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Higher Education: A Catalyst for Development
(Panel 1 Higher Education and Societal Needs)

Pathways Towards a Shared Future:
Changing Roles of Higher Education in a Globalized World

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I. Stocktaking of Development Experiences

Development studies have shifted from highly theoretical exercises with limited amount of practical experiences, a situation of about half a century ago, to a large body of rich experiences with weak and varied theoretical constructions in the recent period. Why do some countries succeed in clearly taking off from low levels of developmental situations and become major players in the world economy, whereas others do not? What are the major lessons we should learn from successful experiences which have been expanding over time? Can we apply these lessons to those developing countries that are yet to experience taking-offs? Would some of those experiences not be related to the roles that have been played by higher education? It is useful to ask these simple questions now.

1. Four Waves of Developmental Take-Offs

The world community has experienced four waves of developmental take-offs in the past three decades, now covering more than half of the developing world. Each time, unique features of these successes have been pointed out. The world community has tried to accommodate itself to the newly emerging countries to some extent, while basically asking them to adjust themselves to the various requirements of the world community. It appears that the world community has been obsessed with these adjustment efforts at each wave of successful take-offs, with weak attempts at learning lessons of the success stories.

1) The first wave took place from the middle of the 1970s. The Republic of Korea, Taiwan, Hong Kong and Singapore began to take off against the background of the global turmoil and stagflation caused by the first oil shock of 1973. A number of developing countries, which had recorded respectable growth in the 1960s, were sinking down in this world condition, leading to the creation of such a concept as the Fourth World, and to the political decision by the UN General Assembly to establish the category of MSACs (Most Seriously Affected Countries for special treatment). The European Community members had difficulty in adjusting themselves to higher energy prices, resulting in high unemployment rates, particularly of young people, for a long period of time, while the US economy suffered from the combination of stagnation and high inflation. It was only Japan in the industrialized world which succeeded in adjusting its industrial structure to higher energy prices in a couple of years, resulting in substantial export surplus which continued for a long period since then. With higher prices of oil, the Soviet economy, which had entered into severe stagnation due to structural deficiency by the late 1960s, had been rescued for a while.

Against this background of the global economy, rapid expansion of the exports from Korea, Taiwan, Hong Kong and Singapore was regarded as an aggravating factor for employment in

Western Europe and North America. Giving these emerging economies an acronym, NICs (newly industrializing countries), and later NIEs (newly industrializing economies), the OECD focused its analysis on how to accommodate them to the rules of the OECD. Some attempts of the World Bank to learn about the economic policies of these economies, such as those by Bela Belassa, related in particular to export led growth, were subsumed to these efforts of the OECD in the late 1970s.

2) The second wave of take-off took place from the second half of the 1980s in the Southeast Asian countries. Malaysia, Thailand and Indonesia began to record high levels of growth. Starting toward the end of the cold war and continuing into the post-cold war period, the phenomenal growth of these economies, sometimes going into two digits, was reviewed by the World Bank. This phenomenon was labeled as the “East Asian Miracle” by the World Bank. Some discussions on the lessons to be drawn from this second wave began in the 1990s. However, the outbreak of the East Asian Economic Crisis in July 1997 stopped this useful exercise all of a sudden. The focus of the analysis was shifted towards the causes of the crisis and the weakness of the bases of the growth of Southeast Asian countries in such areas as the governance structure of the financial system.

3) The third wave of the take-off took place in China, especially from the mid-1990s. The growth process of China began in the 1980s with the gradual liberalization of policies which began at the end of 1978. However, the isolation of China from the world community which was caused by the Tiananmen Incident of June 1989 brought about a slow down of growth considerably. Deng Xiaoping’s push toward economic competition in 1992-3 encouraged the liberal economic policy, resulting in a sustained high growth from the mid-1990s.

China’s high growth has become a major policy concern in the world community since the latter half of the 1990s due mainly to the sheer volume of the impacts that the high growth of the 1.3 billion population brings about. The exercise of learning from the lessons of the Chinese success has been kept to a low priority.

4) The fourth wave has been taking place in India from the beginning of this century, starting with information and communication technology and spreading over to other economic activities. This wave has again been bringing about a global systematic concern by adding Brazil, Russia, South Africa and Indonesia to the combination of China and India by giving it another acronym, BRIICS, by the OECD at its ministerial meeting earlier this year, while sustainability of the growth of these added countries are not as sure as that of India and China.

Thus, it is noteworthy and regrettable that attempts at learning from the lessons of successful countries have been lacking with some exceptions in the case of the second wave --- Southeast Asia, an exercise which, however, came to a sudden halt before much could be learned from it.

2. Ups and Downs of the Developmental Processes

There have been a certain number of developing countries that have been experiencing ups and downs in their developmental processes. While the reasons for their unsustainability of growth have been complicated (often the combination of political, economic and social factors characterizing it), two types of developing countries tend to be susceptible to the ups and downs in developmental experiences. They are:

- economies with high propensity to consumption, and
- countries that depend highly on exports of primary products.

1) High Propensity to Consumption

There are certain numbers of countries which are characterized by high propensity to consumption. At a time when political stability combined with a sound macro economic policy and a relatively large domestic market appeals to the appetite of international investors, a high growth based mainly on foreign direct investments tends to be achieved. This is also the time when governments borrow substantially from abroad to support the expanding economy. However, if cultural characteristics of these countries are dominated by high propensity to consumption, insufficiency of domestic investments due to low savings tends to become the major weakness of these economies. When an international environment becomes adverse, declining export opportunities lead to a situation where external debt becomes heavy burdens. Structural adjustment pressures from the capital exporting countries and the IMF are apt to be strengthened towards these economies. The policy mix for structural adjustment invariably undermines growth performance.

These economies, thus, tend to experience ups and downs in their developmental processes, characteristics which will become even more salient with increasing globalization of their economies. A number of Latin American countries have these characteristics.

2) Primary Commodity Exporting Countries

The prices of raw materials have been characterized by accelerated down turn at the time of decline in demands. While globalization of the market-based economies has been pushing global growth upwards, thus, increasing demands on raw materials, it is decreasing the use of raw materials per unit of products due to stronger competition among producers who have been forced to increase investment in R&D for smaller factor inputs, including raw materials. With the deepening of economic globalization, forces that cause both ups and downs of raw material exporting countries will be strengthened even more. Therefore, the characteristics of ups and downs of primary commodity producing countries will become more salient in the coming period. Are oil exporters exceptions to this trend? They may not be.

3. Emergence of Vulnerable States

The turbulence of the world economy caused by the oil shocks of the 1970s, the lost of decade of the 1980s for development for many developing countries, the tectonic change in the world political structure caused by the end of the cold war coupled sometimes with mismanagement of the macro-economic policies has forced a number of developing countries to become highly vulnerable to pressures to their state structures in the course of the 1990s. Many of them suffered from civil wars, with some of them developing into regional conflicts in the 1990s. Weakness in peacebuilding for these countries has been resulting in resurgence of violent conflicts in a number of these countries since the mid-1990s. Half of those countries that arrived at peace accords between warring parties have been drawn into resurgence of armed conflicts in five years. The negative cycle of all of these factors has contributed to the emergence of a new type of countries, namely, vulnerable states, some of which are becoming failing states, and even failed states.

The developmental experiences of the world community have been most problematic in these countries. These countries have largely been characterized by regression.

II. Long Gestation Periods

The experiences of the world community with development efforts have, thus, been diverse and highly mixed. It is essential for the global epistemic community to learn lessons from successful developing countries and to analyse ways which can be applied to other developing countries from among these lessons in addition to the analysis of the reasons for the failures of development, an aspect which is emphasized in the current development studies. It is important to notice that a long gestation period has been required for each of the successful waves to take place. What have been prepared during the gestation period? What have been culture-bound? What can be generic? What have been the triggering factors of a take-off? These questions have to be answered as an important stock-taking exercise of the half century experiences of developmental efforts in the world community, an exercise which will bring to light some of the roles played by higher education. The following is just a selective and tentative attempt at these efforts.

1. Preparation of Human Resources

One factor which is common among all of the four waves of successful developmental take-offs is the accumulation of human resources, in particular, those who have graduated from colleges and universities. This applies even to China whose institutes of higher education

suffered severely from the Cultural Revolution which started in 1966 and continued for close to a decade. Without a considerable accumulation of highly educated human resources, the spark of the developmental process would have been unlikely. It took a long time for each of the waves to increase the stock of human capitals to a level that would be sufficient to trigger the take-off.

All of the countries that belong to the four waves invested in higher education basically from their own national budgets at a time when their financial situations were very difficult. Individual families in these countries place high priorities on university education. Professors at universities have high social standing in these countries. Combining those factors, these economies have produced considerable numbers of graduates from colleges and universities over a long period of time. While very difficult to maintain the combination of these factors for a considerable period of time under severe financial and economic conditions, they managed to do it.

2. Experiencing Brain Drain

Some human resources from accumulated graduates from colleges and universities have moved on to northern countries for employment opportunities, and for further studies. Globally the number of those people who move across national borders for a livelihood increase by about 10 million people each year, and some of them are these college graduates. All of the countries that belong to the successful four waves have also experienced a considerable number of brain drains. After investing substantially in the human capitals, the governments of developing countries naturally have uneasy attitudes to brain drains. After soul searching, successful countries have arrived at a decision which makes it sure that they do not constrain them significantly.

There have, therefore, been a considerable number of communities abroad for Chinese and Indians, and to a much lesser extent, Koreans. The income of each of their national communities abroad had arrived at significant levels at a time when their developmental take-offs took place. Their capacity to invest in the home countries and their own quality as high human capitals for the home countries have contributed to sustainability of the newly started developmental processes.

3. Introduction of Liberalism

Another factor which is common to all of the four waves is the introduction of liberal economic policies which put emphasis on market forces. In fact, reliance on markets has, invariably, been a trigger of a developmental take-off. Self-interests and often greed have been the promoter of this process. Ensuing economic dynamism has been characterized by

insufficient social nets and a weak basis of economic rules, and is sometimes called capitalisme sauvage.

While introduction of liberal economic policies to countries that have not had sufficient and competent human resources, among other needed conditions, has often proven to be counter-productive through the experiences since 1980 in the world community, often in the form of structural adjustment policies, liberalization of economic policies is an essential requirement for a developmental take-off in countries that have prepared themselves well for a new stage, including competent human resources. The world community has been gradually learning productive ways to strengthen market force, requiring constant fine-tuning. It is essential for liberal policies to be introduced by the countries themselves due to the fact that they require constant efforts to improve themselves, efforts that are possible only with the strong sense of ownership of the policies by the countries themselves.

III. Institutes of Higher Education

It is thus an essential requirement for a developmental take-off to accumulate highly educated people so that important human capitals should become available. Universities and colleges are the institutions where young people are trained to become qualified human capitals. However, it is not any education at the universities that can perform this task. It is in two areas where education is particularly important for the creation of qualified human capitals for development. They are

- pragmatic programs, in particular in engineering and economics, and
- broad based humanities.

1. Engineering Sciences and Economics

1) It is an essential requirement for development take-offs to start with light industries such as the textile industry. While this start-up process sometimes results in over supply of similar products to the world economy, which UNCTAD calls the fallacy of structure, it has also been proven that this has been an effective approach. Engineers, whose number may not have to be large at the outset, are the important components of the human resources who carry this process out.

It is the transfer of technology that helps initial actions. Home-grown engineers are the ones who receive the technology. Without highly educated counter-part in the relevant field, the transfer of technology is not likely to take place.

The next step is to adapt the transferred technology to the local conditions. It is mainly for the locally educated engineers who have to perform this task. Without this adjustment effort,

transferred technology is not likely to be effective in the real situation.

Therefore, being an effective counterpart of the transfer of technology, and also being the primary agent who adjusts the transferred technology to the local conditions, home-grown engineers need to be educated at the universities and colleges in the country itself.

2) Another area where education at the universities and colleges should place a high priority is economics. It is important to train a certain number of young people basically in the neo-classic school. One important factor that helps start a developmental kick-off being liberalization of economic systems, economists trained in the neo-classic school should play important roles in public policy and enterprise management. At the same time, the world economy being largely based on market forces, the countries that start developmental kick-offs and expand economic transactions with foreign countries need a number of those who understand how the world economy works.

It is also important for the universities and colleges to educate students in the reality of local economies. Teaching students based on text books written by Western economists has to be supplemented with education of local economies. It is essential for these countries to train young people in these two areas in economics.

2. Broad Based Humanities

Another lesson that can be learned from the experiences of four successful waves is the contribution of universities and colleges to the training and education of young people in broad-based humanities. They include classics, history and literature including those of the country or the region itself. It has often been pointed out that these subjects, while important as such, are not relevant to the developmental works. However, it has been proven by the successful cases that learning broad based humanities that are conceptualized by the scholars of these countries for the students in these countries is an essential requirement for a critical and in-depth thinking by young people. Through these studies, they acquire abilities to think about the needs of their own societies by themselves. Social sciences can become useful for developmental purposes only upon critical thinking which is acquired by young people by studying broad based humanities.

In successful countries, the curricula that are used in the universities and colleges are full of humanity courses that are not replica of the “West”, and that reflect their own tradition, culture and history as well as the broader world. This tendency is in contrast to some other developing countries where humanities are largely taught based on the colonial linkages. This is an important area where scholarship of individual countries should be encouraged so that home-grown humanities scholars look into their own tradition and culture. International support

for it should be useful for the strengthening of a broader perspective in their national efforts which will be pursued beyond narrow nationalism.

IV Challenges of a Success

The successful take-off of a developmental process brings about a number of problems and challenges that need to be overcome for a sustainable development. The following three stand out as major challenges for universities and colleges.

----- widening gap between the rich and the poor,

----- short-term over-supply of college graduates and

----- transforming population issues: from a burden to a bonus.

1. Widening Gap between the Rich and the Poor

Introduction of liberalist policies being an important requirement for a developmental take-off, a widening gap between the rich and the poor is an integral part of inevitable consequences in the society. The successful four waves suggest a number of interesting points on this issue. One trend is for a successful developmental authoritarianism such as Singapore and China to address itself to this question by strong government policies so that re-allocation of resources is pursued by the government. This option does not automatically lead a take-off country to a democratic regime.

Another trend is for a democratic political process to allow the poor to raise their voices and for the government policies to reflect the voices of the majority of the population. Normally it takes time for this process to work out through elections, demonstrations and journalism. The poor may get impatient in the meantime, and may socially revolt. Alternatively, the political process of reflecting the voices of the poor may easily upset the traditional elite. The backlash of the vested interests may take many forms, including military coup d'état. It requires an astute leadership, including self-discipline and clean hand, for a successful process of reflecting the voices and concerns of the poor to work itself out in the democratic system, a process which is often full of socio-political dramas and indeed very difficult.

In the case of developmental authoritarianism, highly educated bureaucrats play the key roles. These roles are somewhat akin to the critical roles in state affairs played by the mandarins in the traditional regime in East Asia. In the modern system, it is the universities and colleges which provide similar education for the elite. The quality of this education, which is to make it sure that the government authorities serve the nation as a whole in particular, the poor, largely determines whether or not developmental authoritarianism succeeds in dealing with the widening gap between the rich and the poor.

On the other hand, in the democratic regime, it is important for universities and colleges to provide educational opportunities to a broad spectrum of the people in the country, including, in particular, the poor. It is important for a democratic society to have high social mobility which is promoted most effectively by education in most of the countries. At the same time, higher education for a broad spectrum of population is a useful deterrent to both political corruption and military intervention in politics, while a number of other factors are obviously needed to make this deterrence effective.

Another important aspect of a democratic regime is for universities and colleges to put emphasis on journalism. The quality of journalism having a decisive influence on the relationship between a democratic regime and the widening gap between the rich and the poor, training of journalists and of the readers and viewers of journalism is extremely important. Institutes of higher education can play a critical role for this purpose. However, this aspect has often been neglected in the successful waves with democratic regimes, with the consequence of social unrests.

2. Short-term Over Supply of College Graduates

Another major challenge is over supply of college graduates in the short-term. One major requirement for a successful take-off of a developmental process being the supply of a sufficient number of high quality college graduates, over-shooting of this target is bound to take place. In fact, it has been happening in all the successful countries.

A number of college graduates have opted for opportunities abroad. They may look for jobs in industrialized countries or for graduate studies, or both. The brain drain is almost an integral part of the drama of take-offs.

Many others stay in the country without satisfactory employment. Some of them may be completely unemployed, and others may have part-time jobs. A few of them might constitute the counter-elite. This social structure indicates a strong potential for social instability. A rapid economic growth after a take-off is required so that the economy can absorb the soonest possible as many of these highly educated young people as possible. The experience of all of the four successful waves suggests that it is extremely difficult to absorb significant number of these people into the growing economy. While over supply of college graduates was meant to be for a short-term, it in fact has been becoming a structural phenomenon even in these countries.

This situation is also an important issue in a number of industrialized countries. The over supply of college graduates should be dealt with from a global perspective jointly between industrial countries and developing countries. The balance between the supply and the demand of college graduates being an extremely difficult issue, this question is also an important and serious

issue for the next potential waves of successful countries and need to be considered not only in a national context but also from a global perspective as well. A major research work is sorely needed on this question.

3. Transforming Population Issues: from a Burden to a Bonus

Another major challenge is to transform population issues. Rapid population growth of developing countries has been identified as a major issue since the 1960s. It has been taking various forms such as over population, social dimensions, and health/rights. However, it has largely been considered as a burden for a society. One major lesson of successful countries is to re-conceptualize it as a population bonus by developing people into human capitals.

It is basically education that brings about this change. A high population growth phase does not continue beyond several decades. It is essential for developing countries to capitalize on this phase. However, as people are transformed into human capitals through education, this phase tends to be shortened also by education which is well known to have a strong impact on the growth of population as an effective decelerator. It is essential for each country to make it sure that it reaches to the level of development from where the development process can be basically sustained by its own efforts before the benefits of a population bonus disappear.

It is, therefore, a set of double challenges that need to be met. The first challenge is to transform the issue of over population into promises of rich human capitals, and the second is to maximize the benefit of the population bonus phase. Concerted research activities on these issues are required. Lessons to be learned from four waves of successful take-offs should be the starting points. Roles of institutes of higher education will be integral parts of the issues to be looked into.

V. New Roles of UNU and UNESCO

Higher education, thus, has been playing critical roles in all of the four successful waves of developmental take-offs in a number of ways, and will continue to play important and changing roles in the coming period. There are two useful areas where UNU and UNESCO can contribute significantly to the world community against the background of these experiences. They are catalytic roles in

--- new South-South cooperation and

---a new push for research universities to join in cutting-edge research activities.

1. New South-South Cooperation

In addition to the long-standing relationships between universities and colleges in developing

countries and those in industrialized countries, there is an important new dimension in international academic cooperation. It is the cooperation between some of the institutes of higher education in successful four wave countries and those in other developing countries. This new South-South cooperation should be particularly important in relation to

- an attempt at making pragmatic subjects such as engineering and economics relevant to individual developing countries, and
- curricula in humanities that have significant components of the countries themselves.

In these two new areas which should become important components of international cooperation in the coming decades, UNU and UNESCO should be able to play useful roles in various steps of realizing it.

1) a Model Cooperation

UNU and UNESCO can play a catalytic role in creating a useful model of this new South-South cooperation. An initial step might be to identify a few universities and colleges on both sides of the cooperation by a joint team of UNU and UNESCO. A second step might be to invite representatives for meetings in Tokyo and Paris to discuss jointly a feasibility of cooperation activities. Participating universities, UNU and UNESCO may identify a number of concrete issues involved for the cooperation, including research activities that are required, training which is needed, and fund raising for the cooperation. Division of labour among participants will have to be agreed among them. And the third step will be to pursue each of these agreed tasks. A fourth step might be to organize a committee to coordinate and to review the implementation of the cooperation. This committee will make it sure that the international community should learn from on-going cooperation as much as possible so that an effective model for the world community may emerge from it.

2) Indigenous Academism

UNU might establish a research project which looks into successful cases of universities in four wave countries in making curricula relevant to their own needs. There may be some elements that are sui generis, but there may be some others that can be applied to other countries. It is essential for the world community to share important lessons that can be learnt from this exercise. The major researchers will have to be those who are from the four wave countries.

3) a New Look at the Educational System

With a possibility of new South-South cooperation in mind, UNESCO might start a project to re-examine a total educational system, covering from primary education to higher education, and also informal education, technical education, and life-long education. A vast new horizon for action may emerge from this research.

2. Putting the Universities Back to the Research Front

The universities have been sliding down the slope in the research community for the past several decades. Cutting-edge research activities have increasingly been pursued in research institutes of the governments and private firms. The quality of independent research activities, in particular those that require long time, has been at stake. Only a few of the research universities are barely keeping up with cutting-edge activities. The research community of the universities has been in search of a new push to their activities for some time, but not from the government, nor from private firms.

A new horizon has emerged from a certain number of major universities in four wave countries. It is essential that a new research frontier of the university community should be organized by including these universities. It should be important for them to identify comparative strength in relation to research institutes of the governments or of the firms in the context of the broadened university research community. A global perspective is an important requirement for this exercise, including potential benefits of their research activities to the developing world as a whole.

UNU should be able to provide a useful neutral forum for these universities to take an initial step toward this direction. It is likely that these universities will be able to develop their own cooperative activities beyond this initial step.