

## **Global Science Corps (GSC) - UNDP Workshop**

### **Partnerships: African Institutions' perspectives**

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#### **Introduction**

I shall begin by making a number of general comments and then make a brief observation on the potential host institutions and areas of co-operation in Kenya.

#### **General Comments**

We all welcome the Global Science Corps initiative that is coming at an opportune time. We have been lamenting the poor state of affairs in many of our institutions and the need to do something about it. This initiative is a golden opportunity, one that we must take full advantage of.

As was aptly affirmed by the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa, in 2002, science and technology have become indispensable inputs into a country's sustainable development; they are also among the chief drivers of the fast evolving globalisation process. They are also an invaluable tool for realising the Millennium Development Goals.

It is common knowledge that African countries and institutions are weak in science and technology and that the situation is getting worse by the day. This calls for an urgent action to jump start research and development activities in relevant institutions and to improve such activities in the years ahead. This kind of effort will undoubtedly require all sorts of inputs including the GSC initiative. The initiative should, moreover, provide us with an opportunity to further ponder the nature of the problems facing many research institutions in Africa and how best to address the problems within the context of North-South and South-South co-operation, a critical area of growing interest to the international community, including multilateral organisations in the developed countries.

The proposed initiative will be the richer if it espouses diversity, promoting co-operation between Africa and North America, between Africa and Europe, while also encouraging co-operation between Africa and Asia, between Africa and Latin America, and importantly, among African countries- in order to take full advantage the reservoir of similar knowledge and experience, the kind to which Africa is closer.

Not only is there a dearth of good institutions in Africa, the few that exist are not equitably distributed throughout the continent, with clusters in certain countries or sub-regions. Since we want the benefits from the proposed co-operation to be spread throughout the continent, particular attention must, therefore, be taken to give a balance in the selection of host institutions. This might require expending extra resources to strengthen institutions in the in the respective sub-regions where such institutions are particularly weak in order eliminate the disparities.

The envisaged co-operation shall without doubt provide a healthy climate for promoting new ideas and research and development activities and a general framework for diffusing the knowledge so gained.

In such a co-operative effort due attention must be given to the importance of open exchange of experience, nurturing innovativeness and strengthening R&D capacity.

The criteria for choosing the host institutions, on the one hand, and researchers, on the other hand, must be carefully thought through to ensure full acceptance on both sides of the divide. It is also important to put in place mechanisms for monitoring and evaluating the effectiveness of the co-operative activities.

It needs stressing that the envisaged co-operation should be genuine, based on a new outlook, one which appreciates that co-operation is mutually beneficial to the parties concerned and that the learning that ensues there from is a two way process, i.e. that there is no 'giver' and 'receiver'. In this context, the activities should be implemented jointly and emphasis placed on collective action on common challenges and on knowledge sharing. Associated with this is the need to identify issues of relevance to the situations in respective countries that need addressing on a matter of priority

There will never be a situation in which available resources are adequate to fully meet all the requirements. It is, therefore, important to work out suitable modalities for pooling resources in the envisaged initiative and thereby reducing costs.

#### **Potential host institutions in Kenya**

Kenya is unique among the African countries: it hosts a large number of international research institutions, such as the International Centre for Insect Physiology and Ecology (ICIPE) and the International Livestock Research Institute (ILRI), in which first class research and development are being carried out. Kenya also boasts a number of excellent national research institutions, including The Kenya Agricultural Research Institute (KARI) and the Kenya Medical Research Institute (KEMRI).

Kenya also has several public universities – Nairobi, Kenyatta, Moi, Egerton, Jomo Kenyatta University of Agriculture and Technology and Maseno- in which a whole variety of research and development are being undertaken. All in all the level and quality of research in science and technology in these institutions have gone down substantially over the years. There are, however, certain fields in which top class research is still the order of the day, for example in medical research in HIV/AIDS, malaria and infectious diseases in general, veterinary science, forestry, biotechnology, environmental studies, agricultural research.

Most private universities are not strong in research, preferring instead to focus on teaching – mainly undergraduate students. New universities such as the Aga Khan are becoming strong in medical research, taking advantage of its strong linkage with its sister institutions outside Kenya.

#### **Potential areas of co-operation**

There are many opportunities for international co-operation with institutions in Kenya. Such co-operation would be in subjects and research areas in which the international and national institutions are involved and into which a lot of effort has gone, including medical and health research, control of diseases, improved crop production, biotechnology.

There is also scope for research and development in such areas as geothermal energy exploration and development; there is a significant potential of this resource in the Eastern and Southern African sub-regions and in Kenya it is already generating a sizeable amount of electricity.

High quality research in meteorology is already in place in Kenya providing long term weather prediction services for the Eastern African sub-region; this is an area in which co-operative research and development can be undertaken.

A number of people at the University of Nairobi are active in hydrology and limnology research, areas that would benefit from the envisaged co-operative initiative. There are also opportunities for valuable joint activities in marine research. The East African countries are blessed by the presence of one of the largest fresh water lakes in the world – Lake Victoria; prospects are abundant for a wide range of research activities on and around the lake; selected institutions in the sub-region could together act as a host to a number of researchers.

An area of particular interest for co-operative research relates to indigenous knowledge and technology. Much has been achieved in this subject but a lot more remains to be done.

Special attention should also be given to emerging technologies such as nanotechnology. ICT has been around for some time now, but Africa is yet to derive full benefit from it; here again there are many opportunities for co-operation in research and development.

To sum up, the idea and concept of Global Science Corps have come up at the most opportune time, and could go a long way in facilitating the development of science and technology in Africa and rest of the developing world. The scope for co-operation with host institutions in Africa is unlimited. The initiative should be co-ordinated with existing co-operation programmes on strengthening scientific and research institutions in Africa and build on such experience.