SHERWOOD ROWLAND

BioVisionAlexandria 2004
Opening Session
April 3, 2004

Mr. Prime Minister, Dr. Serageldin

I will take this occasion not only to represent the U.S.A., but also to represent the Academies of Sciences of the world, for whom there is a common basis for understanding--that is, through science, which transcends political boundaries.

The modern history of the world-wide collaboration among national academies of sciences began about 15 years ago. The National Academies of Sweden, India, the United Kingdom, and the U.S.A. were concerned about the rapid growth of the global population, together with the absence of any international effort to examine the range of problems associated with this rapid growth. The four Academies decided that they would put together a conference on the subject of population, and invite representatives of the many other Academies of Science around the world to join with them for discussions in a non-governmental forum.. That meeting was held in India in October 1993.

The general reaction among the participants to that meeting on population was that it had been very successful, and that in particular the collaboration among many academies had many advantages for discussions of others on the growing list of global problems. Consequently, another meeting was held in India in January 1995 and the fifteen Academies whose representatives had gathered there agreed to form the Inter Academy Panel on International Issues, or IAP as it is now known. Its purpose was simply to install a procedure by which the various academies of science would have ready access to one another for discussions of problems which were of global or regional nature. The IAP is now in its tenth year of operation, with more than 80 Academies of Science as members, and with a permanent headquarters in Trieste, Italy.

The IAP serves a clear purpose in facilitating international collaboration among the elite Academies of Science in all of these countries. In the year 2000, the IAP Council created still another initernatiional collaborative institution among the Academies, the Inter Academy Council, or IAC. The IAC governs a process by which a selected international group of scientists representing the accumulated scientific expertise of the world can address a specific world problem.

Two problems have now been assessed by the IAC, and are indications of the future possibilities. The first if the problem of capacity building--that is, simply saying that for successful international interactions involving science--and more and more problems are crossing many borders--it is imperative that there is a receptive, knowledgable scientific base in each country. And presently, there are many countries for which such a base does not yet exist--and capacity building aims to supply that indigenous scientific base in each country. The goal is that

more and more countries have the scientific capacity to interact with their potential partners around the world.

The second of these IAC proposals has been concerned with the problem of Food for Africa. The difficulty here is related to the growing global population, and the need for a parallel growing agricultural capability. Too, because perhaps one-third of the existing global population is chronically undernourished, the actual need is for agricultural capacity to grow faster than the population. Here, the difficulty is that in most of the world, the food production capacity has increased by 10%, 20%, even 30% in the past two or three decades, but in Africa, the food production capacity has actually been decreasing, making a huge problem for the entire continent. This is the problem which has been under consideration by an IAC-selected worldwide group of scientists knowledgable about agricultural practices. This report is in the last stages of review, and will when published provide a guide for the establishment of practices which can remedy the African food problem. It will both aid the African countries in making progress on their own, but also to outline the ways in which the rest of the world can assist as well.

These IAP and IAC efforts illustrate well the common international, cross-boundary basis of international science. We operate through a shared basis of trying to understand nature. When the explanations differ, the various positions are strongly argued, but the decision is usually made through a well-constructed experiment which illustrates the answer which lies in nature itself. Then, everyone can agree to this answer. This is the natural bridge which lies between scientists from different countries and different continents, and it is the recognition that this scientific bridge exists which offers optimism for the 21st century. Decisions can be made on the basis of how nature operates rather than from fixed positions held before the critical experiments were performed. Speaking for the United States, and for the Academies of Science around the world, the Library of Alexandria can be a beacon for us all.