

Science for Sustainability: The potential for German-Brazilian cooperation on sustainability-oriented research and innovation - Introduction

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Introduction

Sustainability is a guiding principle in German politics and assumable more-and-more also in Brazilian politics. Advanced, dynamic and developed economies in particular must take decisions that are sustainable in economic, environmental and social terms if our vital natural resources, i.e. air, water and land are to be preserved. Sustainability means ensuring equity between generations, quality of life, social cohesion and international responsibility. Present and future challenges are so ambitious that they can only be mastered with new technologies and findings and with new concepts for decision-making. Germany and Brazil – by joining expertise in Science and Technology – can make a substantial contribution towards generating sustainable solutions. In 2007 the Heads of governments (G8+5) including Germany and Brazil agreed to support the development of an internationally coordinated research agenda as part of the so called “Heiligendamm dialogue process”.

Dialogue on Science for Sustainability (D4S)

On 12 March 2009 the German Federal Minister of Education and Research (BMBF), Prof. Dr. Annette Schavan and the Brazilian Minister of Science and Technology (MCT), Prof. Dr. Sergio Machado Rezende emphasized the prominent role which research and development play in sustainable development by signing a Joint Declaration of Intent on the Brazilian-German Dialogue on Research Cooperation in Science, Technology and Innovation for Sustainability. The BMBF conducts this dialogue with a number of emerging economies, namely Brazil, Russia, India, China, and South Africa.

The 1st German-Brazilian workshop on Science for Sustainability marks an important step in this dialogue by bringing scientists, politicians and industry representatives together to share experiences and jointly identify challenges and priorities for future co-operation in sustainability related R&D projects and initiatives to be suggested to the Governments of Germany and Brazil.

Under the Brazilian-German Framework Agreement on the Cooperation in Science and Technology (1996) the BMBF expresses its willingness and delight to continue the long lasting science and technology cooperation with MCT and extent this cooperation now together into the cross cutting field of sustainability research.

The objectives of this result-orientated Dialogue as laid down in the Joint Declaration of Intent on the Brazilian-German Dialogue on Research Cooperation in Science, Technology and Innovation for Sustainability (Sao Paulo, 12 March, 2009) are, inter alia:

German-Brazilian Workshop on Research for Sustainability, São Paulo, Brazil, March 13th 2009

1. Reaffirming the importance of scientific and technological advancement in meeting the global challenges of sustainable development and resource efficiency, such as environmental technologies, water resources and sustainable land management.
2. Defining joint initiatives and networks for cooperation in research on scientific, technological and innovation sustainability.
3. Providing inputs for bilateral and international cooperative research programs on scientific, technological and innovation sustainability, as well as on the development of innovative joint initiatives for the better use of scientific and technological knowledge.
4. Promoting research, development and dissemination of scientific, technological and innovative programs and projects in sustainable development, with the participation of relevant partners and interested public and private institutions, including joint pilot projects, taking advantage of the experiences and capabilities of both Brazil and Germany.
5. Supporting the participation of researchers in high level events on issues of sustainability organized by each country, such as conferences, meetings and workshops.

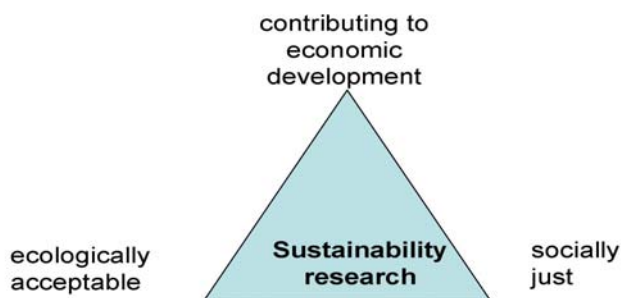
Sustainability research - past, present, future

In Germany about 20 years ago public funding of “environmental technology research” developed methods and techniques for recording and reducing pollution. The objective of the technologically oriented strategy was to provide for constant further development of the state of the art of environmental protection technology. The focus of public research funding in Germany later shifted from end-of-pipe technology to preventive and avoidance solutions and increasingly to causal research and environmental system research. Evaluation showed that looking only at the technological aspects or ecological or social aspects alone produces solutions that often fail to enter or sustain in the market and thus public funding was considered to be somehow wasted.

The new strategic approach “Sustainability research” addresses the three conflicting aspects at the same time: contributing to economic development, being ecologically acceptable and socially just (figure). It is expected that this approach will lead to more sustainable solutions than the earlier approaches and thus more effective and efficient spending of public and private funds for research and development. To live “Sustainability” and make this a brand for the 21st century requires a strong engagement of science, industry and politics likewise.

Figure:

Sustainability research addresses three conflicting aspects



The workshop

This workshop is regarded as an experiment. As it is common in a research experiment one often does not know what will be the outcome when starting. The results of this workshop will provide valuable input for the dialogue between the Governments of Germany and Brazil and the partners in Science and Industry.

We thank the Ministério da Ciência e Tecnologia (MCT) for organizing this workshop together with BMBF and thank all of you for coming and wish you a successful workshop and fruitful discussions on Research for Sustainability.

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