



United Nations
Educational, Scientific and
Cultural Organization



The Natural Sciences Sector and the Participation Programme

Responding to local needs



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Natural Sciences Sector
and the
Participation Programme**

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This document aims to give an overview of the natural sciences-related projects proposed by the Member States for funding under the UNESCO Participation Programme and to highlight their impact on the implementation of the Natural Sciences programmes.

With respect to the Regular Programme, the “value added” of the Participation Programme lies in the improvements it brings to project implementation and the contribution it makes to achieving greater synergy between the efforts of the Member States and those of the UNESCO Secretariat.

This brochure represents the first attempt to analyse the Participation Programme requests submitted to the Natural Sciences Sector. Future editions are expected to be more comprehensive and to overcome any omissions that may be evident in the present publication.

What is the Participation Programme ?

It was during the 1957-1958 biennium that the term “Participation Programme” was used for the first time in UNESCO’s Programme and Budget. At that time, a policy of supporting Member States in their activities was starting and the Participation Programme was a concrete step forward, even if the resources available did not always match the ambitions of the applicants.

The UNESCO Participation Programme provides direct assistance to initiatives undertaken by Member States, in line with the priorities that they themselves determine, in the Organization’s fields of competence. These projects are financed by an allocation of the Regular Programme that is separate from the allocations assigned to the Programme Sectors.

Assistance under the Participation Programme is provided to Member States or Associate Member States upon requests submitted through National Commissions (requests from individuals cannot be considered). International NGOs may also benefit from assistance under the Participation Programme. The domain of assistance is quite broad, as shown by the following examples of successful projects submitted during the 2008-2009 biennium to the Natural Sciences Sector:

- ▶ Establishment of a Seismological Training Center at the Jordan Seismological Observatory
- ▶ Implementation of a solar lighting system for schools (Guinea)
- ▶ Application of satellite remote sensing for integrated management of coastal and marine ecosystems (Mozambique)
- ▶ Institutional strengthening of hydro-meteorological services (Bhutan)
- ▶ Establishment of flash flood forecasting and warning system in the Keumya River basin (Democratic Republic of Korea)
- ▶ Promoting Science education in primary schools through the provision of Basic Science Equipment (Saint-Vincent and the Grenadines)

Among other things, assistance under the Participation Programme may comprise the provision of fellowships and study grants. Should the Director-General approve the request, the UNESCO Participation Programme and Fellowships Section administer and manage these awards, and ensure related follow-up action, in liaison with the various Sectors of the Organization.

Who can apply ?

The Participation Programme is open to all Member States and Associate Members or territories.

International Non-Governmental Organizations enjoying formal or operational relations with UNESCO, the list of which is established by the Executive Board, may also submit requests to the Participation Programme.

Budget

The budget devoted to the Participation Programme in the Regular Programme and Budget is decided by the General Conference every two years and is managed directly by the Sector for External Relations and Cooperation through its Participation Programme and Fellowships Unit.

Although the Participation Programme has become an important part of the UNESCO Programme and Budget, it has been decreasing proportionally with the overall budget of the Organization.

Budget approved for the Participation Programme in recent biennia:

Biennium	US\$
2008-2009	18,800,000
2006-2007	20,000,000
2004-2005	23,000,000
2002-2003	22,000,000
2000-2001	22,000,000

For the biennium 2010-2011, the 35th session of the General Conference (October 2009) approved the allocation of an amount of \$ 19,000,000.

Objectives

The Participation Programme is in no way a substitute for the regular programme; it is to be seen rather as complementing it by enabling Member States to carry out important projects, particularly in the Organisation's main areas of competence.

Through this programme UNESCO aims to:

- 1 Achieve its objectives by participating in sub-regional, inter-regional and regional projects, led by its Member States and directly related to the activities of the Organization;
- 2 Strengthen the partnership between the Organization and its Member States as well as between the Organization and International Non-Governmental Organizations;
- 3 Help invigorate the action of the National Commissions for UNESCO;
- 4 Achieve better visibility of UNESCO's action in its Member States.

Forms of assistance

Assistance under the Participation Programme may comprise the provision of:

- the services of specialists and consultants;
- fellowships and study grants;
- publications, periodicals and documentation;
- equipment (other than vehicles);
- conferences and meetings, seminars and training courses: translation and interpretation services, participants' travel costs, the services of consultants, and other services deemed necessary by all concerned (not including UNESCO staff members).

Process

Requests from Member States

Three kinds of requests may be submitted by Member States to the Participation Programme:

- ▶ Requests of a **national** character: Each Member State is authorized to submit **ten (10) national, subregional or interregional requests**, classified in an order of priority from one to ten.
- ▶ Requests of **sub-regional or inter-regional character**: can be submitted by a Member state with the support of one or more neighbour countries.
- ▶ For activities of a **regional character**, each region (Africa, Arab States, Asia and the Pacific, Europe, Latin America and the Caribbean) may submit **three (3) requests**, each presented by one Member State. These projects, exclusive to Member States, need the support of at least three Member States of the same region. The support of Member States for a regional request has no implication for requests submitted on their own behalf. Regional requests are not included in the quota (of 10 requests) submitted by each Member State.

Breakdown

The 34th and 35th sessions of the General Conference, decided that, for the 2008-2009 and 2010-2011 biennia, the total value of the assistance provided for each request should not be in excess of:

- ▶ US\$26,000 for national projects
- ▶ US\$35,000 for sub-regional or inter-regional projects
- ▶ US\$46,000 for regional projects.

Evaluations by Programme Sectors

All requests are evaluated by the various Programme Sectors of UNESCO which consider the priority given by the country, complementarity with programme priorities and the current needs of the country. An Intersectoral Committee meets regularly in order to make recommendations to the Director-General on the basis of a strict selection process.

An evaluation report and a financial report are presented by the Member States on completion of the project. The Sectors then study the evaluation reports and give their endorsement when the project has been correctly implemented.

Participation Programme and Emergency Assistance

The concept of emergency assistance was adopted by the General Conference at its 25th session (November 1980).

Emergency assistance may be accorded by UNESCO when there are insurmountable circumstances nationwide (earthquakes, storms, cyclones, hurricanes, tornadoes, typhoons, landslides, volcanic eruptions, fires, droughts, floods or wars, etc.) which:

- ▶ have catastrophic consequences for the Member State in the fields of education, science, culture or communication;
- ▶ cannot be overcome by the Member State itself;
- ▶ and where multilateral emergency assistance efforts are being undertaken by the international community or the United Nations system.

The assistance only begins once the threat to life has been overcome and the material needs have been met (food, clothing, shelter and medical assistance).

Emergency assistance in cash or kind cannot exceed US\$50,000 and should be limited to the strict minimum and only provided for assessing the situation, evaluating the basic requirements, providing expertise and helping to identify outside funding sources and extrabudgetary funds. This form of assistance is provided in coordination with other UN agencies.



Participation Programme in figures (UNESCO total)

Biennium 2006-2007

Breakdown of requests approved for Member States, Associate Members and other territories, by programme Sector¹:

Sector	Number of requests	Amount approved \$
ED ²	310	5,725,335
SC ³	108 ¹⁰	2,009,903
SHS ⁴	40	716,012
CLT ⁵	170	2,811,947
SHS/YTH ⁶	8	151,100
ERC/RPO/PTS ⁷	4	86,000
Subtotal	716	12,895,025

Breakdown of requests approved, by region, for all programme sectors¹:

Region	Number of requests	Amount approved \$
Africa	215	3,986,200
Latin America and the Caribbean	165	2,995,540
Asia and the Pacific	201	3,566,917
Arab States	72	1,273,500
Europe 1 ⁸	42	661,160
Europe 2 ⁹	109	1,817,708
Total	804	14,301,025

Breakdown by priority throughout all UNESCO programmes¹:

Priority	Number of requests	Amount approved \$
Africa	223	4,155,200
Women	27	500,162
Youth	119	2,051,782
Least developed countries	264	4,650,726

For the last decade, the Natural Sciences Sector has been the third Sector, after Education and Culture, in terms of the number of requests for assistance through UNESCO's Participation Programme, and this continues to be the case for the 2006-2007 biennium.

The breakdown of requests by region shows that African countries submitted 215 applications to the Organization as a whole. This expressed need was followed closely by the Asia-Pacific region.

The number of requests regarding priorities indicates clearly that Africa takes precedence with the Least Developing Countries. Contrary to this tendency, the number of requests concerning Women is very low.

1 Ref. Executive Board document 177 EX/56

2 Education Sector

3 Natural Sciences Sector

4 Social and Human Sciences Sector

5 Culture Sector

6 Social and Human Sciences Sector/Youth Section

7 Sector for External Relations/UNESCO Clubs and Partnership

8 Western Europe

9 Central and Eastern Europe

10 The total amount of approved requests for the 2006-2007 biennium was 145. This total of 108 corresponds to the amount effectively paid to the countries as of 10 July 2007. The payments in response to the remaining requests were not made due to several reasons, mainly because the countries did not provide reimbursements previously due to the Organization or because the reports on the implementation of the projects were not submitted for evaluation to the Organization. Unspent money is used for the Emergency Assistance or redistributed for requests with very low priorities selected by the intersectoral committee at the end of the biennium.

Biennium 2008-2009

Breakdown of requests approved for Member States, Associate Members and other territories, by programme sector (as of September 2009):

ED ⁴	297	5 622 850
SC ⁷	156	2 948 725
SHS ⁵	84	1 575 770
CLT ¹	232	4 370 862
UIS ²	1	22 000
ERC/RPO/PTS ³	7	138 000
IIEP ⁶	9	202 000
CI ⁸	117	2 306 130
Subtotal	903	17 186 337

(Ref. SISTER 2008-2009)

Breakdown of requests approved, by region, for all programme sectors¹⁰:

Region	Number of Requests	Amount approved \$
Africa	253	5 054 090
Latin America and the Caribbean	179	3 485 765
Asia and Pacific	194	3 865 756
Arab States	70	1 493 300
Europe 1	27	491 600
Europe 2	107	1 906 326
Total	830	16 296 837

Breakdown by Priority for all UNESCO programmes¹¹:

Priority	Number of Requests	Approved amount \$
Africa	253	5 054 090
Women	41	858 000
Youth	120	2 513 880
Least Developed Countries	273	5 382 756

During the biennium 2008-2009, the Natural Sciences Sector remains the third Sector for the number of requests, with Education and Culture still receiving the most applications.

The breakdown by region shows that the percentage is the same as the previous biennium for all regions. The number of requests for Latin America and the Caribbean and Asia and Pacific is almost equivalent, however, there is a significant decrease for Europe 1, which implies that European countries are taking into account the suggestion made by the Director-General in letters addressed to the Member States: ie, 'the member countries of the Organisation for Economic Co-operation and Development (OECD), and more particularly those on its Development Assistance Committee as well as all countries whose annual gross domestic product per capita exceeds \$10,000 [should] refrain from submitting requests'.

The priorities' breakdown for all UNESCO programmes continues to show a comparable percentage to that of the last biennium. Africa is still the priority of priorities but this time the number of requests concerning women has doubled compared with 2007-2008. This effect is certainly a response to the Organization's call for attention to the top two programme priorities, namely Africa and gender equality.

- 1 Culture Sector
- 2 UNESCO Institute for Statistics
- 3 Sector for External Relations/UNESCO Clubs and Partnership
- 4 Education Sector
- 5 Social and Human Sciences Sector
- 6 International Institute for Educational Planning
- 7 Natural Sciences Sector
- 8 Communication Sector
- 9 Central and Eastern Europe
- 10 The total amount of approved requests for the 2008-2009 biennium for the Natural Sciences Sector is 143. The total amount of 156 requests contains also requests approved under Emergency Assistance
- 11 Ref. Executive Board document 182 EX/43 (as of 11 August 2009)

► The Participation Programme in the Natural Sciences Sector

The Natural Sciences Sector provides support and assistance to governments through its various programmes.

These programmes support the creation, advancement and delivery of scientific knowledge for local, national and international policy-making and problem-solving.

They include:

- Basic and Engineering Sciences
- Science Policy and Sustainable Development
- Water Sciences
- Ecological Sciences
- Earth Sciences
- Small Islands and Indigenous knowledge
- The Oceans (Intergovernmental Oceanographic Commission)

With respect to the Natural Sciences Sector, the two following biennial programme priorities were taken into account in the evaluation of projects during 2008-2009 (34 C/5):

- Promoting research and technical capacity-building for the sound management of natural resources and for disaster preparedness and mitigation;
- Strengthening national and regional research and innovation systems, capacity-building, the use of technologies, and scientific networking, and encouraging the development and

implementation of science, technology and innovation policies for sustainable development and poverty eradication.

An increasingly important challenge for the Sector is to link science and society at large, by promoting productive linkages between scientists and decision-makers in governments. The Sector's comparative advantage comes from its ability to act as an independent source of advice; collaboration with other sectors of UNESCO (Education, Culture and Communication) to provide comprehensive analyses and solutions of societal and political relevance; its promotion of 'science without frontiers' at local, regional and global scales; and its intergovernmental mandate to provide advice and assistance to individual countries. As such the Participation Programme is an important complement to the regular activities in the Natural Sciences.

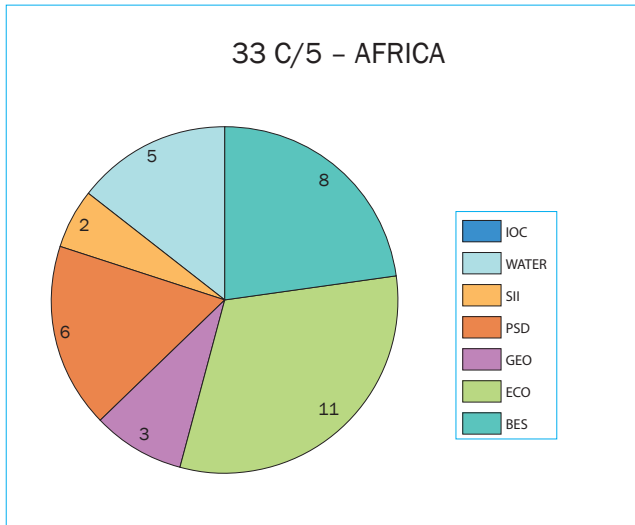
The priorities for the current biennium (2010-2011, 35 C/5) are the following:

- Biennial sectoral priority 1: Policies and capacity-building in science, technology and innovation for sustainable development and poverty eradication
- Biennial sectoral priority 2: Sustainable management of freshwater, ocean and terrestrial resources including renewable sources of energy as well as disaster preparedness and mitigation

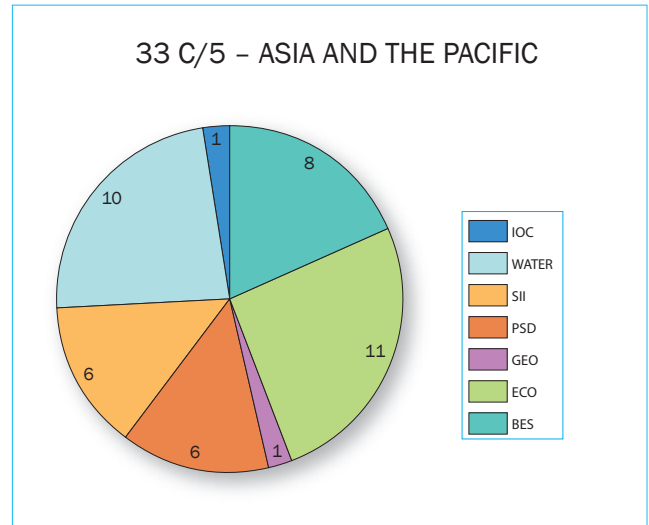
Natural Sciences Sector Breakdowns

Biennium 2006-2007 (33 C/5)

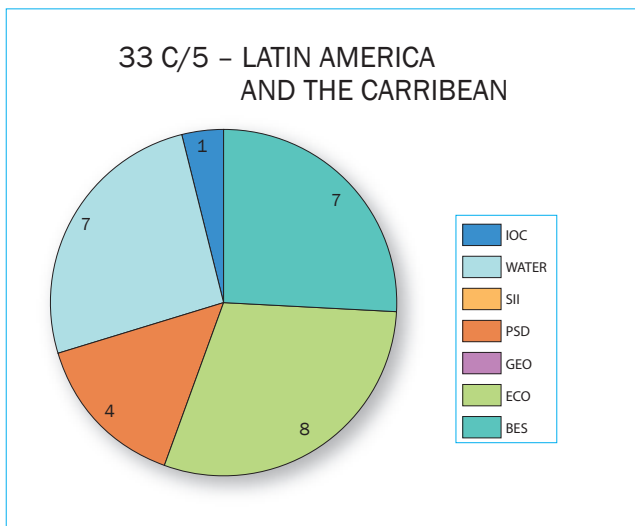
Breakdown of the 145 total projects (Annex I) by region and thematic area.



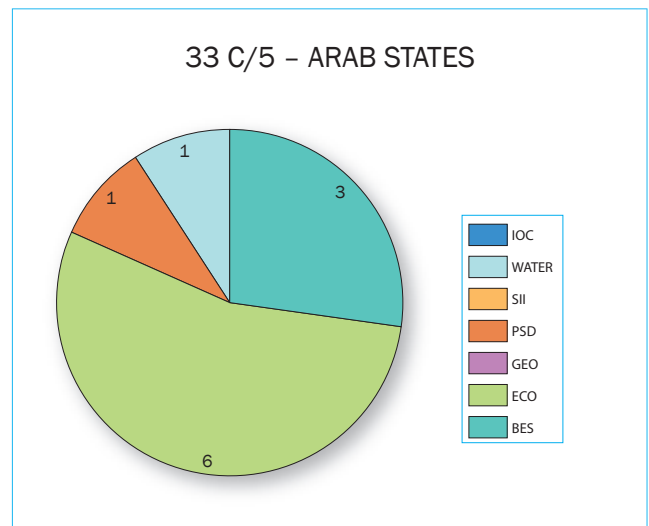
TOTAL: 35 projects



TOTAL: 43 projects



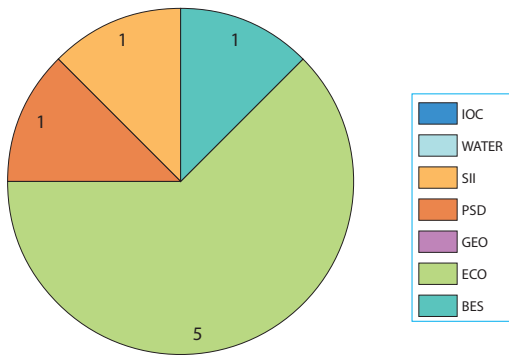
TOTAL: 27 projects



TOTAL: 11 projects

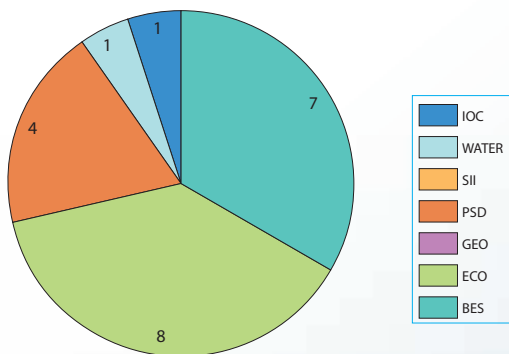
IOC: Intergovernmental Oceanographic Commission
 WATER: Water Sciences
 SII: Small Islands and Indigenous Knowledge Section
 PSD: Science Policy and Sustainable Development
 GEO: Earth Sciences
 ECO: Ecological Sciences
 BES: Basic and Engineering Sciences

33 C/5 – EUROPE 1



TOTAL: 8 projects

33 C/5 – EUROPE 2

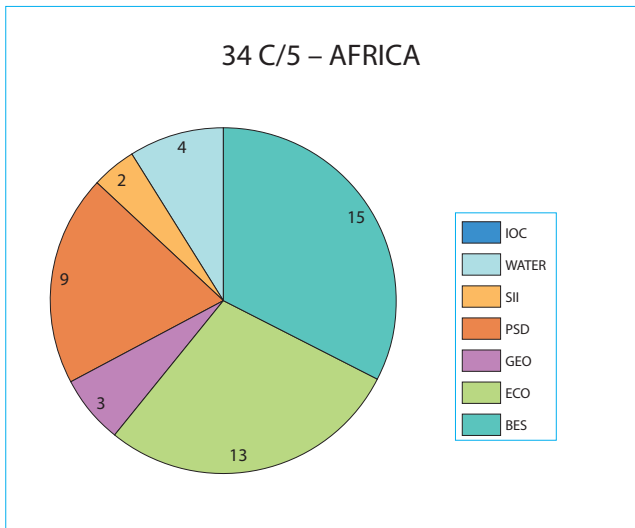


TOTAL: 21 projects

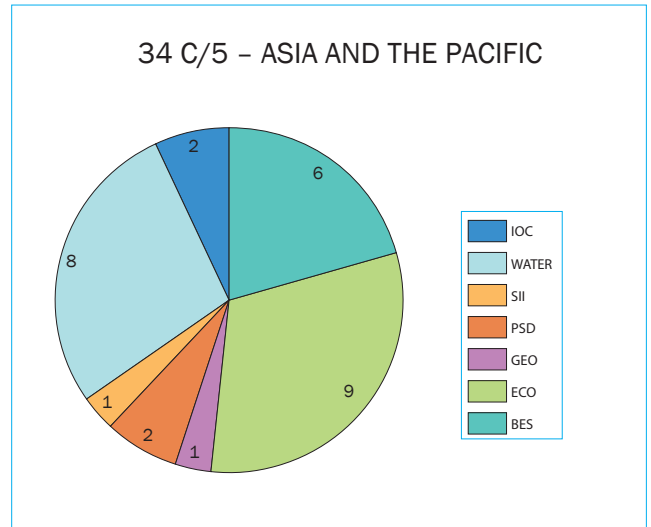
From all regions of the world, the ecological sciences attracted the most submissions while those received for the basic and engineering sciences and the water sciences followed closely.

Biennium 2008-2009 (34 C/5)

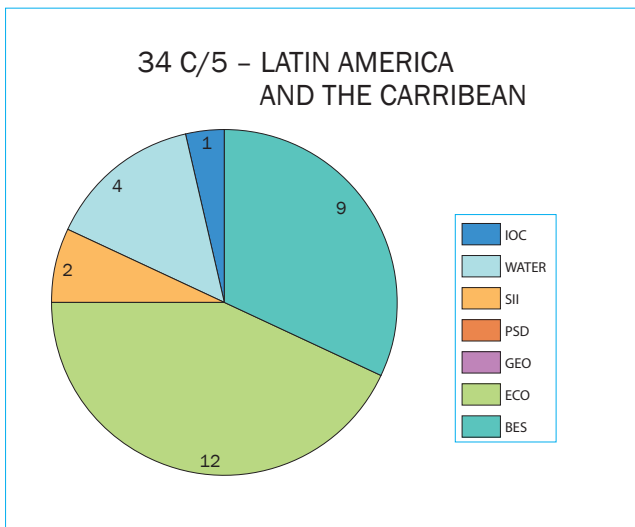
Breakdown of the 143 total projects (Annex II) by region and thematic area.



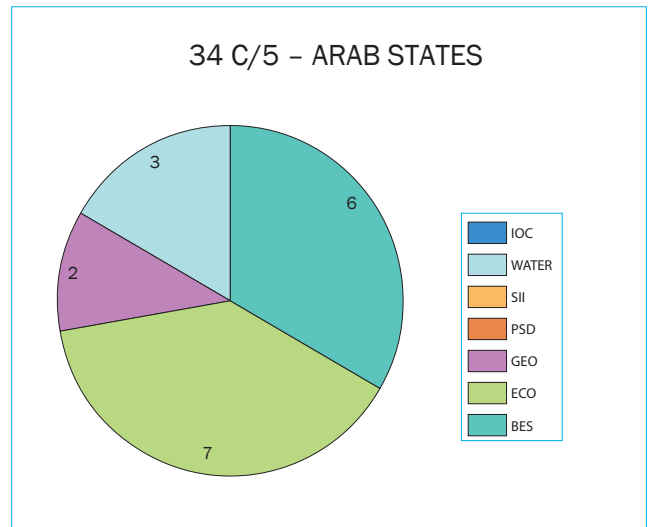
TOTAL: 46 projects



TOTAL: 29 projects

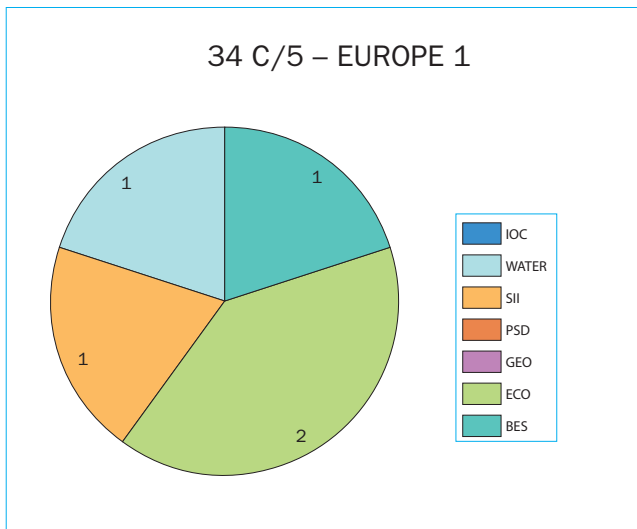


TOTAL: 28 projects

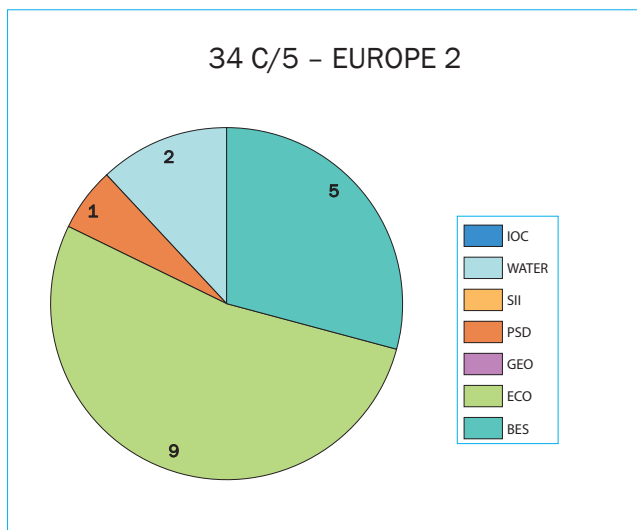


TOTAL: 18 projects

IOC: Intergovernmental Oceanographic Commission
 WATER: Water Sciences
 SII: Small Islands and Indigenous Knowledge Section
 PSD: Science Policy and Sustainable Development
 GEO: Earth Sciences
 ECO: Ecological Sciences
 BES: Basic and Engineering Sciences

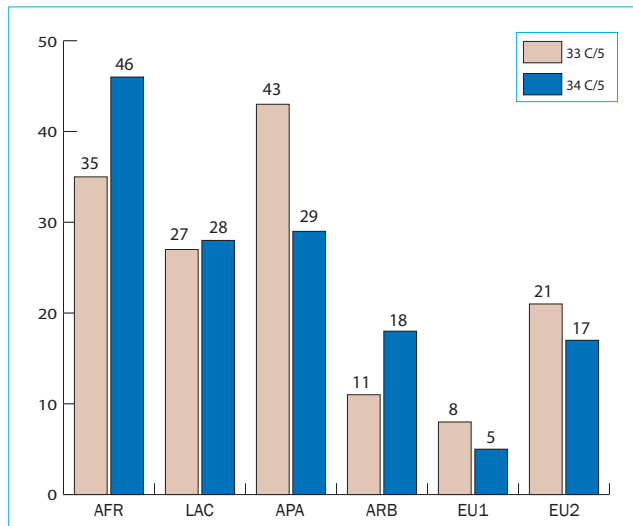


TOTAL: 5 projects



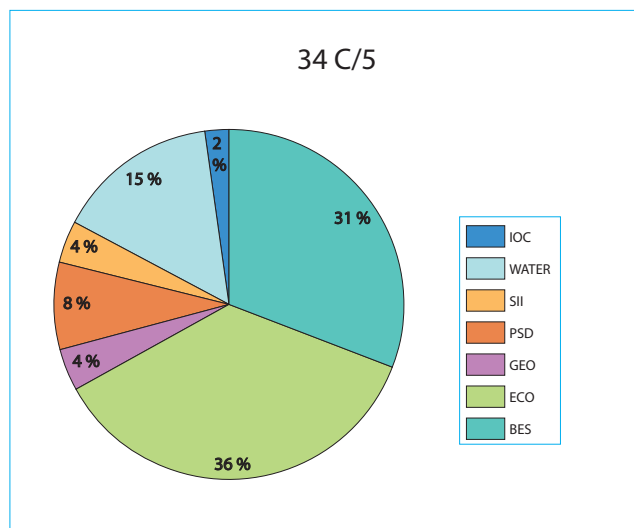
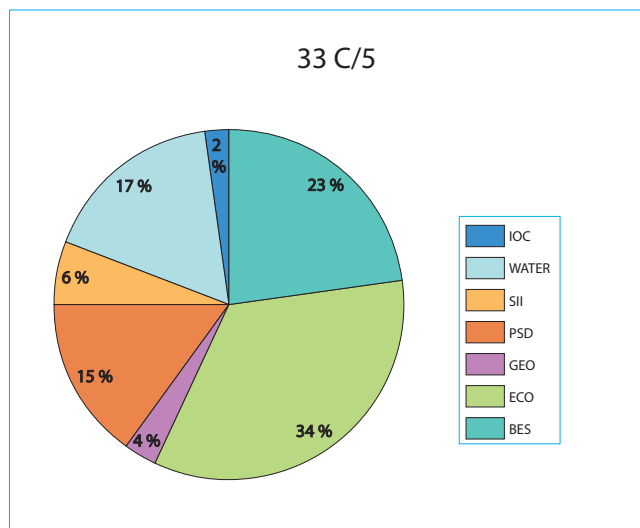
TOTAL: 17 projects

Number of requests by region for both biennia:



During the 2008-2009 biennium, the number of requests have increased for Africa, Latin America and the Caribbean, and the Arab States. There is a significant decrease in the number of requests from Asia and Pacific countries and a small decrease from European countries.

Comparison between two biennia



Number of requests (in declining order) by thematic area:

Thematic area	Number of requests 33 C/5	Budget approved 33 C/5 (US\$)	Number of requests 34 C/5	Budget approved 34 C/5 (US\$)
ECO	48	991,008	52	1,021,500
BES	28	470,900	42	823,355
WATER	30	562,225	22	474,370
PSD	22	370,007	12	209,000
SII	9	165,464	6	128,000
GEO	6	107,011	6	130,000
IOC	2	33,000	3	58,000
Total	145	2,699,615	143	2,844,225

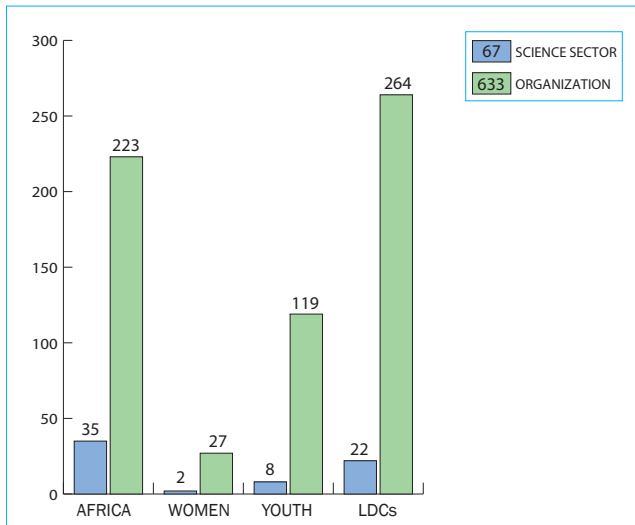
- The total number of requests have decreased slightly from 145 (33 C/5) to 143 (34 C/5) concerning the Sciences Sector. However, the budget has increased in view of the priority and higher sum allocated to each request.
- There has been a small increase of the number of requests in the Ecological Sciences (from 48 to 52) and a more important increase in the Basic and Engineering Sciences (from 28 requests for the 2006-2007 biennium to 42 requests for the 2008-2009 biennium);
- The Science Policy request number has decreased considerably (from 22 to 12), as well as for the Water Sciences (from 30 to 22);
- A slight decrease concerning Indigenous Knowledge and Small Islands (SII), from 9 (2006-2007) to 6 (2008-2009);
- It is important to note that many requests regarding SII have been evaluated by other divisions, because of their pluridisciplinary character;
- Earth Sciences maintained the same numbers (6);
- IOC: only 3 requests per biennium.

Priority groups

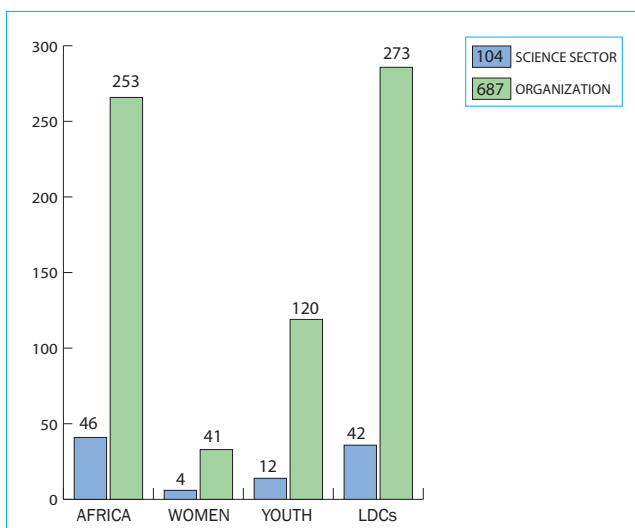
Number of requests organized by priority group: comparison between the Natural Sciences Sector and the Organization:

2006-2007

Number of requests



2008-2009



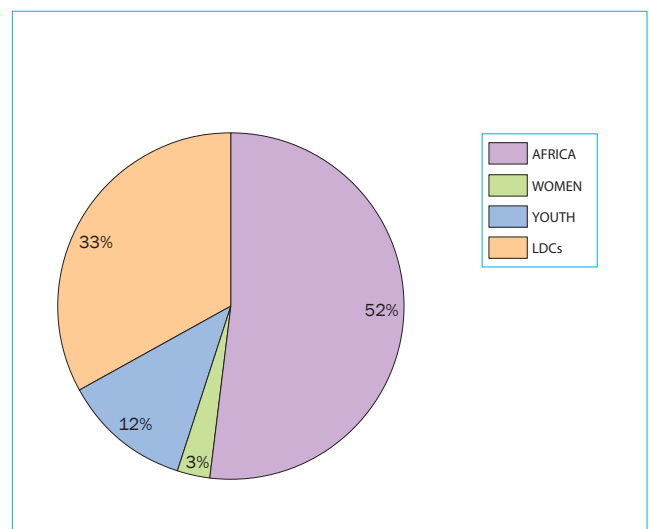
- Regarding the **priorities** of the Organization, the figures show that the Natural Sciences Sector's (SC) cooperation with Africa is more significant than the Organization's (SC = 44%; UNESCO = 37%); and compared with the last biennium there is a real growth (from 35% in 2006-2007 to 44% in 2008-2009).
- The number of requests regarding cooperation for Women has remained very low and should be improved to be in line with the new priorities established by the Director-General (Women: SC 4%, UNESCO 6%);

- The number of requests concerning Youth has also remained low in comparison with the Organization's figures over both biennia;
- The SC Sector is at the same level (40%) as the Organization concerning LDCs for the present biennium, but there is an improvement from the previous biennium (from 33% in 2006-2007 to 40% in 2008-2009) while this figure is decreasing for the Organization as a whole.

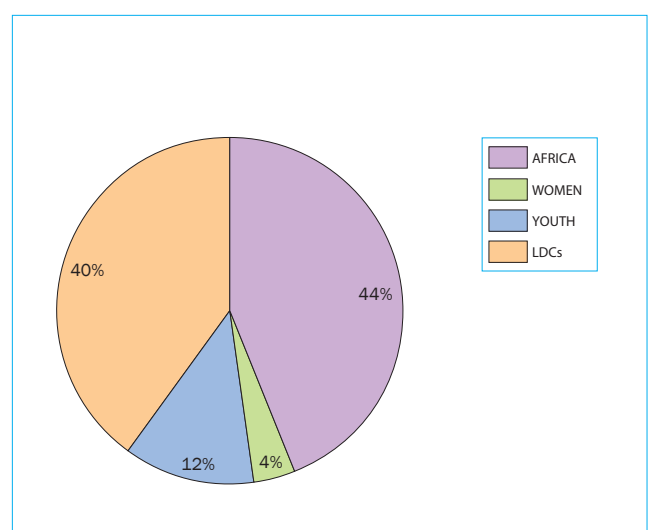
**Natural Sciences Sector:
comparison between the two biennia**

2006-2007

Percent of requests received by SC



2008-2009





Success Stories

Success Stories

CESS

Renewable Energies

Renewable Energy for Development and Climate Change Mitigation

The global nature of energy challenges requires that importance should be given to the appropriate management and use of local renewable energy resources.

To help address this issue, activities under the Participation Programme have supported the use and application of renewable sources of energy, taking into account local needs and conditions. During the 2006-2007 and 2008-2009 biennia, twenty-one projects were implemented in Africa, the Arab States, Asia, Europe, and Latin America and the Caribbean. The various projects have covered a wide range of renewable energy topics such as capacity building, research and development, knowledge sharing, and demonstration projects.

In reinforcing the capacities of national institutions, support was provided to national renewable energy centres, allowing for databases to be established, fundamental research to be conducted and better advice to be provided on renewable energy applications such as solar water pumping and solar lighting.

Research and development activities included performance studies which were undertaken on the use and application of emerging renewable energy technologies. In one such study on the use of *Jatropha* oil as a biofuel, the financial support provided under the Participation Programme allowed for the cultivation of the plants and the acquisition of the required, specialized equipment. Furthermore, seminars and training courses with the objective of introducing the project and its results to end-users were implemented within this project.

In many cases, the educational and scientific capacities of teachers and policy-makers were reinforced by the development and publication of teaching/learning materials and textbooks on renewable energy, benefiting representatives of local authorities and national institutions for education in many different municipalities. Projects also included activities aiming at reinforcing the capacities of

local end-users through the organization of summer schools on renewable sources of energy.

Demonstration projects were also supported. Within this framework, the solar electrification of rural schools was implemented, aiming to promote the use and application of solar energy to improve the learning and teaching conditions in rural and isolated areas. These projects have also facilitated the organization of adult literacy courses as well as the use of computer systems with modern internet connections.

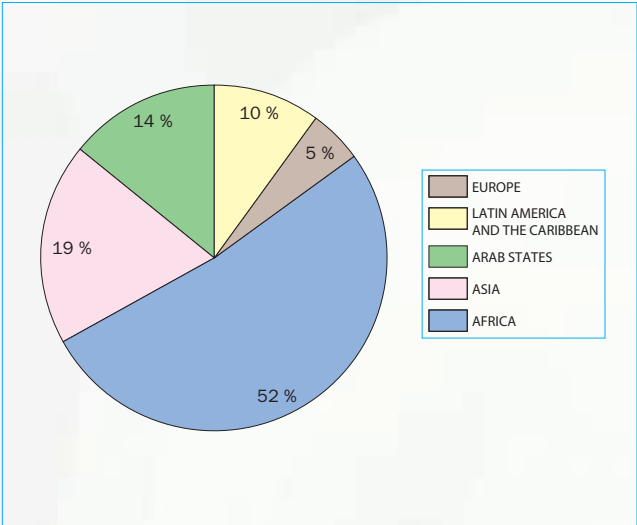
In other demonstration projects, support was provided to the design, construction and installation of innovative renewable energy technologies such as a solid organic waste management system. This particular project had a ripple affect, addressing several needs of the local community through the management of solid organic waste and the associated health risks, the generation of clean-burning gas for cooking, and the production of locally-produced, non-chemical fertilizer to enhance agricultural production.

During the next biennium, support will be furthered for activities and projects under the Participation Programme, thereby complementing UNESCO's regular programme efforts related to the use and application of renewable energies and their role for sustainable development and climate change mitigation.

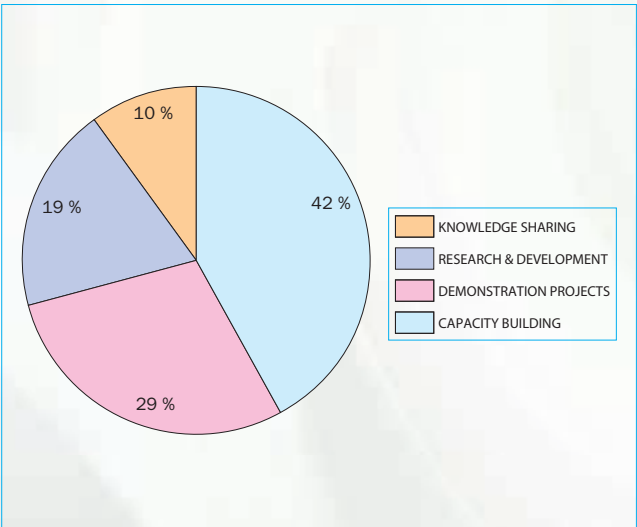


Renewable Energy projects in figures

By Region



By Topic



Small Islands Developing States (SIDS)

The Participation Programme provided direct assistance to initiatives undertaken by SIDS Member States and Associate Members, in line with priorities determined by the countries themselves and the Approved Programme and Budget for the Organization.

With regard to the Organization as a whole, during the 2004-2005 biennium, over US\$3.7 million was made available to more than 200 projects in SIDS, while during the 2006-2007 biennium over US\$2.6 million was made available to 131 national projects in 31 SIDS and Associate Member States in oceanic regions worldwide. During the 2008-2009 biennium, over US\$3.5 million was allocated to 174 national and regional projects in 31 SIDS and Associate Member States. As an ensemble, Participation Programme projects address many topics in the Programme of Action for the Sustainable Development of Small Island Developing States.

Within the Natural Sciences Sector, the Sandwatch initiative provides one example of how the Participation Programme contributes to the reinforcement of activities undertaken within the regular programme. Sandwatch is a UNESCO educational tool through which students, with the help of their teachers and other community members, develop an understanding of the fragile nature of their marine and coastal environment. The project was initiated in 2001 and is currently active in more than 40 countries, including 20 SIDS in the Caribbean, Indian Ocean and the Pacific regions. The expansion and success of the initiative is partly due to the support provided by the projects implemented through the Participation Programme.

In many cases, Participation Programme projects have made it possible to undertake on-the-ground Sandwatch activities, including in remote locations. For example, the Participation Programme request “Sandwatch program for Schools” submitted by the Cook Islands in 2004 received a total of US\$30,995 for the introduction of Sandwatch activities to teachers, school students and parents across the Cook Islands archipelago.

The Cook Islands Ministry of Education’s Curriculum Advisory Unit, which implemented the project adopted a comprehensive approach and provided individual training sessions and equipment to each school. This proved very useful and contributed to the success and consolidation of Sandwatch activities in Cook Islands, eventually helping the Nikao Maori School to win first prize in the primary school section of the International Community Sandwatch Competition (2004-5).

During the following biennium, the Sandwatch National Learners Conference further contributed to the subsequent integration of Sandwatch activities into the national curriculum, and encouraged local schools to work with the programme through their science, culture and social science programs.

During the current biennium (2008-2009), approved projects from Saint Kitts and Nevis as well as Saint Lucia, are implementing activities that are in line with the UNESCO’s Sandwatch and Youth Visioning projects. The outcome of these projects will further extend the complementary relationship between the Participation Programme and UNESCO’s related activities.





" ERAIFT "



Man and the Biosphere Programme (MAB)

Training, research and capacity building

The regional support project “Strengthening the ERAIFT capacities as a Regional Centre of Excellence for the Sub-Saharan Africa” constitutes a good example of “success stories” in the field of UNESCO’s Training, Research and Capacity Building focused on Africa.

This project aimed at promoting interdisciplinary scientific research involving students in social and human sciences versus in natural sciences, using Luki Biosphere Reserve (located in the humid tropic region of the Mayombé, Democratic Republic of the Congo) as demonstration site to test the holistic approach on the integrated management of Tropical Forests and lands. Phytosociological surveys (coverage of specific type and vegetation structure, sociability of individual plant species, measurements of dendrology, etc.) combined with analysis of data from socioeconomic surveys conducted by the ERAIFT students have attracted the attention and the interest of WWF and of the Forestry Department of the Royal Museum of the Central Africa (MRAC, Tervuren, Belgium). Since then, a Memorandum of Understanding has been signed between ERAIFT and MRAC and various actions have been undertaken in partnership with the Royal

Museum of Central Africa, the Botanic Garden of Metz (Belgium), and WWF within the framework of the programme support to the graduate fellowships and to the doctoral theses in forestry, ichthyology, entomology, water geochemistry, soil science and forest governance. In this context, MRAC provided Luki field research laboratory of ecology of forest ecosystems established under the above mentioned request, with new equipment (Software Arc Info, Map Info, and Arc-View).

Through this catalytic action of the regional request, ERAIFT has today a multidisciplinary field research Centre in Luki Biosphere Reserve. Located in the Mayombé rainforest, the Luki station will play a significant role in the implementation of the new “*South-South Network Cooperation for Sustainable Development in the Three main Humid Tropical regions of the World*”, agreement concluded during the 21st Session of the International Coordinating Council of the MAB Programme held in Jeju (Republic of Korea, 28 May 2009) between the Federal University of Para, Belem (Brazil, Amazonia), ERAIFT, University of Kinshasa (DRC, Congo Basin) and the Indonesian Institute of Sciences (South East Asia).



WATER SCIENCES

The Participation Programme in Kazakhstan investigates global change impacts on glacier, snow and water resources.

In the arid climate of the Central Asia, water is the key factor for development. In this region thawed snow and glacial water contribute significantly to the formation of water resources. The study supported by PP programme identified that Glaciers system in the Northern Slope of the mountain region of Zailiyskiy Alatau



decreased at an average rate of 0.85% per year from 1956-1990.

There are very few studies that attempt to predict the development of the glacier system, the lack of a monitoring system in Central Asia is responsible for inadequate information on glacier mass dynamics. This is a critical problem in the region, since glaciers are key indicators of global climate change. There is practically no monitoring system in place, for instance,

for snow cover in the high-mountain belt above 3000–3200 m, even though this is where about half of snow is concentrated, according to research supported by the UNESCO's Participation Programme.

The study was helpful to raise awareness and to better understand global change impacts on glacier, snow and water resources in the region.

Science Policy Activities

UNESCO's programme in science policy provides assistance and policy advice to Member States to better integrate science and technology in their development agendas and to strengthen their science, technology and innovation (STI) systems through the formulation and implementation of action plans, policies and strategies. The programme recognises the urgent need to improve institutional and human capacities to implement science reforms and to govern STI systems in developing countries. In response to this need, training activities and project proposals have been developed to assist Member States to overcome this weakness.

The Participation Programme, in the field of science policy, has supported initiatives undertaken by more than 20 countries during the past 4 years (2006-2009). Countries from all regions of the world have benefited from this Programme, particularly African countries including: Burundi, Ethiopia, Guinea, Swaziland and Zambia. Also, a number of projects have been carried out in various regions, such as in Latin America and the Caucasus.

The science policy projects that have received funding from the Participation Programme over the last two bienniums (2006-2007 and 2008-2009) have covered four major topics of great relevance to socio-economic development and have been considered major priority fields by UNESCO's Division of Science Policy and Sustainable Development: Capacity-Building in Science Policy and Research Development; Formulation and Implementation of Science Policy and Strategies; Science Systems Reviews; Popularisation of Science and Dialogues on Scientific Issues.

One example of Participation Programme activities in the Capacity-Building and Science Systems Reviews is the case of Guinea. This country, after having submitted two activity proposals with positive evaluations, has

received a total of 36,000USD to implement their activities. The first activity was to conduct a study on the current state of scientific institutions and research infrastructures in the country as well as on human resources in STI. Such studies are meant to assist in better responding to the most important issues concerning the improvement of the science system. The second activity was carried out to improve the methods of collecting and organising available scientific data in Guinea. These two Participation Programme projects are relevant examples on how the Programme relates to UNESCO's mission in science policy.

Burundi is another example where national efforts were supported financially by the Participation Programme. The activity consisted in undertaking a state-of-art of the national science system in the country and launching a strategy for the development of science, technology and research. Other interesting examples could be brought to light to serve as ideas for future initiatives by Member States. In Zambia, for instance, the Participation Programme's contribution was used to complement the resources needed to review the Science and Technology Act of 1997 as well as analyse its current performance and define the future perspectives for the STI sector in the country. Also, several countries in Latin America, such as Argentina, Bolivia and Uruguay, have implemented activities that have also received support from the Participation Programme.

During the 2010-2011 biennium UNESCO will continue evaluating requests in science policy. The Participation Programme is an additional method to guide national efforts in strengthening the STI systems and to spread international best-practices and experiences.

National Geopark Activities

Recently some countries have sought support from UNESCO's Participation Programme (PP) in the field of geology and geological heritage. The Global Network of National Geoparks assisted by UNESCO has provided a platform for active cooperation between experts and practitioners in geological heritage since 2004. As of August 2009, the Global Network of National Geoparks has 64 members in 19 countries.

Under the Participation Programme (PP) a proposal concerning the geopark development of the Trinh Nu waterfall has been attributed high order of priority and was therefore supported by UNESCO. The Trinh Nu waterfall in South Vietnam is a picturesque area with basalt column structures and exceptional basalt caves. This site has always attracted scientists, artists, and writers, and becoming a Geopark should help to raise awareness for its protection. In addition, the proposal also pointed out that an ethnic minority, particularly the Tây Nguyên people, could be involved in the work.

The work carried out under the PP was helping local managers and authorities of different ranks to understand a new study domain while having a holistic strategy for sustainable development of the locality and attracting and informing the public through published material. It succeeded in involving local tourist centres, different ministries, museums and the Dak Nong Province bodies which followed closely the studies and responded by creating legal procedures and project suggestions. This was achieved during the preparation phase but studies will continue to find arguments to establish a Trinh Nu Geopark of the enlarged waterfall area.

Moreover, Vietnam has expressed further interest in UNESCO's Geoparks initiative by requesting a study for a potential national Geoparks network, which already exists in other countries and contributes to tourism, conservation, and sustainable development. It is expected that this research will lead to a better understanding of geoheritage and will also prepare

a juridical framework for the future national network in Vietnam. Currently more than a dozen areas are provisionally identified to be ready for possible Geoparks development: ie, Ha Long Bay, Phong Nha - Ke Bang, Ba Be Lake area, Cuc Phuong.

In December 2009, the Van Dong Karst Plateau was the first proposal by Vietnam for membership to the Global Geoparks Network. This is the natural South-East extension of the South China karst belt which has recently been recognized by UNESCO as a Natural World Heritage site. The Karst Plateau is home to people of 17 ethnic groups who have lived for centuries on this frontier, and who have learned to understand and adapt well to their surroundings. Combining geo-tourism and cultural tourism would maintain some land-use practices and traditional crafts which have contributed to the rich heritage of the area and that would otherwise be threatened by tourism. A Geopark network is considered to be the best guarantee to ensure that nature conservation and economic growth develop together in a sustainable way, and with respect to cultural values.



Looking Forward

- ▶ The UNESCO Participation Programme, in cooperation with the Natural Sciences Sector, should continue to provide direct assistance to initiatives undertaken by Member States and improve project implementation as much as possible in order to strengthen linkages between the projects and the Organization's activities, particularly those focused on priority groups and the countries in greatest need;
- ▶ The Participation Programme is an important instrument of the Organization with regard to the satisfaction of the various needs that the Member States have on their agendas but are not included in the Regular Programme and Budget. It functions as a vital complement to UNESCO's regular activities by analysing, evaluating and facilitating the implementation of national, sub-regional, inter-regional and regional projects directly related to the activities of the Organization;
- ▶ The Natural Sciences Sector should play a dynamic role and be even more involved in Participation Programme projects that are linked to its priorities;
- ▶ Programme specialists at Headquarters and Field Offices should receive adequate and complete information on approved projects in order to participate in the implementation and follow-up;
- ▶ Institutes and Centres should be informed of the Participation Programme procedure and be involved in the implementation and liaison with the National Commissions;
- ▶ There are very few requests concerning Women and these requests are very often placed in a low rank of priority and therefore are not approved because budgets are attributed to high priorities first. The Director-General has underlined that this priority should become a 'priority of priorities' in all domains. Member states are therefore encouraged to take into account requests concerning women (women in science and sciences for women);
- ▶ Moreover, the Director-General, in her mission statement, clearly expresses the wish that science become a major component of UNESCO: *"My belief is that science must be one of the priorities. UNESCO should become the leader and mobilizer of governments, specialized agencies and the scientific community in the field of science, innovation and new technologies, including green technologies, under the slogan "Science and technology";*
- ▶ Member States, while considering national needs, are encouraged to prioritize their request in line with the major thrust areas of the Regular Programme.



Annexes

Annex I

List of requests evaluated by the Natural Sciences Sector

2006-2007

REGION NAME	REQUEST NUMBER	ELEMENT NAME (List of requests as received in the original language)	APPROVED AMOUNT (USD)
Africa	37551510BDI	Etude de recherche-développement sur la conservation de la bière locale de sorgho	26000
Africa	37552301CAF	Bourse d'étude dans le domaine du management par la qualité des entreprises industrielles	14400
Africa	37552402CHD	Action pour la préservation de l'environnement par l'aménagement d'un barrage de rétention des eaux de ruissellement dans la zone de Zerli	13700
Africa	37552410CHD	Création d'une pépinière villageoise	25000
Africa	37552505COG	Domestication des palmiers raphias: raphia sese, raphia laurentii, raphia hookeri	20000
Africa	37552509COG	Séminaire d'information sur la gestion des écosystèmes et de l'utilisation de la biodiversité au profit des enseignants de l'Ecole nationale des eaux et forêts de Mossendjo	20000
Africa	37552607IVC	Philosophie et science: dialogue interdisciplinaire pour la paix	10000
Africa	37553101ZAI	Renforcement de la capacité opérationnelle de l'Observatoire volcanique de Goma	23000
Africa	37553106ZAI	Célébration du centenaire de la fondation de la ville de Mbandaka et du jardin zoologique et botanique d'Eala	15000
Africa	37553110ZAI	Atelier sous-régional sur la surveillance continue de réserves de biosphère de l'Afrique centrale - renforcement des capacités de l'ERAIFT	20000
Africa	37554406GUI	Inventaire du potentiel scientifique et technologique de la Guinée	24000
Africa	37554608KEN	Assessment of hydrological and environmental response to changes in land use in Mau catchment area	26000
Africa	37554706LES	Technical assistance for the implementation of science and technology policy	18000
Africa	37554804LIR	Tutorial science classes for girls	11600
Africa	37555106MAG	Promotion de l'éducation environnementale au sein des établissements scolaires en vue de l'acquisition d'un réflexe environnemental	26000
Africa	37555203MLW	Popularisation of science and technology	12000
Africa	37555307MLI	Recherche de méthodes de lutte biologique contre la fougère d'eau	16700
Africa	37555309MLI	Appui aux administrations chargées du développement des énergies renouvelables	19000
Africa	37555502MOZ	Science Week	15000
Africa	37555507MOZ	Establishment of an association for protection and conservation of natural resources of Inhaca Archipelago	20000
Africa	37555609NAM	Extension to the laboratory for spatial analysis	21000
Africa	37555903RWA	Installation d'énergie solaire dans une école rurale des parents	23700
Africa	37555907RWA	Evaluation de la formation des tradi-praticiens et création de nouvelles associations	9000
Africa	37555909RWA	Achat de matériel de laboratoire de chimie, de physique et de biologie pour une école rurale des parents	20000
Africa	37556207SEN	Gestion des catastrophes et risques majeurs: développement de capacité des acteurs et des décideurs dans les secteurs vulnérables	15000
Africa	37556304SEY	National science technology and innovation policy	15000
Africa	37556308SEY	Reinforcement of analytical capacity for water testing	19500
Africa	37556703SWA	Formulation of a science and technology policy	20000
Africa	37557103TOG	Valorisation de la biodiversité: contribution des fruitiers sauvages a la réduction de la pauvreté au Togo	20000
Africa	37557210UGA	Community education for preservation of medicinal plants for poverty reduction and sustainable development	23000
Africa	37557502ZAM	Establishment of a national remote sensing centre	26000
Africa	37557505ZAM	National workshop on the selection of a geo park in Zambia	10000
Africa	37557507ZAM	Capacity building for water monitoring and analysis	26000
Africa	37557508ZAM	Special project in improving access of girls to science, mathematic and technology education - organization of camps and clinics in several provinces in Zambia	26000
Africa	37557603ZIM	Impact of rain water harvesting on rural livelihood in Zimbabwe	26000
TOTAL Africa			675600

REGION NAME	REQUEST NUMBER	ELEMENT NAME (List of requests as received in the original language)	APPROVED AMOUNT (USD)
Arab States	37521103ALG	Formation de chercheurs en matière de lutte contre la désertification et conservation de la biodiversité des régions arides et semi arides	25000
Arab States	37521107ALG	Financement d'une base documentaire sur l'énergie solaire	20000
Arab States	37521108ALG	Valorisation du jardin botanique du Hamma (Jardin d'Essai)	25000
Arab States	37521303EGY	Environmental evaluation of the Red Sea Coast between Wadi El-Gemal and Halayeb	25000
Arab States	37521502JOR	Storage of the Flash Floods in Wadi - Araba and Dead Storage for an Artificial Recharge of the Shallow Groundwater wells	15000
Arab States	37521508JOR	Recycling of the consumed materials implemented by the JHHA	21000
Arab States	37521509JOR	Improving the Environmental & Economical Performance of Small and Medium Industrial Enterprises in Jordan	20000
Arab States	37522204LEB	Study to establish a Lebanese Observatory for Science, Technology and Innovation	20000
Arab States	37522310LIA	Demonstration Project of a Photovoltaic Station for Charging Lanterns and batteries to provide the Essential Energy needs of the ural Southern Region of Libya	20000
Arab States	37523203SAU	A national training workshop on "Capacity building for community participation in protected area management", to be implemented by the National Commission for Wildlife Conservation and Development	20000
Arab States	37523303SUD	Development of Human Resources for Combating Desertification in the Sudan	26000
Arab States	37523406SYR	Environment Friendly Techniques in integrated insect management program	26000
Total Arab States			263000
Asia and the Pacific	37511101AFG	Reactivating and equipping the Science Centre of the Ministry of Education	26000
Asia and the Pacific	37511107AFG	Revival and capacity building of the Academy of Sciences of Afghanistan	20000
Asia and the Pacific	37511201AUL	LINKS Project - Workshop of select group of leaders in the local knowledge field, both scientific and traditional knowledge holders	6000
Asia and the Pacific	37511409BHU	Institutional strengthening of the Royal Society for protection of nature	25000
Asia and the Pacific	37511705CPR	Workshop on Ecological Effects of Hydro Projects - Nanjing	10000
Asia and the Pacific	37511802CKI	Sandwatch National Learners Conference	20000
Asia and the Pacific	37511805CKI	Interregional Pacific Caribbean Youth cultural exchange for implementation in Rarotonga, Aitutaki, Cook Islands	35000
Asia and the Pacific	37511901DRK	Development of public awareness materials for conservation and sustainable use of Mt. Kuwol Biosphere Reserve and their dissemination	13300
Asia and the Pacific	37511902DRK	The establishment of the landslide forecasting and early warning system in Kangwon Province	12000
Asia and the Pacific	37511907DRK	Monitoring and purification of pollution of rivers and streams by industrial wastewater in the DPR Korea	15000
Asia and the Pacific	37511908DRK	Capacity building for the improvement of drinking water quality in the DPR Korea	23000
Asia and the Pacific	37511909DRK	Capacity building of Research Center for biodiversity and eco-engineering in DPR Korea	7000
Asia and the Pacific	37511910DRK	Capacity building for research and development of bio-insecticide	15000
Asia and the Pacific	37512302INO	The 12th Asian symposium on medicinal plants, spices and other natural products (ASOMPS XII)	20000
Asia and the Pacific	37512306INO	Conservation biology of Holoparasitic plant with special reference to Rafflesia Patma-Pangandaran-West Java	18000
Asia and the Pacific	37512401IRA	Supporting the establishment of a National Centre for Science Studies	20000
Asia and the Pacific	37512408IRA	Preparatory workshop on Mathematics and Arts Isfahan (in the framework of the International Conference on Mathematics of Islamic-Persian Architecture)	5000
Asia and the Pacific	37512606KZH	To evaluate contemporary and prognosis dynamics of snow and glacier resources of Central Asian transboundary basins as a risk factor for water safety in the region	16000
Asia and the Pacific	37512903LAO	Science Environment and Sustainable Development	5000
Asia and the Pacific	37512910LAO	Curriculum of Basic Sciences Development, Faculty of Engineering, National University of Lao	15000
Asia and the Pacific	37513102MAL	Environmental interpretation: a learning experience for the Youth. Larut Matang Mangrove reserve, Perak, Malaysia	20000
Asia and the Pacific	37513105MAL	Training course on Stormwater Management	19000
Asia and the Pacific	37513207MDV	Fish camps for fisheries science students	13464

REGION NAME	REQUEST NUMBER	ELEMENT NAME (List of requests as received in the original language)	APPROVED AMOUNT (USD)
Asia and the Pacific	37513208MDV	Purchase and procurement of equipment for water quality monitoring and surveying	10000
Asia and the Pacific	37513210MDV	Expanding the Education and awareness programme of the Marine Research Centre	13000
Asia and the Pacific	37513804NEP	Setting a bio-medical engineering laboratory	19000
Asia and the Pacific	37513809NEP	Organic agricultural promotion program	15000
Asia and the Pacific	37513810NEP	Gender equality and environment conservation	11000
Asia and the Pacific	37514106NIU	Groundwater Assessment in Niue	26000
Asia and the Pacific	37514205PAK	South South Technical Cooperation Program. COMSATS Member countries (Pakistan, China, Syria, Egypt and Sudan)	20000
Asia and the Pacific	37514206PAK	Innovative low-cost on-site wastewater treatment for improved water quality of Leh Nullah in Rawalpindi	20000
Asia and the Pacific	37514302PLW	Phytosociological assessment of mangroves on Babeldaob Island	21000
Asia and the Pacific	37514507PHI	Survey, inventory and conservation of the useful indigenous plants in the wood lots (muyong) of Ifugao	22500
Asia and the Pacific	37515105TAD	Regional cooperation in transboundary river basins	15007
Asia and the Pacific	37515404TOK	Pandana plantation for weaving materials	13000
Asia and the Pacific	37515501TON	Travelling Science exhibition	30000
Asia and the Pacific	37515604TKM	Establishment of the Monitoring Center of Groundwater Resources Management in Turkmenistan	12007
Asia and the Pacific	37515605TKM	Creation of the Monitoring Center at the Repetek Biosphere State Reserve	14008
Asia and the Pacific	37515705TUV	Environment Youth Workshop - Youth Unit, Ministry of Home Affairs	16000
Asia and the Pacific	37516108VAN	The Vanuatu cooking project: develop a toolkit to combat smoke: the killer in the kitchen	23700
Asia and the Pacific	37516205VIE	Biological and chemical study of Vietnamese marine organisms for the development of health-care products	15000
Asia and the Pacific	37516208VIE	Investigation of Trinh Nu waterfall geosite for geopark development and environment protection	15000
Asia and the Pacific	37517701SRL	International Conference on humid tropics ecosystems changes, challenges and opportunities	35000
Total Asia and the Pacific			744386
Europe-1	37532405ISR	Study tour in Austria, Germany and Switzerland of their MAB policy and best practices	12000
Europe-1	37533106MAT	A landscape approach in small islands: linking biotope research to sustainable development through ecosystem management	23000
Europe-1	37533107MAT	Integrated resource management training: an ecosystem approach	18000
Europe-1	37533201MNC	Quatrièmes rencontres internationales Monaco et la Méditerranée	25000
Europe-1	37533304NET	Geo-hazard impact prediction in densely populated river deltas to increase disaster prevention	5000
Europe-1	37534302TUR	Urban-ist: a policy relevant research for establishing international network of urban biospheres in Istanbul	22500
Europe-1	37534303TUR	Conservation and sustainable use of biodiversity in Strandzha mountain - challenges and opportunities for promotion and implementation of the transboundary biosphere reserve concept	20000
Europe-1	37535101TUR	EUROMAB Meeting 2007 in Istanbul and Antalya	46000
Total Europe-1			171500
Europe-2	37541204ARM	Celebration of the Armenian Anniversary with which UNESCO is associated - 100th Anniversaries of the birth of Jean Carzou, painter and Norair Sisakyan, scientist.	13007
Europe-2	37541304AZN	Training for youth leaders and activists on freshwater management	15011
Europe-2	37541405BYE	Support of the activity of Belarus MAB National Committee/Estimation of the perspectives to establish the Transboundary Biosphere Reserves and ecological corridors between Belarus and the neighbouring	10000
Europe-2	37541406BYE	Estimation of the perspectives to establish the UNESCO Biosphere Reserve in the conditions of the different hydrodynamic zones in the area of the Naroch Lake	10000

REGION NAME	REQUEST NUMBER	ELEMENT NAME (List of requests as received in the original language)	APPROVED AMOUNT (USD)
Europe-2	37541410BYE	Estimation of the geodynamic hazard in the solid mineral mining regions	10000
Europe-2	37541504BIH	Speleological and biospeleological research of the Vjetrenica Cave in Popovo Polje, Ravno Municipality, in regard with candidacy for World Heritage List	25011
Europe-2	37541604BUL	Revitalizing the Biosphere reserves in Bulgaria	17000
Europe-2	37541608BUL	Concours régional de jeunes talents dans le domaine des sciences naturelles	25000
Europe-2	37541702CRO	The 100th anniversary of Vladimir Prelog's birth, the Nobel prize winner, Zagreb	10000
Europe-2	37541703CRO	Dragutin Gorjanovic - Kramberger 1856 - 1906 - 1936 - 2006, Krapina, Croatia	20000
Europe-2	37541704CRO	Activities for protection of the eco-systems along rivers Drava and Mura on the national level and as a Man and biosphere (MAB) reserve	25000
Europe-2	37541802CZE	International course on ecohydrological approaches for wise use, restoration, management and conservation of wetlands	12000
Europe-2	37541807CZE	Postgraduate training course in the Geotechnical Exploration methods and their Environmental Applications	15000
Europe-2	37541901ENA	Man and Biosphere - the Tradition of the Baltic East Coast	25000
Europe-2	37542305HUN	Key Technologies and their possible social effects from a Science and Technology Policy perspective	5000
Europe-2	37542403MCD	Study on Pespa Lake	21000
Europe-2	37542406MCD	Guidelines for Mini-hydro Projects Development in Macedonia as a Contribution for Clean Energy Production	20000
Europe-2	37543109MOV	Action Program for implementation of the Lower Prut Green corridor and wetland restoration in the Lower part of the Prut river basin	11000
Europe-2	37543408SLO	Strengthening the inter-regional cooperation in integrated watershed dynamics and water resources variability (IHP UNESCO)	10000
Europe-2	37543606UKR	Water for Everybody: Water Resources of your area	23000
Europe-2	37544101SLO	Priorities for Conservation of Biodiversity in Biosphere Reserves Negatively Affected by Man	45000
Total Europe-2			367029
Latin America and the Caribbean	37561303ARG	Fortalecimiento de las capacidades científico-tecnológicas mediante el aporte y vinculación con científicos argentinos en el exterior - Programa RAICES	10000
Latin America and the Caribbean	37561304ARG	Proyecto Sustentable para la Comunicación, la Educación y el Ambiente	20000
Latin America and the Caribbean	37561307ARG	Evaluación de las fuentes de contaminación y elaboración de propuestas para la restauración y conservación del ecosistema del Río Luján (Tramos superior y medio)	20000
Latin America and the Caribbean	37561601BAR	Designation of a Marine Conservation area from Needham's Point St. Michael, to South Ocean Villas Christ Church, with emphasis as a Sea Turtle Special area Reserve	20000
Latin America and the Caribbean	37561604BAR	Database and on-line resource of the Flora of the Eastern Caribbean (EC Flora Project)	25000
Latin America and the Caribbean	37561703BZE	Belize Mangrove Boardwalk and Dock for education, research, conservation and economic growth	26000
Latin America and the Caribbean	37561803BOL	Develop a National Workshop for training Academics and Scientists in Scientific Research Methodology: Projects and Reports of Research and Papers/Articles Elaboration Criteria	15000
Latin America and the Caribbean	37561904BRA	Advanced centre for training in cell Biology an Laser (ACTCBL)	13500
Latin America and the Caribbean	37561906BRA	Specialist Regional Course on Agro Ecology and Rural Development	15000
Latin America and the Caribbean	37562307CHI	Southern Workshop on Granular Materials 2006	10000
Latin America and the Caribbean	37562308CHI	Apoyo a las Ciencias Académicas Astronómicas Regiones II, III y IV, Norte de Chile (Antofagasta, Atacama y Coquimbo)	13000
Latin America and the Caribbean	37562309CHI	Inter Academy Panel Workshop to discuss International Platforms for Evaluation of Science Education Programs	10000
Latin America and the Caribbean	37562407COL	Sensibilización ambiental y participación comunitaria para la protección de los objetos de conservación de la vía parque isla de Salamanca	25000

REGION NAME	REQUEST NUMBER	ELEMENT NAME (List of requests as received in the original language)	APPROVED AMOUNT (USD)
Latin America and the Caribbean	37562503COS	Proyecto verde: Germinando oportunidades	20000
Latin America and the Caribbean	37562603CUB	5ta Conferencia Mundial FRIEND 2006	19000
Latin America and the Caribbean	37562905ECU	Implementacion del observatorio Ecuatoriano de ciencia, tecnologia e innovacion	18000
Latin America and the Caribbean	37563504HAI	Appui au projet hydrodynamique du transfert des polluants dans les nappes de la plaine du Cul-de-sac	24000
Latin America and the Caribbean	37563603HON	Plataforma del Agua de Honduras (PAH) Proyecto de Toma de Consciencia en Escuelas y Municipios de Francisco Morazan para recuperar y proteger las fuentes de agua	22000
Latin America and the Caribbean	37563704JAM	School based waste watter treatments system for sustainable science and technology application	15000
Latin America and the Caribbean	37563901NIC	Estudio de Balance Hidrico Nacional	15000
Latin America and the Caribbean	37564107PAN	Propuesta para un Programa de Educacion Ambiental y Produccion mas Limpia: cultivo de Plantas Medicinales en Comunidades Rurales	15000
Latin America and the Caribbean	37564208PAR	Producción y Comercializacion de Esponja vegetal Organica, a llevarse a cabo en la Sede de Caaguazu	10000
Latin America and the Caribbean	37564304PER	Centro Interactivo de Ciencia Tecnologia e Innovacion para todos	18000
Latin America and the Caribbean	37564501STL	National Schools Science for: Joint schools science fair and industry exhibition	22000
Latin America and the Caribbean	37564601STI	Providing Science in Primary Schools through the provision of Basic Science Equipment	15000
Latin America and the Caribbean	37564802TRI	Disaster Awareness – a travelling Science exhibition	22000
Latin America and the Caribbean	37566101COL	Seminario Taller Internacional “Gestion del agua en asentamientos urbanos de America Latina y Caribe”	40000
Total LAC			437500

Annex II

List of requests evaluated by the Natural Sciences Sector 2008-2009

REGION NAME	REQUEST NUMBER	ELEMENT NAME (List of requests as received in the original language)	APPROVED AMOUNT (USD)
Africa	4651500001BDI	Mise en place d'une stratégie de développement de la science, la technologie et la recherche au Burundi	20000
Africa	4651500005BDI	Réalisation de l'inventaire du potentiel scientifique et technique	15000
Africa	4652300001CAF	Equipement en matériels de la Chaire UNESCO - qualité de l'eau	22000
Africa	4652400002CHD	Renforcement des capacités des comités scientifiques spécialisés des pays du cluster de Yaoundé	20000
Africa	4652400003CHD	Chantier clubs et associations UNESCO de reboisement et de formation aux techniques de la préservation de l'environnement et de lutte contre la désertification	20000
Africa	4652400008CHD	Création d'une pépinière et d'un reboisement à grande échelle dans le village de Tourka	15000
Africa	4652500005COG	Sixièmes Journées géographiques sur population, environnement et développement	17000
Africa	4652500006COG	Plantes médicinales à potentialité antidiabétique utilisées au Congo - recensement et évaluation des activités hypoglycémiantes et antihyperglycémiantes	10000
Africa	4652500008COG	Valorisation des palmiers raphias du Congo	23000
Africa	4653100003ZAI	Séminaire sous-régional sur les catastrophes d'origine géologique dans les grands lacs	25000
Africa	4653100007ZAI	Appui à la mise en œuvre des recommandations des Etats généraux de la recherche scientifique et technologique et renforcement des capacités des institutions d'encadrement des personnes	20000
Africa	4653100009ZAI	Acquisition d'équipement de prospection électrique	18000
Africa	4653300006EQG	Développement du centre de cartographie et système d'information géographique de la UNGE	20000
Africa	4653400001ERI	Environmental public awareness program in all the six administrative zones of the state of Eritrea	23000
Africa	4653400002ERI	Evaluation of the summer work programme 1994-2007	18000
Africa	4653400008ERI	Capacity building focusing on equipment supplies in Asmara	25000
Africa	4653500004ETH	Strengthening the national science technology and innovation system	23000
Africa	4653500005ETH	Capacity building for water works technical and vocational training centers - Bahirdar, Kombolcha, Maichew, Wolliso, Awassa, Assela, Awas, Jijiga and Asosa	26000
Africa	4653500009ETH	Establishment of a model technology business incubator - Addis Ababa	25800
Africa	4654100003GAB	Atelier de renforcement des capacités et élaboration d'une politique scientifique nationale	10000
Africa	4654300004GHA	Climate change effect on hydrology and water resources and adaptation strategies	20000
Africa	4654300007GHA	An appraisal of the socio-economic status of communities in the Songor Ramsar site	26000
Africa	4654400005GUI	Eclairage solaire des établissements scolaires	20000
Africa	4654400007GUI	Mise en place d'un service de statistiques en science et technologie	10000
Africa	4654600003KEN	Enhancing sustainable ecotourism by boat operators in Malindi-Watamu biosphere reserve	26000
Africa	4654700004LES	Taung skills training centre - Phase II UNESCO project demonstration solar village	22000
Africa	4654700007LES	Einstein mind Lesotho girls and science programme 2008-2009	20000
Africa	4655100004MAG	Promotion de la recherche et le renforcement de capacités techniques en vue de la gestion rationnelle des ressources naturelles	25000
Africa	4655100006MAG	Renforcement de capacité des agents du Ministère des Affaires étrangères en matière d'adaptation et d'atténuation aux changements climatiques	6000
Africa	4655100008MAG	Appui à la mise en place d'une licence d'ingénierie en gestion des catastrophes et réduction des risques	22000
Africa	4655300003MLI	Projet d'éducation des jeunes à la gestion de l'environnement	24000
Africa	4655300007MLI	Projet d'inventaire du potentiel scientifique et technologique	23000
Africa	4655300008MLI	Projet de création d'un centre de ressources artisanales pour la récupération et la transformation des déchets plastiques dans le district de Bamako	16000
Africa	4655400002MAR	Setting up of stargazing clubs in secondary schools in Mauritius in the context of 2009 as the UNESCO and UN International Year of Astronomy	26000
Africa	4655400009MAR	Implementation of a solar powered lighting system for a domestic setup	20000

REGION NAME	REQUEST NUMBER	ELEMENT NAME (List of requests as received in the original language)	APPROVED AMOUNT (USD)
Africa	4655500003MOZ	Application of satellite remote sensing for integrated management of coastal and marine ecosystems	23000
Africa	4655500008MOZ	Capacity building on the use of bio-mass as a alternative source of energy for rural areas	25000
Africa	4655600004NAM	Mobile science laboratories for rural schools	24400
Africa	4655800001NIR	Training on the design, construction and operation of modified biogas digesters and efficient wood stoves	20000
Africa	4656700001SWA	Formulation of a science and technology policy - final strategy for operationalization of policy	20000
Africa	4657200003UGA	Promoting indigenous scientific knowledge for poverty reduction and sustainable development	26000
Africa	4657200009UGA	Documenting the impact of climate change on the environment	23000
Africa	4657400006URT	Documentation of indigenous knowledge systems used in environmental conservation	20000
Africa	4657500008ZAM	Review of the science and technology act n° 26 of 1997	18000
Africa	4657600003ZIM	A study of the engineering infrastructure and human resources requirements for Zimbabwe - a number and needs analysis of the Zimbabwean built environment	20000
Africa	4659200001URT	Request for funding outreach activities on the UN proclaimed International Year of Planet Earth in Tanzania	37000

Total Africa 958200

Arab States	4621100005ALG	Séminaire de formation sur la thématique "Agriculture biologique et développement durable" ; communication de l'expérience et des acquis de la Belgique en la matière.	20000
Arab States	4621100006ALG	Evaluation qualitative et quantitative d'une ressource en eau pour une gestion efficiente: cas de la zone de l'extrême Est algérien.	23000
Arab States	4621100007ALG	Postgraduation spécialisée "Changements climatiques et développement durable".	25000
Arab States	4621300002EGY	Historical Biodiversity and Biogeography of some wild animals in Egypt: past and present.	20000
Arab States	4621500003JOR	Promoting the Management of Wastewater Resources in Rural Areas in Jordan.	26000
Arab States	4621500006JOR	Establishment of Seismological Training Center at the Jordan Seismological Observatory.	22000
Arab States	4622200002LEB	Creating awarness with regards to disaster reduction (mainly earthquakes) in terms of giving support to the integration of relevant information into the educational programs of school children.	21000
Arab States	4622300005LIA	Supporting the MAB Committee activities in Libya.	10000
Arab States	4622300007LIA	Supporting the Environment - Education project in Libyan Schools.	17000
Arab States	4622500001MOR	Notre environnement: aujourd`hui, hier et demain. Délégation de Skhirate-Témara.	26000
Arab States	4622500007MOR	Cours pilote sur l` exploitation des images des satellites météorologiques pour le suivi de la végétation des milieux méditerranéens et arides.	26000
Arab States	4622600005OMA	Workshop on the Management of Environmental and Natural Resources within the framework of the International Year of Planet Earth (2008): Environmental issues, crisis and natural disasters.	10000
Arab States	4623300004SUD	Sustainable Management of Wadi Systems in Sudan.	26000
Arab States	4623300009SUD	Lessons Learned from Dinder Biosphere Reserve.	35000
Arab States	4623400002SYR	Nanobodies as a tool for plant viral diseases diagnosis.	12000
Arab States	4623400003SYR	Amélioration de l'efficacité des chaudières à tubes de fumée en Syrie.	26000
Arab States	4623400005SYR	Achat d'un appareil de cisaillement pour le Laboratoire de Mécanique de Sol pour le Ministère d'Irrigation à Damas.	26000
Arab States	4623700003YEM	Women and Science and Technology "Capacities building, Empowerment in the field of science and tech policies".	25000

Total Arab States 396000

Asia and the Pacific	4611100008AFG	Revival of the activities and capacity building of different units of the Academy of Sciences of Afghanistan	15000
Asia and the Pacific	4611400004BHU	Institutional strengthening of Hydro-meteorological services, Thimphu	26000
Asia and the Pacific	4611700003CPR	Symposium on engineering education reform strategies	25000
Asia and the Pacific	4611900005DRK	Establishment of data and information management system for water resources management in DPR of Korea	14500
Asia and the Pacific	4611900006DRK	Capacity-building for environment impact assessment for hydro-structures	15000
Asia and the Pacific	4611900007DRK	Establishment of flash flood forecasting and warning system in the Keumya River basin	14970

REGION NAME	REQUEST NUMBER	ELEMENT NAME (List of requests as received in the original language)	APPROVED AMOUNT (USD)
Asia and the Pacific	4612300004INO	International symposium on probiotic from Asian traditional fermented foods for healthy gut function	20000
Asia and the Pacific	4612400002IRA	Medical geology studies on Central Asian oesophageal cancer belt as a case study in Golestan Province	20000
Asia and the Pacific	4612600007KZH	Increasing the quality of drinking water in the secondary schools of the Republic of Kazakhstan	20000
Asia and the Pacific	4612800003KIZ	Round table of the Second Bishkek Global Mountain Summit 2008, Bishkek	23000
Asia and the Pacific	4612800006KIZ	International Conference "Biosphere territories of the Central Asia as part of natural heritage: problems of preservation and conservation of biodiversity", Cholpon-Ata, Kyrgyzstan	10000
Asia and the Pacific	4612900006LAO	Seminar on climate change and tourism at Vang Vient District, Vientiane Province	18000
Asia and the Pacific	4612900010LAO	Improving Management of Hin Nam No protected area through strengthening co-management with local communities	23000
Asia and the Pacific	4613100003MAL	The high land expedition: the Mount Kinabalu-Kundasang-Poring adventure, Sabah, Malaysia	35000
Asia and the Pacific	4613100005MAL	Projection for the future: the dynamics of marine ecosystems and a marine biodiversity vision for the Eastern Johor Island Archipelago	20000
Asia and the Pacific	4613700003NAU	Setup of national database on coastal monitoring	21000
Asia and the Pacific	4613800005NEP	Solid Organic Waste Managing System (SOWMS)	15000
Asia and the Pacific	4614200004PAK	Strengthening of Science Caravans (Mobile Science exhibition for high school students)	20000
Asia and the Pacific	4614300002PLW	Ridge to Reef Road Show, Palau Conservation Society	20000
Asia and the Pacific	4614500004PHI	Developing an integrated decision support system to mitigate the impacts of climate change: the UNESCO approach (UNESCO-CC-IDSS)	23000
Asia and the Pacific	4614800003SGP	International Science Education Conference (Singapore)	14200
Asia and the Pacific	4614900003SOI	Solomon Islands natural resources owners empowerment. Training and awareness for environment management	20000
Asia and the Pacific	4615100003SRL	Drafting a strategic plan to coordinate national actions for mainstreaming climate change and sustainable development in Sri Lanka	20000
Asia and the Pacific	4615100004SRL	Mobilizing Science and Technology for water management biodiversity conservation and sustainable development in coastal region of Southern province, Sri Lanka. University of Ruhuna	26000
Asia and the Pacific	4615200006TAD	Workshop on assistance on water related disaster reduction in the Aral Sea Basin	16300
Asia and the Pacific	4615300002THA	Prevention mitigation engineering response and natural resources management for geohazard (flash-flooding & mudshde) areas in Uttaradit province, North Thailand through people participation and.....	23000
Asia and the Pacific	4615900004UZB	Establishment of the Science Museum on Astronomy (Tashkent)	25000
Asia and the Pacific	4616100005VAN	Establishment of a Vanuatu National Man and the Biosphere Programme	20000
Asia and the Pacific	4616200001VIE	Assessment of potential and preliminary study and recommendation of some measures on geoheritage conservation and geopark newtork development for sustainable development in Vietnam	20000
Total Asia and the Pacific			582970
Europe-1	4632400003ISR	Evaluation of the new nomination for biosphere reserve	5000
Europe-1	4633100002MAT	Maltese natural heritage - DVD presentation	10000
Europe-1	4633200002MNC	Cinquièmes rencontres Monaco et la Méditerranée	20000
Europe-1	4633300002NET	Values of water, a South-North exchange on the socio-cultural and socio-economic values of water	10000
Europe-1	4634300001TUR	Increasing the international participation in the Institute of Theoretical and Applied Physics (ITAP)'s research training workshops	26000
Total Europe-1			71000
Europe-2	4641400003BYE	Potential "Augustovskaya Pushcha UNESCO Biosphere Reserve/Belarus": background of BR establishment - model region with European reputation.	15000
Europe-2	4641400007BYE	Development of background for establishment of a potential Transboundary Biosphere Reserve in the north border territories of the Republic of Belarus.	10000
Europe-2	4641400009BYE	Polesky Transboundary natural ecological corridor Establishment/Belarusian-Ukrainian Transboundary ecological corridors based on requirements of Pan-European Ecological Network and UNESCO World Biosphere Reserve Network.	12000

REGION NAME	REQUEST NUMBER	ELEMENT NAME (List of requests as received in the original language)	APPROVED AMOUNT (USD)
Europe-2	4641700003CRO	Educating for a Sustainable Future, the City of Slunj, Karlovac County.	12000
Europe-2	4641800001CZE	13th Postgraduate Course in Polymer Science.	10000
Europe-2	4641800004CZE	International course on ecohydrological approaches for wise use, restoration, management and conservation of wetlands.	10000
Europe-2	4641900001ENA	Strengthening International and Intersectorial Academic Mobility by Management Skills Training among Early-Stage Researchers in Moldova.	15000
Europe-2	4642100004GEA	The Primary Environmental Monitoring of the Zones on the Territory of Georgia Polluted with Toxic chemical substances.	26000
Europe-2	4642200003HUN	International Conference on non-Euclidean geometry in modern physics and mathematics, "6th Bolyai-gauss-Lobachevsky".	10000
Europe-2	4642200005HUN	XXIIIrd International Congress of the History of Science and Technology, Budapest.	10000
Europe-2	4642300004LVA	Action Plan "Promoting Environmental Sustainability through a Biosphere Reserve".	20000
Europe-2	4642600002POA	International Advance Study Course: Ecohydrology & Ecosystems Biotechnologies in water Resources Management.	25000
Europe-2	4643100002MOV	Establishment of the Biosphere Reserve "Lower Prut" in the lower Prut region of Moldova.	20000
Europe-2	4643400002SRB	First mobile planetarium in Serbia.	24000
Europe-2	4643500002SLO	Tatry Biosphere reserve.	25000
Europe-2	4643700007MCD	Adopting of the most appropriate wastewater treatment technologies in Republic of Macedonia focused on ecological and socio-economical aspects.	23000
Europe-2	4644200001MOV	The Regional Scientific-Technical Conference on the Role of National Meteorological and Hydrological Services (NMHSs) in prevention and mitigation of natural hazards impact.	37600

Total Europe-2 304600

Latin America and the Caribbean	4661200001ARG	Workshop internacional Programa Raices "Fortalecimiento de las capacidades científico-tecnológicas mediante el aporte y vinculacion con científicos argentinos en el exterior Programa RAICES-MERCOSUR"	21000
Latin America and the Caribbean	4661200005ARG	Dinamica de la cobertura terrestre en la Cuenca de Mar Chiquita con especial referencia en la Reserva MBA Parque Atlantico Mar Chiquita y propuesta de ordenamiento territorial en el partido homonimo	22000
Latin America and the Caribbean	4661500003BAR	Estimating the Water resource value and Ecological implications of groundwater discharge to the Ocean in a small Island Developing State	20000
Latin America and the Caribbean	4661700004BOL	IIInd Symposium on the effect of Chronic Hypoxia on Diseases at High Altitude and training course for research in high altitude medical problems	20000
Latin America and the Caribbean	4662300002CHI	Curso Taller de tecnologías alternativas: Escuelas luchan contra la desertificación y la pobreza	10000
Latin America and the Caribbean	4662500003COS	Reorganizar y completar el area donde esta la siembra de medicina natural y darle mantenimiento	8000
Latin America and the Caribbean	4662700006DMI	School Yard Compost Bin Unit	3500
Latin America and the Caribbean	4662800002DOM	Fortalecimiento de la capacidad nacional para la elaboracion de Estudios de Impacto Ambiental/Lugar de implementacion	23000
Latin America and the Caribbean	4662900004ECU	Promocion y difusion de las ciencias astronomicas en el Ecuador	10000
Latin America and the Caribbean	4663100002ELS	Educación Ambiental en Centros Educativos del área de influencia de la Reserva de la biosfera "Xirihualtique Jiquilisco", Departamento de Usulután	20000
Latin America and the Caribbean	4663100003ELS	Educación ambiental en Centros Educativos del área de influencia de la Reserva de la Biosfera. Apaneca-Illamatepec	20000
Latin America and the Caribbean	4663200004GRN	Fellowship for Dicklon Ashton for an aeronautic engineering certificate at art and harry wendt Aeronautical Engineering School	12000
Latin America and the Caribbean	4663200007GRN	Fellowship for Kemron Dufont for a Bachelor`s degree in Civil Engineering at city College, New York	21355
Latin America and the Caribbean	4663500001HAI	Rallye jeunesse de l`environnement	25000
Latin America and the Caribbean	4663500008HAI	Appui aux activités de l` Association haïtienne Femmes Sciences et Technologie de l` Université Quisqueya	19600

REGION NAME	REQUEST NUMBER	ELEMENT NAME (List of requests as received in the original language)	APPROVED AMOUNT (USD)
Latin America and the Caribbean	4663600003HON	Sensibilizacion y acercamiento a ninos y ninas de escuelas publicas de bajos recursos del pais al conocimiento de la ciencia y su relacion con el planeta Tierra y el Universo	20000
Latin America and the Caribbean	4663900006NAN	Satellite Tracking of Bonaire`s Sea Turtles	17000
Latin America and the Caribbean	4664100005NIC	Diagnostico Hidrologico de la Subcuenca del Rio Malacatoya (1300 km2) y levantamiento batimétrico del embalse las Canoas	20000
Latin America and the Caribbean	4664200001PAN	Educacion ambiental para el Desarrollo sustentable en las 15 regiones educativas aledanas a las riberas de las Cuencas Hidrograficas del pais	26000
Latin America and the Caribbean	4664200002PAN	Fortalecimiento de la Red de coordinadores Nacionales y regionales de Educacion ambiental y gestion del riesgo	26000
Latin America and the Caribbean	4664400004PER	MUJER AGUA-PERU	20000
Latin America and the Caribbean	4664500002STK	Promoting environmental and developmental issues for sustainable living, through education and public relation activities (Small Islands Voice Associated)	22000
Latin America and the Caribbean	4664600002STL	Capacity building for research and development	20000
Latin America and the Caribbean	4664700002STI	Promoting Science education in primary schools through the provision of Basic Science Equipment- Phase II	15000
Latin America and the Caribbean	4664700004STI	Building Institutional capacity for disaster response/mitigation	25000
Latin America and the Caribbean	4664800007SUR	Monely leaves Conference: Alternative perspectives on biological and cultural diversity and the nature and cultural preservation traditions of indigenous, maroon and local Communities	25000
Latin America and the Caribbean	4665100002TRI	Water understanding this precious commodity	20000
Latin America and the Caribbean	4665200002URU	Fortalecimiento de Red Nacional de Educación ambiental para el Desarrollo Humano Sustentable	20000
Total LAC			531455