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# IAP Statement on Scientific Capacity Building

## 04 December 2003

All countries now recognize the intimate relationship between science, technology and sustained economic development. Yet disparities in scientific and technological capacities between nations continue to grow - a trend accompanied by increasing disparities in economic and social well-being. Per-capita income in "high-income" countries is 60 times greater than per-capita income in "low-income" countries; meanwhile, per-capita research expenditures in developed countries is 220 times greater than per-capita research expenditures in the poorest developing countries.

Over the past two decades, the North-South divide in scientific and technological capacities has been accompanied by another unwelcome divide: growing disparities within the South between scientifically proficient countries (for example, Brazil, China, India, Malaysia, and South Korea) and scientifically laggard countries (most notably, the nations of sub-Saharan Africa).

The InterAcademy Panel on International Issues (IAP) has sought to address these trends by helping to nurture the creation of merit-based science academies in nations where they do not exist and to strengthen the capacities of science academies in countries where they do exist but function far below their potential. It is a compelling challenge

(for example, of the world's 139 developing countries, only 40 have merit-based science academies). Yet, the IAP is convinced that strong merit-based science academies provide critical indigenous mechanisms for promoting scientific excellence, bringing the fruits of scientific research closer to national economic development strategies, and devising science-based solutions to issues related to resource conservation and use.

To date, the IAP has held regional workshops on scientific capacity building for academies in Africa, South America and the Caribbean region, as well as for academies in countries with predominantly Muslim populations.

The IAP recognizes that merit-based science academies represent only one key player in efforts to build enduring scientific and technological capacities on national, regional and international scales.

Therefore, in a broader perspective, the IAP recommends the following:

- 1. creation of national science and technology strategies that specify research and development priorities and funding commitments. Such strategies should be developed in full consultation with the nation's scientific and technological communities;**

- 2. continued development of centres of scientific excellence, especially in the South. International funding agencies should work closely with national and regional scientific institutions throughout the developing world to create centres of excellence in a broad range of disciplines. These centres should promote research excellence, comprehensive training, and the exchange of both personnel and information;**
- 3. expansion of programmes for North-South and South-South scientific cooperation not only through the activities of centres of excellence but through bilateral and global initiatives sponsored by national governments and international organizations;**
- 4. targeted programmes designed to meet the special needs of women and minorities interested in pursuing careers in science. These potentially critical groups are often woefully under-represented in the scientific community. This vast untapped source of talent must not be neglected when seeking to build and strengthen scientific and technological capacities worldwide.**

We, the undersigned science academies throughout the world, members of the IAP, are convinced that building scientific and technological capacity is necessary for the promotion of sustainable development; that this implies the local creation of centres of scientific excellence (possibly academies); and that this entails both a mobilization of all intellectual resources and renewed international efforts for scientific cooperation.

#### Scientific Capacity Building: Signatories

Latin American Academy of Sciences  
 Third World Academy of Sciences  
 Albanian Academy of Sciences  
 National Academy of Exact, Physical and Natural Sciences, Argentina  
 Australian Academy of Science  
 Austrian Academy of Sciences  
 Bangladesh Academy of Sciences  
 The Royal Academies for Science and the Arts of Belgium  
 Academy of Sciences and Arts of Bosnia and Herzegovina  
 Brazilian Academy of Sciences  
 Cameroon Academy of Sciences  
 The Royal Society of Canada

Academia Chilena de Ciencias  
 Chinese Academy of Sciences  
 Academia Sinica, China, Taiwan  
 Colombian Academy of Exact, Physical and Natural Sciences  
 Croatian Academy of Arts and Sciences  
 Cuban Academy of Sciences  
 Academy of Sciences of the Czech Republic  
 Academy of Scientific Research and Technology, Egypt  
 Estonian Academy of Sciences  
 The Delegation of the Finnish Academies of Science and Letters  
 Académie des Sciences, France  
 Georgian Academy of Sciences  
 Union of German Academies of Sciences and Humanities  
 Ghana Academy of Arts and Sciences  
 Academy of Athens, Greece  
 Academia de Ciencias Medicas, Fisicas y Naturales de Guatemala  
 Hungarian Academy of Sciences  
 Indian National Science Academy  
 Indonesian Academy of Sciences  
 Royal Irish Academy (Acadamh Ríoga na héireann)  
 Kenya National Academy of Sciences  
 Accademia Nazionale dei Lincei, Italy  
 Science Council of Japan  
 Royal Scientific Society of Jordan  
 African Academy of Sciences  
 Latvian Academy of Sciences  
 Lithuanian Academy of Sciences  
 Macedonian Academy of Sciences and Arts  
 Akademi Sains Malaysia  
 Academía Mexicana de Ciencias  
 Academy of Sciences of Moldova  
 Mongolian Academy of Sciences  
 The Royal Netherlands Academy of Arts and Sciences  
 Academy Council of the Royal Society of New Zealand  
 Nigerian Academy of Sciences  
 Norwegian Academy of Sciences and Letters  
 Pakistan Academy of Sciences  
 Palestine Academy for Science and Technology  
 Academia Nacional de Ciencias del Peru  
 National Academy of Science and Technology, Philippines  
 Académie des Sciences et Techniques du Sénégal  
 Singapore National Academy of Sciences  
 Slovak Academy of Sciences  
 Slovenian Academy of Sciences and Arts  
 Academy of Science of South Africa  
 Royal Academy of Exact, Physical and Natural Sciences of Spain  
 National Academy of Sciences, Sri Lanka  
 Royal Swedish Academy of Sciences  
 Council of the Swiss Scientific Academies  
 Academy of Sciences, Republic of Tajikistan  
 The Caribbean Academy of Sciences  
 Turkish Academy of Sciences  
 The Uganda National Academy of Sciences  
 The Royal Society, United Kingdom  
 US National Academy of Sciences  
 Academia de Ciencias Fisicas, Matemáticas y Naturales de Venezuela

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