

Letter from Rio-2013 on the Role of Science Academies in Grand Challenges and Integrated Innovations for Sustainable Development and Poverty Eradication

1. Poverty eradication and sustainable development require addressing key grand challenges in health, food, water, energy, biodiversity, climate, disaster management, education and governance, among others.
2. Solving grand challenges must focus on science and integrated innovation: the coordinated application of scientific/technological, social and business innovation to recognize the need of leadership to develop solutions to complex challenges. It will also require leadership at all levels.
3. Merit-based Academies of Science have the capability to and should mobilize the best brains worldwide from different disciplines to assist in defining, addressing and solving Grand Challenges.
4. By helping to solve grand challenges, Academies of Science will be helping to reach post 2015 Sustainable Development Goals.
5. To address Grand Challenges and Poverty Eradication, Academies of Science should affirm their responsibility to society and work individually and jointly to:
 - assess strengths and weaknesses of current science, technology, and innovation capacities worldwide for addressing scientific issues related to sustainable development and poverty eradication;
 - inform the public and policy makers about Grand Challenges and potential solutions;
 - provide independent advice to governments and decision-makers on best science, technology and innovation Policies for acting on Grand Challenges and poverty issues. Such advice can be provided in the form of policy-relevant statements and short reports using the best available scientific evidence;
 - participate and advise, at the national and global levels, the processes being set by the UN and national governments on the post 2015 development agenda;
 - assist in mentoring young scientists by promoting their interest to focus part of their research on providing solutions to key grand challenges;

- promote the participation of women in Science, and in solving grand challenges.
- promote the view that scientific and technological entrepreneurship must belong to all, independent of nationality, religious belief, social background, ethnicity, or gender;
- facilitate linking grand challenges projects to Academies to promote wider participation, visibility and scaling-up of the projects, including addressing barriers to translate science, technology and innovation to business innovation;
- develop a common grand challenge on science literacy;
- assist in raising the level of public appreciation and engagement in Science by communicating, using successful experiences and case studies, of the role of science, technology and innovation in addressing grand challenges and poverty eradication, in a format easily understood by the general public.

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IAP is a global network of the world's science academies, launched in 1993. Its primary goal is to help member academies work together to advise citizens and public officials on the scientific aspects of critical global issues. The IAP Secretariat is hosted by TWAS - the academy of sciences for the developing world, and IAP activities are supported by the Government of Italy and by in-kind contributions of science academies worldwide.

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