership of the ICT Policy process is critical for it to proceed expeditiously;
- High level representation is needed for this process to bear fruits
- DISTMS should be raised to a position of seniority over other sectors in all ministries. It is recommended that it should either be under OPC or Office of the VP
- Commitment of top leadership or National ICT Champion is critical for the successful implementation of the Policy
- High-level sensitisation meetings in the use of computers are critical to gain decision-maker's support
- Coordinating agent must have a help desk or support officer component.

9.4 Championship

In order for this process to be successful, it will need to have a clearly recognised Champion to support and spearhead the cause of the Malawi National ICT Policy. Countries that have successfully implemented their National ICT Policies have had clear support at a very high national level for the process and the Policy.

- The process of championship is critical and delicate. It must be diplomatically approached in order to successfully support this process. Different countries have approached it in different ways and Malawi needs to identify the most appropriate solution for the country
- It will be necessary to have a study tour of countries that have successfully organised the championship of their National ICT process and established the national ICT bodies with the relevant authority and mandate to support and drive the process in their respective countries;
- Rwanda, Malaysia and Mauritius have managed to move the process forward. It would be important to review how they facilitated it and devise the best solution for Malawi.
- The institutional position of DISTMS has already been brought to the attention of the Deputy Secretary for the President and Cabinet and will be reviewed;

- Malawi was one of the first ICT forward-looking countries in the region but we are now lagging behind. Clear strategies need to be derived through to completion in a timely and efficient manner; to ensure that we take ICT initiatives

Recommendation - Present committee to champion ICT in Malawi must be either in OPC or office of the Vice President.

9.5 ICT Implementing Agency

There is a critical need for the establishment of a National ICT Implementing Agency to be established as soon as possible. In the absence of such an institution, the ICT needs of the different sectors within government and the private sector such as acceptable ICT training standards and qualifications, guidelines on ICT issues such as data standards, security etc are not being coordinated;

- Private companies do not have standards and guidelines for providing quality professional services
- There are no means of ensuring quality ICT services and products are delivered in the country
- National Coordinating centre for advice and guidance in the ICT sector
- Which government Ministry or Institutions should be responsible for the National ICT Policy?
- Does one currently exist or does a new body need to be created?
- Ministry of Information or Ministry of Communications? Office of the President and Cabinet or Office of the Vice President?
- The Coordinating centre – must be responsible for ensuring that the private sector adheres to standards and guidelines and the public sector is not misled in ICT
- Educational institutions must be included in the Malawi National ICT Committee – possibly in a permanent Technical Committee

9.6 Coordinating Agency

There are Multiple Policies being developed – media, rural policies, library policies, communications, national archives; concern was raised that there is a need for an umbrella Agency to coordinate these policies and synchronise them where necessary;

- Misalignment of policies e.g. MRA surtax may not be just removed without other policies being impacted, such an agency or regulator would review and coordinate the comprehensive impact of proposed policies or initiatives.

9.7 1st NICI Plan – 2002–2005

- The first NICI Plan NICI 2005. We are already in the middle of it and what progress have we made so far?
- Planning will be critical for the whole process to be successful;
- Educational institutions must be involved in the whole implementation process. More players must be included in the planning process

- One person prepared the Malawi National ICT Policy framework document; we need broader expertise and participation in the compilation of such a crucial document. This gives rise to a singular view rather than a broader view necessary for a country;
- The Malawi National ICT Policy implementation timeframe needs to be looked at critically as a number of critical issues are in the pipeline including the coming elections in 2004. We must ensure that the process is not marginalized in anyway.

10 Appendix 1 – Terms of Reference

SUPPORT TO THE MALAWI POVERTY REDUCTION STRATEGY TERMS OF REFERENCE FOR CONSULTANCY SERVICE FOR PREPARATORY STUDIES

Introduction

Within the context of the Malawi Poverty Reduction Strategy and the Government of Malawi/UNDP Country Cooperation Framework (2002–2006), the National Economic Council (NEC) in collaboration with the Department of Information Systems and Technology Management Services would like to engage qualified National Information Communication Technology (ICT) Policy and Strategic Plan development consultant(s).

The consultant(s) will carry out stakeholder consultations on an existing Malawi ICT policy framework document.

Qualifications and Experience

The lead consultant should have at least 10 years experience in ICT strategic management. He/she should have a degree in ICT in development and utilisation and be able to work within a tight schedule. Previous experience in similar assignment will be an advantage.

Terms of Reference for the Consultancy

The specific Terms of Reference for the consultant(s) are as follows:

- Study and understand the Malawi National ICT Policy framework documents
- Study locally existing proceedings or minutes of the Malawi National ICT Policy Committee, so as to be clear on what has been discussed on the National ICT Policy development processes.
- Carry out country wide consultations with relevant stakeholders on the Malawi National ICT Policy framework document, so as to enable stakeholders to enrich the document and build ownership.

- Produce a report of stakeholders' comments on the Malawi National ICT Policy framework document.
- Assist in the consolidation of the Malawi National ICT Policy framework document.

11 Appendix 2 – The National Dialogue and Consultative Process: List of Participants

Group consultations with national stakeholders

University Office, Zomba 17th February 2003

Name	Organisation
S.S.Mwiyeriwa	UNIMA Libraries
F.G.Howse	Central Library Services
A.W.C.Msiska	Chancellor College Library
L.A.Kamwanje	University Office
B.W.Malunga	University Office
M.J.T.Longwe (Mrs)	University Office
S.A.Hau	Malawi Institute of Education

Chancellor College, Zomba 18th February 2003

Name	Organisation
B.Chisala	Maths Department, CC
C.Mikeka	Physics Department
T.Manda	Maths Department, CC
B.Msiska	Maths Department, CC
U.Sikwese	Maths Department, CC
E.Mangani	Maths Department, CC
M.Msiska	Maths Department, CC
C.Gremu	Maths Department, CC
R.Ndindi	Maths Department, CC
S.Miteche	Maths Department, CC
J.Namangale	Maths Department, CC
W.Phiri	MANEB
J.S.Chalimba	MANEB
C.Neba	MANEB
A.Pemba	Maths Department, CC
H.Chidammodzi	Dean of Students, CC
M.Zilirakhasu	Admin. Assistant (Student Welfare)

Malawi Communications Regulatory Authority – MACRA, Blantyre
18th February 2003

Name	Organisation
Norbert G. Winga	MACRA
A. B. Maluwa	MTL
G. K. D. Sanga	MTL
C. D. Matemba	MACRA
E. J. Namanja	MACRA
M. Kuntiya	MACRA
S. Ulemu	MACRA
W. Mnensa	MACRA
A. M. Chisiano	MACRA
E. H. Khamula	MACRA

The Polytechnic, Blantyre
19th February 2003

Name	Organisation
Ulaya Tembo	Polytechnic
Mavuto Kumvenji	Polytechnic
E. F. Banda	Polytechnic
F. M. Liuma	Polytechnic
R. B. Malinda	Polytechnic
C. Chindongo	Polytechnic
R. W. Simbota	Polytechnic
M. H. Soko	Polytechnic
T. Manda	Polytechnic
Evance Nyirenda	Polytechnic
Ferdinand Mchacha	Polytechnic
Roy H. Khnoge	Polytechnic
John Nyirenda	Polytechnic
Joel Chigoneka	Polytechnic
Dave Mangani	Polytechnic
McCarthy C. Mwalwimba	Polytechnic
Lughano P. Mwangonde	Polytechnic
Ignasio Ngoma	Polytechnic
Innocent H. Mnolo	Polytechnic
Damaris Ntaba	Polytechnic

The Polytechnic, Blantyre
19th February 2003

Name	Organisation
Dalitsokuphanga	Polytechnic
Micheal Bomani	Polytechnic
Lameck Musumba	Polytechnic
Austin Kawonga	Polytechnic
Henry G. Namwiri	Polytechnic
Philly Z. Mandiza	Polytechnic
Ulaya Tembo	Polytechnic
F. Mndalasini	Polytechnic
R. M'bwana	Polytechnic
Mavuto Kumvenji	Polytechnic
Kondwani Pwepwere	Polytechnic
Masida Mbano	Polytechnic
Francis Siliya	Polytechnic
Christopher Kapachika	Polytechnic
Thomas Manda	Polytechnic
Peter Nyirenda	Polytechnic
Ephraim Imfaitenga	Polytechnic
Chawezi Mguntha	Polytechnic
Pius Masache	Polytechnic
P. Guzani	Polytechnic
Richard Mvula	Polytechnic
P. Z. Mandiza	Polytechnic
H. G. Namwiri	Polytechnic
E. C. Phiri	Polytechnic
F. Mndalasini	Polytechnic
R. M'bwana	Polytechnic
Peter Masamba	Polytechnic
Aubrey Mwanza	Polytechnic
Cecelia Z. Mussa	Polytechnic
Dr. A. O. Faparusi	Polytechnic
F. B. Kamwaza	Polytechnic
H. B. Chibwana	Polytechnic
Dr. N. T. Ben	Polytechnic
M. B. Thawani	Polytechnic
P. Kanthambi	Polytechnic

Southern Region Chamber of Commerce – SRCCI, Blantyre
20th February 2003

Name	Organisation
Lydia Kanyenda	Computer Accountant
Chester Kabinda-Mbewe	ESCOM
Albert Kumwenda	Malawi College of Accountancy
Harry Chimanya	PIM
Morris Mpokosa	MDC
Samuel Phiri	Malawi Savings Bank
Dr. P. Nyirenda	SDNP
K. K. C. Mtawali	SRCCI
Alan Maeresa	The Nation
Mike Kumwenda	Malawi Broadcasting Co-operation (MBC)
Bessie Nyirenda	Computerland Ltd.
D. Lakudzala	BUMAS International
K. Kachika	INDEbank
Chims Jere	INDEbank
Thom Phalula	Greffa Communications

Electricity Supply Commission of Malawi – ESCOM
21st February 2003

Name	Organisation
Mr D. Van Wyk	ESCOM
Dr Chiyaya	ESCOM
Arthur Mandambwe	ESCOM
Peterson Zembani	ESCOM
David Tandwa	ESCOM
Herbert Saini	ESCOM
Wisema Kabwazi	ESCOM
Jack Mhango	ESCOM
Chester Kabinda Mbewe	ESCOM

Mzuzu University, Mzuzu
24th February 2003

Name	Organisation
Levant Mfune	NRCCI/Treasurer General
Donglas Madise	Mzuzu University
Bernard Kaunda	Treasury and Extension Manager, Smallholder Coffee Fund, Mzuzu
R.M. Mushani	Mzuzu University
Joseph Uta	Mzuzu University
Junichi Yamamoto	Mzuzu University
Daurice Kanjeza	Mzuzu University
Dr. David K. Mphande	Mzuzu University
Lusayo Mwabumba	Dean, Faculty of Environmental Sciences
Joel Luhanga	Lecturer, Forestry Department
Bernard Simfukwe	Northern Region Water Board
Leonard Chalemba	Lecturer, Basic Sciences Department
Danga Mughogho	Owner, Mzuzu Business Centre
Kinord Mkwimba	NRCCI/Regional Manager
Mkondo Nyasulu	Burco Support Representative, North
Hurguy Kadzkalowa	Mzuzu University
J.C. Banda	Mzuzu University
Khumbo Kachali	K.K. Properties

Government Computer Committee – GCC
4th March 2003

Name	Organisation
F.O.Beche	Programmer, DISTMS
C.J.Munamie	Deputy GWAN Manager, DISTMS
M.Chipula	Controller of ISLTM, DISTMS
J.N.M.Kawonga	DHRMD
H.R.Mauwa	Systems Analyst/Programmer, DISTMS
G.P.Kamwendo	PHRMO
G.N.Lupiya	DISTMS
Grace Hiwa (Mrs)	Chief Systems Analyst, DISTMS
H.N.Mwanza	Stores Supervisor, DISTMS
Glory Harawa	Systems Analyst/Programmer, DISTMS
E.Kondowe (Mrs)	Principal Systems Analyst, DISTMS
R.Pankomera	Trainer/NACIT
M.Chagoma	Accounts Assistant

Central Region Chamber of Commerce – CRCCI, Lilongwe
7th March 2003

Name	Organisation
Harris Kachimanga	Computer Programmer, Limbe Leaf Tobacco Co.
Foster Chindevu	Lilongwe Water Board, Systems Analyst
W.A.C.Maseko	Councillor, MCCI
Jones Stambuli	Councillor, MCCI
M.C.Maseko	Cilcon Group, Administrative Officer
A.Gwengweya	Lizulu Timbers, Assistant Director
G.L.Mituka	Public Relation Officer, TAMA
T.C.Manda	NASFAM, IT Specialist
A.D.Chapuma	Epsilon & Omega, IT Manager
B.C.Kwizombe	Epsilon & Omega, IT Technician
F.Gondwe	MCCI
B.B.Sambiri	IT Specialist

12 Appendix 3 – Proposed Action Plan

Proposed Project/Programme	Description	Resources Required	Possible Implementing Partners
1. Rural Multipurpose Information Centres (MICs) in pilot districts in collaboration with the Ministry of Local Government	<p>Establish Multipurpose Information Centres (MICs) in pilot districts in collaboration with the Ministry of Local Government to facilitate community access in each of the 29 districts in Malawi to email, Internet, fax and phone services.</p> <p>This may initially be started on a pilot basis in selected districts, and later extended to all districts in the country. At least 2 of the initial pilot MICs must be in locations where solar energy solutions need to be applied.</p> <p>The MICs must be established in collaboration with local communities to ensure security and sustainability of the MICs.</p>	<ul style="list-style-type: none"> • Identification of the most suitable premises to house these facilities • Identification of Private-public partnerships to manage, run and maintain the MICs • Development of a comprehensive business plan model for the implementation and operation of MICs • 29 Computers – 1 per district • 29 fax machines • 29 photocopiers • 29 televisions – for access to TV Malawi (as the MICs grow) • Solar Energy systems in each district where there is no grid electricity available • Training of local business people in the management and operation of the MICs • Training of local MSCE graduates in manning, supporting and maintenance of MICs. 	<p>International Donor Agencies</p> <p>Government of Malawi</p> <p>UNESCO/JICA – for solar energy solutions</p> <p>Local business people in each district</p> <p>MSCE graduates in the districts</p> <p>Regional Chambers of Commerce and Industry</p> <p>NGOs</p>
2. Review of MIS Needs for all key government sectors and ministries	<p>A brief study must be conducted to broadly identify the possible MIS needs of all key ministries and departments to identify potential MIS solutions that can be implemented.</p>	<ul style="list-style-type: none"> • Funding for a 6-week, high level study on the MIS needs of all key ministries and departments 	<p>International Donor Agencies</p> <p>Government of Malawi</p>

Report on National ICT Policy Framework Consultations
March 2003

Proposed Project/Programme	Description	Resources Required	Possible Implementing Partners
	<p>The result of this survey would assist in proposing and demonstrating to senior government managers and executives, potential ICT solutions for their organisations.</p> <p>It could also assist in the development of solution-oriented training and sensitisation programmes to be developed relevant to the needs of these specific institutions</p>		
3. Tailored training for senior government executives	<p>Sensitisation and ICT training programmes must be developed that are relevant to the specific applications and needs of these senior government executives.</p> <p>This method of training will not only enlighten participants as to the multiple applications of ICTs but is professionally delivered, serves to motivate participants and develop a cadre of ICT "converts" ready to themselves become champions of the use and application of ICTs.</p> <p>The design of the training can be developed based on the results of the MIS study specified in Action Item 2 above.</p>	<ul style="list-style-type: none"> Funding for training 	<p>International Donor Agencies</p> <p>Government of Malawi</p> <p>Professional ICT Training Institutions</p>
4. SME access to ICTs	<p>To enhance the use and application of ICTs in poverty reduction, SMEs in Malawi must be encouraged to use ICTs more efficiently to assist them in the management of their businesses.</p> <p>This can be done through the strengthening of the capacity of the Regional Chambers of Commerce and Industry (COCI) in the establishment of regional Business Information Centres that provide all the services available in MICs and additionally business support services using ICTs e.g. basic electronic accounting services, business plan and cash flow development services, business information access for SMEs using email and the Internet</p>	<ul style="list-style-type: none"> Funding support for the purchase of equipment for the establishment of BICs 3 Computers – 1 for each COCI 3 Faxes 3 Photocopiers Business information libraries for each COCI 	<p>International Donor Agencies</p> <p>Government of Malawi</p> <p>The Chambers of Commerce and Industry</p>
5. ICT training and sensitisation of Parliamentarians	<p>Sensitisation and ICT training programmes must be developed for parliamentarians, both to assist them in their</p>	<ul style="list-style-type: none"> Funding for training 	<p>International Donor Agencies</p>

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Parliamentarians	daily operations but further to enable them to appreciate the benefits that ICT can bring to their constituents and facilitate their acting as advocates for ICTs.		Agencies Government of Malawi Professional ICT Training Institutions
6. ICT Media campaign – TVM, Radio	The lack of national awareness of the benefits of ICT has come about as a result of the constraints the population faces in the access to information as a whole. Similarly the low levels of technological awareness can also be attributed to the low level of exposure to technology that the nation as a whole has experienced over the last 38 years since independence was attained. There is therefore a need to address this problem by heightening media coverage of ICT and their benefits. This can be conducted through campaigns on the radio and national television – TVM.	<ul style="list-style-type: none"> Sponsorship for a heightened ICT media campaign 	International Donor Agencies Government of Malawi The Chambers of Commerce and Industry The private sector
7. Support to Schoolnet and schools	The Schoolnet programme has been successfully launched in Malawi providing 30 computers each to 6 schools in the Southern and Central Regions of Malawi. This initiative must be supported by other donors and NGOs to enable it to be expanded to some schools in the Northern Region and additional schools country-wide.	<ul style="list-style-type: none"> Sponsorship for the expansion of the Schoolnet programme in collaboration with Schoolnet Malawi. 	International Donor Agencies Government of Malawi Ministry of Education NGOs
8. Support to the DISTMS ICT Training centres	The DISTMS Training centres in both Blantyre and Lilongwe currently provide comprehensive Diploma-level ICT training for MSCE graduates. There is, however, a desperate need for the resources at these two institutions to be boosted. They need additional, up-to-date computer equipment and enhanced documentation to enable them to capably	<ul style="list-style-type: none"> Funding for computer equipment upgrades at DISTMS training centres Funding for books and documentation at DISTMS training centres 	International Donor Agencies Government of Malawi

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	deliver training to the community		
9. Support to tertiary institutions	<p>The universities and teacher training colleges of Malawi have very poor ICT infrastructure where they have any at all.</p> <p>There is a critical need to enhance the ICT resources and provide training to manage and support these resources at all the tertiary education centres in Malawi.</p>	<ul style="list-style-type: none"> Funding for the purchase of ICT equipment at tertiary institutions. There must be a review of the current capacity of the institutions and their needs to convert them to ICT-friendly institutions. 	<p>International Donor Agencies</p> <p>Government of Malawi</p> <p>Ministry of Education</p> <p>NGOs</p>
10. Collaborative donor support to the ICT sector	<p>Currently various donors are providing support to the development of the ICT sector in Malawi with interventions in various projects and programmes. These efforts could be maximised through more comprehensive collaboration between the donors to support various ICT initiatives in Malawi.</p>	<ul style="list-style-type: none"> International ICT in Malawi Donor Collaboration Committee 	<p>International Donor Agencies</p>
11. Enhancement of existing ICT infrastructure	<p>Malawi, the one of the poorest and most expensive ICT infrastructure in the SADC region has a major challenge ahead to participate in globalisation if there is no significant improvement in this sector in the immediate future.</p> <p>It is therefore critical that some of these issues be addressed. There would therefore be a requirement for support to the ICT providers through sensitisation and training to enable them to recognise the overall impact they have on the economy and the ICT sectors development in particular.</p>	<ul style="list-style-type: none"> Sensitisation and Training of decision-makers in the public ICT service providers through wider participation in regional and international conferences, workshops and policy fora. 	<p>International Donor Agencies (ITU, UNIDO, UNDP, etc)</p> <p>Government of Malawi</p> <p>Ministry of Information Communication and Broadcasting</p> <p>MACRA</p>