



Economic Commission
for Africa



Africa's Sustainable Development Bulletin

2006

Capacity Building for Sustainable Development



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Editorial

This is the third issue of the annual 'Africa's Sustainable Development Bulletin'. The overall purpose of the publication is to provide a vehicle through which the United Nations Economic Commission for Africa (UN ECA) presents briefs on trends and policies related to agriculture and food security, population and development, human settlements, and natural resources and the environment in the African context. The Bulletin is also intended to be an advocacy instrument targeted at raising policymakers' awareness on the nexus issues in development planning.

Each issue of the Bulletin brings articles together under an overarching theme. For the 2006 issue, the theme is 'Capacity Building for African Sustainable Development'. While most of the articles are written by UN ECA staff, the publication is also a vehicle for partnership, and in this issue we are happy to partner with the United Nations Environment Programme (UNEP).

Because sustainable development involves a complex interplay between economic, environmental and socio-cultural considerations, it follows that for a country to achieve sustainable development it must consider all these issues in making short- and long term development plans. However, such considerations cannot be appreciated if there is lack of up-to-date information, knowledge, tools and skills, as well as institutions and appropriate structures to address the various issues. Therefore, if the needs of the present generation are to be satisfied without compromising the ability of future generations to meet their own needs, capacity building should be central to the sustainable development agenda.

Over the past few years, it has thus become clear that capacity building is central to the quest for sustainable development. To achieve development goals as laid down in the Millennium Development Goals, frameworks for action such as the Johannesburg Plan of Implementation and the Plan of Action from the International Conference on Population and Development, and the objectives of NEPAD, the ability of regional organizations, national governments and civil society to address the principal challenges of sustainable development must be reinforced. Building capacity at the community, state, subregional and regional level has therefore become a priority.

Against this backdrop, the first two articles in this issue of the Bulletin discuss overarching issues related to capacity building for African sustainable development. Subsequent articles delve deeper into capacity building for crucial aspects of sustainable development such as information management, maximizing benefits of migration, creation of employment, or the achievement of improved population health and sustainable energy production and consumption.

We hope you find this edition useful, and invite you to help us make future editions even more relevant to your work by providing us with feedback, using either the form provided, or by sending us e-mail at asdb@uneca.org.

Capacity Building for Sustainable Development in Africa

By Hassan M. Yousif¹

Abstract

Sustainable development has broadened the capacity building concept beyond the conventional development of human skills and institutions, to encompass ownership, partnership and networking, integration of knowledge and information, and involvement of non-state actors such as NGOs, and the private sector. More attention has been given to the factors of the enabling environment in the social, political, cultural, institutional, regulatory and legal spheres. Consequently, the role of governments and of the donor community has changed to include a variety of organizational strategies, such as strategic planning and performance management, which require skills, institutional and organizational capacities.

The article illustrates these issues in Africa's context where there are severe quantitative and qualitative capacity constraints manifested at the human, institutional and organizational levels. Africa needs capacity building in a wide-range of areas in the public and private sectors, trade and civil society. Particularly, governance, peace building and conflict prevention, and regional integration, are special areas where Africa needs to invest in capacity building. There is need to integrate trade capacity building into development, and into a holistic capacity building approach for development planning and management. In the area of long-term development and strategic planning, for which the sustainable development agenda called, capacity building entails giving vision, leadership and direction to the management of development activities. The African countries that have developed long-term visions and scenarios need to develop skills and special capacities to translate them into strategies and programs. The article concludes with directing the attention to the importance of researching and understanding capacity building issues at all levels, and for the sake of informing capacity building interventions.

Introduction: Conceptualization of Capacity Building

Capacity building is a commonly used term in the sustainable development literature. It refers to a wide range of actions for building human and institutional skills, and organizational arrangements and structures at all levels (see box 1). Conceptually, however, capacity building is as complex a concept as sustainable development itself. An operational definition is difficult to discern, as the concept tends to broaden out to deal with the principles and dimensions (economic, social and environmental, and institutional) of sustainable development. Its measurement is problematic since it is influenced by qualitative and quantitative factors on which data are rare (Wubenh 2003, Ogiogio 2005). Moreover, it involves state and non-state actors, and a wide range of stakeholders, therefore participation and ownership are important dimensions of capacity building.

Box 1 What is capacity building?

"Capacity-building encompasses the country's human, scientific, technological, organizational, institutional and resource capabilities." (Agenda 21, Chapter 37).

Capacity is the "the ability of individuals, organizations and societies to perform functions, solve problems, and set and achieve goals. Capacity Development (CD) entails the sustainable creation, utilization and retention of that capacity, in order to reduce poverty, enhance self-reliance, and improve people's lives." The UNDP.

"Capacity building is the process of transforming a nation's ability to effectively implement policies and programs for sustainable development" (Wubenh 2003).

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These issues have been illuminated by attempts to operationalize capacity building at national, corporate and other levels. Leading in this regard is the Agenda 21, which brought to the forefront capacity building as an operational concept for the implementation of sustainable development activities. It stated that the ability of a country to follow a sustainable development path is largely determined by the capacity of its people and its institutions, as well as by its ecological and geographical conditions (Agenda 21, Chapter 37). Agenda 21 called for anchoring capacity building for sustainable development on three principles: -

1. Participation of all stakeholders in program development, implementation, monitoring and learning.
2. Integration of economic, social and environmental priorities within national and local policies plans and programs.
3. Information about sustainable development to help people make better decisions.

These three principles guided the establishment of the UNDP Capacity 21 trust fund, which worked with developing countries to build their capacities for the implementation of Agenda 21 and to achieve sustainable development. Since 1993 the UNDP Capacity 21 worked with over 75 developing countries to adopt innovative capacity-building approaches to address environmental degradation, social inequity and economic decline. In Africa, Capacity 21² operated in national organizations and institutions in 12 countries³ to build their capacities to integrate the principles and dimensions of sustainable development in national planning.

The three principles mentioned above were expanded to five at the 2002 United Nations World Summit for Social Development (WSSD), which called for “good capacity-building initiatives” to be based on: -

1. **Ownership** involving stakeholders from the beginning;
2. **Integration** and taking full account of ongoing actions;
3. **Cross-sectoral harmonization** between donors and recipients;
4. **Increased use** of modern technology and communication; and
5. Development of **new forms of cooperation**, such as decentralized cooperation among local authorities (UN WSSD 2002: 102-103).

The WSSD called for the promotion of human and institutional capacity building at all levels, with special attention to meeting the capacity building needs of developing countries.

In the area of health and sustainable development, for example, the WSSD called for strengthening “the capacity of health-care systems to deliver basic health services to all in an efficient,

² Recently, the UNDP established Capacity 2015 as a series of partnership to build capacities at the local level for the achievement of the MDGs, and to continue the work of Capacity 21.

³ Burkina Faso, Cameroon, The Gambia, Ghana, Kenya, Malawi, Mozambique, Niger, Sao Tome and Principe, Senegal, Swaziland and Tanzania.

accessible and affordable manner aimed at preventing, controlling and treating diseases, and to reduce environmental health threats, in conformity with human rights and fundamental freedoms and consistent with national laws and cultural and religious values, and taking into account the reports of relevant United Nations conferences and summits and of special sessions of the General Assembly” (UN WSSD: 39, para 54). It proposed a wide range of capacity building actions such as launching international capacity-building initiatives to assess health and environment linkages and use the knowledge gained to create more effective national and regional policy responses to environmental threats to human health.

Undoubtedly, the sustainable development agenda have broadened the capacity building concept to encompass ideas such as strengthening peoples’ capacity to emphasizing cross-sectoral multidisciplinary analyses, adopting long-term strategic approach to planning, monitoring the implementation of activities and assessing and evaluating their impacts and outcomes, partnership and networking, and developing skills performance of both individuals and institutions (UN ECOSOC 1996).

One direct consequence of this broadening is that capacity building activities and initiatives have become open for non-state actors, such as the media, private sector, NGOs and the people at large. More attention has been given to the factors of the enabling environment in the social, political, cultural, institutional and legal spheres. Consequently, the role of governments and of the donor community has changed to include a wide variety of organizational strategies, such as strategic planning and performance management, which require new skills and institutional capacities.

Trade Capacity Building

The Doha Declaration refers to capacity building in terms of providing assistance to developing countries to establish and administer their trade policies, and to conduct analyses and identify their priorities and interests in trade negotiations (Dear-dorff 2006). Recent studies indicate that trade capacity building is important for developing countries to take advantage of global trading opportunities (OECD 2003, DAC 2001, Bonaglia and Fukasaku 2003). The OECD estimated trade opportunities to range between US\$ 117 billion to US\$ 173 billion. For individual countries the gains are estimated to range between 0.2% to 1.8% annual real increase in GDP. Developing countries need trade capacity building in order to maximize their benefits from global trade liberalization.

According to the OECD Development Assistance Committee (DAC), trade capacity building in developing countries entails three important elements. The first element is formulation and development of trade strategies as part and parcel of national development strategies. This means that countries need to enhance capacities for trade in broad consultation and participation of stakeholders (private sector, NGOs, etc.)

and in context of comprehensive long-term national development strategies. Therefore, capacity building for trade should become congruent and harmonized with capacity building for sustainable development

The second element in trade capacity building is to increase the volume and value addition of exports, diversify the exported products and markets, increase foreign direct investment and generate jobs. This requires efforts to raise the quality of standards and to meet certification requirements, improve transportation and infrastructure, simplify and expedite customs, among other things.

The third element is to participate in the institutions, negotiations and processes that shape national trade policies, and the rule and practices of international trade. This means that countries should be internally active on addressing trade capacity building issues, including the capacity to effectively participate in international trade negotiations.

Capacity building in Africa

Africa faces severe quantitative and qualitative capacity constraints manifested at the human, institutional and organizational levels. There is serious shortage in skilled labor, due to low investment in human capital (health, education, training, etc). Also, emigration of skilled labor to work abroad (ECA 2006) is a source of continuous depletion of Africa's human capacities. Available evidence indicate rapidly increasing trend of skilled emigrants from Africa from an annual average of 1,800 during the 1960's to 50,000 during the 1990s (ECA 2006). Skilled laborers are institution builders; therefore, their loss is a constraint for institutional development in the public and private sectors.

After several decades of investments, many countries in Africa still are crippled with weak institutions and with lack of skills and qualified professionals. A range of complex factors explains the capacity building constraints and weaknesses in Africa. Empirical studies (Wubneh 2003, Moharir 1994) show that poor institutional mechanisms, lack of material resources, low investment in skills, training and human capital development, and lack of commitment and political will, are among the most important determinants of capacity constraints in Africa. In order to ameliorate these constraints, Wubneh (2003) developed a framework for analyzing capacity building in Africa, using four basic elements: -

1. Restructuring of the value system, especially the values, beliefs and knowledge of decision makers. In this regard, capacity building involves transformation of the value system to place high value, commitment, and willingness to accept scientific analyses, skills and findings.
2. Development of human capacities, with focus on increasing the qualitative and quantitative supply of skills and professionals.

3. Transformation of institutional capacity, including of new institutions and transforming and reorienting the roles of existing ones in such a way as to make effective utilization of existing resources.
4. Modification of organizational structures, especially through better recruitment and retention practices, and efficient utilization of available resources, promotion of good practices, and enhancement of capacities through incentives and decentralization of decision-making

In response to the constraints and the capacity building needs, the African Capacity Building Foundation (ACBF) was established in 1991 as a collaborative effort of the African Development Bank, the World Bank, and the United Nations Development Program. At its inception, the ACBF was mandated to provide finance and technical support to the countries to build their capacities on economic policy analyses and development management. Following the integration of the Partnership for Capacity Building in Africa (PACT), this mandate has been expanded to achieve three main objectives: -

1. To provide an integrated framework for a holistic approach to capacity building in Africa.
2. To build a partnership between African governments and their development partners, which allows for effective coordination of interventions in capacity building and the strengthening of Africa's ownership, leadership and responsibility in the capacity building process.
3. To provide a forum for discussing issues and processes, sharing experiences, ideas and best practices related to capacity building, as well as mobilizing higher levels of consciousness and resources for capacity building in Africa (Sako and Ogiogio 2002).

Several studies conducted by the ACBF list the capacity building needs of Africa in a wide range of areas in the public and private sectors, and civil society. Particularly, governance, peace building and conflict prevention, and regional integration, are special areas where Africa needs to invest in capacity building and development. These studies concluded that "the continent would need to invest substantial resources in both the product and process dimensions of its capacity needs, products in the form of infrastructure for an enabling environment and processes in the form of skills and institutions" (Sako and Ogiogio 2002; p.18).

Along these lines, Sako and Ogiogio (2002) identified capacity building interventions centering on "physical infrastructure, institution building and strengthening, and development of human skills and knowledge. Other dimensions include reform of, or enhancement of, norms, behaviors, practices, systems, processes and procedures involved in development activities. Thus, on the human and institutional aspects, the capacity-building process should, *inter alia*, involve the development of new skills and structures; the strengthening of existing skills and structures; the re-organization of existing institutional structures or processes for more efficient performance, and the re-

ordering of incentive systems for more intensive and efficient utilization of existing skills and institutions” (Sako and Ogiogio 2002:18).

In a related paper Ogiogio (2005) focused on measuring the performance of capacity-building interventions. He identified six fundamentals in the measurement of capacity-building performance: relevance, effectiveness, efficiency, ownership, impact and sustainability. These six fundamentals provide a framework for capacity-building intervention measures. He argues “An intervention has to be *relevant* to the capacity need it is designed to address; it has to be *effectively* and *efficiently* delivered; the capacity that the intervention generates must be *locally owned* and *sustainable*; and such capacity must have visible *impact*” (Ogiogio 2005:v)

Capacity building plays a delicate role in the public-private sectors linkages. Inadequate institutional, organizational and human capacities in the private sector are likely to render privatization of public enterprises futile and risky policies that might increase market failures and lead to unfavorable social repercussions. Such consequences have occurred in many countries in Africa, where public sector reforms and privatization have led to the retrenchment of labor from public enterprises. Such public policies are often guided by increasing efficiency of public enterprises, enhancing delivery of goods to people, and at the same time reducing the wage bill for government. In countries where the private sector is weak, such policies are likely to fail. Therefore, it is essential to build and develop private sector capacities to enable it to perform public sector objectives, particularly in the social development areas of health and education.

Trade capacity building in Africa deserves special mentioning here as such a dimension is rarely integrated in national sustainable development strategies. The importance of trade capacity building in Africa is justified by a wide range of factors, most important among which is the high dependence of the African economies on export of primary commodities; reflecting limited change in trade structures. Many African countries suffer from low export diversification accompanied with declining market shares (Bongalia and Fukasaku 2003). They face other trade capacity building constraints such as high transportation costs, complex customs rules and regulations, low level of infrastructure, and lack of capacity to effectively and fruitfully participate in international trade negotiations. All these factors highlight the need to adopt a holistic approach to addressing trade capacity building constraints. This requires mainstreaming trade in development and the integration of trade capacity building into capacity building for development planning and management.

Capacity Building for Long Term Strategic Planning in Africa

The previous sections provide succinct analyses of the complexities involved in defining and measuring capacity building, and the attempts that were made to operationalize it. It is perti-

nent to take these precepts deeper into the arena of long term development and strategic planning for which the sustainable development agenda called. Strategic planning means giving direction and approach to the management of development activities in such a way as to achieve a desirable set of goals and objectives. It consists of interrelated steps of conducting policy analyses of the past and current situation including factors of the external environment. Such analyses should then be used to establish achievable goals and objectives, and to subsequently identify alternative pathways and policy scenarios for their attainment. Finally, relevant action plans and programs for development should be formulated.

Capacity building for long-term strategic planning in Africa emerged in the aftermath of the economic crises in the 1980s. Studies conducted during that decade pinpointed the failure of national development planning systems in Africa to guide the development activities and provide for the needs of people. The crises situation in Africa prompted the UNDP to conduct its well-known study on “Reclaiming the Futures” and the World Bank to undertake a study titled “Sub-Saharan Africa: From Crisis to Sustainable Development – A Long-term Perspective Study”. The main outcome of these two studies is that national development planning is not enough for addressing exiting imbalances and inequities in Africa. Countries have to take into consideration internal and external changes as they inevitably branch and multiply over the social, economic, environmental and political landscapes. These views gained major political support at the Maastricht conference in 1990.

African Leaders’ Initiatives

Capacity building is almost a constant question in the African Leaders summits and conferences organized under the auspices of the Organization of the African Unity and lately under the African Union. On capacity building for strategic planning, the African Leaders called for the adoption of long-term strategic planning approach. They emphasized building of national capacities for the adoption and operationalization of this approach guided by the principles of ownership and participation, long-term vision, and implementation of strategic programs and actions.

For example, dissatisfied with the outcome of externally induced development strategies, the African Leaders Summit in 1979 in Monrovia called for answering a single fundamental question: “What kind of Africa by the Year 2000?” They produced a message that says, “We must rely on our own efforts to meet the demands of the present, organize change and prepare for the future” (UNDP 1986). Two years later, this message was translated into the Lagos Plan of Action (1981), which called for self-sufficiency in food production; self-reliance in industry, transport and communications, human and natural resources, and science and technology.

Similar principles were echoed in 1990 in Maastricht where the

African Leaders and the Dutch Government organized “The Africa Conference” during which they shared a common view that “the development of Africa is a long term process which requires sustained efforts over many years. It must be an endogenous process, responsive to national needs and aspirations, carried out under national leadership and following the priorities set out in long-term development programs which should be prepared by each country.” (Global Coalition for Africa 1992)

The New Partnership for Africa's Development (NEPAD) is a third example where ownership, visions, and strategic actions have been pinpointed as of paramount importance for placing Africa on a sustainable development path. Recognizing that several attempts in the past failed for a variety of reasons, and taking cognizance of the changes of international relations and politics in the aftermath of the Cold War, the NEPAD is “envisaged as a long-term vision of an African-owned and African-led development programme” (NEPAD 2001, para 60). In fact the NEPAD has gone further in stressing the need for capacity-building at the state level as one of the preconditions for achieving sustainable development in Africa.

All these initiatives emphasized the importance of capacity building for strategic long-term planning for development management, and to address development challenges in Africa. Therefore, a plausible development approach must originate from within the continent so as to ensure **ownership, participation and sharing**. It must be **visionary** to provide a long-term horizon for planning and development activities. In fact, development is a long-term process that requires futuristic visions and concerted efforts over several decades. Finally, a plausible development approach must lead to **strategic actions and activities** for addressing short and long-term needs and challenges. These views have a conceptual linchpin, which is that development is a holistic long-term process often accompanied by capacity building and structural changes in the economies, institutions, cultures and behaviors.

Capacity Building for National Long-Term Perspective Studies

The ideas and views above-mentioned have been articulated, for the first time, in a comprehensive conceptual approach known as the National Long Term Perspectives Studies (NLTPS). The NLTPS approach called for the use of a five-phases methodology, and for the development of relevant institutional capacities for its implementation. Briefly summarized in box 2, the NLTPS is proposed to commence with issues identification (phase 1), including studies on the aspirations and desires of the people, and the relevant themes sectors and issues. Subsequently, strategic studies (phase 2) should be undertaken on the bases of the issues, themes and sectors that were identified in phase 1. The aspirations and strategic studies should then be used to construct several scenarios (phase 3) on the future of the country. Based on strategic information on the strengths, weaknesses, opportunities and threats, the scenarios should

map out alternative policy options and visions for the future of the country.

Most important, however, is the implementation of the scenarios through formulation of a national sustainable development strategy (NSDS) (phase 4) and translation of the NSDS into action plans and programs (phase 5) during a long-term time horizon of about 25 years or more. The “long-term” neither imply delay of actions and programs nor neglect of the immediate development needs. On the contrary, the programs, actions and needs should all be met at different points in time and in the context of the strategic framework of the NLTPS.

Box 2 Phases of the NLTPS

Phase 1: Issues identification

This phase covers identifications of the aspirations and desires of the people and the themes, sectors and issues relevant to the aspirations.

Phase 2: Basic studies

At this phase strategic studies on the themes, issues and sectors that were identified in Phase 1 should be conducted. These studies and the information collected must be useful for construction of multiple scenarios on the future of the country and in formulating development strategies. Also, during this phase strategic information on the strengths, weaknesses, opportunities and threats (SWOT) must be collected.

Phase 3: Scenario and visioning

This phase focuses on mapping out of alternative scenarios of the futures and a shared national vision.

Phase 4: Strategy formulation

At this phase a National Development Strategy (NDS) should be designed to realize the vision. The NDS involves identification of the core strategic issues facing the nation and the available strategic options and actions.

Phase 5: Development planning

This phase deals with preparation and implementation of action plans and programs over successive period of time towards realization of the national vision.

Source: *African Futures* (2002)

However, implementation of the NLTPS requires institutional⁴ capacity building to harness political will, participation, ownership, and the role of stakeholders and development partners throughout the five phases above described. Therefore, it is imperative that the conceptualization process be accompanied with a relevant institutional structure for capacity building and implementation. The proposed NLTPS institutional structure

⁴ The implementation of the NLTPS approach itself in Africa was supported through the establishment of a regional institutional structure - the NLTPS regional project, also known as African Futures. Supported during its first phase (1992-1997) by 15 countries, the African Development Bank, the World Bank, the UNDP and centers of excellence in Africa. Funding for the regional team during phase 2 (1997-2003) was provided by the UNDP. In 2004 the African Futures was transformed into the African Futures Institute <http://www.africanfutures.net>.

includes establishment of a small and effective high-level leadership group, a small national core team or secretariat and multidisciplinary working groups.

Since 1992 the NLTPS has been completed in 17 countries in Africa⁵, some of them through support (technical and/or financial) from the African Futures (2002) regional project. The lessons of experience from the NLTPS exercise are numerous and diversified, partly because countries differ from each other in terms of implementation of the NLTPS, time schedule adopted, past experience, institutional capacity, etc. It is pertinent to mention here that differences among countries in conducting the NLTPS exercise and the richness of the lessons of experience are both testimony to the flexibility of the methodology and of its adaptation to different policy environments.

The time frame for conducting the NLTPS was not uniform. The NLTPS pioneer countries took between 18 to 24 months to complete their studies. These were the countries, which followed the NLTPS step by step. Other countries decided to use a loop approach with a time frame of 9 to 12 months. This approach places emphasis on greater utilization of the existing studies so as to buy sometime and reduce the duration of their studies. The countries used a wide range of data/information collection and research methods to conduct their NLTPS. These included retrospective studies, sample surveys of aspirations, meetings and debates at the national level with target groups, annotated bibliography and surveys of existing research, expert group meetings, open workshops and seminars on the future of the country, consultation with community leaders, etc. Also, the national teams used various future studies methods and strategic planning tools.

No matter which research tool is being used, all the studies contributed to restoring faith among all national stakeholders in the possibility of a better future for their countries. The NLTPS exercises contributed to confidence building, participation, sharing, ownership, realization of common strengths and weaknesses, and the responsibility of acting together to shape a common future became the norm rather than the exception. Visions 2020s are now popular in many countries in the continent. Sustainable utilization and management of natural resources and the environment has come out very clearly in all the studies and future scenarios.

However, some of the NLTPS countries did not translate their scenarios and long-term visions into strategies and action programs, and some did not incorporate the outcome of their studies into national development plans. Practically, they did not implement phase 4, which deals with formulation of a national development strategy (NDS) to realize the vision. The NDS involves identification of the core strategic issues facing the nation and the available strategic options and actions. Moreover, they did not implement phase 5, which deals with prepa-

ration and implementation of the action plans and programs over successive periods of time towards realization of the national vision.

The missing linkages between long-term visions and scenarios, and national development plans and activities, above-mentioned, are clearly manifested in disjuncture of short activities and policy interventions. For, the poverty reduction strategy papers that are currently prevalent throughout Africa, are being used as planning tools for policy interventions in wide-range of spheres. Such short-term interventions would need to be introduced in context of long term planning perspective, as poverty itself is a complex long-term process. However, the configuration of long-term visions and perspectives with short-term implementation of activities requires capacity building at the human, institutional and organizational levels. For example, countries that have developed normative scenarios will need to introduce quantitative analyses to enable them to translate the long-term scenarios into related short-term strategies. Moreover, the countries would need to conduct research on capacity building needs to inform capacity development activities and interventions.

Conclusion and outlook

Capacity building is a complex term and its operationalization in context of sustainable development requires clear understanding of what it means, and of its determining factors. Therefore, capacity building assessment and research are necessary for identify capacity weaknesses and strengths, and introducing the relevant capacity interventions. Facing severe capacity limitations and constraints, African countries need to undertake systematic capacity building assessments and research to help them identify their needs. Also, they need to address paucity of data and information on capacity building. Such limitations could be addressed independently and through national sustainable development to which most of the countries are committed. Development of a conceptual framework for capacity building will greatly facilitate the identification of indicators for its measurement and analyses. However, such activities require commitment and willingness to incorporate the research findings into policy actions for capacity development.

⁵ NLTPS completed in Benin, Cape Verde, Cote d'Ivoire, Gabon, Guinea Bissau, Madagascar, Malawi, Mali, Mauritius, Mozambique, Namibia, Sao Tome and Principe, Sierra Leone, Swaziland, Tanzania, Uganda and Zimbabwe.

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Capacity Building for Sustainable Development: The Role of UNEP

By Deborah Chappat¹

Abstract

While extremely dependent on natural resources for meeting economic and social needs, the environmental resource base of the region is shrinking rapidly: ecosystems have come under severe pressure and have been reduced to small pockets of protected areas with limited access; deforestation continues at higher rates in many areas; and water resources have become inadequate in quantity and quality. Both human and institutional capacity in African states is, on the whole, insufficient to manage the natural resource base sustainably. However, in the context of NEPAD, and with the support of UNAP, African states are in the process of building the necessary human and institutional capacity for sound environmental management.

Introduction

Sub-Saharan African countries depend more on their natural resource base for economic and social needs than any other region in the world. Two-thirds of sub-Saharan Africa's people live in rural areas and rely on agriculture and other natural resources for income (Energy Information Administration, 2006). However, the environmental resource base of the region is shrinking rapidly: ecosystems have come under severe pressure and have been reduced to small pockets of protected areas with limited access; deforestation continues at higher rates in many areas; and water resources have become inadequate in quantity and quality (African Environment Outlook, 2002).

Environmental problems in sub-Saharan Africa include air and water pollution, deforestation, loss of soil and soil fertility, and a dramatic decline in biodiversity. Although Africa's various environmental problems are increasingly severe, most countries are so crippled by poverty that few resources and inadequate human and institutional capacity are available for managing the environment. Although there are many sectors in which capacity building is required, this article will specifically focus on the need to strengthen legal and institutional frameworks, which serve as a fundamental base for sound and effective environment management.

Building capacity for the environment

Sustainable development is defined as development achieved without compromising that of future generations and for this to be realized the environment dimension cannot be over-emphasized. That said, due to their impoverished state, many developing countries lack the resources necessary to realize sustainable development. Capacity building has been identified as one of the main requirements to ensure progress towards the realization of Agenda 21 and the Millennium Development Goals (MDGs). It is UNEP's mandate to help national, regional and global bodies to develop the capacity to effectively incorporate environmental protection into development planning. It does this by supporting institutional building by governments, developing environment management tools, enhancing the diffusion of information and promoting public participation in environmental protection practices.

Capacity building is multi faceted, and many components require simultaneous attention. In the first instance, it is important to ensure that properly functioning environment institutions are in place or that the capacity of existing institutions is enhanced. Many organizations working to incorporate the environment in development planning and those that are actively involved in environmental protection lack the resources and technical expertise to do so. Assistance to develop and strengthen national environmental laws and build environmental management capacity is desperately required in many countries. The establishment of such institu-

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tions requires financial resources. One needs to ensure that the environment remains high on African governments' agenda and that funds are channeled to appropriate institutions so that environmental policies can be developed and laws enforced. Lack of adequate funding in the environment sector can be partly attributed to the low priority given to environmental concerns. On a continent where HIV/AIDS and its impact on Africa's economy, is a pertinent problem, governments view the environment as an issue of less importance (UNAIDS, 2006).

Recent policy developments

A number of policy frameworks guide the policy response to environmental capacity building, and recent global developments also influence regional and subregional frameworks. The 2006 Bali Strategic Plan (BSP) was adopted in recognition of 'the need for environment related technology support and capacity-building in developing countries (... spurring) the development of a strategic plan for the provision of technological support and capacity-building to developing countries and countries with economies in transition'. Its objectives include strengthening the capacity of developing country governments to achieve environmental goals targets and objectives, and the plan emphasizes the role of technology support as well as the participation of women in order to achieve overall capacity strengthening.

At the regional level, the May 2006 session of the African Ministerial Conference on the Environment (AMCEN) reviewed a number of relevant issues in the context of the New Partnership for African Development (NEPAD), including the African implementation of the BSP. Ministers requested UNEP to support the implementation of the BSP in the six pilot countries, as well as to facilitate the scaling up of the BSP activities beyond the pilot countries. In the decisions made by the African ministers of the environment is also included strengthening the capacity of the Regional Economic Communities (RECs) to implement subregional action plans of the environment initiative of NEPAD, and the continuation of support in the form of financial and technical resources in order to build capacity to implement the actions listed in the outcome document of the meeting.

Building human capacity for environmental leadership

An important component of capacity building is the provision of a skilled human resource base. This workforce should be able to continuously analyze and update environmental policies, ensure that existing laws are enforced, and implement national environmental management from grass roots to policy level. This potentially involves the provision of necessary tools to deliver effective environment protection and encourage sound environmental practices, but also the training of legal experts on environmental law development and enforcement, and raising awareness among parliamentarians of their important role

in environmental legislation formulation and education of civil society. Parliamentarians and other leaders can play an important role in sensitizing the public to potential environmentally destructive practices, as well as in providing more environmentally sound alternatives to such practices.

An example of human capacity building is the training that UNEP has provided for environmental lawyers working for the Nigerian government. Lawyers taken from state justice ministries, universities and NGOs were trained to participate effectively in the development and implementation of environment law and policy instruments. In addition symposia were organized in which judges from South Africa, Kenya, Uganda, Tanzania, Mozambique, Sao Tome and Principe, Burkina Faso and Mauritania were invited to exchange experience and review the role of courts in environmental law. In addition UNEP, UNESCO and the German Ministry of the Environment have established a post-graduate course on Environmental Management for Developing Countries in Dresden University of Technology in Germany to increase the human resource capacity in developing countries on environmental management for sustainable development.

Strengthening legal frameworks

Environmental law is an essential tool for the governance and management of the environment and natural resources. It is the foundation of national and regional policies and actions, such as those outlined above, to ensure that the use of natural resources is done equitably and sustainably. However, despite recent improvements, African legal frameworks for environmental management are still on the whole outdated, fragmented and inadequate, within countries and not least between countries and subregions (UNECA 2005).

As a result of the identified shortcomings, Africa has been the main beneficiary of UNEP capacity building in environmental law. The best example of this is UNEP/UNDP/DUTCH Joint Project in which the Royal Netherlands Government donated \$5 million to UNEP and UNDP, aimed at developing environmental law and institutions in seven African countries. UNEP has conducted several needs assessments and many sub-Saharan countries have benefited from support in drafting, updating and revising national environment legislation (i.e. Tanzania, Uganda, Zambia, Zimbabwe, Ethiopia, Chad etc). As a result several countries have established specialized and independent bodies responsible for managing the environment, and in some cases developed national framework laws to harmonize and cross reference previously disparate legislation and by-laws (UNEP, 2002).

Reducing pressure on limited capacities: Streamlining reporting

While African countries report a real lack of human and institutional capacity to develop and implement sound environmental management policies and therefore capacity needs to

be increased, some of the identified capacity gaps might be reduced by decreasing demands on limited existing capacity. For example, Multilateral Environmental Agreements (MEAs) have proven to increase demand on signatory governments in developing countries. Over the years, many sub-Saharan countries have become signatories to MEAs such as the Convention on International Trade in Endangered Species (CITES), Convention on Biological Diversity (CBD), Convention on Migratory Species (CMS) etc. As a result, governments are requested to periodically submit national reports and other information to convention secretariats. As most countries are party to a wide range of international agreements, it will be required to submit a significant amount of information. This is quite a burden, particularly if the various reporting processes are not well coordinated at the national level and that existing resources to undertake such work are limited.

The UNEP World Conservation Monitoring Centre (WCMC) undertook a pilot case study in Ghana to strengthen national information management and reporting capacity through projects that aim at streamlining national reporting under the various biodiversity related MEAs. Based upon the results of this pilot project and others conducted globally, it is hoped that a consolidated reporting format for the global biodiversity related conventions and a set of guidelines on the establishment of a coordinated national reporting mechanism will be developed.

Conclusion

According to UNEP's former Executive Director:

'As the international community prepares to face the challenges of sustainable development in a globalised world, with political will reinvigorated by the World Summit on Sustainable Development, UNEP capacity building work will be essential if we are to successfully attain the goals of a peaceful, prosperous and secure future for human kind.' (UNEP, Capacity Building for Sustainable Development, 2002 (6)).

Often tools need to be developed and institutions built to achieve sustainable development. Capacity building is therefore key to achieve progress in combating poverty through environmentally friendly means. However, this should be complemented by the required expertise and an established and functioning legal framework and reporting system.

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Libraries: Information Services for Sustainable Development

By Matthew Baker¹

Abstract

Libraries are essential elements in developing local capacity by providing services in disseminating and providing access to information. Working with communities, libraries can customize information services and act as community access points to information materials and ICTs, and therefore enable communities to develop long-lasting solutions that suit local needs using global and indigenous knowledge.

Introduction

Libraries serve as information and knowledge repositories, providing access to books, journals, online resources and all other forms of recorded information to provide such information to those who need it, when they need it, and in a form which they can use. Librarians are also service providers who work with the content provided within the books, journals and other information resources to ensure that it is available and understandable to its user base. In this way, libraries can be seen as both a physical place and a service that provides access to information to the population they serve.

This article discusses the role that libraries can play in promoting capacity building for sustainable development for local populations, by customizing and providing access to much needed information resources. For the purposes of this article, libraries are defined as both a collection of professionally organized information resources, as well as the services of information dissemination and access as provided by information professionals (librarians, archivists, document and resource managers, etc.). Libraries therefore encompass collections of documents and other resources, including indigenous and local knowledge, and provide access to, and interpret an information resource collection for users in ways they can understand. Ensuring access to reliable information resources is necessary to provide policy and decision makers, researchers and local populations with a solid knowledge base when making decisions that impact on their own interests and the interests of their community.

Sustainable development addresses numerous complementary issues, including capacity building, environmental preservation, household production and services, technology and biotechnology, utilities, employment, health, migration, gender, youth, trade, sanitation, etc. The World Commission on Environment and Development (1987) defines sustainable development as a process that meets the needs of the present without compromising the ability of future generations to meet their own needs. The Johannesburg Declaration on Sustainable Development further outlines the “*interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection*” (World Summit on Sustainable Development 2002).

This article also seeks to highlight the role that libraries can play in sustainable development, by exploring the concept of information in development and the role set aside for libraries in the documents of the World Summit on the Information Society (WSIS), which sought to put the potential of the Information Society at the service of development.

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Libraries in sustainable development

Libraries play a fundamental role in a well-functioning society, and, when tied to global development priorities, can promote sustainable, local development solutions. Libraries serve as content and knowledge repositories through collecting and providing access to books, journals, and all other forms of recorded information. By providing access to, and packaging information, libraries can ensure that the right information is available at the right place and time, and in a form that users can understand.

As the Agenda 21 affirms, *“the need for information arises at all levels, from that of senior decision makers at the national and international levels to the grass-roots and individual levels”* (Agenda 21: 40.1). Libraries work at the international, regional, national and local levels, to support researchers, policy- and decision-makers, as well as grassroots participation in development. Whether through the more traditional paper-based library, up-to-date Internet and other ICT resources, or through a combination of both in the form of “hybrid libraries”, society needs to be able to access information to allow it to develop.

Libraries help to promote sustainable development through their essential roles as information managers, providing customized information services and access to information to users. *“Access to information”*, the WSIS documents state, is a major factor in *“determining development and competitiveness”* (Geneva Declaration of Principles: B4 34). Librarians provide access to information in whatever format it exists, through selecting, organizing, storing and disseminating information to users. By providing access to the right information at the right time, librarians can support the work of researchers, policy- and decision-makers, saving themselves and their organization time and money (Azubuike 2003), since *“finding the appropriate information at the required time and at the relevant scale of aggregation is a difficult task”* (Agenda 21: 40.17).

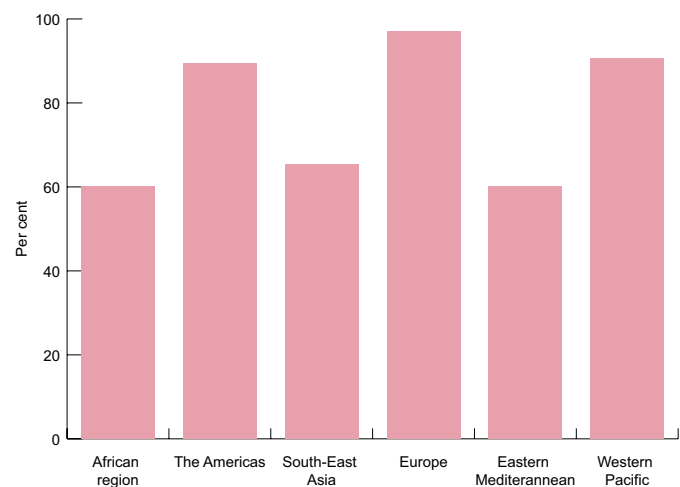
Libraries can offer specialized collections to promote economic growth in areas where such information is scarce. By providing information resources and services that address business development, for example, libraries can help small business people establish small-, medium- or micro-enterprises (SMME), which form the backbone of developing economies, creating employment and providing a fiscal base for local government who can, in turn, fund local infrastructure (Soh 2006).

By providing customized information services, libraries can enhance the social development and well-being of their communities. At the local level, librarians are members of the community they serve, and are therefore well-placed to design programmes that address the local information needs. For example, the Kano State Library in Nigeria offers customized information services to local women living under the purdah system at their homes. Under this system, many of these women are confined to their homes after marriage and are thus unable to access information at the library (Nassarawa 2004).

Librarians can also work with users to offer information literacy skills training and advice on how to search for, locate and evaluate the information they find, thus ensuring a long-term solution to information access and use. This is especially important in Africa, where numerous technical and non-technical barriers exist between users and the information resources they need to enhance the capacity to improve their lives. This is especially important when it comes to health-related issues, such as HIV-AIDS, or other important issues on which people need to be informed.

Literacy is a first step towards transforming data into a form where it can become information and knowledge. Knowledge, argues the World Bank, is needed to further transform the resources we have into the things we need (World Bank, 1999) to raise the standard of living, improve health, provide better education, and improve the environment (Mchombu, 2005).

Figure 1 Literacy rates by region



Literacy rates are low in many parts of Africa (see figure 1), posing challenges to the transfer of knowledge. In these contexts, librarians can package information so as to bypass the written word by offering alternative information resources such as videos or other multimedia materials. The Malawi National Library Service offers a good example of using non-textual services to provide valuable information to local communities. Through information centres in rural areas, the Library Service offers videos to local communities, generally free-of-charge, on issues such as agriculture, health and nutrition. Since many of these areas do not have electricity, and the Service does not have a generator, a power inverter is employed to supply the power to run the videos (Nyali 2004).

Reinforcing the role of libraries in capacity building for sustainable development

Libraries were given key roles in the documents of the recently concluded World Summit on the Information Society (WSIS) due to their potential in the development of an inclusive Information Society and the achievement of the Millennium Development Goals (MDGs). The WSIS website states "access to information and knowledge is a prerequisite to achieving the Millennium Development Goals – or MDGs -, it has the capacity to improve living standards for millions of people around the world"².

WSIS aimed to create mechanisms to dedicate the potential offered by the Information Society to the achievement of the MDGs through developing information and knowledge sharing networks, promoting the freedom of access to information, and furthering information literacy and access to knowledge and information. The recommendations from WSIS provide clear recommendations on steps libraries and other information services should take to participate in the larger global development agenda to help bridge the gap between existing Information Society initiatives and the realization of the MDGs.

To reinforce the role that libraries can play in promoting capacity building for sustainable development, as called for by WSIS, they should be given the proper support in the following areas:

- *Community access providers* - Libraries, by offering community access to print or online materials and ICT tools, can help to develop a communities knowledge base needed to promote sustainable solutions; and
- *Promotion of indigenous development solutions* - By serving as repositories of local knowledge, and by working at the local level to promote local languages and content, libraries can work to enhance solutions that address local needs.

Community access providers

Libraries are public institutions that offer access to information free-of-charge and without prejudice. They can therefore provide a public space where any member of the community can access hardcopy or online materials, or access ICT tools.

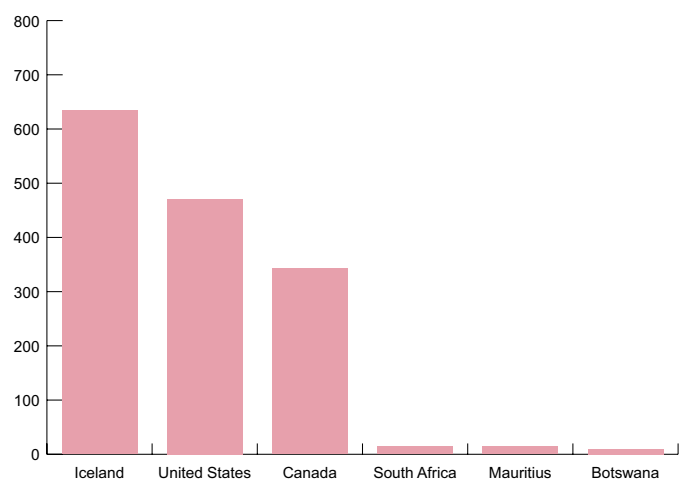
Libraries can no longer be associated uniquely with a physical place. Modern library collections can be found both onsite and online, while librarians serve users both at their library and in remote locations outside of their communities. By integrating ICT resources into their core services, libraries can supplement their traditional paper-based collections by providing access to online information developed locally or in other parts of the world. Additionally, through partnering arrangements to create a strong network of libraries and other information centres, com-

prising inter-library loan agreements or digital and virtual library networks, collections can be shared and accessed by numerous user communities. The benefits of such remote access to libraries are obvious for rural and marginalized communities that often lack access to information resources.

By serving as community centres, libraries provide access to online resources such as the Internet that would otherwise remain inaccessible. However, while it is tempting to look to the Internet as a source of information, this alone cannot serve as an information tool. Many developing country libraries lack a suitable budget for books, with many more lacking computer and other ICT facilities. Even where the technical infrastructure is in place to allow Internet penetration into a community, often high illiteracy rates and a lack of online content originating from Africa and in African languages means that the Internet alone very often does not reach local communities.

Technical barriers to online access include the high cost of connectivity and limited bandwidth, particularly in rural and marginalized areas (see figure 2). The *African Tertiary Institution Connectivity Survey* (2004) highlights the difficulties of Internet access in Africa by demonstrating, for example, that the average bandwidth for respondent African universities is roughly the same as residential broadband connection in North America and Europe. Additionally, African tertiary institutions pay an average of fifty times more than their US counterparts for the same quantity of bandwidth. The average annual cost of a VSAT license for African institutions is US\$13,553, compared to the EU annual average of US\$426.

Figure 2 Secure Internet servers per 1 million people in 2004



Data source: World Economic Forum

Additionally, the high cost of paid online subscription journals and databases keeps these services beyond the reach of libraries with limited financial resources. However programmes exist for libraries with reliable Internet connectivity to provide these resources free-of-charge or at a discount. For example, the Pro-

² From the WSIS website - <http://www.itu.int/wsis/basic/why.html>, accessed 6 May 2006

gramme for Enhancement of Research Information (PERI) is a programme run by the International Network for the Availability of Scientific Publications (INASP) to provide access to up-to-date research available online in international journals, databases and articles, either free-of-charge or at discounts relative to a country's GDP³. Through subscriptions to PERI and other such services, libraries can bridge what has been described as the "knowledge deficit" (Mchombu 2005) facing Africa, driven by unequal access to current information, research and data between Africa, North America and Europe.

Promotion of indigenous development solutions

Where policy-makers lack information resources, they also lack the necessary means to make positive economic and social change. As Frannie Leautier, Vice President of the World Bank Institute points out: *For communities to realize their development choices, enhancement of their own capacity to deliver and manage these solutions is a critical necessity* (Leautier 2004). The ability to access information is especially vital in rural and marginalized areas, where the need for development is often most acute but where access to information is generally limited.

Libraries can promote indigenous development solutions that address problems specific to their regions, nations or communities by providing access to international information resources as well as locally developed knowledge. Traditionally, information and knowledge transmission in Africa has largely been achieved through oral communication. In an oral society, a great deal of cultural richness and shared knowledge lies in the spoken word. Information resources in libraries should be packaged to tap into this oral tradition in such a way that it informs and educates individuals in the community, while at the same time preserving, reusing and adding to knowledge developed locally to address local conditions.

African languages, content and knowledge are very often overlooked. There are an estimated 1,000 languages spoken on the African continent (Sturges and Neill 2004), although online and print resources heavily favour non-African languages and content. Content on the Internet is primarily available in very few dominant languages – English, French, Spanish and Arabic (ECA 2005), while an estimated 80% of all print materials originating from Africa are published in English and French (Sturges and Neill 2004).

Sembajwe, Tutu and Gaye (2005) said that "*preservation of cultural diversity and cultural capital across the globe, and better use of knowledge concerning sustainable practices embedded in less dominant cultures, are desirable*". Additionally, the WSIS documents call for a more representative online environment which facilitates the presence and use of all the world's languages on the Internet (Geneva Plan of Action: B6i).

Libraries, as the "*memory of humankind*" (Geneva Plan of Action C8c), can serve as repositories for local knowledge, in whatever format it exists, and can therefore preserve cultural heritage and memory at the local and national level. Through providing access to, and acting as repositories of indigenous knowledge, libraries can strengthen local communities (Tunis Agenda for the Information Society: 53) by helping them develop local solutions to their development challenges. Agenda 21 calls for the use of indigenous knowledge and approaches "*when appropriate*" to provide local communities and resource users with the information and know-how they need to manage their environment and resources sustainably (Agenda 21: 40.11). Additionally, being members of the community, librarians can provide services to users in local languages that are often not represented in the established literature.

Libraries are increasingly placing their collections online to increase access to a wider audience, in line with the WSIS recommendations - *we seek to digitize our historical data and cultural heritage for the benefit of future generations*" (Tunis Agenda for the Information Society: 93). By developing online collections which include local and regional knowledge, libraries disseminate local knowledge to communities living in remote, rural and marginalized areas to help develop local solutions to address poverty reduction efforts and other development goals. This is especially important in Africa, where estimates of 70% of poor Africans live in rural areas (Kagwanja and Dione 2005).

The WSIS process placed great emphasis on the development and inclusion of indigenous knowledge and content, especially in the online environment, stating: "*The Information Society should be founded on and stimulate respect for cultural identity, cultural and linguistic diversity, traditions and religions, and foster dialogue among cultures and civilizations*" (Geneva Declaration of Principles: 52). Additionally, "*the Information Society should harness and preserve cultural heritage for the future by all appropriate methods, including digitisation*" (Geneva Declaration of Principles: 54).

Conclusion

While the benefits of library services in advancing access to needed information to help promote sustainable development are described above, low ICT connectivity rates and often weak library networks often hamper efforts at developing strong library systems that can take on their full role of information and content providers. Strengthening the functionality of libraries at the local and national level – through better Internet connectivity and audiovisual programmes, for example - is imperative if they are to play their full roll in building capacity for sustainable development. Where they do not exist, national library associations should be established to coordinate library activities within their respective countries.

Azubuikwe (2003) highlighted several impediments facing African libraries today, including: inadequate funding and resources;

³ From the PERI website - <http://www.inasp.info/peri/electronic.shtml> (accessed 6 May 2006)

lack of current information resources; inadequate application of information technology or the Internet; poor library habits resulting from years of bad customer service; lack of resources for library training and development; little physical development; and, little or no professional activism.

While libraries, as content managers and providers can play an essential and irreplaceable role in ensuring that research, policy and decision makers and local populations can access the information they need to create local solutions to the difficulties they face, they are not always given necessary policy and resource support to help them to support their communities.

For libraries to serve their immediate user community, they need to work across borders to harmonize approaches to issues of common concern, and foster information and knowledge sharing at the national and international level. International cooperation can take the form of assistance on the part of developed countries and international organizations to develop the capacity of developing countries to “receive, store and retrieve, contribute, disseminate, use and provide appropriate public access to relevant environmental and developmental information” (Agenda 21: 40.29).

Through international library organizations such as the International Federation of Library Associations and Institutions (IFLA), libraries can develop coordinated policies and actions to address common concerns and share best practices on a global scale to help promote sustainable development at the local level.

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World Summit on the Information Society:
- Geneva Declaration of Principles
- Geneva Plan of Action
- Tunis Agenda for the Information Society

Critical Capacity Requirements in Africa for Mainstreaming Environmental Considerations in Energy Planning and Development

By Jacques Moulot¹

Abstract

Options for energy production and consumption have a direct impact on the world ecosystem, forestry and water resources, air quality, atmospheric chemistry, climate change, and human health. Currently, energy planners and decision-makers have a larger than ever array of choices of technologies and development paradigms to produce and use the energy required to thrust the development of their countries. This article charts key linkages between energy and aspects of environmental sustainability, before it identifies institutional capacity gaps and suggests ways to close these gaps. The article advocates the need to build and strengthen critical capacities in African national institutional frameworks in order to mainstream environmental constraints in the planning, decision-making and implementation processes of energy projects.

Introduction

More than ever, energy production and consumption patterns are at the center of global concerns, because of their influence on the pace and possible trajectory of development. The international community formally expressed these concerns in Rio de Janeiro, Brazil, in 1992 during the United Nations Conference on Environment and Development (UNCED), also referred to as the Earth Summit, or simply Rio Summit, and agreed, for the first time, that the prevailing patterns of energy consumption and production were affecting the sustainability of the world environment (water, forest, land, air/atmosphere and human livelihood, etc.). Principles spelled out during this important conference, engaged the collective, but differentiated responsibilities of the world community to address the nexus issues of energy and the environment, with emphasis on climate, air pollution and desertification. They were further specified in the UN Framework Convention on Climate Change (UNFCCC), the UN Convention to Combat Desertification (UNCCD), and the outcomes of the ninth Commission on Sustainable Development (CSD-9).

The severe economic, strategic and environmental implications of the way energy is produced and consumed propelled energy issues on top of the political and development agenda worldwide. New notions, such as “clean development”, emerged in the international debate on energy, as standards, with constraints and opportunities for developing the energy sector. One of such notion is the concept of *sustainable energy*. Even though there are some differences in the understanding of this concept, for most stakeholders, sustainable energy implies either renewable energy sources or/and the use of technologies that ensure a minimum or no damage to the environment.

Furthermore, development models have been changing rapidly to take into account new political realities and development constraints, such as globalization, fairer international trade especially on strategic commodities such as oil and gas, and other obligations related to international agreements on sustainable development. Consequently, the energy development debate converged to the following main themes: energy accessibility; energy security; and the cluster of issues linking energy to the environmental concerns, grouped under the themes of energy efficiency, renewable energy, and advanced energy technologies. All these themes are interrelated; however, the choices of an option or mix of options, have far reaching implications on the trajectory of development in a country, and cannot be taken lightly.

Consequently, decision-making related to developing the energy sector has become far more complex today than it was a few years ago. African policy-makers and planners need to comprehend the new issues better, evaluate them efficiently in order to harness energy to achieve poverty reduction and development, while at

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the same time, respect their international commitments to preserve the environment, and reduce the country's vulnerability to diminishing energy supplies of oil and gas in an more and more endangered ecosystem.

Preliminary analyses reveal that African countries have not made the qualitative adjustments of their energy sector that the new global and national context requires. The sector is still partitioned institutionally along the line of resources or services; the electricity sub-sector continues to operate with damaging inefficiencies; modern energy services other than electricity are underdeveloped; renewable energies contribute to an insignificant share of the resource mix; the benefit of energy efficiency, from the end-use side as well as from production side, are not properly accessed; and development opportunities related to alternative technologies and international mechanisms, such as CDM², are not yet accessed. To overcome these shortcomings, much needs to be done. The 2002 Johannesburg Plan of Implementation, in art. 107-114, predicted and recommended that developing countries would need assistance in building critical capacities to address development challenges while taking into account environmental constraints.

This article attempts to elucidate the linkages between energy and key environmental issues, highlight some existing technology opportunities, and endeavor to suggest institutional capacities that will constitute the framework for mainstreaming adequate policies, planning and implementation of environmental-friendly energy related measures. The paper will not deal with aspects of human capacity development needs or tools.

Understanding the energy and environment nexus

Considerations of the linkages between energy and the various aspects of environmental sustainability were often overshadowed by economic and financial ones, and therefore are neglected by energy policy makers and planners. The external costs (financial, human et environmental) are often not properly accounted for in developing energy projects, probably because of a lack of sufficient understanding of the impact of energy production and consumption on the environment. In the following sections, we will attempt to highlights some of the key linkages between energy and environment, as well as point to some technology opportunities, that should be taken into account by policy-makers and planners.

Energy and Climate

Scientists, and most governments around the world, agree that human activities are responsible for the emission of anthropogenic gases, or so-called Green House Gas (GHG)³, that dangerously affect the climate and cause global warming. Energy production and consumption account for 63% of all GHG emis-

sions in developing (non-Annex-1⁴) countries. This makes the energy sector the main target for all efforts to combat climate change. As shown in table 1, GHG are emitted from a large range of activities in various economic sectors (power generation, agriculture, transport industries, domestic, etc.). In Africa, human activities responsible for GHG are mostly in the sectors of transport - where car engines burn considerable amount of fuel-, industries, production of electric power from thermal sources and buildings and houses, where energy is used for a variety of purposes, mainly heating, cooling, cooking, lighting etc.

Table 1 Share of GHG Emitted by Annex-1 countries, activities and sectors responsible

GHG	Emission by Annex-1 Countries, 2003	Activities responsible for emission	Economic Sectors
CO ₂	82.7%	Combustion of fossil fuels (i.e. oil and gas), deforestation, burning of wood, etc.	Transport, industries, production of electric power building, household heating, cooling, cooking, lighting etc.
CH ₄	10.0%	Rice land, and livestock, oil and Gas, coal extraction, waste	Agriculture, livestock. Energy Generation and distribution
N ₂ O	5.6%	Nitrogen based fertilizers, deforestation, and biomass burning and some industrial processes	Agriculture and industries
HFC, PFC, SF ₆	1.7%	Fabrication of foams and semiconductors; air conditioner equipments.	Industries, Buildings and home (usually not monitored in Africa reports)

Compiled from UNFCCC data (2005); Socha (2006)

According to most climate experts, the consequences of climate changes are already present. The world is already experiencing rising incidence of floods, droughts, wildfires, heat waves, coral bleaching, summer melting of sea ice & permafrost, shrinkage of mountain glaciers (eg. the Kilimanjaro mountain in Tanzania), accelerating loss of Greenland and Antarctic ice, drying out of rainforests, and category 4 & 5 cyclones. Change in climate is also shown in earlier flowering of plants, bird breeding seasons and emergence of insects, and increased frequency of coral bleaching events, particularly during El Niño episodes. Indeed, nine out of the ten warmest years on record occurred between 1995 and 2004 (with 1998, 2002, 2003 and 2004 being the warmest) (WMO, 2004, Maarten 2006).

Mitigation measures, along with disaster risk management and more robust development planning are crucial in addressing the increasing threats associated with climate change. This is particularly important in the face of mounting vulnerability to natural hazards, as reflected, for instance, in rising numbers of people affected and escalating levels of economic damage.

² Clean Development Mechanism

³ The Kyoto has identified the six main GHG: CO₂, NO₂, CH₄, HFC, PFC, SF₆.

⁴ Countries that have signed the UN Framework Convention on Climate Change, which are the main emitters of GHG

In almost all cases, climate change is just an additional factor to consider, which can be embedded in existing risk reduction strategies (Socha 2006) and energy planning strategies.

Energy and forestry

Biomass, mostly wood from trees constitutes the main energy source for close to 2.4 billion people worldwide. An estimated seventy per cent of Africans live in rural areas. They depend primarily on wood for their basic household needs such as cooking and heating. African forests are therefore threatened by the use of wood for energy, however, the largest threat is posed by a combination of other factors including agricultural expansion, commercial wood harvesting, inappropriate land and tree tenure regimes, heavy livestock grazing, and accelerated urbanization and industrialization (FAO 1997). In Africa, the consumption of forest products nearly doubled during 1970-94, and the production and consumption of firewood and charcoal rose from 250 to 502 million m³ during the same period. The rate of deforestation averaged 0.7% over the period 1990-1995. Recent projections reveal that consumption of forest products will rise by another 5% by 2010 (UNEP GEO 2000). Yet forest products, when appropriately managed, are sustainable, and forests can be rehabilitated through adequate reforestation programmes.

The recent hike in oil prices, and the increased competition to access oil and gas supplies in the world, has brought to renewed attention the need to develop agro-energy, especially biocrops to produce ethanol and bio diesel. Some experts predict that this century could see a significant shift from fossil-fuel-based to bioenergy-based economy, with agriculture and forestry as the main sources of biomass for biofuels such as fuelwood, charcoal, wood pellets, bio-ethanol, biodiesel and bio-electricity (FAO 2006). Despite the dominance of the usage of wood-energy, the wood energy sector in Africa has received little attention by policy makers and energy planners. This may be due to deficiencies in legal mandates and inadequate resources of agencies responsible for policy setting, planning and development in the sector, and also to a lack of synergy between the stakeholders, agencies and decision-making bodies in charge of the sectors of energy, forestry and agriculture.

Energy and water

The water-energy-environment nexus is complex. Large amounts of water are required to produce electricity. In Africa, water resources contribute to 18% of all electricity generation, through hydropower plants (IEA 2004). Hydropower often requires the construction of dams, and these have both positive and negative impacts on populations and the environment. According to the World Commission on Dams (WCD), on the whole the ecosystem impacts have been more negative than positive. Dam developments have led, in many cases, to significant and irreversible loss of species and ecosystems as well as disruption of human settlements. However, the WCD also

acknowledges that dams have made important and significant contributions to human development and non-electricity benefits were derived from the increase in water accessibility, agricultural irrigation, and the development of tourism and water leisure activities.

Energy is required to pump water for agricultural irrigation. Large plantations could not be sustained without pumping and forced distribution of water. Also safe water cannot be provided to urban homes and industries without energy for pumping the water through the system. Finally energy is required during the process of purification of the water, allowing the treatment and reusing non-potable water, and turning saline water potable. African Ministers acknowledged this intimate linkage between energy and water during the conference of African Ministers on hydropower held in Johannesburg in March 2006, where energy ministers met with water ministers in order to find ways to boost the development of hydropower in Africa. The conference made significant recommendations for actions to accelerate the integrated development of water resources for electricity generation and other development needs.

Energy, air/atmosphere and human health

Human activities emit a large number of identified pollutants into the air/atmosphere. These include carbon dioxide (CO₂), carbon monoxide (CO), nitrogen Oxides (NO_x), nitrous oxide (N₂O), sulfur oxides (SO_x), hydrocarbons, and solid or liquid particulates matters (Socha 2006). These pollutants are present in the air/atmosphere in concentration high enough to cause serious health problems and daily discomfort. The two main sources of pollutants in urban areas are transportation (predominantly automobiles) and fuel combustion in stationary sources, including residential, commercial, and industrial heating and cooling and coal burning power plants. Motor vehicles and motorcycles produce high levels of carbon monoxides, and are a major source of hydrocarbons (HC) and nitrogen oxides emissions. In Africa, the motor vehicles fleet doubled over the past ten years. Fuel combustion in stationary sources is the dominant source of sulfur dioxide (SO₂), which is along with nitrogen oxides the main causes for acid rains.

Chlorofluorocarbons (CFC) emissions lower the average concentration of ozone in the stratosphere. They are emitted by spray cans, discarded or leaking refrigeration and air conditioning equipments and the burning of plastic foams products. Most CFCs, known also as freons, have been banned in most countries, including African countries, since the late seventies. Photochemical pollutions, also called smog, result from water condensing on smoke particles from burning of coal, heavy oil, wood, or grass in forest or savannah fire. They cause serious health damage such as eye irritation, impaired lung function, and damages to trees and crops (Socha 2006).

The form and patterns of energy consumption in households have the biggest impact on human health, especially on the

poor in urban or rural areas. Poor people in Africa are characterized by their strong reliance on solid biomass for their energy needs. The use of solid biomass, such as wood, charcoal and other solid wastes for cooking in poorly vented stoves was responsible for 1.6 million deaths and 2.7% of the global burden of diseases in 2000. Smoke has been described by WHO as “the killer in the kitchen”, mostly of women and children (WHO 2006). It has devastating effects on the respiratory system and the eyes of people regularly exposed to it. While other negative impacts of energy on the ecosystem, such as those explained in the earlier sections of this paper, have attracted reasonable attention worldwide, the “killer in the kitchen” has eluded attention of the international decision-makers and even that of African policy makers, even though the continent is the most severely affected by it. These constitute serious development issues that policy-makers need to integrate in their planning strategies.

Opportunities for sustainable energy

Renewable energy technologies

Renewable energy (RE) technologies using resources such as solar (photovoltaics, solar thermal), wind, hydroelectricity, geothermal, and biomass are proven technologies that provide a tangible opportunity for insuring sustainable energy. Africa has considerable RE resource potentials, and the related technologies can play a major role in balancing the energy supply mix, to increase generation capacities and reduce the continent’s vulnerability to uncertainties in the international oil market (CSD14 ARIM 2006). Renewable technologies are prime options for sustainable development because of their benign, avoidable or no negative impacts of the environment. On the continent, RE technologies have been used in various schemes for decades, but overall in unsustainable pilot-type schemes, which did not ensure their real penetration. The contribution of RE to the African energy supply is mainly that of large hydroelectric dams; however, other large-scale RE electricity plants have been built recently (i.e. 120 MW geothermal in Kenya, 140 MW wind farm in Egypt, 200 MW of wind to be built in Morocco, etc.). In 2003, ten eastern and southern African countries agreed on a “challenging yet achievable target” to develop 1,000 MW of geothermal power across East Africa (Science in Africa, 2003).

Clean energy technologies for households

In the households, clean energy technologies should ensure a transition from polluting fuels to cleaner fuels; for instance switching from traditional wood-fuelled cooking stoves to efficient charcoal cook stoves or to stoves using LPG⁵, kerosene, biogas, natural gas, biofuels or other modern fuels. These technologies also ensure that the heat is better retained through appropriate isolation, and provide cookware allowing higher inside pressure, which reduce cooking time. Other more advanced technologies for drying, such as solar dryers or cookers can be introduced where possible. Some simple designs of

efficient stoves and solar water heaters, based on local materials, have shown reasonably good performances. Policies should aim at promoting a transition to cleaner household fuels and technologies.

Energy efficiency technologies

Promoting energy efficiency technologies such as newer generations of decentralized air conditioning systems, to replace centralized air conditioners in buildings, or compact fluorescent lamps to replace incandescent lamps, or hybrid solar water heaters to replace electric water heaters, have the potential to save close to 30% of the current Africa’s electricity use in buildings alone (UNDP/GEF, 2000). In the transport sector, the use of new injection systems engines, and the introduction of hybrid electric/Gas car engines have demonstrated that very important savings in energy and money can be achieved.

In the power production sector, new technologies spell gas turbine/steam turbine cycle in regions where natural gas is available, or coal integrated gasifier/combined cycles or fuel cells and Combine Heat and Power technologies. Power conversion efficiencies are drastically increasing, reducing pollution and GHG emission, and generating savings by more than 50% over older technologies (UNDP 1997). There are however numerous barriers to a significant development of renewable and clean energy that need to be addressed by policy-makers and energy planners. These include lack of details data needed for fine technical feasibility studies; lack of familiarity and access to state-of-the art technologies; high capital cost of equipments and projects; and related policy and regulatory barriers.

Building and strengthening institutional capacities for mainstreaming sustainable energy considerations into development and planning

The considerations related to the energy-environment nexus should not be seen as barriers, but rather opportunities to attain better and more prosperous societies. Measures to promote the dissemination on a large scale of cleaner and more efficient technologies and resources, improve energy efficiency in buildings, transport and industries, are win-win initiatives that need to be disseminated in all sectors where energy is consumed and produced. However, they are still many institution-related weaknesses that need to be addressed in order for countries to establish frameworks conducive to the mainstreaming of environmentally conscious planning and development measures in the energy sector. These weaknesses relate mostly to the policy, regulatory, legal, planning, and financial sectors.

Arguably, the most pragmatic approach to accelerate the process of sound practices, would be, based on an analysis of each country context, to identify how, its existing institutions are fully adequate to mainstream measures for planning, monitoring, regulating and implementing sustainable energy. However, such an approach is certainly tedious. Conversely, it can be contended that, in most African countries, the main institutions

⁵ Liquefied Petroleum Gas

already exist (or can be established), and are at various level of operationalisation, and should constitute a good starting framework that, when properly strengthened, would help meet the objectives of sustainable energy development. These institutions include:

- Electricity sector regulators;
- CDM governance institutions (eg. Designated National Authorities, DNA);
- National Councils for Sustainable Development (NCSD);
- National Cleaner Production Centers (NCPC); and
- Traditional Governmental bodies (Rural Development Agencies, EIA agencies, EE Bureaus, etc.), ministries, and legislative bodies.

In the following, we shall describe the role that these institutions can play, and how they can be strengthened in order for them to serve more effectively the development and implementation of sustainable energy. It should be emphasized that it not suggested that these are the sole institutions at national levels, which can effectively promote and mainstream sustainable development.

Ensuring effective regulatory bodies

The mainstreaming of sustainable energy measures in the development of the sector can be ensured through effective regulatory bodies, given their traditional functions of controlling/monitoring, coordination, negotiation and arbitration amongst various stakeholders. Regrettably, according to a recent ECA/UNEP study on Power Sector reforms, regulatory bodies in Africa have not contributed to ensure environmentally friendly power generating options because they lack capacity and proper mandates, and also the frameworks in which they operate, in most of sub-Saharan African countries, provide no incentives for sustainable energy generation options, such as small-hydro, wind, bagasse-based cogeneration and geothermal (ECA/UNEP 2006).

Hence, it is important to provide more independence to, and build capacities in the regulatory bodies for them to assume their functions in ensuring that sustainable energy options are always supported in the power sector, but perhaps also widen the scope of their mandate to other major energy consuming sectors such as transport, buildings, industries, as well as technology research. Providing guidelines and incentives for more power generation from RE, setting regulatory measures in favor of clean energy access for the urban poor and the rural populations, ensuring that the concerns of the consumers are well accounted for, should be at the core of the principle for good energy sector regulation.

Regulatory bodies may also benefit from specific measures that may strengthen their role. These include *inter alia*:

- Adoption of environmental standards and norms for energy production and consumer technologies that are environ-

mental-friendly, particularly in transport and industrial sector;

- Adoption of regulations/codes for EE performance in new or refurbished parts of buildings and for imports of used cars and urban transport management;
- Elaboration of norms/labelling and minimum performance criteria for RE equipments and systems; and
- Harmonization of existing, or establishment of new regulations, for urban waste collection and managements that may include digesters for biogas.

Establishing and operationalizing a Designated National Authority for CDM

The UNFCCC Kyoto protocol that entered into force in 2005, upon the ratification by Russia, has established three flexible mechanisms to assist developing countries meet their GHG emission reduction targets: Joint Implementation; Emission Trading; and Clean Development Mechanism (CDM). Of these mechanisms, the CDM is the only one that requires the involvement of a developing country together with an annex-1 (developed) country. In the CDM mechanism, a developed country seeks to collect Carbon Emission Reduction (CER) certificates by investing in a clean energy or a carbon sequestration project hosted by a developing country. When the project is approved by the National Designated Authority (DNA), the calculation methodologies used and projections for savings must be approved by an expert independent entity, a so-called Designated Operational Entity (DOE). Following implementation of the project, the DOE certifies the quantity of avoided GHG emissions, and the CDM executive board (EB) issues effective CER credits to the project developers.

CDM presents a unique opportunity for developing countries to attract foreign investments to fund clean energy projects. The only requirements are that the host country (African) has ratified the Kyoto protocol, and has established a DNA for CDM. The DNA is the recognized national institution in the CDM process that approves projects to be considered as CDM project in the country, and therefore the DNA is a mandatory institution for a country that wants to participate in the CDM. Most Africa countries have yet to ratify the Kyoto Protocol and establish their DNA. CDM provides opportunities, not only to increase African countries capacity to mainstream SD measures, but also can contribute to boost the development of their energy sector. Under CDM, environment related projects such as landfill biogas, RE systems and plants, and energy saving transport mode switching, can be implemented. Therefore countries need to establish and reinforce capacities in their DNA, encourage national DOE, and most importantly, ensure a reassuring investment climate to fully benefit from CDM.

Establishing and strengthening National Councils for Sustainable Development

UNCED invited governments to establish national coordinating institutions for sustainable development or similar entities, oth-

erwise known as National Councils for Sustainable Development (NCSD). Most African countries have established NCSDs or similar entities (ECA 2005). However, these institutions fall short of fulfilling the role of a NCSD, and a lot remains to be done to strengthen them, particularly with regard to eliminating the environmental bias and addressing the three dimensions of sustainable development in a holistic and integrated manner. With the reinvigoration of the political will on the part of governments and development partners to commit to sustainable development issues, and the emphasis placed on regional implementation and the integration of the three dimensions of sustainable development at WSSD, it is foreseen that even more countries will establish institutions and processes that adequately respond to the requirements of sustainable development (ECA 2005).

Having well functioning NCSDs is very important for a coordinated design and implementation of sound environmentally conscious energy projects, and for moving sustainable energy issues higher in the development agenda. NSCD can also ensure that social issues are well reflected in the design of SD energy projects, and should promote a larger participation of all concerned stakeholders at the policy, design and monitoring stages of all SD activities. Furthermore, non-electricity measures related to projects such as land fill biogas or forestry, escape the control of electricity regulatory bodies, since they require the intervention of several development sectors that can be best coordinated through the NCSD. Therefore establishing and ensuring the operationalisation of NCSDs would undoubtedly increase countries' ability to mainstream SD measures in planning.

Promoting National Centers for Cleaner Production (NCCP)

The cleaner production and consumption concept seeks to bring together activities for continuous production and consumption for development and the obligation to reduce waste and pollution resulting from those activities. This concept was highlighted in Agenda 21, and further clarified in WSSD, notably in the JPOI-16.a where a call was made for action to establish and support cleaner production programmes and centers. Since the late eighties, several countries have participated in international programmes on Cleaner Production with the objective of applying integrated preventive environmental strategy to increase overall production efficiency and reduce risks to humans and the environment. Consequently, National Cleaner Production Centers (NCPC) have been established in several African countries with support mainly from UNEP and UNIDO (UNEP, UNDESA).

These centers aim to play a potential pivotal role in building capacity through training programmes/workshops, implement demonstration projects, and disseminate information on cleaner production, as well as have targeted policy level interventions. However, still too few countries have installed a NCPC, and they have yet to fully play the role they were set to perform, because of conflicting mandates with other institu-

tions at national levels, and their lack of capacities. Establishing NCPCs, where lacking, then strengthening their capacities, making them more autonomous and clarifying their role, would help NCPCs efficient frameworks to mainstream and hasten the implementation of SD measures.

Strengthening other traditional governmental ministries and agencies, legislative bodies, and financial institutions

Beside the above-mentioned few selected key institutions, traditional national governmental or legislative agencies and bodies will continue to play the technical, political and legislative roles of advocating, making laws and pushing forth the development of sound policies and setting up an overall framework conducive to the optimal functioning of all stakeholders. It is important that government officials, parliamentarians and decision-makers remain informed of technical advancements and have access to efficient tools contributing to improve their capacities to make the adequate choices for the development of clean energy, at all levels and in all sectors. Holding governmental seminars and setting up parliamentary technical groups are more and more common practices to be encouraged.

Financial institutions play an important role in mainstreaming SD measures. Because these institutions are overwhelmingly of private nature and profit-led, they are not bound by the commitments made by governments for social equity and environment. They often perceive the risks related to investments in RE and other clean energy technologies, as excessive if not unknown. It is therefore important that efforts be increased to strengthen the capacities in these institutions through programme such as the African development bank Finesse, and the establishment of special windows for SE projects.

While development planning processes vary from country to country, plans generally emanate from governmental technical bodies, such as ministries, and are guided by national and international priorities. Because of the prevailing poverty level and high external debts of most sub-Saharan African countries, the need to access external financial support as well as the constraints for reducing severe poverty, have led countries to design their development planning and strategies in the framework of the national Poverty Reduction Strategic Papers (PRSP) and the National Strategy for Sustainable Development (NSSD) document. The process of developing these documents provides opportunities for mainstreaming SD and poverty reduction considerations in short to long-term development planning. We shall briefly discuss these opportunities.

- Building on the process of developing national Poverty Reduction Strategy Papers (PRSP), and achieving the MDGs

The 1995 UN Social Summit outcomes included acknowledgment that existing structural adjustment programmes failed to efficiently deal with issues of social equality and increasing debt of the developing countries. Subsequently, the Interna-

tional Monetary Fund (IMF), later followed by the World Bank, have promoted the development of national level 'Poverty Reduction Strategies' (PRS) within the context of the initiative for Heavily Indebted Poor Countries (HIPC). The PRS document is supposed to be a comprehensive, result-oriented, nationally owned and designed plan, involving comprehensive civil society participation.

Some analysts of the first generation of PRS argue that, while the PRS initiatives presented some positive innovation for development planning, they have failed to meet expectations for concrete poverty reduction, especially at the microeconomic level. Some key sectors, including the energy sector, were not appropriately reflected in the PRS. Since many countries are now engaged in the process of drafting their second (and even third) generation PRS, concerns are increasingly raised that these strategies adequately reflect the needs of the poor, by linking the programmes to the specific targets of the MDGs, and also including basic development requirements such as access to modern energy. Therefore the process of developing the next generation PRS provides an opportunity for mainstreaming some key sustainable energy development concerns and objectives in development plans.

- Development of National Strategies for Sustainable Development

At the 1992 UNCED governments committed to developing National Strategies for Sustainable Development (NSSD). An NSSD should be seen as a set of coordinated mechanisms and processes to help society work towards sustainable development, not as "master plans" which will get out of date (IIED, UNDP, DFID 2002). The strategy should therefore be flexible and adaptive to changing challenges at national or international levels. Also, NSSDs should not be environmental acts or action plans but should integrate equally social and economic constraints, and therefore go beyond simple advocacy documents to be as practical as possible. In Agenda 21, it is stated "the strategy should build upon and harmonize the various sectoral, economic, social and environmental policies and plans that are operative in the country".

The process of developing NSSD should entail information updating, capacity building of various stakeholders, and holistic approach to SD planning. It therefore offers an excellent opportunity to reach decisions and set up implementation strategies that involve more actors, and take into account the key issues of poverty, growth and environment protection. NSSD are thus an ideal channel to mainstream the clean energy concept, build awareness and capacities, foster national ownership of benefits, and gather wide intersectoral commitments. Many countries have yet to develop a comprehensive NSSD, and should be encouraged to do so.

Conclusions

The energy-environment nexus is complex, as it involves a wide range of sectors with often conflicting interests. It poses the dilemma between satisfying the increasing thirst of society for energy and coping with the negative impact of its production and consumption on the environment. However research and development are providing more and more opportunities to conciliate the extremes and decouple economic growth with increased environmental damage. A persistent challenge is how to implement and mainstream policies, regulatory, legal and planning measures to adequately ensure sustainable energy, in changing global and national contexts. We suggested in this paper, that establishing new or strengthening the capacities of key institutions (existing or to be created) such as regulatory agencies, NCSD, DNA, NCPC and traditional governmental ministries and agencies as well as legislative bodies to better perform their functions, and building on processes such as NSSD and PRSP that takes into account the objectives of the MDG, should be the most cost-effective way to mainstream environmental considerations into energy planning and development.

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Improving Regulators' Capacities and Skills for Effective Electricity Regulation in Africa

By Pancrace Niyimbona¹

Abstract

Access to electricity is an important factor in attaining economic as well as social and environmental development, however, the electrification of Africa is a slow process. Electricity regulatory agencies, mainly established in Africa from the second half of the 1990s, aim to improve access to electricity by improving institutional, legal and regulatory frameworks, ensuring cost-reflective pricing and adequate maintenance and expansion of the infrastructure. However, human and institutional capacity gaps hamper the effective functioning of these agencies, and these gaps need to be addressed in order to ensure a competitive, efficient African power sector.

Introduction

Lack of capacity at the regulatory as well as other levels has been a barrier to expanding electricity access in African countries. The establishment of electricity regulation in African countries from the second half of the 1990s tried to address some of these capacity gaps by improving institutional, legal and regulatory frameworks for increasing access to electricity. Indeed, due to lack of cost-reflective pricing of electricity and the burden of state subsidies to under-performing publicly-managed power utilities, it was very difficult for the electricity sector to mobilize the investment capital required for power systems maintenance and expansion so as to keep pace with increasing demands for power and expand electricity service to the rural communities.

Establishment of electricity regulatory agencies also featured prominently in the 1993 World Bank Policy which explicitly called borrowing developing countries to demonstrate a strong commitment to implement a comprehensive reform programme of their power sectors through, among other things, setting up transparent regulatory processes that are clearly independent of power suppliers and that avoid government interference. As a result, there is a growing consensus that effective regulation could help improve the performance of the reforming power sector, protect consumers from possible monopoly abuse in the provision of electricity services, guard consumers and operators against political interference, and provide incentives for service providers to operate efficiently and make the needed investment.

However, to achieve these objectives and perform related regulatory functions, the newly established electricity regulatory agencies (ERAs) need to be competent (with access to technical expertise in such wide-ranging areas as law, finance, engineering and economics), independent (free from government interference and capture by service providers and interest groups), and legitimate (abiding by legal principles and providing transparency and accountability). Mustering these qualities may not be easy for regulators in most African countries which have weak or fledgling institutions, limited human and financial resources, and a history of repeated political interference in regulatory decisions.

In this regard, preliminary findings of recent assessments of socio-economic impacts of power sector reforms in Africa indicate that the regulatory agencies have done little to ensure positive outcomes of the reforms, particularly in terms of improved access to electricity for the poor. This is partly attributed to the weakness of the regulatory agencies to enforce the Electricity Act as a result of the following key factors: (i) ERAs are relatively new entities and have, therefore, not built significant capacity; and (ii) in some instances, even where capacity exists, the ability of the regulatory agency to perform its duties has been compromised by its lack of the requisite independence as a result of politically motivated appointments of members of the regulatory boards.

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This article seeks to address issues related to electricity regulation by first charting the rationale and main objectives of electricity regulation. It then reviews the functions and responsibilities of regulatory agencies. Thereafter, the paper considers how power utilities have been regulated in Africa. Finally, the paper analyses the possibility of offered to regulators for improving regulatory competence through contracting out some regulatory functions and taking advantage of regional/international capacity building initiatives and programmes for more effective regulatory process.

Rationale for regulating the electric power sector

In the past, the power sector in Africa was dominated by state-owned monopolies, which often combined operational responsibilities with policing and regulatory roles. This has led to under-performance of power utilities compounded by poor quality of service, unreliable electricity supply, insufficient service expansion, and lack of creditworthiness to attract private participation in the sector's development. To redress this situation, many African countries have embarked on restructuring and reforming their power sectors. This has involved the following actions:

- Amending electricity laws by reviewing the laws thereby establishing a sound legal basis for the power sector reforms (AFREPREN 2004);
- Authorizing entry of independent power producers (IPPs) to offset the power generation shortfall experienced by the state-owned utilities;
- Corporatization/commercialization of the state-owned utilities to enhance their financial performance; and
- Minimizing government's regulatory role by setting up an independent regulatory agency with the mandate to ensure a level playing field in the sector.

Therefore, the primary aim of electricity regulation would be to encourage efficient, low-cost and reliable provision of electricity services, while ensuring financial viability in the electricity supply industry and new investment in power systems expansion. Effective electricity regulation would help de-politicize tariff-setting, thereby creating a conducive business environment for private sector participation and investment in the power sector through more transparent and predictable decision-making.

Objectives of electricity regulation

From the above considerations, one can define the main objectives of electricity regulation as follows:

- Improving industry efficiency through setting performance standards;
- Protecting consumers against market power abuse of service providers through enforcing tariffs and quality-of-service standard;

- Building investor confidence through providing stable, consistent and predictable regulatory environment to attract investment; and
- Achieving public policy goals, such as ensuring expanded service coverage. In this context, the top priority objective for electricity regulation is to expand electricity access to the majority of the population in sub-Saharan Africa.

Therefore, the role of the newly established "independent" electricity regulatory entities (hereinafter called regulators) involves a complex balancing of the potentially conflicting interests of the major stakeholder groups, namely the government, private investors, electricity service providers and consumers. The government is subject to short-term political pressure from various constituencies. The private investors require that the regulatory agency or regulator be free from undue influence to commit to long-term investments. Electricity service providers want high return on investments and an unregulated monopoly would charge too high prices. Conversely, customers want reliable electricity supply at low prices. Therefore, the regulator should ensure that price reflects the least cost of service, given mandated quality and reliability standards.

Key regulatory functions and other governance issues

Regulatory functions²

To achieve these objectives, the electricity regulatory entity/agency should be legally empowered to perform a number of key regulatory functions and tasks. Key regulatory functions include: (i) price/tariff regulation; (ii) service quality regulation; (iii) competition (or "market" entry) regulation; and (iv) customer protection

(i) *Price regulation* consists of setting overall tariff levels and tariff structure so as to ensure delivery of services at an affordable cost while ensuring the long-term financial viability and efficiency of the sector.

(ii) *Service quality regulation* entails defining levels of service that meet customer needs and can be provided at a financially sustainable and affordable cost, and monitoring that such levels of service are actually provided.

(iii) *Competition regulation* consists of ensuring that operators compete on a leveled playing ground. In the case of natural monopolies, in which firms tend to benefit from exclusivity conditions over a defined service area, regulators would need to ensure that competition for the market is fair and open. Where such exclusivity is not granted, regulators need to ensure that new entrants have access to the market on fair terms by facilitating entry.

² This section draws significantly on World Bank (2004)

(iv) *Customer protection* entails protecting consumers from potential abuses of the entity in charge of providing services. Such a function is particularly important where service providers are in natural monopoly positions.

Regulatory functions are commonly undertaken through licensing, compliance monitoring, and monitoring of the performance of the service providers.

Besides these above regulatory functions, a number of areas that are crucial in fostering regulatory agency performance include:

- A clear and rational set of sector policy guidelines from the Government;
- A competent, balanced, independent and policy-oriented structure of the electricity regulatory agency;
- Effective utilization of technical and managerial skills to undertake the required tasks; and
- A clear and rational set of internal policies and procedures for the electricity regulatory agency to follow in its decision-making process.

The case of Electricity Regulatory Board (ERB) in Kenya illustrates how regulatory functions are linked to the Electricity Law/ Act and is described in box 1.

Box 1: Mandate and Functions of the Electricity Regulatory Board (ERB) in Kenya

The Electricity Regulatory Board (ERB) in Kenya was established in September 1998 pursuant to the Electric Power Act, 1997, as an autonomous electric power regulator. ERB is funded through a levy imposed by the Minister of Energy on electricity sales. ERB's source of funds is independent of the Exchequer, thus enhancing its independence and minimizing the possibility of regulatory capture.

ERB's mission is to regulate the electric power sector in a fair, transparent, and predictable manner consistent with government policy and sensitive to stakeholder interests.

ERB's functions provided for in the Electric Power Act, 1997 include:

- set, review and adjust transmission and distribution tariffs;
- investigate the tariff structure
- ensure there is genuine competition in the electricity sub-sector where this is expected;
- approve electric power purchase contracts and transmission and distribution service contracts;
- enforce environmental and safety regulations in the power sub-sector;
- investigate complaints made by, and mediate disputes between parties with grievances over any matter required to be regulated under the Act.

Source: www.erb.go.ke

Regulatory governance

No formula for success in electricity regulation as each country has its unique political, economic, cultural, legal and institutional environment. However, these "good performance" guiding principles are worth considering:

- Reasonably broad representation on the governance structure by stakeholders but also different relevant professional skills and backgrounds;
- Clear differentiation in the roles and responsibilities between the governance structure and the management and staff of the regulatory agency;
- Appropriate balance between "outside" and "inside" expertise on the governance structure, in particular ensuring that management is represented adequately but not allowed to dominate decision making by the governance structure;
- Avoidance of the governance structure to get into day-to-day operations and lower level decision making; and
- Well-defined and documented processes for decision making and communication of decision to stakeholders, including established policies for handling conflicts of interest, internal audits, etc.

Need for improving regulators' competence for regulatory effectiveness

Functions such as facilitating investment, negotiating terms of awarding licenses and concessions, dispute resolution, monitoring compliance with performance standards and service quality, providing policy advice to the government, managing subsidies and setting poverty tariffs, promoting energy efficiency programmes and providing incentives for the promotion of renewables-based electricity generation, all require that regulators to be provided with improved skills and competencies. Indeed, it is generally recognized that, in order for the regulators to successfully perform the above tasks, specific expertise is required to deal with diverse and highly specialized issues. Regulatory substance (the quality, credibility and impact of regulatory decisions) can be compromised by inadequately trained and experienced regulators. Building the professional capacity of new regulators is one of the biggest challenges facing utility regulation in Africa.

There is widespread recognition of the need for capacity building and training³. Most regulators have sent staff to well-known international regulator training programmes and to emerging regional specialist training centres⁴. The World Bank has been supporting the core capacity building programme of the African regulators through the Public Private Infrastructure Advisory Facility (PPIAF). The World Bank and other international

³ This is a key priority of the African Forum for Utility Regulation (AFUR)

⁴ This the case of "The Management Programme in Infrastructure Reform & Regulation (MIR) is based at the University of Cape Town's Graduate School of Business (GSB) in South Africa" and "The joint World Bank/University of Florida's Public Utility Research Center (PURC) "International Training Program on Utility Regulation and Strategy" launched in January 1997 and being held in Gainesville (Florida), the USA,

agencies, understandably, have placed with most attention placed on regulatory governance issues. However, it is critical that core regulatory competencies are also developed in order to strengthen regulatory substance. Capacity constraints may be alleviated by, among other things: minimizing regulatory complexity; building in mechanisms for outsourcing (contracting out) some regulatory functions; and adopting a gradual approach to modifying or expanding the scope of the regulator's responsibilities as capacity is built for a more fully fledged regulatory agency.

*Contracting out regulatory functions to increase regulators' competence*⁵

Contracting out can increase regulatory competence by helping electricity regulatory agencies to respond efficiently and appropriately to variable workloads, changing market structures, and can enhance competency through the use of external expertise.

Contracting out can provide access to specialized skills only when needed: In many developing countries, especially in Africa, technical skills are extremely limited, particularly in the public administration. Contracting out may therefore help increase the competence with which regulatory functions are performed. Contracting out may also give regulators access to specialized skills only when needed thereby reducing costs. However, while contracting out may help attract technical expertise at lower cost, regulators would still need to maintain adequate in-house skills to determine regulatory requirements, supervise hired consultants and take credible decisions.

Contracting out can help leverage international experience: There is no single developing region where all regulatory skills are concentrated, and by hiring consultants that have worked on similar issues in other countries and regions, electricity regulatory agencies are able to leverage this experience at competitive prices. For example, experts specialized in financial engineering are frequently called upon to contribute to specific portions of tariff review exercises.

Contracting out can help build core in-house skills: Electricity regulatory agencies frequently use external organizations to train their managerial and technical staff because without a strong in-house team, agencies find it difficult to specify and monitor contracts, and this diminishes the potential impact that contracting out can have on an agency's competence and effectiveness in the long run. External experts are therefore required during the start-up period as well as on an ongoing basis. A good example of this approach is the in-house training provided to the staff of the Electricity Regulatory Authority (ERA) of Uganda contracted to the US-based Institute for Public-Private Partnerships (IP3).

Improving regulators' capacity within existing initiatives/programmes

There is the possibility of tapping into existing capacity building

initiatives/ programmes so as to strengthen capacities/skills of the staff of electricity regulatory agencies. However, as indicated earlier, it is estimated that training provided through such initiatives/programmes lacks continuity and is most of the time poorly targeted. Currently capacity building programme available to African Utility Regulators include:

AFUR capacity building programme: The African Forum for Utility Regulators (AFUR) was established in September 2000 as an informal arrangement to facilitate the exchange of information and lessons of experience between African regulators, and to support capacity building efforts in the region. At its Fourth meeting held in Pretoria, South Africa in November 2002, AFUR was formalized as a voluntary association of its members, with a constitution that sets out its objectives and provides for its internal functioning.

Since its second meeting held Accra, Ghana, AFUR organizes workshops on issues of particular interest for promoting effective regulation in Africa. It is worth noting that the World Bank has instrumental in the establishment of AFUR in 2000 and is providing support to the implementation of AFUR's core activities, including its core capacity building programme for regulators through the Public Private Infrastructure Advisory Facility (PPIAF). The AFUR's capacity building programme is also supported by the U.S. National Association of Regulatory Utility Commissioners (NARUC) within the Global Regulatory Network Conference (GRN).

Joint PURC/World Bank International Training Program: The World Bank and the University of Florida's Public Utility Research Center (PURC) have launched the "International Training Program on Utility Regulation and Strategy" in January 1997. This intensive two-week program is scheduled twice yearly in Gainesville (Florida), the USA, and is designed to enhance the economic, technical and policy skills required to manage sustainable regulatory systems for infrastructure sectors, including the energy sector. To date the program has trained more than 1600 utility regulators from 125 different countries since its launching in 1997, including African experts.

NARUC's Capacity Building Assistance Program: In October 2002, the U. S. Agency for International Development (USAID) and the U.S. National Association of Regulatory Utility Commissioners (NARUC) created a Global Regulatory Network (GRN) to encourage information exchange and local capacity building in the area of regulatory commissions. The new Global program allows USAID and NARUC to promote better understanding of complex regulatory issues faced by public utility regulators in Africa, the Caribbean, Latin America and Asia.

NARUC organizes technical meeting, focused workshops and roundtable discussions in Southern Africa and West Africa in coordination with regulatory associations and individual commissions. NARUC has organized and/or provided support for such activities as: (i) southern Africa Forum for Energy Regulators, Utilities & Stakeholders (June 2003 in Windhoek, Namibia);

⁵ Adapted from World Bank (2004)

(ii) Power Purchase Agreements/Contracts Workshop and Regional Coordination for West Africa (July 2004, Bamako, Mali), and (iii) Foundations Course in Utility regulation in Africa (August 2004, Cape Town). NARUC also provides assistance to individual utility regulatory commissions to improve their capacities and ensure true regulatory functions.

NARUC-sponsored Annual Global Regulatory Network Conference (GRN): Through the Global program, USAID and NARUC work with RERA (Regional Electricity Regulators Association) of Southern Africa, AFUR, and a number of other regulatory associations and regulatory bodies. The second Annual Conference was organized by NARUC in Bamako, Mali, and was co-hosted by CREE of Mali, the Regional Association of Energy Regulators (RERA) of Southern Africa, and AFUR.

The objective of the Global Regulatory Network (GRN) is to create a means and structure whereby regulators from the developing world can discuss mutual challenges and share best practices with their counterparts from the region, the US, other donors and energy sector participants. The GRN program aims at increasing capacity development of individual national utility regulators and associations of regional regulators in the energy, telecommunications and water sectors. It organizes technical meetings, focused workshops and roundtable discussions, and provides support to recently created regulatory bodies and regional association.

Management Programme in Infrastructure Reform & Regulation: The Management Programme in Infrastructure Reform & Regulation (MIR) is based at the University of Cape Town's Graduate School of Business (GSB) in South Africa and aims at enhancing understanding and building capacity to manage reform and regulation of infrastructure sectors, in support of sustainable development. MIR has thus been organizing training courses on regulatory issues in close cooperation and participation of NARUC, PPIAF, PURC, AFUR, and RERA and

MIR works in three fronts: (i) executive and professional short courses; (ii) research related to the frontiers of infrastructure reform and regulation in Africa; and (iii) professional support and policy advocacy. MIR has thus successfully conducted a dozen Executive Education short-courses in managing infrastructure reform and regulation for more than 400 senior leaders, managers and professionals from more than 20 different countries.

Concluding remarks

The thrust to establish electricity regulatory agencies came with the 1993 World Bank decision to assist those developing countries that demonstrate a firm commitment to embark on implementing a comprehensive reform programme of their power sector, including the establishment of "independent" electricity regulatory entities/agencies. However, it is generally recognized that most electricity regulatory agencies in Africa are ineffective as a result of not being able to attract the skilled staff,

particularly lawyers, economists and engineers they require to perform their regulatory functions.

The most cost-effective way of improving regulators' competencies and skills could include contracting out some regulatory functions and actively participate in the capacity building programmes that are already taking place. These include AFUR's capacity building programme supported by Public-Private Infrastructure Advisory Facility (PPIAF) of the world Bank, the joint PURC/World Bank International Training Program on utility Regulation and Strategy, the Management Programme in Infrastructure Reform and Regulation (MIR) of Graduate School of Business (GSB) at the University of Cape Town, as well as the conferences, meetings and technical workshops organized within the NARUC assistance programme and the Global Regulatory Network (GRN).

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Implications for Capacity Building of High Unemployment Rates in Southern Africa

By Gladys Mutangadura¹

Abstract

Unemployment remains the most pressing development problem for Southern African countries. This article investigates the main causes of high unemployment rates in the sub-region. Some of the leading causes identified include poor economic growth; poor absorption rate of all the new entrants on the labour market because of lack of education, skills and mismatch between education, training and labour demands; retrenchments from the mining sector; factory closures due to the removal of textile quotas in industrialized countries; poor performance of the agricultural sector due to recurrent droughts; HIV/AIDS; and lack of access to capital, land and technical capacity to start self help projects. Drawing from the presented causes of unemployment, the implications for capacity building in addressing the unemployment problem are outlined.

Introduction

Employment is the key to people's livelihood and to all three pillars of sustainable development – economic, social and environmental. It is not only the means by which people meet their socio-economic needs, but is also the means of generating economic growth and improving people's capacity to address environmental issues. Because of its importance in generating incomes, reducing poverty and spurring overall economic growth, employment creation is a crucial strategy for achieving sustainable development.

In recognition of the importance of employment to development the 1995 World Summit for Social Development 1995 adopted the Copenhagen Declaration and Plan of Action (CDPoA). The CDPoA contains ten commitments, among which is the promotion of the goal of full employment as a basic priority of economic and social policies (commitment 3). At the regional level African countries adopted the Ouagadougou Declaration on Employment and Poverty Alleviation in Africa in 2004, demonstrating their commitment to employment creation for poverty reduction. The ministerial statement issued at the close of ECA's 39th Conference of African Ministers of Finance, Planning and Economic Development Conference in May 2006, reasserted the important role of employment in poverty reduction and stressed the need to incorporate employment objectives in national development and poverty reduction policies.

Although Southern African countries have shown their commitment to employment creation by signing the declarations on employment, they are currently faced with high unemployment levels. In this context, this article investigates the main causes of high unemployment rates in selected countries in Southern Africa, and highlights the policy implications for capacity building. The article is divided into four sections. Section 2 provides an overview of unemployment in the sub-region, section 3 identifies the main causes of high unemployment rates, section 4 highlights the implications for capacity building.

Status of unemployment in the sub-region,

Availability of employment statistics is a major challenge in the sub-region and in Africa as a whole. With regard to employment records, Africa is the most under-reported region in the world, and this has posed severe constraints to policy making (UNECA 2006). Data on some key labour statistics like unemployment or informal sector employment is either lacking or outdated. Data on labour costs and productivity, which are key inputs for assessment of labour market developments and the formulation of labour policies, are scarce in most countries and at worst not available (ILO 2005). However, South Africa has much more readily available labour market information on employment. Other countries in the subregion are now building or

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rebuilding their labour market information systems. This article makes use of the limited data and findings that are available to show the status of unemployment in the sub-region and its major causes.

High unemployment rates

Southern African countries are experiencing high unemployment rates (see table 1). When compared to other African subregions, in 2003 Southern Africa had the highest unemployment rate at 31.6%, whilst Eastern Africa had 11%, Central Africa had 9.4%, Northern Africa had 10.4% and West Africa had the lowest rate of 6.7 % (ECA 2005). National unemployment rates surpass 20% in most of the countries in the sub-region (Botswana, Lesotho, South Africa, Swaziland, Mozambique (estimated to be 21% in 2000), and Angola (estimated to be 45% in 2002)). The data also show an increase in unemployment over the period 1990 to 2004 in Swaziland, Zambia, Mauritius and Namibia.

Table 1 Unemployment rates in selected countries in |Southern Africa

Country	1990	2000	2002	2004
Botswana	25	21.5	15.8	23.8*
Lesotho	27**	39	40	n.a
Mauritius	3.9	8.8	9.7	10.5
Namibia	19	33.8	34	n.a
South Africa	39	25.3	30.4	26.2
Swaziland	22	31.3	30.0	30.2
Zambia	12.4	15	n.a	13.3

*2005 figure, ** 1994 figure,

Source: IMF country reports, Government of South Africa 2006.

High youth unemployment rates

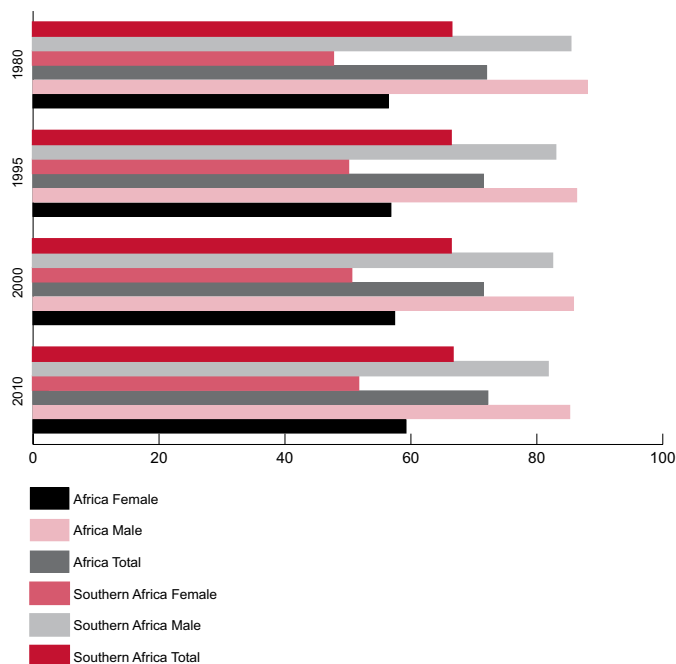
The share of youth unemployment rate is very high, accounting for more than 40% of total unemployment in most countries in the sub region (UNECA-SA 2006a). For example South Africa's September 2005 labour force survey revealed that the unemployment rate for persons aged 15-24 and 25-34 years was 51% and 32% respectively, compared to unemployment rates of 11% and 8% in the 45-54 years and 55-65 years categories respectively (Government of South Africa 2006). In Swaziland the unemployment problem is reported to be acutely worse for those aged 15-24 years, with national unemployment levels of more than 40% and in Botswana, while the total unemployment rate was estimated to be 23.8% in 2005, youth unemployment rate (age 15-24) was estimated to be 47% (ILO 2006).

Gender disparities in unemployment

Irrespective of population group, the unemployment rate among women in Southern Africa is substantially higher than the male.

Female youth are more disadvantaged, on average, experiencing relatively higher unemployment than their male counterparts. This is because female participation in the labour force in the subregion is very low, lower than the female participation rate of the African continent (see figure 1).

Figure 1. Labour force participation rates by gender for Southern Africa and Africa (%)



Source: ILO 2003

Rural-urban differences

Unemployment is widely regarded as being an urban phenomenon, and unemployment rates are indeed higher in urban areas than in rural areas (see table 2). While available data tend to register higher unemployment in urban areas as the agricultural sector absorbs a large part of the labour force in rural areas, the literature argues that unemployment in rural areas actually manifests itself mainly in the form of *underemployment* (Leibbrandt and Mlatsheni 2004, UNECA 2005).

Table 2. Unemployment rate of youth aged 15-24 by location and gender in selected countries in Southern Africa

Country	Rural		Urban		Total	
	Male	Female	Male	Female	Total	Male
Mozambique	21	35	51	73	30	51
Malawi	7	3	16	14	8	4
Zambia	11	8	54	54	26	19

Leibbrandt. and Mlatsheni 2004.

Unemployment among disadvantaged groups

Unemployment has been found to be high among some disadvantaged groups that include people with disabilities; people living with HIV/AIDS; cross border migrants; and the elderly (UNECA-SA 2006b).

The main causes of high unemployment rates in the sub-region

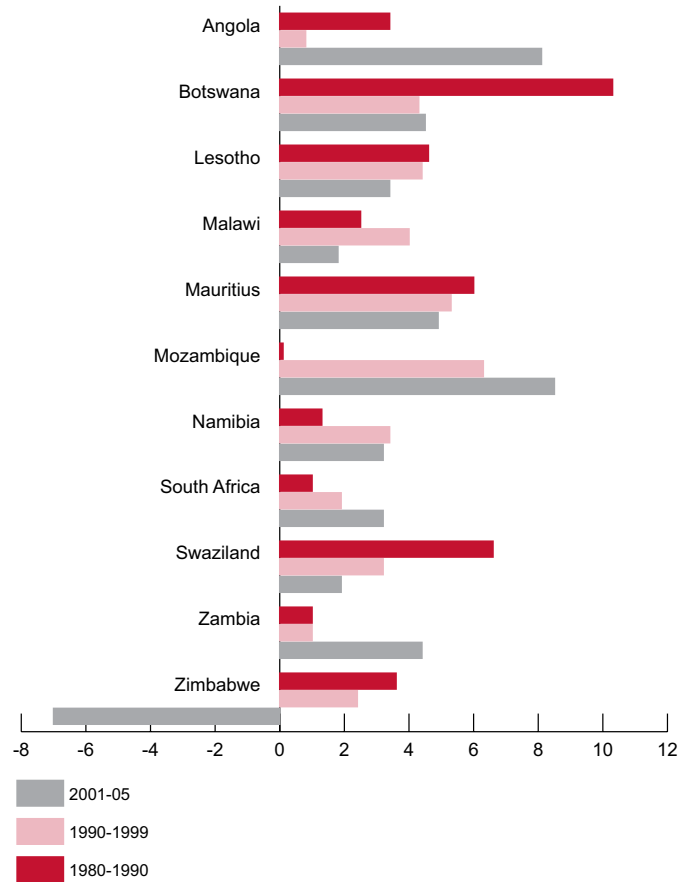
The main causes of unemployment in the sub-region can be categorised to be demand and supply related. The demand related causes include poor economic growth leading to poor employment generation in the formal sector; retrenchments from the mining sector; factory closures due to the removal of textile quotas in industrialized countries; poor performance of the agricultural sector due to recurrent droughts; unemployment due to historical structural reasons and lack of access to capital, land and technical capacity to start self help projects.

On the supply side the main causes are high population growth; low levels of education and lack of appropriate training; mismatch between education, training and labour demands; rural urban migration; and HIV/AIDS. In the following, each of these factors will be investigated in further detail.

Demand side causes

Slow economic growth rates and declining formal wage employment growth: Rapid economic growth is viewed as a necessary vehicle through which employment can be generated. Studies have revealed that a decrease in economic growth is associated with a decrease in employment (Leibbrandt and Mlatsheni 2004, UNECA 2005). Trends in annual percentage growth in GDP as shown in figure 2 reveal that overall more than half of the countries in the sub-region have experienced a decrease in GDP growth over the period 1990 to 2005 when compared to the period 1980 to 1990. This low GDP growth has resulted in low generation of formal sector employment. In countries that registered positive annual GDP growth rates, formal employment generation has been very low, a phenomenon commonly referred to as jobless growth.

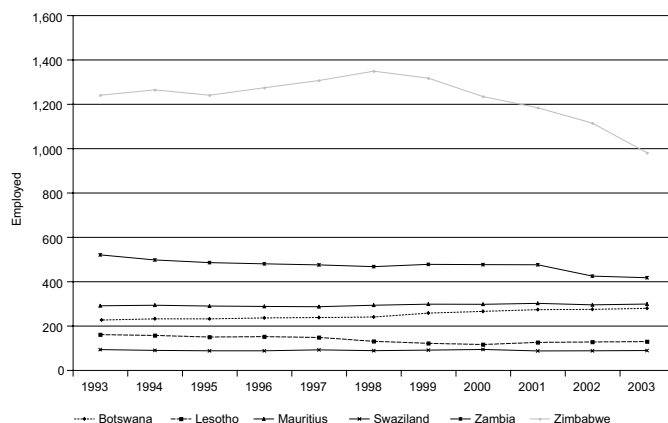
Figure 2. Average Annual Percentage Growth in GDP for selected periods



Source: UNECA-SA 2006a

Reliance on agriculture and mining as major source of employment: With the exception of Botswana, trends in formal sector employment show lack of significant growth in all the countries. In Zimbabwe, Zambia and Swaziland, formal sector employment experienced a decrease. Closer analysis of the data reveals the major sources of decrease in the formal sector employment to be the agricultural sector in Zimbabwe, Mauritius, South Africa and Swaziland partly due to the recurrent drought and decrease in employment in the mining sector due to closure of mines (UNECA-SA 2006a). Some countries like Zimbabwe and Zambia adopted structural adjustment programmes in the 1980s and 1990s that entailed radical policy changes, such as privatisation, deregulation and liberalisation of the economy. These reforms led to many people in urban areas to lose their jobs in the formal sector making unemployment rates high. Youth and women are more vulnerable to be the first ones to be laid off when companies downsize.

Figure 3 Trends in formal employment in selected Southern African countries (thousands)



Source: IMF country reports various years

Reliance on textile industry: Some countries in the sub-region (Lesotho, Mauritius, Swaziland) were reliant on the textile industry as a major source of employment. The removal of textile quotas in industrialized countries in 2005 led to factory closures and significant job losses in the garment sector, worsening the unemployment rate.

Unemployment due to structural historical reasons: The Southern Africa sub region is characterized by high unemployment that stems out of the legacy of colonial and apartheid policies. The economies that were created had discriminatory recruitment and employment practices and had a small formal sector employing a small percentage of the black African labour force, leaving the majority either unemployed or underemployed (UNECA-SA 2006a). The labour force in the modern sector generally excluded women from the formal labour force. All post-colonial governments have tried to implement policies that redress these issues but some elements of unemployment can still be associated with this historical past. For example while the national unemployment rate for South Africa was 26.7 in 2005, the unemployment rate among black Africans was the highest at 31.5% compared to 22.4% among coloured people, 15.8% among Indians/Asians and 5.1% among white people (Government of South Africa 2006). Young uneducated Africans living in homelands and remote areas are particularly vulnerable to unemployment (Kingdon. and Knight 2001).

Challenges faced in the informal sector: With the contraction of formal employment there has been a shift from the formal economy to the informal economy, which is now employing the greater majority of the population in urban areas, particularly women and youth. However, entry into the informal sector is often limited by lack of access to capital, land and technical capacity to start businesses or projects. ILO studies have shown that the entry requirements into micro enterprises and informal business entrepreneurship are quite high in terms of maturity, experience, skills and personal savings (ILO 2003).

As a result of some of these problems many stay in the informal sector as under-employed rather than openly unemployed.

Demand side causes

High population growth: The Southern African sub-region has one of the fastest growing populations in the world, with growth rates between 1.6 and 3.1% a year. The labour market has not been able to absorb the relative growth in the labour force pool resulting in high unemployment particularly of youth. The youth population makes up a large proportion of the total population accounting for more than 30 per cent of the total population in the sub region. High population growth rates imply that more youth join the labour market yearly further constraining job creation.

Low levels of education and lack of skills: Although Southern Africa as a subregion has higher literacy levels compared to other regions in Africa, most of the countries in the sub-region still have wide gender disparities in access to education and have not yet achieved full literacy in its youth as illustrated by table 3. In addition, access to secondary and tertiary education is still very low with all countries in the sub region except Botswana, Mauritius and South Africa recording gross enrolment rates that are below 40% for secondary education and gross enrolment rates that are below 6% for tertiary education (UNESCO 2006). Secondary and tertiary education is also characterized by wide gender disparities. As a result women and youth experience serious unemployment problems due to low levels of education and lack of skills and work experience.

Studies confirm that unemployment is higher among the less educated youth, women than among the more educated (UNECA 2005, Leibbrandt and Mlatsheni 2004). Kingdon and Knight (2001) conclude that the main reason why black Africans have a much higher unemployment rate than whites in South Africa is their lower levels of employment-enhancing characteristics such as education, and their unfavourable location in areas of high unemployment. Since education is the basis for a knowledgeable population that can seek employment, it is important to build literacy capacity of the population.

Table 3. Adult and Youth literacy rates in Southern Africa

Country	Adult literacy (15 and over) 2004 (%)			Youth literacy (15 -24) 2004 (%)		
	Total	Male	Female	Total	Male	Female
Angola	67	82	54	71	83	63
Botswana	79	76	82	89	86	93
Lesotho	81	74	90	87	77	97
Malawi	64	75	54	76	82	71
Mauritius	84	88	81	95	94	96
Mozambique	47	62	31	63	77	49
Namibia	85	87	84	92	91	93
South Africa	82	84	81	94	94	94
Swaziland	79	80	78	88	87	89
Zambia	68	76	60	69	72	66
Zimbabwe	90	94	86	98	99	96
Sub-Saharan Africa	60	68	52	72	77	67
Developed countries	99	99	99	100	100	100

Source: UNESCO 2006.

Mismatch between education, training and labour demands: Studies have revealed that unemployment particularly youth unemployment is partly a result of a mismatch between the formal educational curricula and skills demand (UNECA 2005, Ayogu and Borat 2003). The 1990s reforms towards more market-oriented economies have not been matched by adequate adaptation of the curricula resulting in the production of graduates that are not matched by the labour market - "skills mismatch" (UNECA 2005). This calls for more effective linkages between the human resource development institutions and the employers (the public and private sectors and other employers).

Rural-urban migration: One of the key factors behind urban in Southern Africa is rural urban migration which has continued to be high averaging 3-7 per cent or more per annum (ILO 2003). The formal employment sector has been unable to absorb this influx leaving the informal sector hard pressed to cope with the rapid rate of rural urban migration. However the informal sector's capacity to absorb all the migrants is limited by factors already noted earlier. The reality behind rural urban migration is under-employment and lack of income generation possibilities in rural areas (the "push factor"), combined with the often mistaken assumption that employment possibilities in the big cities are better (the "pull factor") (UNOWA 2005). Capacity building measures to reduce unemployment need to take these factors into account.

HIV/AIDS: Southern Africa continues to have the highest HIV prevalence in the world, leading to worsening levels of chronic ill health and death. The loss of adult labour has forced families to withdraw children especially young girls from school to be caretakers for younger siblings and/or to help in food production. The lower level of education and training attained by young women and men who are orphaned by HIV/AIDS reduces their prospects for decent work opportunities and per-

petuates the cycle of poverty across generations. In addition, HIV/AIDS related care-giving responsibility disproportionately falls on women who because they are overburdened quit their employment ie. women no longer have time for farm and non-farm activities such as artisan crafts, market gardening, food processing and others, activities that previously formed the major source of livelihood for the household. People living with HIV/AIDS are also vulnerable to unemployment because of frequent illnesses.

Straddling both the supply and demand side, weak institutional capacities and the lack of reliable statistics hinder countries from formulating sound and effective employment policies, and tracking progress in job creation. The main constraints limiting the ability of national statistical offices to collect and disseminate employment data and relevant government offices to develop a supportive policy framework include inadequate levels of staffing, technical expertise, equipment and financial resources (ILO 2005). Thus capacity building for institutional strengthening has a major role to play in mitigating unemployment.

Implications for capacity building

Capacity building has a major role to play in addressing the unemployment challenge. There is evidence that East Asian countries that experienced growth in income and employment (Korea, Taiwan and China) experienced productivity growth that was based on investment in human capital and institutions (Ayogu and Borat 2003). Based on the findings in this study, the following aspects of capacity building for Southern African countries to address unemployment and promote employment generation are suggested.

Capacity building for skills development to meet the needs of the formal employment sector

Capacity building strategies to address education and skills development to improve employability in the formal employment sector include: reorientation of educational systems towards market demand for skills; increased access of girls and women to basic education; expansion of relevant vocational training; career guidance and mentorship programmes for youth; provision of specific technical, managerial and entrepreneurial skills training that the labour market demands; provision of training skills development for women; and incentives for all employers to provide opportunities for apprenticeships and internships. Various apprenticeship schemes have been set up in Malawi, Mauritius, Swaziland, Zambia, South Africa and Zimbabwe to impart various vocational skills that can be absorbed by the formal sector especially those that enhance entrepreneurship development in carpentry, motor mechanics and various other artisanal programmes. The challenge is to ensure that linkages between the education institutions and the labour market are maintained so that the new and growing labour market challenges in the sub-region are met.

Capacity building for skills development to meet the needs of the informal employment sector

Provision of capacity building opportunities in specific technical, managerial and entrepreneurial skills training can enable the unemployed especially youth and women to take advantage of the opportunities offered by self-employment. Such capacity building efforts should be complemented by policies that improve access to productive resources such as land, and water, availability of easily accessible sources of credit, new technologies and markets.

Capacity building for skills development to meet the needs of the rural sector

Agriculture is still the major employer in the rural sector. However there is need to improve the productivity and competitiveness of agriculture and reduce rural urban migration. Capacity building through agricultural research and extension has a major role to play in improving productivity in the rural areas. Governments should complement this by strengthening the supporting infrastructure including development and maintenance of farm-to-market roads, market information, and irrigation.

Capacity building for policy making

At the national level, the government has the prime responsibility for providing guidance and leadership in designing a national strategy that can effectively address unemployment. The government can achieve this by developing or strengthening the policy and legal framework that guides the process of designing and implementing strategies that address unemployment at national and sectoral levels. It is essential to undertake capacity building to ensure that policy-makers have the requisite knowledge and tools to creating an enabling policy and regulatory framework and institutional support that is required for employment generation and for attracting domestic and foreign investment. Policy makers need to have their capacity strengthened in how to explicitly incorporate employment objectives in national development strategies, policies, and resource allocation.

The formulation and implementation of supportive economic, employment and social policies can not be done solely by government alone. Ensuring that the capacity of all the other stakeholders (employers, workers, civil society, and the economically active population in general) is developed can enhance government's leadership role. It is important that stakeholders become more articulate, knowledgeable and better able to participate in policy development, implementation and monitoring.

Capacity building for employment statistics

In order to obtain reliable and consistent data, there is need to improve the capacities of national statistical offices to collect employment statistics through nationally representative surveys that have to be carried out periodically. This demands capacity building to meet the human skills and financial needs required to empower national statistical offices to produce reliable employment statistics to guide policy formulation, implementation and monitoring. National statistics offices also require enhanced capacities for storing data and wide dissemination.

Capacity building for HIV/AIDS prevention, treatment and mitigation

It is important to develop capacity for HIV/AIDS prevention, treatment and mitigation as it is essential in ensuring that orphans stay in school, women keep their jobs and people living with HIV/AIDS can have their lives prolonged and productivity restored. Capacity needs to be built to mainstream HIV/AIDS in all employment and training policies.

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Maximizing the Benefits of International Migration in Africa: The need for Human and Institutional Capacity Building

By Israel Sembajwe¹

Abstract

Impacting on key governance aspects such as availability of human resources, migration is currently a key issue on the development agenda. Through a series of events leading up to and following on from the September 2006 High-Level Dialogue on Migration and Development in the UN General Assembly, policy makers and their national and international partners seek ways to maximize benefits and minimize negative impact of migration. This article first charts the effects of migration on African development. Subsequently, capacity gaps are identified and some policy options for the constructive management of intra-continental migration as well as migration out of Africa are put forward.

Introduction

Currently, Africa has around 19 million migrants on the continent and at least 5 million African-born persons live in Europe, North America and the Gulf States. Impacting on key governance aspects such as availability of human resources, migration is currently a key issue on the development agenda, as policy makers and their national and international partners seek ways to maximize benefits and minimize negative impact of migration (UN 2006, ECA 2006). In seeking ways to manage migration to maximize development benefits, human capacity and institutional building are crucial. This article explores the challenges of human and institutional capacity building for maximizing the benefits of international migration to African countries.

This article argues that Africa's best interests with regard to international migration will be better served by setting up appropriate institutional mechanisms for handling international migration, closely accompanied by the development of prerequisite human capacities to staff such institutions. The overall objective of the article will be to portray selected challenges posed by international migration in Africa and to suggest that appropriate human and institutional building can provide one of the solutions for dealing with the challenges at national, sub-regional and regional levels in the broader context of sustainable development (ECA forthcoming). A global perspective will be added to the analysis to highlight Africa's dilemma in the light of globalization. More specific objectives include:

1. Exploring existing human and institutional capacity in the field of international migration and identifying the gaps; and
2. Suggesting possible ways of human and institutional capacity building/strengthening to tackle the challenges and maximize the benefits of free movement of people.

Issues of data and research; advocacy and awareness creation; and policy mechanisms will be given special attention. The exploration will highlight the issue of skills migration, how to harness the resources of the diaspora, how member States may increase their capacity to productively absorb remittances, and how migration contributes to capacity building for sustainable development.

International migration and sustainable development

The immediate benefits of international migration can be reflected by provision of employment opportunities in other countries to excessive labour at home; contribution of migrant remittances to household income and national investment; development of skills and technological knowledge contributed by members of

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the diaspora or brought back by returning migrants; and overall contribution to national employment creation, and local and national taxation (ECA 2006). On the other hand, are the negative aspects of the brain drain that affect the smooth functioning of economic and social institutions, leading to declining quality of health and education services provided in most African countries. The already developed institutions and societies of the North represent a powerful pull on professionals from the South. This is particularly significant in the context of a global shortage of certain categories of professionals such as health professionals, and an increased need for these skills in the North as the population in these countries age.

The lesson to be drawn from this by developing countries (or countries in the south) is that there is no viable sustainable development without appropriate institutions to manage the development process, as well as properly harnessed human resources to generate social and economic progress in a sustainable manner, and ensure environmental conservation and sustainability (ECA forthcoming). The phenomenon of migration affects the availability of human resources. Particularly, when skilled workers move without appropriate institutional mechanisms to manage the movements, negative effects may take place in both sending and host countries. For example heightened deficits of skilled workers in the education and health sectors may occur in sending countries leading to deprived education and health systems. This affects the future quality of human resources, as well as the current quality of life of each member of the population. Poor education services lead to poor quality of education which translates into lessened empowerment of individuals, especially women, and lessened capacity for technological advancement. In the case of poor health services, infant, child, maternal and overall mortality rates stagnate or increase; combating diseases such as HIV/AIDS and TB becomes a losing battle; and poverty abounds as a response to lost human resources and lost working time.

The way to go, therefore, is for African countries to set up viable institutional mechanisms to manage migration and maximize its benefits. Such benefits would include:

- Giving equal migration opportunities to both women and men and this empowers each individual (feminization of migration has been found to increase gender equality, increase women's economic security, and reduce poverty);
- Maximizing the utilization of remittances in poverty reduction, children's education, and child and family health; and
- Harnessing the African diaspora in such a way that increased interaction of members of the communities abroad with the communities at home may lead to targeted social and economic change and development.

In doing so, they would also minimize the negative effects such as those related to loss of education and health workers, spread of diseases, and overburdening of social, economic and environmental systems.

Existing institutional and human capacity for dealing with international migration

In collaboration with IOM and other international agencies, the African Union (AU) drafted a comprehensive strategic framework for a policy on migration in Africa (AU 2004) which was adopted by the summit of Heads of State in 2005. The spirit of the framework recognizes, among other things, that the principal migration concerns in the region include displacement due to conflicts (generating internally displaced people (IDPs) and refugees), migration and health issues such as HIV/AIDS, maximizing the benefits of migration (such as remittances) for development, minimizing the negative effects of migration (such as the brain drain or brain waste) on development, and avoiding putting undue pressure on employment opportunities when uncontrolled emigrants create stiff competition for the few jobs available. Member States acknowledge that migration is an engine for regional cooperation, integration and development. They call for socio-economic development policies to be implemented regionally, sub-regionally and nationally (encouraging the participation of all stakeholders such as civil society, private sector, and migrant associations).

An orderly international migration management system requires sound government capacities to manage such movements and related benefits, and to plan for their incorporation in national development strategies. In a capacity building workshop held by IOM in 2003, it was observed that "the reality of migration is continually shifting, even states with highly developed capacity need to adopt their structures in order to be able to address problems and make use of new opportunities" (IOM 2003:1). Hence, it was concluded that migration management represents a challenge to all states regardless of their level of economic development.

Among the priority areas for capacity building often identified by states and concerned specialists is the need for institutions and human resources for data and research (ECA forthcoming, ECA 2006, Mortensen 2005, Sorensen 2004, IOM 2003, UNFPA 2005, United Nations 2002). Strengthening this area would provide information for formulating relevant policies, and setting up appropriate capacity building programmes and migration strategies. Mortensen (2005:1) emphasizes that among other things the process would require training on data management, overview and mapping out of existing processes, and establishment of inter-ministerial working groups. This thinking can be extended to inter-state levels with appropriate institutional and human capacity building coordination. Adequacy of information to inform management, would lead to prerequisite capacity building for border control, another priority area of concern. Efficient border control institutions would minimize the flow of illegal and irregular migrants while facilitating a healthy flow of regular migrants. Forged documents and security concerns would be better handled and minimized.

It is, however, not enough to set up data collection and research structures or border control institutions in order to manage

migration efficiently. There is a need for capacity building in human resources which is a priority and streamlined component of all other areas of concern. For example, you need well trained immigration officers in a number of skills, including data handling and analysis, utilizing the right procedures, and applying the legal frameworks appropriately. Further, there is a need to provide trained personnel with up to date equipment and modern technology. For example, without the right computers and the right software, and without the right technological know how and conducive environment to work in, the right migration management results may not be achieved. Adequate working space, provision of up to date equipment, and continuous development of human resources are, therefore, necessary prerequisites for success.

Improved migration management systems would lead to improved security, facilitate orderly movement of people, and increase respect for human rights and protection of migrants, especially labour migrants, and members of their families. Focusing on migrants and their families, one area of capacity building would be the provision of administrative structures and personnel to deal with their needs such as (in countries of origin) the provision of appropriate information before migration on such issues as opportunities for education and employment, likely costs and benefits, and health risks and care. In the case of host countries such structures would take care of their integration process and access to basic information and services in such areas as education and health. This would also be a necessary requirement in home countries for returning migrants.

With special reference to labour migration, there would be the need for capacity building targeted at maximizing the utilization of remittances as well as the skills and experiences of returning migrants (for countries of origin), and the need to match skills with available employment opportunities in both host countries and countries of origin. There is also a need for financial and employment institutions geared at minimizing remittance costs to migrants, providing information on available and targeted investment opportunities, and channeling knowledge and skills harnessed from the diaspora into optimal areas of effective utilization. Fiscal and economic incentives promoting the flow and utilization of remittances would lead to increased volumes remitted.

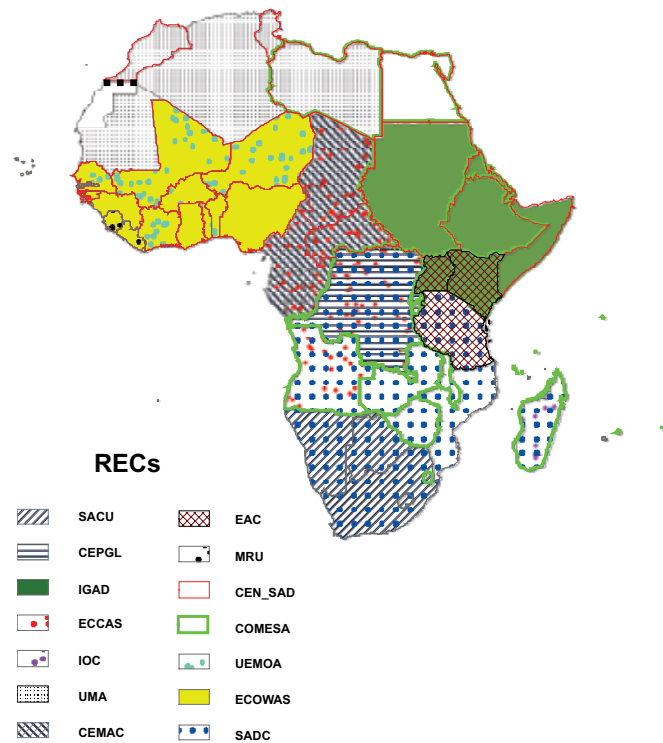
An overarching capacity building area is that of policy making. Analysis should be carried out to determine national capacity to formulate and implement effective migration policies. Where capacity is lacking, appropriate development plans should be made. Overall, effective migration management systems should consider all levels of stakeholders. These include stakeholders within states such as ministries, departments, workers' organizations, and employment agencies; and stakeholders within sub-regions, regions and the world as a whole. Systems involving the latter group of stakeholders would include bilateral and multilateral arrangements between/among states and regional institutions/organizations.

It is emphasized that "all states share a common objective of maximizing the benefits of migration and minimizing its possible negative effects" (IOM 2003:4). This can best be achieved through cooperation between/among states and by ensuring that all countries have appropriate institutional structures and relevant human capacity building. Specific country challenges are often similar and shared by others and can be dealt with in a cost effective manner through interstate cooperation, collaboration, and development of common strategies. Efficient interstate cooperation, collaboration, and development of common strategies would be enhanced by both in-state and interstate development of human resources and institutions capable of formulating, coordinating, and monitoring and evaluating appropriate national, sub-regional and regional policies to integrate migration policies with overall development strategies. Harmonization of national policies with sub-regional, regional and international frameworks would be one of the priority areas for action.

In Africa, attempts to set up such institutions and provide relevant human resources to work in them has been attempted both at sub-regional level through the intergovernmental organisations regional economic communities (RECs)², and at national levels in member States. At sub-regional level, protocols on regional integration and free movement of people are embraced by the RECs (see annex 1). However, their implementation is hampered by low capacity to implement, low commitment on the part of member States, and lack of institutional mechanisms and human capacity to see the process through. It is observed that many countries remain ambivalent towards the principle of free movement of people, and reluctant to modify national laws and administrative practices (Adepoju 2004: 19). Moreover, of the 53 African countries, 26 are members of two RECs, 20 are members of three, Democratic Republic of Congo belongs to four, and only 6 countries maintain membership in just one REC (see figure 1 and annex 1). This overstretches their institutional and human capacities as well as related resources.

² The RECs include: in West Africa, West African Economic and Monetary Union (UEMOA), Mano River Union (MRU), Economic Community for West African States (ECOWAS); in Central Africa, Economic Community for Central African States (ECCAS), the Central African Economic and Monetary Community (CEMAC), and the Economic Community of Great Lakes Countries (CEPGL); in East and Southern Africa, the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the Inter-Governmental Authority on Development (IGAD), the Indian Ocean Commission (IOC), the Southern African Development Community (SADC), and the Southern African Customs Union (SACU); in North Africa, the Arab Maghreb Union (UMA), and the Community of Sahel-Saharan States (CEN-SAD) which straddles other sub-regions.

Figure 1 REC membership as of July 2006



Although it is argued that those countries which belong to two or more RECs pursue integration on multiple tracks and that those in both large and small blocs could proceed at faster rate in a separate smaller bloc, the reality indicates some negative effects. These effects include: 1) duplication of efforts due to several RECs carrying out identical mandates and objectives; 2) dissipation of collective effort towards a common goal of the African Union caused by overlaps among RECs; 3) blurred goals of integration and counterproductive competition among countries and institutions; and 4) increased burden on member States (for example, in terms of multiple financial obligations, excessive meetings, and different policy decisions, instruments, procedures, and schedules). Such multitasking processes must by nature put undue burden on member States and weaken capacity building efforts for both institutions and human resources.

The treaties constituting the RECs are sophisticated instruments, similar to those guiding economic integration in other regions, giving the RECs well-functioning secretariats, and the mandate to conduct frequent meetings at the summit, ministerial and expert levels (ECA 2004: 30). Unfortunately, as noted by IOM (2000:9), at both regional and sub-regional levels, well-developed structures for dealing with international migration are lacking. It is further noted that regional organizations such as AU and ECA deal with migration at an ad hoc basis and do not have divisions or departments devoted exclusively to international migration issues. While the RECs are devoted to

free movement of people, this has not fully happened in reality (Adepoju 2005).

While COMESA, EAC, ECCAS, SADC, and UEMOA have protocols, articles, or objectives in their treaties for the free movement of people and right of residence and establishment, only ECOWAS has ratified its protocols, and EAC established a committee to oversee the implementation of the objective of free movement of people (ECA 2004). Other RECs have not ratified or adopted their protocols due to a number of reasons including lack of political will (see box 1), and regarding migrants as a disruptive rather than a contributive factor to development (Adepoju 2004). For example, while one of the objectives of the free movement of people is to facilitate free flow of labour, most countries exercise caution, pointing out that they do not want to put undue stress on limited employment opportunities. Therefore, while EAC and ECOWAS have made some progress on facilitating free movement of people (e.g the introduction of a common East African passport giving the holder ready entry in any member country for up to six months, and the abolishing of visa requirements in ECOWAS but limiting stay to 90 days), fully achieving the objectives of free movement of people remains an area where a great deal remains to be done (for example, see Addy (2005: 6-7) on ECOWAS).

Box 1 Lack of will to implement subregional protocols

The Protocol on the Free Movement of Persons, the Right of Residence and establishment (In West Africa) was adopted by the Economic Community of West African States (ECOWAS) in 1979; and the Protocol on the Free Movement of Persons, Labour, Services and the Right of Establishment in the States of the Common Market for Eastern and southern Africa (COMESA) was adopted by COMESA in 1994. However, neither of these instruments has been fully implemented. In 2003, the Central African Economic and Monetary Community (CEMAC) agreed to establish new measures to put into effect its accord on free circulation of labour, replacing the older measures that had never been implemented effectively.

Source: UN 2004: 194

At the country level, there are usually ministries or departments of foreign affairs, home affairs and labour which deal with aspects of international migration, immigration obligations and employment conditions of immigrant populations (IOM 2000:9). While these structures are good as basic foundations of dealing with international migration, they often experience limited capacity and poor coordination. The human resources put in them are usually few, with many tasks, and with limited training in handling the requirements of the tasks.

Building/strengthening institutional and human capacities for international migration

It is, therefore, clear that there is a need for strengthening existing institutional and human capacities for handling international

migration. Where these do not exist, there is a need for their development. There is a need for political will and trust among member States that once they are signatories of treaties or protocols these will be honoured. Institutional settings with appropriate human capacity building and financial resources are needed in the following areas:

- Data harnessing and utilization on migration;
- Modern and functional border control systems;
- Efficient advocacy and service provision systems focused on orderly movement of persons, maximizing benefits to migrants, home countries and host countries, and ensuring the protection of migrant rights;
- Prevention of trafficking and smuggling;
- Integration and reintegration;
- Managing and controlling diseases;
- Supporting bilateral and multilateral partnerships for organized skilled labour migration and for investing in capacity building activities in home countries;
- Managing and directing remittances into targeted development activities;
- Harnessing the diaspora for skills in human capacity building, support to community development activities, and promotion of international partnerships; and
- Monitoring and evaluation to ensure that treaties, articles, protocols, etc. are honoured and implemented by member States.

Regional and subregional initiatives

At a regional level, examples of good capacity building programmes exist in Latin America (member States of this region experience similar migration challenges) where the institutional arrangements facilitated effective coordination of migration management; and the EAC member States where regional perspectives to migration are handled in partnership (IOM 2003: 4-5).

In North and parts of West Africa, a consultative process known as “Five plus Five” set up a forum for dialogue among countries of origin, countries of transit and countries of destination in the Mediterranean region with the aim of improving understanding of international migration dynamics by sharing information and best practices, so as to address issues relating to international migration and development (UN 2004).

Two other consultative processes were set up since 2000, one involving countries of Eastern, Middle and Southern Africa (MIDSA) and the second involving those of Western Africa and called the Migration Dialogue for Western Africa (MIDWA) created in 2002. MIDSA, created from a technical cooperation workshop for senior government officials, explores ways of improving the management of border control and labour migration by means of technical cooperation, training and information-sharing among Governments. The MIDWA seeks regional approaches to combating trafficking in persons, to addressing issues linked to labour migration, and to promoting peace and

stability in Western Africa (UN 2004). The number of countries in Africa in each of the last three consultative groups is shown in table 1.

Table1. Number of countries by sub-region in Africa by consultative group on migration

Sub-region	Five plus Five	MIDSA	MIDWA
Eastern Africa		6	
Middle Africa			
Northern Africa	4	2	
Southern Africa		5	
Western Africa	1		15

In West Africa, an ILO project set up in 2003 focused on contributing to sustained development and productive employment in the sub-region through orderly and mutually beneficial forms of labour migration (ILO 2004). The immediate objectives were: 1) to improve capacity of countries to integrate migration policies with overall development strategies; 2) provide concrete guidelines to countries for effective management of labour migration and promotion of regular forms of migration; and 3) contribute to the improvement of migration statistics in the sub-region. While the results generated useful information on migration and its linkages to development, as well as concrete guidelines on promoting these linkages in development, the project also highlighted the limitations in existing policies, especially with regard to free movement of people, and a serious lack of data on migration. Overall, it was concluded that improvement in migration management may take long due to resource and capacity constraints in member States (UEMOA and ECOWAS).

In North Africa, the MEDA (Mesures d'Accompagnement or Accompanying Measures) programme involving UMA member states aims at maximizing the benefits of migration within the region. But with countries like Morocco increasingly changing from largely playing the role of emigration to that of immigration and transit, the need for continuous development of migration management systems becomes clearly reflected (De Hass 2005).

These initiatives need to be deepened and scaled up to improve the management and maximize the benefits of international migration. In addition, more partnerships need to be set up to deal with other aspects of international migration that are not covered in existing consultative processes.

National initiatives

At the national level, Uganda provides a good example of institutional mechanisms and human capacity building to manage labour migration (see box 2). Importantly, participants at the

meeting where the example was presented recognized this as a good practice that should be replicated in other member States of the East African Community (EAC) (ILO 2005).

In West Africa and North Africa there are also some good prac-

Box 2 Uganda: The external employment unit

Uganda has put in place statutory measures within its Employment Policy regarding the Recruitment of Ugandan migrant workers abroad. These measures were sparked by the observation that remittances recorded a significant rise in the balance of payments and in response to the growing demand for Ugandan workers abroad. The provisions of the Act (i.e. the Employment (Recruitment of Ugandan Migrant Workers Abroad) Regulations, No. 62 of 2005) were to promote full employment and equality of employment opportunities for all, to uphold the dignity and rights of Ugandan migrant workers, to allow deployment of Ugandans to countries which have existing labour or are signatories to international agreements, to protect the rights of every Ugandan desiring to work abroad, by securing the best possible terms and conditions of employment and to provide a mechanism for issuing licenses to recruitment agencies.

The multi-sectoral Committee on Externalisation of Labour is responsible for regulating private recruitment agencies in collaboration with the External Employment Unit established in the Employment Section of the Department of Labour in Uganda. The committee exercised regulation by issuing licences, scrutinizing contracts, and ensuring emigrant worker's rights abroad. Regulatory measures abroad will include involvement of Labour Attaches in embassies, trade officers, forging linkages with the Diaspora by encouraging formation of diaspora organizations and associations. The committee also had a role in encouraging return migration by providing migrant workers with information on investment opportunities, incentives and possibilities for periodic returns.

Source: ILO 2005: 9

tices that should be identified and replicated. For example in Mali and Senegal, Adepoju (2004) points out the setting up of ministries to deal with their nationals abroad by encouraging their return and visits home, advocating for their interests and rights in host countries, providing them information on residence requirements and availability of jobs in host countries, and encouraging them to send money home for family support and investment purposes.

Conclusion and way forward

In a globalized world, sub-regional, regional and international collaboration and cooperation are necessary ingredients to maximizing the benefits of migration. Such ideal sub-regional, regional and international relationships can only be realized with appropriate capacity building. Setting up institutions to manage international migration and integrate it in the development process, and, more importantly, to develop or attract requisite human resources to staff such institutions is one of the necessary steps to take by all concerned States and partners.

The way forward should, therefore, be focused on regional integration for development with appropriate attention paid to capacity building for enhancing the free movement of people, especially labour migration. It is, indeed, appropriate at this stage to recognize that the New Partnership for Africa's Development (NEPAD) identifies appropriate institutional mechanisms and investing in the development of human resources as one of the important components for Africa's sustainable development. Africa's leadership now needs to translate this into concrete actions.

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Annex 1

Members and Objectives of Africa's regional economic communities, 2001

Community	Members	Specified objective	Current status	Comments
Arab Maghreb Union (UMA)	Algeria, Libya, Mauritania, Morocco, Tunisia	Full economic union	Free trade area not achieved, but conventions in force for investments, payments, and land transport	Integration has been moving slowly since 1995
Central African Economic and Monetary Community (CEMAC)	Cameroon, Central African Republic, Chad, Republic of Congo, Equatorial Guinea, Gabon	Full economic union	<ul style="list-style-type: none"> - Monetary and customs unions achieved, and competition and business laws harmonized - Macroeconomic policy convergence in place 	
Common Market for Eastern and Southern Africa (COMESA)	Angola, Burundi, Comoros, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Namibia, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia, Zimbabwe	Common market	<ul style="list-style-type: none"> - Free trade area among nine members achieved in October 2000 - Customs union expected by December 2004 - Criteria set for macroeconomic policy convergence 	
Community of Sahel-Saharan States (CEN-SAD)	Benin, Burkina Faso, Central African Republic, Chad, Djibouti, Egypt, Eritrea, Gambia, Libya, Mali, Morocco, Niger, Nigeria, Senegal, Somalia, Sudan, Togo, Tunisia	Free trade area and integration in some sectors	<ul style="list-style-type: none"> - Study on feasibility of free trade area just launched 	
East African Community (EAC)	Kenya, Tanzania, Uganda	Full economic union	<ul style="list-style-type: none"> - Significant progress on free trade area - Customs union expected by 2004-06 	
Economic Community of Central African States (ECCAS)	Angola, Burundi, Cameroon, Central Africa Republic, Chad Democratic Republic of Congo, Republic of Congo, Equatorial Guinea, Gabon, Sao Tomé and Principe, Rwanda	Full economic union	<ul style="list-style-type: none"> - Study on free trade area considered for implementation 	
Economic Community of great Lakes Countries (CEPGL)	Burundi, Democratic Republic of Congo, Rwanda	Full economic union	<ul style="list-style-type: none"> - Preferential trade arrangements signed 	Integration at a standstill since 1994
Economic Community of West African States (ECOWAS)	Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo	Full economic union	<ul style="list-style-type: none"> - Tariffs removed on unprocessed goods - Full elimination of tariffs on industrial goods not yet achieved - Second monetary zone in progress - Peace and security mechanism in place - Macroeconomic policy convergence in place 	
Indian Ocean Commission (IOC)	Comoros, Madagascar, Mauritius, Réunion, Seychelles	Sustainable development through cooperation on diplomacy, environment and trade	<ul style="list-style-type: none"> - Vibrant trade programme elaborated - Virtual University of Indian Ocean created 	Political issues have slowed progress

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Community	Members	Specified objective	Current status	Comments
Inter-Governmental Authority on Development (IGAD)	Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan, Uganda	Full economic union	<ul style="list-style-type: none"> - Multilateral programmes elaborated in key priority areas (agriculture and environment, political and humanitarian affairs, and regional economic cooperation, including physical infrastructure projects) 	Intrastate and interstate conflicts have showed progress
Mano River Union (MRU)	Guinea, Liberia, Sierra Leone	Multisectoral integration	<ul style="list-style-type: none"> - Some training institutions created - Programmes elaborated in some sectors 	
Southern African Customs Union (SACU)	Botswana, Lesotho, Namibia, South Africa, Swaziland	Customs union	<ul style="list-style-type: none"> - Customs union achieved, as well as monetary agreement among for members except Botswana 	
Southern African Development Community (SADC)	Angola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe	Full economic Union	<ul style="list-style-type: none"> - Free trade area launched in September 2000. - Power pool in place - Peace and security mechanism in place 	
West African Economic and Monetary Union (UEMOA)	Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, Togo	Full economic union	<ul style="list-style-type: none"> - Customs union achieved - Business laws harmonized - Macroeconomic policy convergence in place 	

Capacity Challenges to African Health Service Delivery

By Bjorg Sandkjaer¹

Abstract

A healthy population is a critical component of attaining sustainable development, and health services are key to a healthy population. However, while Africa has a disproportionately high share of the global disease burden, the continent's health care infrastructure is extremely poorly developed. This article first charts the gaps in human, institutional and financial capacity to deliver health care to all those who need it. It then proceeds to suggest ways to fill these gaps, including training and retaining health professionals in the public sector, improving institutional functioning, and innovative health care financing that facilitates equity in access to health care.

Introduction

"With 24 per cent of the global disease burden, Africa has access to only 3 per cent of health workers and only 1 per cent of the world's financial resources (including loans and grants from abroad)." (WHO 2006: 8)

A healthy population is a critical component of sustainable development. The various instruments that guide the definition and implementation of sustainable development globally all incorporate improving health as a key underlying reason for advocating for sound natural resource management, accelerated economic development and reduction of pollution and presence of harmful substances in peoples' environment. One of the chapters in Agenda 21 is dedicated to health. Three of the eight Millennium Development Goals are directly related to health. The NEPAD strategic framework for African development singles out health as a key issue to be tackled in order to achieve sustainable human development, and the African Union has developed strategic frameworks and implementation plans on key health issues such as HIV/AIDS as a key component of African development.

In achieving these goals for improved health, a number of factors are important. These include stable societies that promote sound mental and spiritual health, good nutrition, a healthy, non-polluted environment – in short, factors that can be achieved through social development and environmental management. This notwithstanding, to handle Africa's crippling disease burden, as well as administer preventive health services, the delivery of quality health services is crucial to achieving population well-being. While the demand for health services therefore is great, health services in African countries face complex challenges to their effective functioning, key among these the lack of human, institutional and financial capacity to deliver health care to all those who need it.

Increasing demand for health services strains limited capacity

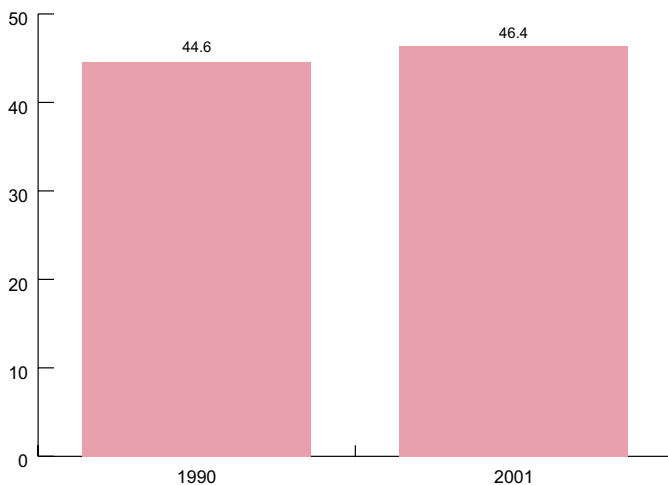
The World Health Organization defines health as a "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." Achieving 'health for all' is therefore a very ambitious goal, which Africa is far from achieving. The Millennium Development Goals provide measurable targets for achieving what has been termed key health indicators, and investigating the situation using these targets provides a bleak picture.

Poverty is closely linked to health. First, poverty can lead to ill health through paths such as inadequate nutrition, poor living conditions, and lack of money to make use of health services or buy medication. Second, ill health can lead to or exacerbate poverty as the unhealthy are less able to work and earn a livelihood, and

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as ill health can divert household resources towards caring for the sick rather than to productive investment or spending on food or other household needs. The first MDG is to 'eradicate extreme poverty and hunger' by 2015. Globally, there is progress towards achieving this goal, however, as the only continent in the world, Africa has experienced and *increase* in poverty over the last fifteen years or so, in both absolute and relative terms (see figure 1). The estimated number of people living on less than a dollar a day increased from 227 million in 1990 to 313 in 2001, and the very poor are getting poorer. In the same period, the number of hungry people also increased in Africa, by a staggering 34 million. Of the children under five in sub-Saharan Africa who are underweight, the proportion decreased somewhat (from 32 to 31 per cent from 1990 to 2003), but in absolute terms, the numbers rose from 29 million to 37 million (UN 2005).

Figure 1: Percentage living on less than a dollar a day, sub-Saharan Africa



Data source: UN (2005)

To reduce child and maternal mortality constitute MDGs 4 and 5, respectively. While Africa on the whole has recorded some progress in both of these indicators, the continent still has extremely high levels of both child and maternal mortality, and in some countries, mortality is increasing. In sub-Saharan Africa, a woman has a 1 in 16 risk of dying of pregnancy or childbirth-related causes over her lifetime, compared to 1 to 3,800 in the developed world (UN 2005). In Africa as a whole, the under-five mortality is estimated at 149 per 1,000 (UN/DESA 2005), while in sub-Saharan Africa alone, the mortality is 172 per 1,000 (UN 2005). A number of factors come together to create these very high mortality levels, but just five diseases: pneumonia, diarrhoea, malaria, measles and AIDS, account for half of all deaths in children under five (UN 2005).

Both child and maternal mortality are highly influenced by the severe levels of HIV/AIDS in the southern, eastern and increasingly the central parts of the continent. Reversing the spread of HIV, along with malaria and other diseases, constitutes MDG

6. While there are indications that the spread of HIV is slowing down in some hard-hit countries (notably Uganda and Zimbabwe), Africa is still experiencing the highest levels of HIV/AIDS anywhere in the world. As the median time from infection to illness and eventually death is relatively long at 5-10 years, the disease spends years debilitating affected individuals, families and households financially and psychologically, and the full impact of current prevalence levels will only be felt several years down the line. HIV/AIDS therefore impacts health directly through the infected person falling ill and/or requiring treatment, but it also contributes indirectly to ill health through increasing poverty, creating more orphans that already strained social safety nets are unable to care for, and paving the way for the increased impact of other diseases such as tuberculosis and malaria.

Capacity gaps in meeting demands for health services

As a result of decades of externally imposed restructuring and 'ceilings' on public expenditure, African health care system capacity has been cut back while the demand for services increases. Health systems are so strained that a large proportion of Africans do not even have access to the most basic health care. At the same time the current drive to provide complex antiretroviral treatment for people infected with HIV, and opportunities to treat tuberculosis, malaria and other diseases, place new demands on existing models of health care, which may be cumbersome and static where flexibility and innovation is required. However, innovation is difficult in health care systems that are already straining to cope with the demand, and countries now find themselves in a position whereby they must address decades of health system underdevelopment within very short time frames. In the following, three main types of capacity-related bottlenecks to adequate health care provision are examined in turn.

Human capacity

Health care delivery necessitates the involvement of trained professionals at different levels of specialisation. Currently, however, Africa is experiencing shortages of health professionals at all levels. Africa currently has the lowest number of health professionals (including managers and support workers) in relation to the population, at 2.3 per 1,000 people, compared to 24.8 per 1,100 in the Americas (WHO 2006). There are also great differences between and within countries, as health workers are concentrated mainly in urban areas.

This lack of human capacity is a result of training inadequate numbers of health care professionals, coupled with difficulty in retaining those who are trained (see box 1). The World Health Organization estimates that 23,000 highly qualified Africans emigrate every year to richer countries (Jack 2005). For example, only 50 of the 600 doctors trained in Zambia were still working in the country's public health care system in 2000, and although there were a total of 800 doctors registered in the country, this is

far short of the 1500 doctors that were needed to fully staff the country's health system (Bundred and Levitt 2000). In Sierra Leone, 17 per cent of the doctors have left public health care over a period of three years (WHO-AFRO 2002). Currently, in the USA, the UK and Canada alone, 10 936 physicians trained in sub-Saharan Africa after 1992 are practicing. This number represents 12 per cent of all African physicians, and is probably higher if those trained before 1992 were included. Given that the cost of educating a specialist doctor in Africa is estimated at about US\$ 100 000, the health professional exodus represents a US\$ 500 million annual subsidy from Africa to wealthy nations (Jack 2005).

Box 1 African health professionals' push and pull factors

The brain drain takes place in a context of extreme global inequality, where possessing internationally recognized qualifications provides an opportunity to seek employment outside of the country of origin. Participants at subregional interactive sessions organized by the UN Secretary General's 'Commission for HIV/AIDS and Governance in Africa' identified the following push and pull factors for African health professional emigration:

- 'Push' factors: (i) poor working conditions, (ii) low salaries/benefits, (iii) low standard of living and few educational opportunities for children.
- 'Pull' factors: (i) improved working conditions, including availability of adequate equipment, medication and facilities, (ii) better remuneration, (iii) training/educational opportunities for health professional as well as family members.

Institutional capacity

Institutional capacity in this context refers to both physical infrastructure and the models, systems and processes that are applied in delivery of health care. Turning first to physical infrastructure, it is clear that most African countries do not have the necessary facilities in urban, but particularly not in rural locations to provide full health care coverage. Physical infrastructure also covers support services such as laboratories and pharmacies, and African countries are reporting severe shortages of both.

Turning now to questions of models, systems and processes, African health care systems largely use Western models of care, which requires large numbers of highly skilled health care professionals. While this model may be appropriate in contexts of relatively low disease burdens and adequate resources, it becomes untenable in most African contexts where the opposite is the case. In addition, sharply defined roles for the different groups of health care professionals create unnecessary gaps in service delivery, as certain tasks that could have been performed by lower level staff or even lay service providers at present can only be performed by highly skilled and scarce staff. The present influx of resources for specific services, such as those related to HIV/AIDS, or reaching MDGs, is also posing its own set of challenges – notably what WHO (2006)

has termed "epidemics of in-service training". To train health workers to provide certain types of treatment or service, various donor-funded programmes have provided piecemeal off-site training which has proved more draining than beneficial to overall health service provision.

Modern health care provision requires a chain of health care facilities at different levels, staffed by health workers at different levels, supported by laboratories and pharmacies, with adequate equipment and supplies – requiring streamlined procurement and supply management procedures. African countries report that cumbersome procurement procedures for drugs and other necessary supplies, including time-consuming import and certification procedures, result in occasional drug and supply shortages which in turn leads to interruption in service provision. Internal management procedures to ensure that supplies reach the health care facilities at the different levels are also often inadequate (CHGA 2004).

Within African countries, both population and health services are unevenly distributed: While the majority of Africans live in rural areas, the bulk of health services are found in urban areas, in line with the formulas for public spending which allocate more of budgets to more densely populated areas (ECA 2003). This also links to overall efficiency of the health system, which is found to be very low for African countries in general. Modeling health system efficiency based on a composite index including indicators for population health, health inequality, responsiveness (level), responsiveness (distribution), and fairness in financing, Tandon et al. (2002) find that African health systems on the whole are the most inefficient globally. The best performing African country is Morocco, ranked as number 29, and there are a total of eight African countries in the top 100. Of the bottom 20 countries on the ranking of WHO's 191 member states, 17 are African. It therefore seems that there is scope to improve health system efficiency in most African, particularly sub-Saharan African countries.

Financial capacity

African health care provision is, on the whole, severely underfunded. The WHO Commission on Macroeconomics and Health estimated that an additional US\$ 27 billion be raised annually by 2007 to close the health funding gap. Additional resources for health, particularly to scale up the response to HIV/AIDS have been available since this Commission made their recommendations, and national and international commitments for HIV/AIDS alone are projected to reach US\$ 10 billion in 2007. However, this falls far short of the estimated US\$ 18 billion needed to treat this pandemic. A problem for countries is that a large part of the funds is provided by external donors, and may come with conditions attached that complicate efficient spending, and may also be short-term, frustrating governments' long-term planning. Seeking to address funding shortfalls as well as the dependency on donor support, African governments in 2001 pledged to allocate at least 15 per cent of their national budget to health. By 2005, only one country (Botswana) had done so,

while Zimbabwe, Sao Tome & Principe, Ghana, Gambia, Tanzania, Namibia, Uganda, Libya, Mozambique and South Africa have all allocated 10 per cent or more to health (AU 2005).

The issue of 'absorptive capacity', that is, countries' ability to spend available funds, has been raised as a problem, particularly by donors who claim that it is not advisable to pour more money into systems that are unable to spend even the present resources. While some countries' absorption of funds indeed is slowed down by cumbersome budgetary procedures and other in-country factors, it does also seem that the conditions attached to much of the donor-provided funding also hampers spending. It has, for example, been a problem that donors are biased towards funding expendables such as drugs, but not the infrastructure and staff to actually deliver the treatment, resulting in the non-delivery of drugs and hence non-spending of funds. The question remains, however, whether this is a problem of 'absorptive capacity' or a problem of donors not aligning their support to meet countries' real needs. This problem has been acknowledged by major donors such as the Global Fund for AIDS, Tuberculosis and Malaria, which for the first time in 2005 also accepted applications for infrastructure development.

Healthcare is mainly funded through one of two main approaches. The first approach is that the services are paid for in advance, through government taxes and national or private insurance, or, second, services are paid for at the point of delivery. Prepayment through government spreads the cost of healthcare throughout the society, and is the most common means of finance in the wealthy countries. In poorer countries, however, most people pay for healthcare when they use it (Panos 2002). Therefore, at the household level, financial capacity can mean the difference between life and death as even seemingly small expenses can push impoverished households over a 'tipping point' where the household can no longer provide for its members. Those with the lowest incomes are more prone to ill health, and also spend the highest proportions of their incomes on health care. As an illustration, the cost of the same treatment for tuberculosis represents income from 500 working hours in Tanzania, 100 in Zimbabwe, 20 in Thailand and 1.4 in Switzerland. Sexually transmitted infections are important co-factors for HIV transmission, and the comparable costs for gonorrhoea treatment are 120 working hours in Tanzania, 20 in Zimbabwe, 6 in Thailand and 0.4 in Switzerland (WHO 2001). Currently, various kinds of health insurance schemes are underway in a number of African countries, and evidence suggests that these forms of insurance work fairly well for the majority of population in terms of reducing risk and enhancing mutual support (AU/ECA/UNAIDS/WHO 2004, see box 2).

The way forward – improving human, institutional and financial capacity for health service delivery

Africa is faced with the daunting challenge of addressing its disproportionately large share of the world's disease burden with only a small fraction of the human, financial and institutional resources available globally. WHO (2006) calculates that 36

Box 2: Health insurance gives 5 million access to free health care in Kenya

Through the National Hospital Insurance Fund (NHIF), more than five million people in Kenya can now be treated for all illnesses, including AIDS and cancer, in 380 hospitals and clinics country-wide – without paying a cent. The cover includes the cost of drugs for in-patients for up to six months, but will not include treatment in the private wings of public hospitals. Hospitals taking part in the scheme are either public, mission or private and the scheme will be extended to 501 hospitals accredited to the NHIF throughout the country.

Each district has between three and five hospitals that will now treat NHIF members. With help from the Ministry of Health, the referral system has been streamlined to ensure only provincial hospitals and one other referral hospital – Moi at Eldoret – would send cases to Kenyatta National Hospital. Patients far from the provincial hospitals would be sent to the most comprehensive hospital nearest to them.

The fund aims to pay out Sh1.2 billion in the next financial year, up from Sh800 million. Last year, the Fund announced it was increasing the minimum Sh800 paid each day to in-patients in public hospitals. Patients admitted previously received between Sh800 and Sh2,000 a day.

Source Nzioka (2006) in 'The Nation'

African countries have a 'critical shortage' of health care workers, and countries are struggling to find ways to increase the human resource base for health. Presently, a number of countries are trying different models of creating and involving a wider range of workers in the provision of health care. For example, Mozambique trains 'assistant medical officers', who after two years of training are licensed to provide certain surgical procedures which normally only doctors are licensed to perform. Evaluations show that these perform well (WHO 2003).

The present drive to provide antiretroviral medication for HIV/AIDS has also spurred innovation in health care provision, particularly in the innovative involvement of community members to perform certain tasks such as counselling and support for treatment adherence. Taking this one step further, health service provision in partnership with communities, which after all is where people spend most of their lives, can reduce the demand on health care infrastructure, while ensuring quality health services (AIDS Alliance 2005). Such innovative models of health care provision would also increase the institutional capacity to deliver health care. In addition, it will be important to streamline procurement and logistical procedures to ensure that all levels of health care provision have the necessary supplies available when they are needed.

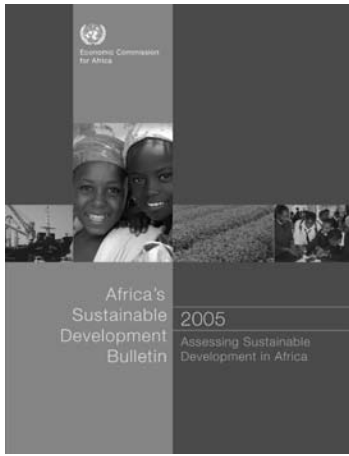
To address the present health worker attrition, measures to retain health professionals are also being discussed. On their part, the receiving countries are discussing a number of measures to mitigate the negative effect of brain drain in the sending countries. There are a number of competing interests to

consider. For example, policies to mitigate the effect of brain drain cannot violate the human right to emigrate. Compensating the sending country for the cost of educating the migrating health professional may be more likely to preserve individual freedom than policies to restrict exit of individuals (Commonwealth Ministers of Health 2003).

One major challenge to hiring and retaining health professionals are public spending 'ceilings' imposed on countries by donors to ensure macroeconomic stability, but which limit spending on health. Countries therefore need to work with donors to increase these ceilings and integrate the costs associated with the need to spend more on health – on hiring more health professionals, procuring necessary supplies, and strengthening physical infrastructure, into their development plans in order to provide fiscal room for expansion of health services. In order to increase the funds available for health, it is also important that countries strive to achieve the 2001 commitment of allocating 15 per cent of the national budget to health. At the household level, access to risk-pooling initiatives such as social or community health insurance would prevent health expenditure tipping the household (further) into poverty.

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