

**STRATEGIC INSTITUTIONAL DEVELOPMENT IN THE SOUTH:  
A CASE STUDY OF KIST**

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**Introduction:**

The crucial role tertiary education institutions play in the economic development of a country, especially a developing one, cannot be over-emphasized. The African continent, in particular, requires, perhaps more than ever before, strategies that will meet the emerging challenges in education and speed up the rate of development in the new millennium. The choice of the topic “**Strategic institutional development in the South**” therefore could not be more appropriate. In a widely liberalized global economy where bilateral and multi-lateral trade and partnerships are becoming more and more aggressive, the Southern economies must put in place appropriate strategies that will allow investment growth within the context of the emerging challenges in education.

For a number of years, as we know, the interest of many donors in basic education has tended to overshadow that of tertiary education institutions. While we acknowledge the importance of basic education as the foundation of a sound education, tertiary education institutions are the stage for practical application of education theories that directly meet national development goals. These tertiary institutions, however, need to have a systematic way of developing and implementing their policies and programs that take into account the environments in which they are operating.

One of the major hindrances to the development of higher education in the South has been (and remains) lack of sufficient support, especially financial. It is therefore my earnest hope that, through sharing our varied views and experiences, we shall arrive at some viable solutions to the many problems related to effective support of both tertiary education and research institutions in developing countries.

**KIST- A Rwandan Perspective:**

Rwanda's perspective is that of a country that is currently undergoing radical re-construction.

After the catastrophic events of the 1994 genocide and civil war, Rwanda needed a **total re-construction** of almost every aspect of society, including the economy. Given the daunting task, the Government of Rwanda identified human resource development as a key component in bringing about economic and technological development and social transformation.

Training of local specialists and technicians in all fields of engineering, technology, and management is an urgent priority of the Government of Rwanda both to replace those who fell victim to the genocide, as well as to target important fields previously accorded little attention. To move forward the strategy of human resource development, the Government of Rwanda embarked on establishing a number of institutions of higher learning, including the Kigali Institute of Science, Technology and Management (KIST), of which I am Rector.

Other institutions recently established focus on health, education, finance, and agriculture.

The establishment of the Kigali Institute of Science, Technology, and Management (KIST) by the Government of Rwanda in 1997 was for the particular purpose of addressing the acute shortage of technical skills in Rwanda through the provision of teaching, training, research, and consultancy services in science, technology development, and management. The successful establishment of KIST depended on partnerships with the UNDP and GTZ, as well as funding from the UNDP and the governments of Japan and the Netherlands. Since establishment, KIST has endeavored to live up to its mandate with continued support from the Government of Rwanda and additional support from various international development

partners that include both national governments and universities. Successful institutional development at KIST has, in fact, resulted from strategic alliances.

International response to the disaster in Rwanda focused on humanitarian emergency assistance during the first phase, from 1994 to about 1998. During the second, current phase, internationals have focused on institutional capacity and socio-economic development. The Government of Rwanda now co-ordinates aid to the country through the Ministry of Finance (MINECOFIN), and in particular through the Central Project and External Finance Bureau (CEPEX).

The Government's "Vision 2020" is the document which guides all planning. This document's six pillars are:

- The reconstruction of the nation;
- An efficient, united and uniting state;
- Human resources development;
- Land administration and management of basic infrastructure;
- Development of an entrepreneurial class and private sector development;
- Modernization of agriculture and animal husbandry.

With regard to the "Vision 2020," teaching at KIST falls into the Human Resource Development and Capacity Building areas of development, while staff research and the student projects fall into other categories of development, i.e. Agriculture, Rural Development, Land and Environment; Infrastructures and ICT; and Development of the Private Sector, Industry and Services.

Briefly, then, this is the context within which KIST has been established and has developed.

### **Development of Strategic Development Plans and Research Policies at KIST:**

How are strategic development plans and education and research policies being developed at your institution? What are the processes and methods involved?
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#### Strategic Development Plans:

Like most institutions, KIST strives to employ the scarce resources at its disposal in such a way as to enable it to attain its mission and basic objectives under the most advantageous circumstances forecasted. Formulating **strategic development plans** therefore helps KIST to define the direction in which it intends to move and establishes the framework of actions through which it intends to get there. KIST seeks to match its strengths and weaknesses with threats and opportunities in its external environment. In this way, KIST is able to be optimally adapted, as much as possible, to its environment, thereby ensuring its own long-term survival and prosperity. KIST's strategic development plans cover a five-year period and are rolled over yearly to allow for necessary adjustments that take into account the dynamic environment in which the institution is operating.

Although it opened its doors in November 1997, KIST's legal status was only formally gazetted in February 2002. During this time, KIST, through different boards, formulated its objectives and functions, forwarding them to the Government for inclusion in the Statute. In the meantime, KIST faculty and management staff consulted each other and developed an "Action Plan for Consolidation (APC) 2002-2005." This document was not a technical document, but rather a set of 18 objectives and matrices for follow-through activities. Then, in late 2001, Mr. John Farrant of Universitas Higher Education Management Consultants (funded by DFID), started work on the costing and financial projections, eventually helping KIST to produce a "Strategic Plan 2001-2006" with 32

objectives in April 2002. This date marks KIST's formal embrace of the concept of strategic planning.

Subsequently, the "Strategic Plan 2003-2008" was developed on the basis of this **first strategic plan** as well as on the basis of a report by the Education Consultants of India Ltd (EdCIL) (commissioned by the African Development Bank/ADB). Part of EdCIL's work included a labour market survey and a recommended curriculum. In December 2002, KIST held a seminar which discussed and then validated the new strategic plan. This meeting was attended by representatives of different professional fields, civil society, the private sector, public institutions, local government, and international donors. As of now, the plan has run two full years of its course and is currently under review in the development of a plan covering the period 2005-2009.

This description follows the give and take between various stakeholders: KIST staff and management – external consultants – government of Rwanda – private sector representatives – etc.... Because everyone has been involved at different points, everyone is implicated in the final product. The original "Action Plan for Consolidation" was very important for establishing staff ownership, while the statute legalizing KIST was important for the government's ownership. This process continues. The Government of Rwanda is currently harmonizing all of the laws governing institutions of higher learning. Therefore we—staff and government—are now reviewing the statute that applies to KIST. Also, every time that we work with international donors to develop and implement a project, we redefine KIST. Each redefinition imparts ownership to the individuals and institutions involved.

At inception, KIST had not developed sufficient internal capacity to undertake the

development of strategic plans on its own, and so needed to engage the services of the above mentioned external consultants. But by 2004, we had sufficient capacity to set up an **Office of Planning and Development**, headed by a manager whose primary function is to think strategically. It is the responsibility of this office to co-ordinate, formulate, prepare, monitor, review and up-date KIST's Corporate Strategic Plan and Annual Action Plans in consultation with other departments. In addition, the office is also charged with the responsibility of establishing, in consultation with the Directorate of Research and other departments, an information data-base for use in on-going and ad-hoc analysis and review of events in the economy, in general, and the education sector, in particular, to facilitate sound decision-making at KIST.

With the adoption of "The Strategic Plan 2003-2008," KIST management has recognized the need to monitor and evaluate the plan. Therefore, Deans, Directors, Council and Senate members are all meant to insert items of the strategic plan in their agendas, thereby maintaining a focus on (and ownership of) the plan's objectives. In addition, the Office of Planning is meant to issue quarterly reports that monitor implementation and generate a revised strategic plan at the beginning of each year. Finally a mid-term review is scheduled for 2006. This review has the mandate of identifying achievements, evaluating capacity, and developing a new action plan for 2008-2013.

**The process** of developing strategic plans at KIST is a shared undertaking, a collective responsibility that involves the input of as wide a range of stakeholders as possible. Although the actual document is now put together by our core planning team, spearheaded by the Office of Planning and Development, the process involves wide consultation, right from

the stage of collection and collation of data to the stage of discussing the final document. We consider this consultation process important because it gives all stakeholders an opportunity to contribute to the development of the plan and therefore ensures wide ownership of the final product.

At KIST we encourage a systematic approach to the development of our strategic plans. Since strategy entails deliberately making certain adjustments and changes in the organization, the actual choice of what adjustment is to be made depends on the outcome of the internal and external analysis. We recognize that key decisions should not be taken without taking environmental circumstances and conditions into account. In line with this, therefore, analysis of strengths, weaknesses, opportunities and threats (**SWOT**) is our first step in the process of developing such plans. This thorough self-analysis and environmental analysis is undertaken in order to understand both the present and the future situations. The self-analysis is important because it helps us to match the institution's strengths and weaknesses with corresponding threats and opportunities in the environment. Secondly, this analysis also reviews past institutional performance, thus providing lessons to help us forecast the future.

KIST then focuses on how to use the scarce resources at its disposal to exploit the areas in which it has a comparative advantage and thereby maximize benefits while minimizing vulnerability. In this way, our strategic development plans help to serve as resource guides for our institution as a whole, guiding its thinking and actions, thereby preventing it from straying into activities it cannot properly do or those that do not contribute to its objectives.

Once a draft document has been produced, a stakeholders meeting is organized during which the document is discussed thoroughly and freely with a view to having a solid final

document that is owned by all. During this session, all issues related to planned corporate objectives, policies, strategies, financial projections, and implementation plans are discussed and agreed upon. After the 2003-2008 Strategic Plan was drafted, 200 people representing KIST staff and management, the Government of Rwanda, other public institutions, the private sector, and donors met to review the plan. Only with the support of the entire community was the plan adopted.

Then, on an ongoing basis, the institution's policy framework is reviewed whereby issues such as vision, mission statements, corporate values, and plan theme are discussed. The Faculty of Science, for instance, was established as a support faculty for the Faculty of Technology. Given the interests of staff and some students, this faculty has expressed interest in awarding its own degrees. Through consultation with the Government and consideration of the KIST mission, the faculty is proposing the development of specialized degrees in applied sciences. The proposed degrees are now being reviewed by the Senate and the Council. If all stakeholders agree that the degrees correspond to the KIST objectives, then the degrees will be incorporated into the new strategic plan. Thus any change in direction is evaluated against objectives set for Rwanda, in general, and KIST, in particular.

#### Research Policy:

As an institution whose focus is science and technology, KIST views research activity as a critical ingredient in the curricula. To spearhead research in our identified areas of competence, KIST set up a **Directorate of Research and Consultancy**, headed by a Director, in 2003. The Directorate encourages, harmonizes, and develops research and consultancy capabilities within

our institution. It discusses its strategies for research and consultancy with KIST management and gains approval from the institution's Senate and Governing Council.

The Directorate acts as the pivotal point from which all research and consultancy activities for all faculties and departments are coordinated. There is a wide category of persons who take part in research, including academic staff, technical staff, students, and external partners.

While encouraging research at all levels and in all areas of interest, KIST wants to ensure that the research directly supports the institution's mission. In order to maintain an institutional focus, KIST developed, in early 2004, a formal **research policy** aimed at creating uniformity, transparency, and internal efficiency in planning, implementing, and monitoring research projects. The policy helps to give clear guidelines on the procedures to be followed in identifying research proposals, approvals of such proposals, approval of funding for such proposals, control and monitoring of research projects, dissemination of research results and finally the evaluation of the effectiveness of the research undertaken. These guidelines provide an execution framework for our researchers, while at the same time providing a clear and acceptable point of evaluation for external partners who may be research collaborators, funding agencies, or target customers.

We at KIST seek to strengthen and improve our research capacity, so we are constantly measuring performance in terms of **relevance, internal efficiency, and effectiveness**. Relevance to national development objectives is particularly important, so we identify and prioritize research areas on the basis of need. Our human and material resources are limited, so allocation and effective use are critical.

**Effect of International Dimension:**

To what extent does the international dimension, e.g. donor policies and strategies, international partner institutions and support programmes, play a role in the development and implementation of policy development at your institution?

Today, the world is referred to as a global village and institutions of higher education compete on an international field. It is not possible for institutions such as ours in the South to ignore the international dimension when formulating a development plan that is expected to guide the institution for five years. Indeed the international dimension is part of the external environment that we have to analyze carefully in our analysis.

My own institution, KIST, for instance, is a young institution which depends heavily on the government of Rwanda and international development partners to fund most its development programs. Although such international development partners may not bring to bear their influences directly on our process of strategic plan formulation, we are conscious of the effect any action caused by change of policy or attitude by such groups would have on our strategic plans. A number of programs currently running at KIST, for instance, are supported by various international donor agencies such as the African Development Bank (ADB), the World Bank, DFID, JICA, NUFFIC, USAID, to name but a few. In formulating our strategies that entail, for example, expansion of such programs, account has to be taken of the likely thinking of such institutions with respect to future support.

One of the difficulties that we have faced is that the seed capital provided by donors was set for a period of five years. This time period has turned out to be too short, as KIST is not able to generate funds from student fees sufficient to run independently. KIST is therefore working

hard to implement additional income generating activities. Even so, management has had to scramble, working with the Government and donors to generate enough funds to cover expenses while at the same time reinforcing internal capacity. Perhaps the start-up period for a technical institute should be planned for at least 10 years, with funds directed toward infrastructure during the first five years and then funds in the second five years focusing on working capital and capital expenditure.

In the case of CITT, our Center for Innovation and Technology Transfer, the governments of Britain and the Netherlands have worked closely with KIST and the Rwandan Government to develop and implement projects that innovate and disseminate appropriate technologies to the rural population. The give and take between KIST and donor agencies in this case has been extremely fruitful as both sides agree that reaching the grassroots level as directly and as quickly as possible is crucial in bettering the lives of ordinary Rwandans. In fact, I find that there are primarily positive results: KIST gains support and advice (and thus Rwanda gains greater capacity in its institute), while the donor agencies gain a better understanding of Rwandan realities and ingeniousness, increased influence among stakeholders, and a stronger partner for the future.

**Influence of Globalization:**

What is the influence of globalization, new forms of education delivery and ‘the market’ on policy development and implementation at your institution?
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The effect of globalization has been phenomenal, thanks mainly to the terrific advances in information and communications technology (ICT). Suddenly the world is a smaller place and

all of our institutions are meant to compete on the same playing field. With respect to education, this effect has been rather overwhelming for the Southern institutions, but good progress has been made in trying to cope.

The aspect of globalization that has most affected KIST is ICT, which, through the power of the Internet, has facilitated several new forms of education delivery such as on-line distance learning and electronic libraries. At KIST, we have taken these two challenges in our stride and moved to embrace these new methods of education delivery. His Excellency, the President of Rwanda, and his government particularly deserve credit for being strongly supportive of ICT as a positive force in education and development.

As a member of the African Virtual University (AVU), for example, KIST works in collaboration with the Royal Melbourne Institute of Technology (RMIT) and Curtin University of Technology (both in Australia) to offer high quality distance learning via the Internet. Through this program, we facilitate access to the same world-class education offered by AVU in over 34 learning centers in Africa. AVU's teaching methods include a blend of online and in-class learning and flexible delivery systems, combining e-learning, discussions with onsite facilitators, web-seminars, and video broadcast. Our first AVU graduates were, in fact, awarded their diplomas in March of this year.

Electronic libraries offer a solution to a problem faced by most of our institutions—most of which still rely on the traditional libraries that are badly stocked, falling well below the UNESCO norm of students-to-book ratio of 1:20. Given the UNESCO benchmark, KIST requires about 70,000 volumes or the equivalent in CD ROMs and subscriptions to remote electronic sources in order to come up to norm. As part of its development, we are proposing

to have our library interfaced with our Computer Centre to establish an electronic library where students and staff can have access to electronic information held on the CD ROMs or have access to virtual libraries through the Internet.

While these new forms of education delivery hold great promise for Southern institutions, they also require huge investment in infrastructure. Setting up a computer laboratory is not enough. One must also consider the strength of the server, the reliability of the internet connection, the reliability of the power source, not to mention the capacity of the teacher and the librarian—the human infrastructure. All of which is to say that a strategic response to global changes requires a multi-disciplinary, consultative process that will generate the most fully elaborated strategy possible.

**Cooperation modalities:**

Which elements of the various modalities of international relations (e.g. donor requirements, cooperation modalities, capacity building approaches) do you consider most effective? And which are not? Please explain and indicate what should be improved. In other words: what lessons can be learned, and what are your recommendations?

KIST attaches great importance to its international relations. The establishment and success of KIST is due to the efforts of Rwandans, Africans from other countries, and concerned individuals and governments from the world at large.

With regard to donor requirements, I would like to acknowledge the efforts at harmonization on the part of donor countries and institutions. The “Rome Declaration on Harmonization (2003)” demonstrates donor commitment to developing procedures that pose

less of a burden on developing countries. This commitment is surely a positive step. The concern for “transparency and accountability” is also welcome—It is in the interest of both the donor and the recipient institution to promote good governance. However, the requirement that an institution have some funds set aside as its contribution to the project is more problematic. While matching funds are a genuine sign of commitment, some of our institutions may not be in a position to raise the required funds. Accepting a contribution in kind—in the form of land, labor, or any other material contribution that the institution is able to make—could be a solution.

With regard to capacity building, I would like to stress the need for multiple approaches that look to both short-term and long-term solutions. Let me look at the example of staff: KIST started out with primarily international staff. This strategy allowed for attaining short-term success. At the same time, as part of its long-term expatriate staff exit strategy, KIST has started sending its local staff abroad for studies and for training sessions. Local and international staff also benefit from joint projects with international organizations and institutions. In addition, KIST has introduced requirements to encourage applied research. In this way, a university could support staff development at KIST through offering scholarships, while a government could do so through joint projects or the funding of short-term training. Each method is valid within the wider framework of KIST’s plan for the capacity development of its staff.

To be more specific, one short-term solution to skills deficit is to get support for capacity-building through technical assistance, entailing the attachment of expatriates to the institutions. The negative result of this approach is that huge chunks of the budget assistance

actually go to such consultancies rather than directly to the intended institutions. In most cases, the choice of such consultants is not even up to our institutions. We can, however, modify this approach into a long-term solution. These consultants, if they work jointly with our staff, can be part of the wider process of local capacity development. With a clear plan for capacity development in place, an institution can work with donors to ensure that the technical assistance actually builds capacity at all levels. Thus, the technical assistance resolves an immediate problem and provides local skills development for the long term.

A second short-term solution is to send local staff abroad for short courses. This method is very effective because the staff members gain from the experience abroad in addition to learning new skills. It is, however, very costly to send so many individuals abroad. A longer-term solution is to send staff abroad for full degree studies. This method is again very costly, but results in highly qualified local staff. One drawback is that students sometimes study subjects that do not have direct relevance to their own countries.

We have found that the sandwich programme for post-graduate studies works the best. This programme includes both local studies with a supervisor and study abroad with a second supervisor. This approach is less costly as some of the studies can be completed locally. It is also more likely to produce study and analysis of relevant issues. These studies often lead to long-term relationships with the supervisors and institutions abroad. The one drawback is that the approach requires careful coordination with regard to logistics and expectations for completion.

Thus, in the case of capacity building, institutions need to take the time to work with the government and donors to make sure that skill deficits are addressed in the short-term, but

that capacity building is constantly addressed by both the short-term and the long-term approaches. The government and the donors can support real capacity building by including staff training in the terms of reference for expatriate consultants and by being willing to invest in the new sandwich programmes.

When it comes to international relations, the key strategy that KIST has employed is communication. In November of 2003, for example, we held a conference of partners, stakeholders, and donors, focusing on growth and sustainability. During two days of deliberation, participants looked at the contributions of KIST to education and national development, reviewed the Strategic Plan for 2003-2008, and framed strategies for mobilizing the funds (\$25 million) needed to consolidate gains and sustain growth. Participants represented so many agencies and governments that I hesitate to name even a few. The result of the conference was an energetic mobilization of forces that has helped KIST to move forward with direction.

Overall, KIST has had very positive international relations. The relations have been positive, in part because of donor good will. But relations have also been positive because KIST has carefully aligned its own strategic plan with that of the Government of Rwanda. In doing so, it has maintained its focus and its legitimate role in the development of the country. As a result, international institutions and organizations can invest in KIST, confident that the benefits will reach Rwandans at all levels of society.

### **Conclusion:**

Nuffic has called on participants to “to make support to tertiary education and research in

developing countries more effective” (meeting announcement, 1). A positive development in international relations that I would like to highlight is “ownership.” Donors around the world have recognized that only when a government or an institution “owns” a plan or a project, only then is there hope for successful implementation. KIST has developed its own strategic plans and policies by working closely with the Government of Rwanda to ensure that these plans fulfill government objectives. Doing so has enabled KIST to actually *work with* partners. We know the needs of our country and our institution, and we know our objectives; Therefore, we are able to engage with partners in finding solutions. International relations that truly promote capacity building will only exist when we, institutions of the South, take responsibility for articulating our needs and strategies. Let us, North and South together, identify “things that work,” take ownership, and make support even more effective.