African Local Governments Towards e-Learning for Sustainability

EDITOSIA – Electronic Distance Training on Sustainability in African Local Governments

African Local Governments
Towards e-Learning for Sustainability

A publication of the project "EDITOSIA":
Electronic Distance Training on Sustainability in African Local Governments

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Content

Overview on Tables and Figures

Acronyms

ACP (countries)	African, Caribbean and Pacific (countries)
AIDS	Acquired Immune Deficiency Syndrome
AISI	Africa Information Society Initiative
ALAN	Association for Local Authorities in Namibia
ALGAF	African Local Government Action Forum
AVU	African Virtual University
CAFRAD	Centre Africain de Formation et de Récherche Administratives pour le Développement – African Training and Research Centre in Administation for Development
CCRA	Council of Cities and Regions of Africa
CDS	Centre for Development Studies (University of Wales Swansea)
CYP	Commonwealth Youth Programme
DAI	Digital Access Index
EDEN	European Distance and E-Learning Network
EDITOSIA	Electronic Distance Training on Sustainability in African Local Governments
EDT	Electronic Distance Training
EU	European Union
GDLC	Global Development Learning Centre
GDLN	Global Development Learning Network
GDM	Global Programme in Development Management
GTZ	Gesellschaft für Technische Zusammenarbeit – German Technical Co-operation Agency
HIV	Human Immunodeficiency Virus
ICLEI	ICLEI – Local Governments for Sustainability
ICT	Information and Communication Technology
IDP	Integrated Development Plan
IDRC	International Development Research Centre
IEC	International Extension College
IICBA	UNESCO's International Institute for Capacity Building in Africa
IICD	International Institute for Communication and Development
IDRC	International Development Research Centre
ILO	International Labour Organisation
INADES	L'Institut Africain pour le Développement Economique et Social – African Institute for Economic and Social Development
ISDN	Internet Service Digital Network
ISO	International Standards Organization

ISP	Internet Service Provider
ITC	International Training Centre
ITU	International Telecommunication Union
LA 21	Local Agenda 21
LAN	Local Area Network
MDG	Millennium Development Goals
MDP	Municipal Development Partnership
NEPAD	New Economic Partnership for Africa's Development
NGO	Non-Governmental Organisation
ODL	Open and Distance Learning
OU	Open University
PC	Personal Computer
PON	Polytechnic of Namibia
RedAL 21	Red de la Agenda Local 21 para América Latina y El Caribe – Local Agenda 21 Network for Latin America and the Caribbean
SADC	Southern African Development Community
SALGA	South African Local Government Association
SANGONeT	Southern Africa Non-Governmental Organisation Network
SOAS	School of Oriental and African Studies
SSA	Sub-Saharan Africa
TÜV	Technischer Überwachungsverein – Technical Inspection Agency
TV	Television
UK	United Kingdom
ULAA	Uganda Local Authorities Association
UN	United Nations
UNCDF	United Nations Capital Development Fund
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Social and Cultural Organisation
UNEVOC	UNESCO's International Centre for Technical and Vocational Education and Training
UNISA	University of South Africa
USA	United States of America
USAID	United States Agency for International Development
WSIS	World Summit on Information Society
WSSD	World Summit on Sustainable Development
ZOU	Zimbabwe Open University

Executive Summary

Enhancing the use of electronic media in sustainability training for African local governments can provide a substantial improvement to their current, very limited range of learning opportunities. This, however, only holds true if respective training programmes meet the working environment and the professional context of officials in an optimum way:

• The technical requirements of the programmes have to be adjusted to conditions available to the targeted local government officials – including the learners' ability to use the technologies.

• The potential limitations of certain media – such as CD-ROMs that don't allow learner-tutor interaction – have to be overcome with complementary media (for example telephone) and/or additional face-to-face components.

• The training material has to be fully adapted to the technical medium chosen for its transmission in each particular case.

Whereas radio and TV are relatively widespread in Africa, most local governments still lack the resources to acquire computers that would even meet the average demands of their daily responsibilities. Also, the establishment of affordable and reliable Internet connections is often far from reach. Finally, user and maintenance skills – and even a basic awareness of the potential functions of computers and the Internet – are not sufficient to make best use of the technical tools even if they were available.

Computers and Internet connections, however, will become increasingly indispensable for local governments. Be it the efficient processing of internal and external data or the researching of information, be it networking with other cities and towns or exchange with peers and experts, be it the provision of administrative services via Internet (e-government) or making local government activities more transparent and accountable (e-governance) – Information and Communication Technologies (ICTs) are the basic tool for a wide range of operations and activities. For this reason, computer and Internet should also be in main focus when it comes to electronic distance training.

It is encouraging to note that the trends in technological development gradually impact on the local public sector in many regions of Africa. These trends, especially together with the dynamic processes of decentralisation, have created a momentum that should not be missed for tapping the potential of ICTs also for the development of new training tools. This will be increasingly important if local governments want to adopt life-long learning policies for their staff, a crucial prerequisite for remaining up-to-

date with latest innovations in the theory and practice of sustainability management.

Sustainable development as the ultimate goal

Only in this way will local governments in Africa be able to fulfil their crucial role in taking local action for sustainable development and in contributing to the implementation of the Millennium Development Goals.

The EDITOSIA project

The project EDITOSIA (Electronic Distance Training on Sustainability in African Local Governments) explored in more detail the feasibility of taking advantage of ICTs in order to enhance the learning opportunities of African local governments on sustainable development. In the first phase of the project, a number of surveys and interviews were undertaken to investigate, among others, the current and future accessibility and use of ICTs by local governments and the existing distance training programmes in Africa. Based on the results of these activities, as well as other sources of information, the project identified a set of training methodologies regarded as most suitable for different target groups within local government and related to different levels of technical conditions. Looking at the broader context of the issues at hand, recommendations were formulated which are addressed to different actors having a stake in improving learning opportunities, notably local governments themselves, municipal associations, central governments, training providers and donor organisations.

EDITOSIA partners and funders

The project took place between 2001 and 2004 and was financed by Directorate-General Research of the European Commission. The ten partners of the EDITOSIA project were composed of institutions and organisations from Africa and Europe dealing with electronic distance training, training and capacity-building for African local governments, and ICTs for sustainable development in Africa.

Contact details

More detailed information can be found at www.editosia.org.

Résumé

L'utilisation accrue de supports électroniques pour la formation des responsables des collectivités locales africaines en matière de développement durable peut apporter une amélioration substantielle aux programmes d'apprentissage actuellement encore limités en Afrique. Toutefois, ceci n'est vrai que lorsque ces programmes de formation tiennent compte de manière optimale les conditions de travail ainsi que du contexte professionnel des responsables.

- Les exigences techniques de ces programmes doivent être ajustées aux capacités des représentants des collectivités locales visées – notamment leurs compétences en matière d'utilisation des technologies.

- Les limites potentielles de certains supports – comme les CD-ROM qui ne permettent pas une interaction entre le tuteur et la personne formée – doivent être surmontées à l'aide de supports supplémentaires (le téléphone par exemple) et/ou d'autres composantes permettant un face à face.

- Dans chaque cas, le matériel de formation doit être entièrement adapté aux moyens techniques choisis pour la transmission.

Alors que la télévision et la radio sont relativement bien présentes en Afrique, la plupart des collectivités locales manquent de ressources financières pour l'acquisition d'ordinateurs qui répondraient pourtant aux besoins de leurs responsabilités quotidiennes. De surcroît, la mise en place de connections à Internet qui soient abordables et fiables est un but qui est souvent encore loin d'être atteint. Enfin, les capacités de maintien et d'usage – même les connaissances de base au niveau des fonctions potentielles des ordinateurs et de l'Internet – ne sont pas suffisantes pour assurer la meilleure utilisation des outils techniques, même s'ils étaient disponibles.

Quoiqu'il en soit, les ordinateurs et connections à l'Internet deviendront de plus en plus indispensables aux collectivités locales. Que ce soit pour le traitement efficace des données internes et externes ou bien la recherche d'information, que ce soit pour la mise en réseau avec d'autres villes ou bien les échanges avec des pairs et autres experts, ou bien encore la mise à disposition de services administratifs via Internet (e-gouvernement) ou l'accroissement de la transparence et de la responsabilisation au niveau des activités des collectivités locales – les Technologies d'Information et de Communication (TIC) sont l'outil de base pour bon nombre d'opérations et d'activités. Pour cette raison, les ordinateurs et Internet doivent rester le centre de l'attention lorsqu'il s'agit de la formation électronique à distance.

Formation par Internet pour les collectivités locales en Afrique recommandée sous certaines conditions

Des niveaux de technologies disponibles différents

TIC comme clé du développement insitutionnel

Des tendances à la promotion du développement des TIC, de la décentralisation et de la formation continue

Il est encourageant de voir que les tendances en matière de développement technologique ont un impact graduel sur le secteur public local dans beaucoup de régions en Afrique. Ces tendances, liées au processus de décentralisation, ont créé un élan encourageant pour exploiter de manière accrue le potentiel des TIC, également pour le développement de nouveaux outils de formation. Ceci sera d'autant plus important lorsque les collectivités locales désireront adopter des politiques de formation continue pour leur personnel, objectif qui constitue une nécessité pour se maintenir à jour au niveau des dernières innovations en ce qui concerne la théorie et la pratique de la gestion durable.

Le développement durable en tant qu'objectif final

Seulement dans ce sens, les collectivités locales en Afrique seront à même de remplir leur rôle crucial dans la réalisation des Objectifs du Millénaire pour le Développement et dans la prise d'actions locales pour un développement durable.

Le projet EDITOSIA

Le projet EDITOSIA (Formation électronique à distance pour la durabilité des collectivités locales en Afrique) a étudié en détail la faisabilité de l'utilisation des TIC en vue d'accroître les opportunités de formation en matière du développement durable pour les collectivités locales africaines. Dans la première phase du projet, de nombreux sondages et entretiens furent réalisés pour examiner, entre autres, les conditions actuelles et futures d'accès aux TIC pour les collectivités locales, ainsi que les programmes de formation existants en Afrique. A partir de ces résultats, ainsi que grâce à d'autres sources d'information, le projet a identifié un ensemble de méthodes de formation les plus adaptées pour différents groupes cibles au sein des collectivités locales, en tenant compte des différentes conditions techniques. En s'intéressant au contexte général des problèmes potentiels, des recommandations ont été formulées. Celles-ci s'adressent au différents acteurs en matière d'amélioration des possibilités de formation, notamment les collectivités locales, les associations municipales, les gouvernements nationaux, les fournisseurs de formation et les organisations donatrices.

Les partenaires et le financeur du projet EDITOSIA

Le projet s'est déroulé entre 2001 et 2004 et a été financé par la Direction Générale Recherche de la Commission Européenne. Les dix partenaires du projet EDITOSIA comprenaient des institutions et organisations africaines et européennes qui s'occupent toutes de formation électronique à distance et de développement des capacités des collectivités locales en Afrique, ainsi que de TIC pour le développement durable en Afrique.

Contact

De plus amples informations sont disponibles sous:
www.editosia.org.

"Information and communication technologies ... (have a) great potential to help people improve their lives. But they are not an end in themselves, or a magic formula that is going to solve all our problems." [1]

1. Introduction

There are vast challenges in sustainable development on the African continent, major responsibilities of local governments with often poor capacities to confront them, and only a small choice of useful training options. Can the new Information and Communication Technologies (ICTs) here make a change for the better?

More sustainability training needed for local government in Africa

Electronic distance training, taking advantage of electronic media such as radio, television, audio or video recorders, computers or even video-conferencing facilities, can provide learning opportunities over vast distances. Training material on audio and video tapes, on CD-ROMs or delivered on-line, allow flexibility in time and pace of learning and can be used anywhere the technical devices for running them exist. The training material can include interactive elements and tools to measure progress. Working on-line comes even closer to the classroom situation: In this case, learners can also meet their fellow course participants, chat with them over the Internet, help each other when questions or problems occur and carry out tasks in collaboration.

Electronic distance training can provide new learning opportunities

At first glance, however, electronic distance training doesn't seem to be the best solution for African local governments. In many administrations all over the region, even having a telephone line is not necessarily a matter of course. The technical equipment is often in poor condition, outdated, and lacking somebody to fix it if it is not working. Computers in public administration are still rare in most parts of the continent, apart from urban centres and in the more Southern countries and, even if they exist and are accessible, not many local officials have the necessary skills to make the best use of them. Internet connections are largely unreliable, affected by an unstable power network, and much too expensive to be used extensively.

Insufficient access to required technologies

It had been this contrast between the poor ICT conditions of local governments in Africa and their training needs for managing development on the one hand and the potential of electronic distance training on the other that led to the formation of the EDITOSIA[2]

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1 Kofi A. Annan in ITU News, 2003. Gauging ICT Potential around the World. No. 10 December 2003, page 4.
2 Electronic Distance Training on Sustainability in African Local Governments

network in 2001. Over a period of 30 months, ten partners[3] representing the scientific community, local government, the training and the ICT sector collaborated. Their aim was to find a common answer to the question of whether electronic distance training programmes are a feasible and suitable option to meet the training needs of African local governments in the field of managing sustainable development. The network was co-ordinated by ICLEI's International Training Centre.

Chapters 2 to 9

This publication marks the end of the EDITOSIA project. It contains:

- in Chapter 2, the overall conclusion responding to the core question as set out above;

- in Chapter 3, an overview on international trends in favour of the development of electronic distance training;

- in Chapters 4 to 7, summaries of the various surveys undertaken, mainly in Africa but also in Europe, of training needs and ICT conditions of local government in Africa and on currently available distance training programmes in both Africa and Europe;

- in Chapter 8, a comparison between the situation of electronic distance training in Africa on the one hand and Europe on the other;

- in Chapter 9, the summarising description of a Local Agenda 21 project in Latin America, the experiences of which can also be useful for local governments in Africa.

Chapter 10

The output from these reports, the feedback and critical input of three expert meetings,[4] and the different strands of knowledge gained during the project were brought together to formulate appropriate methodologies for electronic distance training for different target groups of local government (see Chapter 10).

Chapter 11

Looking also at the broader context of different actors influencing the training sector with their strategies and policies, a number of recommendations were drafted and discussed with more than 60 experts of local government, municipal associations, universities and other training providers at a symposium at the end of the EDITOSIA project. The final list of recommendations can be found in Chapter 11.

Full text versions and meeting reports are available at www.editosia.org

For more information such as the full text versions of the various investigations, the reports of the expert meetings including the symposium in Windhoek, please visit the project's website www.editosia.org.

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3 See appendix for details of partners.

4 • Expert meeting, The Hague, Netherlands, 10 July 2002: "Building Capacity for Local Sustainability in Africa through Electronic Distance Training?"
  • Special meeting for local government experts in Africa, Johannesburg, South Africa, 7 Feb. 2003: "Can Electronic Distance Training Satisfy Training Needs of Local Governments in Africa?"
  • Symposium, Windhoek, Namibia, 4 to 6 March 2004: "E-Learning for Sustainability – Local Governments Building their Capacity for Change"

"The countries of the North often think that ICT is a luxury for developing countries, that we have to resolve the other problems before thinking of access to new technologies … It was a victory to have had accepted that the acquisition of ICTs by developing countries has to be addressed immediately, at the same time as other challenges such as education and health …We have entered an era where knowledge is a priority and a prerequisite for development …" [1]

2. Developing quality electronic distance training through pilot initiatives and an African resource centre – The conclusions of the EDITOSIA project –

The starting point: need for information, but little access

Knowledge as a "priority and prerequisite for development" is the core concern around which the investigations and discussions of the EDITOSIA project have evolved. The potential of Information and Communication Technologies (ICTs) for tapping the immense magnitude of information existing at global level has been re-confirmed just recently at the World Summit on the Information Society (WSIS, Geneva, Switzerland, December 2003). [2]

Knowledge for development

In Africa, the indicators of ICT development still reflect a rather poor picture. In the year 2003, only 1,38 % of the overall population were in the possession of a Personal Computer (PC) as compared to 21,44 % on the European continent. In the same year, approx. 7 % of the African population had subscribed to a telephone line, lagging far behind the Europeans who were nearly all connected to the telephone network (96.28 %). Regarding the use of Internet, the contrast between Africa and Europe is even more obvious: Whereas in Africa only approx. 150 out of 10,000 inhabitants were using it, nearly 2,400 were reported for Europe. [3]

ICTs in Africa today

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1 Gaoussou Drabo, Mali's Minister for Communications and New Information Technologies, at the World Summit on the Information Society (WSIS) in Geneva, Switzerland, in December 2003. Quoted from: The ACP-EU Courier, No. 202, January-February-March 2004. Available at: http://europa.eu.int/comm/development/body/publications/ courier/courier202/pdf/en_06_ni.pdf [Accessed 20 June 2004].

2 See http://www.itu.int/wsis/basic/about.html [Accessed 24 June 2004].

3 International Telecommunication Union (ITU): Free Statistics – ICT. Basic indicators: Population, GDP, total telephone subscribers and total telephone subscribers per 100 people, and Internet indicators: Hosts, Users and Number of PCs, 2003. Available at: http://www.itu.int/ITU-D/ict/statistics [Accessed 20 June 2004].

The central conclusion of the EDITOSIA project

In view of these figures, any considerations to address Africa's huge challenges in sustainable development with the help of computers and Internet easily appear meaningless. However, after a series of assessments and surveys, internal discussions and external consultations with experts in the field, the partners of the EDITOSIA project arrived at the overall conclusion that electronic distance training (EDT) is indeed both useful and feasible for local governments.

The observations made in favour of this conclusion are as follows:

- Although the current situation of ICT access, infrastructure and equipment is still poor in the majority of local governments in Africa, technological indicators clearly reflect upward trends[4]. In the local administrations of larger municipalities and especially in the more developed countries of Southern Africa, such as especially in the Republic of South Africa itself, the technical conditions are already in place to move forward with EDT.

- The reasons for local governments to be adequately equipped with ICTs are manifold: potential applications range from pure internal documentation, communication and data processing via national and international networking and exchange up to more efficient services to their communities (e-government) and to a more transparent and accountable local democracy (e-governance). These applications will provide effective incentives for local governments to explore options for ICT development.

- Awareness of the potentials of ICTs are growing steadily among local governments in developing countries, and a world-wide process for gaining support by the international community has been initiated in the frame of the World Summit on the Information Society. In the last couple of years, more and more national ICT strategies have been launched by countries in Africa that was also "one of the first regions in the world to define a clear vision for … an information society and directly confront the digital divide" (see Chapter 5).

- An optimum of access to knowledge and experience – whether at local, national or international level – is indispensable if local governments have truly committed themselves to sustainable development. Access to Internet allows learning in the broadest sense, EDT can add further more systematic learning opportunities. With the growing recognition of the local government's role in advancing sustainability, more and more cities and towns

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4 For example: Already for 2005, telephone subscription is estimated to rise to 11,1 per 100 inhabitants (increase to 2003: nearly 30 %) and Internet use to 2,1 per 100 inhabitants (increase of ca. 40 %). Figures based on International Telecommunication Union (ITU): Africa, Telecom projections, 1995-2005. Available at http://www.itu.int/ITU-D/ict/statistics/at_glance/af_projections.html.

can be expected to join the international movements for Local Agenda 21 and Local Action 21. This will also spur their interest in finding out more about the theory and practice of sustainability management and increase their motivation of using ICTs for access to information and to training more specifically.

- At the moment, only a few people working in and for local government can take advantage of conventional training programmes. They are mostly those that live in or near capital cities or other urban areas where traditional face-to-face training as well as training courses supported by electronic means are most likely to be available. When it comes to rural areas, the outreach of training programmes is thinning. Especially here, where travelling is difficult, too time-consuming and sometimes dangerous, EDT programmes can yield a whole new range of cost- and time-efficient learning options once the necessary equipment (e.g. PCs for using CD-ROMs) and/or Internet access (in the case of web courses) has been put in place. The establishment of shared ICT resources – such as telecentres – in more rural settings, has already triggered promising opportunities.

EDT as cost- and time-efficient alternative to conventional training

Opportunities and requirements for moving forward

It is encouraging to see that some universities and other academic and non-academic training providers in Africa are already on the move towards integrating technical media into their training approaches. First EDT programmes are being developed independently from donor-supported projects, and pilot testing has started. Although present conditions in less developed countries and more rural situations still do not allow widespread participation in such courses, it is clearly visible that the African training sector recognises the potential of the new technologies and is in the progress of adapting its methodologies to the latest state of the art.

African training sector starts recognising potential of ICTs

Of course: a modern PC and easy, affordable Internet access are not the only pre-conditions for training programmes which promise an impact on sustainability conditions as their final result. It has also to be ensured that these programmes contain all ingredients that are in principal necessary for successful training outcomes. They have to match the institutional conditions of local governments; they need to offer a wide range of possible learning activities in order to suit a variety of learner profiles and preferences; and they have to be relevant and implementation-oriented to make a difference in the real world. All other issues related to training such as the applicability in the light of country-specific conditions and local needs, quality control, accreditation etc. are equally valid.

Also EDT has to meet quality standards

Knowing about the substantial experience on EDT and the tools already developed by training providers elsewhere in the world, it is now of paramount importance to make this knowledge systematically available to the African training sector. This should be

Harnessing EDT expertise from training specialists in the North

treated with high priority so that not too much of the scarce resources for capacity building are wasted by re-inventing the many 'electronic wheels' which can set learning into quicker motion.

Targeted action to be undertaken now

Launch of pilot programmes for EDT

Given the principal usefulness and the potential of EDT programmes for local governments, the motivation on the side of the African training providers and the need to support their efforts for integrating ICTs in their training methodologies, the EDITOSIA project partners suggest the following as the two main steps for targeted action:

- As outlined above, there is every good reason to get into gears and launch more EDT pilot programmes for those local governments that have the necessary technical prerequisites already in place. The development of different levels of e-applications in pilot training programmes can allow the participation of local government with different levels of ICT readiness and thus result in a differentiated insight in EDT options.

  The fact that not all local governments will be able to benefit from ICT supported training programmes right from the beginning should not be regarded as an argument against the implementation of pilot programmes. A broader outreach will eventually be a matter of time. Furthermore, pilot programmes might also play a role as further incentive for local governments to put their ICT development higher on the agenda and set the necessary budget aside – whether from their own or from external funding resources.

Establishment of an African resource centre on EDT for local government

- At the moment, strong backing as well as targeted technical support for African training providers is still lacking. It would therefore be most useful and efficient to establish a comprehensive regional resource centre that can provide the services which are needed to respond to the African actors' needs for information, advice and guidance on successful EDT approaches, case studies, benchmarking, quality assurance etc. It could also have the role of a platform for the co-ordination of future pilot projects as well as of fully-fledged training programmes offered for a variety of local government target groups and on a range of training subjects.

The momentum that is fed by current trends should not be missed – and neither should the enthusiasm of those people remain untapped who have engaged in expert meetings and the symposium of the EDITOSIA project and shown their strong determination for making EDT happen in the name of sustainable development.

3. Driving forces in favour of electronic distance training on sustainable development for African local governments

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Introduction

Successful and effective training on sustainability for African local governments does not only depend on the interaction between a trainer and the trainees in a (physical or virtual) class room and on the material that they are using, but also on a number of conditions surrounding the immediate training and learning activities. Especially the existing political, legal and institutional frameworks in a given country can have a profound impact on the final training outcome. These frameworks are affected by driving forces at global level which further shape the national conditions for local governments and training as well as for sustainable development more generally.

Frameworks of electronic distance training

In this context, four major forces of current international policy developments have been identified as relevant:

Driving forces in policies for ICTs, decentralisation, sustainability and life-long learning

• the international efforts for closing the digital divide, i.e. the gap in Information and Communication Technology (ICT) development between the Northern and Southern hemispheres;

• the political drive for decentralisation;

• the global movement for sustainable development; and

• the growing need for lifelong learning.

It can be expected that new national policies and strategies resulting from these international dynamics will facilitate the future development of electronic distance training (EDT) on sustainability in African local governments. In the following, this argument will be presented in more detail.

Closing the digital divide: the push for infrastructure development

Although home to 12% of the World's population, Africa still accounts for only 1% of the global Internet users[1]. The Digital Access Index (DAI), developed by the International Telecommu-

Africa still belongs to the 'information poor'

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1 Economic Commission for Africa, 2003. Policies and Plans on the Information Society: Status and Impact. Available from http://www.uneca.org/aisi. [Accessed on 26 May 2004]

nication Union (ITU) as the first global index to rank ICT access[2], draws a similar picture in which most African countries still need tremendous improvements of their ICT infrastructure (see Table 1).

Country	DAI	Country	DAI
Sweden (highest)	0.85	Morocco	0.33
The Netherlands	0.79	Zimbabwe	0.29
United Kingdom	0.77	Uganda	0.17
Germany	0.74	Zambia	0.17
Hungary	0.63	Senegal	0.14
South Africa	0.45	Mozambique	0.12
Namibia	0.39	Niger (lowest)	0.04

Table 1. Digital Access Indices (DAI) for selected countries
(Source: International Telecommunication Union News, 2003. Gauging ICT potential around the world: ITU's first global Digital Access Index. World Summit Special. No. 10 December 2003.)

Promising trends in digital access

The trends of technological development are promising, indicating a steady improvement of digital access (see Table 2), but the increase is still limited to urban areas and international organisations that can afford expensive equipment and connection fees[3]. Also, with 70% of the continent's population living in rural areas, most Africans do not yet have access to even basic ICT services.

	Actual								Esti-mate	Forecast	
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Main telephone lines per 100 inhabitants											
Africa	1,8	1,9	2,1	2,3	2,5	2,5	2,7	2,8	3,0	3,2	3,5
North	4,6	5,0	5,5	6,1	6,8	7,4	8,2	8,6	9,6	10,7	12,0
South Africa	10,1	10,6	11,3	12,0	12,8	11,4	11,1	10,7	10,4	10,1	9,9
Sub-Saharan	0,5	0,5	0,6	0,6	0,7	0,8	0,8	0,9	1,0	1,0	1,1
Internet users per 100 inhabitants											
Africa	0,04	0,6	0,12	0,2	0,4	0,6	0,8	1,2	1,6	1,9	2,1
North	0,02	0,3	0,06	0,1	0,3	0,8	1,2	2,6	3,3	3,7	3,9
South Africa	0,71	0,88	1,7	3,0	4,2	5,5	6,5	6,8	7,1	7,4	7,7
Sub-Saharan	0,001	0,01	0,02	0,04	0,09	0,2	0,3	0,5	0,9	1,1	1,3

Table 2. Africa, Telecom projections 1995-2005
(Source: International Telecommunication Union, 2004. Africa, Telecom projections, 1995-2005. Available from: http://www.itu.int/ITU-D/ict/statistics/at_gglance/af_projections.html [Accessed 27 April 2004])

2 See more on the DAI at http://www.itu.int/newsarchive/press_releases/2003/30.html [Accessed 22 July 2004].
3 Economic Commission for Africa, 2003. Policies and Plans on the information Society: Status and Impact. CD-ROM: 'AISI WSIS Resources'.

The World Summit on Information Society (WSIS) held in December 2003 in Geneva, Switzerland, was the first occasion which brought together the international community in order to strengthen the *"political will and take concrete steps to establish the foundations for an Information Society for all"*.[4] One of the major issues of this first summit of its kind was to explore the role and potential of ICTs for development. How could ICTs help tackle the global problems of poverty and contribute to reaching the Millennium Development Goals such as halving *"the proportion of people without access to safe drinking water and basic sanitation by 2015"*?[5] Following intensive discussions about the reasons and consequences of the digital divide, political initiatives were launched to counteract the widening of the gaps of ICT development between and within countries and continents.

The Plan of Action that resulted from the stakeholder consultations at the WSIS and calls for implementation until the year 2015 addresses especially central governments to establish targeted policies and measures for building a favourable environment for ICT development. The list of targets includes, for example, that all local government departments are to be connected through ICTs and that respective websites and e-mail addresses should be established. One of the central 'Action Lines' of the Plan are geared towards capacity-building. Focus here is to ensure that everyone will have *"the necessary skills to benefit fully from the Information Society"*.[6]

A monitoring and evaluation mechanism for a follow up on the WSIS Action Plan has been established. In a second stage of the process, the international community will convene again in Tunis, Tunisia, in the year 2005 to take stock on implementation activities and results.

To ensure adequate representation of their own particular interests, also local governments joined their forces at international level and established a separate process in preparation to the WSIS. This process culminated in the first World Summit of Cities and Local Authorities on the Information Society that was held in Lyon, France, shortly before the meeting of the Heads of States and Governments in Geneva. The final document of this Summit, the 'Lyon 2003 Declaration on the Information Society',[7] was submitted to the WSIS for consideration by the Head of States and Governments. The Declaration emphasises the role of local governments in the development of a just and transparent information society. Among others, local governments commit themselves to provide training to local government officials on the

	The WSIS: towards establishing the foundations for an Information Society for all
	The WSIS Plan of Action
	Taking stock of implementation in Tunis in 2005
	The first World Summit of Cities and Local Authorities on the Information Society in Lyon in 2003

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4 See http://www.itu.int/wsis/basic/about.html [Accessed 24 June 2004]
5 Target 10 of MDP 7; see http://www.developmentgoals.org/ [Accessed 22 July 2004]
6 See http://www.itu.int/wsis/documents/doc_single-en-1160.asp [Accessed 24 June 2004]
7 http://www.cities-lyon.org/en/declaration [Accessed 24 June 2004]

potentials and use of ICTs. Also, the Declaration encourages international co-operation between local governments between the 'information rich' and the 'information poor' in order to help bridge the digital divide.

African initiatives for ICT development

In combination with the policy developments at international level, the weak ICT conditions in Africa have spurred numerous national, regional and continental initiatives. Already in 1995, the African Information Society Initiative (AISI) evolved out of the need for a broader vision for Africa's future. The AISI has since been the basic action framework for socio-economic development in Africa through the use of ICTs. In 2001, AISI was adopted as the ICT component of the New Economic Partnership for African Development (NEPAD).[8] In the same sense, the Southern African Development Community (SADC) recognised in their Declaration on Information and Communications Technology the need for a coherent regional policy and strategy on ICTs to promote development.[9]

African e-market largely untapped

All of the above can only be a spotlight on the current technological trends, political efforts and some recently established networks and initiatives for the enhancement of ICT conditions in Africa and at local government level more specifically. For completing the picture, it should be mentioned that also the economic sector has been increasing its role as a driving force for technological innovation. Whereas the markets in the industrialised world become more and more saturated, the market on the African continent is still largely untapped. The launch of a new satellite for Africa earlier this year promises a further boost for improving connectivity.[10]

Enhancing ICT conditions on both sides: local governments and training providers

Drawing from the observations made in the ICT sector it becomes apparent that a large variety of different actors are working towards an enhancement of the presently still poor conditions in many countries of Africa. As also confirmed by the EDITOSIA survey on 'Information and Communication Technologies in African local governments'[11] (see summary in Chapter 5) local governments will gradually become better connected, and more and better opportunities will be available for them to develop and upgrade their skills for the use of ICTs. With better ICT conditions also on the side of the training providers, electronic distance training could finally become mainstreamed into the training provision for local governments as a flexible and easily accessible option for the capacity building of local governments.

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8   See www.nepad.org [Accessed 22 July 2004]
9   South African Development Community, 2004. Declaration on Information and Communications Technology (ICT). Available from: http://www.sadc.int/index.php?action=a1001&page_id=declarations_information [Accessed 26 May 2004]
10 A new satellite for Africa. In: 'The New African", No. 427, March 2004, page 29
11 Available at http://www.editosia.org/docs/wp2-2_2-3.pdf [Accessed 22 July 2004]

Decentralisation: an incentive for training

With an increasing number of countries on the African continent having become independent during the last century, the strive for democracy and development also nurtured the emergence of decentralisation processes. Since the end of the 1980's, decentralisation has become a policy priority in many Africa countries.[12] At the end of the last Millennium, more than 70 % of the countries of Sub-Saharan Africa were reported to have a decentralisation process already in place.[13]

African countries moving towards decentralised structures

It is obvious that declarations of intent and realities do not yet match in many cases. Often enough, the knowledge, capacities and resources as well as the political commitment needed to transform the administrative structures of an entire country are not in place – neither at central, nor at local level. However, there are also countries demonstrating that decentralisation can work if addressed in a comprehensive political approach.

One of today's most prominent examples of intensive efforts for making decentralisation work is the Republic of South Africa. Here, the importance of local government is firmly anchored in the national Constitution.[14] As part of the process for implementation, the central government has established Integrated Development Plans (IDPs)[15] which have become the principal strategic planning instrument for the self-governance of municipalities. All local governments are required to prepare and implement their own plans, so that a substantial amount of responsibility for planning and development has been transferred to the local sphere.

The case of South Africa

A number of international and regional activities further strengthen decentralisation processes. One of the most important institutions in support of decentralisation in Africa is the Municipal Development Partnership Programme (MDP) for which it is one of the main priorities of their institution's strategy.[16] They are also important players in the organisation of a series of conferences called Africities Summits which have meanwhile become a dialogue platform between local elected representatives and the central governments, and between the representatives of public authorities and the economic and community stakeholders which all key actors for decentralisation in Africa.[17]

Decentralisation a priority for the Municipal Development Partnership Programme

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12 Sahel and West Africa Club and MDP (ed.): Policies of cooperation institutions and decentralisation in Africa, 2003. Available at http://www.oecd.org/dataoecd/19/19/31368121.pdf [Accessed 24 June 2004]

13 De Muro, P., Salvatici, L., and Conforti, P.: An overview on decentralization in Sub-Saharan Africa, 1998. Available at: http://lnweb18.worldbank.org/essd/essd.nsf/bef216e1366e2b1d852568d300686bba/c8a448995068faed85256a49007e34c8/$FILE/Backup%20of%20AFROVRVIEWItaly.wbk [Accessed 24 June 2004]

14 See http://www.info.gov.za/structure/local-gov.htm [Accessed 22 July 2004]

15 See http://www.dplg.gov.za/html/progs/idp.htm. [Accessed 22 July 2004]

16 See http://www.pdm-net.org/Newsite/english/aboutmdp/poldec.htm. [Accessed 24 June 2004]

Associations becoming the voice of African local government	In addition to shifts in central and local competencies, the recognition of the importance of the local sphere in development has seen the emergence of national and regional associations of local governments in most African countries. At regional level, it has been the newly formed Council of Cities and Regions of Africa (CCRA) which has become the voice of local authorities for adequate recognition and self-governance.[18]
Decentralisation enhances motivation for learning	Coming back to the issue of electronic distance learning for local governments, decentralisation can be regarded as a driving force for training development. On the one hand, it increases the need for training, on the other hand it also generates a strong incentive for learning. The growing role of local authorities in the governance system has brought along a lot of new responsibilities in dealing with local issues and managing local problems independently. These new challenges require enhanced capacities that will have to be gained and maintained through continuous training. In addition, the greater autonomy of local authorities, their strong role and new competencies have also motivated officials and politicians to be better informed about issues of development. Seen from that perspective, decentralisation has also created an incentive for learning.

Sustainable development: The need for capacity

Sustainability as overarching goal for development	Promoting development in a sustainable way adds further subjects to the training curricula for local governments which reflect the relevant social, economic and environmental dimensions and their complex interplay.
The Earth Summit in 1992	The 'Earth Summit' or 'Rio Conference', a major event of the United Nations taking place in Brazil in 1992, was the first high-level and international gathering that created broad awareness about the linkages between environment and development.[19] Right from the beginning, Agenda 21,[20] the global plan for action launched at the Earth Summit covering all areas where human interests impact on the environment, included a chapter specifically describing the importance of local governments in reaching the goals of sustainable development: Local Agenda 21 (Chapter 28 of Agenda 21). Arguing that the local nature of problems requires the participation and co-operation of local governments,

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17 See http://www.pdm-net.org/africites/new/eng/summit.htm [Accessed on 24 June 2004]

18 Municipal Development Programme, 2001. Meeting of the Counil of Cities and Regions of Africa. Available from: http://www.pdm-net.org/english/ccra_meeting.htm [Accessed on 26 May 2004]

19 United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3-14 June 1992. See http://www.un.org/geninfo/bp/enviro.html. [Accessed on 22 July 2004]

20 See http://www.un.org/esa/sustdev/documents/agenda21/index.htm. [Accessed on 22 July 2004]

the importance of local level interaction had been recognised already at this stage.

Ten years later, the international community met again for the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa, to review the achievements made after 1992 and to forge new partnerships for implementation. With the 'Johannesburg Call'[21] as well as with the 'Local Government Declaration to the WSSD',[22] local governments from all over the world re-confirmed their determination to share the international efforts for achieving sustainable development. The documents also reminded national governments to recognise local government as a vital sphere of government. In the Johannesburg Call, African local governments further called on the international community to work through the New Partnership for Africa's Development (NEPAD) to support local level activities in their continent.

Being aware about the concerns and perspectives highlighted by the international policies for sustainability, African countries have been addressing their severe problems of sustainable development with the help of international support and regional co-operation. The European Union and the African, Caribbean and Pacific (ACP) countries, for example, have partnered up in 2000 under the Cotonou Agreement.[23] The central objective of this partnership has been the reduction and eventually eradication of poverty while contributing to sustainable development and to the gradual integration of ACP countries into the world economy. One of the principles of the agreement between EU and ACP countries is the participation of central as well as local government. Interestingly, capacity constraints were identified as one of the major challenges of the agreement.

Since the Earth Summit in 1992, local governments have increasingly gained visibility in the sustainable development movement. Simultaneously, local government officials had to take on a growing number of tasks in all kind of areas related to sustainability, whether transport or water management, housing or health services. The movement for sustainable development has increased the demand on training by local governments which has not been sufficiently met so far. This legitimises the integration of sustainability issues goals into the training agenda for local governments as well as it helps to define the training needs and priorities.

The World Summit on Sustainable Development in 2002

A partnership for sustainable development: the Cotonou Agreement

Sustainability on the training agenda for local governments

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21 Available from: http://www.iclei.org/lgs/johannesburg_call.htm [Accessed 8 May 2004]

22 http://www.iclei.org/rioplusten/declaration_eng.html. [Accessed 22 July 2004]

23 See http://www.ecdpm.org/Web_ECDPM/Web/Content/Navigation.nsf/index2?readform [Accessed 8 May 2004]

Lifelong learning: growing demands for keeping up-to-date

Continuous learning necessary in a rapidly changing world

Lifelong learning is the response to the challenges of fast developing technologies and the evolution of a global society. The present concepts of lifelong learning have emerged from a broader mix of economic, social, cultural and educational objectives reflecting the uncertain and rapidly changing contemporary times. In Europe, it is above all the political strive for the transition to a knowledge-based society as well as demographic pressures resulting from an aging population that demand a new approach to education and training. The older generation will soon represent the majority of the working force and will have to be kept up-to-date with latest developments in their professional areas. Traditional learning pathways that used to focus on younger people will have to change, not only to adapt to the rapidly developing technologies, but also to accommodate other types of learners.

New approaches to learning are needed. They have to be open, flexible and complementary to conventional systems. They need to provide learning opportunities to all citizens on an ongoing basis, taking into consideration individual learning pathways suitable to their needs and interests at any stage of their lives.[24]

Life-long learning policies in Africa

In Africa, the key challenges of education and training are of a different nature than in Europe. First and foremost, despite all efforts, the lack of access to basic education has remained a major issue. Regarding training for the adult population, the biggest concerns have become the impacts of the escalating HIV/AIDS pandemic, the worsening poverty levels and the widening gap between knowledge-based economies and those based on manufacturing and primary production.[25]

Although deriving from other priorities than in Europe, also Africa has started adapting policies for life-long learning to address the vast needs for capacity building. The bigger the challenges, the more urgent the need for up-to-date information and latest good practice from experts worldwide. It goes without saying that adult learning is especially crucial where primary and secondary education are not yet guaranteed for everybody. Last, but not least, the rate of change occurring in knowledge-based economies in the North further increases the divide in development as long as African governments are not in the position to implement working solutions in the field of education and training.

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24 European Commission, 2003. Lifelong Learning: What is Lifelong Learning?. Available from: http://europa.eu.int/comm/education/policies/lll/life/what_islll_en.html [Accessed 3 May 2004]

25 Southern African Development Community, 2002. Annual Report 2001-2002: 2.4 Social and Human Development and Special programmes. Available from: http://www.sadc.int/index.php?lang=english&path=about/ annualreports&page=2002 [Accessed 26 May 2004]

In Article 9 of their Protocol on Education and Training, the member states of the Southern African Development Community (SADC) have acknowledged the need for life-long learning and *"agree to promote continuous professional development"*[26]. They also recognise the critical role of open and distance learning in increasing access and reducing the cost of education and training and, in many cases, have developed national policies to cover the wide array of training needs.[27]

The SADC Protocol on Education and Training

In this process they draw upon models and instruments of best practice proposed by their development partners and international training providers. Already in 1974, it is stated in the (revised) UNESCO recommendations concerning Technical and Vocational Education that policies for the improvement of training should be established to implement the principles of lifelong learning, considering the provisions of modern information technology in education or outside it.[28] These recommendations also explain that continuing education for adults should offer possibilities for personal development and professional advancement and permit the updating and renewal of knowledge and practical abilities and skills in the occupational field.

UNESCO as global promoter of life-learning

EDT for African local governments aims at using modern information technology to offer possibilities for professional advancement and permit the updating of practical abilities and skills in the occupational field. These goals correspond with the principles of lifelong learning, which include the creation of continuing learning opportunities for professional training. Consequently it can be expected that the activities intended within the framework of life-long learning will also promote the development of EDT programmes in African local governments.

Life-long learning policies can be implemented through EDT programmes

Conclusion

Although the current conditions in Africa still present numerous barriers to the development of EDT programmes and their delivery to local governments, the surrounding dynamics in national and international policy development are encouraging. The momentum created by these dynamics should be seized to launch first pilot projects in those regions where the necessary technical and institutional are already in place and where first experiences can be

EDT pilot initiatives should take advantage of driving forces

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26 Southern African Development Community, 1997. Available from: http://www.sadc.int/index.php?action=a1001&page_id=protocols_education_and_training#article9 [Accessed 26 May 2004]

27 Southern African Development Community, 2002. Annual Report 2001-2002: 2.4 Social and Human Development and Special programmes. Available from: http://www.sadc.int/index.php?lang=english&path=about/ annualreports&page=2002 [Accessed 26 May 2004]

28 UNEVOC: International Project on Technical and Vocational Education, 1974: Revised recommendation concerning technical and vocational education. Available from: http://www.unevoc.unesco.org/publications/pdf/ reco74-e.pdf [Accessed 24 June 2004]

gained. Because of the relatively easy replicability of e-learning programmes, the elaborated versions which integrate the experiences made in pilot testing can then gradually be extended to other more developed local governments in the same country or – if necessary – be adapted to the circumstances in other countries.

4. African local government training needs for sustainable development

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Introduction

The purpose of this report in the frame of the EDITOSIA project was to assess the present and future needs of decision-makers and senior officials in African local governments for training on sustainable development. To this end, training subjects, training methods and target groups within local governments have been identified and discussed.

Full text of this summary available at http://www.editosia.org/docs/wp2-1.pdf

The results of this report provided the basis for the later reflections on the most appropriate methodologies for electronic distance training (EDT). They are also taken into account in the formulation of the recommendations that are addressed at policy-makers (see Chapter 11).

Methodology

Questionnaires

The information on training needs was collected through two questionnaires. The first questionnaire was distributed to representatives of local governments, while the second one addressed municipal associations, training providers and ministries of local government. The survey covered the countries of Burkina Faso, Mozambique, Namibia, Senegal, South Africa, Uganda, and Zambia. The first questionnaire was also tested in Zimbabwe.

Two questionnaires to different target groups

The countries were chosen according to a set of criteria agreed by the EDITIOSIA partners. The criteria included geographic distribution of the countries on the African continent, available technology and the physical, institutional and social accessibility of the country.

The questionnaires were distributed by e-mail, followed up was carried out by e-mail and telephone calls. In some cases, however, it appeared difficult to reach the right people. Even when reached they were usually not motivated to answer lengthy questionnaires.Technical problems with electronic communication complicated matters further. All in all, 24 questionnaires were returned and processed for this assessment.

Additional sources of information

The information gained through the questionnaires was complemented by a number of additional sources.

Face-to-face interviews at international congress

Firstly, face-to-face interviews were held with six local government representatives from Namibia, South Africa, Tanzania and Uganda at the 2003 ICLEI World Congress in Athens, Greece.

Internet research

Secondly, Internet research was conducted, however with only little outcome. Training needs assessments for local governments still seem to be rare, or they are not published and only used internally.

Consultative meeting with experts

Thirdly, valuable input was gained at a consultative meeting in Johannesburg, South Africa in February 2003. This consultative meeting was attended by 26 representatives of local governments, municipal associations, training providers, experts and donor agencies from seven different countries.[1]

Last, but not least, the EDITOSIA project partners themselves provided crucial contributions based on the different perspectives of their professional backgrounds.

Main needs of training for local government

Training subjects

Wide range of training needs in sustainable development

The need for training on subjects of sustainable development issues has been expressed in almost all surveyed countries. The topics and themes range from more general ones such as Local Agenda 21, planning for sustainable development and management of the urban environment, to more specific issues of the environmental, social and economic domains of sustainability. These issues include poverty alleviation, HIV/AIDS education, water resource utilisation and management, waste management, energy efficiency and conservation, and environmental impact assessment.

Training needs are not only expressed with regard to enhancing knowledge and skills, but also in terms of raising awareness on these issues, especially for elected officials and other local decision-makers. The investigation could not determine any country-specific need or area of interest. Instead, the needs vary from local government to local government or from individual to individual.

Training providers and funding sources

Ministries and international organisations main providers

Training is mostly offered by national governments through their ministries or departments responsible for local government as well as through donor-funded projects and programmes initiated by international and local organisations. Also national municipal

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1 The report of this consultative meeting is available at http://www.editosia.org/ docs/johannesburg_meeting_final_report_special_meeting.doc

associations offer training, such as in the cases of South Africa and Namibia.

In most cases in Sub-Saharan Africa, the participation in training events is only possible with donor support. Only bigger cities and larger municipalities in more developed countries such as Namibia and South Africa have adequate resources to pay training from their own budgets.

Training budgets small in local governments

Training approaches

The most popular training approach are workshops and seminars of one to seven days and sometimes longer than a week. For elected officials half- to full-day lectures have been found to be favourable and more acceptable as they are always busy. The same can also be said for senior local government employees.

Face-to-face trainng most popular approach

Study tours and field trips are also one of the more frequently used training activities. This is because learning by doing and seeing is often more appealing than studying purely on the basis of the written and spoken word.

With regard to EDT, CD-ROM, e-mail and Internet based training has been carried out in South Africa and Senegal, though not in many instances. Video-conferencing has been used in Uganda, South Africa and Senegal. It is has been made accessible via hubs, normally through World Bank, USAID or UNDP resident missions. The providers in Uganda and Senegal have been the World Bank Institute in conjunction with local and regional training institutions like the Uganda Management Institute, and the Municipal Development Partnerships for Africa, West and Central Africa and Eastern and Southern Africa.

Hubs for video-conferencing and telecentres established by international donors

Telecentres exist especially in cities, towns and communities in West Africa, some of them are even situated within local authorities. The funders for these telecentres are usually international donors like Canada's International Development Research Centre (IDRC).

Generally speaking, most of the local government officials who had participated in training events expressed their satisfaction with the training delivered. Video-conferencing, however, still has the disadvantage that participants sometimes have to travel vast distances to reach the training hubs.

Most participants satisfied with training

As to Internet and e-mail based training, participation is of course dependent on the possession of or access to a functional computer with the necessary connectivity. This again requires a telephone line or some other form of telecommunication infrastructure. In this respect, CD-ROMs have sometimes proved more appropriate as they only need a computer with a functional CD-ROM drive. Distance training delivered via printed training materials and using the conventional post was also positively evaluated, provided that efficient postal services exist.

CD-ROM and print-based materials make distance training more feasible

How training for local sustainability should look like

What is a sustainable city?

According to ICLEI, a city can be regarded as sustainable, if it is eco-efficient and has a viable economy; if it is just and peaceful; if it is resilient to external developments; and if it is willing and able to protect global common goods such as water, air, climate, soils, health and bio-diversity.

As mentioned further above, all dimensions of sustainability – be they local economic and social development or natural resources management or governance – are key issues for local governments in all the surveyed countries.

Goals of training for sustainability

Training for sustainable development should therefore build the capacity of local governments for

• managing the local resources in an efficient way and to improve environmental quality,

• developing viable local economies, and

• safeguarding the community's social welfare by responding adequately to the citizen's needs.

Requirements of local government training for sustainability

In order to achieve these goals, the following requirements should be taken into account:

• Training on sustainability should deliver up-to-date information and tools for local sustainability management.

• It should enable local government employees and politicians to apply and relate the information and tools to local realities. Immediate practical application of the acquired skills and knowledge – which are preferably closely connected – should be possible.

• Being locally relevant on the one side, the training should also consider the global implications of local action.

• Training should also include an element of awareness raising on specific issues, such as the impacts of environmental degradation and exploitation on the natural ecosystem, and that of unsustainable systems of development. This also refers to awareness and skills for mitigation measures using own 'homegrown' resources and solutions.

• Management of change should be an integral part of such training.

• In order to involve the institutional context and allow for an integrated cross-sector approach, the training should ideally address several people of the same local government, and cover more than one level of staff and political decision-makers.

• The training should allow senior managers and other employees in charge to make strategic decisions pertaining to sustainable development.

- Training for elected officials should allow them to be able to identify local or community problems and needs so that they can be planned for.

- Finally, it should accord an opportunity for networking and exchange of experiences and maximum access to innovations and good practice, and include an element of continuous support and interaction.

The current training situation and constraints to its improvement

In the current situation, there are vast gaps between the current and the desired training situation.

To a large extent, this is due to budgetary constraints in poor national economies. The effects on the national level transcend to local economies. There are normally no national budgets for training, let alone training on sustainable development, hence most countries have no policies on the same.

Lack of financial resources

Poverty levels are generally high, and in rural areas, these have been made worse by the rapidly urbanising local economies, which further diverts potential priorities for training. Limited budgetary allocations make it difficult to plan for training.

External funding can contribute to reducing the gap in training. However, externally funded programmes are often driven by international agendas that do not necessarily relate to local realities in an adequate way. If this is the case, training cannot be expected to make a tangible impact on the situation of local sustainability.

External funding often comes with external agendas

There are also other reasons that training offers are not sufficiently tailored to the local government target group. Training needs assessments, for example, are only occasionally carried out, and also hardly ever by local authorities themselves. Thus, they are left unaware of their training needs. This again leads to a lack of incentives for training as well as a lack of human resource development policies in general and, more specifically, for sustainable development.

Not enough training needs assessments

Moreover, the lack of indicators for monitoring and evaluation makes it difficult to measure success in training for sustainability.

Lack of indicators for success of training

Insuffient resources as described further above also make electronic distance training – if not impossible – ineffective. Even where the necessary infrastructure, equipment, hardware and software, ICT policies for the development of the Information and Communication Technologies (ICTs) and the capacities to use ICTs are available, the costs of use and maintenance are frequently very high, and existing equipment ends up not being used, because it is not affordable.

High costs for use and maintenance of ICTs

Furthermore, in most countries there is a lack of lobbying capacity and representation for local governments which could strengthen

Not enough lobbying

their positions and draw more attention to their needs whether in training or for technical improvement or for sustainable development more generally.

On the other hand, there are also encouraging developments. The policies in South Africa, for example, can demonstrate the effectiveness of a national strategy for sustainability. Here, sustainable development and environmental protection are enshrined in the constitution. All levels of government are committed to sustainable development. South Africa has a National Local Action 21 strategy and programme of action as well as strategies for a number of environmental issues like energy, air pollution and others. The implementation of these strategies is coordinated by the South African Local Government Association (SALGA). SALGA sees to it that all local authorities have sustainable development and environmental awareness programmes. While the processes of transformation and institutional change pose an additional challenge to the development of training activities, they also boost the demand for training and increase the need for effective and efficient solutions.

Another example for successful national policies for sustainability is Namibia, where all major cities and municipalities have environmental units tasked with the implementation of Local Agenda and Local Action 21, and their training departments take this element into account.

This kind of political framework conditions create a favourable climate for the promotion of training on sustainable development in general.

The potential of electronic distance training

Current levels of training are inadequate, and training offers applying ICT tools are still rare to be found, although electronic distance training could be cost effective while taking care of the problems of distance and time taken to travel.

In recent years, however, and especially with the attention gained through the World Summit on Information Society (WSIS) in December 2003, even a number of least developed countries have established their own national ICT strategies. In Zambia and South Africa, for example, national policies are under way, and the central governments are taking ICT development seriously. Also, with the involvement of their ministries for local government, Mozambique and Senegal have launched national policies that include the computerisation of local authorities.

Most urban and metropolitan administrations in Sub-Saharan Africa are equipped with operational computers and have connectivity. This is applicable, for example, to all four major cities in Namibia, and in South Africa for most major cities and municipalities.

It is South Africa again which also presents a model for promoting electronic distance training. Here, EDT is already incorporated into the training strategy of the municipal association SALGA. In the other focus countries of this report, however, the major training providers are still the ministries responsible for local government supported by donor funded programmes and projects. In these countries, it should be considered in how far alliances with the municipal associations as well as with training institutions could be established so that more innovative training is developed.

The municipal association in South Africa as a promoter of EDT

Conclusions

The investigation into the training needs of African local governments confirmed the substantial gap of training opportunities on sustainability which goes across a large variety of themes and issues.

On this background, the possibilities for offering electronic distance training with or without the necessity of access to the Internet should be further explored. EDT, including the use of e-mail, interactive websites, video-conferencing or CD-ROMs, could in fact contribute to reducing the gap in training provision for local governments. EDT can take care of the constraints of distance, scale, and time and can be cost-efficient in the long term. On the other hand, for electronic distance training to succeed and to be widely used, there is a great need to revamp the hardware and software in most of the local authorities.

Possibilities for tailored EDT should be further explored

Comprehensive training needs assessments are still exceptional. Local governments themselves are often not aware of their specific needs for training. In this context, training institutions and national associations of local authorities have an important role to play. Training providers are also challenged to assess their own capacities for including ICTs in their training methodologies.

Training needs assessments crucial

Budgetary constraints affect EDT even more than conventional training approaches since a first major investment is needed in addition to the costs for using and maintaining the necessary technical equipment. This, however, is an investment which will be beneficial to improving the performance of a local administration in many regards, which should be taken into account when preparing local budgets.

ICTs investments pay back in the long run

There is also need for comprehensive policies on ICTs. Through their national associations, local authorities should advocate for more conducive ICT policies and strategies at national and regional level. They should also seek collaboration with the ministries responsible for local government issues and with training institutions to strengthen the training provision in their countries. First and foremost, however, they have to look at their own institutional strategies and actions to build an effective system for a targeted training of their officials to master the challenges of local sustainability.

Co-ordinated efforts needed for conducive ICT policies

Accra, Ghana, 2004 (Photo by Barbara Anton)

5. Information and Communication Technologies (ICTs) in African local governments

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Introduction

As part of the process to generate baseline information relevant to the formulation and development of various policy recommendations during the later stages of the EDITOSIA project, the Southern African NGO Network (SANGONeT) and the International Institute for Communication and Development (IICD) were responsible for conducting a survey on the current and forecasted accessibility and use of ICTs, as well as the conditions necessary for the application of electronic distance learning on sustainability, in African local governments.

Full text of this summary available at http://www.editosia.org/docs/wp2-2.pdf

Furthermore, based on this survey and the understanding of the ICT situation within African local governments, SANGONeT and IICD compiled a report which described various electronic training options for Africa, technological framework conditions and expected future trends in this regard.

While compiling an overview of the status of ICTs in Africa in general, SANGONeT and IICD focused on five African countries specifically, namely Mozambique, Namibia, South Africa, Uganda and Zambia.

Methodology

SANGONeT and IICD used a combination of questionnaires, fieldwork, face-to-face meetings, the Internet and other resources to collate the information for this survey. For Mozambique, Namibia and South Africa, SANGONeT conducted extensive research on the Internet, corresponded with several key experts in the field of regional ICT capacity, e-mailed questionnaires to government departments in the three countries and, in the case of South Africa, held face-to-face meetings with relevant government representatives. In the case of Uganda and Zambia, fieldworkers based in the respective countries were primarily used to compile the information, using a combination of questionnaires, the Internet and face-to-face meetings.

Questionnaires, interviews, meetings, Internet and other resources

A number of factors impacted on the survey process. Access and connectivity have been problematic as far as Namibia and Mozam-

Challenges to survey process

bique were concerned. In particular, Mozambique has very low ICT capacity, which has made correspondence with government officials difficult. Many officials in Mozambique speak Portuguese only, which further complicated matters. In Namibia, it has also been difficult to identify the most appropriate people in its government structures to speak to. This appears to relate to a lack of co-ordination or awareness within government structures as to overall roles and responsibilities relating to ICTs.

Findings

Africa one of the first regions with clear vision on information society

Africa was one of the first regions in the world to define a clear vision for establishing and implementing an information society, and to directly confront the digital divide. In 1995, a broad consultative process involving 53 African countries resulted in the Africa Information Society Initiative (AISI) – years before other regions in the world started addressing the issues of access to ICTs in the third world. AISI, an action framework to build Africa's information and communication infrastructure, provides a comprehensive strategy for socio-economic development in Africa through the use of ICTs.

Enabling policy environment important for ICT development

AISI's priorities were refined at the first African Development Forum in 1999, where the development of an enabling policy environment was seen as a prerequisite for sustainable ICT activity, and where countries were urged to implement ICTs in three crucial development arenas: education, health and trade. In 2001, AISI was adopted as the ICT component of the New Economic Partnership for African Development (NEPAD).

However, it may take many years before the kind of homogeneity evolves that will be conducive for effective communication and organisation using ICTs, not only between Africa and the rest of the world, but between African countries themselves (see Table 3).

	Africa	The Netherlands
Population:	765 642 000	16 110 000
Teledensity per 100 people:	2.17	62.11
Cellular density:	0.47	76.70
Hosts per 10 000 inhabitants:	2.75	1 634.33
Internet users per 10 000 inhabitants:	34.7	4 905.22

Table 3: Some key ICT Statistics for Africa and The Netherlands, which may be considered typical of developed countries in Europe
(Source: Jensen, M., 2000. NICI in Africa, Status of ICTs in Africa: the changing regulatory environment. Available from: http://www.uneca.org/aisi/nici/status_of_information_and_commun.htm [Accessed 29 August 2002])

While access to ICTs is expected to grow in the countries surveyed as government policy commitments to improving access begin to bear visible fruit, it is difficult to predict the rate or extent of growth. While ICTs can be seen as primary socio-economic enablers, their roll-out is subject to the vagaries of economic forces that characterise most sectors in developing countries.

Growth of ICT development depends on economy

While several countries on the continent are clearly ahead in the race to equip themselves with effective ICT infrastructure – telephone lines, access to electricity, low Internet access costs, policy and legislative platforms – many, if not most, lag far behind in the basic requirements for ICTs to play a meaningful and sustained role in people's lives. With 70% of the continent's population living in rural areas, most Africans do not yet have access to the basic ICT services needed to make or receive a simple telephone call [1].

It is estimated that in Africa there is one telephone line per 100 people, compared to ten lines per 100 people in Latin America and 64 lines per 100 people in the United States. In addition, in Sub-Saharan Africa, South Africa accounts for nearly 90 percent of teledensity. Fifty percent of the available lines are concentrated in capital cities, where only ten percent of the population lives.

One telephone line per 100 people

All 54 African countries are now connected to the Internet. However, Internet access on the continent remains crippled by two key elements of connectivity: the cost of making a telephone call, and bandwidth. It is expensive to use the Internet in Africa, compared to developed countries, and the download speed is much slower.

Internet connection slow and expensive

Within countries themselves, there are remarkable gaps between the ICT cultures available to the rich and the poor. In other words, the "digital divide" is often felt even more prominently between the rich and poor within countries, than between neighbouring countries in Africa, or even between developing and developed countries around the globe. Speaking broadly, Southern and North Africa are the most advanced in terms of the use of ICTs, with East and West Africa second. Central Africa is lagging behind.

'Digital divides' within Africa

As far as the local government situation is concerned, in terms of computer availability, use and Internet access, most are at the moment insufficiently equipped to make use of electronic distance training (EDT). On lower levels of local government (villages or towns), and in some urban areas, there is a lack of computers, skills, telephones and capacity to maintain existing infrastructure.

Most local governments insufficiently equipped

Looking at availability of computers at different levels of local government, the figures look promising. In Zambia for example, more than 75% of the districts have computers in the district offices. However, availability is not the same as accessibility. In

Availability of computers higher than accessibility and use

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1 Jensen, M., 2000. NICI in Africa, Status of Information and Communication Technologies in Africa: the changing regulatory environment. Available from: http://www.uneca.org/aisi/nici/status_of_information_and_commun.htm [Accessed 29 August 2002].

many cases the availability is high but usage is restricted for various reasons. For example, it may be because the computer is for a particular project or function and cannot be used by others. Accessibility in the Zambia districts mentioned above is only 4.8%.

Skills and experiences in using computers

As far as skills and experience are concerned, the following observations are valid for most countries:

- On many levels of local government, the technical skills to maintain existing ICT infrastructure are not in place or are very limited. Therefore infrastructure can be 'off line' for long periods of time, making real-time communication difficult.

- While electronic distance training courses have been run at special training institutes, mainly in the capitals, little has been done at the level of local government.

- Looking at more classic ICTs like audiotapes, radio, video and television, the story is slightly different. The availability of these technologies is much higher, and the required skills to use them and to produce content more readily available.

- As far as opportunities for electronic distance training are concerned, in many of the countries surveyed, the ICT infrastructure is insufficient for electronic distance training for local government on a large scale. However, looking at the possible benefits and current infrastructure developments, the possibilities of electronic distance training should not be ignored, but tested in pilot projects.

Options for pilot projects in Africa

In order to make use of ICTs to support distance training, creative solutions must be found to put sufficient infrastructure in place. The following options are possible for pilot projects in Africa:

- CD-ROM-based training. Project managers must insure that existing computers with CD-ROM capabilities are available for training purposes. Alternatively, the procurement and installation of new computers must be part of the project.

- The use of shared resources like telecentres, information resource centres or special training institutes with ICT facilities. The telecentre or training institute can in some cases also provide the project with organisational and technical skills and experience to design and implement the project (for example content production, organisation of the training, etc.).

- Another starting point for using ICTs to support distance training is to use e-mail to facilitate communication between learner and teacher and amongst learners. However, because of the digital divide within countries, a difference in level of participation can occur.

Important ICT issues to be taken into account

Looking at the general characteristics of the ICT infrastructure in Africa, the following issues should be taken into account:

- The reliability of the infrastructure. Special attention needs to be paid to maintenance capacity and technical support (for example, by setting up a helpdesk).

- The regional ICT situation. The country studies included in the full report indicate that the digital divide within the countries themselves is often dramatic.

- Radio broadcasting. Radio broadcasting is promising, in terms of outreach, required skills and costs. The satellite service of WorldSpace is an easy and cost-effective mechanism to deliver content, especially in rural areas. This is, however, one-way content delivery.

Conclusion

Despite the differences in ICT capacity between the five countries surveyed, they each offer particular opportunities for electronic distance training that could be harnessed for the benefit of local government, and, ultimately, for those they serve.

Different ICT capacities offer different opportunities for EDT

However, e-readiness does not necessarily imply that distant training will be adopted, or accepted, but does create the possibilities for this to happen. At the same time, pressures created by a globalized economy – such as the continual need to upgrade skills – means that distant training is likely to grow as a sector.

E-readiness not equal to EDT readiness

There are a number of cases (particularly in South Africa) where distance learning has been adopted for training local government officials. However, some of these have met with mixed success.

There is a growing awareness that effective distance training involves a combination of ICT tools for electronic distance learning, in conjunction with print materials and face-to-face teaching.

Mixed training approaches most promising

Electronic distance learning for sustainable development at a local government level can be implemented in targeted pilot projects in all of the countries surveyed. However, finding a balance where a generic electronic distance training course can be implemented across regions or countries may be difficult, if not impossible. The peculiarities of each country, and of regions within each country, need to be taken into account. The most appropriate combination of electronic distance training technology, based on skills levels, ICT capacity, levels of available technological support, language, policies and procedures, amongst many other factors mentioned in this survey, needs to be found. This may be different for each country, and indeed, for each local government administration in each country.

Regional EDT programmes difficult

It is, in the end, preferable that electronic distance training courses on sustainable development be implemented at a pilot project level, and in conjunction with organisations or institutions on the ground, such as universities, or established ICT development projects, that have particular experiences to draw from and who can provide hands-on support.

EDT to be implemented via pilot projects

Accra, Ghana, 2004 (Photo by Barbara Anton)

African Local Governments Towards e-Learning for Sustainability

6. Distance education and training projects and programmes in Africa

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Introduction

The report on distance education and training projects and programmes in Africa focuses on electronic distance training (EDT) and education and in Sub-Saharan Africa (SSA). There are very few such projects and programmes which focus specifically on local government and sustainable development. Hence, the analysis is based on an inventory of all distance education and learning programmes in SSA, not only training programmes, not only those specific to local government and sustainable development, and not only those using Information and Communication Technologies (ICTs).

Full text of this summary available at http://www.editosia.org/docs/wp3-1.pdf

The inventory and the analysis aimed to show:

- the most important distance education and training projects and programmes in SSA, their providers and supporting donor agencies, and their key student target groups;

- factors that support the success (or factors that contribute to the failure) of distance education and training projects and programmes in SSA, particularly those using ICTs;

- the extent to which local governments and local sustainability issues are targeted in SSA electronic distance education projects and programmes; and

- lessons learned from current and past distance education and training projects and programmes in SSA, both electronic and non-electronic.

Methodology

Data collection

Data was collected by searching electronic sources and printed literature for distance learning projects and programmes in SSA, and by administering questionnaires by email and/or telephone to two sets of resource persons, one at SSA level and the other in ten selected SSA countries, namely: South Africa, Uganda, Senegal, Namibia, Mozambique, Zambia, Ghana, Burkina Faso, Zimbabwe and Ethiopia, and through a comparative analysis of four case studies.

Questionnaires as well as print and electronic sources

Models of distance education

We use the idea of two contrasting models of distance education, depending on whether the focus is on the educator (teacher or

Focus on educator or on learner

lecturer) or on the learner (student or participant). In the case of distance training, we add a third model, where the focus is on the 'site of application' (often the student's employing organisation, such as a municipality or other local council).

'Extension' model	• The 'extension' model. The first model, focusing on the educator, originates in the USA. The idea is to extend the reach of a classroom lecturer to other locations. Participants generally need to get together in groups in remote locations to receive, say, video-conferencing.
'Supported open learning' model	• The 'supported open learning' model. The second model is associated more with UK practice, and has evolved from origins in correspondence tuition. The starting point is the individual student, who is supported to learn wherever she or he is by communication with the educational institution. Often face-to-face communication with a local tutor supplements distance communications, although increasingly support is also done at a distance using ICTs.
'eTraining' model	• The 'eTraining' model. Organisations often have internal programmes of training in new techniques or to support organisational changes. Increasingly such programmes are utilising ICTs, particularly the interactive web-based technologies of eLearning. This is identified as a third model of distance learning.

We suggest that where distance training is concerned, aimed at developing participants' skills and job-related competencies, best practice will combine elements of all three models. Nevertheless, it is useful to understand the different roots of different initiatives.

Findings

Global initiatives by international institutions

Three major global initiatives	There are a number of global initiatives in distance education or training which are relevant to local sustainability in SSA, including three major examples led by international agencies:

- Local Development Programme (DelNet) of the International Training Centre of the International Labour Organization (ILO)[1]
- Commonwealth Youth Programme (CYP) Diploma and Degree Schemes[2]
- Global Development Learning Network (GDLN)[3]

The Global Development Learning Network of the World Bank	This last global initiative is a very large initiative on the 'extension' model, financed by the World Bank and promoted by the World Bank Institute. Subjects offered include sustainable urban development, municipal governance, macroeconomic management and poverty reduction. Mayors and local and national government officials are amongst those targeted.

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1 http://www.itcilo.it/delnet
2 http://www.thecommonwealth.org.cyp/
3 http://www.gdln.org/

The World Bank investment is mainly in technical infrastructure, especially 'Global Development Learning Centres' (GDLCs) and networking facilities which are then available to other institutions. Part of the aim of the GDLN is to encourage local 'content providers' to design and promote distance learning packages without having to invest in technical infrastructure. One African network which has made use of the GDLN facilities is the African Local Government Action Forum (ALGAF) – see below.

There are other distance education projects and programmes that originate outside SSA and run in SSA as well as elsewhere in the world. Examples include several based in UK on the 'supported open learning' model:

International projects and programmes of the UK

- The International Extension College (IEC),[4] based in Cambridge, UK: IEC provides 'short courses' and postgraduate programmes in the development area.

- The University of London External Programme: Relevant masters level distance education programmes are run by Imperial College at Wye in environment, biodiversity, sustainable agriculture, rural development, applied economics, and agribusiness and food management;[5] and the Centre for Financial and Management Studies at the School of Oriental and African Studies (SOAS) in Public Policy and Governance, Financial Economics and related topics.[6]

- The Open University (OU):[7] The Global Programme in Development Management (GDM)[8] is available anywhere in the world, and there are specific distance education partnerships in management and development management in Ethiopia, South Africa and Zimbabwe.

There are many other initiatives especially from universities in USA and Australia. Within Africa, the University of South Africa (UNISA), based in Pretoria, is the only 'mega' distance institution. Since many of its programmes are available Africa-wide, and indeed worldwide, it has a claim to be regarded similarly to the above global programmes.

Other initiatives from USA, Australia, Africa and Europe

Finally, among the EDITOSIA partners there are two international organisations that have relevant activities. The International Training Centre of ICLEI – Local Governments for Sustainability (ICLEI)[9] offers training and educational courses around the subjects of sustainable development at local level, environmental management, climate protection and energy saving, some of which incorporate the use of ICTs. The International Institute for Communication and Development (IICD)[10] focuses on local sustainable

4 http://www.iec.ac.uk
5 http://www.wye.ic.ac.uk/EP/index.html
6 http://www.cefims.ac.uk
7 http://www.open.ac.uk
8 http://gdm.open.ac.uk
9 http://www.iclei.org/itc
10 http://www.iicd.org/

development and within this focus assists ICT supported training initiatives in several countries, though not SSA wide.

Projects and programmes at SSA level

The programmes described in this section are initiated and under-taken for and at SSA level. Starting with the most relevant to local government and sustainable development, the main examples are:

- African Local Government Action Forum (ALGAF):[11] ALGAF is a joint initiative of the Municipal Development Programme for Eastern and Southern Africa (MDP), the GDLN and the World Bank Institute. Issues such as local and municipal govern-ance, local and municipal finance, poverty and gender are pre-sented via videoconferencing to groups of local government practitioners, policy makers and others through GDLCs in six African countries, with support from other media.

- African Institute for Economic and Social Development (INA-DES in French):[12] INADES offers mainly print-based distance education and training, accompanied by local study groups and tutorials in subjects like animal husbandry, basic mathematics, management, credit and cooperatives.

- African Virtual University (AVU):[13] The AVU was started in 1997 with funding mainly from the World Bank. It is based on the 'extension' model, with ICTs including the Internet and satellite technology. The key subjects offered are technology, engineering, business and sciences. As with the GDLN, AVU centres in different countries have facilities that, in principle, are available to other distance training providers.

- UNESCO's International Institute for Capacity Building in Africa (IICBA):[14] IICBA was established in 1999 and is based in Addis Ababa, Ethiopia. It aims to "develop the capacity of insti-tutions in Africa working in the areas of teacher education, curriculum development, educational policy, planning and management, and distance education."

Projects and programmes at national and local levels

A listing of the number of distance learning projects and programmes for the whole of SSA and the ten selected countries is given in Table 4. The picture shows a huge disparity between the countries, with a concentration in Southern Africa. South Africa alone runs 68 (48%) of the 141 projects listed for SSA in June 2002 in the database of the International Centre for Distance Learning of the OU UK.[15]

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11 http://www.worldbank.org/wbi/publicfinance/decentralization/algaf/
12 http://www.sdnp.undp.org/sdncmr/subweb/ cminade2.htm
13 http://www.avu.org
14 http://www.unesco-iicba.org/
15 http://www-icdl.open.ac.uk

Country	Number of projects
South Africa	68
Uganda	2
Senegal	–
Namibia	3
Mozambique	1
Zambia	3
Burkina Faso	1
Ghana	2
Zimbabwe	11
Ethiopia	2
Total (26 SSA countries)	**141**

Table 4: Number of distance training projects and programmes for the whole of SSA and the ten selected countries in June 2002.
(Source: International Centre for Distance Learning of the Open University UK. Available from: http://www-icdl.open.ac.uk)

Analysed case studies

Full descriptions of the following four case studies can be found in the full report (Thomas, A.R., et al., 2004) on which this summary is based:

Four case studies in full version of report

1) Commonwealth Youth Programme (CYP) modular Diploma and Degree-level course

2) Course for Distance Education Policy-Makers in Southern Africa

3) Open University Global Programme in Development Management (OU GDM)

4) ALGAF training programme and the Municipal Development Partnership (MDP) proposal for a Postgraduate Diploma in Local Development Management in Southern Africa

Conclusions

Extent and scope of distance education programmes in SSA

• Distance education and learning in SSA has a long history. Some programmes are over fifty years old. The older, established distance education providers have based themselves mostly on provision of teacher training at a distance, initially by correspondence and nowadays 'supported open learning', increasingly using ICTs as part of that model.

Correspondence training already more than 50 years ago

• Several new initiatives based on the 'extension' model, and relying on electronic media, have emerged since the mid 1990s. Examples include AVU and GDLN, both large initiatives with heavy World Bank investment in technological infrastructure.

EDT emerging since mid 1990s

So far rather under-utilised, they represent potential to facilitate new initiatives.

Most distance education in Southern Africa and urban areas

- The distribution of distance education and training within SSA is hugely skewed towards certain countries, mostly in southern Africa and particularly South Africa itself. In other countries, ICT based distance education and training are limited to major urban centres.

Large variety in size

- Some of the projects and programmes are multimillion dollar ventures and others are small in scale. Smaller projects in particular seem to have design problems.

Viability a problem especially for ICT supported programmes

- Some of the larger, traditional programmes appear to continue in a financially sustainable state. However, there are problems sustaining running projects and programmes that depend more on ICTs, even for the World Bank initiatives.

Only very few distance training programmes for local governments

- There are very few distance education and training programmes specifically aimed at sustainable local development in Africa. Like in Europe, provision can be described as "a mosaic of un-coordinated initiatives" (see Chapter 7, page 52 of this publication). There are a few programmes for local government such as those run by DelNet and ALGAF, and also programmes relevant to local sustainability, including INADES, but hardly anything which specifically combines them.

Some global programmes exist from outside Africa

- There are, however, some global programmes of distance education and training of relevance to sustainable local development, from institutions based outside Africa. Major providers are spearheaded by the World Bank (particularly the World Bank Institute), with its GDLN programmes addressing relevant global issues, and other UN agencies like ILO and UNESCO. UK universities present masters programmes in relevant fields, like the OU's GDM and several others. There may be scope for influencing these programmes to include options on local government and on local sustainable development.

Factors underlying success

How to define 'success' of distance education'?

- What is meant by 'success' for distance education and training programmes? Large numbers enrolling and studying? Satisfaction on the part of the participants? A high quality of educational input, and high quality skills imparted to participants? Impact in terms of participants changing their professional behaviours and promoting sustainable development more successfully in their particular cities or organisations? Or sustainability in terms of being able to run the programme without continuing donor input?

Three-way partnerships necessary for success

- Any kind of 'success' ideally requires a three-way partnership[16]:

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16 See Lynton, R.P. & Pareek, U., 2000. Training for Organizational Transformation. Part 1: For Policy Makers and Change Managers, New Delhi/ London: Sage.

– The educational or training institution has to provide good quality, accessible learning materials which are relevant to the work situation or problem area, and ideally contextualised for participants' own countries and type of organisation. Tutorial support for students is also important. Finally, accreditation is crucial.

Educational or training institution

– The student or participant must have a positive approach to learning. In addition, interaction between students can be a very stimulating source of learning, and increase the likelihood of applying learning.

Student or participant

– The participant's employing organisation can contribute financial and other forms of support for study and provide opportunities to apply learning. An individual's status in their organisation can be a constraint, and hence not all students can be expected to apply their learning to the same extent or create a direct impact as a result.

Employing organisation

• In addition, the existence of some form of 'community of practice'[17] can enormously enhance the value of distance learning and its practical application.

'Communities of practice'

• The specifics of the technologies used are secondary. The use of ICTs does not appear to be a factor contributing directly to the success or failure of a distance learning programme. Similar factors are important for courses with advanced use of ICTs or very little use of ICTs. However, the technology has to work well and reliably enough to allow support to be provided and not undermine learning. Poor ICT infrastructure, lack of access and low comfort levels with the use of ICTs can all act as constraints.

ICTs not directly contributing to success or failure

Constraints and opportunities

• There are constraints to electronic distance education such as resources, inadequate infrastructure, illiteracy, limited income, problems of connectivity, high cost of using ICTs and inability to use them effectively. Of all SSA countries only South Africa is in a strong position to use ICTs nationally in distance education and training.

Presently only South Africa fully prepared for ICTs in training

• Courses using advanced ICTs may be restricted to the metropolitan urban centres. For courses aiming to be more generally available, it is essential to provide alternatives to eLearning and also to combine it with text-based and face-to-face components.

EDT also possible in urban areas of other countries

• However, in a limited way electronic distance education technologies have created opportunities. There is potential for continent-wide programmes aimed at professionals in cities with relatively good infrastructure, who may be able to benefit from sharing experiences internationally and even across continents.

EDT can reach professionals with access to good infrastructure

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17 Wenger, E., 1998. Communities of Practice: Learning, Meaning and Identity, Cambridge: CUP.

Otjiwarongo, Namibia, 2004 (Photo by Barbara Anton)

African Local Governments Towards e-Learning for Sustainability

7. Electronic distance training on sustainable development for local governments in Europe

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Introduction

The objective of the investigation leading to this report was to document and evaluate European electronic distance training (EDT) projects for local government training and courses on local sustainability. This investigation was assigned to support the discussion on African policy developments in the field of local government training programmes that include the application of Information and Communication Technologies (ICTs). The study is based on a survey of the existing practice of Open and Distance Learning (ODL) and eLearning in ten European countries: the Czech Republic, France, Germany, Italy, Hungary, Romania, Spain, Sweden, Switzerland, and the United Kingdom (UK).

Full text of this summary available at http://www.editosia.org/docs/wp3-2.pdf

Methodology

The concept of work and the questionnaire used for the survey have been elaborated and agreed in discussions within the EDITOSIA network and the European Distance and E-Learning Network (EDEN) Executive Committee. The resulting tasks were implemented with the involvement of member institutions of EDEN in Europe. The available information was collected, and related printed and electronic literature was studied. The survey was supplemented by phone interviews with target institutions and resource persons.

A survey in ten European countries: the Czech Republic, France, Germany, Italy, Hungary, Romania, Spain, Sweden, Switzerland, and the United Kingdom

The ten countries listed above were chosen in order to ensure a balanced North-South and East-West coverage. The assembly included countries with higher, medium and lower professional cultures and penetration of ODL and with different approaches used in their respective national strategies. The selection included six member states of the European Union (EU), two EU accession countries (which have meanwhile also become EU members), one Eastern European country and one Western non-EU country.

The investigation was initially targeted towards ODL and eLearning specifically for local governments and courses on local sustainability. However, due to the fairly particular topic chosen for this investigation, the findings relevant from the viewpoint of the EDITOSIA project were very limited for most countries. For this reason, the scope of the investigation was extended beyond the local governments to include the closely related wider public administration sphere.

Findings

Training offers in European countries

Training structures for local governments in Europe exist

The national structures for the training of civil servants and local government officials exist and have been reported in most investigated countries. They are functioning along different approaches, structures and funding schemes. Most country reports provided information about the different national structures and support systems for ODL and eLearning.

ODL and eLearning activities as an uncoordinated mosaic

However, the existing training activities mostly reflected an uncoordinated mosaic of different initiatives and activities, often promoted by civil society organisations and reaching only a limited local or regional target group. Also, some government projects were observed. Indeed, initiatives that are more in an intentional state and activities being carried out in reality were difficult to separate entirely. In the majority of cases, even 'real' activities were on pilot level and far from reaching the critical mass or level needed for reliable networking.

There was a lack of established local government related ODL/eLearning activities in a number of countries. Distance education and eLearning targeted to local governments seemed sparse and scattered.

Some countries show more developed ODL and eLearning situation

The countries with a traditionally higher distance education culture (UK, Sweden) and those with emerging eLearning activities and ambitions (Spain) showed somewhat better, more embedded and continuous ODL-based training activities in the local government area.

In the UK, for example, educational institutions of trade unions play a significant role in the training of public administration and local government employees. Other institutional players involved in training for the target group include scientific societies, foundations, universities, and international support programmes (e.g. EU Phare for Eastern Europe)[1].

Legislation, national initiatives and policies

Life-long learning policies as important drivers

Important drivers of ODL-based training activities may be the life-long learning policies in public administration or governmental directives for employees, which guarantee appropriate training. Such initiatives have been implemented in a number of countries.

National and regional strategies and the eEurope 2005 Action Plan give boost to ODL for local governments

National and regional strategies for the modernisation of public administration and the introduction of ICTs are also under examination and being implemented. These strategies include references to new training methodologies, such as ODL and eLearning, and comprehensive development projects for the introduction of electronic training in civil service. It is also expected that the

1 See http://europa.eu.int/comm/enlargement/pas/phare/ [Accessed 23 June 2004]

European Commission's eEurope 2005 Action Plan[2] which states e-learning as one of the three priorities under the modernisation of on-line public services will give a further boost to this sector at European-wide level.

There are also two further EU initiatives in support of electronic distance training:

- The e-Government challenge. An issue emerging in close relation with the topic of electronic distance training has been the drive for 'e-government', which is another priority for improving on-line public services as outlined in the eEurope 2005 programme. 'E-government' is about bringing the administration closer to citizens and businesses: public online access to government and services of the European Commission, fast-track procedures to set up a company and wider use of electronic signatures and open source software.

The emerging e-Government challenge

- The ten new countries which have joined the EU in May 2004. The formal accession of the Central European countries to the EU is an additional motivation for these countries to develop professional administrative structures and competent staff in public administration. As new EU countries, their aim is to become compatible with the EU structures and institutions and to prepare to access the EU financial resources. In the field of information society development, this is reflected in the "eEurope+" initiative of the new Member Countries which strongly highlights the eGovernment dimension.[3]

eEurope+ involves the new EU Member Countries in the information society

Distance and electronic training by other institutions

One of the conclusions of the country reports is that the involvement of public administration and local government employees in different distance and electronic training offered by educational and professional institutions is much more extensive than the courses and training explicitly developed and delivered for this target group. Local authorities themselves are responsible for encouraging staff members to take courses and then provide funding for them.

Public officials take advantage of ODL courses offered by other institutions

A number of university programmes developed for the general public attract a significant number of local government employees. However, it is very difficult to provide statistical data about such involvement. Nevertheless, a number of degrees and training activities for the target group include a significant distance learning component. This is in accordance with the recent trend of developing 'blended learning' solutions.

2 See http://europa.eu.int/information_society/eeurope/2005/all_about/ action_plan/index_en.htm [Accessed 23 June 2004]
3 See http://europa.eu.int/information_society/topics/international/regulatory/ eeuropeplus/index_en.htm [Accessed 23 June 2004]

Training offered by local governments

Local governments as training providers

A related issue emerging in a couple of country reports was interestingly the ODL or eLearning offered by local governments for the inhabitants of a given region or municipality. The training was particularly in support of employment and re-training centres in the region. Despite not being targeted by the EDITOSIA project survey, this aspect seems to be worth including in the context of developing and implementing electronic distance training programmes for local governments in Africa.

International co-operation

A number of international projects in ODL and eLearning

International activities in the field of public administration and local government training were reported from the majority of countries in the form of joint international projects and involvement of international students in online training programmes.

Target group for distance training

Life-long learning cultures influence readiness for eLearning

There was no clear evidence about specific professional or age target groups for the electronic training within the investigated circles. In some countries, senior local government officials were mentioned as the most likely ones to participate in eLearning. In other countries, the same group was considered as quite 'resistant' to learning how to use the new technology. The culture and traditions of lifelong learning in a given country evidently play an important role in the acceptance of the new training methods.

Problems with implementing distance training projects

Potential factors for the failure of ODL courses

It is not easy to identify cases of failure as those involved are, understandably, reluctant to provide details about such instances. However, according to the feedback from the country reports, the following issues should be considered:

• The underlying culture may favour face-to-face courses.

• In terms of development costs, ODL courses are normally much more expensive than traditional classroom training.

• There is normally a lack of equipment as well as access to it on both sides, on the side of the training provider as well as the local governments.

• There is a lack of basic training to use ICTs, including computers.

• There is a low level of motivation and interest in the concerned learner group.

Success factors and guarantees for good ODL implementation

The success factors and guarantees for good implementation mentioned and recommended in the country reports emphasised traditional quality determining elements of ODL. These elements can be grouped around the themes of:

- appropriate course design and development;

- student support;

- good choice and appropriate functioning of the delivery technology; and, in addition,

- strong political support, which can be very influential in overcoming initial scepticism about a new system and raising awareness about the potential of the ODL/eLearning methods.

Conclusions

The field of electronic distance training for local governments and, in a wider sense, public administration is not a well identifiable domain of ODL delivery in the ten investigated European countries. To a large extent, the involvement of local government officials and public administration employees in EDT seems to be confined to the enrolment in courses offered for the general public at educational institutions, such as universities.

It proved that there are considerable differences in the use of ODL in the public sector. The differences depend on the traditions in the culture of ODL and electronic learning and on economic and geographical conditions, such as vast distances between populated areas in a country.

In terms of the specific subject matter that has been in focus in the context of the EDITOSIA project, namely local sustainability, rather few convincing achievements of good EDT practice can be highlighted. The activities reported in the field have usually been unique examples of weakly co-ordinated local initiatives or government projects. Most initiatives are on pilot level, not yet well embedded and institutionalised in the national system.

With the development of ICTs, the initiatives for the strategic development of their use in the public sphere will certainly reach the national institutions working on the training of civil servants. It will also result in explicit measures in the field of eLearning for this target group. The significance of the role of implemented lifelong learning policies in public administration or governmental directives for employees, which guarantee training in a number of countries, has been acknowledged. Success factors mentioned in the country reports reflect the traditional quality measurements of ODL such as appropriate course design, appropriate development of student support, and good choice and appropriate functioning of

the delivery technology. Strong political support, if available on governmental level, may be important in overcoming scepticism about a new system and raising awareness about the potential of open, distance, and eLearning methods.

8. Electronic distance training for local governments in Africa and Europe: A comparative review

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Introduction

In this report, the situation of electronic distance training (EDT) in Africa was compared with the situation in Europe in order to identify trends, similarities and differences between both continents. Moving further in the EDITOSIA project towards most appropriate training methodologies (see Chapter 10) and policy recommendations (Chapter 11), the findings of this comparison provided input to the project's conclusions on the future promotion of EDT for local governments in Africa.

Full text of this summary available at http://www.editosia.org/docs/wp3-3.pdf

Methodology

For the purposes of the comparison, information was drawn from previous EDITOSIA reports, Internet research, interviews and experiences.

Comparison based on other EDITOSIA reports and further information

Main source for the observations were two of EDITOSIA's own project reports on the situation of distance training in Africa and Europe, namely those developed by Alan Thomas et al. on Sub-Saharan Africa[1] and by Andras Szücs on Europe[2] (see summaries of these reports in Chapters 6 and 7). As can be seen, the African report took a more general look on EDT initiatives, whereas the situation in Europe was screened for the target group of local governments and the subject matter of urban sustainability more explicitly.

In addition to these two reports, the authors incorporated experiences from ICLEI's International Training Centre, input from the other EDITOSIA project partners, further Internet research and interviews.

Findings

Similarities in Africa and Europe

The comparison has made apparent that EDT for local governments is not yet widespread on both continents; only occasional examples could be found. These programmes are mostly offered

Only occasional examples of EDT for local governments in Africa and Europe

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1 Thomas, A., James, S., Ayele, S., and Johnson, H., 2004. Distance education and training projects and programmes in Sub-Saharan Africa. Available from: http://www.editosia.org/docs/wp3-1.pdf [Accessed 4 Mai 2004]
2 Szücs, A., 2003. Electronic distance training on sustainable development for local governments in Europe. Available from: http://www.editosia.org/docs/wp3-2.pdf [Accessed 4 Mai 2004]

by institutions that are not explicitly working on behalf of local governments, and they are not coordinated or linked to a wider strategy or framework.

Of course, officials of local governments have the possibility to participate in programmes and courses that are open to any interested person. This, however, implies that their specific needs are usually not met, and that the link and the applicability to the own context of responsibilities is rather weak.

Universities among most relevant providers of EDT

Universities and their special distance training institutes are among the most relevant providers of EDT courses in Africa and Europe. In both continents, they are also the institutions that are strongest in terms of mutual collaboration, which holds especially true for the Open Universities. Apart from these, the development of EDT programmes as a coordinated effort of different training providers is rather exceptional.

Municipal associations not promoting EDT

Although associations of local governments play an important role for the capacity building of local governments in many regards, none was found to be promoting EDT programmes for their membership, and this neither in Europe, nor in Africa.

South Africa leading in EDT in Africa, the UK in Europe

In terms of countries showing a lead role in the development of EDT programmes, it is in Africa clearly South Africa that has by far the most courses of this type on offer. In Europe, it is the United Kingdom that is spearheading the development, distribution, and innovation in EDT.

Differences between Africa and Europe

Largest difference in state of technology

The most relevant contrast between Africa and Europe is clearly the accessibility, availability and affordability of Information and Communication (ICT) infrastructure and equipment in which Africa is lagging far behind.

Development aid most relevant driving force in Africa

Another difference between the continents was observed in the driving forces of EDT. While projects involving an element in EDT in Africa are usually dependent on international initiative and funding, projects and programmes in Europe rely more on national funding or on self-financing through revenue from course fees.

The international aspect of funding in Africa has led to a number of Africa-wide offers, such as provided by the African Virtual University. In Europe, EDT programmes covering more than one country are still rare.

Open questions

A number of questions could not be solved during the course of the EDITOSIA project.

Firstly, the surveys on both continents have not given any evidence about potential difficulties with the permission of local officials to access the Internet. This might still be a limiting factor, even if no technical or financial constraints exist.

Permission of access to Internet not clarified

Secondly, it remained open in how far ICTs as learning tools – or even more generally as tools for carrying out their daily responsibilities – are accepted by civil servants, especially by those working at the local level.

Acceptance of EDT by target group to be further assessed

And lastly, it has not been possible within the limitations of the EDITOSIA project to investigate in more depth the learning habits of African and European local government officials. Generally speaking, communication in Africa is much more based on oral than on written interaction if compared to Europe, which might result in preferences for learning face-to-face instead of via distance courses.

Does EDT match learning habits in Africa?

Conclusions

The differences between the situation of EDT in Africa and Europe as far as identified during the EDITOSIA project are less significant than expected. EDT programmes on sustainable development and, more specifically, on local sustainability can still hardly be found in both Africa and Europe. Occasional offers for local governments exist, but distance training as such does not yet play a relevant role for the continuing training of local government officials.

EDT on sustainability for local governments still rare in both continents

Whereas the situation in Africa may be easily explained by its poor level of technological development, it is more difficult to understand the reasons for the European situation. Apart from Central and Eastern Europe, the necessary technical prerequisites, incl. access, as well as the skills to use ICTs are available in most local governments. Nevertheless, no strong trend towards a more intensive use of EDT for local government could be identified. It may therefore be questioned whether the technical barriers are the most relevant ones for mainstreaming this training approach.

Technical conditions not likely to be the main reason

Further investigations in the framework conditions of local governments are recommended. Targeted surveys via national and regional local government associations could help identify more clearly the issues surrounding EDT. In combination with in-depth case studies of already existing training courses, more light could be shed on the training conditions and preferences of officials working in local governments.

More research needed

Furthermore, the promotion of already existing EDT programmes for Africa and a systematic evaluation of training experiences and outcomes could allow additional insight into the use of distance training by local officials. In any case, purely technology-driven actions should be avoided in favour of taking advantage of the new technologies in a targeted and effective manner.

Evaluation of existing programmes important

Okahandja, Namibia, 2004 (Photo by Barbara Anton)

African Local Governments Towards e-Learning for Sustainability

9. Electronic distance training for sustainable urban development in the context of a Local Agenda 21 network in Latin America

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Introduction

This report on the ongoing Local Agenda 21 (LA 21) network project in Latin America (Red de la Agenda Local 21 para América Latina y El Caribe – RedAL21) was included in the EDITOSIA project activities as a reference to gain valuable insights into aspects of electronic distance training (EDT) that might also surface in the African situation. The conditions under which EDT is applied in Latin America, e.g. the communication culture and the status of local government, can be regarded as more similar to African countries than the conditions in Europe. Although the use of Information and Communication Technologies (ICTs) is more developed in Latin American countries, it is believed that the project experiences in Latin-America could provide valuable hints for the African situation.

Full text of this summary is available at http://www.editosia.org/docs/wp3-4.pdf

The RedAL21 Project

The project RedAL21[1] was established to build the capacity of the involved local governments for sustainability management in four Latin American countries, namely Chile, Costa Rica, Ecuador and Peru. Local governments in Latin America generally lack appropriate training in sustainable urban development. The purpose of this project has therefore been to train city administrations and civil society organisations to enable them to manage their local development process in an economically, socially and environmentally sound way.

Building capacity for local sustainability in Chile, Costa Rica, Ecuador and Peru

For each of the four countries, a national tutor was selected who has closely co-operated with the participating cities and also delivered the training to them. The responsibility to advise, train, coach and co-ordinate the network with its national tutors has been shared between the German Technical Co-operation Agency (GTZ) and the Latin America and Caribbean Secretariat of 'ICLEI – Local Governments for Sustainability'.

National tutors in co-operation with cities

The RedAL21 project is based on a large variety of ways and means to provide opportunities for learning and the exchange of experience. Among them, training – including EDT via the Internet – is a strong component of the capacity-building approach. The

EDT as one of many components of capacity-building

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1 See http://www.iclei.org/redal21 for more detailed information on this project (in Spanish only)

training concept entails three major components, each with their own training methodology:

- face-to-face training in three different workshops (WS1, WS2 and WS3);

- 'real-time distance training' carried out by a national tutor or through interactions between the local teams (e.g. phone calls) during the period between workshops; and

- electronic distance training as such composed of three modules and containing the major part of the learning material.

ISO certification

For Chile, the training has meanwhile been certified under ISO 9001:2000.[2] The same quality management process is currently being implemented in the training nodes of the other participating countries.
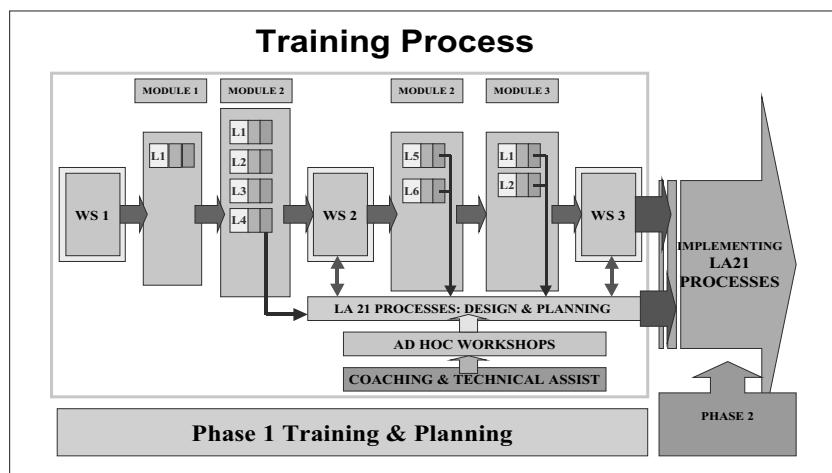

Figure 1: The training process as part of the RedAL21 project in 4 Latin American countries, 2003. (WS = Workshop, L = Lessons)

Findings

EDT via the Internet an appropriate and useful training method

Distance training via the Internet has proven to be an appropriate and useful training method to achieve the objectives of capacity building in RedAL21. However, in many regards, the crucial factors of success are more closely related to the overall context of the project in which the network approach as well as the adaptation to local circumstances and participant needs played the major role.

Networking as a major strength

A major strength of the distance training was its embedding into the overall networking structure of the project. Linking the local government officials in a professional net including the application of technical tools for facilitating communication and exchange has been an asset of the overall project right from the beginning. Integrating the distance training component into the range of ICT applications further strengthened the usefulness of the technical tools established.

2 TÜV Rheinland/Berlin-Brandenburg (Germany), certificate registration no. 01 100 034293

In turn, the enhanced potential of interaction and exchange of experiences at local, sub-national, national and regional level enriched the process of knowledge building and co-operation. This holds especially true for the local teams which highly appreciated the participatory approach to learning.

On the other hand, there were also a number of difficulties related to distance training in general or more specifically to EDT, such as the following:

- The use of computers in local governments in Latin America is mainly focused on general office tasks. Therefore, even if the municipalities are well equipped with PCs, the participants would not use them for training purposes.

- Oftentimes, Internet use was restricted to downloading the training material. Only very little tutor consulting or group interaction actually occurred over the Internet.

- Internet access can be a problem in more rural areas in Latin America.

- Latin American culture is more based on oral interaction. It turned out to be more difficult for training participants to express themselves or interact with each other in writing.

- 'Passive approach' to learning: School traditions in teaching and learning are often still based on memorising and a passive absorption of information. Learning does not happen together with others to find mutual support. Learning material is perceived as 'authorised' information, which is not to be analysed deeper or even criticised.

It should also be added that the strengths and weaknesses of the training cannot merely be explained by the training methodology and the technical conditions only. For the more detailed list of factors which determined the success of the training, please read the full report on the RedAL21 project which can be found on the EDITOSIA website.

Conclusions

Within the general context of the RedAL21 project, it has not been possible to precisely determine the effectiveness of EDT independently. However, it appeared to be an indispensable part of the overall approach that included face-to-face meetings and workshops as well as other distance communication per e-mail and telephone. All in all, the level of interaction and the mixed use of different communication media within the network of the participating cities, their tutors, the project co-ordinators and other stakeholders proved to be a key factor for the success of the RedAL21 project. The continuation of the project might provide additional facts to answer the question on whether the familiarity of the

Intensive interaction and mixed media as key factors for success

network participants among themselves, but also with the ICTs applied in distance communication, might allow to gradually reduce the face-to-face interaction over the time.

More user-friendly EDT software needed

More attention should be paid to the development of more attractive and user-friendly EDT programmes on local sustainable development. The project therefore envisages developing a simple software to secure self-learning exercises and further familiarise participants with the use of computers.

Universities as future partners

The choice of adequate and competent training partners will be crucial for the further development of qualified training services for local government. Here, the potentials for partnerships with universities will be further explored.

Initiation of LA21 campaigns

In terms of a more long-term political strategy, it is envisaged to initiate national LA21 campaigns which will then serve as the overarching frame for all further training activities.

Author

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10. Adequate methodologies for local government e-training on sustainability in Africa

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Introduction

This report on methodologies of e-training on sustainability addressed at African local governments is intended to bring together the information collected from two EDITOSIA reports that focused on training needs[1] (see Chapter 4 for summary) and technological conditions in local governments[2] (see Chapter 5 for summary). It discusses different e-training methodologies and attempts to determine the most suitable methodologies for the current set of conditions pertaining to the different target groups within local governments.

The full text of this summary is available at http://www.editosia.org/docs/wp4.pdf

Method

The preparation of this report included a number of steps. Firstly, the criteria for the selection of a training methodology were determined drawing on previous EDITOSIA reports, literature on distance education as well as the experience of the authors of this report.

Determination of methodologies based on learner profiles, technological profiles and EDT options

In the second step, information collected through the assessment on training needs was used to construct profiles for the two main target groups: elected officials and employed officials, i.e. staff of the local administration. According to the information compiled in the technological assessment, a number of possible technological approaches in electronic distance training (EDT) were determined. Using the same technological assessment, profiles were also developed for the technological conditions in local governments. Finally, the target group profiles, the training options and the technological profiles of local governments were compared to advise on best possible training methodologies.

1 Ngenda, G. and Muchengetwa, S., 2003. African local government needs for sustainable development. Available from: http://www.editosia.org/docs/ wp2-1.pdf

2 Barnard, D. and Vonk, T., 2003. Information and Communication Technologies in African local governments. Available from: http://www.editosia.org/docs/wp2-2_2-3.pdf

Results

A study of distance education systems reveals that the choice of a training methodology is determined by three sets of criteria. These are:

- the course or programme requirements as defined by the objectives or expected outcomes in terms of knowledge, skills and attitudes, teaching or learning strategies, and assessment strategies;

- the target group characteristics, their needs, conditions, and choices;

- the available resources and constraints, including technologies at both the delivering institution and at the student's end.

The influence of course requirements on the selection of training methodologies is determined by:

- the expected outcomes or objectives of the training in terms of knowledge, skills, attitudes and reflective practice;

- the teaching/learning methods and strategies employed; and

- the assessment methods and strategies used.

Following discussions of the training experts among the EDITOSIA project partners, the requirements for training in local sustainable development indicate that a range of outcomes (knowledge, skills and attitudes that extend to actual behavioural change and change management) must be delivered using teaching strategies that

- are learner-centred,

- are more focused on facilitation rather than transfer,

- allow an interaction between instructors, students and materials on a continuous basis; and

- provide students with the opportunity to reflectively practice what they have learnt.

The availability of high-quality, interactive courseware is a prerequisite for success in this type of learning. In any case, all of the above outcomes can in principle be achieved through electronic distance training, with interactive materials supported by video, and audio-conferencing (interaction enabled) being the most suitable options.

As far as assessment is concerned, the full range of assessment strategies (questioning, observation and examination of products) is required to adequately evaluate the achievement of the complete range of expected outcomes.

Drawing on the EDITOSIA assessment of training needs, two distinct learner profiles were constructed after having considered the following target group characteristics:

Learner profiles for elected officials and staff of local government

- the target group as adult learners;
- available time for learning;
- motivation to learn;
- previous learning experiences and learning preferences; and
- access to and use of Information and Communication Technologies (ICTs).

The learner profile arrived at for elected officials and lower level staff of African local governments is as follows:

Profile of elected officials and lower level staff

- varying levels of previous education, sometimes as low as completion of primary school only;
- very little available time for learning;
- motivated to learn mainly by external factors such as career advancement and networking;
- no or very little experience of distance education or e-distance training;
- very little or no access to a computer;
- very low or no skill in using a computer and/or email and the Internet.

The learner profile constructed for management staff of African local governments is more encouraging:

Profile of management staff

- higher levels of previous education (degree or diploma minimum);
- little available time for learning;
- motivation for learning mainly derived from external factors such as career advancement and social factors;
- very little, if any, experience of distance education or e-training;
- access to available computers;
- some experience of using computers, perhaps even for Internet and email.

Given these target group characteristics, it would seem that managers would benefit most from electronic distance learning in a resource-based supported learning model using computer-based technologies (see below for definitions). This follows the assumption that managers are most likely to have the necessary motivation and skill to utilize such training. Political office bearers and lower level staff, however, will benefit most from more continuous interaction, either face-to-face or in the "Extension model" in which the reach of a class room lecturer is extended to other locations.

Different training models to match different learner profiles

Six models of distance education	Considering the technology situation, the authors first gave an overview of the available media and their main features (see full report), and then constructed six models of distance education by combining these media and technologies to carry out the distance education system activities. These models are:
Broadcasting or "Extension of the Classroom" Model	1) Broadcasting or "Extension of the Classroom" Model: This model is still essentially teacher-based and utilises broadcast technology to extend the teacher's teaching and classroom activity to many classrooms in remote areas. This model is very cost-effective if low-level technologies of radio and TV are used. On the other hand it depends upon either very expensive technologies to enable interaction, or on the use of other technologies such as email, telephone, fax and postal services for interaction between teacher and learner.
Print-Based Distance Education	2) Print-Based Distance Education: This is a model where print-based resources form the core of the learning, supported by tutorial services provided through various means of communication, including telephone, fax, email and face-to-face sessions. This is a well-established model in Africa.
Computer Managed Learning	3) Computer Managed Learning (also called Computer Based Training): This model relies on stand-alone packages of educational software that will track and manage the learning of the participant and in many cases can also adjust the level to suit the needs of the learner. This model is distinguished from the resource-based models by the fact that the computer software replaces the teacher entirely in terms of delivery of the content and that there is very little, if any interaction with the teacher and other learners during the course or programme. Computer Managed Learning can be used with both low and high technology levels, although it is becoming almost impossible to acquire courseware on floppy disks.
Resource-Based supported Distance Learning – Low Tech	4) Resource-Based Supported Distance Learning (Low Tech): This is a model similar to the print-based model, with the essential difference that course ware is distributed on floppy disks, rather than in print.
Resource-Based supported Distance Learning – High Tech	5) Resource-Based Supported Distance Learning (High Tech): This model is distinguished from the low tech version by the availability of CD-ROM, higher level resources and more stable email and Internet access.
On-line Distance Education	6) On-line Distance Education: This model is characterised by the availability of all the latest technology and very stable and affordable access to email, Internet and the World Wide Web. Courseware can be distributed using a variety of means including on-line browsing, and e-learning can be implemented.

Again, two distinct technology profiles were constructed after considering the following factors:

- availability of required technical infrastructure;
- accessibility of required infrastructure;
- affordability of required technical infrastructure; and
- availability of Information and Communication Technology (ICT) development and maintenance skills.

Factors for determining technology profiles

The technology profile for capital and major cities and towns and district councils looks as follows:

- modern ICT infrastructure available, more often than not on a Local Area Network (LAN);
- Internet and email access via leased line, via the Internet Service Digital Network (ISDN) or at the very least dial-up;
- use of ICTs currently mostly for wordprocessing and financial reports, but also for email and Internet;
- some skills in maintenance and development available, especially in South Africa and Namibia.
- policies and/or plans providing for ICT development and resources (budgets) are available either from own sources or from donors.

Profile of major cities and towns and district councils

The technology profile for other towns and rural councils looks as follows:

- low availability of computers;
- low levels of access beyond certain dedicated individuals;
- no access to Internet and email, or if available, very unreliable dial-up connection;
- use of computers for word-processing and financial reports;
- complete lack of skills for maintenance and development;
- ICT development largely dependent upon central and/or regional government policies, plans and resources.

Profile for other towns and rural councils

Considering the learner and technology profiles together shows that the potential for e-training is much greater than the current situation. It is based on this potential that the authors make the recommendations that follow.

Matching learner and technology profiles

Resource Based Distance Education (High Tech) could be implemented for management staff of capital cities, major towns and district councils. Courseware can be delivered on interactive CD-ROM, browsing and web-to-email, while interaction can be achieved through discussion lists and e-mail chat-sessions. Assignments can be submitted via a variety of media, including email. However, we believe that even this group would benefit from at least a small percentage of face-to-face interaction.

High-Tech Resource Based Distance Education for management staff of major cities and towns and district councils

Low-Tech Resource Based Distance Education for lower level staff of major cities and district councils	For the lower level staff of capital cities, major towns and district councils 'Resource Based Supported Distance Education (Low Tech)' is appropriate. Courseware can be delivered by floppy disk or CD-ROM, while communication can be achieved through email discussion lists, and assignments can be delivered by email or fax. A significant percentage of face-to-face sessions will however be required, especially in the beginning, while some training in the use of ICTs will also be a pre-requisite.
Print Based Distance Education and Broadcasting for the staff of other towns and rural councils	For the staff of other towns, villages and rural councils, a combination of 'Print Based Distance Education' and 'Broadcasting' will be appropriate. Courseware should be delivered mostly in print, but augmented with audio and video, while lecture broadcasts on radio and television will also be most beneficial. Assignments can be submitted by fax or post, and telephone tutoring and possible teleconferencing will be the means of communication. A large measure of face-to-face sessions will be required.
Diversity of methodologies for elected officials	For elected officials the required training methodologies are far more diverse due to the wide discrepancy in their levels of access and use of ICTs, diverse educational backgrounds and experience, and limited time for learning. Elected officials will probably benefit most from awareness raising activities such as workshops and seminars, while many will be able to participate in the activities recommended for staff of their councils.

Conclusion

Launch of tailored EDT programmes possible	Given the technological conditions in African local governments, it might first seem that the use of electronic distance training could not be considered at present. However, the level of ICTs available, for example, in capital cities in countries like Namibia, South Africa and Uganda is of sufficient quality to launch such training. Thus, all the aspects brought together for this report indicate that a 'Broadcasting Model' would certainly be possible for most local governments. 'Resource-Based Supported Distance Learning' is especially adequate in major cities and towns.

It should also be taken into account that the innovative use of learning centres (telecentres) can help to overcome barriers to access, and the wide availability of radio and television could be exploited.

11. Policy recommendations for advancing electronic distance training for African local governments

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Introduction

The policy recommendations have resulted from looking at the broader picture of electronic distance training (EDT) for local governments, i.e. beyond the immediate relationship between the target group of learners and the training providers in the institutional context of a local administration. Taking into account the political, legal and administrative frameworks at regional and national levels, the EDITOSIA partners have identified the municipal associations, the ministries for local government at central level, and the international donor community as further relevant stakeholders influencing the successful implementation of EDT programmes for local governments.

The broader frameworks of EDT for local governments

With regard to those recommendations that are aiming at concrete next steps of EDT implementation and for which external funding could provide a major boost, the following three may be emphasized:

Next steps for EDT implementation

- EDT pilot programmes should be initiated to gain more insights into factors of success and suitable training tools and methodologies.

- An African resource centre should be established which takes advantage of common features and challenges of the region and co-ordinates joint initiatives at regional level. Its further purpose would be to respond to the African actors' needs for advice and guidance on successful EDT approaches, compilation of cases of good training practice, benchmarking, quality assurance etc.

- The capacities of African training providers should be built by making training expertise of the more developed countries of the South and the North available and by providing training to

their trainers. They should also become involved in the pilot programmes to gain their own experiences or have easy access to their results.

Concerted action and partnerships as key to success

Although the stakeholders as listed further above are addressed separately in the list of recommendations, they should not take their decisions in an isolated, uncoordinated way. The readiness for concerted action and working in partnership will be key to success. It is for this reason that the aspect of co-operation appears several times in the recommendations, although in different variations depending on the specific perspective and mandate of each of the actors addressed.

Improvement of training not only necessary for EDT

The final list of recommendations has incorporated a good deal of general recommendations for ensuring quality training. This confirms that EDT programmes cannot be treated independently from the core issues of training and learning as such. It also reflects that the improvement of training offers for local government in Africa cannot only be solved by applying state-of-the-art Information and Communication Technologies (ICTs), but has to do a lot with an improvement of the overall training provision for public administration in more general terms.

Development and dissemination of recommendations

Critical review of recommendations by symposium participants

A draft of the recommendations as prepared by the EDITOSIA project partners was presented to the participants of the symposium "E-learning on sustainability – African local governments building their capacity for change" (Windhoek, Namibia, March 2004) for their critical review. The symposium convened an expert audience of 65 representatives coming from African local governments, municipal associations, training institutions and other relevant professional environments. Their comments and additional input were integrated into the initial draft of the recommendations, and the final version can now be found in this chapter.

The policy recommendations will be distributed to the actors addressed through the various networks of the EDITOSIA project partners mainly in Africa and Europe, but also in other parts of the world. Special efforts will be made in the distribution to gain the attention of the international donor community.

The stakeholders addressed with the recommendations

Local governments: analysing their needs and developing ICT and staff development strategies

Local governments

In the initial phases of the EDITOSIA project, local governments had been mainly regarded as the 'end-users' – i.e. the potential participants – of EDT programmes in the future. With the project

taking its course, it became more and more obvious that they play a much bigger role in the development of useful ICT related training endeavours.

In fact, their active involvement is required right from the beginning. It is the local governments who have to provide their 'insider knowledge' into learning needs, habits, and learning arrangements that fit their institutional conditions and interests.

The recommendations therefore look at African local governments also in their capacity as partners to training institutes giving their input and advice for the development of EDT programmes. Last, but not least, they are also key partners for a systematic and broad evaluation of training programmes through which they can further contribute to improving training provision.

Municipal associations: guiding their members and being their advocate for ICT development

National and regional municipal associations can have a substantial role in being the voice of their member local governments vis-à-vis higher spheres of government, external donors and the international community at large.

Municipal associations

It has to be taken into account, however, that the political importance and their mandate as well as their institutional capacity differ from country to country. The list of recommendations below has not made this differentiation and is therefore in the first place valid for those associations with a strong and defined role in their countries whereas associations with a smaller scope of functions might consider a number of these recommendations not applicable.

On the other hand, decentralisation policies and processes have been gradually increasing the associations' responsibilities in all African countries, and it can be expected that the trend will further continue. So even those for which some of the following recommendations are out of any tangible reach at this stage could be serious players in the promotion of EDT very soon.

African training providers: taking up ICTs into their own training programmes

Taking stock of the training programmes based on electronic media and networks, it has quickly become clear that international providers from outside Africa still appear at the forefront. This is a consequence of the current digital divide between the countries of the South and those of the North, but also a matter of easier availability of the necessary financial resources and more developed educational systems with a long track record of scientific research and practical experiences.

African training providers

There is no doubt that there is also a large number of highly professional training institutions – including universities and colleges

– in Africa, especially in the countries of the Southern region. Most of them, however, have not yet embarked on training programmes that are based on ICTs.

As a consequence of the conclusions from the EDITOSIA project, which have confirmed the development potentials of EDT programmes for local governments, it can be recommended to African training providers to integrate such programmes in their mid- and long-term institutional strategies.

Central governments: establishing and implementing comprehensive national strategies

Central governments

Through their ministries for local government, African central governments have dedicated departments for all local government and decentralisation issues. Decisions at national level still impact substantially at local level wherever self-governance is not yet fully implemented.

Of course, the promotion of EDT applications and programmes on sustainability issues needs the involvement of other ministries, too. Whether for economic development, for technology and research, education, social affairs or environmental protection – all these ministries can strengthen the increase and continuous improvement of EDT provision if an overall guiding strategy is in place.

Knowing that especially training methodologies requiring a major up-front investment will need external donor support in the beginning, central governments also need to be aware about their role and responsibilities as the platform where interests of local governments and international donors meet. It is encouraging to see that there is a growing readiness on the side of donors to co-ordinate their efforts when active within one and the same country – such as since recently successfully realised, for example, in the education sector in Namibia. These efforts need to be complemented by also pooling the interests of the different stakeholders within a given country. When it comes to sustainable development and capacity building for managing this development, international experience shows that the interests and needs of local governments deserve especially careful attention.

Agencies for development co-operation and international donors: paying intention to local needs and interests

Agencies for development co-operation and international donors

There is no need to explain the tremendous impact of donor priorities on the course of development in a given country. Fortunately, the donors increasingly follow a demand-driven approach and co-ordinate the earmarking of their funds in partnership with the central governments of the beneficiary countries.

It should be taken into account, however, that a central government has its own perspective on a country's development priorities and often enough its own particular interests which might not always fully reflect the most urgent needs of the local communities and their political representation, the local government. For this reason, mechanisms should be established which allow the consultation of all major stakeholders in a specific field of development.

Considering the limitations of financial support for (sustainable) development in the countries of the Southern hemisphere, the channelling of resources to a regional capacity-building centre for EDT applications and local government programmes could be key. Such an institution could have a valuable multiplier effect by giving access to EDT concepts, tools and experiences to African training providers and by supporting them in improving their own training capacities.

The role of the private sector

Generally speaking, it can be foreseen that the promotion of technological development and increased applications for and by local governments will trigger an array of new business opportunities. Innovative approaches and partnerships between the private and the public sector will yield new win-win situations on both sides.

Private sector vital for further development of ICTs and EDT

The role of the private sector therefore needs to be considered vital in the further development of ICT applications and EDT. However, it would be a project in itself to identify the potential contribution of each of the different areas of the private sector that can in principle have an influence on the scope and the direction of this development.

Any business which has to do with telecommunication and IT services in the widest sense would of course be one of the most obvious players. But then there are also private training institutes and private consultancies dealing with ICTs or other management issues of local government more broadly.

The private sector also plays a role when it comes to the goal of sustainability in a more general perspective. Being the main pillar of the local economy, local governments should involve them in their strategies, action plans and the implementation of projects for advancing sustainable development.

Being aware about the complexity of the role of the private sector the EDITOSIA network decided to refrain from formulating recommendations which would have been much too general and possibly superficial.

The list of recommendations

In the following the list of recommendations which is one of the final results of the EDITOSIA project and draws from the opinion of the ten network members as well as from the critical debates by the expert participants of the symposium in Windhoek, Namibia, in March 2004.

1. Recommendations to local governments in Africa

1.1 Acknowledgement of training and learning as a high-level issue

Leading decision-makers of local government should ...

1.1.1 treat human resources development and continuous learning as a key component for addressing their local priority issues;

1.1.2 act as a role model by entering into defined learning processes themselves;

1.2 Management of training and learning as an institutional issue

Leading decision-makers of local government should ...

1.2.1 integrate training into their sustainable development strategies, their regular local management system and budget preparation and develop targeted training strategies and plans for implementation;

1.2.2 strive for excellence in the performance of their officials and conduct regular internal training needs assessments to identify primary training needs;

1.2.3 get involved in training as an institution and ensure the involvement of several relevant officials or politicians who become engaged in the learning activities as a team;

1.2.4 select training offers carefully in order to ensure that training is relevant and suitable for application in the local context and fits the resources available;

1.2.5 opt for training approaches which synchronise the enhancement of capacities with their immediate application in reality;

1.2.6 extend institutional support to officials involved in learning activities in order to provide them with the necessary time, space, (e-)learning equipment, easy access to communication networks, contacts, local data and other pertinent information;

1.2.7   enter into mutual agreements with these officials concerning their commitment to use their new knowledge and skills for the benefit of enhancing the local government's performance for sustainability;

1.2.8   create internal cross-sector structures which can turn individual knowledge and skills into institutional competence;

1.2.9   consider the building of internal training capacities of dedicated staff of the local administration;

1.2.10 formally recognise the learning efforts of their officials and politicians;

1.2.11 encourage the participation of women in training programmes in order to benefit from their specific strengths in fostering sustainable development;

1.2.12 establish mechanisms for the critical monitoring and evaluation of the outcome and the effects of learning activities of their staff in short-, mid- and long-term intervals and review decisions made on specific training and learning activities if necessary.

1.3 Recognition of the benefits of ICTs

Leading decision-makers of local government should ...

1.3.1   get themselves informed about the range of applications of ICTs for implementing local government tasks and discuss and decide about the integration of computer applications and access to Internet in consultation with their officials and politicians;

1.3.2   make sure that existing equipment and Internet access is set up in an optimum way and is subject of regular maintenance;

1.3.3   take into consideration the viability of PCs and Internet access when making decisions on purchasing and getting connected to communication networks;

1.3.4   give easy access to existing equipment and Internet to as many officials and politicians as possible and make provisions that the users have the necessary skills to make the best of using these facilities;

1.3.5   arrange for training of their officials and politicians in order to up-date them on the full range of useful ICT applications;

1.3.6   carefully define and plan the expected outcome of EDT programmes and their relevance for local sustainability in order to ensure an adequate cost-benefit ratio after major investments into ICT development;

1.4 Recognition of external opportunities for enhancing internal learning

Leading decision-makers of local government should

1.4.1   take advantage of existing conducive national training policies and frameworks,

1.4.2   collaborate to encourage the development of improved frameworks if they do not yet exist;

1.4.3   facilitate the further development of training programmes in co-ordination with other local governments at national and regional level, but also internationally;

1.4.4   explore partnerships with the private sector to negotiate win-win arrangements for ICT development.

2.   Recommendations to national and regional municipal associations in Africa

2.1 Awareness-raising and encouragement

Municipal associations should

2.1.1   raise the local governments' awareness on the wide range of opportunities provided by ICTs for the benefit of enhancing the knowledge base for their decision-making, for their internal co-ordination, their capacities for management and problem solving, their service delivery, their networking and their access to training opportunities (for example by organising a series of stakeholder forums or by promoting pilot projects);

2.1.2   campaign for the benefits of continuous and targeted training for local government officials and politicians including the possible facilitation of this training by ICTs;

2.1.3   target the campaigns especially at the level of local politicians.

2.2 Technical guidance and support

Municipal associations should

2.2.1   promote the benefits of the wide range of potential applications of ICTs in local governments including their advantages for learning activities as in EDT;

2.2.2   support the establishment of regular mechanisms by local governments for internal training needs assessments, the identification of priority training needs and the targeted planning of training measures for their staff;

2.2.3 observe the implementation and outcome of training programmes for local governments and help ensure quality control;

2.2.4 initiate regular training needs assessments at national level, publish them in their media and communicate them to higher levels of government, donor agencies and national and international training institutions.

2.3 Partnerships

Municipal associations should

2.3.1 act as the platform for dialogue and co-operation between all stakeholders relevant for the use of ICTs in training and facilitate the communication between these stakeholders by bringing them together for discussion and action;

2.3.2 liaise with the training providers in their country and give their advice on training design that is suitable for the improvement of a local government's competence in sustainability management.

2.5 Recognition of progress

Municipal associations should

2.5.1 draw public attention on local governments that have developed and implemented systematic training strategies which include a role of ICTs, for example by awarding excellence in innovation.

3. Recommendations to African training providers

3.1 Development of own institutional capacities

African training providers for local government should

3.1.1 explore the feasibility of distance training on both sides, i.e. on their own side as the potential provider, and on the side of the local governments as their clientele;

3.1.2 take advantage of partnerships with experienced distance training institutes to draw from their knowledge and experiences when developing – or further developing – distance training courses. (Don't reinvent the wheel!);

3.1.3 especially learn from 'first movers' in African countries whose experiences are closer to their own situation than those of non-African specialists;

3.1.4 take part in (electronic) distance learning to improve their own professional qualification, but also to gather and learn from personal experiences as participants in this kind of courses;

3.1.5 remain open and flexible in their curricula to be able to fit as many learning needs and preferences as possible;

3.1.6 keep abreast with national policy developments and donor priorities in order to match their institutional strategies with external frameworks conducive to the implementation of EDT programmes.

3.2 Innovative course development

African training providers for local government should

3.2.1 co-operate closely with the users, i.e. participants from local governments, and involve them in course development;

3.2.2 offer sufficient guidance and support to participants to help them familiarise themselves with the functioning of the ICT applications both before starting and during and EDT courses;

3.2.3 work closely with the national qualification authorities;

3.2.4 shape the contents of courses to the prime needs of local governments and their local conditions, e.g. through systematic needs assessments;

3.2.5 develop assignments which are practical and focus on implementation and revisit participants on the job to assess whether they have met obstacles in implementation;

3.2.6 offer training for trainers who are staff of local governments;

3.2.7 include in their curricula ICT skills training courses for using PCs and Internet with a special focus on the typical applications of local government;

3.2.8 follow the latest development in methodologies moving away from a training-centred approach to a learner-centred approach/from the trainer to the learner perspective;

3.2.9 get engaged in the concept of institutional/organisational training and the establishment of communities of practice by involving themselves in peer exchange with training experts who are aware and experienced about this approach.

3.3 Evaluation and quality control

African training providers for local government should

3.3.1 start with smaller pilot courses to gain experiences before delivering them to a wider group of participants;

3.3.2 establish regular mechanisms for the systematic evaluation of own distance training courses including interviews with participants at a longer period of time after participation in a course;

3.3.3 review existing evaluation reports of other courses in order to further assess the most useful approach for local governments in their own country;

3.3.4 pay attention to the requirements for changing the behaviour of local government participants which might go beyond training programmes and need embedding in larger projects;

3.3.5 establish transparent quality control system, so that the local government clientele can build trust in getting 'value for money'.

3.4 Co-operation

African training providers for local government should

3.4.1 liaise with municipal associations in their country to keep themselves up-dated about the current main issues and needs;

3.4.2 use existing networks of training institutions and build on them for improved exchange of experience and co-operation;

3.4.3 initiate the creation of a regional network of African institutions delivering distance training to local governments in order to have an instrument for a continuous exchange on training approaches and experiences;

3.4.4 forge partnerships with universities to enter into joint research activities on training needs and methodologies;

3.4.5 assess possibilities for sharing technical and other training resources with universities and training providers targeted at other professional groups such as nursing or teacher training colleges.

3.5 Trainer network

African training providers for local government should

3.5.1 provide training-of-trainers programmes and create a country network of local, national and regional training professionals who are spread all over the country. In adjustment to the development of ICT use in the

local governments they can gradually be introduced into e-learning and e-tutoring and also act as the local support nodes for blended learning approaches;

3.5.2 exchange trainers between countries to allow insight into other successful approaches and further stimulate the exchange of knowledge, skills and experiences at regional level.

4 Recommendations to ministries for local government in Africa

4.1 Cross-sector co-operation at central level

The ministries in charge of local governments should

4.1.1 initiate the set-up of an inter-ministerial committee to handle all issues related to ICT development;

4.1.2 work across sectors and link up to the ministry in charge of sustainability policies. In this way, they should advocate for an appropriate recognition of the role of local government in the overall strategy for sustainable development (if existing);

4.1.3 work across sectors and link up to the ministry responsible for technology development; here, they should advocate for the development of an infrastructure which considers the dire needs of local governments to have affordable and functioning access to computer equipment and communication networks;

4.1.4 work across sectors and link up to the ministry for education in order to encourage their investment in technologies for schools as well as universities and colleges for civil servants in order to get the next generation of local officials ready for the manifold applications of ICTs;

4.1.5 work across sectors and link up to the ministry responsible for economic development and advocate for the creation of favourable business conditions for the set-up of small IT companies or for the self-employment of IT consultants;

4.1.6 work across sectors and link up to the ministry responsible for finances and the national treasury to ensure that financial resources are planned for supporting investment into ICTs for local government and the respective infrastructure development.

4.1.7 promote the acquisition of an ICT licence as part of the training syllabus of colleges for public administration and in the further training of local government officials and make it compulsory for career building.

4.2 Motor for innovation

The ministries in charge of local governments should

4.2.1 create an atmosphere of innovation, confidence in the feasibility of improvement, and promote visions for progress in decentralisation and local sustainable development in co-operation with other relevant ministries;

4.2.2 co-operate with other ministries to create an enabling environment for ICT initiatives for sustainable development;

4.2.3 work closely with the national municipal associations for formulating a special strategy for ICT development suitable for local government service delivery.

4.3 Platform for collaboration with donors

The ministries in charge of local governments should

4.3.1 ensure that the interests of local governments are taken into account when formulating the countries needs and developing common strategies with donors (e.g. by inviting representatives of municipal associations to donor meetings);

4.3.2 advocate for the necessary earmarking of funds for ICT development, including those funds necessary to increase the technological capacity of local governments.

5. Recommendations to international donors and national agencies for development co-operation

5.1 Recognition of importance of local level

International donors and development co-operation agencies should

5.1.1 not only link up to national development strategies for capacity building, but also to the policies for decentralisation and strategies at sub-national and local level;

5.1.2 consult with representatives of municipal associations and leading cities concerning the needs and requests of local governments in a recipient country;

5.1.3 recognise the role that local governments can play in the implementation of Agenda 21 by earmarking a certain proportion of their resources for support to the local government level.

5.2 Focusing and pooling of resources

International donors and development co-operation agencies should

5.2.1 give preference to regional approaches wherever appropriate for the development of electronic distance training programmes for local governments;

5.2.2 support the development of pilot EDT programmes addressing primary needs of local governments in different countries;

5.2.3 set as a key criteria for the development and implementation of such programmes the building of training capacities in African institutions;

5.2.4 share their evaluation of these pilot programmes and their experiences in co-operating with the local government level with other donors and co-ordinate their decentralised funding policies and decisions;

5.2.5 support the development of a regional resource centre for EDT for local government providing services to training providers and local governments which respond to the discrepancies of technological development between and within African countries and the different speed and different patterns of a gradual application of ICT tools in education and training in different intensity.

5.3 Monitoring of quality

International donors and development co-operation agencies should

5.3.1 encourage the development of quality assurance mechanisms and qualification authorities which can help local governments to make informed decisions when selecting training courses for their officials;

5.3.2 support the development and implementation of training needs assessments to ensure relevance of training content;

5.3.3 promote the replication of quality electronic distance training courses for local governments and make them available as widely as possible.

5.4 Economic incentives

International donors and development co-operation agencies should

5.4.1 ensure not to smother potential fledgling initiatives in the private training and IT sector through the unlimited dissemination of free training material and courses of high quality which could make local efforts fail.

Appendix:

The partners of the EDITOSIA project

Africa Secretariat, ICLEI – Local Governments for Sustainability

ICLEI is an international membership organisation of over 450 cities, towns, counties, metropolitan governments and local government associations working together to achieve tangible improvements in global environmental and sustainable development conditions through cumulative local actions. The regional secretariat for Africa is located in Johannesburg, South Africa, and provides services to the more than 40 ICLEI members in this region.

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Gertrude Ngenda has a BSc in Agriculture, an MSc in Rural and Urban Planning, an MSc in Policy Analysis and a Postgraduate Diploma in Rural Policy and Project Planning. She worked with local authorities in various capacities including training, advocacy and advisory in the areas of local governance, participation, protection and management of the local environment (rural and urban), urbanization and integrated planning. Currently, she is Director of ICLEI Africa.

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African Training and Research Centre in Administration for Development (CAFRAD)

The African Training and Research Centre in Administration for Development is the first uniquely Pan-African training and research centre in the continent for the improvement of public administration and governance systems in Africa.

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Lizette Michael holds a BSc in Political Science and an MA in Public Administration, both from the American University in Cairo (AUC), Egypt. She also attended specialised courses on educational administration and on the enhancement of women's participation in decision-making and governance. Currently she is working with CAFRAD as a Senior Expert in Public Administration.

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The Polytechnic of Namibia (PON)

The Polytechnic of Namibia contributes to the development of the economic and social systems of Namibia through the provision of higher education for the occupational and professional human resource needs.

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Corneels H. Jafta was educated at the University of the Western Cape, South Africa, the University of Namibia, and the University of Canberra, Australia, obtaining the degree Master in Education in 1998. He has wide experience in teaching at secondary and higher education level and in education management, specialising in quality assurance in education and training. Currently, he is employed as Registrar of the Polytechnic of Namibia, where he is responsible, among others, for the overall management of the Polytechnic's centre for distance education and the curriculum development of the institution.

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Southern African Non-Governmental Organisation Network (SANGONeT)

The Southern African NGO Network is a facilitator in the effective and empowering use of modern information and communication tools by development and social justice actors in Africa.

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David Barnard has a BA in African Studies and Development Administration and a BA in Development Administration. Between 1992 and 2000, he occupied the position of Manager of the Programme for Development Research (PRODDER) at the Human Sciences Research Council (HSRC). Since 1 June 2000, he is the Executive Director of SANGONeT.

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Zimbabwe Open University (ZOU)

The Zimbabwe Open University was established in 1999 and offers undergraduate and postgraduate distance education towards bachelor degrees and postgraduate diplomas in Zimbabwe and internationally.

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Suwisa Muchengetwa holds a Masters in Statistics. Currently, she is a lecturer and a statistician at Zimbabwe Open University, where she has been involved in a number of research projects, particularly covering the topics of AIDS and E-learning.

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European Distance and E-Learning Network (EDEN)

The European Distance and E-Learning Network aims to foster developments in distance education through the provision of a platform for co-operation and collaboration between a wide range of institutions, networks and individuals concerned with distance education in Europe.

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Dr. András Szücs graduated as bio-engineer in 1980 at the Budapest University of Technology and Economics, where he continued teaching for ten years. Between 1997 and 2000 he had been Executive Director of the European Distance and E-Learning Network (EDEN), since the year 2000 he is Secretary General of the Association.

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International Institute for Communication and Development (IICD)

The International Institute for Communication and Development assists developing countries to realise locally owned sustainable development by harnessing the potential of the Information and Communication Technologies.

Contact for the EDITOSIA project: Mr Tjalling Vonk

Tjalling Vonk graduated at the University of Twente, Netherlands, in the area of Information and Communication Technologies (ICTs). He worked as an ICT consultant for several years before he joined IICD. At IICD he is responsible for knowledge sharing programmes in Tanzania, Uganda and Zambia and, involved in several research projects and ICT pilot projects in African countries. He also supports several national networks in African countries to catalyse the sharing of knowledge and experiences in the field of ICT for development, and to foster the lobbying for better policies in that area.

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The Open University UK

The Open University is the United Kingdom's largest university and offers a wide range of distance courses towards bachelor, taught and research degrees, but also towards certificates and diplomas for professional development or for the fulfilment of personal ambitions.

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Dr. Hazel Johnson has a PhD in Development Studies. Before going to the Open University UK, she worked for a short while for an international NGO. She is now a Senior Lecturer and teaches Development Studies and Development Management; she also carries out research into social learning for development practice and institutional development, and into poverty and livelihoods.

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University of Wales Swansea

The University of Wales Swansea offers over 500 undergraduate courses and ca. 130 postgraduate courses in subjects ranging from American Studies to Zoology as well as an extensive range of continuing-education programmes.

Contact for the EDITOSIA project: Prof. Alan R. Thomas

Prof. Alan R. Thomas is Professor of Development Studies at Swansea University. He has a BA in Mathematics from Trinity College, Cambridge, and an MA in Systems from Lancaster. He is currently Head of the Centre for Development Studies (CDS) and of the School of Social Sciences & International Development at Swansea. His main research interests are in interdisciplinary development studies, development management, NGOs in environmental policy, institutional sustainability, and case study and other research methods for development policy and action. He has been involved in several partnerships aimed at promoting distance education and e-learning in Africa and globally.

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ICLEI – Local Governments for Sustainability, International Training Centre

ICLEI's International Training Centre (ITC) is the international training and conference service unit of ICLEI – Local Governments for Sustainability, providing training, seminars, conferences, distance training and study tours on urban sustainability for local governments.

Contact for the EDITOSIA project: Barbara Anton or Monika Zimmermann

Barbara Anton has a background in educational studies and several years of experience in adult education. She has been with the ITC since 1995 as a project co-ordinator and trainer. Her major responsibilities are in the development and delivery of training programmes, especially in the field of Local Agenda 21. She also co-ordinates training projects and other projects related to capacity building.

Monika Zimmermann studied political and administrative sciences and journalism. She has worked as researcher on urban studies and local environmental protection, for NGOs and as a publisher of books and journals. In 1992 she joined ICLEI and has since worked on the development of the International Training Centre. Her responsibilities as the Director of ICLEI's ITC include, among others, overall management, quality control and evaluation, project design, acquisition as well as the further development of training approaches and learning tools for local governments.

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ICLEI – Local Governments for Sustainability

ICLEI – Local Governments for Sustainability was founded in 1990 by local governments at the United Nations Headquarters in New York as the International Council for Local Environmental Initiatives (ICLEI). ICLEI is a democratically governed membership association of over 450 cities, towns, counties, metropolitan governments and local government associations worldwide.

ICLEI's mission is to build and serve a worldwide movement of local governments to achieve tangible improvements in global sustainability with special focus on environmental conditions through cumulative local actions.

As an *Association*, ICLEI provides membership services; builds and fosters alliances, partnerships and cooperation with relevant organisations; and carries out advocacy on behalf of its municipal members, campaign participants and local government in general.

As a *Movement,* ICLEI runs campaigns, programs and projects that promote Local Agenda 21 as participatory, long-term, strategic planning and help local governments develop and implement local action programs which connectedly address local priority concerns and internationally agreed goals and targets.

As an international Sustainable Development and Environmental Agency for local governments, ICLEI provides information services; delivers training; organises conferences; facilitates networking and city-to-city exchange; carries out research, development and pilot projects on methodologies and tools; and offers technical services and consultancy.

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ICLEI's International Training Centre (ITC)

ICLEI's International Training Centre (ITC) is the international training and conference service unit of ICLEI – Local Governments for Sustainability.

The ITC helps to build the know-how of local government leaders and officials as well as of their partners in their capacities as policy makers, managers for urban sustainability, trainers and/or consultants for urban sustainability.

The ITC ...
- organises the exchange of information and experience
- offers training and educational courses
- develops curricula and facilitates worldwide capacity-building programmes
- develops handbooks, planning aides and guidelines
- brings people together for debate and brainstorming on innovative problem-solving approaches.

Key subjects for ITC activities are:
- Sustainable Development at the local level
- Local Agenda 21 and Local Action 21
- Localisation of the Millennium Development Goals (MDGs)
- Sustainability Management
- Environmental Management Systems and ecoBUDGET®
- Sustainable Procurement
- Climate Protection and Energy-efficiency
- Water Management
- … and more

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Local government officials in Africa sitting at their desks in front of computers and studying how to manage their local development in a sustainable way. Is this a vision to pursue?

The EDITOSIA project network has taken up this question and investigated the current situation of access and use of modern Information and Communication Technologies by African local governments as well as future trends. It also looked into the training needs for sustainability and existing courses delivered through electronic means both in Africa and Europe.

After a final symposium in Windhoek, Namibia, in March 2004, which gave more than 60 local government and training specialists from Africa the opportunity to contribute with their expertise, the partners of the EDITOSIA project feel confident to publish their conclusions.

Electronic distance training is certainly a matter of a conducive technological environment in African local governments, and the development of suitable training programmes is still in its fledgling stage. But the policies for ICT development as well as those for decentralisation, life-long learning and sustainability all point into the same direction: Yes, the vision can become reality.