



Legal and Technical Commission

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Agenda item 5

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

I. Introduction

1. Pursuant to their contracts for exploration with the International Seabed Authority, the Ministry of Earth Sciences of India, China Ocean Mineral Resources Research and Development Association (COMRA), the Ministry of Oceans and Fisheries of the Republic of Korea, Companhia de Pesquisa de Recursos Minerais (CPRM), Ocean Mineral Singapore Pte. Ltd. (OMS), Institut français de recherche pour l'exploitation de la mer (Ifremer), Marawa Research and Exploration Ltd. (Marawa) and Nauru Ocean Resources Inc. (NORI) submitted training proposals to the secretariat.

2. At its meeting on 2 July 2018, the Legal and Technical Commission appointed a subgroup to evaluate and recommend candidates for training opportunities. It agreed that the subgroup would work with the secretariat intersessionally to identify appropriate candidates for training opportunities ([ISBA/20/LTC/13](#), paras. 11–13). In selecting candidates, the subgroup considered the relevant regulations and the principles, policies and procedures applicable to the training programmes, in particular the recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration ([ISBA/19/LTC/14](#)).

3. Owing to the scheduling demands for the training opportunities offered by the Ministry of Earth Sciences of India, COMRA, the Ministry of Oceans and Fisheries of the Republic of Korea, CPRM and OMS, the subgroup appointed at the twenty-fourth session was required to select candidates prior to the meetings held by the Commission in March 2019. To accommodate the contractors' request, the subgroup conducted its selection work intersessionally by means of email communications. The



selection of candidates for the other training opportunities, however, were made according to the normal selection process during the first part of the 2019 session.

4. Candidates were selected on the basis of the qualification criteria provided by all contractors for their respective programmes, in particular with regard to educational background, language proficiency, work experience, reasons for seeking training, potential career development, expected benefit to the candidates' countries and other merits specified in the application material. In addition to those considerations, due regard was paid to gender balance and equitable geographical distribution, taking into particular consideration the interests and needs of landlocked and geographically disadvantaged developing States, as requested by the Council in a decision adopted at the twentieth session ([ISBA/20/C/31](#), para. 6).

II. Intersessional selection of candidates

5. On 12 June 2018, the Ministry of Earth Sciences of India submitted a training proposal pursuant to its contract for exploration for polymetallic sulphides. In its proposal, the Ministry offered five on-land training opportunities in the field of deep-sea mineral exploration. The eight-week training session, which would be organized by the National Centre for Polar and Ocean Research from December 2018 to January 2019, would focus on the following areas: marine survey and exploration techniques; acquisition and processing of marine geoscientific and oceanographic data; operation and use of various laboratory analytical equipment; and analysis, interpretation and integration of oceanographic, environmental, geological and geophysical data.

6. On 7 July 2018, OMS submitted a training proposal pursuant to its contract for the exploration for polymetallic nodules. In its proposal, OMS offered 10 three-month internship placements between April and October 2019, including five in April comprising one placement on assessing the distribution and abundance of polymetallic nodules from seafloor photographs in the Clarion-Clipperton Zone, one on informative path-planning for nodule collector systems and three on deep-sea biological material handling and assessment. In July, there will three internships: one on adaptive path-planning framework for polymetallic nodules exploration; and two on deep-sea biological material handling and assessment. The last two placements would take place in October and also focus on the latter subject.

7. On 22 July 2018, COMRA submitted a training proposal pursuant to its contract for exploration for polymetallic sulphides. In its proposal, COMRA offered six at-sea training places to candidates from developing States on board the research vessel *Dayang Yihao* in the South-West Indian Ridge. The cruise was planned between February and May 2019 and would last approximately 30 days. It would include geological and biological sampling, geophysical survey and the collection of environmental baseline data.

8. On 4 October 2018, the Ministry of Oceans and Fisheries of the Republic of Korea submitted a training proposal pursuant to its contract for exploration for polymetallic nodules. In its proposal, the Ministry offered three training places, as follows: two at-sea on-board placements in the field of environmental baseline survey; and one year-long internship in the field of the United Nations Convention on the Law of the Sea, with an emphasis on deep seabed mining.

9. The cruise, which would be organized by the Korea Institute of Ocean Science and Technology, was planned between March and April 2019 and would last approximately 30 days, on board the research vessel *Kilo Moana*, which is operated by the University of Hawaii. The survey to be conducted during the cruise would focus on geological and biological sampling and the collection of environmental baseline data in

the contract area of the Government of the Republic of Korea for polymetallic nodules. The internship programme would provide an opportunity for a candidate to work closely with the science and policy team at the Institute for one year, beginning in 2019.

10. On 29 October 2018, CPRM submitted a training proposal pursuant to its contract for exploration for cobalt-rich ferromanganese crusts. In its proposal, CPRM offered four at-sea training places aimed at providing candidates with technical and scientific knowledge pertaining to: (a) survey, processing and interpretation of marine geophysics and physical oceanographic data; and (b) sampling, cataloguing and analyses of geological, biological and chemical oceanographic data. The programme, which would commence in March 2019, would be conducted in three phases: pre-cruise training, for one week; at-sea training, for four weeks; and shore-based post-cruise training, for one week.

11. The training opportunities were sent to the members of the Authority for the purpose of nominating candidates. They were also advertised on the website of the Authority and through social media platforms. The following applications were evaluated:

(a) Ministry of Earth Sciences of India, on-land training programme: 20 applications (12 from the African Group, 6 from the Asia-Pacific Group, 1 from the Latin American and Caribbean Group and 1 from an observer State; 6 women and 14 men);

(b) OMS, internships: 18 candidates (11 from the African Group and 7 from the Asia-Pacific Group; 6 women and 12 men);

(c) COMRA, at-sea training programme: 24 applications (12 from the African Group, 8 from the Asia-Pacific Group and 4 from the Latin American and Caribbean Group; 11 woman and 13 men);

(d) Ministry of Oceans and Fisheries of the Republic of Korea, at-sea training programme and year-long internship: 14 applications (11 from the African Group, 1 from the Asia-Pacific Group, 1 from the Latin American and Caribbean Group and 1 from an observer State; 3 women and 11 men);

(e) CPRM, at-sea training programme: 25 candidates (9 from the African Group, 6 from the Asia-Pacific Group, 9 from the Latin American and Caribbean Group and 1 from an observer State; 9 women and 16 men).

12. On the basis of the selection criteria and recommendations approved by the Commission, and taking into account consultations between the contractors and the secretariat, the subgroup recommended to the Commission the following first-ranked candidates and alternates for the aforementioned training programmes:

Ministry of Earth Sciences of India

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
First-ranked candidates		
1. Priscilla Coopen	Female	Mauritius
2. Abdulqadir Omar Ziyad	Male	Somalia
3. Rajib Kumar Saha	Male	Bangladesh
4. Diogo M. Minasi	Male	Brazil
5. Sadani Achesta Abeyrathna	Female	Sri Lanka

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
Alternates		
1. Nicodème Noël Feuwo	Male	Cameroon
2. Paul Caesar M. Flores	Male	Philippines
3. Ajibola Oyebamiji	Female	Nigeria
4. Tongyu Lin	Female	China
5. Mohamed Ali M. Sheta	Male	Egypt

Ocean Mineral Singapore (internships in April 2019)

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
First-ranked candidate (internship 1)		
Vani C. D. Koroisamanunu	Female	Fiji
Alternate		
Win Phyo	Male	Myanmar
First-ranked candidate (internship 2)		
Shijuan Yan	Female	China
Alternate		
Melisa Febriana	Female	Indonesia
First-ranked candidates (internship 3)		
1. Mohamed Fouad Noureldeen	Male	Egypt
2. Tomas Ndatitangi Nalukaku	Female	Namibia
3. MD Ohiduzzaman	Male	Bangladesh
Alternate		
Mohammad Saydul Islam Sarkar	Male	Bangladesh

China Ocean Mineral Resources Research and Development Association

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
First-ranked candidates (geology)		
1. Alana A. Mina	Female	Argentina
2. Win M. Than	Male	Myanmar
3. Tomas Helle Pessot	Male	Chile
4. Keanu Jershon Sarmiento	Male	Philippines
Alternates		
1. Fabricio G. Cardillo	Male	Argentina

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
2. Tin N. Tun	Male	Myanmar
First-ranked candidates (biology)		
1. Josephine Njeru	Female	Kenya
2. Syntyche B. Haruna	Female	Nigeria
Alternates		
1. Mohamed Fouad Noureldeen	Male	Egypt
2. Olayemi Kassim	Female	Nigeria
3. Oluwakemi Adejumobi	Female	Nigeria
4. Taiwo Oluboba	Female	Nigeria

Ministry of Oceans and Fisheries of the Republic of Korea (for polymetallic nodules)

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
First-ranked candidates (at-sea training)		
1. Ahmed Rabie Abdelhalim Mohamed	Male	Egypt
2. Olayemi Kassim	Female	Nigeria
Alternate		
Fidelis Onah	Male	Nigeria

Companhia de Pesquisa de Recursos Minerais

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
First-ranked candidates		
1. Alvaro E. S. Soares	Male	Brazil
2. Damaris Mutia	Female	Kenya
3. Joyce Uan	Female	Kiribati
4. Muhammad bin Hassan	Male	Pakistan
Alternates		
1. Inyang E. Inyang	Male	Nigeria
2. Adriane Gonçalves de Araújo Nunes Rangel	Female	Brazil
3. Paul Cesar M. Flores	Male	Philippines
4. Carolina S. Rivas	Female	Ecuador

13. In view of the very small number of applicants for the year-long internship offered by the Ministry of Oceans and Fisheries of the Republic of Korea and the five

OMS internships for July and October 2019, the subgroup recommended that those training proposals be re-advertised.

14. The Commission accepted the recommendations of the subgroup, including the list of preferred candidates for the training programmes.

III. Selection of candidates during the session held in March 2019

15. During the first part of the twenty-fifth session, held from 4 to 15 March 2019, the Commission met to advise the Secretary-General on the selection of candidates for the training programmes proposed by the Ministry of Oceans and Fisheries of the Republic of Korea (under both the polymetallic nodules and polymetallic sulphides contracts), Ifremer, NORI and Marawa.

16. On 21 November 2018, NORI submitted a training proposal pursuant to its contract for exploration for polymetallic nodules. In its proposal, NORI offered two at-sea training placements (one to a candidate from a developing State and one to a national of Nauru) to persons interested in marine science, in particular physical and chemical oceanography, seafloor sampling and geotechnical work. The offshore exploration campaign of four to six weeks will be conducted in partnership with Maersk Supply Services within the NORI contract area in the Clarion-Clipperton Zone. The port of departure will be San Diego, United States of America. The exact dates of the campaign are to be confirmed in 2019, and candidates will be provided with two to three months' notice before the campaign takes place.

17. On 27 November 2018, the Ministry of Oceans and Fisheries of the Republic of Korea submitted a training proposal pursuant to its contract for exploration for polymetallic sulphides. In its proposal, the Ministry offered the four following opportunities:

(a) Two at-sea training places in the field of environmental baseline survey. The cruise will be organized by the Korea Institute of Ocean Science and Technology and is planned between May and June 2019, for approximately 30 days, on board the research vessel *Isabu*. The survey will focus on geological and biological sampling and the collection of environmental baseline data in the Central Indian Ridge;

(b) Two six-month internships giving candidates the opportunity to work closely with scientists at the Institute, to do laboratory analyses (geological, chemical and biological parameters) of environmental samples collected from the contract area of the Republic of Korea.

18. On 30 November 2018, Ifremer submitted a training proposal pursuant to its contract for exploration for polymetallic nodules. In its proposal, Ifremer offered a two-month internship at its deep-sea ecosystem studies laboratory in Brest, France, from November to December 2019. The objective of the internship is for the candidate to acquire practical knowledge of deep ocean environmental studies and to develop knowledge in the field of the morphological and molecular taxonomy of Nematoda.

19. On 12 December 2018, Marawa submitted a training proposal pursuant to its contract for exploration for polymetallic nodules. In its proposal, Marawa offered two fellowships (one to a candidate from a developing State and one to a national of Kiribati) to attend the 2019 summer academy of the International Foundation for the Law of the Sea.

20. In January 2019, the year-long internship offered by the Ministry of Oceans and Fisheries of the Republic of Korea pursuant to its contract for exploration for polymetallic nodules was re-advertised.

21. The training proposals were duly advertised on the website of the Authority and through social media platforms. The training subgroup evaluated the following applications during the meetings held in March 2018:

(a) NORI, at-sea training: 10 candidates (7 from the African Group, 2 from the Asia-Pacific Group and 1 from the Latin American and Caribbean Group; 4 women and 6 men). There were no applications from nationals of Nauru;

(b) Ministry of Oceans and Fisheries of the Republic of Korea, at-sea training and internships: 16 candidates (12 from the African Group, 3 from the Asia-Pacific Group and 1 from the Latin American and Caribbean Group; 4 women and 12 men);

(c) Ifremer, internship: 9 candidates (8 from the African Group and 1 from the Asia-Pacific Group; 6 women and 3 men);

(d) Marawa, fellowship: 6 candidates (3 from the African Group, 1 from the Asia-Pacific Group and 2 from the Latin American and Caribbean Group; 5 women and 1 man). There were no applications from nationals of Kiribati;

(e) Ministry of Oceans and Fisheries of the Republic of Korea, year-long internship: 4 candidates (all from the African Group; 1 woman and 3 men).

22. The final list of recommended candidates and alternates is as follows:

Nauru Ocean Resources Inc.

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
First-ranked candidates		
1. Mekhala Rathnamali	Female	Sri Lanka
2. Raphael Di Carlo Silva dos Santos	Male	Brazil
Alternates		
1. Chidinma J. Nwoko	Female	Nigeria
2. Ahmed Adel Abdelhamid Saad	Male	Egypt

Ministry of Oceans and Fisheries of the Republic of Korea (for polymetallic sulphides)

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
First-ranked candidates (at-sea training)		
1. Khaira Ismail	Female	Malaysia
2. Oluwakemi K. Adejumbi	Female	Nigeria
Alternates		
1. Akinyemi T. Olowookere	Male	Nigeria
2. Baciunjuze G. Aganze	Male	Democratic Republic of the Congo

Institut français de recherche pour l'exploitation de la mer

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
First-ranked candidate		
Sihem Akli	Female	Algeria
Alternate		
Stella Ukaonu	Female	Nigeria

Marawa Research and Exploration Ltd.

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
First-ranked candidates		
1. Javiera Calisto	Female	Chile
2. Mialisoa I. Rakouth ep Rakotomanana	Female	Madagascar
Alternates		
1. Deniece Aiken	Female	Jamaica
2. Neil Silva	Male	Philippines

Ministry of Oceans and Fisheries of the Republic of Korea (for polymetallic nodules)

<i>Name</i>	<i>Gender</i>	<i>Country of origin</i>
First-ranked candidate		
Edith Getrude P. Migodela	Female	United Republic of Tanzania

23. In view of the very small number of applicants for the two six-month internships offered by the Ministry of Oceans and Fisheries of the Republic of Korea under the polymetallic sulphides contract, the subgroup recommended that those training proposals be re-advertised.

24. The Commission accepted the recommendations of the subgroup regarding the list of preferred candidates for the training programmes.

IV. Other recommendations

25. During the selection of candidates for the training programmes, the subgroup made the following observations and recommendations:

(a) With regard to the issue of harassment raised in the Council meeting of 1 March 2019, the subgroup recommended that the Secretariat liaise with all contractors to ascertain the policies and procedures that they have put in place concerning health and safety and harassment, both for vessels and institutions where training is given. In addition, contractors should also report on the briefing given to

trainees regarding those policies and procedures. The subgroup requested that the Secretariat report back to the Commission at its session in July 2019;

(b) The subgroup noted and congratulated contractors for their commitment to providing training opportunities to candidates from developing countries. The number and type of training opportunities had increased;

(c) The subgroup acknowledged and commended the progress made by trainees completing longer-term programmes (ISBA/24/C/9, para. 7), including two students from South Africa and the Solomon Islands who were finalizing four-year PhD programmes offered through UK Seabed Resources Ltd. and a student from Brazil who was pursuing a two-year Master's degree with the support of Global Sea Mineral Resources NV (GSR);

(d) The subgroup noted with regret that it had been necessary to re-advertise training opportunities owing to a lack of nomination of suitably qualified candidates. The subgroup requested that members of the Council assist the secretariat and the Commission by suggesting where advertisements for training could be targeted in order to attract a wider range of applications from candidates from developing countries.

26. After due consideration, the Commission accepted the aforementioned recommendations by the subgroup.
