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Item 13 of the provisional agenda

**INFORMATION ON A PROPOSAL FOR THE GRANTING TO THE
INSTITUTO DE MATEMATICA PURA E APLICADA (IMPA), IN BRAZIL, OF
THE STATUS OF AN INSTITUTE UNDER THE AUSPICES OF UNESCO**

INTRODUCTION

1. The Government of Brazil has proposed that the *Instituto de Matemática Pura e Aplicada* (IMPA) be granted the status of an Institute under the auspices of UNESCO (i.e. a “Category II Institute”) and become a partner in the implementation of UNESCO’s mandate in capacity-building in the basic sciences, particularly in mathematics. It has provided a technical document describing IMPA as a degree-granting high-level scientific research institute in pure and applied mathematics established in Brazil in 1952. Created initially to fulfil a national mission, IMPA has grown in such a way that it has influenced the positive development of mathematics in other countries of the region.
2. This document has been prepared for information purposes since it has not yet been possible to complete the required feasibility study in response to the proposal of the Government of Brazil submitted to the Director-General.

UNESCO MANDATE IN THE BASIC SCIENCES

3. UNESCO has the unique mandate within the United Nations system for capacity-building in the basic sciences, including mathematics. Within this framework, an international basic sciences programme (IBSP) has been approved at the 32nd session of the General Conference. This action recognizes that the basic sciences, including mathematics, are indispensable means for development and that the benefits of science are still unevenly distributed.
4. The IBS Programme of UNESCO has been established with the following goals:
 - (a) to build national capacities for basic research, training, science education and popularization of science through international and regional cooperation in development-oriented areas of national priority;
 - (b) to transfer and share scientific information and excellence in science through North-South and South-South cooperation;
 - (c) to provide scientific expertise for, and advice to, policy- and decision-makers, and increase public awareness of ethical issues arising due to progress in science.

STATUS AND ACTIVITIES OF IMPA

The following elements have been provided by the Brazilian authorities:

5. IMPA was established in 1952 as an Institute of Research and Higher Education in Mathematics for the purpose of conducting research in pure and applied mathematics and improving the state of mathematics education in Brazil. Since then, its mission has been extended to the promotion of high-level scientific research in mathematics and its applications, the training of new researchers through a postgraduate programme, and the dissemination of mathematical culture and knowledge at all levels.
6. In 2001, IMPA has become an institution affiliated with the Ministry of Science and Technology. While remaining a public institution in terms of objectives and accountability, it has a more flexible administration. It has also acquired the status of being able to receive donations and financial support directly for activities related to its objectives. In its current status, it requires an interministerial evaluation of its activities every six months.

7. Most of the Institute's funding comes from the government, as an annual amount of approximately US \$3,000,000 including expenses for personnel. Additionally, other ministries provide funds for scholarships and fellowships.

8. IMPA is a government accredited postgraduate centre offering masters' and doctoral programmes in mathematics since 1971. Each student at the Institute holds a fellowship. The Institute has also established post-doctoral and exchange programmes that enable visiting researchers from Brazil and abroad to participate in joint research projects and contribute to the progress of mathematical research, particularly in the region. Moreover, IMPA hosts the biannual Brazilian Mathematics Colloquium and conferences, and offers special programmes for secondary-school teachers, including support for the Mathematics Olympiad and other competitions.

9. The library of IMPA displays a remarkable collection of classical and modern books, regularly receives 350 of the most important periodicals in mathematics and other related sciences, and offers access to various electronic periodicals via the Internet, including the Math-Sci data that provides mathematical reviews online.

10. While it has been created to fulfil a national mission, IMPA extends its influence to the region mainly through its postgraduate and visiting researchers programmes. A large number of its students come from all over Latin America and a few from Europe, Africa and Asia. It maintains strong exchange programmes and joint research projects with researchers from other Latin American universities. Of particular importance to the Institute is its collaboration with Peru concerning the *Instituto de Matematica y Ciencias Afines* (IMCA), a research institution in Lima, where most of its researchers obtained their doctoral degrees from IMPA. IMCA was created in 1997 through a joint ICTP-IMPA project.

FEASIBILITY OF THE PROPOSED CENTRE

11. To examine the merits of this proposal, a feasibility study will be undertaken. It will address the requirements specified in document 21 C/36 and 21 C/Resolution 40 and any other aspects deemed useful for assessing the feasibility and viability of the proposal. The feasibility study will be submitted to the next session of the General Conference, via the Executive Board.