



LINKING EDUCATION TO ECONOMIC DEVELOPMENT

Newsletter

In the last issue, we reviewed the change in perception of the possible contribution of education to economic development and looked at a case study of Madagascar as a good example of education planning utilizing economic analysis. This issue deals with a general review of African experience in this domain and one of the Asian experiences, in particular, a Korean case.

One of the most notable differences in the pace of development is that between Africa and East Asia: African economies have grown very slowly in the 30 or so years since independence, whilst East Asian economies have grown at a brisk pace. At independence many indicators such as per capita income showed that Africa and East Asia were at the same levels of development. Indeed a few African countries had higher per capita incomes than some of their Asian counterparts. African countries appeared to be more favoured than many East Asian countries, Korea being a case in point. Despite these initial apparent advantages of Africa, East Asia managed to forge ahead at a much quicker pace than most of Africa.

One reason is that many countries in East Asia had gained independence roughly a decade before African countries did. Another may be that countries like Korea had been totally destroyed by a combination of Japanese colonialism and two major wars, whereas African countries inherited more or less intact colonial systems of government. Korea suffered major catastrophes including the destruction of its feudal system, the re-distribution of land, and the fact that it had inherited few natural resources.

Professor Aloysius Amin provides us with a theoretic basis for linking education to economic development with the focus on Africa. Major changes are needed both in the education and in the economic planning systems. He examines the experience of manpower planning and its drawbacks.

Dr. Yang-Ro Yoon analyzes the differences between the education policies and programmes of Korea as compared mainly to those of Kenya and East Africa. Korea provided a high quality but low cost primary education for all for several decades, but left secondary and tertiary education as mainly the responsibility of the private sector. However the private sector was closely supervised, and also received grants and subsidies which allowed them to expand. Educational attain-

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ment was used as the main criterion for social improvement. Girls and women were given equal opportunities for education, despite a traditional culture that was decidedly *macho*. As Korea became more prosperous, the government was then able to take greater responsibility for secondary education. Higher education remains dominated by the private sector. In East Africa there was more investment in tertiary education, whilst poverty stricken parents had to make serious sacrifices to ensure that their children received adequate primary education. Important investments by the Korean government included ensuring high quality subsidized and affordable textbooks, and sound and continuous training for teachers.

Interestingly enough Koreans did not allow outsiders in the form of donors, including such an important multilateral agency as the World Bank, to make decisions for them. Instead they quietly but stubbornly ensured that outside aid would be utilized in ways that they considered best, and eventually they were proven correct.

It would be interesting to see if Africa will be able to make the economic and developmental breakthroughs that have been made in East Asia. Education remains a pre-requisite for such development. It is important to note that, for economic development, investing in education and achieving planned outcomes are just a starting point. As indicated in Dr. Yoon's article, what is crucial is to establish mechanisms such as institutions, regulation and incentive structures, which can effectively translate educational outcomes into economic outcomes. Such mechanisms should differ depending on each country's given context: history, natural resources, human resources, political regime, cultural factors, etc. Therefore, it is essential for each country to define their own development path and develop their own mechanisms.

Education Planning for Economic Development

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Abstract: Investment in human capital builds and enhances the capacity and skills of the labour force and generates the appropriate knowledge for technological progress, all with the main goal of higher productivity, growth and development. Yet a conscious effort must be made to integrate education fully into economic plans of African economies, such that educational reforms move at least simultaneously with economic reforms and not lag behind economic reforms.

Introduction

It is now generally agreed that a well trained, skilled labour force or work force is necessary for socio-economic development of any society or country. Educational productive value is a function of educational level, the subjects studied, the relation of the training to the occupations and the economy. This means that the labour force with higher levels of educational qualifications may not necessarily generate economic growth. This may be because the content of education is not relevant to the needs of the society.

Technological progress arises from human capital accumulation. It is promoted by deliberately increasing resource utilisation and investing in people. Increase in human capital accumulation increases the stock of technical knowledge and in turn raises the productivity of productive units. Higher productivity increases depend on a flexible labour force with ability to change. Technological progress also generates increases in productive resources. Technology increases economic resources and consequently increases in productivity and output. Output expansion or economic growth is central to economic development.

There is a difference between economic development and economic growth. Economic growth refers to quantitative expansion of economic aggregates such as gross domestic product (GDP) or income per capita or aggregate society endowments. Economic development deals with the process of quantitative expansion as well as qualitative changes in factors such as institutions, organisation, culture, etc in the economy. For instance, economic development involves the distribution of income or wealth towards a more equitable distribution, sectoral distribution of income, employment changes with increases in employment opportunities, changes in production techniques or production methods accompanying economic growth. Thus, eco-

conomic development can lead to improvement in the quality of lives of the people. The right policies can generate economic development that is promoted by economic growth based on the appropriate human capital formation.

Educational and Manpower Planning

In the earlier years of Educational and Manpower Planning, estimates of manpower needs were derived from economic targets. The targets were fixed by planners and underlying the targets was the productivity of the required labour. The projections of manpower needs were therefore determined according to sectors of the economy and by occupational categories with levels of education such that the manpower required was expressed in educational targets, but this was sometimes based on the available resources. It was thought possible to integrate economic planning with educational planning. Yet it was hardly done. Educational planning was done separately from economic planning. Throughout it was implicitly assumed that the educational system had the ability to adjust the structure of the labour force with production target corresponding to occupational structure.

Manpower requirements, forecast and planning were focused on high level manpower. Within the high level manpower the stress was on the subsection of manpower such as scientific and technical personnel, and the length of time required to train this high-level manpower. The primary objective of the manpower plans was to reduce the acute shortage of manpower, since there was dearth of high-level and middle-level manpower. This was said to be a major constraint on economic growth. With better statistics, it was believed that technical coefficients would be used to assess manpower needs

in the education system by using input/output coefficients as in economic planning. Yet the occupational structure as it is related to the productivity employment structure is not properly known in many African countries. For example, the informal sector and the rural sector with mainly self employment were often not included. Despite these initial efforts, there has been no coherent and comprehensive linkages between the educational and manpower plans with the economic plans of many African countries.

Initially, there were great shortages of high-level personnel. Although today there are still acute shortage of highly skilled persons for certain occupations in many African countries, yet there are also manpower surpluses involving different levels of education.

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What do we do then? Shall we allow the invisible hands of the market where prices reflect marginal productivity or marginal utility to do the job? Note that the inherited colonial incentive structures do not really reflect the so-called marginal productivity nor the realities of the society, for example, disparity in the income and social structure, and sectoral distribution with contribution to GDP. So shall we do away with a competitive market system? No, this is not a choice between the market mechanism and the government mechanism. They are complementary.

The market system cannot do the job alone as it has long been seen. Yet mathematical approaches should be cautiously used, as manpower projections are subject to errors, and their validity depends on the data or assumptions used. This means the continued utilisation of manpower projections but improvement in the assumptions made and data used. Some countries, when they say labour market forecasts, they mean occupational forecasts. Manpower forecasts have therefore taken different forms.

Manpower requirements should include short and medium term and not only long term forecasting. So the structure of manpower planning should include specific proposals for meeting short and middle term needs. Implications for long term projections are immediately observed in the current budgetary decisions. Providing the population with education involves utilizing much scarce resources: once used on education they cannot be used for other purposes. How do you determine the optimal share of resources to be devoted by a country to education at a given time? Is planning supported by careful job analysis or study of the country's needs?

Evaluating Educational Plans

Educational planning has been limited to formal education (in fact often only to part of formal education), excluding non-formal and informal education. The planning within this restricted sector has not been comprehensive, such that the outcome has been the production of educational output not only much greater than employment opportunities but not relevant to the society's needs. This also means posing problems of labour productivity in African economies. Labour productivity should really be increasing. Modern

technologies are both capital and knowledge intensive and raise labour productivity significantly, but in African economies simple technologies are labour intensive with little capital usage producing very low levels of labour productivity.

There has been very serious methodological and fundamental criticism made against manpower requirements approach. In spite of these criticisms, manpower forecasting in some countries serves as a reference point for policy makers to take decisions on educational investment and also provides assistance to occupational and educational guidance. The informational function goes further to inform firms on workers' educational background. But it is limited in giving an overall balance between labour supply and labour demand, involving all occupational categories, type of education, and educational levels with qualifications. The contribution of occupation to the national output or national production is not quite clear. Many problems emerge as it is easy to measure the production of some occupation but difficult to measure that of others. Agricultural and industrial production can be easily measured but service contribution could be quite difficult.

Educational Reform: Quality and Quantity of Education

Educational reform is always concerned with re-examining the role of education in the economy and nation-building. This therefore involves looking at national goals and how they are served by the educational system. Evidence seems to show that the efforts towards educational reform have not been successful.

Emphasis has been on the quantitative aspects - expansion of educational output to the neglect of quality and relevance. Quantitative expansion generates imbalances between different levels of the educational system, between the mix of educational outputs and the needs of the labour market.

Lag in Educational and Economic Reforms

There has always been a great lag between changes or reforms in the economies and the changes in the educational system. Technological progress

tends to rapidly move with the changes in the economic structures of the economy. Delays in changing the education system to cope with the economic system would tend to produce lower growth and generate more poverty. A good knowledge base generated from human capital formation should make it possible to sharply shorten the lag between educational reform and economic reform, with knowledge generation applied in such a way that socio-economic issues are addressed appropriately. There is therefore a need for the labour force to increasingly acquire higher average levels of skills, knowledge and information for greater equality in skills distribution within the population.

The Asian case is a good example where there was general basic human capital investment in both men and women. The educational system was reformed simultaneously with the economic system. Countries like South Korea, Taiwan and Thailand emphasised on market mechanism, competition and international trade, at the same time ensuring that there was broad-based participation in economic growth. Economic gains and growth were well distributed. Barriers to economic mobility were removed and gender equity was promoted mainly through the education and employment of women. These were based on strategies that could easily be adopted to different economies.

Information and Communication Technologies

The use of knowledge and information technology is increasingly becoming dominant in some economies such that these economies produce very high value added products. The knowledge economy is based on the use of global infrastructure for telecommunications, data exchange, media and entertainment, knowledge and publishing industries, computer hardware and software industries, new financial systems supporting online transactions, emerging global legal infrastructure, etc.

The global coverage of information and communication technologies (ICTs) is changing societies and development patterns. Those that do not embrace ICTs are left behind and marginalized, thus limiting their growth and development possibilities. Purely agricultural economies (such as African economies) tend to be excluded from the global economy and at the same time are being exploited.

Conclusion

The government influences changes in the principal economic variables and sets specific quantitative targets to be achieved in a given period of time. This does involve allocating scarce resources among alternative uses such that there is maximum benefit to the economy. A good relationship between objectives, constraints and

policy instrument variables must then be established, with a proper plan implementation involving administration, instruments of implementation, a system of incentives, and constant evaluation.

How can educational planners then optimize the positive educational development on employment and development? A possible way out is to have a good integration of educational planning into the economic planning. This would involve a proper and efficient alloca-

tion of resources inter-educational levels and intra- educational levels as well as in the economy, that is manpower requirements going together with national socio-economic priorities. What are the resources available to the nation? Can the nation offer more education to its people? All this may depend also on the resources and the rate of economic growth. Economic growth is very important as it also generates more resources, for the provision of more education.

Selected References

- African Development Bank, *Human Capital Development in Africa*, Africa Development Report, Abidjan, 1998.
- Indermit S. Gill, Fluitman, Fred and Amit Dar, eds. *Vocational Education and Training Reform*. World Bank/ILO Joint Study. 542 pp. OUP, New York, 2000.
- Obanya, Pai et al, *The Dilemma of Education in Africa*. 620 pp. UNESCO/BREDA, Dakar, 1999.
- Pindyck Robert and Daniel Rubinfeld, *Microeconomics*, 668 pp. MacMillan Publishing Company, 1989.
- UNESCO/IIEP, *Manpower Aspects of Educational Planning*. 264 pp. Paris, 1968.

Effectiveness Born Out of Necessity: A Comparison of Korean and East African Education Policies

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Abstract: Today, many observers attribute much of the difference in developmental success between regions to fundamental differences in their cultural and geographic preconditions and institutions. We argue that this conventional wisdom is seriously incomplete; through a detailed analysis of Korean education policy since independence and frequent comparisons to East African experiences, we hope to show that “pragmatic differences” also played a big role.

The success of Korea’s post-war education policy is interesting in particular because it is due less to the amount of resources invested in education than to the effectiveness of its policies. This paper tries to determine how this effectiveness was achieved, and what background factors made it possible.

We identify the following pragmatic factors in particular as crucial to the long-term success of Korea’s education policy. First, there was a highly focused social and political will to develop based on consensus on the paramount importance of education to achieve it. This resulted in “a change mindset”, an aggressive and at the same time highly flexible drive for results. Here we analyze in detail the provision of appropriate incentives, in particular the role of the meritocratic examination system in generating a high private rate of return on education. A third key pragmatic factor was the Korean government’s ability to make tough choices in the face of very tight scarcity constraints. The initial choice of quantity of people educated over the investment per head, coupled with willingness to temporarily sacrifice fixed standard of educational quality, and second, the priority of investment in primary education until at least the early 1970s.

Based on striking similarity of the situations between Korea and East Africa following their independence, we draw frequent comparisons between the two, and argue that the Korean experience contains valuable potential lessons for Africa that are relevant and applicable today.

¹This is a summary of a working paper with the same title. The complete paper can be obtained from the author at Yyoon@worldbank.org. The usual disclaimer applies. The opinions expressed in this paper are just the author’s and do not necessarily represent those of the World Bank or the ECA region.

Introduction

Today, the social sector is given increasing priority in development: it is now widely accepted that education and health are critical to poverty reduction and economic development. Indeed, major international finance institutions and the UN have jointly adopted increased investment in education and health as a key to their poverty reduction strategy (Social Summit, 2000).

These ideas are partially supported by existing research. For example, a number of authors have found that public spending on education has positive effect on education indicators (see, for example, Flug, Spilimbergo, and Wachtenheim, 1998). On the other hand, it appears that only a small fraction of the benefits from public spending on human development accrue to the poor (Chu, Davoodi and Gupta, 2000). Likewise, recent econometric studies find no systematic evidence that public spending on the social sector has significant positive effects on economic growth or incomes of the poor (Lundberg and Squire 1999, and Dollar and Kraay 2000). To throw light on this apparent disconnect between public spending on education and outcomes in terms of growth and poverty reduction, we will analyze in this paper the experience of one prominent example of successful development through education, that of Korea from 1960 to 1990. This example is interesting in particular because Korea's success was not due to an unusually large economic investment in human resources; in fact, Korea devoted less than average of their GNP to public expenditure on education (in the period 1965-95, between 1.8 to 4.4 percent). In other words, Korea must have been especially effective in translating the resources devoted to education into educational and economic outcomes.

Effectiveness has indeed become an increasingly central concern in the discussions of development policy (World Bank, 1998). In particular, in the context of the Millennium Development Goals (MDGs), it is generally agreed that besides substantial increases in foreign aid, achieving these goals in a sustainable manner will require that they be used much more effectively than in the past. Creating a sound policy environment, good governance practices and widespread ownership are widely viewed as crucial; our analysis of the Korean experience illuminates all of these.

In this paper we will therefore describe the various mechanisms through which Korean education policy was made effective. We will also analyze in a somewhat more speculative vein which background factors enabled these mechanisms to work and drove key policy choices. The emphasis of the paper will be on the role and interplay of various policy measures, and institutional and attitudinal factors in a specific historical context.

Korea has undoubtedly achieved the basic development goals as illustrated by the MDGs, even though its education system clearly needs further reforms (as do its political and economic systems more broadly). Indeed, some of the policies so successful earlier on make further reforms particularly necessary now (see, for example, Lee 2001). By contrast, while Africa started out after independence in the 1960s in a similar situation, and while in the beginning it pushed educational development aggressively as well, its efforts failed to be sustained since the late 1980s. Today, in education as in other dimensions, Africa is the region farthest away from the MDGs. We will thus compare the Korean record with that of East African countries to draw lessons from the Korean experience and to explore the implications of these lessons for East Africa. To ensure the relevance of our analysis for East Africa, the focus will be on the 1960s and 1970s.

Finally, there was a near-consensus among development experts at the time that Confucianism was a serious hurdle to economic development. Indeed, since Korea also lacked natural resources of almost any kind, it was frequently considered a "basket case" (Berger, 1987). Only since the mid-1980s, with increasingly evident success of East Asia did development experts start to revise their views and attribute a positive, growth-promoting role to Confucianism. While Confucianism has undoubtedly played a role in Korean development, we shall argue that this difference in cultural "endowment" is not sufficient by itself to explain disparities in outcome between Korea and East Africa. As two factors that are not a mere extrapolation of the Confucian heritage, we identify an (unfulfilled) desire for democracy and a mindset of aggressively pursuing change driven by self-confidence underneath.

At the center of the paper is a detailed analysis of the broadly "pragmatic" factors that were crucial to the

long-term effectiveness of Korea's education policy. We identify the following in particular. First, there was a highly focused social and political will derived from Korea's desperate need to develop and the paramount importance of education to achieve it. This resulted in a "change mindset", an aggressive and at the same time highly flexible drive for results; many policies were tried and adapted or revised according to their effects and to changes in the situation. In particular, the provision of appropriate incentives of the various participants in the educational process (students, teachers, parents, and bureaucrats) was carefully considered and played a crucial role in the shaping of education policy. The highly meritocratic and transparent examination system in particular helped to generate a high private rate of return on education. A third key pragmatic factor was the Korean government's observance of fiscal discipline, its ability to make tough choices in the face of very tight scarcity constraints, and to receive the public's support in them. Two examples stand out in particular. The initial choice of quantity of people educated over the investment per head, coupled with willingness to temporarily sacrifice fixed standard of educational quality, and second, the priority of investment in primary education until at least the early 1970s.

I. BROAD TRENDS: WHAT HAPPENED?

Here we compare the initial situations of Korea and the East African countries in the 1960s and the broad trend of their economic and educational evolution.

Economic Growth

The Korean economy in the 1960s and in the early 1970s was at par with or behind East African countries. For example, in 1962 Korea's GNP per capita was US\$ 87, while Kenya's was US\$ 90. In 1970, Korea's GNP per capita was US\$ 270, still lagging behind Zimbabwe's of US\$ 330. The Real GDP growth rate of Korea was also similar to that of Kenya until 1980: for the period of 1961-65 5.9% growth in Korea versus 3.5% in Kenya; for 1966-70 10.6% growth in Korea versus 5.9% in Kenya, for 1971-75 8.2% growth in Korea versus 10.0% in Kenya,

for 1976-80 7.2% growth in Korea versus 7.2% in Kenya.

Other economic indicators also show that East African countries did better than Korea until early 1970s. The gross savings rate (as % of GDP) was higher, the trade balance was better and the share of agriculture in GDP was similar or lower in East Africa. The statistics of 1965 were as follows: gross savings was 8% in Korea, 15% in Kenya, 13% in Uganda and 14% in Zimbabwe; trade balance was -8% in Korea, and 1% of GDP in Kenya and Uganda; and the agriculture constituted 37% of the GDP in Korea, 35% in Kenya and 20% in Zimbabwe.

However, Korea's continued rapid economic growth even after 1980 together with a fast decline in population growth led it to approach the ranks of high-middle income economies, leaving Kenya and the other East African countries behind. Over the period 1980-95 Korea's real GDP growth rate was about 5% higher than Kenya's every year. In Korea, population growth rate declined from 2.7% in 1962 to 0.9% in 1993; in Kenya, it increased from 3.2% in 1965 to 4.2% in 1980 and then declined to 2.6% in 1995.

In 1996 Korea's GNP per capita had reached 10,600 (US\$ 7,980 in 1998 after the financial crisis): the equivalent 1996 figures (in current US Dollars) were US\$ 320 for Kenya and US\$ 610 for Zimbabwe. In 1995 gross savings rate was 36% in Korea, 12% in Kenya and 17% in Zimbabwe; in the same year agriculture constituted 6% of GDP in Korea, 31% in Kenya and 15% in Zimbabwe. Korea's economic growth led to the reduced poverty and lower income inequality. The Gini coefficient in Korea was around 0.35 between 1965 and 1990, while in Kenya it was about 0.6 in 1971-80.

Educational Expansion

There is a large disparity in education between Korea and East Africa in the 1960s; but this can partly be attributed to the time lag of their independence (1945 in Korea versus the 1960s in East Africa) at which point they were roughly comparable. Korea and all of East African countries shared enthusiasm for educational development right after independence with particular attention to rapid expansion of educational opportunities for their children as part of nation building. In 1980, about 15 years after inde-

pendence, East Africa caught up with the educational level of Korea in 1960 particularly in literacy, primary and secondary education (after 15 years of Korea's independence).

However, Korea and East African countries have taken very different paths in the next 15 years after independence. In the 1960s Korea's economic take-off combined with a decline in school-aged children led to continuing progress in education. The illiteracy rate reached 3 percent in 1995; universal enrollment in primary schools was achieved by 1965 and in junior high schools by the mid-1980s; and high school education has been almost universal since the late 1980s. Enrollment in tertiary education also expanded quickly in the 1980s. More than half of all school-aged children now receive tertiary education.

In contrast, the educational expansion in East Africa stagnated since the 1980s except for Uganda and Zimbabwe.

Public Spending on Education

All East African countries (except for Ethiopia) spent a much larger fraction of total government expenditure on education throughout. Since East African governments also spend a larger proportion of their GNP than Korea, public investment in education is much higher in East African countries in relation to GNP.

During the first 14 years since its independence (1945-58), Korea spent only about 4% of its government expenditure (including foreign aid) on education, which is about 0.5% of GNP. In 1959 the Korean government increased the share of education in government expenditure to 15% to launch and implement the 6-year plan for universalization of compulsory primary education. The share of education expenditure again increased to about 21% until 1971 when the second plan for primary education (1967-71) aiming to improve the quality of education was completed. With completion of the two plans, the government reduced the share of education budget to about 14% in 1972; since then it has remained between 14 to 17%, amounting to 2.2-4.4% of GNP.

By contrast, for example, Kenya spent 18-23% of its government expenditure in education which amounted to 4.6-6.8% of GNP in the 1960s and 70s. The education share remained 17% throughout to the mid-1990s, amounting to roughly between 6.8-7.1% of GNP. Kenya spent

twice as much as that of Korea over the same period although their educational growth has become much slower than in Korea since mid-1980s.

II. HOW?

This section explores in detail how Korea was able to expand educational opportunities rapidly and sustain the expansion in the long run while committing comparatively few public resources. We shall emphasize the following points in particular. The Korean government recognized from the very beginning the tight resource constraints it was facing. Due to the determined outcome orientation it was able to make tough trade-off decisions and to maintain strict fiscal discipline. For example, early on the government set a clear priority for primary education in allocating educational expenditures. In order to ensure cost-effectiveness of the spending the government was willing to sacrifice temporarily some quality in order to achieve universal primary education rapidly. To limit the damage resulting from this emphasis on the quantity, supplementary measures were taken to ensure minimal levels of quality. The government systematically supported the delivery of education services by the private sector for secondary and higher education, thereby counterbalancing the government's emphasis on primary education. Expenses for school operation were funded through user charges on top of taxes. We will make frequent comparisons to the situation and experience of East African countries. The linkages between education, economic growth and poverty reduction in Korea will be also explored.

Commitment to Primary Education

The distribution of educational expenditures can be as important as the amount of educational expenditures. At the early stage of its development, the Korean government tried to provide primary education for all, by leaving upper level education to the private sector. Between 1965 and 1975, the Korean government invested about 65% of the total educational budget in primary education, 20-25% in secondary and less than 10% in higher education. The government shifted weight to secondary education in the 1970s with the universalization of primary education (UPE) and still later to higher education.

share of secondary education in the total education budget had risen to about 33 percent while primary education had declined to 50%. For higher education, government expenditure has been low throughout. Even when the enrollment rate for higher education had reached 48% in 1992, the share of government educational expenditure on higher education was still only 7%. The government's strong commitment to the primary sector is also reflected in that over 97 % of in-school expenditures of primary schools are covered from the government educational budget while the percentage is declining with level of education: 59% for junior high (middle) school, and only about 27% for high school, college and universities.

The government has made a conscious effort to equalize the quantity and quality of primary education irrespective of gender, geographical location and socio-economic status. The investment in girls' education from early on should be noted especially given the tradition of serious bias against women in the Korean society. Thanks to the government's effort Korean girls' primary enrollment rate was very high already in the 1960s by world standards.

In contrast, although all East African countries declared a strong commitment to primary education, their budgets reflected the governments' stronger emphasis on higher education. For all East African countries, the proportion of public education expenditure allocated to

primary education has been much lower than that of Korea in 1970 (41%-49% versus 64% for Korea), despite the weaker primary sector in East Africa at the time. For tertiary education for the same year, the reverse is found for all East African countries (shares of 12-20% in East Africa versus 8% in Korea), even though East African countries had much lower tertiary enrollment rates (tertiary enrollment of less than 1% in East Africa versus 7% in Korea). It is well established in numerous studies that lack of financing for primary education in East Africa imposed large financial burden on poor households and more adversely for girls' education: this has contributed to lower enrollment of girls in primary (and other levels of education).

In addition to the higher share of budget allocation for primary education, population and economic growth rates determine the absolute amount of public expenditure per primary student. In 1965 public expenditure per primary student in Kenya was three times as much as that of Korean student: US\$ 22 in Kenya versus in US\$ 8 in Korea (in current US Dollars). While the primary school aged population in Korea declined since 1975, it grew 3.8%-4.7% between 1975-1990 in Kenya (Table 1). The gaps in population and economic growth rates reversed the trend from the 1970s: in 1990 the public expenditure per primary student was US\$ 51 in Kenya versus US\$ 694 in Korea which was 14 times that of Kenya.

To make up for the budget constraints, the government encouraged the private sector to build secondary schools and tertiary institutions. To attract the private sector and to assure the quality of education and equity between public and private school students, the government developed a complex system of incentives and regulations that has been constantly adjusted to a changing environment. The private sector actively responded to the government's encouragement.

The private schools' share in total enrollments has been very significant at all levels but the primary. For junior-high schools, enrollment in private schools accounted for 44% in 1965 and decreased to 24% in 1997. For high school education, the private sector accounted for 51% of the enrollments in 1965 and its share continued to increase to 58% in 1997. For junior colleges, the corresponding numbers are 89% in 1966 and 97% in 1997. For the past three decades, the share of private sector remained stable at around 70% for 4-year higher education institutions. In 1997, almost 80% of 3-5 year-olds were attending private kindergartens. The share of private education beyond the primary school level is larger in Korea than in any other Asian country.

The private sector has also played a significant role in the expansion of the secondary education in some of East African countries, especially when the government as short on budget similarly to the Korean case. However, there are a couple of marked differences between Korea and East African countries' extent and pattern of private provision of education services. First, in all East African countries, higher education is largely provided by the public sector and as discussed above the students were largely subsidized compared to primary student. Second, the Korean government has made a constant systematic effort to promote and support existing private initiatives for education (as public goods), and integrate them later into public institutions when the government can afford it; the government also provides financial support for private schools to ensure their viability and the quality of education for students. However, in East Africa the government had a tendency to support government schools only without rendering adequate support for private schools in a systematic manner.

Table 1: Population Growth of Primary School-Age (6-11 years of age)

Population Age 6-11 Average Annual Growth (%)				
	1965-75	1975-80	1980-85	1985-90*
Ethiopia	2.4	2.4	3.9	2.9
Kenya	3.8	4.3	4.7	3.8
Tanzania	3.8	3.7	3.9	4.0
Uganda	3.5	3.3	3.6	3.2
Zimbabwe	3.4	3.2	2.0	3.4
Korea	0.7	-0.4	-0.4	-0.3

*/ World Bank Estimates

Source: Lockheed, E. Marlaine et.I., Improving Primary Education in Developing Countries, Oxford University Press, 1991; World Bank, A Statistical Profile of Education in Sub-Saharan Africa, 1990-1993; and World Bank, World*Data CD-Rom (CDR)

Private Sector Delivery

Private Financing of Education

Another factor behind Korea's fast educational growth is the substantial share of the financial burden borne by parents and students. Due to budget constraints, the government encouraged private foundations to establish secondary schools and higher education institutions. Expenses for school operation were funded through user charges on top of taxes. Private financing accounted for about two-thirds of total direct expenditures on education in Korea.

In-school expenditures are the expenses incurred in the construction and operation of schools. These are financed by central and local governments, by students and their families, or by private foundations. Compared to other countries, Korean parents have played an important role in funding in-school expenses (in the form of tuition/fees and PTA membership fee): the private households' share of in-school expenditure has been about 42-43% in the 1960s through 1980s and started to decline in the 1990s to 32% in 1994.

However, it should be noted that the contribution of private households in Korea has been rising steeply with the education level. For example, in 1989 private households accommodated only 2% of in-school expenditure of primary school, 42% for junior-high school, 73% for high school and 72% for college and universities. This policy made higher education expensive.

The heavy reliance on private households for secondary and higher education (while primary education almost being free for all) adopted by Korea contrasts starkly with the policy of the East African countries, where relatively little cost is incurred by students or their families and where the expansion of secondary and tertiary education has been financed largely through public funds.

Cost effectiveness

From an early stage, the Korean government seems to have been very conscious of the importance of ensuring cost effectiveness in order to expand educational opportunities, given limited resources. Many measures were taken simultaneously to minimize unit costs per student. The government initially maximized the number of students in a classroom, increased student-teacher ratios and adopted multiple shifts for the primary

level and the night school system for the secondary level. Only when the economy became much richer did the student-teacher ratio and the number of multiple shift schools begin to gradually decrease. At the primary level general academic education was provided; vocational education and training which was substantially more costly were provided only from the upper secondary level. These measures are very different from those adopted by the East African countries to solve similar challenges.

In 1965, Korean classes were very large with an average of 65 students in primary school, 60 in junior-high and 59 in high school; 37 percent of primary school classroom held more than 80 students. In large urban areas, it was rather common to find classes with more than 100 students for each shift. By 1992, the average class size declined to 40 for primary school, 48 for junior-high school, and 49 for high school. All East African countries had much lower student-teacher ratios between 1960s and 1990s than Korea. The disparity is particularly large in the 1960s and 70s. For example, in 1970 the teacher-student ratio of primary schools was 62.4 in Korea, 34.4 in Kenya, 46.8 in Tanzania, 33.5 in Uganda and 48.5 in Ethiopia; for secondary schools, the student-teacher ratio was 39.8 in Korea, 21.6 in Kenya, 19.4 in Tanzania, 22.4 in Uganda and 30.6 in Ethiopia. The use of fewer teachers lowered the portion of personnel expenses in in-school expenses in Korea compared to East Africa. Throughout the 1960s and 70s, personnel expensed accounted for about 61-63% of total in-school expenditure for primary and secondary education in Korea while the share of personnel costs was about 90% in East Africa, leaving almost nothing for maintenance and operational expenses.

Another way of saving resources was to adopt multiple shifts for primary education, reducing per student capital costs by using schools more intensively. A study by Bray (1990) shows that capital costs of school construction and furnishing for end-on double shifts, in which the second shift starts after the first-shift pupils leave, can be up to one third less than those of single-shift schools. Double and triple-shift use of school building was common in Korea during 1945-1970.

Unusually for a developing country, Korea adopted a system of automatic promotion at all education levels, leading to almost zero repetition rates. Low repetition and entry at the right age must have helped to keep school drop-out rate in Korea very low; the percentage of a cohort reaching the final grade of primary school

was at least 95% since 1975. As a result, in 1980 Korean students needed just 6 years on average to complete 6 years of primary education, as compared to 9.1 years for Ugandan students for 7-year primary education and 9.0 years for Ethiopian students for 6-year primary education.

As another cost-saving device, Korea adopted a night school system for the secondary level which was also intended to provide educational opportunities for working school-aged children. There are, however, no boarding schools in Korea. Korea also did not vocationalize primary education, emphasizing cheap general academic education instead; the focus of the curriculum was numeracy, literacy and work ethics. The Korean Government's effort for cost-saving is illustrated well in having lengthened winter vacation to almost two months and shortened summer vacation to reduce heating costs in severely cold winter.

Quality Assurance

A major feature distinguishing the Korean education system from those of East African countries was the teacher training policy. The Korean government provided a teaching force efficiently through low-cost training programs, and improved the quality through training whenever the government could afford it. The government also established incentives to attract bright students to teaching and maintained salaries low but close to the living wage. The government was running various temporary teacher training programs flexibly to meet the imminent demand in a timely manner whenever there was shortage of qualified teachers: training programs often lasted 3-4 months only. Once the goals were achieved, the programs were abolished.

Given that many teachers were initially supplied with only short training, the government has made systematic efforts to upgrade teacher quality over time. In 1961 the former secondary school level institutes were transformed into junior teachers' colleges. In 1980 the government converted two-year junior teachers' colleges into four-year colleges. To upgrade unqualified teachers, the teachers' colleges began to offer night classes and summer sessions for non-degreed teachers to gain Bachelor's degrees in 1981. Separate measures were initiated to enable teachers without B.A degrees to attend air and correspondence university

In the mid-1970s, the government shifted its investment emphasis to secondary education, and then to higher education in the late 1980s. By 1980, the

To attract good students the government built appropriate incentives. Since the 1950s students of national teachers' colleges for primary school and students at national colleges of education for secondary school were exempt from entrance fees and tuition and sometimes entitled to scholarship. But they were obliged to serve as schoolteachers for a given number of years (three or four years) upon graduation. This measure, combined with teachers' high social status, was powerful in the 1960s and 70s: the privileges were attractive to students in view of the high cost of higher education, and even the obligations were attractive given the high level of unemployment for university graduates at the time. However, when too many teachers started to be produced in the late 1980s, the government abolished these privileges and service obligations in the 1990 reform.

Right from the start, teachers were paid relatively low but reasonable wages, not too far from the living wage. Salaries could remain low because teachers were highly respected: the teaching profession was thus attractive. Teachers also had other opportunities to supplement their official salary, chiefly working on private tutoring after school hours. Initially, the growing supply of teachers produced through many teacher-training programs lowered the wages. However, as the economy grew, teachers' salaries increased and became competitive in the early 1980s. (McGinn 1980)

Other measures were taken to ensure teachers' best performance given the limited resources available. For example, even in multiple-shift schools, a teacher was responsible for one shift only. So teachers could spend time on checking students' homework and other guidance activities to compensate for lack of attention to each student caused by a large class. This might be relevant to Uganda where teachers resist the introduction of double shifts in fear of work overload since one teacher is supposed to be responsible for both shifts.

Also, to compensate for a shorter number of hours per day with adoption of multiple-shift schools, Korea increased the number of days of school attendance per year. More importantly, however, is

the incentive for students to study hard. A heavy load of homework is given to students, and teachers correct them using their after-class hours. Periodic exams are conducted at school regularly and teachers send parents student's school records including grades regularly, as these were diagnostic information on the long-run educational prospects of their children. Although all students pass in Korea, poor performance in school is likely to result in increasing pressure on parents to supervise their children or to seek additional tutoring after school hours for them.

There is considerable research evidence that the use of textbooks has a significant impact on student learning. In Korea, government has paid a lot of attention to and invested capital on the publication of textbooks to bring their prices within the reach of poor parents. Textbook publication has been under the strict control of the ministry of education. Schools can only use government-designed or -confirmed textbooks. At the time of the second curriculum revision in the 1963, the government authorized only one textbook per subject for each grade in each level of education.

Since textbooks are used heavily in school as well as after school hours for home studying, and since the contents of textbooks also serve as the basis for educational evaluation and examinations, parents have a strong commitment to provide their children with them: indeed, students were rarely seen without textbooks even in the 1950s and 60s. The second-hand textbook market was well developed for those students who could not afford new textbooks. To supplement textbooks reference books proliferated. This led to uniformity and inflexibility of the Korean educational system. This practice certainly also led to textbook-centered education restricting students' creativity and diversity needed for the new type of democratic and global society.

In East Africa, textbooks were supposed to be provided by the state but the lack of textbooks was one of the most serious educational problems. For example, 40 % of Ugandan primary students did not have textbooks in 1988 and the student to textbook ratio in some districts was 5:1 even in the early 1990s.

Finally, Korea tried to assure quality of privately delivered post-prima-

ry education by establishing regulations on private schools and providing various grants and subsidies.

Creation of Values

The school curriculum revision of 1963, which selected contents on the basis of life experience and regionalism as the principle of curriculum design, has shaped the Korean curriculum and its legacy still remains. The curriculum stressed inculcation of a "national identity and national spirit" to build one country and increased the importance of Korean history with moral education as a new subject which taught national identity and anti-communism.

To ensure that textbooks deliver the curriculum the government publishes all primary texts, the Korean language and moral education texts for junior-high and high schools. Since subjects are not taught if not tested in the entrance examinations, the increased weight of moral education and Korean history is directly reflected in entrance examinations and even in recruitment tests in the job market.

The content of the curriculum was also geared toward instilling a "can-do" spirit. Text books purposefully collected relevant lessons from western countries' success stories to become wealthy, with a strong emphasis on their poor origins and their efforts to overcome the difficulties each country faced in the past: e.g., West Germany's post-war prosperity "Miracle over the Rhine", the Dutch effort to expand land by filling the ocean, Israel's efforts to irrigate desert, the Danish tree-planting effort. Certain values such as patriotism, self-sacrifice and work ethics have been thought as necessary to achieve the goals and strongly emphasized in the selection of the contents.

Some maintain that this sort of education fostered national identity as Koreans, helped students adopt social norms such as order, rule observance and patience needed in the modern society, and assisted them in adapting to the circumstances in the labor-intensive, light-industry factories in the 1960s when Korean economy started to take off. Although this contained many elements of political propaganda it also had an impact of enlightenment. The government's vision and development strategy were well communicated this way. More importantly, since the government could deliver the economic progress which were well communicated, public confidence in government has grown strong. It should be noted that Korea's homogeneity with respect to

ethnicity and language might have contributed to efficient implementation of national curriculum and easier transmission of common educational contents.

Education and Economic Growth

What is the contribution of education to economic growth and poverty reduction in Korea?

Although the existence of a large pool of educated people is believed to be an important factor for Korea's modernization and economic take-off, confirming the association empirically between education and economic performance is a challenging task. The causality runs both ways. Adequate human capital may be a prerequisite for an economic take-off (if not sufficient on its own). On the other hand, educational expansion might be a response to the demands of economic growth.

According to estimates, primary education is by far the largest single contributor to the predicted growth rates of the East Asian economies. The equation indicates that an increase of 10 percentage points in primary or secondary school enrollment rate would raise annual per capita income growth by 0.3%. Applying these results to Korea, a significant contribution from education was found. As much as 3.2 percentage points out of 5.9% real per capita income growth during 1960-85 are "explained" by education, represented by primary and secondary school enrollment rates. (Nam, 1998).

Education may have enhanced the quality and employability of labor, and entrepreneurial ability. Education may have also contributed to efficient resource allocation by increasing labor mobility, promoting division of labor, encouraging people to be more responsive to changes in the environment, and removing social and institutional barriers to economic development. On the other hand, the economic take-off could utilize educated human resources which had once been idle. By providing opportunities of employment, continued economic growth became the most powerful means to reducing the level of absolute poverty in Korea. Ensuring equal opportunities for education (at least equal access) and an open competition helped build equity in the society. The East Asian Miracle points out that equal opportunities to education also contributed directly to equity-building, by leading to

abundant supply of well-educated labor force and reducing the wage differential among different education groups.

III. WHY?

What did Korea take as its path of the development path? What led Korea to expand education rapidly and sustain it, eventually linking it with economic development and poverty reduction?

Political Contract

An important determinant of the development path taken by Korea was the nature of the political contract struck between the Korean government and major social groups; this large topic certainly deserves study of its own. Here, a very brief summary must suffice. On the one hand, the Korea of the 1960s was characterized by an authoritarian government with a vision. This vision contained as central tenets the "liberation from poverty" based on a strategy of "growing first and sharing later" and the elimination of corruption and the establishment of meritocracy in education and the public sector. This vision became effective in a large part because the government was under constant pressure to gain legitimacy by committing itself to fairly ambitious and concrete goals of economic development and poverty reduction. This in effect made the government accountable to civil society to a non-trivial degree. Here the traditionally rebellious college students representing the social elites played a key role; they enjoyed the qualified support of the middle class who at the same time was concerned with maintaining social stability and continuous economic growth.

Meritocracy

A major element in Korean education has been meritocracy, with credentials of formal education as the principal criterion for merit. The examinations are highly competitive and based entirely on academic merit. Only the academically most talented can climb the educational ladder. In the future they will receive high economic and social rewards since a similar sort of meritocracy applied to both the public and the private labor market. This generated excessive competi-

tion, resulting in overheated demand for education credentials and an outrageous level of private tutoring. Since the 1960s, the government has changed the examination system many times, completely reshaping the whole Korean education system as a result.

Despite many drawbacks, the examination system has been fairly successful in establishing open competition based on meritocracy. The public has seen the examinations as fair, objective and transparent in selecting the brightest and the most promising. The rules were the same for everybody irrespective of gender and socio-economic background; they were clear and well known; little deviance was found in scoring; the competition was open to everyone.

In an effort to make the competition fair and equal, the government determined that schools can only use government designed or confirmed textbooks and the contents of school entrance examination should be restricted to those of the textbooks. This way, the positive effect of private tutoring on examination outcomes would be reduced, and students can compete on more equal footing irrespective of their wealth.

Undoubtedly, meritocracy through education in Korea allowed numerous students from modest backgrounds with the requisite ability and determination to achieve upward social mobility through academic achievements. They became role models for younger students, creating a virtuous cycle. The meritocracy and uncorrupt examination system have been a driving force behind Koreans' demand and willingness to pay for education by raising the private return for education.

Probably the most serious deficiency is the test method. Most tests are based largely on multiple-choice questions rather than an essay-type evaluations and interviews. Hence, education is reduced mainly to memorizing simple factual information rather than encouraging problem-solving and creativity. A preoccupation with maintaining objectivity of examination outcomes might also contribute to persistence of multiple-choice tests in examinations for college entrance and recruitment.

Wage equality is a dominant factor for income equality, and education is a significant determinant of wages. Low unemployment in the Korean labor market combined with continued economic growth, meritocracy combined with equalization of access to education has been an important vehicle for poverty reduction and

equity building in Korea. (After the financial crisis, insufficiency of social safety net for the poor and the unemployed has been pointed out as a deficiency in this strategy.)

Private Rate of Return

Parents' strong financial commitment to education has been considered as a special feature of Korean educational development. What motivated parents to incur such a large burden of financing education?

Individuals' recognition of education as primary means for personal prosperity was perhaps derived from the facts that Korean traditional system of social class hierarchy was entirely destroyed in the upheavals by Japanese colonial rule (1910-45), the ensuing division of the peninsula, the land reform (1950) and the Korean War (1950-53). Consequently, all Koreans were placed on an equal footing. While new forms of status distinction were not yet installed, educational credential was left as a uniquely important criterion for social mobility and individual advancement. A keen sense of competition intensified by a transparent examination system contributed to the explosive demand for education.

Parents' willingness to pay for education is also strongly associated with monetary and non-monetary returns on education. Large wage differentials between different levels of education combined with low unemployment rate (higher expected wages for better-educated workers) were a main cause of the high demand and willingness to pay for education. A college graduate, for example, earned twice as much as a high school graduate up until the early 1980s. Several factors contributed to keeping the marginal rate of return for education high.

First, educational expansion preceded economic development in Korea. Therefore, when the demand for labor began to surge, educational credentials became a reliable criterion for recruiting workers. Consequently, it became a common strategy to strive for credentials as a means for gaining future employment. Rapid economic development itself also contributed to the educational expansion. It increased the demand for manpower in a variety of industrial sectors, and the demand in turn attracted youths to schools.

Second, Korean wage setting practice institutionalized the economic reward for educational attainment and

made it in fact almost automatic. Until recently, a new employee's earnings in both the public and private sectors had been determined on the basis of his/her educational attainment when they started the job and subsequently raised by years of service. In this practice, education credentials rather than productivity and performance on the job were rewarded, further fueling the already heated competition for higher education.

Third, good roads and cheap transportation (relative to the income level) facilitated Korean workers' mobility across the country. Thus, many male and female teen-age workers could move easily from rural to urban areas where the demand for labor expanded rapidly in the export-oriented light industry in the 1960s. The efficient allocation of human resources achieved by high labor mobility increased the private rate return for education for workers and also contributed to economic growth.

The Confucian tradition added non-monetary returns to education for both students and parents. The high rate of return in the marriage market seem to have contributed greatly to the expansion of female enrollment although college-educated women have faced severe gender discrimination in the labor market in terms of access to jobs and wage differentials. In the 1970s and 1980s, average wages for females were less than half the wages paid to males, and higher-educated women had much lower labor market participation (Yoon 1995). Although labor conditions have not improved much, female enrollment in higher education increased dramatically: 4% in the early 1970s, 7% in 1980 25% in 1990, and 46% in 1996.

Change Mindset

Koreans displayed a great deal of zeal for change in the post-war period in the 1950s. Where did this zeal come from? Perhaps from hunger, despair and desire to catch up with Japan and the western countries.

The Korean War completely destroyed Korea which had been already in a wretched shape because of Japanese colonialism. About 2 million Koreans died; poverty was prevalent. The fact that their country's post-war destiny was determined arbitrarily by outsiders such as the US and the Soviet Union humiliated and enraged them. This experience proved to Koreans that they need to

depend on themselves, and not on others. It exposed Koreans to the wealth of the West and generated the desire to enjoy the welfare particularly for their descendants.

The desire for change seems to have led Koreans to frequently take the initiative in deciding the projects and handling foreign donors. The World Bank's implementation completion reports (ICRs) point out that "it may have happened that external appraisers and Bank consultants may have limited knowledge and understanding of specific local needs and the appropriate direction of educational development deemed most important and suitable in the eyes of Borrowers. Recommendations and preparation from the Bank may not be best suited to certain cultural and social aspects unknown to the Bank. However, in Korea, the constructive working relationship over a long period of time ensured that there is enough room to resolve fundamental differences between both parties involved. Autonomy and considerable independence of participating project institutions and local authorities were, therefore, quite instrumental for the project achievements."

This confirms interviews with Koreans and World Bank staff members who worked on Bank-financed projects in the 1960s through 80s. Koreans often claimed that "if we had followed the Bank staff's advice as it was Korea would not have made it." Some Bank staff said (in a polite manner) that Koreans are stubborn while Africans are open. Others used to joke that during missions Korean project implementation directors would pull out documents completely different from the aide-memoire both sides had agreed on before. However, as the goals were met, both sides were satisfied and the meeting ended in a couple of minutes.

IV. CONCLUSION

Although fast in retrospect, it took Korea over a generation to achieve comprehensive educational development. For most of this period, Korea was governed by an authoritarian regime. However, the regime tried to make up for its lack of democratic legitimization by committing itself to fairly ambitious and at the same time concrete goals of economic development and poverty reduction. This made the government accountable to civil society to a non-trivial degree. Moreover, it was clear all along that achieving comprehensive educational development required

created public trust in its educational policies and thereby enabled the pragmatic policies of continuous adjustments to work. At the heart of this pragmatism were the observance of financial discipline and a willingness to define and accept trade-offs given budget constraints: this is apparent especially in the heavy initial emphasis on primary rather than higher education, and on the number of students educated rather than on investment per student educated. The pragmatism allowed constant consideration of the motivations and interests of the various actors (parents, students, teachers, bureaucrats, etc.); these were taken into account in many features of educational policies designed to create proper incentives.

A striking aspect of this pragmatism was Koreans' stubborn pursuit of their own goals in coordinating donors, exploiting the fungibility of money; Koreans frequently used their own judgment in the design

and implementation, sometimes against expressed advice of international donors. Once the results were delivered, donors accepted. Thus Korean ownership of their educational and development policies was critical to their success.

We now know that Korea has been able to find strengths of its own which served it well for one or two generations but which need to be redefined to achieve success in the post-financial crisis era. East Africa needs to identify and act on its own strengths; it needs to make its own tough choices as to which parts of its heritage it should develop, which parts it should sacrifice, and where to make a new beginning. Outsiders can wish Africa well, but they cannot make these choices for it. Daniel Etounga-Manguelle makes this point of view clear:

"Our first objective is to preserve African culture, one of the most-

*if not the most- humanistic cultures in existence. But it must be regenerated through a process initiated from the inside while being of their time. We must keep these humanistic values- the solidarity beyond age classification and social status; social interaction; the love of neighbor, whatever the color of his skin; the defense of the environment, and so many others. We must, however, destroy all within us that is opposed to our mastery of our future, a future that must be prosperous and just, a future in which the people of Africa determine their own destiny through participation in the political process."*²

To go forward, East Africa needs the self-confidence to attempt real change, and to maintain its identity in it.

References

- Acemoglu, Daron, Simon Johnson and James A. Robinson, "The Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review*, (forthcoming)
- Adams, Don, and Esther E. Gottlieb, *Education and Social Change in Korea*, New York: Garland Publishing, 1993.
- Alesina, A., and Perotti, R. "The Political Economy of Growth A Critical Survey of the Recent Literature," *The World Bank Economic Review* 8, 1994.
- Alesina, A., and Dani Rodrik, "Distributive Politics and Economic Growth," *Quarterly Journal of Economics* 109, 1994.
- Amsden, A. H., *Asia's next giant: South Korea and late industrialization*, New York: Oxford University Press, 1989.
- Appadurai, Arjun, "The Capacity to Aspire: Culture and the Terms of Recognition," *In Culture and Public Action*, eds. Rao, Vijayendra and Michael Walton, forthcoming.
- Baldacci, Emanuele, Gui-Siu, Mari Teresa, and de Mello Luiz, "More on the Effectiveness of Public Spending on Health Care and Education: A Covariance Structure Model," IMF Working Paper 02/90, 2002.
- Baqir, Reza, "Social Sector Spending in a Panel of Countries," IMF Working Paper 02/35, 2002.
- Barro, Robert J., and Jong What Lee, "International Comparison of Educational Attainment," *Journal of Monetary Economics*, 32, 1993.
- Berger, P., *Daedalus*, 1987.
- Bevan, David, Paul Collier and Jan Willem Gunning, *Nigeria and Indonesia*, Oxford : Oxford University Press, 1999.
- Bray, M., "The Economics of Multiple-shift Schooling: Research Evidence and Research Gaps," *International Journal of Educational Development*, 10(2/3), 1990.
- Burnside, Craig and David Dollar, "Aid, Policies and Growth," *American Economic Review*, 90(4), 2000.
- Campos, Nauro F. "Development Performance and the Institutions of Governance: Evidence from East Asia and Latin America," *World Development*, Vol. 27, No.3, pp. 439-452, 1999.
- Chu, Ke-young, Hamid Davoodi and Sanjeev Gupta, "Income Distribution and Tax and Government Social Spending Policies in Developing Countries," IMF Working Paper 00/62, 2000.
- Collier, Paul and David Dollar, "Can the World Cut Poverty in Half? How Policy Reform and Effective Aid Can Meet International

² "Does Africa Need a Cultural Adjustment Program?" in "Culture Matters" (Harrison and Huntington, eds., 2000)

- Dollar, David and William Easterly, "The Search for the Key: Aid, Investment and Policies in Africa," *Journal of African Economies*, Vol.8, o. 4 pp. 546-577, 1999.
- Easterly, William, *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics*, Cambridge, MA. The MIT Press, 2002.
- The Economist, Africa: The Heart of the Matter, pp. 22-24, May 13, 2000.
- The Economist, Hopeless Africa, p 17, May 13, 2000.
- Elbadawi, Ibrahim A., and Klaus Schmidt-Hebbel, "Cross-regional Development Experiences and Lessons for Sub-Saharan Africa: an Overview," *Journal of African Economies*, Vol. 7, Supplement 2, pp. 1-37, 1998.
- Etounga-Manguelle, Daniel, "Does Africa Need a Cultural Adjustment Program?," In Lawrence E. Harrison, and Samuel P. Huntington, eds., *Culture Matters*, New York: Basic Books, 2000.
- Fairbanks, Michael, "Changing the Mind of a Nation: Elements in a Process for Creating Prosperity," In Lawrence E. Harrison, and Samuel P. Huntington, eds., *Culture Matters*, New York: Basic Books, 2000.
- Filmer, Deon, "A Note on Public Spending on Health and Education Outcomes," World Bank (processed), 2000.
- Flug, Karnit, Antonio Spilimbergo and Erik Wachtenheim, "Investment in Education: Do Economic Volatility and Credit Constraints Matter?" *Journal of Development Economics*, Vol. 55, pp. 465-81, April 1998
- Fukuyama, Francis, "Asian Values in the Wake of the Asian Crisis," In *Democracy, Market Economics and Development*, eds. Iqbal, Farrukh, and Jong-Il You, Washington D. C.: World Bank, 2001.
- Ghura, Dhaneshwar, Carlos Leite and Charalambos Tsangarides, "Is Growth Enough? Macroeconomic Policy and Poverty Reduction," IMF Working Paper 02/118, 2002.
- Glewwe, Paul, "Schools and Skills in Developing Countries: Education Policies and Socioeconomic Outcomes," *Journal of Development Economics*, Vol. 55 pp. 465-81, April 1998.
- Griffin, Charles, and Marisol Ravicz, "Eastern Africa Education Policy Workshop: Summary Report : November 10-17, 1995," Washington, D.C., The World Bank.
- Gupta, Sanjeev, Marijin Verhoeven and Erwin Tiongson, "Does Higher Government Spending Bur Better Results in Education and Health Care?," *The European Journal of Political Economy*, Vol. 18, pp. 717-37, November 2002.
- Gupta, Sanjeev and Marijin Verhoeven, "The Efficiency of Government Expenditure: Experiences from Africa," IMF Working Paper 97/153, 1997.
- Gupta, Sanjeev, Hamid Davoodi and Erwin Tiongson, "Corruption and the Provision of Health Care and Education Services," in Arvind K. Jain, ed., *The Political Economy of Corruption*, London, Routledge, 2001.
- Harrison, Lawrence, E. "Promoting Progressive Cultural Change" In Lawrence E. Harrison, and Samuel P. Huntington, eds., *Culture Matters*, New York: Basic Books, 2000.
- Hausmann, and Dani Rodrik, "Economic Development as Self-Discovery," NBER working paper no 8952, 2002.
- Huh, Kyung-Chul, "Curriculum Development Policies in Korea", In Yang-Ro Yoon, ed., *The Proceedings of Korea Study Tours*, World Bank (forthcoming).
- Huntington, Samuel P., "Foreword: CulturesCount", In Lawrence E. Harrison, and Samuel P. Huntington, eds., *Culture Matters*, New York, Basic Books, 2000.
- Ihm, Chon-Sun, et. al., *A Study on the Training and Utilization of Technical Manpower in Korea*, Korean Education Development Institute, Seoul, 1993.
- Ihm, Chon-Sun, "Education and Economic Development: The Korean Nexus", In Yang-Ro Yoon, ed., *The Proceedings of Korea Study Tours*, World Bank (forthcoming).
- Jung, Hong-Sang and Thorbecke, Erik, "The Impact of Public Education Expenditure on Human Capital, Growth and Poverty in Tanzania and Zambia," IMF Working Paper 01/106, 2001.
- Kim, Gwang-Jo, "Private Sector's Role in Education", In Yang-Ro Yoon, ed., *The Proceedings of Korea Study Tours*, World Bank (forthcoming).
- Kim, Kwang-suk and Roemer, Michael, *Growth and Structural Transformation: Studies in the Modernization of the Republic of Korea: 1945-1975*, Harvard East Asian monographs 86, Cambridge: Harvard University, 1979.
- Kim, Kihwan and Danny M. Leipziger, *Korea: A Case of Government-Led Development : The Lessons of East Asia*, Washington, D.C.: World Bank, 1993
- Kim, Sookon, "Lecture Notes for African Ministers of Education," In Yang-Ro Yoon, ed., *The Proceedings of Korea Study Tours*, World Bank (forthcoming).

- King, Elizabeth M., and Anne M. Hill, *Women's Education in Developing Countries: Barriers, Benefits, and Policies*, Baltimore: Johns Hopkins University Press, 1993.
- Kong, E.B. & S.J. Paik, *Educational Investment and Rates of Return to Education in Korea*, Korean Educational Development Institute (KDI), 1994.
- Korea Development Institute (KDI), *A half century of the Korean economy: Historical review and the vision for 21st century*. Seoul: KDI, 1999.
- Korea Development Institute (KDI), 40-Year History of Public Finance in Korea, 1991.
- Kuijss, Louis, "The Impact of Ethnic Heterogeneity on the Quantity of Public Spending," IMF Working Paper 00/49, 2000.
- Kuran, Timur, "Cultural Obstacles to Economic Development: Not Necessarily Real, Often Transitory," *In Culture and Public Action*, eds. Rao, Vijayendra and Michael Walton, forthcoming.
- Landes, David, "Culture Makes Almost All the Difference", In Lawrence E. Harrison, and Samuel P. Huntington, eds., *Culture Matters*, New York: Basic Books, 2000.
- Lee, Jisoon, "Education Policy in the Republic of Korea: Building Block or Stumbling Block?," World Bank Institute working papers 22648, January 2001.
- Lee, Kye-Woo, *Human Resources Planning in the Republic of Korea: Improving Technical Education and Vocational Training*, World Bank Staff Working Papers No. 554, Washington, D.C.: World Bank, 1983.
- Lee, Yun-Sik, "Teacher Education in Republic of Korea", In Yang-Ro Yoon, ed., *The Proceedings of Korea Study Tours*, World Bank (forthcoming).
- Leipziger, D. M., D. Dollar, A. F. Shorrocks, and S. Y. Song, "The Distribution of Income and Wealth in Korea, Economic Development Institute Studies, World Bank, 1992.
- Lockheed, Marlaine E. et. al., *Improving Primary Education in Developing Countries*, Oxford, Oxford University Press, 1991.
- Lopez, Ramon, Vinod Thomas and Yan Wang, "Addressing the Education Puzzle: The Distribution of Education and Economic Reform," World Bank policy research working paper 2031, 1998.
- Lundberg and Squire, "*The Simultaneous Evolution of Growth and Inequality*", draft, December 1999
- Mauro, Paolo, "Corruption and the Composition of Government Spending," *Journal of Political Economics*, Vol. 69, pp. 263-79, June 1998.
- Mazumdar, Dipak, "Labor markets and Adjustment in Open Asian Economies: The Republic of Korea and Malaysia," *The World Bank Economic Review*, Vol. 7, No. 3 pp. 349-380, 1993.
- McGinn, Noel F. et. al, *Education and Development in Korea: Studies in the Modernization of the Republic of Korea: 1945 -1975*, Cambridge, MA, Harvard University Press, 1980.
- Meesook, Oey A., Douglas Rimmer, and Gus Edgrean, *Thailand and Ghana*, Oxford: Oxford Press,
- Middleton, John, Adrian Ziderman, and Arvil Van Adams, *Skills for Productivity: Vocational Education and Training in Developing Countries*, Washington D.C.; Oxford; New York: Oxford University Press, 1993.
- Morris, Paul, Asia's Four Little Tigers: A Comparison of the Role of Education in their Development, *Comparative Education*, 32 (1), 1996.
- Morris, Paul and Anthony Sweeting, *Education and Development in East Asia*, New York: Garland Publishing, 1995.
- Nam, Sang-Woo, "Economic Growth and Education: The Korean Experience", In Yang-Ro Yoon,ed., *The Proceedings of Korea Study Tours*, World Bank (forthcoming).
- North, Douglas, "Institutions and Their Consequences for Economic Performance," In K. Cook and M. Levy, *The Limits of Rationality*, pp. 383-401, Chicago: University of Chicago Press, 1990.
- Paik, S.J., "Education Finance in Korea", In Yang-Ro Yoon,ed., *The Proceedings of Korea Study Tours*, World Bank (forthcoming).
- Park, Se Il, "Rates of Return to Educational Investment," *Korea Development Study*, Korea Development Institute, 1982.
- Park, Se Il, "Korean Education Reform", In Yang-Ro Yoon, ed., *The Proceedings of Korea Study Tours*, World Bank (forthcoming).
- Pitchett, Lant, "Where Has All the Education Gone?" World Bank policy working paper 1581, June 1997.
- Pitchett, Lant and Deon Filmer, "What Educational Production Functions Really Show: A Positive Theory of Education Spending," *Economics of Education Review* 18. No. 2, pp. 223-239, 1999.
- Porter, Michael, E., "Attitudes, Values, Beliefs, and the Microeconomics of Prosperity", In Lawrence E. Harrison, and Samuel P. Huntington, eds., *Culture Matters*, New York: Basic Books, 2000.

- Poterba, J. "Demographic Structure and the Political Economy of Public Education," NBER working paper 5677, July 1998.
- Psacharopoulos, George, "Time Trends of the Returns to Education: Cross-National Evidence," *Economics of Education Review*, Vol.8, No.3, 1989.
- Psacharopoulos, George, "Return to Investment in Education: A Global Update," *World Development*, Vol. 22, pp 1325-43, September 1994.
- Pye, Lucian W., "Asian Values: From Dynamos to Dominos?," In Lawrence E. Harrison, and Samuel P. Huntington, eds., *Culture Matters*, New York: Basic Books, 2000.
- Ranis, Gustav, Frances Stewart, and Alejandro Ramirez, "Economic Growth and Human Development," *World Development*, Vol. 28, No. 2, pp. 197-219, 2000.
- Rodrik, Dani. "Getting Interventions Right: How South Korea and Taiwan Grew Rich," *Economic Policy* 20 (April), pp. 55-107, 1995.
- Rose-Ackerman, Susan, and Jacqueline Coolidge, "Kleptocracy and Reform in African Regions," In *Corruption and Development: Lesson from Country Case Studies*, eds. Bornwell C. Chikulo and Kempe Ronald Hope, Sr. New York: St. Martin's Press, 2000.
- Sachs, Jeffrey, "Notes on a New Sociology of Economic Development", In Lawrence E. Harrison, and Samuel P. Huntington, eds., *Culture Matters*, New York: Basic Books, 2000.
- Sakong, IL, *Korea in the World Economy*, Institute for International Economics, Washington, D.C., 1993.
- Schultz, T. Paul, "Health and Schooling Investments in Africa," *Journal of Economic Perspectives*, Vol. 13, No. 3, pp. 67-88, Summer 1999.
- Sen, Amartya, "Democracy and Social Justice," In *Democracy, Market Economics and Development*, eds. Iqbal, Farrukh, and Jong-Il You, Washington D. C.: World Bank, 2001.
- Sen, Amartya, "How Does Culture Matter?," In *Culture and Public Action*, eds. Rao, Vijayendra and Michael Walton, forthcoming.
- Song, Byung-Nak, *The Rise of the Korean Economy*, Oxford: Oxford University Press, 1994, Updated Edition.
- Stiglitz, Joseph, "Participation and Development: Perspectives from the Comprehensive Development Paradigm," In *Democracy, Market Economics and Development*, eds. Iqbal, Farrukh, and Jong-Il You, Washington D. C.: World Bank, 2001
- Stiglitz, Joseph E., *Globalization and Its Discontents*, New York: W.W. Norton and Company, 2002.
- Tan, Jee-Peng and Alain Mingat, *Education in Asia : A Comparative Study of Cost and Financing*, Washington, D.C.: The World Bank, 1992.
- Tun-Jen, Cheng, "Dilemmas and Choices in Educational Policies: The Case of South Korea and Taiwan," *Studies in Comparative International Development*, Winter 1992-93, 27 (4).
- Van der Meulen Rodgers, Yana, "A Reversal of Fortunes for Korean Women: Explaining the 1983 Upward Turn in Relative Earnings," (processed), World Bank, 1997.
- Verspoor, Adriaan, "Educational Development: Priorities for the Nineties," *Finance and Development* 27, pp. 20-23, March 1990.
- Wade, Robert, "What Can Economics Learn from East Asian Success?" *Annals AAPS*, 505, pp. 68-79, September 1989. Sakong, IL, *Korea in the World Economy*, Institute for International Economics, Washington, D.C., 1993.
- Wade, Robert, "The Econological Basis of Irrigation Institutions: East and South Asia Irrigation System between Korea and India" *World Development*, Vol. 23, No. 12 pp. 2041-2049, 1995.
- World Bank, *Kenya: Into the Second Decade*, Baltimore, MD: Johns Hopkins University Press, 1975.
- World Bank, *Accelerated Development in Sub-Saharan Africa: An Agenda for Action*, Washington DC, 1981.
- World Bank, *Kenya Country Economic Memorandum*, Red Cover, Washington D.C., 1983.
- World Bank, *Impact of World Bank Lending for Educational Development in Korea: A Review*, Report No. 5950, Operation Evaluation Department, Washington, D.C., 1985.
- World Bank, *Education in Sub-Saharan Africa: Policies for Adjustment, Revitalization, and Expansion*, Washington D.C., World Bank, 1988.
- World Bank, *The East Asian Miracle, Economic Growth and Public Policy*, Oxford: Oxford University Press, 1993.
- World Bank, *Uganda Social Sector Strategy Volume I: The Main Report*, Report No. 10765-UG, Population and Human Resources Division, Eastern Africa Department, April 6, 1993.
- World Bank, *Adjustment in Africa, Reforms, Results and the Road Ahead*, Oxford: Oxford University, 1994.
- World Bank, *Investing in Human Capital In Uganda: the Experience of IDA-Financed Education Projects (AF2PH Draft)*, October 15, 1994.
- World Bank, *Investing in Human Capital in Ethiopia: the Experience of IDA-Financed Education Projects (AF2PH Draft)*, October 1st, 1994.
- World Bank, *Investing in Education in Kenya: the Experience of IDA-Financed Education Projects (AF2PH Draft)*, August 23, 1994.

World Bank, *Investing in Human Capital in Tanzania: the Experience of IDA-Financed Education Projects (AF2PH Draft)*, November 10, 1994.

World Bank, *Kenya Poverty Assessment*, Report No. 13152-KE, Population and Human Resources Division, Eastern Africa Department, Africa Region, Washington, D.C., 1995.

World Bank, *Priorities and Strategies for Education: A World Bank Review*, Washington, D.C.: World Bank, 1995.

World Bank, *Bureaucrats in Business*, Oxford: Oxford University Press, 1995.

UNESCO IICBA Programme on Education Planning and Economic Development in Africa

Requested by the IICBA Executive Board, IICBA has worked on tackling the issue of education and economic development in Africa. The programme is entitled 'Education Planning and Economic Development in Africa,' the overall goal of which is to create the synergies between the education sector and the economic sector in Africa by making education planning reflect the reality of economies and the direction of economic planning in a country. One of the three components of the programme, a Master's degree programme in 'Economics for Education Planning' is expected to be launched in 2005. The programme consists of the following five modules: "Module 1: Economics I - with its focus on microeconomics"; "Modules 2: Economics II - with its focus on macroeconomics"; "Module 3: African economics and education system - with its focus on the linkage between the two"; "Module 4: Economics of Education Policy"; and "Module 5: Education Financing and Budgeting." The programme will be implemented by several institutions in Africa using the distance mode combined with face-to-face sessions. IICBA plans to establish a group of universities in Africa which will offer the same core modules, to set up a system to ensure the uniform high quality of the modules, and eventually integrate them as part of their university programmes.

I. Background

As advocated in the document of the New Partnership for Africa's Development (NEPAD), to eradicate poverty and to place their countries on a path of sustainable growth and development is critically important for Africa.

Education, which creates a foundation for an economic development, is one of the key areas to be focused on.

In addition, in light of the necessity of achieving the "Education for All (EFA)", in order to make budget more available and to utilize the budget more efficiently, education plans crucially need to be developed taking into account how to foster the economic growth through appropriate human resource strategies and how to manage budget efficiently.

Although the pivotal role of human resources in the development process is widely acknowledged in Sub-Saharan Africa, the linkages between the process of educational development and economic growth in Africa are often inadequate and ineffective. In fact, education and economic systems have remained parallel systems. Positive synergies have at best been accidental. At worst, one system can serve to destabilize the other. For example a high-level education system combined with a poor economic development generally leads to brain-drain where the best educated personnel leave the country. On the other hand, economic improvement can be held back by lack of suitably qualified and experienced personnel. The emergence of major economic crises for many African countries in the decades of 1980s and 1990s brought great change in the settings in which educational systems were required to operate.

In Sub-Saharan Africa, the economic situation reached a critical point as governments struggle to reduce their national debts by implementing harsh policies that include major cuts in public expenditures and national consumption. The severe measures adopted by many

countries to cope with these problems led to a limitation in the resources that were available for educational systems, and in some cases, to an undermining of public confidence in the capacity of governments to ensure that there would be productive roles for the young people who graduated from these systems. Furthermore, African planners in both the economic and education sectors that were engaged in the planning of human resources usually did so from (i) a pre-occupation with short-term stabilisation and financial crisis management; (ii) narrow concerns with national sectoral planning; (iii) misarticulate and uncoordinated human resources policies; (iv) the pursuit of macro-economic development policies that marginalised human resources; and (v) the absence of comprehensive data and information, not to mention the poor institutional arrangements for the collection, processing and application of data for human resources management.

The new directions for educational planning and development require:

- a clear *conceptual framework* that elaborates the linkages between educational growth and development to economic growth;
- a *pragmatic repositioning and re-training* of planners in all sectors by taking into consideration the real educational, social, cultural, financial and human dimensions that have shaped both the development of education systems and the overall economy; and
- a *holistic system that is more operational* -- by working closely with all of the persons responsible for budgets and resources allocation

decisions.

These new directions and interactions will inevitably result in planners moving beyond the superficial appreciation of the functioning of educational and economic systems in order to focus more intensively on the processes, relationships and synergies existing between education and economic systems. They will clearly define a new mission and direction for education planning in Africa, with policy makers at all levels of the education and economic spectrum, called upon to discuss and review the various concepts, issues, factors and methods which must be taken into consideration in setting objectives, priorities and strategies for educational adaptation and expansion.

The UNESCO International Institute for Capacity Building in Africa (IICBA) is responsible for building African capacity in education. Effective human resources development and utilisation in Africa would require decisive shifts at the level of development philosophy, strategy, policy, planning and implementation, and this is where IICBA proposes to play an important role in building the capacity of education and economic planners in the continent.

II. Long-term goal (Overall goal)

As stated earlier, the long-term goal of this programme is to create synergies between the education sectors and economic sectors by equipping educational planners and economic planners with the understanding of economic concepts and basic education concepts as well as creating an environment conducive for the planners of the two sectors to

working collaboratively.

III. Specific objective of the programme

The specific objective of the programme is to enable the planners in the two sectors, education and economic sectors, to develop plan that takes into account the reality of economy and the direction of economic planning.

IV. 3 major outcomes of the programme

In order to achieve the specific objective above, the programme is aimed at upgrading the skills and knowledge of educational planners and economic planners and creating an environment conducive to collaborative work between the two sectors. Concretely, the programme attempts to achieve the following three outcomes.

Outcome 1: A Master's degree programme in 'Economics for Education Planning' for education planners is developed.

Outcome 2: A short-term training course on basic education planning skills and techniques for economic planners is developed.

Outcome 3: A forum is launched for education planners and economic planners to work collaboratively on doing research and developing plan taking into account the reality and direction of the both sectors.

V. Current status

At this stage IICBA has worked

on realizing Outcome 1. IICBA has organized several workshops for Outcome 1. The first workshop was held in Maputo, Mozambique in October 2001. The workshop worked out the outline of what can be done to increase the synergies between education and economic planning; concretely speaking, 1) the training of educational planners in Africa needs to incorporate aspects of economic development; and 2) the training of economic planners in Africa needs to incorporate aspects of human resource development and education. The second workshop was held at the Addis Ababa in Ethiopia in June 2002 specifically for Anglophone countries in Africa. In this workshop sets of draft module outlines of master's degree programmes for education planners and for economic planners were developed. Suggestions were made that the training modules be implemented as a series of short-term training programmes, which will be eventually integrated as a complete master's degree programme. The third workshop was held at Dakar, Senegal in January 2003. In the Dakar workshop, the draft course outlines were modified.

In addition to the three workshops above, IICBA has organized a workshop on module development and requested five specialists to develop modules for the Master's degree programme. The Master's degree programme is expected to be implemented by selected universities and training institutions in Africa in 2005.

NEWS IN BRIEF

Appointment of IICBA Pretoria Node Coordinator

Dr. Thidziambi Pendla, a member of staff of the Faculty of Education of the University of Pretoria, has been appointed as the Coordinator of the IICBA Pretoria Node under an agreement between the University of Pretoria and IICBA. The appointment of Dr. Pendla brings the prospect of strengthening IICBA's work in African member states, particularly through linkages with Southern Africa.

New Electronic Libraries

The Commonwealth Secretariat has made its training programme for school principals on school supervision available under IICBA's Electronic Library Series. The HIV/AIDS Library is currently being translated into French and Portuguese.

Workshops on How to Make a Website and CD ROM

Workshops on how to make a CD ROM and a website were held in Ethiopia, Ghana and Sudan over the period. The courses were run by Mr. Thomas Edwards, a Canadian consultant. In Ethiopia a more advanced course on Authorware was run for the African Virtual University and IICBA staff. In Ghana three courses were held, at the Universities of the Cape Coast, Winneba and Kumasi. In the Sudan advanced courses were held at the Sudan University of Science and Technology (SUST). In addition IICBA has also begun basic website design courses for teachers and high school students on a regular basis.

Training Courses on How to Make an Educational Video

Two training courses were held in Addis Ababa, Ethiopia, and Kampala, Uganda on how to make educational videos with special emphasis on videos on HIV/AIDS. Two trainers from the USA provided the training. They were Jean Donohue from Media Working Group in Kentucky and Jason Crow from the Grand Rapids Media Centre. The Media Working Group works with teachers in the area of media arts education, helping teachers to utilize and develop media for education. The grand rapids community media center provides training to different community groups on the making and utilization of television to express community concerns and interests.

The two courses in Addis Ababa and Kampala were for teacher educators and curriculum developers. The courses were intended to develop basic skills in the making of videos for educational purposes, in this case specifically linking curriculum development and the use of video to combat Africa's HIV/AIDS pandemic. Participants produced a number of videos through the workshops.

The major complaint in Kampala was the fact that participants would not have the opportunity to practise their newly acquired skills because they did not have access to video cameras and video editing computers. Although video is now very cost effective and widely available, African institutions do not have either the equipment or the skills to utilize this low cost technology. It is essential to include basic production equipment, estimated to cost US\$12 000, for teacher education and curriculum development centres, so that the trained personnel can utilize their skills.

Distance Education Programme for Francophone Africa

The University of Montreal, together with IICBA, has commenced a one year Postgraduate Diploma course which will be followed by a second year which would lead to a Masters of Education programme for francophone countries in May 2003. This course is through a combination of holiday courses for about 2 - 3 weeks combined with distance education.

The programme was initiated in Cameroon, with the expectation that it would be extended to other francophone countries once it has been established. Yaounde University has been selected as the hosting institution, and the first face-to-face session was held at the end of April 2003. Prof. Karsenti of the University of Montreal supported by Professor Colette Gervais and Mr. Normand Roy, who is a specialist information technician, together with IICBA Deputy Director, Dr. Joseph Ngu, IICBA Head of Dakar Node, Dr. Catherine Okai, and IICBA Programme Assistant, Ms. Raki Bal, assisted at this Institute which was very well received both by the University of Yaounde authorities and by the participating students. Thirty high level candidates were selected to participate in this programme. These were drawn in almost equal numbers from the Ecole Normale Supérieure and from the universities.

Umea University Programme

As part of the UNESCO IICBA's

initiatives of training and upgrading teachers through the distance mode, negotiations were made with Umea University in Sweden to implement their Master's Degree in Teacher Education. The programme follows the theoretical and practical rationale of the Namibian Teacher Education Reform Project experience. The Critical Practitioner Inquiry methodology which Umea University has been utilizing for more than 12 years in Namibia is an important innovation for Ethiopia. It is based on actual close study of what is happening in the Ethiopian classroom, and linking this to the actual aims and objectives of the Ministry of Education and the Government's aims for education, with particular reference to curricular objectives. It is aimed at analyzing what is actually happening at classroom level, and at improving practice at this level. In this regard it is a critically important step in self-analysis and self-critique with a view to effecting both detailed as well as major improvements in classroom practice and performance. The programme began in Addis Ababa in May 2003 on a pilot basis.

University of South Africa (UNISA) Programmes

Agreement has been reached on two programmes: the Advanced Certificate on Educational Management and the M.Ed. in Teaching of Mathematics. The Advanced Certificate will initially be offered by Ethiopian Universities, utilizing the materials developed by UNISA. UNISA will provide technical assistance if required to do so. What is envisaged is a study visit by the Ethiopian contingent who will be responsible for implementing the programme. The Master's degree course enrolled 21 participants selected from amongst lecturers responsible for the teaching of mathematics.

Most of these students already have a Master's degree in Mathematics, but have not done sufficient work on the pedagogy for the teaching of mathematics. This is what the UNISA degree addresses.

Support for the New Partnership for Africa's Development (NEPAD)

IICBA has been working with the African Union and with other UN Agencies on the educational aspects of the New Partnership for Africa's Development (NEPAD). To date, the human resource aspects of NEPAD have received scant attention, although it is recognized that this is a key area. UNESCO was given the

responsibility to report back on the possible ways in which science and technology can contribute to NEPAD and a workshop is envisaged in 2003.