

# *IGCP 2016 Annual Report*



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## **1. Introduction**

The growth of modern societies continues to put enormous pressure on the Earth's natural resources, including raw materials. In this context climate and environmental change, population growth, as well as technological growth continues to increase the demand for natural resources, many of which have a limited supply. Furthermore, much of this population growth is happening in tectonically active areas of the world exposing increasing numbers of people to geological hazards such as earthquakes, tsunamis, volcanic eruptions and landslides.

UNESCO is the only UN Organization with a mandate in interdisciplinary research and capacity-enhancement in Earth sciences. Since 1972, partnering with the International Union of Geological Sciences (IUGS), the International Geoscience Programme (IGCP) brought together many thousands of Earth scientists from around the world and allowed them to benefit from the cooperative spirit generated under the umbrella of UNESCO.

IGCP funds serve as seed grants to facilitate meetings or workshops for about 20-30 projects annually, bringing together 10-100 Earth scientists per project to meet and construct joint research, including developing capacity building activities, enabling the formation of truly global research teams working on challenging and societally relevant geological topics. IGCP projects deal with geosciences on global issues within its five themes: Earth Resources, Global Change, Geohazards, Hydrogeology and Geodynamics. Each project has on average a lifespan of five years and its progress is assessed annually through a rigorous peer review process conducted by the IGCP Council following reports from members of the Scientific Board during the first half of February. The Scientific Board and IGCP Council are also responsible for evaluating new project proposals. The Scientific Board consists of about 50 specialists responsible for the technical reviews and it works electronically only. Board members are appointed as specialists in their given field for each of the five IGCP themes, with preferably little overlap in the Earth sciences fields, and reflects a worldwide geographic distribution. The IGCP Council consists of six members, a chairperson and five experts, one for each IGCP theme and they meet annually at UNESCO HQ.

Considering that the IGCP has a limited budget, IGCP support is specially earmarked to help scientists from developing countries. IGCP allows them to benefit from the cooperative spirit generated under the umbrella of UNESCO.

## **2. International Geoscience and Geoparks Programme**

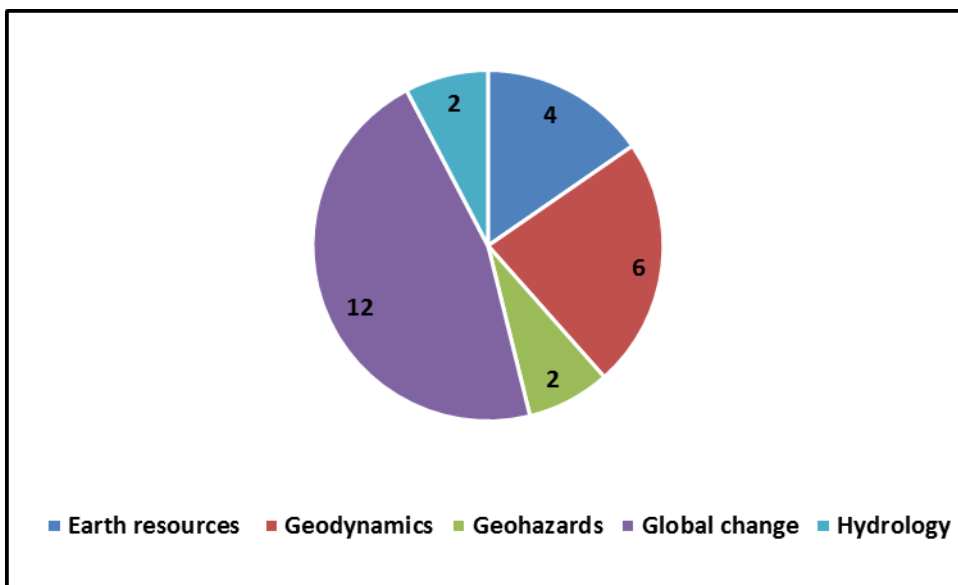
The General Conference of UNESCO at its 38<sup>th</sup> session on the November 17 2015 unanimously adopted the statutes of the new International Geoscience and Geoparks Programme (IGGP) as well as the Operational Guidelines for UNESCO Global Geoparks. These statutes replaced the previous statutes of the International Geoscience Programme that remained essentially unchanged since 1972.

The new IGGP not only allows for a major overhaul of the IGCP but also now formally connects it to the new UNESCO Global Geopark site designation. The UNESCO Global Geoparks are the first new heritage site designation of this kind from UNESCO since the ratification of the World Heritage Convention in 1972. The IGGP provides an umbrella structure under which the activities of both the UNESCO Global Geoparks and the IGCP can cooperate. It has also provided a huge increase in the visibility of Earth Science in general within UNESCO and its Member State delegations. This year, under the new operating guidelines for the IGCP, a new IGCP Council has been appointed jointly by the Director-General of UNESCO and the President of the IUGS (see Annex 4)

As part of the Operational Guidelines of the UNESCO Global Geoparks, during the open session of the annual IGCP meeting, the new applications to become UNESCO Global Geoparks will be presented formally to Member States.

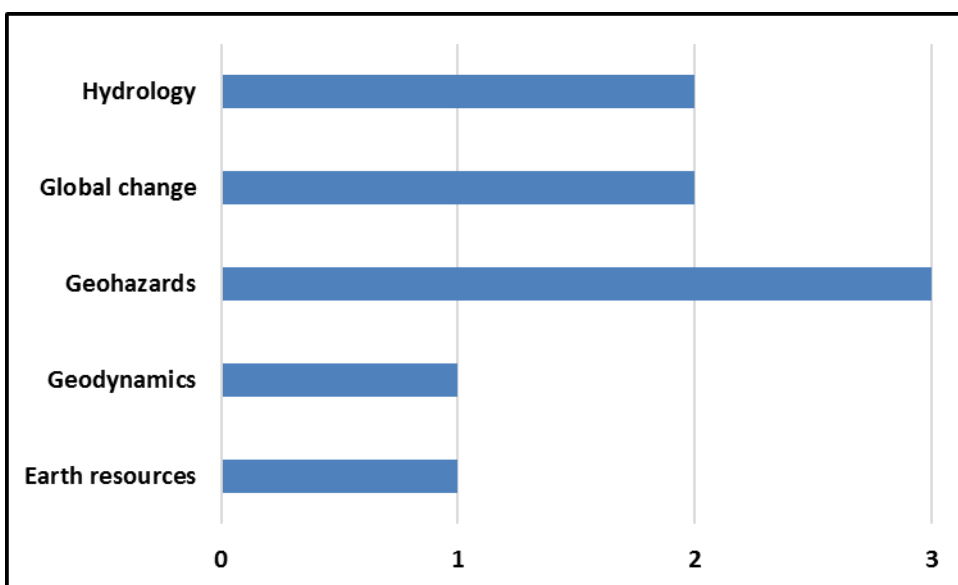
### 3. IGCP Projects 2016 Summary

In 2016, 22 projects received financial support from UNESCO (both HQ and Field Offices) as well as IUGS. Four projects were *On Extended Term* (OET); they remained active in 2016 without receiving funding from IGCP (Figure 1). This report summarises the results of these 26 IGCP projects.



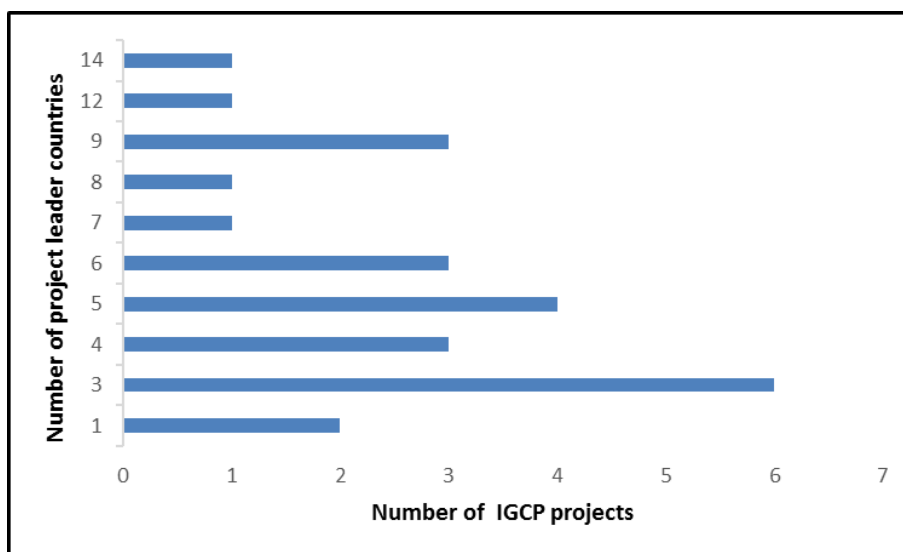
**Figure 1:** Distribution of active IGCP projects by theme in 2016

As of 15 October 2016, UNESCO received nine new IGCP project proposals requesting funding from 2017 onwards (Figure 2). These proposals will be evaluated by the IGCP Council between February 20-21 2017.



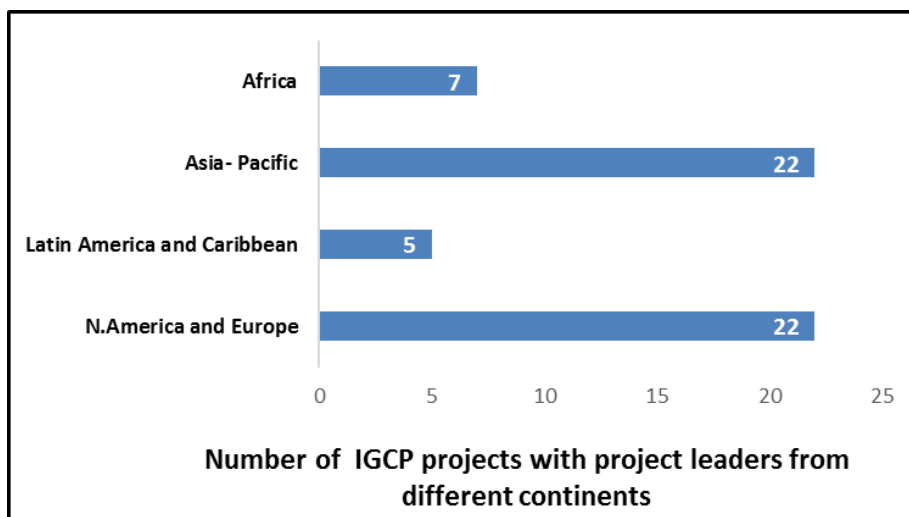
**Figure 2:** Distribution of 2016 new IGCP project proposals by theme

Each IGCP Project is led by several project leaders from different countries. In 2016 IGCP Project leaders came from 38 different countries One project was led by 14 project leaders and only two IGCP projects were led by one project leaders (Figure 3).



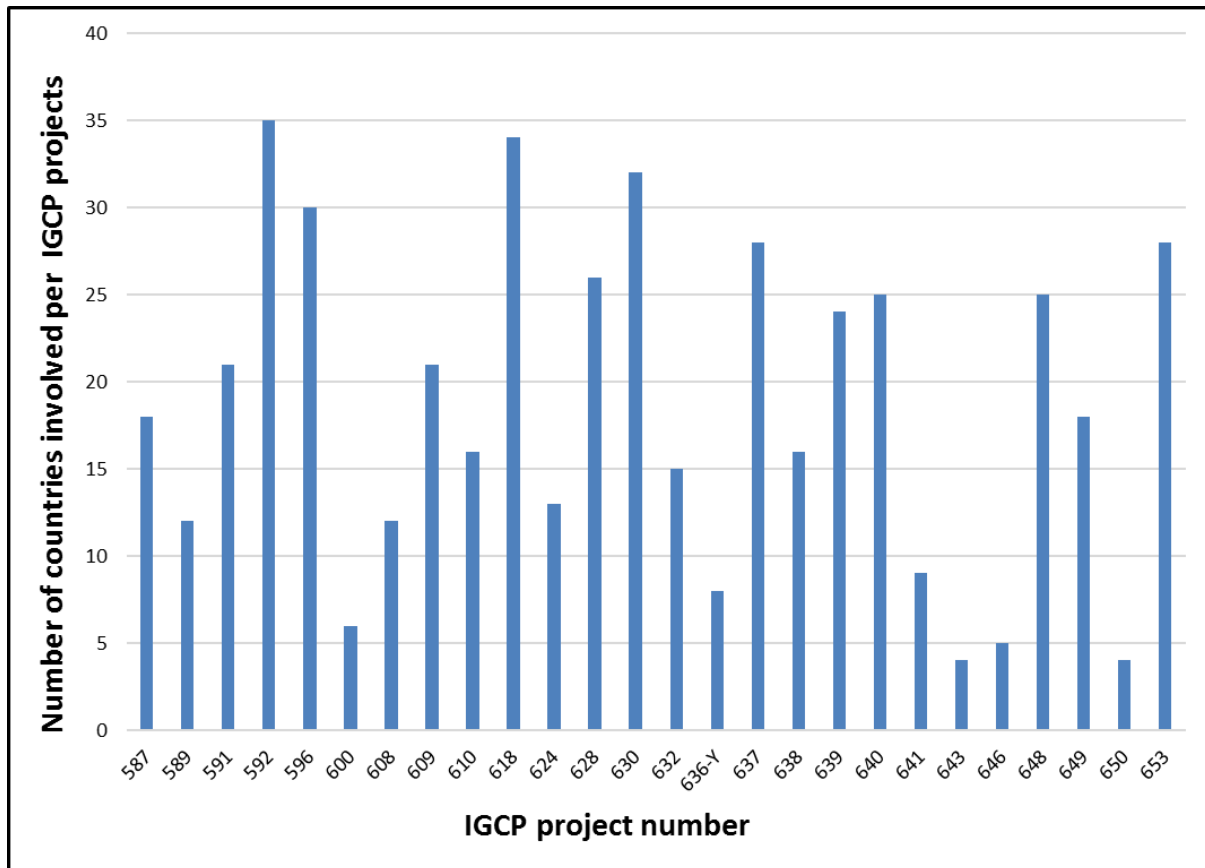
**Figure 3:** Distribution of the number of IGCP projects against number of project leader countries varying between 1 and 14 countries for each active project.

Furthermore, seven projects have project leaders from **African** countries, fifteen projects have project leaders from **Asian** countries, seven projects have project leaders from **Pacific** countries, five projects have project leaders from **Latin American** countries, and twenty-two projects have project leaders from **European and North American** countries (Figure 4)



**Figure 4:** Distribution IGCP project leader continents and total number of projects having leaders from different continents.

Scientists from 136 countries participated to IGCP projects since their funding approval and 109 countries were active in 2016 (Figure 5), including **34 African countries**, 12 Arab States, 32 countries from Asia-Pacific, 9 Latin American and Caribbean countries and 2 Small Island Developing States (SIDS).

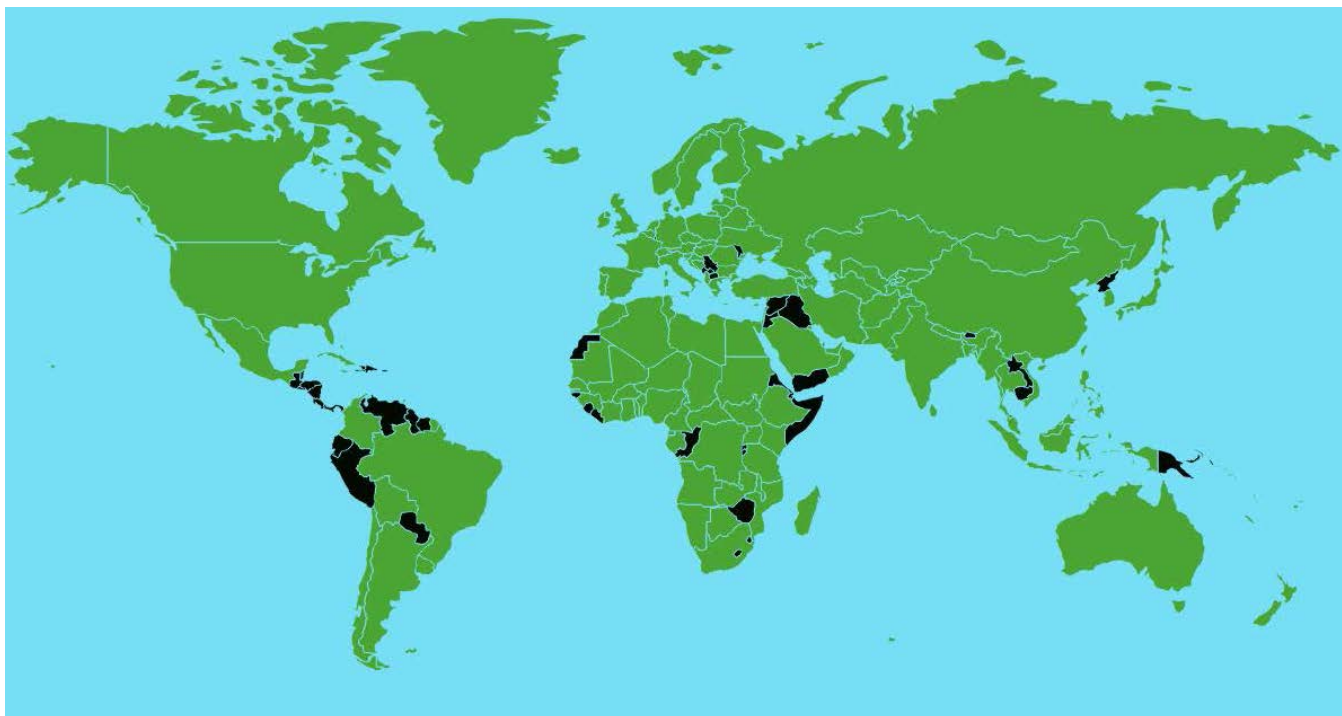


**Figure 5:** Distribution of active 2016 IGCP projects against number of countries that participated each project in 2016

In 2016, **161 project leaders** and **3,558 project participants** collaborated to deliver the objectives of **26 active IGCP projects**.

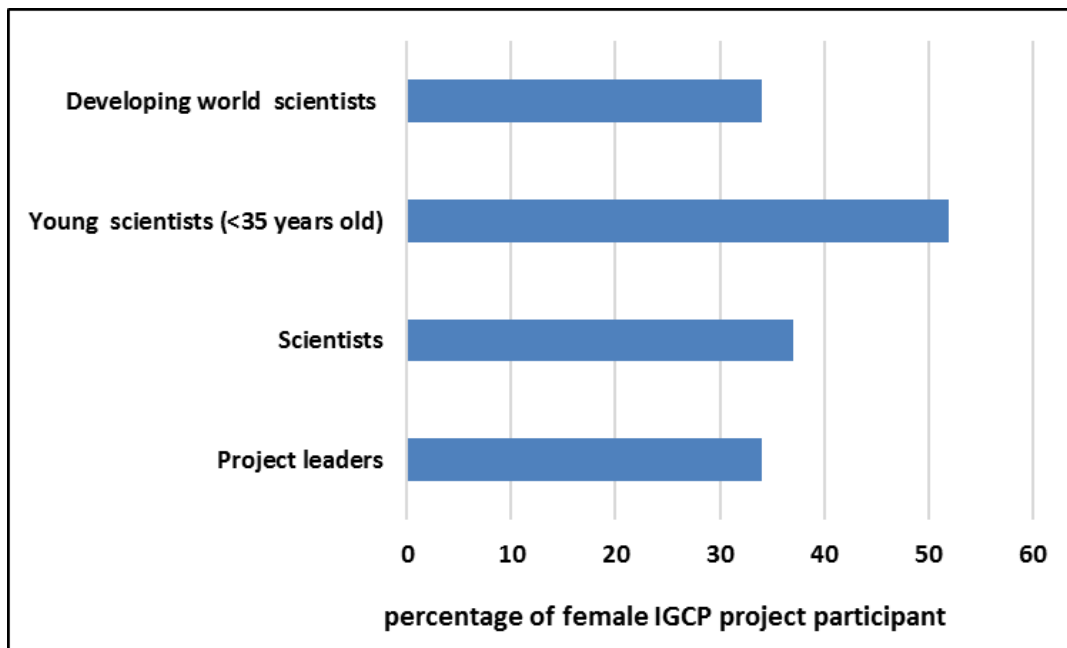
Overall the countries actively involved in the IGCP project in 2016 are:

Albania, Algeria, Angola, Azerbaijan, Argentina, Armenia, Austria, Australia, Bangladesh, Brazil, Belgium, Benin, Belarus, Bolivia, Bosnia & Herzegovina, Botswana, Bulgaria, Burma, Burkina Faso, Cameroon, Central African Republic, Colombia, DR Congo, Croatia, Chile, Czechia, Denmark, Canada, China, Chad, Colombia, Cuba, Ghana, Georgia, Germany, Gambia, Greece, Guinea, Egypt, Estonia, Ethiopia, Finland, France, Hungary, Iceland, India, Indonesia, Italy, Iran, Ireland, Israel, Ivory Coast, Kazakhstan, Kenya, Republic of Korea, Kuwait, Kyrgyzstan, Latvia, Libya, Lithuania, Lebanon, Madagascar, Malawi, Malaysia, Mali, Mauritania, Mexico, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, The Netherlands, New Zealand, Niger, Nigeria, Norway, Oman, Pakistan, Poland, Portugal, Philippines, Romania, Russian Federation, Saudi Arabia, Senegal, Spain, Sri Lanka, Singapore, Slovakia, Slovenia, Sudan, Sweden, Switzerland, South Africa, People’s republic of Korea, Tajikistan, Tanzania, Thailand, Togo, Turkey, Tunisia, Timor-Leste, UK, UA Emirates, Ukraine, Uganda, USA, Uruguay, Uzbekistan, Japan, Viet Nam, Zambia (Figure 6).



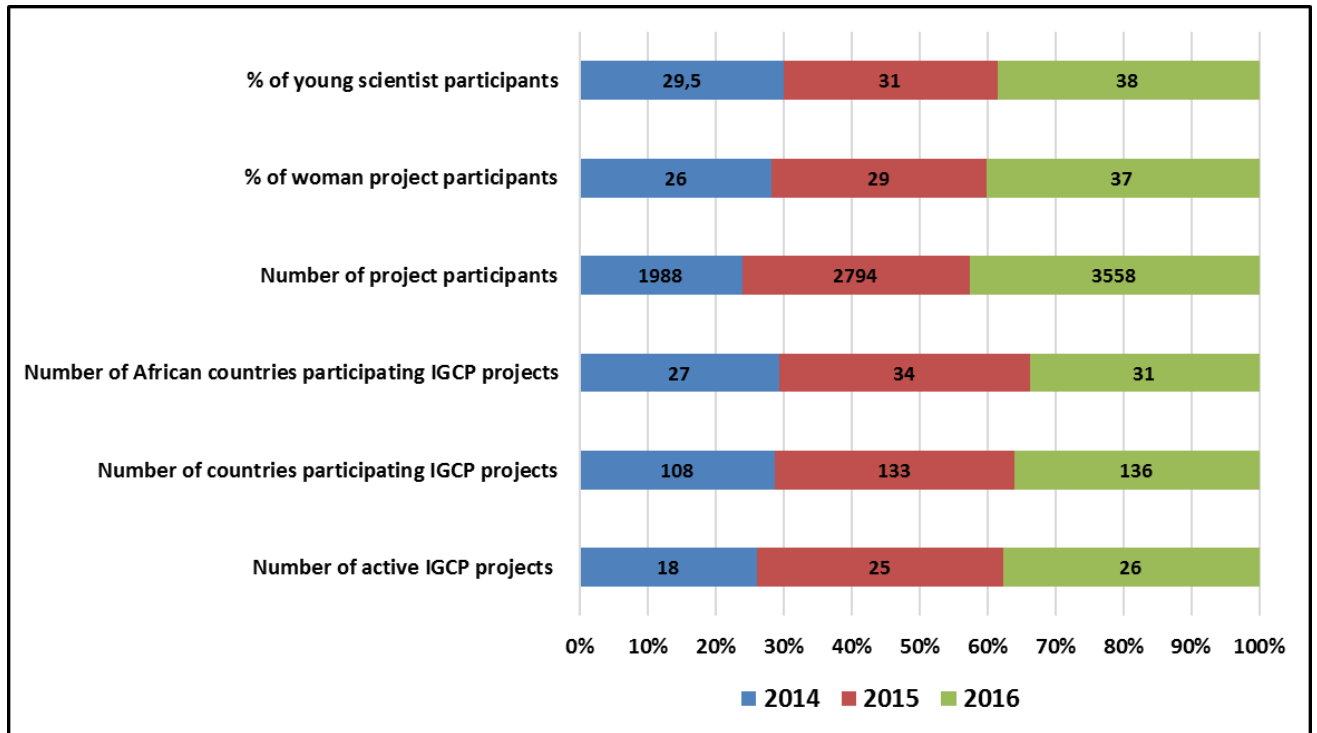
**Figure 6:** World map showing IGCP projects participating countries (in green) in 2016.

According to 26 annual reports received from active IGCP projects in 2016, 38% of the participants are young scientists (<35 years old) and 52% of all participating scientists are coming from developing nations. Gender equality being UNESCO's priority area, IGCP project showed very promising results on gender equality and high number of female scientists participation to IGCP projects (Figure 7).



**Figure 7:** Representation of female scientist participation (in percentages) in 2016 IGCP projects

The overall analysis of the 2016 annual reports is very promising and confirms the trend observed during last three years which shows that IGCP projects outreach and diversity has been increasing continuously over these years (Figure 8).



**Figure 8:** Comparison of IGCP projects participants between 2014 and 2016.



#### **4. IGCP project follow-up in AFRICA**

As a follow-up to the IGCP special project “**Funding of prioritized projects and project leaders within the International Geoscience Programme (IGCP) at UNESCO**”, the Swedish International Development and Cooperation Agency (Sida) decided to support Earth Science in UNESCO during the period 2014-2017 with two activities:

- *African Network of Earth Science Institutions (ANESI)* obtained 453,502 USD in financial support.

- “*Mapping and Assessing the Environmental and Health Impacts of Abandoned Mines in Sub-Saharan African Countries*”, which obtained a financial support of 926,507 USD,

The African Network of Earth Science Institutions (ANESI) aims to enhance collaboration and partnership between African Earth science institutions.

The second activity “Mapping and Assessing Environmental and Health impacts of Abandoned Mines in Sub-Saharan African Countries” aims to reduce the adverse environmental and health effects of abandoned mining activities and promotes sustainable practices in Africa mining activities.

Both projects have been operated by the UNESCO Nairobi office.

#### **2016 Priority Africa IGCP Achievements:**

1. ANESI exchanges involved 87 institutions from 27 African countries; the involvement of women has increased from 32% in 2015 to 40% in 2016.
2. As of December 2016, 74 Earth scientists received grants to move from their home institution to another African institution (including industries) to conduct research or to take a short course.
3. Three African countries have benefited from special capacity building grants to strengthen their geological mapping training facilities (Mali, Central African Republic) or develop strategy to establish a new laboratory facility (Kenya).
4. The ANESI constitution was approved in November 2016 during its first General Assembly held in Ibadan (Nigeria) during the 26th Colloquium of African Geology and members of the Governing Board were elected during the same General Assembly. ANESI can now move forward and apply for a legal identity.
5. UNESCO worked closely with The American University in Cairo and United Nations Economic Commission for Africa as a key capacity-building actor to implement the Africa Mining Vision.
6. Taking the opportunity of curricula reform in Kenya, UNESCO and The Kenya National Commission for UNESCO (KNATCOM) provided recommendations on how to slot more Earth sciences in schools to the Kenya Institute of Curriculum Development (KICD).
7. Following the completion of IGCP 587 project, a workshop to sensitise education stakeholders and teachers on the need for more Earth sciences in the school curricula was organized in Nairobi in May 2016 by IGCP project leaders. This project held also a field Workshop on the Ediacaran Nama Group of southern Namibia between 21–25 August 2016, Windhoek to Fish River Canyon, Southern Namibia
8. After the abandoned mines project in Zambia ended, an important awareness campaign and communication of the results to stakeholders took place in the Copper Belt and involved municipalities in Kabwe and Chililabombwe, and schools in Kitwe, Solwezi and Mufumbwe in North-western Province. Leaflets and a Policy Brief were prepared and distributed.

9. Outputs on the ongoing abandoned mines project in Mali were presented to stakeholders (ministries in charge of environment, mining and water, and academia) in September 2016.
10. A meeting to discuss the outputs on the ongoing abandoned mines project with the officials of the Geological Survey of Namibia and Department of Mines took place in August 2016 in Windhoek.
11. The abandoned mines project hosted by the Manghosutu University of Technology (South Africa) ended and a Policy Brief has been Prepared.
12. A policy document on the incorporation of an Artisanal and Small-Scale Mining component in the training on mining engineers and technicians is ready for publication in Geoscientists, edition of April 2017.
13. An article entitled "Seismotectonic Map of Africa" was published in the International Union of Geological Sciences (IUGS) journal, Episodes 39, 1: 2016. It serves as the explicative note for the map.
14. A final scientific session to summarize the results of the project and officially launch of the Seismotectonic Map of Africa occurred during the 35th International Geological Congress (IGC) held in Cape Town, South Africa from 27 August to 2 September 2016
15. The Seismotectonic Map of Africa was printed by UNESCO Nairobi , and officially launched and distributed freely to all African delegates registered for the congress
16. Within the framework of UNESCO'S IGCP Project 646, a three day field school study was organized from June 9 to 11 June 2016 in the center of southern Cameroon. The field school organized with the support from Geological and Mining Research (IRGM) Institute in Cameroon. 25 scientists from Cameroon, Nigeria, Ghana, Central Africa Republic, Zambia, Ethiopia and Egypt participated in the field school to develop and manage a computerized geosciences database in different fields and for natural hazard risk assessment, environmental monitoring, land management and land use planning.

## **5. Finances**

Funds to support IGCP projects come from IUGS and UNESCO with a further contribution from the People's Republic of China.

In 2016, IGCP received 81,802 USD from UNESCO; this includes 20,000 USD from the Chinese National Commission for UNESCO, and another 60,000 USD from IUGS, resulting in a total IGCP budget of 141,802 USD. The average project support in 2016 was around 6,500 USD of seed funding per project.

## ANNEX 1: 2016 funding table for ongoing projects

Funding table for IGCP Projects - 2016							
N°	Projects	First Project Leader	Theme	Duration	Funding Group	IUGS	UNESCO
587	The Ediacaran (Vendian) Puzzle	Patricia Vickers-Rich (Australia)	Global Change	2010-2014	OET: 2nd yr		
589	Development of the Asian Tethyan Realm	Xiaochi Jin (China)	Geodynamic	2012-2016	II	8 000	
591	The Early to Middle Palaeozoic Revolution	Bradley D. Cramer (USA)	Global Change	2011-2015	OET		
592	Continental Construction in Central Asia	Inna Safonova (Russia)	Geodynamic	2012-2015	I	10 000	
596	Climate Change and Biodiversity Patterns	Peter Königshof (Germany)	Global Change	2011-2015	OET		
608*	Asia-Pacific Cretaceous Ecosystems	Hisao Ando (Japan)	Global Change	2013-2017	II		5,000 + 3,000 (Bangkok)
609	Cretaceous Sea-Level Changes	Michael Wagreich (Austria)	Global Change	2013-2017	III		6 000
610	From the Caspian to Mediterranean: Environmental Change and Human Response during the Quaternary	Valentina Yanko-Hombach (Ukraine)	Global Change	2013-2017	IV	3 500	
618	Paleoclimate information obtained from past-recharged groundwater	Dioni I. Cendon (Australia)	Hydrogeology	2012-2016	II	8 000	
624	OneGeology	Alex Malahoff (New Zealand)	Global Change	2013-2017	OET		
628	The Gondwana Map Project	Renata de Silva Schmidt (Brazil)	Geodynamic	2013-2017	IV		3 500
630	Permian-Triassic Climatic and Environmental Extremes and biotic responses	Zhong Qiang (China)	Global Change	2014-2018	II		8 000
632	Continental Crisis of the Jurassic	Jongeng Sha (China)	Global Change	2014-2018	IV	3 500	
636-Y	Characterization and sustainable exploitation of geothermal resources	Daniela Blessant (Columbia)	Earth Resources	2016-2018	II	8 000	
637	Heritage stone designation	Barry Cooper (Australia)	Earth Resources	2015-2019	III		6 000
638	Paleoproterozoic Birimian geology for sustainable development	Moussa dabo (Senegal)	Earth Resources	2016-2020	V	3 000	
639	Sea Level Changes from minutes to millenia	Simon Engelhart (USA)	Global Change	2016-2020	II		8 000
640	Significance of Modern and Ancient Submarine Slope and Landslides	Lorena Moscardelli (USA)	Geohazards	2015-2019	III		6 000
641*	Deformation and fissuring caused by exploitation of subsurface fluids	Dora Carreon-Freyre (Mexico)	Geohazards	2015-2018	V		3,000 (Montevideo)
643	Water Resources in Wet Tropics of West-Central Africa	Bamory Kamagate (Côte d'Ivoire)	Hydrogeology	2015-2019	II		8 000
646	Dynamic interaction in tropical Africa	Kankeu Boniface (Cameroon)	Geodynamic	2015-2018	IV		3 500
648	Supercontinent Cycles and Global Geodynamics	Zheng-Xiang Li (Australia)	Geodynamic	2015-2019	III	6 000	
649	Diamonds and Recycled Mantle	Jingsui Yang (China)	Geodynamic	2015-2019	I	10 000	
650	3rd Pamir High Elevation International Geophysical Expedition	Vladimir Aizen (USA)	Global Change	2015-2019	OET		
653	The onset of the Great Ordovician Biodiversification Event	Thomas Servais (France)	Global Change	2016-2020	I		10 000
	<b>TOTAL</b>					<b>60 000</b>	<b>59 000</b>
600	Metallogenesis of Collisional Orogens (SIDA funded project)	Zenqian Hou (China)	Earth Resources	2011-2014	OET: 2nd yr		
<b>*UNESCO Field Offices: Support IGCP Projects 608 &amp; 641</b>							
<b>Total IGCP spendings for projects and board meeting in USD</b>							
<b>UNESCO</b>							
EED (contracted) UNESCO HQ and Field Support IGCP Projects		<b>59 000,00</b>					
2015 funds used in 2016		<b>7 500,00</b>					
UNESCO support for IGCP board		<b>15 302,00</b>					
<b>Total UNESCO</b>				<b>81 802,00</b>			
<b>IUGS agreed contribution for projects</b>							
Support IGCP Projects		<b>60 000,00</b>					
<b>TOTAL</b>				<b>141 802,00</b>			

## ANNEX 2:

<b>IGCP Projects to be evaluated in February 2017</b>				
<b>N°</b>	<b>Projects</b>	<b>First Project Leader</b>	<b>Theme</b>	<b>Duration</b>
589	Development of the Asian Tethyan Realm	Xiaochi Jin (China)	Geodynamic	2012-2016
592	Continental Construction in Central Asia	Inna Safonova (Russia)	Geodynamic	2012-2015
596	Climate Change and Biodiversity Patterns	Peter Königshof (Germany)	Global Change	2011-2015
608*	Asia-Pacific Cretaceous Ecosystems	Hisao Ando (Japan)	Global Change	2013-2017
609	Cretaceous Sea-Level Changes	Michael Wagemich (Austria)	Global Change	2013-2017
610	From the Caspian to Mediterranean: Environmental Change and Human Response during the Quaternary	Valentina Yanko-Hombach (Ukraine)	Global Change	2013-2017
618	Paleoclimate information obtained from past-recharged groundwater	Dioni I. Cendon (Australia)	Hydrogeology	2012-2016
624	OneGeology	Alex Malahoff (New Zealand)	Global Change	2013-2017
628	The Gondwana Map Project	Renata de Silva Schmidt (Brazil)	Geodynamic	2013-2017
630	Permian-Triassic Climatic and Environmental Extremes and biotic responses	Zhong Qiang (China)	Global Change	2014-2018
632	Continental Crisis of the Jurassic	Jongeng Sha (China)	Global Change	2014-2018
636-Y	Characterization and sustainable exploitation of geothermal resources	Daniela Bessant (Columbia)	Earth Resources	2016-2018
637	Heritage stone designation	Barry Cooper (Australia)	Earth Resources	2015-2019
638	Paleoproterozoic Birimian geology for sustainable development	Moussa dabo (Senegal)	Earth Resources	2016-2020
639	Sea Level Changes from minutes to millenia	Simon Engelhart (USA)	Global Change	2016-2020
640	Significance of Modern and Ancient Submarine Slope and Landslides	Lorena Moscardelli (USA)	Geohazards	2015-2019
641*	Deformation and fissuring caused by exploitation of subsurface fluids	Dora Carreon-Freyre (Mexico)	Geohazards	2015-2018
643	Water Resources in Wet Tropics of West-Central Africa	Bamory Kamagate (Côte d'Ivoire)	Hydrogeology	2015-2019
646	Dynamic interaction in tropical Africa	Kankeu Boniface (Cameroon)	Geodynamic	2015-2018
648	Supercontinent Cycles and Global Geodynamics	Zheng-Xiang Li (Australia)	Geodynamic	2015-2019
649	Diamonds and Recycled Mantle	Jingsui Yang (China)	Geodynamic	2015-2019
650	3rd Pamir High Elevation International Geophysical Expedition	Vladimir Aizen (USA)	Global Change	2015-2019
653	The onset of the Great Ordovician Biodiversification Event	Thomas Servais (France)	Global Change	2016-2020

## ANNEX 3:

<b>IGCP 2016 New project proposals requesting funding from 2017 onwards</b>					
N°	Project Title	Project Leader (country)	IGCP Theme	Duration	2016
<b>EARTH RESOURCES</b>					
<i>Sustaining our society</i>					
656	Geoparks in Iberian America	Emilia Bocanegra (Argentina)	Geoparks	2017-2021	New
<b>GLOBAL CHANGE</b>					
<i>Evidence from the geological record</i>					
652	Magnetic susceptibility and cyclostratigraphy - Improvement of Palaeozoic time scales	Anne-Christine Da Silva (Belgium/Netherlands), David De Vleeschouwer (Germany), Ondrej Babek (Czech Republic), Peter Königshof (Germany), Shuang Dai (China), Michael T. Whalen (USA)	Global Change	2016-2020	resubmit
655	Toarcian Oceanic Anoxic Event: Impact on marine carbon cycle and ecosystems	Matias Reolid (Spain), Emanuela Mattioli (France) Luis Vitor Duarte (Portugal) Abbas Marok (Algeria)	Global change	2017-2020	New
<b>GEOHAZARDS</b>					
<i>Mitigating the risks</i>					
569	Seismotectonics for the seismic risk assessment in	Mustapha Meghraoui (France) Vunganai	Geohazards	2017-2021	New
568	Radon health hazard in mud-built homes	Nguyen-Thuy Duong (Vietnam)	Geohazards	2017-2021	New
657	International platform on earthquake early warn	Richard Allen	Geohazards	2017-2022	New
<b>HYDROGEOLOGY</b>					
<i>Geoscience of the water cycle</i>					
654	Aquifer recharge changes in Ibero-America (ARIA)	Teresita Betancur (Colombia) Emilia Bocanegra (Argentina), Gerson Cardoso da Silva Jr. (Brazil), Christian Herrera (Chile), Emilio Custodio (Spain), Marisol Manzano (Spain)	Hydrogeology	2016-2019	resubmit
571	The critical Zone in Karsts Systems	Jiang Zhongcheng (China), Zhang Cheng (China), Martin Knez (Slovenia), Chris Groves (USA), Augusto Auler (Brazil), Jiang Yongiun (China), Bartolome Andreo-Navarro (Spain), Yuan Daoxian (China) Ezzat Raeisi (Iran)	Hydrogeology	2017-2021	New
<b>GEODYNAMICS</b>					
<i>Control of our environment</i>					
660	Basement rocks and the formation of mineral deposits	A.F. Kamona (Namibia), Thierry De Putter (Belgium), Toto Lubala (DR Congo)	Earth resources and Geodynamic	2017-2022	New

ANNEX 4: Scientific Board Members and IGCP Council members 2016

EARTH RESOURCES	<b>Ms Vlaswinkel, Brigitte</b> Team Leader	<a href="mailto:bvlaswinkel@live.com">bvlaswinkel@live.com</a>	Ocean's of Energy	The Netherlands		nomination 2017-2020
	Mr Beaudoin, Georges	<a href="mailto:georges.beaudoin@gl.ulaval.ca">georges.beaudoin@gl.ulaval.ca</a>	University of Laval (Dep. Geology)	Canada	2013-2016	2017-2020
	Mr Pasava, Jan	<a href="mailto:jan.pasava@zheology.cz">jan.pasava@zheology.cz</a>	Czech Geological Survey	Czech Rep.	2013-2016	2017-2020
	Mr Selmann, Reimar	<a href="mailto:R.Selmann@nhm.ac.uk">R.Selmann@nhm.ac.uk</a>	Natural History Museum	UK	2011-2016	2017-2020
	Mr Yigit, Ozcan	<a href="mailto:oyigit@comu.edu.tr">oyigit@comu.edu.tr</a>	Canakkale Onsekiz Mart University (Dep. Geol. Eng)	Turkey	2013-2016	2017-2020
	Ms Baumgartner, Regina	<a href="mailto:regina.baumgartner@gmail.com">regina.baumgartner@gmail.com</a>	Gold Fields, Lima, Peru	Peru	new	2017-2020
	Ms Olivo, Gema	<a href="mailto:olivo@queensu.ca">olivo@queensu.ca</a>	Queen's University, Kingston, Canada	Canada	new	2017-2020
	Ms André-Mayer, Anne-Sylvie	<a href="mailto:anne-sylvie.andre@univ-lorraine.fr">anne-sylvie.andre@univ-lorraine.fr</a>	Université de Lorraine, Nancy, France	France	new	2017-2020
	Ms Paradis, Susanne	<a href="mailto:susanne.paradis@canada.ca">susanne.paradis@canada.ca</a>	Geological Survey of Canada	Canada	new	2017-2020
	Mr Molnar, Ferenc	<a href="mailto:ferenc.molnar@gtk.fi">ferenc.molnar@gtk.fi</a>	Geological Survey of Finland	Finland	new	2017-2020
Mr Omrani, Jafar	<a href="mailto:jomrani@gmail.com">jomrani@gmail.com</a>	Geological Survey of Iran, Tehran	Iran	new	2017-2020	
GLOBAL CHANGE	<b>Ms Orgeira, Maria Julia</b> Team Leader	<a href="mailto:orgeira@gl.fcen.uba.ar">orgeira@gl.fcen.uba.ar</a>	IGIBA (University of Buenos Aires and Conicet)	Argentina		2017-2018
	Mr Königshof, Peter	<a href="mailto:Peter.Koenigshof@senckenberg.de">Peter.Koenigshof@senckenberg.de</a>	Senckenberg Forschungsinstitut und Naturmuseum	Germany	2008-2016	2017-2020
	Ms Leroy, Suzanne	<a href="mailto:leroy@cerere.fr">leroy@cerere.fr</a>	Brunel University, UK (Inst. for the Environment)	Belgium	2013-2016	2017-2020
	Mr Lukeneder, Alexander	<a href="mailto:alexander.lukeneder@nhm-wien.ac.at">alexander.lukeneder@nhm-wien.ac.at</a>	Natural History Museum Vienna	Austria	2008-2016	2017-2020
	Ms Mangano, Maria Gabriela	<a href="mailto:gabriela.mangano@usask.ca">gabriela.mangano@usask.ca</a>	University of Saskatchewan	Argentina	2013-2016	2017-2020
	Ms Oboh-Ikuenobe, Francisca	<a href="mailto:ikuenobe@mst.edu">ikuenobe@mst.edu</a>	Missouri University of Science & Technology	Nigeria	2013-2016	2017-2020
	Ms Yanko Hombach, Valentina	<a href="mailto:valyan@avalon-institute.org">valyan@avalon-institute.org</a>	Avalon Inst. of Applied Science	Ukraine	2013-2016	2017-2020
	Ms Vickers-Rich, Patricia	<a href="mailto:pat.rich@monash.edu">pat.rich@monash.edu</a>	Monash University	Australia		2017-2020
	Mr Jaramillo, Carlos	<a href="mailto:jaramillo@si.edu">jaramillo@si.edu</a>	Smithsonian Tropical Research Institute	Colombia	new	2017-2020
	Mr Servais, Thomas	<a href="mailto:Thomas.Servais@univ-lille1.fr">Thomas.Servais@univ-lille1.fr</a>	CNRS – Lille1	France	new	2017-2020
GEOHAZARDS	<b>Mr Ismail-Zadeh, Alik</b> Team Leader	<a href="mailto:Alik.Ismail-Zadeh@kit.edu">Alik.Ismail-Zadeh@kit.edu</a>	Karlsruhe Institute of Technology	Azerbaijan		2017-2018
	Mr Campbell, Hamish	<a href="mailto:h.campbell@gsns.cri.nz">h.campbell@gsns.cri.nz</a>	GNS Science	New Zealand	2013-2016	2017-2020
	Mr Cundy, Andy	<a href="mailto:a.cundy@brighton.ac.uk">a.cundy@brighton.ac.uk</a>	University of Brighton	UK	2013-2016	2017-2020
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