Seventeenth session
Kingston, Jamaica
11-22 July 2011

Election of members of the Legal and Technical Commission

List of candidates submitted by States parties

Note by the Secretary-General

1. The terms of office of the current members of the Legal and Technical Commission (“the Commission”) will end on 31 December 2011. By his note verbale No. 236/10 of 8 October 2010 and note verbal No. 293/10 of 17 December 2010, the Secretary-General invited the members of the International Seabed Authority to submit, at their earliest convenience but no later than 11 April 2011, as agreed by the Council in its decision contained in ISBA/13/C/6, the names and curricula vitae of candidates for the election to the Commission, to be held during the seventeenth session of the Authority between 11 and 22 July 2011.

2. In accordance with article 163 and article 165, paragraph 1, of the 1982 United Nations Convention on the Law of the Sea (“the Convention”), the members of the Legal and Technical Commission are elected by the Council from among the candidates nominated by the States parties for a term of five years. Due account shall be taken of the need for equitable geographical distribution and the representation of special interests. Members of the Commission shall have appropriate qualifications, such as those relevant to exploration for and exploitation and processing of mineral resources, oceanology, protection of the marine environment, or economical or legal matters relating to ocean mining and related fields of expertise. States parties shall nominate candidates of the highest standards of competence and integrity with qualifications in relevant fields so as to ensure the effective exercise of the functions of the Commission.

3. Pursuant to article 163, paragraph 2, of the Convention, the Commission shall be composed of 15 members. However, if necessary, the Council may decide to increase the size of the Commission having due regard to economy and efficiency. It is recalled that, at the first election of the members of the Commission in August 1996, the Council decided to increase the number of seats on the Commission from 15 to 22 without prejudice to future elections to the Commission.
4. It is also recalled that, at the fifth session of the Authority, in August 1999, following a proposal by the Chairman of the Latin American and Caribbean Group, the Council agreed to an additional candidate from that group for election to the Commission for the remainder of the term of office (ISBA/5/C/11). At the 61st meeting, on 22 March 2000, the Council elected Ms. Frida Maria Armas Pfirter (Argentina) as a member of the Commission for the remainder of the term of office. It was agreed that such election would be without prejudice to future elections to the Commission and future decisions relating to the number of members of the Commission and its composition (ISBA/6/C/3).

5. The next election of the Commission took place in 2001, for a five-year term commencing on 1 January 2002. In electing 24 candidates to the Commission for a five-year term of office (ISBA/7/C/6 and ISBA/7/C/7), the Council also decided, at its 72nd meeting, on 5 July 2001, to increase the size of the Commission to 24 members in accordance with article 163, paragraph 2, of the Convention, without prejudice to future elections to the Commission.

6. During the next election of the Commission at its 111th meeting during the twelfth session, the Council decided, having regard to the provisions of article 163, paragraph 2, of the Convention, to increase the size of the Commission to 25 members, without prejudice to future elections. Accordingly, the Council elected all the 25 candidates for a five-year term commencing on 1 January 2007. The Council also requested the Secretary-General to prepare, for consideration by the Council at its thirteenth session, a report on considerations relating to the future size and composition of the Commission and the process for future elections (ISBA/12/C/11).

7. On 18 July 2007, during the thirteenth session, the Council considered the question of the future size and composition of the Commission and the process for future elections, on the basis of a Note prepared by the Secretary-General (contained in document (ISBA/13/C/2). The Council agreed that there was a need to streamline the procedures for future elections in order to avoid the difficulties that had arisen in connection with past elections to the Commission. The Council decided that the procedure for nomination of candidates for future elections of the Commission shall be as follows:

   (a) At least six months before the opening of the session of the International Seabed Authority at which the election is to be held, the Secretary-General shall address a written invitation to all members of the Authority to submit their nominations for election to the Commission;

   (b) Nominations for election to the Commission shall be accompanied by a statement of qualification or curriculum vitae setting out the candidate’s qualifications and expertise in fields relevant to the work of the Commission and shall be received not less than three months prior to the opening of the relevant session of the Authority; nominations received less than three months prior to the opening of the relevant session of the Authority will not be accepted;

   (c) The Secretary-General shall prepare a list in alphabetical order of the persons nominated for election to the Commission in accordance with paragraph (a) above, indicating the nominating member of the Authority, and containing an annex with the statements of qualification or curricula vitae submitted in accordance with paragraph (b) above; the list shall be circulated to all members of the Authority
not less than two months prior to the opening of the session at which the election is to be held (ISBA/13/C/6).

8. During the thirteenth session, the Council was not able to reach a consensus on the future size of the Commission. It was agreed, however, that it was essential for the Council to reach a decision on the size of the Commission prior to the next election, which was due to be held in 2011. To facilitate its deliberations, the Council decided to request the Secretary-General, taking into account the views of the Chairs of the Commission, to prepare a report for consideration by the Council in 2010 on the functioning of the Commission, with a view to the Council’s determining in 2010 the number of members of the Commission to be elected in 2011 (ISBA/13/C/6).

9. At its 152nd and 153rd meetings during the sixteenth session, on 29 and 30 April 2010, respectively, the Council considered the question of the size and composition of the Commission. After considering the Note by the Secretary-General on this matter (ISBA/16/C/3), the Council expressed satisfaction with the work of the Commission and the manner in which it had functioned over the past five years; took note of the view expressed by the Commission through its Chairman to the effect that the current size of the Commission had not prevented it from carrying out its work effectively and efficiently; and emphasized that the Commission needed to maintain a wide range of expertise to enable it to carry out its complex work (ISBA/16/C/14*).

10. With respect to the election of members of the Commission to be held in 2011, the Council agreed that the procedures for nomination of candidates for future elections of the Commission set out in document ISBA/13/C/6 (reproduced in paragraph 7 above) must be applied strictly. The Council also agreed that, for the 2011 election, the size of the Commission may be increased, having due regard to economy and efficiency, to up to 25 members, without prejudice to future elections (ISBA/16/C/14*).

11. The 23 nominations submitted by members of the Authority up to 11 April 2011, being three months prior to the opening of the seventeenth session, are set out in the annex to the present note, together with the statements of qualifications and summaries of curricula vitae of the candidates.¹

¹ The original curricula vitae as submitted will be put on the website of the International Seabed Authority and reproduced for circulation at the seventeenth session of the Authority.
# Annex

## List of candidates nominated by States parties

<table>
<thead>
<tr>
<th>Name and nationality</th>
<th>Nominated by</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABDEGBIE, Adesina Thompson (Nigeria)</td>
<td>Nigeria</td>
</tr>
<tr>
<td>BILLET, David (United Kingdom)</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>BREKKE, Harald (Norway)</td>
<td>Norway</td>
</tr>
<tr>
<td>BROADBELT, Winifred M. (Netherlands)</td>
<td>Netherlands</td>
</tr>
<tr>
<td>ČIČEROV, Aleksander (Slovenia)</td>
<td>Slovenia</td>
</tr>
<tr>
<td>DA EMPOLI, Domenico (Italy)</td>
<td>Italy</td>
</tr>
<tr>
<td>DAVIS-MATTIS, Laleta (Jamaica)</td>
<td>Jamaica</td>
</tr>
<tr>
<td>De SOUZA, Kaiser (Brazil)</td>
<td>Brazil</td>
</tr>
<tr>
<td>ESCOBAR, Elva (Mexico)</td>
<td>Mexico</td>
</tr>
<tr>
<td>HOWORTH, Russell (Fiji)</td>
<td>Fiji</td>
</tr>
<tr>
<td>HYEONG, Kiseong (Republic of Korea)</td>
<td>Republic of Korea</td>
</tr>
<tr>
<td>JARMACHE, Elie (France)</td>
<td>France</td>
</tr>
<tr>
<td>KALNGUI, Emmanuel (Cameroon)</td>
<td>Cameroon</td>
</tr>
<tr>
<td>KHRAMOV, Denis Gennadyevich (Russian Federation)</td>
<td>Russian Federation</td>
</tr>
<tr>
<td>LOPERA, Eusebio (Spain)</td>
<td>Spain</td>
</tr>
<tr>
<td>MADUREIRA, Pedro (Portugal)</td>
<td>Portugal</td>
</tr>
<tr>
<td>OKAMOTO, Nobuyuki (Japan)</td>
<td>Japan</td>
</tr>
<tr>
<td>OYARZÁBAL, Mario (Argentina)</td>
<td>Argentina</td>
</tr>
<tr>
<td>PRZYBYCIN, Andrzej (Poland)</td>
<td>Poland</td>
</tr>
<tr>
<td>REICHERT, Christian (Germany)</td>
<td>Germany</td>
</tr>
<tr>
<td>RODRIGO, Cristian (Chile)</td>
<td>Chile</td>
</tr>
<tr>
<td>SUDHAKAR, Maruthadu (India)</td>
<td>India</td>
</tr>
<tr>
<td>ZHANG, Haiqi (China)</td>
<td>China</td>
</tr>
</tbody>
</table>
ADEGBIE, Adesina Thompson

Postal address
Nigerian Institute for Oceanography and Marine Research
P.M.B. 12729, Lagos, Nigeria.
Email: adeadegbie@yahoo.com; sadegbie@niomr.org
Phone: +234-8055210651 or +234-8032778521

Occupational objectives
A professional position of challenge where my knowledge and experience in
marine geology, oceanography, hydrography, coastal and marine management,
global change studies and project management can be fully utilized.

Personal information
Nationality: Nigerian
Date and place of birth: 31 March 1959; Ondo, Ondo State, Nigeria
Marital status: married
No. of children: two
Health: excellent

Languages spoken

<table>
<thead>
<tr>
<th>Language</th>
<th>Oral</th>
<th>Written</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>German</td>
<td>Good</td>
<td>Fair</td>
<td>Fair</td>
</tr>
</tbody>
</table>

Education
Ph.D. Geosciences University of Bremen, Germany 1998-2001

Scholastic honours
Jan. 1998-Dec. 2000 IOC/UNESCO Scholarship/Research Grant for Ph.D. programme at the
University of Bremen, Germany
Jan. 2001-June 2001 German Research Foundation (DFG)/University of Bremen Research
Grant for Ph.D. thesis

Post-graduate professional training
Implementation and Agenda 21. Organized by the International Ocean Institute
(IOI), Dalhousie University, Halifax, Canada, 9 June-15 August 1997
Sida Advanced International Training Course on Sustainable Coastal Development,
Gothenburg, 23 October to 24 November 2006
Seminar on Integrated Coastal Management, Xiamen, China, 20 October to
14 November 2008
Current employment
Nigerian Institute for Oceanography and Marine Research (NIOMR), P.M.B. 80108, Victoria Island, Lagos, Nigeria, 15 March 1993 to date.
Present position: Assistant Director

Job Description
- Formulation of research projects for the Marine Geology and Geophysics Division in conjunction with the Head of Department
- Geophysical survey and bathymetry of the Nigerian continental margin
- Research into global climate change and sea level variations along the Nigerian coastal and marine areas

Administrative activities
- Member NIOMR Research Management Committee

National and international assignment
- Member: Inter-ministerial Committee on the International Seabed Authority (ISA)
- Member: Inter-ministerial Advisory Body of Experts for the Law of the Sea
- Member: Review Panel on the Environmental Impact Assessment (EIA) for the proposed Brass LNG Project (offshore component)
- Member: Technical Committee for the Evaluation of the Modelling and Simulation Studies for the Design of the Proposed Lekki EPZ Port and Harbour Project

Publications


Conferences/seminars/workshop/symposium


2nd Annual Conference of the International Geological Correlation project No. 464 in São Paulo, Brazil. 30 August-3 September 2002

Computer literacy

I am versatile in the use of computers for word-processing, graphic analysis and evaluation of scientific data and website design. I have worked with and attained proficiency with many word-processors, graphic and web editor (HTML) software

Professional affiliations

Nigerian Association of Petroleum Explorationists
Nigerian Mining and Geosciences Society
International Society of Environmental Micropaleontology, Microbiology and Meiobenthology (ISEMMM)

Hobbies

Reading, travelling, sports and meeting people

Referees

Dr. O. A. Ayinla
Executive Director
Nigerian Institute for Oceanography and Marine Research
P.M.B. 12729, Lagos, Nigeria
Phone: +234-8064384985
Email: jideayinla@yahoo.com

Dr. L. F. Awosika
Nigerian Institute for Oceanography and Marine Research (NIOMR)
P.M.B. 12729, Lagos, Nigeria
Phone: +234-8064273881
Email: larryawosika@yahoo.com
BILLET'T David Stewart Martin

Position  Deep-Sea Ecologist
deepeasgroup
National Oceanography Centre
Natural Environment Research Council (NERC)
University of Southampton Waterfront Campus,
Southampton SO14 3ZH, UK

E-mail  dsmb@noc.ac.uk

Date of birth  29 December 1953

Summary  I am a member of the ISA Legal and Technical Commission with particular responsibility for environmental issues. I am a deep-sea ecologist committed to finding solutions for the use of ocean resources and the long-term conservation of ocean ecosystems. I have broad experience of deep-sea habitats including seamounts, coral mounds, submarine canyons, mid-ocean ridges, abyssal plains, continental margins, as well as seabed fauna from microbial communities to fish. I have made a major contribution to understanding how climate affects deep-sea ecosystems and on methods to distinguish between man-made and natural change. I have worked closely with the deep-water offshore oil and gas industry and international organisations, such as the Un Convention on Biological Diversity, to devise regional environmental management plans. I have played a key role in the development of international deep-sea research projects in the Census of Marine Life (2002-2010). I have participated in and led over 45 international ocean research cruises.

Qualifications

March 1988  Ph.D. University of Southampton, UK - Deep-Sea Ecology
May 1975  B.Sc. University College North Wales, Menai Bridge, Bangor, UK
Marine Biology with Biochemistry

Experience

2009–present  Deep-sea ecologist – EU Project HERMIONE (Hotspot Ecosystem Research and Man’s Impact on European Seas)
2005–present  NERC Research Grant - ECOMAR (Ecosystems of the Mid-Atlantic Ridge)
2006–2010  Co-Chair, Ocean Biogeochemistry and Ecosystems Group, National Oceanography Centre, Southampton
2004–2007 Scientific Steering Committee - MarBEF (Marine Biodiversity and Ecosystem Functioning)

2004–2007 Coordinator MarBEF Project DEEPSETS (Deep-sea & Extreme Environments, Patterns of Species and Ecosystem Time Series)

2005–2007 Scientific Steering Committee — HERMES (Hotspot Ecosystem Research on the Margins of European Seas)


1990–1997 Head of External Affairs, Institute of Oceanographic Sciences, UK, responsible for developing industry-science and policy-science partnerships for all oceanographic disciplines, stimulating international partnerships and managing international projects, finance and resource planning, technology transfer, public understanding of science

1976–1990 Deep-sea ecologist with particular expertise in large bottom-dwelling organisms (megafauna) and deep-sea pelagic fauna. In-depth knowledge of the ecology of large deep-sea invertebrates. Discovery of seasons in the deep sea and the importance of surface primary productivity in regulating life on the abyssal seafloor

**Selected publications** — Over 85 publications in ISI cited scientific journals


Baker, M.C., ... Billett, D.S.M. et al. (2001). *The status of natural resources on the high seas - an environmental perspective*. 3-68, (Eds WWF/IUCN)

BREKKE, Harald

Education
1978-1983 University of Bergen, Norway — Cand. real degree (Masters/Ph. D. equivalent) in hard rock geology
1973-1977 Agder University College, Kristiansand, Norway — College degree in analytical chemistry, including mathematics, physics, statistics and programming

Employment record
1973 Teacher of mathematics at Chongwe Secondary School, Zambia
1980-1984 Part-time and full time research assistant at the Geological Institute, University of Bergen, Norway
Since 1984 Senior Geologist and Project Coordinator in the Exploration Department in the Norwegian Petroleum Directorate (NPD), Stavanger, Norway
Since 1996 Technical advisor to the Norwegian Government on the delineation of the Norwegian continental shelf
Since 1997 Member of the Commission on the Limits of the Continental Shelf (CLCS) for three consecutive terms, Vice-Chairman of the sitting CLCS, and appointed Acting Chairman of the CLCS for its twenty-seventh session, 2011

Experience related to the management of offshore resources
In my capacity as senior geologist and project coordinator in the Norwegian Petroleum Directorate (NPD), I have had the following tasks and responsibilities:
- Geological/geophysical mapping of the geology and petroleum resources of the Norwegian continental shelf
- Petroleum resource assessment on regional and national scale
- Planning and development of resource assessment methods and tools
- Evaluation of company applications for new exploration licences
- Acted as NPD coordinator for application rounds for exploration licences on the Norwegian Continental Shelf
- Providing technical advice to Ministry of Industry and Energy
- Representing the NPD in various geoscientific programmes involving universities and industry
- Coordinating joint Norwegian-Russian geo-scientific mapping projects on the continental shelf of the Barents Sea (1996-to date)
- Coordinating NPD funded Norwegian scientific programs for geo-scientific research and data acquisition in the Arctic Ocean and the Barents Sea.
- Cruise Leader for marine geophysical data acquisition by icebreaker in the Arctic Ocean (2001, 2005)
- Giving external presentations on the geology, prospectivity and resources of the Norwegian continental shelf at various conferences on behalf of NDP
- Advisor to the Namibian State Oil Company (NAMCOR) under the Norwegian Foreign Aid Programme (1990-1994)
- Lecturing on the petroleum resources of the Arctic region at the University of Svalbard

Miscellaneous qualifications
I qualified as university lecturer in geology at Rogaland College, Norway and appointed external examiner at the Institute of Geology and Mineral Resources Engineering, Norwegian Institute of Technology, University of Trondheim, Norway. I served three terms as President of the Geological Society of Norway and have chaired the Geological Society’s triennial international conference on the geology and resources of the Arctic in Tromsø (“Arctic Days” 2004, 2007 and 2010).

Details on activities related to the Law of the Sea
I was member of the Group of Experts convened in September 1995 by the United Nations Secretariat to prepare for the establishment of the CLCS, and joined the core group within that Group of Experts to work out a draft for a list of scientific documentation required for making submission regarding the outer limits of the continental shelf.

As a member of the Commission, I have devoted much time contributing to the documents it has produced. During my three terms in the Commission I have filled the following positions:

- Chairman and editor of Chapter 8 of the Scientific and Technical Guidelines of CLCS
- Chairman of the Editorial Committee in 2002-2004 when the Commission undertook a major revision of the Rules of Procedures of the Commission
- Expert adviser to the Sub-commission set up to consider the submission made by Brazil, regarding seismic interpretation and sediment thickness analyses
- Chairman of the Sub-commission set up to consider the submissions made by Australia, New Zealand and Japan.
- Member of the Sub-commission set up to consider the submissions made by France (French Guiana, New Caledonia, French Antilles and Kerguelen Island), United Kingdom of Great Britain and Northern Ireland (Ascension Island) and the Philippines (Benham Rise)

Advice to coastal States
I have assisted States regarding the preparation of their submissions to CLCS as follows:

- Participated in the preparation of the submissions made by Sri Lanka, Seychelles, Mauritius and Madagascar
- Given final review of the submissions made by Kenya, Bangladesh, South Africa and Mozambique
I am currently advisor to the joint project for preparing the submission to be made to the CLCS by Mauritania, Senegal, Cape Verde, Gambia, Guinea and Guinea Bissau and assisting in the preparation of the submission to be made to the CLCS by Somalia.

Lectures and training courses

I was one of the two scientific editors preparing the manual and the presentation material for the DOALOS Training Course on *the delineation of the continental shelf and the preparation of a submission to the CLCS*.

I have been invited lecturer at law of the sea conferences and courses by academia, Governments and DOALOS in Monaco (IHO), Buenos Aires, Kuala Lumpur, Reykjavik, Southampton (SOC), Accra, Colombo, Helsinki (EU Parliamentarians), Beijing, London (ESCR Seminar), Tromsø (Faculty of Law).

Publications

Since 1985 I have published 22 papers in scientific journals on onshore and offshore geology, geological resources, and scientific aspects of the implementation of article 76 of the United Nations Convention on the Law of the Sea.
BROADBELT, Winifred M.

Date of birth: 9 November 1956
Place of birth: Oranjestad, Aruba (Netherlands Antilles)

Present position
Senior Legal Counsel, Ministry of Infrastructure and the Environment, The Hague, the Netherlands.

Education
1981 Bachelor’s degree in public and private international law, Jorge Tadeo Lozano University, Bogotá, Colombia
1986 Master of Laws (LL.M.) Public International Law, majoring in Law of the Sea, Dalhousie University, Halifax, Canada
1987-present Various courses including Ministry of Foreign Affairs training course for the diplomatic service; European law; Netherlands Institute for the Law of the Sea (NILOS, Utrecht University): course on Law of the Sea; Dutch administrative law; environmental law; computer science for lawyers; mediation

Professional experience
1981-1988 Policy adviser, External Relations Bureau of the Government of the Netherlands Antilles (Kingdom of the Netherlands)
1988-1989 Policy adviser, Department of Foreign Affairs of the Government of Aruba (Kingdom of the Netherlands)
1989-1990 Legal assistant at Port Management Consultants, Rotterdam
1998-2010 Senior legal counsel, Legal Affairs Department, Ministry of Transport, Public Works and Water Management, The Hague
2010-present Senior legal counsel, Legal Affairs Department, Ministry of Infrastructure and the Environment, The Hague

International meetings/conferences (selection)
Law of the Sea
1982 Member of the delegation of the Kingdom of the Netherlands to the eleventh session of the Third United Nations Conference on the Law of the Sea and the Montego Bay Conference adopting the Convention
1983 Member of the delegation of the Kingdom of the Netherlands to the Preparatory Commission for the International Seabed Authority and for the International Tribunal for the Law of the Sea
1998-2010 Member of the Dutch delegation to the meetings of the International Seabed Authority
**Law of the Sea-related subjects**

1990-present

OSPAR Commission (Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention): legal adviser to the Dutch delegation to the OSPAR Commission; head of delegation to the OSPAR Group of Jurists-Linguists

United Nations Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction: legal adviser to the Dutch delegation

International Maritime Organization: legal adviser to the Dutch delegation to meetings of:

- the Legal Committee (chair of the intersessional correspondence group on the development of the Convention on the Removal of Wrecks)
- the Marine Environment Protection Committee (e.g. the OPRC-HNS Protocol and Ballast Water Conventions)
- the Parties to the London Convention/London Protocol (chair of the working group on ocean fertilization)

**Languages**

English, Dutch, Spanish, Papiamento (fluently), French (satisfactory)
ČIČEROV, Aleksander

Date of birth: 15 May 1949
Place of birth: Ljubljana, Slovenia
Nationality: Slovenian

Present position
Minister Plenipotentiary, Ministry of Foreign Affairs, Ljubljana, Slovenia. He is responsible for land, maritime and sea, river, road, railway and space transport bilateral and multilateral negotiations.

Education
1973  LL.B University of Ljubljana, Law Faculty
1976  LL.M. University of Ljubljana, Law Faculty
1976  Hague Academy of International Law Summer Course
1982  Management of the Exclusive Economic Zone, Dalhousie University, Canada
1998  Legal seminar, Paris
2001  International Legal Seminar, Strasbourg
2005  Symposium on Delimitation of the Continental Shelf, Hamburg
2008  Consultations on climate changes, disputes and cooperation in Antarctica, Hamburg

Professional experience
1992  Apprenticeship in the Council of Europe
1993  Head of Slovenia’s delegation to the International Labour Organization Conference, Geneva
1998  Member of Slovenia’s delegation to the 32nd International Civil Aviation Organization Assembly session
1999  Head of Slovenia’s delegation to the Diplomatic Conference in Montreal
2004  Slovenia’s representative in the WG COMAR. Law of the Sea Party, Council of the European Union, Brussels
2005  Deputy Member in the International Sava River Basin Commission (continued)
2006  Member of the Space Committee of the International Law Association
2008  Charing the WG COMAR and represent the European Union during the Slovene Presidency (Law of the Sea), Brussels and United Nations
2009 Slovene’s representative in the informal consultations concerning drafting a resolution of the General Assembly on oceans and the law of the sea

2010 Participation in AH WG on BBNJ, New York

2010 Participation in the International Law Association Conference, The Hague

**International meetings/conferences** (selection)

From the beginning of his career he has participated in various international bilateral and multilateral negotiations in international organizations and between States. He constantly follows and participates in the work of the WG COMAR (EU), UNSPLOS, UNICPOLOS and BBNJ, UNIDROIT, International Sava Basin Commission.

**Law of the Sea-related subjects**

Member of the WG COMAR — Law of the Sea Party, Council of the European Union (since 1004)

UNSPLOS

UNICPOLOS

Ad Hoc BBNJ Meetings

**Publications**

3 monographs, over 200 articles published in academic journals in Slovenian, English and French on law of the sea, civil aviation, general transport law, space law and international organizations

**Languages**

Slovenian (mother tongue), English (fluent), French (fluent), Italian (fluent), Croatian (fluent), Serbian (fluent), German (understands)

**Teaching**

For many years, he has been Senior Lecturer at the Faculty of Mechanical Engineering, Ljubljana, Slovenia. He has lectured widely at various Slovene Faculties and abroad. He is also a member of numerous professional associations.
Da EMPOLI, Domenico

Domenico da Empoli is at present professor of public finance and public accounting at the University of Rome.

He was born in Reggio Calabria on 24 September 1941. He studied law and economics at the University of Rome, where he remained as assistant professor (1967-1974) after completing his economics studies at the University of Chicago (1965-1967). In 1975 Prof. da Empoli was appointed full professor of public finance at the University of Messina. He then moved to the University of Naples (1979-1983), after which (1984 to present) he became a full professor of public finance and public accounting at the University of Rome.

He is author of various publications in Italian and in English on matters of public finance, as well as the editor of the *Journal of Public Finance and Public Choice*.

He has represented Italy at both the United Nations (New York and Geneva) and at the OECD, by serving on the Competition Committee and participating in the works of the Diplomatic Conference that established the International Criminal Court.

In 1979, Prof. da Empoli joined the Italian delegation the Third United Nations Conference on the Law of the Sea. Afterwards, he took part in the proceedings of the Preparatory Commission for the International Seabed Authority and the International Tribunal for the Law of the Sea, as well as in all sessions of the Authority. He was elected in 1995 to the I.S.A. Finance Committee and re-elected in 2001 for another five years. He has been Chairman of the Committee for the last four years.

In 2003, Domenico da Empoli was elected Chair of the Council of the International Seabed Authority.

Prof. da Empoli also represents Italy in other international fora, including the ISAR Group at UNCTAD (for which he served as Vice-President-cum-Rapporteur in 2000) and the OECD (Joint Committee for Trade and Competition, of which he is currently Vice-President).
DAVIS-MATTIS, Laleta

2 Staten Close
P.O. Box 2443
Kingston 8
Jamaica

Tel: (876) 756-4988
(876) 899-1087

Laleta Davis-Mattis is an Attorney-at-Law with over fifteen years experience at the Jamaican Bar. Propelled by her personal motto, “The Sky is Not The Limit: There is Scope Beyond”

Education

Master in Marine Management: Dalhousie University, Nova Scotia, Canada
Certificate in Legal Education, Norman Manley Law School, Kingston, Jamaica
Bachelor of Law, University of the West Indies, Cave Hill, Barbados
Bachelor of Arts (Mass Communications) University of the West Indies, Kingston, Jamaica

International delegations and representation

- Member Legal and Technical Commission to the International Seabed Authority (current)
- Member of Jamaican Delegation: Convention on the International Trade in Endangered Species of Wild Flora and Fauna
- Member of Jamaican Delegation: Convention on the Protection of the Underwater Cultural Heritage
- Member of Jamaican Delegation: Biodiversity Convention
- National Expert on Access and Benefit Sharing to the Convention on Biological Diversity (up to 2006)
- Former Jamaican representative to FIDA: An Inter-American Network of Experts and Officials in Environmental Law, Enforcement and Compliance
- Member, Council for Oceans and Coastal Zone Management, Jamaica (current)
- Member: Board of Directors; Natural History Division, Institute of Jamaica (current)
- Member: Board of Directors; Devon House Development Company (current)
- Member: Board of Trustees; Jamaica National Heritage Trust (current)
• Member: Jamaica Institute of Environmental Professionals
• Director: Bethel Legal Aid Clinic, Kingston, Jamaica

Local professional memberships and affiliation
• Member: Council for Oceans and Coastal Zone Management, Jamaica (current)
• Member: Board of Directors; Natural History Division, Institute of Jamaica (current)
• Member: Board of Directors; Devon House Development Company (current)
• Member: Board of Trustees; Jamaica National Heritage Trust (current)
• Member: Jamaica Institute of Environmental Professionals
• Director: Bethel Legal Aid Clinic, Kingston, Jamaica

Corporate legal
Have been Company Secretary for much of my career and have directed the administration of Boards ensuring that they operate within the boundaries of jurisdictional limits.

Legislation and policy development
I have played a pivotal role in the development of the following legislation:
• The Natural Resources (Permits and Licenses) Regulations
• The Endangered Species (Conservation and Regulation of Trade) Act and regulations
• The Ozone Act (not yet promulgated)
• The Natural Resources (Transboundary Movement of Hazardous Waste) Regulations
• The Beach Control (Amendment) Act
• The Natural Resources (Air Quality) Regulations
• The Natural Resources (Sewage Effluent Regulations) (not yet promulgated)
• The Natural Resources (Trade Effluent) Regulations (not yet promulgated)

I have also consulted on The Marine Pollution Bill, The National Solid Waste Management Act, The Fisheries Bill, regulations to give effect to the Pesticides Control Act and instructions for the inclusion of the Rotterdam Convention in Jamaican Law.

I was instrumental in the development of the following policies: 5
- Jamaica’s Policy on Protected Areas
- Jamaica’s Biosafety Policy
- Jamaica’s Beach Policy
- Jamaica’s Oceans and Coastal Zone Policy

Publications

- International Drug Trafficking and the Law of the Sea, vol. 14
- The Oceans Yearbook
- Chicago University Press
De SOUZA, Kaiser Gonçalves

Date and place of birth: 25 July 1958 (Recife, Brazil)
Nationality: Brazilian and French
Marital status: Married, two children
Address: Geological Survey of Brazil
Division of Marine Geology
SGAN 603, Suite J, Part A, 1st floor
70830-030, Brasilia, DF, Brazil
Tel: +55 61-3323-3381 or +55 61-3323-1059
Email: Kaiser.souza@cprm.gov.br

Actual position

Since November 2005: Head, Division of Marine Geology, Geological Survey of Brazil, Ministry of Mines and Energy, Brasilia, Brazil

Education

September 1994 Certificate of Training in Methods of Prospecting and Exploration of Marine Mineral Resources — Preparatory Committee of the International Seabed Authority and the International Court of Law of the Sea (United Nations)


June 1993 Certificate of Post-Doctoral Work. Federal Institute for Geosciences and Natural Resources, Hanover, Germany

June 1991 “Ph.D. in Earth Sciences”, Option Marine Geology. Université Pierre et Marie Curie, Paris, France

September 1985 “Diploma in Thorough Research Studies in Marine Geology”. Université Pierre et Marie Curie, Paris, France

January 1984 Diploma in Geology. Universidade do Vale do Rio dos Sinos — UNISINOS, São Leopoldo, RS, Brazil

Training

Languages

<table>
<thead>
<tr>
<th>Languages</th>
<th>Speak</th>
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<th>Read</th>
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<tr>
<td>Portuguese</td>
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<tr>
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<td>Slight</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>German</td>
<td>Slight</td>
<td>Slight</td>
<td>Slight</td>
<td>Slight</td>
</tr>
</tbody>
</table>

Former professional experience


May 1995 to October 1997: Scientific and Technical Expert in Ocean Resource Affairs — Division of Marine Sciences, Ministry of Sciences and Technology in cooperation with the Interministry Commission for the Resources of the Sea (CIRM) and the Ministry of Environment, Brasilia, Brazil

November 1991 to July 1993: Visiting Research Fellow — Department of Marine Geophysics “Bundesanstalt Für Geowissenschaften und Rohstoffe” (Federal Institute for Geosciences and Natural Resources), Hannover, Germany

September 1986 to June 1991: Researcher (doctorate candidate) — Group d’Étude de la Marge Continental, Laboratoire de Géodynamique Sous-marine, Observatoire Oceanographique de Villefranche-sur-mer, France

Scientific production (2006 to 2011)

- Participation in 78 workshops, meetings, conferences, seminars, including production of policy, plans, programmes and projects focused on activities related to exploration and exploitation of marine mineral resources
- Total of 55 publications and reports related to marine mineral resources and related subjects
ESCOBAR, Elva G.

Research and professional experience

Since 2006 Full time professor, Universidad Nacional Autónoma de México, Instituto de Ciencias del Mar y Limnología
1999-2008 Head of Department, Ocean and Coastal System ICML UNAM-CU

Areas of research

Structure and function of benthic communities, marine conservation

Honours and wards

2010 President Mexican Astrobiological Society (SOMA)
2006 Member, Legal and Technical Commission ISBA, Investigador Sistema Nacional Nivel 3
2003 Distinction “Juana Ramírez de Asbaje” UNAM
2002 Scientific expert in marine science representing Mexico SRE
2002-2004 Committee Member, Ciencias Exactas, Naturales y Salud, del Foro Consultivo Científico y Technológico
1997 Fellow Mexican Academy of Sciences, 1997 Cátedra Extraordinaria Iztacata, UNAM
1994 Research Affiliate TAMU

Species dedicated

2011 *Pycnoderma escobarae* sp. *n.* Salazar-Vallejo, S. I. 2011 Zootaxa 2819; 1-50, p.35
Selected academic products


**Thesis directed**

Doctorate: 3
Masters in Science: 18
Bachelor in Science: 27

**Recent research projects**

Factores que definen la variabilidad de la diversidad biológica y biomasa báctica en el mar profundo del Golfo de México. Convocatoria del Programa de Apoyo a Proyectos de Investigación e Innovación Tecnológica (PAPIIT) IN204307-3
BIG 2008 Biodiversité et Interaction à Guaymas collaboration with Anne Godfroy
IFREMER, 120,000 Euro Ship time, Nautile submersible BIG cruise 2010, Mexican Co-PI Anne Godfroy

Fresh estimates of biomass by trophic and/or species levels in all realms Cross-Project Synthesis Sloan Foundation. Co-Pls G. T. Rowe

Genetic diversity of representative polychaete, sipunculan and crustacean species as indicators of species ranges and dispersal in the Sigsbee Abyssal Plain. Co-Pls A. Schulze Programa de Colaboración en Investigación entre investigadores de la Universidad de Texas A&M e Instituciones Mexicanas Texas A&M y ONACYT

Análisis de diversidad beta, gamma y biomasa bética en el mar profundo del Golfo de México, el Mar Mediterráneo y Mar Cantábrico Co-Pls Joan E. Cartes ICM-CSIC Proyectos de Investigación Conjunta del ONACYT Colaboración bilateral México-España; área de conocimiento de Biología y Química

Cruise experience

Total 46 oceanographic cruises in collaboration with national research groups (29) and international (17) with European (4) and North American (13) scientists, in the Gulf of Mexico and the Gulf of California. Pl of 18

Coordination and organization of meetings

CBD Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 13) UNESCO side event follow-up workshop on the biogeography of deep and open ocean areas

Taller Biodiversidad en la III Reunión de Investigación Ecológica a Largo Plazo de la RED MEX_LTER; Autlán, Jalisco

Mexican-German-US Workshop on marine science in the Southern Gulf of Mexico: Results from RV SONNE cruise SO174 and Planning of future cooperation R/V METEOR cruise M67 in 2006 Universidad Nacional Autónoma de México (UNAM) México DF


Committee member of journals and panels


Member of scientific societies

HOWORTH, Russell

Dr. Howorth returned to SOPC as Director in February 2010. He is a professional earth scientist. He retired as Deputy Director of SOPAC on 30 September 2005, after serving the region with SOPAC for over 26 years. He has worked for, and/or carried out fieldwork in all Pacific small island developing States. He has published over 60 research papers, as well as being on country teams as adviser at many international fora such as UN-CSD for seven years, 1998-2005, the World Summit on Sustainable Development in 2002, and in 2004-2005 the preparatory meetings for both the Mauritius International Meeting on SIDS and the Second World Conference on Disasters in Kobe. During 2005 he also assisted the ACP/EU Secretariat and member States draft the new ACP/EU Natural Disaster Fund and participated on the Task Force drafting the Pacific Plan. He has worked with all development partners supporting the region.

Dr. Howorth is also the owner/operator of Matadrevula Advisory Services, a small company he established and registered in the Fiji Islands in 2006, in order to provide visibility to his being requested to provide advice with a broad environmental and sustainable development emphasis to countries, organisations and individuals in the region.

From 2006 until February 2010 he has provided services to the New York based UNDESA Division for Sustainable Development, and UNDESA Water Branch and SIDS Unit, the UNDP Pacific Sub-Regional Centre in Suva, the European Union Suva Delegation, and the South Pacific Tourism Organisation, as well as been a part time Senior Adviser to the Pacific Islands Applied Geoscience Commission (SOPAC) Directorate. In mid 2007 he completed a substantial project proposal for the Christian World Service to support the churches in the Pacific islands develop and strengthen their role in disaster risk reduction. During the first half of 2008 he has assisted the newly established Regional Office for IUCN Oceania in preparing its strategic and operational plans and developing particular project concepts, including the Pacific Ocean 2020 Challenge a major project endorsed in October 2008 by the World Conservation Council. Country specific work over the past 3 years has included visits to FSM, Marshall Islands, Palau, Papua New Guinea, Solomon Islands and Tuvalu to develop country implementation plans for disaster risk management related projects supported from the EDF9 National Programmes. In September 2008 he was in the Cook Islands drafting of a Business Plan for Emergency Management Cook Islands, as part of the Prime Minister’s Office.

During 2009 he has engaged in the following consultancies:

- Senior technical advisor to the EU Regional Authorising Office based at the Pacific Islands Forum Secretariat to assist in managing the selection of projects to be funded under the 10th EDF Regional Indicative Programme worth €95 million
- A member of a 3-person team to analyse and validate the regional institutional arrangements proposed for SOPAC, SPC and SPREP
- Prepared a regional overview of the Millennium Development Goals (MDGs) for the Asian Development Bank in conjunction with the UNDP Pacific Centre
Currently he is about to commence a consultancy for the ESCAP Pacific Operations Centre to prepare the reporting for the 5-year review of the Mauritius Strategy for further implementation of the Barbados Programme of Action for SIDS.

He has a keen interest in capacity-building for Pacific island nations and established the Certificate in Earth Science and Marine Geology for in-service training of technicians working in the earth sciences.

His broader environmental and sustainable development interests are demonstrated in many ways, for example: (i) as a team leader of the work on developing the first globally applicable environmental vulnerability index which Pacific SIDS presented at the Mauritius Meeting, and (ii) as a technical adviser to the United Nations on National Sustainable Development Strategies and the Millennium Development Goals in Pacific SIDS.
HYEONG, Kiseong

Deep-sea and Marine Georesources Research Dept.
Korea Ocean Research & Development Institute
Ansan P.O. Box 29
Seoul, 425-600
Korea

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Fax: 82-31-418-8772
E-mail: kshyeong@kordi.re.kr

Research and professional experiences

Since 2009 Principal Research Scientist
Korea Ocean Research and Development Institute

2009-2010 Visiting Scholar
National Oceanography Centre, University of Southampton, UK

2002-2008 Senior and Principal Research Scientist
Korea Ocean Research and Development Institute

2000-2002 Post-doc Research Associate
Department of Geosciences, University of Houston, Houston, TX

1991-1993 Geologist, Hyundai Resources Development Corporation (Korean-based oil company), Seoul, Korea

Education

2000 Ph.D. in Geology, University of Houston, Houston, TX
1990 M.Sc. in Geology, Seoul National University, Seoul, Korea
1987 B.Sc. in Geology, Seoul National University, Seoul, Korea

Areas of research interests

Geochemistry of deep seabed mineral resources, Sinking particle fluxes in interior of ocean, Paleoceanography, Paleoclimatology

Honours and awards

A Ministerial Award from the Ministry of Science and Technology, Republic of Korea 2008
Award for distinguished scientific publication in KORDI, 2007
Award for distinguished scientific publication in KORDI, 2006

Current research projects involved

- Development of Deep Seabed Mineral Resources (polymetallic nodules)
  Ministry of Land, Transport and Maritime Affairs, Republic of Korea
- Korea Deep-sea Environmental Study in the North-eastern Pacific (CCFZ), Ministry of Land, Transport and Maritime Affairs, Republic of Korea


- Assessment of the Impact of Climate Change on Marine Ecosystem in South Sea of Korea, Ministry of Land, Transport and Maritime Affairs, Republic of Korea

**Cruise experience**

More than 20 scientific cruises for environment studies and exploration for deep seabed mineral resources (polymetallic nodules, Co-rich manganese crust, and seafloor massive sulfide deposits) and environmental studies in collaboration with SOEST, University of Hawaii (2) and with Integrated Ocean Drilling Program (1)

**Coordination and organization of meetings**

- Underwater Mining Institute 2003: New Horizons for Marine Mining — Progress through International Cooperation, 2003, Jeju, Korea
- The 4th to 6th Meetings of China-Korea Cooperation on Deep-sea Mineral Resources Development, from 2004 to 2009 every two years

**Member of scientific societies**

Underwater Mining Institute
International Marine Minerals Society
Geological Society of Korea
The Korean Society of Oceanography
American Geophysical Union
Geological Society of America
The Geochemical Society

**Work experience with the International Seabed Authority**


- A member of working group for “A Geological Modeling of Polymetallic Nodule Deposits in the Clarion-Clipperton Fracture Zone” carried out by the International Seabed Authority from 2003 to 2010

- A participant at the meeting of representatives of contractors on the development of a geological model of polymetallic nodule resources of the Clarion-Clipperton Zone (CCZ), November 2003
List of papers and book contributions

Papers in international peer reviewed journals


Hyeong, K., Park, S.-H., Yoo, C. M., Kim, K.-H., 2005, Mineralogical and geochemical compositions of the eolian dust from the north-east equatorial Pacific and their implications on paleolocation of the Intertropical Convergence Zone, *Paleoceanography*, 20, 1-11, 2005


Lee, Y. L., Hyeong, K., and Yoo, C. M., Cyclic sedimentation across a Middle Ordovician carbonate ramp (Duwibong Formation), Korea. *FACIES*, 44, 61-74, 2001


**Papers in domestic peer reviewed journals (in Korean)**


Book (contributions)


International Seabed Authority, 2010, A Geological Model of Polymetallic Nodule Deposits in the Clarion-Clipperton Fracture Zone, ISA Technical Study, No. 6, International Seabed Authority, Kingston, Jamaica, 75 pp


JARMACHE, Elie

Position
Special Adviser on the Law of the Sea, Secrétariat général de la mer

Main professional experience
- Special Adviser on the Law of the Sea, Secrétariat général de la mer (law of the sea, biodiversity, continental shelf, scientific research, Part XI, EU marine policy)
- Head of French delegation to the Commission on the Limits of the Continental Shelf
- Chairman of the Advisory Body of Experts on the Law of the Sea (ABE-LOS) of the Intergovernmental Oceanographic Commission (IOC/UNESCO) since 2000
- French expert with the European Commission, Maritime Policy Unit, Directorate-General for Maritime Affairs and Fisheries (MARE)
- Former Director of International and European Relations of the French Institute for the Exploration of the Sea (FREMER) from 1998 to 2003
- Senior lecturer in international law at the Institut d’Etudes Politiques (IEP) of Paris

Main publications
- “L’exploration et l'exploitation des ressources de la mer à la lumière des dispositions de la Convention de Montego Bay”, in Les implications juridiques de la ratification de la Convention des Nations Unies sur le droit de la mer, Université Mohamed V, Publications IURS, 2010
- “Les organisations internationales et la mer : gouvernance improbable ou impossible?”, the journal Administration, June 2008,
- “La haute mer et la biodiversité”, journal of the Institut du développement durable et des relations internationales (IDDR1), July 2008
- “A propos de la Commission des limites du plateau continental”, Annuaire du droit de la mer 2006, Tome XI, Institut du droit économique de la mer (INDEMÉR), Monaco
- “La recherche, acteur de la politique maritime européenne?”, Proceedings of the Brest colloquium, Centre for the Law and Economics of the Sea of the University of Western Brittany (UBO/CEDEM), Pédone, 2007
- “Sur quelques difficultés de la recherche scientifique marine”, Mélanges offerts à Lauren Lucchini et Jean-Pierre Quéneudec, Pédone, 2003
• “Les dispositions techniques et financières dans l'Accord relatif à l'application de la Partie XI de la Convention des Nations Unies sur le droit de la mer” (with Jean-Pierre Lenoble), in *Espaces et Ressources Maritimes*, Pédone, 1995

• “La Résolution II de l'Acte final de la 3ème Conférence des Nations Unies sur le droit de la mer”, in *Espaces et Ressources Maritimes*, Pédone, 1988
KALNGUI, Emmanuel

Born on 17 January 1956 at Douala, Cameroon
Married. Father of 5 children
Geological Engineer, Master of Sciences in Petroleum Geology, Moscow Institute of Petroleum Engineering, IM GoubkinRussy 1982
Member of Legal and Technical Commission of the International Seabed Authority
Member of the commission on the limits of the Continental shelf related to the Convention on the Law of the Sea of the United Nations since 2007
Languages: French, English, Russian
KHRAMOV, Denis Gennadyevich

Birth date: 9/7/1975
Birthplace: Samara
Education Higher legal education. In 1997 graduated from the Ural State Law Academy
Scientific degrees: Ph.D. Law
Knowledge of foreign languages: English
State awards: none
Visits abroad: numerous

Professional career

1992-1997 Student of the Ural State Law Academy, Yekaterinburg
1997-199 Lawyer, the Centre for the Legal Problems of the Northern Territories, Moscow
1999-2001 Chief Expert, Deputy Head of the Division, Ministry of Fuel and Energy of the Russian Federation, Moscow
2001-2003 Deputy Head of the Division, Head of the Division, Ministry of Economic Development and Trade of the Russian Federation, Moscow
2003-2007 Deputy Head of the Department, JSC Zarubezhneft, Moscow
2007-2008 Senior Associate, Dewey&LeBoeuf, Moscow
Since 08/2008 Director of the Department of the State Policy and Regulation in the Field of Geology and Subsoil Use, Ministry of Natural Resources and Ecology of the Russian Federation, Moscow
Since 06/2009 Member of the Legal and Technical Commission of the International Seabed Authority
LOPERA, Eusebio Caballero

Date of birth: 19 January 1948  
Marital status: married  
Nationality: Spanish

**Academic qualifications**

- Diploma in Geology (Universidad Complutense de Madrid)
- Ph.D. in hand, due to be completed. Subject: “Mineralization in the Oriental Cordillera — Dominican Republic”, Salamanca University

**Other studies**

- Master in Business Administration  
- Diploma in Environmental Auditing  
- Diploma in Waste Management  
- Various courses applied to mineral resources investigation in: geophysics, geochemistry, satellite imagery interpretation, carbonates sedimentation and gemmology

**Professional experience**

1973-1982  
Compañía Española de Minas de Tharsis  
Involved in all kinds of work related to the development and exploration of two polymetallic massive sulphide deposits (San Guillermo-Filón Notre and La Zarza)  
From 1977-1982 Head of Exploration Department for this company

1982-1986  
Exxon Minerals Spain  
From 1982-1985 Senior Minerals Geologist in charge of the exploration of VHMS, SMS and epithermal deposits types in SW Spain  
From 1985-1986 Advisor for the exploration of the same types of deposits in several countries in Europe

1987-2010  
Instituto Geológico y Minero de España (IGME — Spanish Geological Survey). Working in the Minerals and Environmental Management team, in charge of projects related to mineral resources, metallogenic mapping and thematic mapping

**International experience**

Exploration and field trips in Portugal, France, Sweden, Finland, Australia-Tasmania and the Dominican Republic

Special mentions for the work undertaken in the Dominican Republic (Island Arc Domain) as Director of three projects, named C, L and 1b, during the years 1997-2000, 2002-2004 and 2006-2010

The projects were focussed on providing the necessary general infrastructure on thematic mapping for the country to develop and boost activities in the mining
sector. The projects were financed by the European Union with the SYSMIN I and II Program.

The final works produced included:

- 98 Geological Maps at 1/50.000 scale
- 31 Minerals Resources Maps at 1/100.000 scale
- 31 Geomorphological and Morphodynamic Maps at 1/100.000 scale
- 3 Geotheonics Maps at 1/100.000 scale
- 4 Soil and Mineralometric studies covering the surface of the Projects
- 1 Study on the Artesanal mining sector in the Dominican Republic
- 1 Study of Seismic Microzonification in Santiago de los Caballeros city

Other projects related to HVMS

- Volcanologic and Paleogeographic reconstruction of the Pyrite Belt (SW of Spain)
- Ossa Morena Variscan magmatism and related mineralizations
- Paleoenvironmental modelling and metals hydrothermal geochemistry of Massive Sulphide deposits of the Pyrite Belt
- Gravity investigation in the SW of Spain (Pyrite Belt)
- Innovative Analytical and Geophysical Technologies for detecting blind polymetallic orebodies in Southern Spain

Other experience

- Expert in mining legislation
- Member of the Spanish committee of “Technical Working Group for Management of Tailings and Waste-Rock in Mining Activities”
- Member of the National Experts of Mining Waste Committee
- Member of the Spanish Committee at the International Seabed Authority (Kingston, Jamaica)
- Member of the Legal and Technical Commission of ISBA for the 2007-2011 period

Languages

English: Fluent spoken, read and written
French: Fluent spoken and read, average written
Spanish: Mother language

Papers


Lopera, E., Madel, J., Santos, A. “Geologia del flanco Norte del anticlinal de Puebla de Guzmán” (1976). IGME Colección Informes


**Address**

Instituto Geológico y Minero de España
Plaza de España Torre Norte 2ª Planta
41013 Sevilla, España
Telephone: 34 954 23 66 11
34 954 23 66 77
Fax: 34 954 23 66 37
E-mail: e.lopera@igme.es
MADUREIRA, Pedro Miguel Ferreira Cardoso

Date of birth: 28 June 1970

Languages
- Portuguese: native speaker
- English: fluent, spoken and written
- French: good, spoken and written
- Spanish: easy understanding

Education
- 1993: Degree in Geology — Faculdade de Ciências da Universidade de Lisboa (16, Very Good)
- 1997: Master in Geodynamics — Faculdade de Ciências da Universidade de Lisboa (Very Good)
- 2006: Ph.D. in Geology — Universidade de Évora (Dstitución e Louvor por Unanimidade)

Current professional activity
2006 Professor of Marine Geology and Geologic Resources at the Department of Geosciences of the University of Évora
2007-2010 High-level scientific advisor at the Task Group for the Extension of the Continental Shelf
- High-level scientific advisor at the Task Group for Maritime Affairs

Area of scientific activity
Petrology, Resources and Geochemistry

Domain of specialization
Igneous Petrology and geochemistry — Characterization of mantle sources and mantle heterogeneity; magma evolution processes; noble gas geochemistry

Present research interests
- Islands formation and evolution
- Geological resources in the ocean: their formation and exploration
- Law of the sea and the programme on the Extension of the Continental Shelf
- Geomicrobiology related to volcanic rocks
- Lithosphere vs. asthenosphere interaction

Training and short courses
- Since 2003, several months were dedicated to analyse noble gases from olivine crystals at the Laboratoire de Géochimie et Cosmochimie housed at the Institut de Physique du Globe de Paris under the supervision of Professor Manuel Moreira

- Argus Remote Systems Course: ROV operations. 16-21 August 2009, Bergen, Norway

Consulting activities related to the sea

- Participation since September 2007 in the Task Group for the Extension of the Continental Shelf of Portugal (TGECS-PT). From 2008 to now, participation as scientific adviser in the area of geology (petrology and geochemistry)

- One of coordinators, within this area of research, of the final report on the limits of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, submitted to the Commission on the Limits of the Continental Shelf on 11 May 2009

- Active participant in the oceanographic campaigns promoted by the TGECS-PT to collect geophysical, geological and hydrographic data

  
  - 2008 — EMEPC/Açores/G3/Luso/2008 — Azores Plateau; Great Meteor seamounts (as chief scientist)
  
  - 2009 — EMEPC/Açores/G3/Luso/2009 — Gorringe Bank; Azores Plateau; Mid-Atlantic Ridge; Great Meteor seamounts (as chief scientist)
  
  - 2010 — EMEPC/MarBis/Selvagens2000 — Selvagens Islands; Azores Plateau; Altair and Milne seamounts (as chief scientist)

Research projects

- Participation in the STAMINA project (PDCTM1999MAR15255) — Study of Tectonic and Magmatic Interactions in Azores (from 2001 to 2005)

- Participation in the STRIPAREA project (POCI/CTE-GIN/59653/2004) — Study of the Azores Triple Point Area

- PI in the EVOLV project (PTDC/CTE-GIN/71838/2006) — Evolution of Linear Volcanic ridges in Central Azores: interaction between magmatic and tectonic processes

- Participation in the INOGAZ project (PTDC/CTE-GIN/68851/2006) — Isotopes, Noble gases and Water-Rock interaction of the central group of the Azores Islands: a contribution to the geothermal potential evaluation and the seismo-volcanic hazard assessment

- Participation in the OREAZ project (PTDC/CTE-GIX/102061/2008) — Origin and Evolution of the Azores plateau

- Participation in the MEGAhazards project (PTDC/CTE/GIX/108149/2008) — Mass-wasting episodes in the geological evolution of the Azores islands: timing, recurrence, mechanisms, and consequences

- Participation in the TerRific project (PTDC/MAR/111306/2009) — Unraveling melting processes and volcanism on the Terceira Rift, Azores: a melt inclusion and vesicle study
Memberships

Geochemical Society of America

Publications


Madureira, P., Mata, J., Mattielli, N., Queiroz, G., Silva, P. (accepted). Mantle source heterogeneity, magma generation and magmatic evolution at Terceira Island (Azores archipelago): Constraints from elemental and isotopic (Sr, Nd, Hf, and Pb) data, Lithos


Papers in national periodicals with referees


**Book chapters**


**Conference proceedings**


Madureira, P., Moreira, M., Mata, J. (2009), The noble gas signature (He and Ne) of Terceira lavas and the plume model for the Azores hotspot. Penrose Conference on Plumes and Their Role in Whole Mantle Convection and Recycling, 11-15 May, Pico, Açores


OKAMOTO, Nobuyuki

Date of birth: 5 December 1962
Nationality: Japanese
Home address: 2-14-34-619, Oyaba, Minami-ku, Saitama-city, 336-0016, Japan
Employment: Japan Oil, Gas and Metals National Corporation (JOGMEC)
Position: Director, Deep-sea Mineral Exploration and Technology Division,
Metals Mining Technology Department
Address: 1310 Omiya-cho, Saiwal-ku, Kawasaki-city, Kanagawa, 212-8554 Japan
Telephone: +81-44-520-8688
Fax: +81-44-520-8730
E-mail: okamoto-nobuyuki@jogmec.go.jp

Education
1985 Bachelor of Science in Geology
Shimane University, Shimane, Japan

Professional experience
Mineral Exploration Technological Development Division,
Technical Development Department
5/1990-5/1992 Natural Resources Development Study Division, Industrial and
Mining Development Study Department, Japan International
Cooperation Agency (JICA)
Development Co. Ltd. (DORD)
program, Agency of Industrial Science and Technology, Ministry
of International Trade and Industry (MITI)
Development Division, Technical Development Department,
MMAJ
Applied Geoscience Commission (SOPAC) in Fiji as JICA Expert
9/2003-2/2004 Deputy Director, Mineral Exploration Technological
Development Division, Technical Development Department,
MMAJ
2/2004 Established Japan Oil, Gas and Metals National Corporation
(JOGMEC)
Division, Metals Technology Department, JOGMEC
7/2006-6/2009  Project Director, Deep-sea Mineral Exploration and Technology Division, Metals Technology Department, JOGMEC
7/2009-present  Director, Deep-sea Mineral Exploration and Technology Division, Metals Technology Department, JOGMEC (In charge of Exploration and R&D project for Seafloor Massive Sulfides and Cobalt-rich Ferro-manganese Crusts)
11/2009-present  Lecturer (Yokohama National University and Waseda University)
4/2009-present  Member of Legal and Technical Commission, International Seabed Authority

Memberships/associations
The Society of Resource Geology (Japan), Councillor
The Mining and Materials Processing Institute of Japan
International Marine Minerals Society (IMMS)

International meetings/conferences attended (selection)
1995  Speaker and participant, the First (1995) ISOPE Ocean Mining Symposium, Tsukuba, Japan
2001  Staff, 29th Annual Session, SOPAC Governing Council, Majuro, Marshall Islands
2002  Speaker and Staff, 30th Annual Session, SOPAC Governing Council, Suva, Fiji
2002  Speaker and participant, 33rd Underwater Mining Institute Annual Meeting (UMI2002), Wellington, New Zealand
2003  SOPAC Delegation, International Seabed Authority (ISA) Scientists Meeting for Geological Model, Kingston, Jamaica
2004  Head of Japanese Delegation, 33rd Annual Session SOPAC Governing Council, Suva, Fiji
2005  Head of Japanese Delegation and Speaker, 34th Annual Session SOPAC Governing Council, Apla, Samoa
2006  Speaker and participant, 36th Underwater Mining Institute Annual Meeting (UMI2006), Kiel, Germany
2007  Technical Program Co-Chairs and Hosts, 37th Underwater Mining Institute Annual Meeting (UMI2007), Tokyo, Japan
2008  Participant, 38th Underwater Mining Institute Annual Meeting (UMI2008), Mississippi, USA
2009  Participant, 9th (2009) ISOPE Ocean Mining Symposium, Chennai, India
2010  Participant, 2010 Offshore Technology Conference, Houston, USA
2010  Participant, 39th Underwater Mining Institute Annual Meeting (UMI2009), Gelenzhik, Russia
2010  Speaker and participant, Japan-New Zealand Workshop on Seafloor Resources, Tokyo, Japan
Main publications


OYARZÁBAL, Mario J. A.

Nationality Argentine
Place and date of birth 4 February 1969, Azul, Argentina
Contact information Argentine Foreign Ministry
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Subject areas
International Law, Conflict of Laws

Education
Master of Laws (LL.M.), International Law, Harvard Law School (Cambridge, United States), 2004-2005
Master Studies in Diplomacy, Argentine Foreign Service Institute, 1996-1997
Post-Graduate Diploma in Law, University of La Plata Law School, 1992
Juris Doctor, University of La Plata Law School, 1991
Bachelor of Arts in Law, University of La Plata Law School, 1990

Diplomatic and legislative positions
Office of the Legal Adviser, Argentine Ministry of Foreign Affairs, International Trade and Worship, since 2007
Counsellor and Consul General, Argentine Foreign Service, since 2008
First Secretary and Consul, Argentine Foreign Service, 2003-2007
Second Secretary and Consul, Argentine Foreign Service, 2000-2002
Legislative Liaison Officer, Argentine Ministry of Foreign Affairs, International Trade and Worship, 1997-1998
Third Secretary and Consul, Argentine Foreign Service, 1997-1999
Adviser for International Affairs, Office of the Vice-President, Senate of the Argentine Province of Buenos Aires, 1992-1993

Appointments and Commission for the Argentine Government
Legal Adviser — Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the International Seabed Area (Request for Advisory Opinion submitted to the Seabed Disputes Chamber), International Tribunal for the Law of the Sea, Hamburg, Germany, 2010
International Seabed Authority, Delegate, Fourteenth and Fifteenth Sessions of the Assembly and the Council (Kingston, Jamaica, 2008-2009). Acting Head of Delegation, Sixteenth Session of the Assembly and the Council (Kingston, 2010)

Legal Adviser and Delegate — Pulp Mills on the River Uruguay (Argentina vs. Uruguay), International Court of Justice, The Hague, The Netherlands, 2007-2010


Seventh Inter-American Conference of Private International Law (CIDIP VII), Delegate since 2007.

**Teaching positions**

Professor of International Law, Masters Program in International Relations, University of El Salvador, 2009-2010

Professor of International Law, Graduate Program on Law of Advanced Technologies, Argentine Catholic University, 2008-2010

Adjunct Professor of International Law, University of Buenos Aires Law School, 2009

Adjunct Professor of Private International Law, University of La Plata Law School, since 1995

Visiting Professor of Private International Law, Argentine Foreign Service Institute, 2009-2010

Assistant Professor of International Law, University of Buenos Aires Law School, 2009

Adjunct Professor of Private International Law, UADE Argentine Business University Law School, 1997-1998

Assistant Professor of International Law, University of La Plata Law School, 1994-1997
Assistant Professor of Private International Law, University of Buenos Aires Law School, 1994-1995

Assistant Professor of Private International Law, Catholic University of La Plata Law School, 1994-1995

Books (in Spanish)

International Law — Contemporary Problems [Problemas actuales del derecho internacional], Ábaco, Buenos Aires, forthcoming in 2011


Shorter works in collection

“Living Wills and Euthanasia in the Conflict of Laws” [Testamento vital y eutanasia en el conflicto de leyes], in Stefania Negri (ed.), Between Life and Death: Respect for Human Dignity and Individual Wills in End-of-Life Care — Perspectives of Domestic, Comparative and International Law on the Italian Law on the Living Will, Salerno, Italy, forthcoming in 2011 (in English)


“Domicile in Private International Law”, in Diego P. Fernández Arroyo, Gonzalo Para Aranguren, Didier Opertti Badan, José Antonio Moreno Rodríguez y Jürgen


**Articles in Argentine legal periodicals (in Spanish)**


“Recognition in Argentina of the Paternity of Children born Abroad by Artificial Insemination to a Same-Sex Couple” [El reconocimiento en la Argentina de la paternidad de hijos concebidos en el extranjero por inseminación artificial de una pareja de homosexuales hombres], in *La Ley — Actualidad*, 21/2/2006


“Hermaphroditism and Transexualism in Argentine Private International Law” [Algunos problemas derivados del hermafroditismo y de la transexualidad en el derecho internacional privado argentino], in Revista de Derecho de Familia, No. 30, p. 97 (2005)

“Beginning and End of Legal Personality of Natural Persons in Private International Law” [El inicio y el fin de la existencia de las personas humanas en el derecho internacional privado], in El Derecho, 210-146 (2005)


“Dual Nationality and Citizenship. Article 8 of Law No. 346 and the Exercise and Enjoyment of Political Rights by Argentine Natioins Naturalized in a Foreign Country” [Doble nacionalidad y ciudadanía. El artículo 8° de la ley 346 y la suspensión de los derechos políticos de los naturalizados en país extranjero], in La Ley, 2003-F, 1158


“Dual Nationality in International Law and in Argentine Municipal Law” [La doble nacionalidad en el derecho internacional y en la legislación argentina], in Revista de Derecho Internacional y del Merkosur, No. 1, p. 7 (2003).


“Competent Court and Electronic Contracts in Private International Law [Juez competente y contratos electrónicos en el derecho internacional privado], in

“Presumption of Death. International Aspects [Aspectos internacionales de la presunción de fallecimiento], in La Ley, 2001-F, 1417

Articles in foreign legal periodicals

“The Legal Regime of Antarctica, in Annuaire du Comité Maritime International, 2010 (forthcoming in 2011) (Belgium) (in English)


“The Legalization Agreement between Argentina and Brazil) [O Acordo de simplificação de legalizações com a Argentina], in Revista de Direito Constitucional e Internacional (Editora Revista dos Tribunais), No. 51, p. 343 (2005) (Brazil) (in Portuguese)


**Articles in the press**

“Dual Surnames in Proposed Bill” [Doble apellido], in *La Nación*, May 12, 2007 (Argentina) (in Spanish)


**Reviews**


**Law review experience**

Associate Editor, Submissions Team, *Harvard International Law Journal*, Winter and Summer issues, 2005

Member of the Board of Editors, *DeCITA Derecho del Comercio Internacional Temas y Actualidades*, since 2003
**Professional affiliations**

Member, Argentine Society of International Law

Member, International Law Association — Argentine Branch

Member, Argentine Society of Comparative Law

Member, Inter-American Society of Private International Law (Paraguay). Deputy Secretary General, 2007-10

Member, International Academy of Comparative Law (France)

Member, Harvard International Law Society, 2004-05 (United States)

**Languages**

Spanish (native); English, French and Portuguese (fluent); Italian and German (read)
PRZYPYBYCIN, Andrzej

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Date of birth 9 April 1969 in Inowroclaw, Poland
Martial status married
Nationality Polish
Languages spoken Polish, English, Russian, German

Academic education

1994 M.Sc. degree in Stratigraphic-Prospecting Geology, Warsaw University
2008 M.Sc. Eng. degree in Environmental Protection in Economy, AGH University of Science and Technology, Cracow
Since 2006 Opened Ph.D. program, Faculty of Geology, Warsaw University (Title: Late-Holocene Climate Changes Recorded in a Marine and Lake Cores from Maritime Antarctic (King George Island, South Shetlands))

Professional experience

1994-2000 Assistant — Faculty of Geology, Warsaw University
2000-2002 Partner — Magma (general partnership) — Warsaw
2002-2003 Wintering Technical Coordinator — XXVII Polish Antarctic Expedition (Arcotowski — Polish Antarctic Station, King George Island, South Shetlands, Maritime Antarctic)
2004-2007 Senior Specialist — Department of Geology and Geological Concessions, Polish Ministry of the Environment
Since 2007 Deputy Director — Department of Geology and Geological Concessions, Polish Ministry of the Environment
2006-2011 Member of the Legal and Technical Commission ISBA (2009 — Dep. Chairman)

Professional experience in geology, geological and mining legal regulations, geological administration, verification of the application and granting licenses for onshore and offshore exploration and exploitation of the minerals from deposits, verification of the environmental impact assessments
Research experience

1994-2000  Sedimentology — Faculty of Geology, Warsaw University
2002-2003  Marine Geology, Sedimentology — XXVII Polish Antarctic Expedition
2004-2006  Polish National Polar Program
2005-2006  Member of project ClicOPEN Eol 193, for IPY Activities ID 34 (IPY — International Polar Year 2007/2008) — Impact of climate induced glacial melting on marine coastal communities of Western Antarctic Peninsula

Scientific publications

REICHERT, Christian J.

Date of birth 12 April 1951
Place of birth Berlin
Nationality German
Marital status Married
Employer Federal Institute for Geosciences and Natural Resources (BGR)
Stilleweg, 2, 30655 Hannover, Germany
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Email Christian.reichert@bgr.de
Web http://www.bgr.bund.de

Academic and professional record

Since 2009 Federal Institute for Geosciences and Natural Resources (BGR),
Head of sub-department “Marine Resources Exploration”. The
unit comprises some 45 scientists, engineers and technicians,
dedicated to forefront exploration of continental margins and the
deep sea with geophysical and geological methods

1993-2008 Federal Institute for Geosciences and Natural Resources (BGR),
Head of Sub-division “Geophysical Research”. The unit
comprised some 70 scientists, engineers and technicians,
dedicated to Marine Geophysics, earthquake and volcano
monitoring, monitoring within the scope of the Comprehensive
Test-Ban Treaty (CTBTO), helicopter and ground geophysics as
well as polar research

1992-1993 Scientific Employee with the Geological Survey of Lower Saxony
(NLfB), Acquisition, processing and interpretation of shallow-
seismic data

1992 Dr. rer. nat. degree (Ph.D.), Freie Universität Berlin

1983-1991 Manager Assistant for the German Continental Seismic Reflection
Programme (DEKORP) with the Geological Survey of Lower
Saxony (NLfB), Hanover

1977-1983 Scientific Employee with the Geological Survey of Lower Saxony
(NLfB), Hannover

1977 - Diploma Degree in Geophysics, Freie Universität Berlin

1970-1977 Studies of Geophysics, Geology and Geodesy, Freie Universität
Berlin and Technical University Berlin

Research interests and current activities

Topics: seismic reflection, seismic refraction, gravity, magnetics, Law of the Sea
Structure and processes at active and passive continental margins
Initiation and coordination of international geoscientific projects
German-French collaboration in marine-geoscientific studies on the Mozambique
continental margin, along with additional partners from Mozambique and Portugal
(MoBaMaSis)
German-French-Moroccan-Canadian-Danish collaboration on the Northwest African continental margin and its Canadian conjugate part

Marine Research programme on South Atlantic Margins within the DFG priority research programme SPP 1375 (SAMPLE)

Implementation of the United Nations Convention on the Law of the Sea (support for developing countries for delineation and sustainable usage of their maritime zones)

Memberships

Since 2008, Member of the Legal and Technical Commission (LTC) at the International Seabed Authority, Kingston, Jamaica

Since 2008, Member of the Steering Committee of the DFG priority research programme SPP 1375 (SAMPLE)

Since 2007, Chairman of the Advisory Board of the German Hydrographic Consultancy Pool, Economic Association (GHyCoP)

Member of several professional organisations such as Society of Exploration Geophysicists (SEG), American Geophysical Union (AGU), Deutsche Geophysikalische Gesellschaft (DGG), Geologische Vereinigung, Deutsche Gesellschaft für Polarforschung

Selected publications


RODRIGO, Cristian R.

Coordinator of Scientific Education and Divulgation, Chilean Antarctic Institute (INACH)

Associate Professor, Faculty of Science, Universidad de Magallanes, Chile

Member of the National Oceanographic Committee of Chile (CONA)

Member of the Society of Exploration Geophysicists, USA

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Studies

2008 Doctor in Science in Earth Sciences specializing in Applied Geophysics, CICESE Baja California, Mexico
2000 Master of Science in Earth Sciences specializing in Applied Geophysics, CICESE Baja California, Mexico
1994 Oceanographer, Pontificia Universidad Católica de Valparaíso, Chile

Professional experience

2010 to present Head of Scientific Education and Divulgation Section, INACH, Punta Arenas, Chile
2008 to 2009 Scientific Project Coordinator, INACH, Punta Arenas, Chile
2005 to 2007 Scientific Project Manager, INACH, Punta Arenas, Chile
2004 Acting Head of the CENDOC-SHOA, Valparaiso, Chile
2000 to 2004 Head of Bathymetric Data Processing Section, SHOA, Valparaiso, Chile
1996 to 1998 Head of Marine Geology Section, SHOA, Valparaiso, Chile
1993 to 1996 Head of Submarine Geomorphology Program, SHOA, Valparaíso, Chile

Academic experience

2005 to present Associate Professor, Universidad de Magallanes, Punta Arenas, Chile.
Lectures: Descriptive Oceanography, Antarctic Oceanography, Physical Oceanography, Geology and Geological Oceanography
2003 to 2005 Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile
Lectures: Potential Methods and Geological Oceanography
2003 to 2005 Invited Professor, SHOA-IHO, International Engineering Course in Hydrography
Lectures: Geological Oceanography and Hydrography II
1995 to 1998 Lecturer, Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile
Lectures: Marine Geophysics and Geological Oceanography
Main publications


Main scientific abstracts

Rodrigo, C., González, A., Vera, E., Diaz, J. and Morales, E. 2004. Submarine gas hydrates in the Chilean margin; preliminary seismic analysis of the bottom simulating reflector (BSR), *GEOS*, vol. 24, No. 2


**Book chapters**

Marine Geology of Chile. 2010. Edited by SERNAGEOMIN and CONA. Chapters: “Platforms, research methods and sampling”; “Geophysical databases”; “Submarine canyons in the Chilean continental margin”; “Submarine geomorphology in the Chilean Antarctic Territory”; “Sediments thickness in the Chilean Antarctic Territory”; and “Submarine geomorphology and sedimentology in the Bransfield Strait”

Progress in the oceanographic knowledge of Chilean inner waters, from Puerto Montt to Cape Horn”, 2008. Silva, N. & Palma, S. (eds.) “Submarine topography in the Chilean North Patagonian channels” CONA-Universidad Católica de Valparaíso, Valparaíso, 19-23
SUDHAKAR, Maruthadu

Born in Cuddapah, Andhra Pradesh (India) in 1959, Dr. Sudhakar took Bachelor’s degree in Geology, Physics and Chemistry from Sri Venkateswara University (1978), obtained M.Sc. Tech in Applied Geology and Ph.D (1994) from Indian School of Mines, Dhanbad. He also obtained Master’s degree in Law of the Sea and Marine Policy from the London School of Economics & Political Science, UK as a British Council Fellow.

During his career till date, Dr. Sudhakar served two premier research institutions of the country -- National Institute of Oceanography (NIO; 1982-1997) & National Centre for Antarctic and Ocean Research (NCAOR; 1997-2009) in Goa -- and occupied various positions such as project leader and scientist in various grades. He has contributed extensively for research and development in the field of Oceanography/Offshore Surveys/Polar Sciences/Marine Technology. Presently he is serving as an Advisor and Scientist ‘G’ in the Ministry of Earth Science, Govt. of India, New Delhi, and is heading the Awareness and Outreach Programmes and Vessel Management Divisions of the Ministry.

Sudhakar is a veteran oceanographer, spent more than 1500 days at sea on-board research vessels, both as leader and member of deep-sea expeditions. He was mainly involved as leader in major national thrust programmes such as the Survey and Exploration of Polymetallic Nodules in Indian Ocean, Oceanography studies of Southern Ocean, Delineation of Continental Shelf demarcation, Multibeam Swath Bathymetric Surveys in EEZ of India, Vessel Management of ORV Sagar Kanya and other Chartered Vessels. His major scientific contributions include delineation of major nodule deposits in Central Indian Basin and demarcation of potential areas for resource development; discovery of a large pumice field, which provided first evidence for intraplate volcanism; discovery of zeolite deposits and their relation to nodules and volcanics in Central Indian Ocean Basin; discovery of impact microcraters on Australasian microtektites, the first terrestrial analogs identified akin to lunar microcraters; discovery of minitektites in the Australasian strewn field; mapping the seabed and charting the bathymetry of Prydz Bay area for approach channel in the Larsemann Hills, East Antarctica. He has also been a major interface to the scientists in the country and implemented a large number of field campaigns of Earth, Atmosphere and Ocean Sciences as a part of National Programmes of various Ministries/National Institutes/Universities and other International Collaborators during his career.

He represented India at the Preparatory Commission for the United Nations Law of the Sea (PrepCom) and involved in the deliberations for allocation of Pioneer Area of Polymetallic Nodules in Indian Ocean to India in 1987. Dr. Sudhakar presently is an Elected Member of the Legal & Technical Commission (LTC) of the International Seabed Authority (ISBA) for the term 2007-2011. He is also a member of Scientific Committee on Ocean Research (SCOR), ICSU. He was a visiting scientist to the Aachen University of Technology, Germany; a resource person of the International Ocean Institute, Malta; Member, National Steering Committee for Science and Astronomy Olympiads; Member, Research Council of National Ship Design Research Centre (NSDRC). He is the designate “Commissioner” of Govt. of India for the Yeosu Expo 2012.
Dr. Sudhakar is an Elected Fellow of the Andhra Pradesh Academy of Sciences (India), Honorary Fellow of Indian Society of Applied Geochemists, Elected Life Fellow of Indian Geophysical Union Fellow of Geological Society of India, Executive Member of Indian Geological Congress, Life Member and currently Governing Council Member of Ocean Society of India, Life Member of Mineral Engineers of India, Fellow of Mining Engineers Association of India, Life Member of Indian Science Congress and Member of American Chemical Society. He is a recognized guide and supervisor of Goa and Mangalore Universities in fields of Marine Sciences and Geoinformatics and has been the supervisor of many Ph. D and Post-graduate students for their thesis/project works. Dr. Sudhakar served in many national committees and is presently serving many departmental and national committees. He published over 60 research papers in referred International/National Journals and presented over 50 papers in conferences and seminars. He has been a referee of scientific journals and recently a special section on India’s Contribution to Southern Ocean in Current Science Journal as Guest Editor.
ZHANG, Haiqi

Date of birth 3 October 1967
Place of Birth Shandong, China
Gender Male
Marital status Married

Present occupation
Deputy Director, Department of Geological Investigation, China Geological Survey

Educational background
Master of Science, Ocean University of Qingdao (currently Ocean University of China), 1990
Ph.D. Ocean University of China, 2007

Professional experience
2001-2005 Director of Marine Geology Division, China Geological Survey
2005- Deputy Director of Geological Investigation Department, China Geological Survey

Awards and publications
Participant, numerous State-level key projects such as “Program on oil and gas exploration in South China Sea” and “Program on gas hydrate exploration”
Leading coordinator, the project of “The Geological and Resources Survey and Assessment in Marine Areas of China”, which was awarded the second prize of the State Science and Technology Progress Award in 2006
Chief Scientist, gas hydrate drilling cruise, 2007
Winner, the State Science and Technology Progress Award
Winner, six provincial or ministerial level awards in science and technology
Author, eight books and nearly one hundred academic papers and technical reports

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