



## Legal and Technical Commission

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### Twenty-seventh session

Legal and Technical Commission session, part I

Kingston, 14–18 March 2022

Item 5 of the provisional agenda\*

### Status of the implementation of training programmes under plans of work for exploration and the allocation of training opportunities

## Selection of candidates for training programmes under plans of work for exploration

### Recommendations by the Legal and Technical Commission

1. Since Part II of the twenty-sixth session of the Commission, a total of 32 training opportunities were offered by contractors for the benefit of candidates from developing States. Twenty-eight have been successfully implemented, while four training opportunities were lost owing to the unavailability of selected candidates.
2. Of the training opportunities, four were for at-sea onboard training, six for internships to attend a workshop, while 22 were converted to virtual training due to travel restrictions related to the coronavirus disease (COVID-19). A further breakdown of this figure shows that, regionally, 17 trainees were from Africa, 7 from Asia and the Pacific and 8 from Latin America and the Caribbean. Two trainees were from, respectively, the least developed countries and small island developing States. From a gender perspective, 34 per cent (11) of all trainees were women.
3. One staff member of the secretariat of the Authority also made use of an at-sea onboard opportunity and participated in the environmental cruise organized by Tonga Offshore Mining Limited (TOML) for a period of 35 days during November and December 2021.
4. Between June 2021 and March 2022, the secretariat received training proposals submitted by 12 contractors pursuant to their contracts for exploration with the Authority. The programmes by the following contractors were re-advertised owing to challenges arising from the COVID-19 global pandemic: Institut français de recherche pour l'exploitation de la mer (Ifremer) (contract for nodules); Ministry of Earth Sciences of India (contract for nodules); China Ocean Mineral Resources Research and Development Association (COMRA) (contracts for polymetallic nodules and sulphides); Ministry of Natural Resources and Environment of the Russian Federation (contracts for polymetallic sulphides and cobalt-rich ferromanganese crusts); and Nauru Ocean Resources Inc. (NORI).

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\* ISBA/27/LTC/L.1.



5. The programmes for China Minmetals Corporation (CMC), NORI, Marawa Research and Exploration Ltd., the Federal Institute for Geosciences and Natural Resources (BGR), Germany, TOML and Companhia de Pesquisa de Recursos Minerais S.A. (CPRM), Brazil, were also duly advertised (see annex I).

6. In keeping with the recommendations of the Commission,<sup>1</sup> the Secretary-General, through circular/2021/002 of 30 March 2021, formalized the procedures for contractors experiencing challenges due to the pandemic and seeking to postpone the training plan under schedule 3 to their contracts and/or convert it to remote learning. For the present reporting period, the Secretary-General has agreed to the changes proposed by the relevant contractors, namely the conversion of 57 placements to 62 virtual training opportunities (10 placements with the Government of India converted to 15 remote opportunities); 10 with COMRA (under the exploration contract for polymetallic nodules); 4 by COMRA (under the exploration contract for polymetallic sulphides); 7 with CMC; 1 with Ocean Mineral Singapore Pte. Ltd. (OMS); 8 with UK Seabed Resources Ltd. (UKSR) (under exploration contract I) and 17 with UKSR (under exploration contract II).

7. To accommodate the scheduling demands for the training opportunities offered, the Commission, in accordance with the recommendations of the training subgroup, selected the candidates for the aforementioned programmes prior to the commencement of the twenty-seventh session (see annex II).

8. Candidates were selected on the basis of the criteria provided by contractors. Due consideration was given to gender balance and equitable geographical distribution, with particular attention given to the interests and needs of the least developed countries, landlocked developing countries, small island developing States and geographically disadvantaged developing States, as requested by the Council in a decision adopted at the twentieth session (see [ISBA/20/C/31](#), para. 6) and reiterated in the decision of the Assembly relating to the implementation of a programmatic approach to capacity development ([ISBA/26/A/18](#)), adopted at the twenty-sixth session.

9. It should be noted that several contractors have positively contributed to the implementation of the Women in Deep-Sea Research project. This initiative was one of the voluntary commitments registered by the Authority at the United Nations Ocean Conference held in 2017 with a view to enhancing the role of women in marine scientific research through capacity-building. To bolster this commitment, the Authority, together with the Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, and more than 20 partners, in March 2021 decided to implement a series of dedicated activities to address the critical challenges faced by women scientists from developing States, particularly from small island developing States, the least developed countries and landlocked developing countries, in accessing opportunities for careers and leadership roles in deep-sea research as a way to contribute to strengthening the resource base of such countries in highly technical areas of knowledge. Eight contractors, namely BGR, Deep Ocean Resources Development Co. Ltd., Global Sea Mineral Resources NV, Ifremer, Marawa, TOML, NORI and CPRM have since pledged to set aside 50 per cent of their training opportunities for women (also see annex I).

<sup>1</sup> See [ISBA/26/C/12/Add.1](#), paras. 5 and 6.

## Annex I

Training proposals offered by contractors for which selection procession was completed<sup>1</sup>

<i>Date of receipt</i>	<i>Contractor</i>	<i>Exploration contract</i>	<i>WIDSR pledge</i>	<i>Type of training</i>	<i>Places</i>	<i>Scheduled training time</i>	<i>Duration of training</i>	<i>Applications received</i>
29 April 2021	Institut français de recherche pour l'exploitation de la mer	Polymetallic nodules	Yes	Internships (workshop)	5	12 September 2021	1 week	20
4 June 2021	Ministry of Earth Sciences of India	Polymetallic nodules	–	Theoretical training (virtual) (re-advertised)	9	17 January–4 March 2022	7 weeks	17
16 June 2021	China Ocean Mineral Resources Research and Development Association	Polymetallic nodules	–	Theoretical training (virtual) (re-advertised)	10	December 2021–March 2022	3 months	10
16 June 2021	China Ocean Mineral Resources Research and Development Association	Polymetallic sulphides	–	Theoretical training (virtual) (re-advertised)	4	April–July 2022	3 months	9
24 June 2021	Ministry of Natural Resources and Environment of the Russian Federation	Polymetallic sulphides	–	Theoretical and at-sea on-board training (re-advertised)	2	April 2022 (exact date TBC)	2.5 months	11
24 June 2021	Ministry of Natural Resources and Environment of the Russian Federation	Cobalt-rich ferromanganese crusts	–	Theoretical and at-sea on-board training (re-advertised)	5	April 2022 (exact date TBC)	2.5 months	9
26 March 2021	Nauru Ocean Resources Inc.	Polymetallic nodules	Yes	Engineering (at-sea) internship (re-advertised)	2	January & June 2022 (exact date TBC)	4–6 weeks	7

<sup>1</sup> Details of current and past training proposals can be found at <https://isa.org.jm/training/contractor-training>.

<i>Date of receipt</i>	<i>Contractor</i>	<i>Exploration contract</i>	<i>WIDSR pledge</i>	<i>Type of training</i>	<i>Places</i>	<i>Scheduled training time</i>	<i>Duration of training</i>	<i>Applications received</i>
12 January 2021	Nauru Ocean Resources Inc.	Polymetallic nodules	Yes	Master's fellowship	1	January 2022	2–18 months	5
18 June 2021	China Minmetals Corporation	Polymetallic nodules	–	Theoretical training (virtual) (re-advertised)	4	September to December 2021	3 months	15
22 March 2021	Marawa Research and Exploration Ltd.	Polymetallic nodules	Yes	Undergraduate scholarships	2	January 2022	3 years	13
5 May 2021	Federal Institute for Geosciences and Natural Resources	Polymetallic sulphides	Yes	At-sea on-board training	2	October 2021 and spring 2022 (exact date to be confirmed)	7 weeks	13
5 July 2021	Tonga Offshore Mining Limited	Polymetallic nodules	Yes	At-sea on-board training	2	November 2021	6 weeks	14
14 December 2021	Companhia de Pesquisa de Recursos Minerais S.A.	Cobalt-rich ferromanganese crusts	Yes	At-sea on-board training	8	March and April 2022	25 days	31

*Abbreviation:* WIDSR, Women in Deep-Sea Research project.

## Annex II

### Result of selection of candidates conducted intersessionally

#### Institut français de recherche pour l'exploitation de la mer (Ifremer)

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<i>First-ranked candidates</i>		
1. Nora Sharifah	Female	Malaysia
2. Caio Cesar-Ribeiro	Male	Brazil
3. Otmane Sarti	Male	Morocco
4. Heba M.E.D. Moustafa	Female	Egypt
5. Ana Karoline Frutuoso de Ávila	Female	Brazil
<i>Alternates</i>		
1. Yolanda Sabelo	Female	South Africa
2. Rachid Chtatar	Male	Morocco
3. Gina Guillen Grillo	Female	Costa Rica
4. Chidinma Jecinta Nwoko	Female	Nigeria
5. Antonio Joao Malafaia Peixoto	Male	Brazil

#### Ministry of Earth Sciences of India

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<i>First-ranked candidates</i>		
1. Fabricio Gabriel Cardillo	Male	Argentina
2. Usman Abubakar	Male	Nigeria
3. Jameal Magno	Male	Philippines
4. Paul Caesar M. Flores	Male	Philippines
5. Daisy Kipkoech	Female	Kenya
6. Hasina Ramarason	Male	Madagascar
7. Muhyideen Hamza	Male	Nigeria
8. Jeremy B. Donaire Zamora	Male	Chile
9. Taiwo Bolaji	Male	Nigeria

**China Ocean Mineral Resources Research and Development Association  
(COMRA) (polymetallic nodules)**

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<i>First-ranked candidates</i>		
1. Auguste Kikouagni	Male	Cameroon
2. Hank Hedge	Male	Jamaica
3. Henry Okonkwo	Male	Nigeria
4. Joel Amosun	Male	Nigeria
5. Thao X.T. Le	Female	Viet Nam
6. Maiango Teimarane	Female	Kiribati
7. Mostafa Monwar	Male	Bangladesh
8. Osakpolor M. Omorogieva	Male	Nigeria
9. Popoola Samuel Olatunde	Male	Nigeria
10. Yuegao Liu	Male	China

**China Ocean Mineral Resources Research and Development Association  
(COMRA) (polymetallic sulphides)**

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<i>First-ranked candidates</i>		
1. Joyce Uan	Female	Kiribati
2. Linda Bana	Female	Ghana
3. Muhammad Saleem Chang	Male	Pakistan
4. Ahmed M. Amer	Male	Egypt
<i>Alternates</i>		
1. Solomondi Mordi	Male	Nigeria
2. Tentaku Teataa	Male	Kiribati

**Ministry of Natural Resources and Environment of the Russian Federation  
(polymetallic sulphides)**

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<i>First-ranked candidates</i>		
1. John Olorunfemi Kinrin-ola	Male	Nigeria
2. Ahmed Abdi Adam	Male	Somalia

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<i>Alternates</i>		
1. Fidelis Onah	Male	Nigeria
2. Jude Ofuso	Male	Nigeria

**Ministry of Natural Resources and Environment of the Russian Federation  
(cobalt-rich ferromanganese crusts)**

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<b>Theoretical training only</b>		
<i>First-ranked candidates</i>		
1. A.J.M. Emdadul Haque	Male	Bangladesh
2. Luis E. Lara	Male	Chile
3. Quadri A. Aderibigbe	Male	Nigeria
<i>Alternates</i>		
1. Adam N. B. Purnomo	Male	Indonesia
2. Inyang Essien Inyang	Male	Nigeria

**Theoretical and at-sea on-board training**

<i>First-ranked candidates</i>		
1. Bunyaminu Isah	Male	Nigeria
2. Md Zakaria	Male	Bangladesh
<i>Alternate</i>		
1. Warsame Atteyeh	Male	Somalia

**Nauru Ocean Resources Inc. (NORI)**

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<b>Engineering (at-sea on-board) Training</b>		
<i>First-ranked candidates</i>		
1. Bhine O. Amatari	Male	Nigeria
2. Jameal Magno	Male	Philippines
<i>Alternate</i>		
1. Clemence T Mudzemba	Male	Zimbabwe

**Master's fellowship**

*First-ranked candidate*

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
1. Sera Lewanuya	Female	Fiji
<i>Alternate</i>		
1. Etido Bassey	Female	Nigeria

**China Minmetals Corporation (CMC)**

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<i>First-ranked candidates</i>		
1. Vianey Cabello	Female	Mexico
2. Joel Olayide Amosun	Male	Nigeria
3. Chung Minh Bui	Male	Viet Nam
4. Bacchiocchi Jarabi	Male	Papua New Guinea
<i>Alternates</i>		
1. Binh Thanh Nguyen	Female	Viet Nam
2. Leonardus Gerber	Male	South Africa
3. Henry C. Okonkwo	Male	Nigeria
4. Ismail Abdulle Fidow	Male	Somalia

**Marawa Research and Exploration Ltd.**

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<i>First-ranked candidates</i>		
1. Lineth Komolo	Female	Solomon Islands
2. Abdinur Ahmed Abdiaziz	Male	Somalia
<i>Alternates</i>		
1. Ometa Tauru	Female	Kiribati
2. Alistair Maruia	Male	Kiribati
3. Matereti Buren	Female	Kiribati

**Federal Institute for Geosciences and Natural Resources (BGR)**

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<i>First-ranked candidates</i>		
1. Prithivi Dass Bissessur	Male	Mauritius



<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
2. Jensen Jacob	Male	India
<i>Alternates</i>		
1. Joseph Aisabokhae	Male	Nigeria
2. Joel Olayide Amosun	Male	Nigeria

#### **Tonga Offshore Mining Limited**

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
<i>First-ranked candidates</i>		
1. Mariana Cullell Delgado	Female	Costa Rica
2. Kilrick Pelobule	Male	Solomon Islands
<i>Alternates</i>		
1. Maria Emilia Bravo	Female	Argentina
2. Miriam Chantal Rodríguez Lanza	Female	Mexico
3. Joaquim Pereira Bento Netto Júnior	Male	Brazil

#### **Companhia de Pesquisa de Recursos Minerais (CPRM)**

Selection still pending